CHAPTER 3

Design of Fiscal, Monetary, and Financial Policies

MONETARY AND FISCAL POLICIES have powerful effects on the economy. It is essential that they be well-designed. These macroeconomic policies are powerful in part because they affect interest rates and exchange rates and thereby influence the willingness of households and businesses, both foreign and domestic, to purchase goods and services produced in America. These purchases translate into production, jobs, and income for Americans. Tax rates are among the most important determinants of incentives for saving, investment, and work effort. The government's policies toward financial markets significantly affect the stability of the economy and its ability to allocate capital efficiently.

The Administration's goals for macroeconomic policy are maximum sustained economic growth, economic stability, and low, stable inflation. Historical experience, both in the United States and abroad, has demonstrated that well-designed monetary and fiscal policies can help achieve these goals. But misguided policies can wreak havoc with the economy, by reducing its productivity, creating uncertainties that make planning for the future difficult or impossible, driving up inflation, and reducing standards of living.

THE DESIGN OF MACROECONOMIC POLICY

The power of monetary and fiscal policies to affect the economy has led some to advocate discretionary policymaking, with frequent changes in policy instruments, such as tax rates or expenditure programs, to influence near-term economic conditions. Indeed, a strong endorsement of discretionary policy was eloquently put forth in the 1962 *Annual Report of the Council of Economic Advisers* as a way to achieve the goals of the Employment Act of 1946—"maximum employment, production, and purchasing power." That *Report* argued that "discretionary policy is essential" and recommendations constituting a "far-reaching innovation in discretionary fiscal policy" were made.

In contrast, recent economic research and practical experience, while supporting the view that macroeconomic policy has powerful

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effects, lead to the conclusion that discretionary macroeconomic policies can be detrimental to good economic performance. Instead, policies should be designed to work well with a minimum of discretion, with a clear focus on the longer term, and with allowance for future contingencies. Government should credibly commit to follow such policies consistently. As argued below, this approach to policy design can best achieve the Nation's economic goals.

ADVANTAGES OF SYSTEMATIC POLICIES

In its extreme form, discretionary policy involves frequently reacting to short-term developments, with little attempt to consider and communicate intentions for future actions. Such a shortsighted policy approach gives little weight to the benefits of outlining a contingency plan and committing to that plan. For this reason, discretionary macroeconomic policies can actually be counterproductive. Most businesses and many households are forward-looking; expectations of future tax rates, inflation rates, and government spending programs affect their decisions. Frequent unanticipated government actions cause uncertainty for the private sector and interfere with long-term business and household planning.

Without commitment to a clear plan, strong incentives exist to change policies in an attempt to achieve short-term gain. Economists refer to this incentive as "time inconsistency," because policymakers have a natural incentive to alter previously adopted policies or to follow "inconsistent" policies. Such policy changes can have detrimental long-term effects. For example, programs of fiscal stimulus can lead, over time, to long-run government spending that exceeds the level implied by an assessment of the costs and benefits of the programs themselves. Analogous problems exist for monetary policy. For example, an incentive exists to employ short-term monetary policy to boost output above sustainable levels. Such actions can lead to increased inflation over a longer term. Because inflation takes more time to develop than the rise in economic activity, it may not be adequately taken into account in the public policy process.

The drawbacks to discretionary policy go beyond these disadvantages. Experience has shown that the ability of discretionary macroeconomic policies to move the economy in the right direction at the right time is quite limited. First, assessing the current state of the economy is difficult because economic data are subject to appreciable errors and are generally available only after a considerable lag. Second, economic forecasting is difficult and quite imprecise, limiting the ability of policymakers to anticipate swings in the economy. Third, even if economic fluctuations are forecast correctly, determining the appropriate policy measures is difficult because the economy responds somewhat unpredictably to changes in fiscal

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and monetary policy. Finally, lags between a policy action and its ultimate effect on the economy imply that timely implementation of a discretionary change in policy frequently may not be possible. To be sure, discretionary policy changes might partly offset unusually large and sustained economic fluctuations. But, in general, the ability of discretionary macroeconomic policies to contribute to economic stability is quite limited.

The alternative to discretionary policies might be called systematic policies. A systematic policy specifies, as clearly as possible, *a plan for the instruments of policy*, be they the Federal budget, the growth rate of the monetary aggregates, or tax rates. For a systematic policy to improve economic performance, it must of course be well designed. In some cases a systematic policy might be very simple and specific, such as a promise not to raise marginal tax rates or a law that sets a target for the budget deficit for several years into the future. In the 1960s and 1970s, a rule that specified a fixed growth rate of the money supply was proposed and might have been appropriate; changes in the financial sector in the 1980s, however, have rendered such a simple rule unworkable. In other cases it is appropriate and possible to specify contingencies for future policy actions, such as indexing tax brackets for inflation according to a numerical formula, or stating the conditions under which a budget target could be suspended.

However, the concept of a systematic policy is much broader than a simple or even complex numerical formula for policy. In some cases it may not be possible to be so precise about a policy plan or its contingencies, and some judgment in interpreting or implementing the plan is necessary. Even in such cases, a systematic policy has significant advantages over a discretionary policy if it places some discipline or general guidelines on future changes in the policy instruments, and if policymakers commit to this discipline. Moreover, even the most carefully designed systematic policies may need to be revised occasionally in view of significant changes in economic structure.

IMPORTANCE OF CREDIBILITY

Economic research and policy experience have led to a growing awareness of the importance of the *credibility* of policymakers to carry out a stated policy. Various definitions of policy credibility have been offered, but the following seems most useful: an announced policy is credible if the public believes that it will be implemented, and acts on those beliefs even in the face of occasional contradictory evidence. Policy credibility is not an all-or-nothing concept, and in many situations credibility can only be achieved gradually.

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Policy credibility will often lead to economic performance that is superior to that in which policy is not credible. The more credible the policy, the more likely it is to improve performance. A credible disinflation plan initiated by the monetary authorities will bring down inflation more quickly and with less chance of recession than a plan with little credibility. For example, a billion-dollar stabilization fund for Poland, recently established by a group of industrial economies, is designed to lend credibility to the Polish disinflation plan by providing financial backing to help the Polish government stabilize the exchange rate. This will reinforce other policies to reduce inflation and promote external trade.

In addition, credibility can help resolve problems arising from unpredictable shifts in the structural relationships between the policy instruments and the state of the economy. Such changes can make it quite difficult for the public to assess the appropriateness of macroeconomic policies when the policy rules are complicated. If the public is confident that appropriate policies are being followed, households and businesses can plan for the future, which promotes saving, investment, and economic growth.

A NEW RULE FOR FISCAL POLICY

Since the mid-1980s, fiscal policy in the United States has been guided by the Gramm-Rudman-Hollings law, which has served as a fairly systematic rule for budget policy. As part of the fiscal policy agenda for 1990, the Administration is proposing an innovative new rule for fiscal policy, one that would be an unprecedented step in U.S. fiscal policy. The proposed new Social Security Integrity and Debt Reduction Fund would ensure that projected future surpluses in Social Security are not spent for other purposes, but rather are used to build reserves needed to help provide Social Security benefits in the future. As discussed in detail below, payments into the fund would be used to reduce government debt and decrease the legacy of deficit spending passed on to future generations. This policy rule would also increase the supply of savings, lower interest rates, and increase resources in the future. Committing such a strong rule to law will increase the credibility of the policy, which will speed up the reduction in interest rates and more quickly enhance investment and economic growth.

FISCAL POLICY

The spending and revenue activities of the government comprise its fiscal policy. In fiscal 1989 (October 1988 to September 1989) total outlays of the Federal Government for purchases of goods and services, transfer payments, grants, and interest payments amounted to 22.2 percent of gross national product (GNP). Tax and other

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receipts were 19.2 percent of GNP, with a resulting budget deficit of 2.9 percent of GNP. Receipts were the same fraction of GNP in 1989 as they were 10 years before, but outlays were up by 1.6 percent of GNP over the same period. The sheer size of the Federal sector suggests that fiscal policy can shape aggregate economic activity, for the better or worse. Focusing only on the impact of fiscal policy on the level of GNP, however, understates the importance of fiscal policy.

THE IMPACT OF THE INSTRUMENTS OF FISCAL POLICY

Fiscal policy affects the economy in several ways. Government purchases of goods and services are a direct use of the productive resources of the economy, and change prices, profits, and the allocation of capital and labor. Taxes, transfer payments, borrowing, and interest payments shift funds among individuals and over time, and thereby alter incentives for work, saving, and investment. For example, income-support programs affect both the distribution of purchasing power and incentives to work. In some circumstances—for example, by reducing barriers to saving—this power of fiscal policy can improve economic performance. But poorly designed policies, such as a tax system with high marginal rates, reduce incentives for productive activity and lower the growth of national income.

In the short run, changes in government spending and revenues can significantly affect total output in the economy. For instance, increases in Federal consumption of goods and services directly boost the demand for firms' output. In the short run, firms meet this demand by producing more. But because government purchases do not increase the total productive resources in the economy, the increase will eventually diminish. After a period of time, prices begin to increase or increase more rapidly. Higher interest rates reduce domestic demand, and purchases by the private sector fall. The reduction in private purchases will occur primarily in interest-sensitive areas such as investment, and some types of investment may suffer more than others. As interest rates rise, exchange rates also rise, reducing demand for exports and raising demand for imports. The effects of the increase in government purchases are offset by the decline in investment and net exports. Over the longer term, the decline in investment in turn reduces the productive potential of the economy.

Conversely, decreases in government spending can slow growth of total demand in the short run. For example, a reduction in government spending lowers the demand for goods and services. But again, this decline is short-lived. Soon investment and net exports will increase, offsetting the reduction in government purchases,

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and in the long term the higher level of investment will increase potential GNP.

Short-run changes in taxes paid by households have effects similar to changes in government purchases. To the extent that households do not save the extra funds available after a tax cut, their increased spending boosts the demand for goods and services. These increases in demand will raise production by firms and increase overall employment. Again, in the absence of an increase in the productive capacity of the economy, these increases will be short-lived.

Permanent reductions in tax rates are far more likely to expand long-run productive capacity than is a one-time tax rebate or credit. Reducing the tax-induced distortion of decisions to work, save, innovate, and invest will raise the resources devoted to production in the economy, permanently expanding total output.

THE DESIGN OF FISCAL POLICY

It is tempting to use fiscal policy in a reactive fashion, employing frequent discretionary changes in taxes and spending to alter economic activity temporarily and to counteract each aggregate fluctuation. This approach is fraught with so many difficulties that discretionary fiscal policy becomes inconsistent with ambitious goals for long-run growth. Fiscal responses to economic fluctuations should be credible and predictable. These characteristics reduce the distortionary effects of policy by aiding private-sector plans for saving and investment.

Automatic Stabilizers

During recessions, income tax receipts fall, even though tax rates are unchanged. In addition, income assistance payments (such as unemployment benefits and traditional welfare programs) rise. These kinds of systematic adjustments are called "automatic stabilizers." They are an important example of systematic policy and contribute to the predictability of short-run fiscal policy. They are clearly not discretionary, as they are embodied in legislation. Automatic stabilizers help to maintain individuals' purchasing power and mitigate the decline in aggregate demand. Studies show that, on average, disposable income falls by 40 percent of a fall in GNP. Historically, modifications to the features of automatic stabilizers undertaken for other reasons have also changed their responsiveness to economic conditions.

Systematic fiscal policies such as automatic stabilizers have distinct advantages over discretionary policies. For example, discretionary increases in spending provide a ready rationale for politically motivated increases in government programs. Also, because investors cannot undo the past, it may appear that discretionary tax increases levied on existing investments have no detrimental

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effect. Over time, however, continuous application of such policies would teach investors to expect tax increases, reducing the incentive to invest and harming economic efficiency.

Budgeting Rules and Targets for Government Saving

Sustained economic growth requires continued increases in the Nation's productive capital. Government policies, such as fiscal, monetary, regulatory, and legal policies, affect national saving and are thus an important determinant of both the funds available to finance investment and their cost.

By definition, when the Federal Government budget deficit increases, government saving falls. Only if other savers—households or businesses—increase their saving dollar for dollar is there no detrimental effect on national saving—the sum of household, business, and government saving. Empirical studies find that when government reduces tax collections, increased private saving does not fully offset the decline in government saving. When government consumption increases, private investment and net exports decline; private consumption may fall, but not sufficiently to offset the rise in government consumption. Thus, chronic budget deficits reduce national saving, leading to lower domestic capital formation and reduced net exports.

The actual deficit is influenced by current economic conditions. For example, the budget deficit increased during the early 1980s in part as a result of the economic downturn. Accurately gauging the long-run impact of the deficit requires adjusting the deficit for changes caused by economic fluctuations. (This adjustment is made by calculating the difference between receipts and expenditures that would occur under current law if economic activity were equal to some estimate of the economy's high-employment potential.) At the trough of the most recent recession, the cyclical component was about two-thirds of the actual budget deficit. In the last few years, however, the economy has been closer to its potential output, making the cyclical correction less important. Nonetheless, the deficit as a fraction of GNP has fallen from 5.3 percent in fiscal 1986 to 2.9 percent in fiscal 1989 (Chart 3-1).

In 1985, the Federal Government adopted, and in 1987 amended, the Balanced Budget and Emergency Deficit Control Act, more commonly known as Gramm-Rudman-Hollings (GRH). GRH was a visible response to the record of deficit spending. At its heart are targets for the maximum allowable budget deficit, with the ultimate goal, as amended, of balancing the budget by 1993. GRH includes a mechanical procedure, known as sequester, for cutting Federal spending whenever deficits are expected to exceed the allowable target by more than $10 billion, except in fiscal 1993. (See Box 3-1 for an explanation of the sequester in fiscal 1990.) GRH provides a predictable means to reduce Federal deficits, thus serv-

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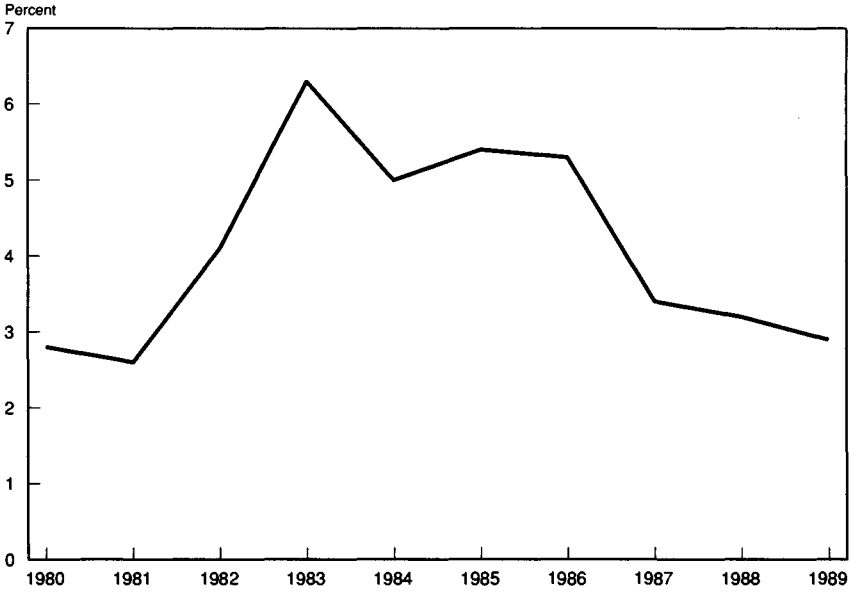
Chart 3-1

FEDERAL BUDGET DEFICIT AS PERCENT OF GNP. The budget deficit as a percent of GNP has declined substantially since 1986 as a result of deficit control measures.



Note: Data are for fiscal years.
Source: Department of Commerce and Office of Management and Budget.

ing as a valuable rule for fiscal policy that reduces Federal borrowing.

In each year since the inception of GRH, the Federal deficit has exceeded the GRH target (Table 3-1). How can this happen? The most important reason is that a sequester can be implemented, if necessary, only in the first 2 weeks of a fiscal year. Thus, the GRH deficit can initially fall below the target, but rise later in the year through appropriations for new spending. For example, the fiscal 1989 budget deficit reflected the addition of large costs attributable to the rescue plan for savings and loan institutions. In addition, some programs have been excluded from the deficit calculation so that the spending they entail does not count under GRH. Finally, the inherent difficulties of economic forecasting and technical budget projections can cause the actual deficit to differ from the GRH target, although there is no systematic direction to this effect.

When viewed from a broad perspective, GRH has provided valuable control over Federal spending. To some, the failure to match the targets exactly is an indictment of GRH. But this is a narrow view. A focus simply on the difference between GRH targets and annual budget deficits ignores important progress in controlling deficits.

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Box 3–1.—The GRH Process: How It Worked in Fiscal 1990

Under GRH, the Administration reviews the budget and estimates the deficit. GRH allows for a $10 billion cushion or "margin of error" (except in 1993, when there is no margin of error), but if the projected deficit exceeds the target by more than this amount, the Administration calculates automatic spending cuts (or sequester) needed in each program to meet the GRH deficit target. If legislation does not achieve this reduction by the end of the second week of the fiscal year, the President orders a sequester.

For fiscal 1990, the GRH deficit target was $100 billion. In October 1989, the Administration estimated a deficit of $116.1 billion—$6.1 billion above the target plus "cushion." Hence a sequester designed to reduce outlays by $16.1 billion was brought into operation, and the President stated that he would continue with a sequester until a satisfactory budget reconciliation bill was passed.

To meet the target, total outlays had to be reduced by 1.4 percent. GRH splits these reductions evenly between defense and nondefense spending, thus requiring an $8 billion reduction in each. However, 35.4 percent of defense outlays and 73.7 percent of nondefense outlays (largely entitlements and interest payments) are exempt by law from a sequester. To achieve the $8 billion reduction, nonexempt nondefense programs had to be cut by 5.3 percent and nonexempt defense programs by 4.3 percent.

Under the Reconciliation Act, the President issued a revised order that required a sequester of 1.5 percent for defense programs and 1.4 percent for nondefense programs. The revised sequester was designed to achieve outlay reductions equivalent to keeping the original sequester in effect until early February 1990. Hence, the Administration established the important precedent of not restoring previously sequestered amounts after the sequester period.

Since the adoption of GRH, the deficit has fallen steadily as a percentage of GNP. Moreover, deficits are far below the path projected prior to the adoption of GRH. One prominent study during 1985 projected that the unified deficit would reach $266 billion during fiscal 1989, more than $100 billion above the actual deficit. Further, the rate of Federal debt accumulation has stabilized—Federal debt held by the public rose from 26.6 percent of GNP in 1980 to 42 percent in 1986, but has remained at about this level since.

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TABLE 3-1.—*GRH and Budget Deficits: The Record*

[Billions of dollars]

Fiscal Year	1985 Target	1987 Target	Actual Deficit	Actual as Percent of GNP
1986	171.9	171.9	221.2	5.3
1987	144.0	144.0	149.7	3.4
1988	108.0	144.0	155.1	3.2
1989	72.0	136.0	152.0	2.9
1990	36.0	100.0	NA	NA
1991	.0	64.0	NA	NA
1992	.0	28.0	NA	NA
1993	.0	.0	NA	NA

Sources: Department of the Treasury and Office of Management and Budget.

These improvements partly reflect better control over outlays. GRH has limited the ability to consider new spending programs or expand existing ones. Since GRH, the annual growth rate of real Federal outlays has fallen from an average of 4.7 percent for 1984 and 1985 to an average of 1.7 percent for 1986 through 1989. Controlling growth in Federal outlays is one part of sustained deficit reduction, and GRH has contributed to this process.

Although GRH has provided valuable control over deficits, it can still be improved. Currently, deficit targets may be circumvented too easily late in the fiscal year. The Administration has enunciated a principle that any increased spending after the sequester period has passed must be fully offset elsewhere in the budget. This principle serves to buttress GRH and improve the credibility of efforts to reduce Federal deficits. Reforms to the GRH law itself could further increase control over deficits initiated in this way. For example, introducing a second sequester period later in the fiscal year would maintain the discipline of automatic reductions for a longer time period. Alternatively, it may be useful to require 60-percent majorities of the House and Senate to pass any legislation that increases the deficit after the sequester period is over. A related measure is the Administration's proposal to give the President enhanced rescission authority—the power to cancel unnecessary appropriations. These cancellations would be subject to a vote by the Congress to override the rescission.

GRH could also be modified to eliminate the practice of using surpluses in the Social Security trust funds to offset the operating budget deficit. In fiscal 1989 there was a unified budget deficit of $152.0 billion. Social Security, however, had a surplus of $52.4 billion, indicating that the non-Social Security activities of the government had a deficit of $204.4 billion. As discussed below, the Administration proposes amending GRH as part of a program to protect the Social Security surpluses and reverse chronic Federal defi-

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cit spending. Balancing the non-Social Security budget will require additional control over Federal outlays. In exercising that control, care must be taken to ensure adequate funding for programs that contribute to economic growth and meet essential national needs, such as research and development, education, and reductions of drug abuse.

The Importance of Eliminating Chronic Government Borrowing

The Gramm-Rudman-Hollings law has served as an important rule for reducing Federal borrowing. An improved rule for long-run fiscal policy would not only reduce deficits but would commit the Federal Government to annual budget surpluses after 1993.

Raising the rate of government saving will lower interest rates and increase capital formation and growth, leading to higher incomes. A credible policy of increased government saving would accelerate the reduction in interest rates and the increase in investment. By expanding U.S. economic resources, greater government saving will make it easier for society to meet the full range of private and government obligations. Increasing government saving will also reduce net interest payments, which constituted 14.8 percent of Federal outlays in fiscal 1989, thus freeing these resources to address other budgetary needs.

Fiscal policy should anticipate the effects of the large postwar baby-boom cohort. Total Social Security payments are projected to rise from 4.5 percent of GNP in 1989 to 6.8 percent of GNP in 2033. At the same time, the ratio of retirees to working members of the labor force is expected to increase dramatically. In the absence of a policy of government saving, financing these payments would require either extremely sharp increases in payroll taxes or large deficits, with negative consequences for economic welfare in the future.

Reforms to Social Security adopted in 1983 provide for higher future outlays by levying payroll taxes in excess of current benefit payments. At its peak in 2016, the resulting annual Social Security surplus (including interest) is anticipated to reach 1.9 percent of GNP, potentially contributing toward higher national saving, which will expand the pool of funds to finance capital formation and more rapid economic growth. It is important to establish a commitment now that this potential increase in government saving will in fact take place.

The Social Security Integrity and Debt Reduction Fund

The Administration's proposed Social Security Integrity and Debt Reduction Fund (SSIDRF) is designed to ensure that the expected surpluses are not spent for other purposes, but are used to build reserves necessary to help provide Social Security benefits

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when the baby-boom generation retires. These reserves will be provided to the Nation's capital markets, thereby expanding investment and transforming the Federal Government from a drain on national saving to a source of enhanced growth.

The SSIDRF should not be confused with either the current Federal old-age and survivors insurance trust fund or the Federal disability insurance trust fund. This new fund would protect the trust fund surpluses by restricting their use to reducing the national debt. At the same time, the Gramm-Rudman-Hollings law would be amended to preclude deficits on the government's non-Social Security activities. In this way, the proposed law would provide more stringent fiscal discipline than the current GRH law, which permits Social Security surpluses to offset the deficit in the rest of the budget.

The Administration's proposal to establish the SSIDRF marks a sharp departure from a history of Federal deficit financing. Each year the Federal Government would pay from the general operating budget into the SSIDRF an amount equal to the projected surplus on the Social Security trust funds during that year. The payments into the fund could be used only to reduce outstanding Federal debt held by the public, the national debt. Outlays to the fund would be counted as any other outlay in the budget. Using Federal borrowing to finance these contributions would directly contradict the intent of establishing the fund. To preclude this possibility, the current GRH law would be amended to require a balanced budget in 1994 and thereafter. To ensure further that full payments are made each year, payments into the SSIDRF would be exempt from the sequester procedures in the GRH law. When viewed as a whole, Federal Government receipts would have to exceed non-SSIDRF outlays in order to both balance the budget *and* reduce the national debt.

Operation of the fund would be phased in over the fiscal years 1993 through 1995. The payments into the fund would be $14.1 billion in 1993, $53.6 billion in 1994, and $101.8 billion in 1995. These amounts are 15 percent, 50 percent, and 85 percent, respectively, of the Social Security trust fund surpluses projected for these years. From fiscal 1996 through fiscal 2000, the required payment would equal the surplus as projected in 1989. Thereafter, the projections would be updated at 5-year intervals.

The new proposal would not take Social Security off the budget. Receipts and outlays for Social Security would remain in the budget used to calculate the GRH deficit. Thus, any changes in Social Security benefits or contributions would be subject to the same overall constraints as other government programs. While Social Security is of vital importance, the government faces many pressing issues, and no single program should be exempted from the normal budget process.

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Legislating a specific rule to reverse the established practice of Federal borrowing is a radical change in the conduct of U.S. fiscal policy. The SSIDRF would shift the government from chronic deficits to contributing to national saving. In the near term, saving allocated to the SSIDRF would rise quickly from only 0.3 percent of GNP in 1993 to 1.5 percent in 1995. At the peak in 2016, Federal saving would be $495 billion or 1.9 percent of GNP at that time.

By moving the government toward supplying funds to capital markets, the SSIDRF would raise capital formation and the economy's potential to produce. Reducing the national debt would release to the private sector funds to finance purchases of corporate stock, corporate bonds, or other financial instruments. These funds would, in turn, be used for increased capital expenditures.

Over the next half century the additional investment would lead to greater U.S. capital accumulation than would otherwise occur. This additional capital would provide substantial additional GNP to be used for a wide variety of private and government purposes. Among other uses, the additional national output would ease the burden of meeting the retirement costs of the baby-boom generation.

The Social Security trust funds are currently anticipated to begin to run annual deficits in 2030. In the absence of offsetting changes in other parts of the Federal budget, borrowing could act as a drain on national saving and capital formation. Nonetheless, implementation of the SSIDRF would endow the United States with sufficient resources to meet these demands. In effect, the more rapid growth of the capital stock generated by the SSIDRF would be used to finance retirement payments, in essentially the same way that individuals use accumulated saving to meet large, anticipated expenditures such as a college education.

Would the move toward increased Federal saving cause a drag on the economy in the short run? Economic theory and empirical evidence suggest that economic adjustment to this change in fiscal policy can be made easier by a credible commitment to the SSIDRF. A credible rule could bring a substantial reduction in interest rates prior to 1993. Economic models that take expectations of such credible policies into account indicate that a reduction in expected future short-term interest rates is likely to quickly lower long-term real interest rates by as much as a full percentage point. Lower interest rates would reduce the cost of capital, stimulating investment and economic growth. In addition, a credible rule and lower interest rates could permit more rapid, noninflationary monetary expansion.

Anticipating Potential Federal Liabilities

Broadly speaking, Federal liabilities are any obligations to pay out resources in the future. The most familiar liability is Federal

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debt. Here the legal obligation is concrete and visible, embodied in the contractual terms of government bonds. However, there are many other obligations such as government insurance, loan guarantees, or costs of Federal programs in the future. Recognition of the full range of obligations underscores the importance of increasing government saving as a responsible fiscal approach to reducing the burden imposed on future generations.

The costs of many government programs will escalate in the future without matching increases in receipts. Social Security is the most prominent example, but the government will very likely also face increased outlays in the future for medicare, Federal civil pensions, and Federal military pension programs. Unlike Federal debt, these obligations are not fixed, as the exact costs of these programs may change in response to economic conditions or legislative initiatives. The government must maintain a constant vigil against escalating costs in entitlement programs. For example, improved cost control in the health care system would help to provide the increasing number of older Americans with high quality care without imposing an ever-larger burden on taxpayers. Even with improved efficiency in entitlement programs, additional resources may be necessary. Greater government—and national—saving will lead to the growth needed to expand economic resources to reduce the burden of meeting these demands as well as to enhance private living standards.

The Federal Government must monitor the need for outlays to cover Federal loan guarantees. Direct guarantees back loans for housing through, for example, the Federal Housing Administration and the Government National Mortgage Association, for agriculture via the Farmers Home Administration, and for college education via the Guaranteed Student Loan Program. In 1989, the face value of outstanding Federal Government loan guarantees was $588 billion.

Government-sponsored enterprises (GSEs) are chartered by the Federal Government but are generally privately financed. GSEs provide credit services in a variety of areas. For example, the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation operate in home mortgage markets. The agriculture sector receives additional credit through the activities of the Farm Credit System and the Federal Agricultural Mortgage Corporation.

The liabilities of GSEs are not backed by the Federal Government. In the past, however, the Congress has chosen to assist financially troubled GSEs, such as in the case of the Farm Credit System. The Administration is currently studying the risks undertaken by GSEs and the appropriate level of GSE capital consistent

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with soundness, stability, and minimal potential exposure of taxpayers.

Lastly, the government must evaluate the need for increased Federal saving to meet government insurance obligations. The Federal Government meets a myriad of insurance needs: veterans' life insurance, Federal crop insurance, flood insurance, informal insurance against natural disasters, and others. In 1989, insured assets totaled $4.2 trillion, with the largest amounts in deposit insurance ($2.9 trillion) and pension fund insurance ($820 billion). The Financial Institutions Reform, Recovery and Enforcement Act of 1989 addressed weaknesses in the insurance of thrift institutions. In other areas of Federal insurance, implementing reforms, such as those discussed later in this chapter, is one way to improve the soundness of Federal insurance programs. Nonetheless, resources may be needed to meet Federal outlays for insurance over the next decade.

SUMMARY OF PRINCIPLES FOR FISCAL POLICY

- Fiscal policy should move toward credible, systematic policies that would promote strong noninflationary growth.
- The major long-run effect of fiscal policy is on national saving, capital formation, and growth. The Federal Government should continue to reduce deficits in accordance with the Gramm-Rudman-Hollings targets.
- The GRH process has provided a valuable contribution to deficit reduction. Nonetheless, it may be desirable to modify GRH to provide additional control over Federal deficits.
- Credible policies to enhance fiscal discipline by reducing the national debt after the budget has been balanced, such as the proposed Social Security Integrity and Debt Reduction Fund, will raise national saving, lower interest rates and the cost of capital, increase investment, and augment long-run growth.

MONETARY POLICY

Like fiscal policy, monetary policy is important in promoting strong economic growth and limiting the size and frequency of economic fluctuations. Over the long run, monetary policy is the most important determinant of the rate of inflation. Keeping inflation low is essential to promoting maximum sustainable economic growth and helping avoid recessions.

THE EFFECT OF MONETARY POLICY ON THE ECONOMY

When the economy is operating near its long-term potential, an expansionary monetary policy raises real GNP and lowers unem-

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ployment temporarily. Wages and prices do not adjust immediately in response to a monetary expansion, but eventually they do adjust, and inflation begins to increase. If inflation increases to a level that instigates a subsequent sharp monetary tightening, a recession could be the ultimate result.

In the 1960s, many believed that the unemployment rate could be reduced permanently if only a higher rate of inflation was accepted. This belief was based largely on a negative relationship in historical data between the rate of inflation and the unemployment rate. Such historical data in the United States and other countries seemed to indicate that when inflation was higher, unemployment was lower, and *vice versa*. But the experience of the 1970s, with simultaneously rising inflation and unemployment (stagflation), and that of the 1980s, with inflation and unemployment both falling, cast grave doubt on any such simple relationship.

Since the late 1960s, economists have become increasingly convinced that a correct explanation of the relationship between inflation and unemployment depends critically on *expectations* of inflation. If expectations of inflation are low, workers will not demand large wage increases to compensate for the expected erosion of their real earnings caused by inflation. Businesses' costs of production will not rise rapidly, and increases in their product prices can be relatively low. Under these circumstances, a moderate increase in inflation may lead temporarily to lower unemployment.

Consequently, monetary policy under certain circumstances is able to reduce unemployment in the short run. An unexpected monetary expansion will produce a money-induced pickup in demand that will stimulate firms to expand employment, produce more, and raise prices.

Soon, however, people will notice the pickup of inflation. Firms will have incorporated it into their price increases; workers will add it to wage demands, eliminating the fall in real wages and leading to a return of the unemployment rate to its initial level. Because it is not possible for people to be "fooled" indefinitely about the rate of inflation, higher inflation cannot permanently lower the unemployment rate.

Moreover, under certain circumstances, higher inflation may not reduce unemployment at all. Suppose the central bank showed a persistent tendency to try to lower short-term unemployment below the level associated with realization of peoples' expectations of inflation—that is, below the nonaccelerating inflation rate of unemployment or NAIRU. (The concept of the NAIRU is explained in Chapter 5.) This tendency would be noticed and would foster higher inflation expectations. To the extent people correctly anticipate this behavior, even the temporary boom that a monetary expansion would otherwise produce would be thwarted.

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THE COSTS OF INFLATION AND RECESSION

Low, predictable rates of inflation have little adverse effect on the economy. But for several reasons, high and fluctuating inflation can reduce economic performance.

First, excessive inflation leads to recessions. Monetary policy that is too expansionary will eventually bring on a rise in the rate of inflation. If left unchecked, inflation will reach a rate that is no longer tolerable. At that point, the Federal Reserve must reduce the rate of inflation by tightening monetary policy. Such a tightening may well lead to a recession, as it did in the early 1980s and in other postwar downturns.

Second, excessive inflation hinders economic growth and productivity. Inflation can depress investment by increasing the effective tax rate on capital. For example, inflation reduces the real value of depreciation allowances. In addition, excessive or fluctuating inflation tends to prevent an economy from reaching peak efficiency because inflation is associated with increased uncertainty about the future. The increased uncertainty adds a risk premium to interest rates, which raises the cost of capital and lowers investment. Also, because nominal returns on liquid deposits tend not to fluctuate point-for-point with market interest rates, depositors devote more resources to economizing on money holdings when inflation rises. Although this activity is productive from the point of view of the individual, from society's point of view it represents a waste because the resources are not being used to produce real goods and services. Moreover, because higher inflation tends to be associated with greater dispersion of prices, households and businesses will devote more resources to searching for the lowest price when inflation is high. For the same reason, resources will not be allocated efficiently.

Third, inflation raises issues of fairness. When inflation rises unexpectedly, lenders and recipients of fixed-income payments tend to lose, because the real value of their receipts falls with the rise in prices. Conversely, borrowers and others making fixed payments tend to gain. This transfer of income and wealth through unexpected inflation is arbitrary and capricious.

Containing and Reducing Inflation

High and variable inflation, such as the United States experienced in the 1970s, does great harm to the economy and must be prevented. Relatively steady inflation in the 4½-percent range, such as the United States has experienced over much of the 1980s, also has costs, although these costs are far lower than those of the late 1970s inflation. Thus, an important priority of policy must be to prevent inflation from drifting up to the 7-percent, 9-percent, and finally double-digit rates that were experienced in that decade.

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Policy must also work to reduce inflation rates below the 4½-percent range over time while sustaining economic growth.

Preventing Recessions and Fostering Strong Economic Growth

Just as inappropriate monetary policies can damage economic performance by allowing excessive inflation, they also can lead directly to recessions. For example, excessively tight policies, when demand is already weak and rising inflation is not a threat, may contribute to a recession, with its attendant human and economic costs. Moreover, recessions can damage long-run economic growth by reducing confidence and thus aggregate saving and investment—crucial contributors to economic growth. But the Nation should not be satisfied merely with avoiding recessions. The U.S. economy can and should do better than that. It should sustain growth sufficient to provide rising employment and incomes to Americans as well as continued low unemployment. The President supports macroeconomic policies that promote strong, sustainable economic growth.

NEW CHALLENGES FOR MONETARY POLICY

Recent years have seen increased consensus on the appropriate goals for monetary policy. But monetary policymakers have been confronted with new technical problems in trying to achieve these goals. These problems make policy more difficult to carry out by obscuring the relationship between the tools that monetary policy has at its disposal and the objective of noninflationary growth. In addition, they make it more difficult for businesses, households, the Congress, and the Administration to monitor the conduct of monetary policy.

Changing Behavior of the Monetary Aggregates

Historically, certain measures of the money stock moved fairly closely with nominal spending, and thus represented useful measures of the stance of monetary policy. In the United States, transactions balances—currency and deposits that can be used as means of exchange—were especially noteworthy in this regard. The association appeared to be so close that the Federal Reserve took steps in 1979 and the early 1980s to increase its control over the growth of the monetary aggregate M1. (Box 3–2 provides definitions of the monetary aggregates.)

However, beginning in the early 1980s, M1's velocity (the ratio of GNP to M1) became much less predictable. Velocity no longer tended to increase steadily (Chart 3–2). At first, it was not clear whether the change in the relationship was temporary or permanent. Eventually, though, evidence accumulated that the breakdown was permanent and primarily reflected a regulatory change—the nationwide introduction of NOW accounts, which are

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Box 3-2.—Definitions of the Monetary Aggregates

M1 includes currency, travelers checks, demand deposits, and other fully checkable deposits such as interest-earning negotiable order of withdrawal (NOW) accounts. It was designed to measure the quantity of transactions instruments, but the inclusion of NOW accounts implies that M1 in fact includes a substantial portion of savings balances. Moreover, certain other accounts that are not included in M1, such as money market deposit accounts (MMDAs) and money market mutual funds (MMMFs) can be used, within limits, for transactions.

M2 is defined as M1 plus a number of savings instruments, including savings deposits, MMDAs, certain MMMFs, and small time deposits. It also includes certain liabilities—repurchase agreements and Eurodollar deposits held by U.S. residents—issued by banking institutions on an overnight basis. M2 is designed as a broad measure of monetary assets.

M3 comprises M2, shares in money market mutual funds that are available only to institutions, time deposits with balances of at least $100,000, and repurchase agreements and Eurodollar deposits with terms longer than 1 day.

interest-bearing, checkable deposits. Because these accounts pay interest, households shifted into NOW accounts (and therefore into M1) not only a large volume of transactions balances from demand deposits, but also savings balances that were in the non-M1 part of M2. This latter shift meant that M1 no longer so dominantly represented transactions balances. For related reasons, M1 and its velocity became much more sensitive to swings in market interest rates. In that light, it was not surprising that the relationship of M1 to GNP changed.

M2 and M3 are substantially broader than M1 and encompass many more types of financial assets. Probably because these aggregates represent broader measures of wealth than M1 and are not restricted to transactions vehicles, they have not historically related as closely to GNP as did M1 before the 1980s. Nevertheless, some stable patterns in their velocities can be detected. For example, the velocity of M2 has tended to fluctuate around a fixed level over the past 30 years (Chart 3-2). This pattern probably reflects the breadth of this aggregate and the resulting tendency for shifts from one liquid savings asset to another to be captured within it. The pattern also reflects the long-run tendency for interest rates on deposits to follow market interest rates. Because this tendency is incomplete, the velocity of M2, like that of M1, tends to rise and fall with short-term market interest rates, reflecting shifts between

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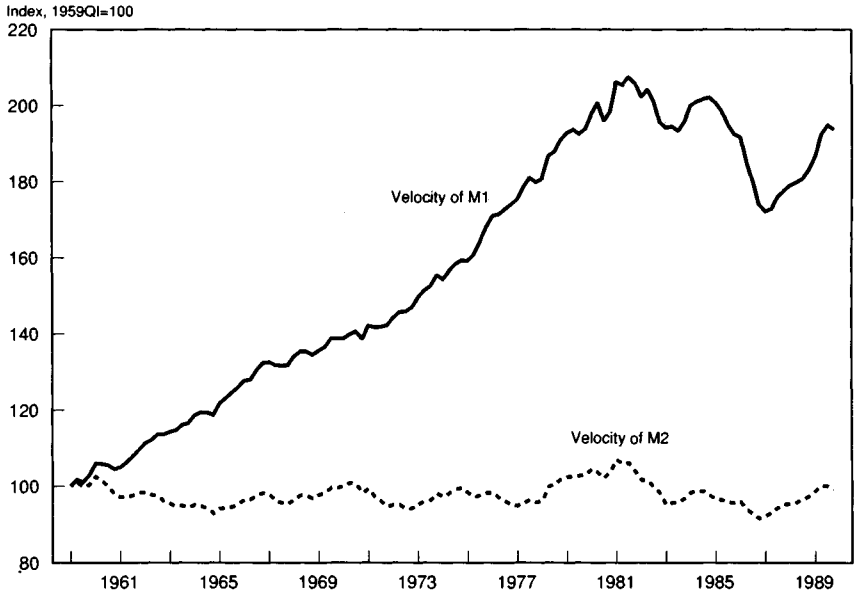
Chart 3-2

VELOCITIES OF M1 AND M2. The velocity of M1 deviated in the 1980s from earlier patterns, while the velocity of M2 remained relatively stable.



Note: Data are quarterly.
Source: Board of Governors of the Federal Reserve System.

liquid balances and market instruments as their relative returns vary. But this tendency is less pronounced for M2 than for M1, making it more suitable as a monetary target.

Despite their relative stability, the relationship of these broader aggregates to nominal income over shorter periods has at times been erratic, and instances of these temporary shifts appear to have become more frequent in the 1980s. Some examples of such behavior have reflected regulatory influences. For example, M3 was noticeably affected in 1989 by changing regulations in the thrift industry. A provision of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 mandated increased capital standards for thrift institutions. In order to comply with these standards, some thrifts sharply reduced assets and funding sources. A portion of these funding sources were managed liabilities included in M3 (but not in M2), such as large certificates of deposit and securities sold under repurchase agreements. In addition, a number of insolvent thrift institutions substituted borrowings from the Resolution Trust Corporation for liabilities included in the monetary aggregates. As discussed in Chapter 2, this drop in M3-type instruments meant that M3 growth, unlike that of M2, did not increase

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significantly in the second half of 1989. The sensitivity of the monetary aggregates to such developments is one reason that monetary policymakers should not focus exclusively on the aggregates in formulating policy.

Changing Economic Relationships

Rapid changes in the structure of the economy and financial markets in recent years have also posed challenges for monetary policymakers. Such changes alter the relationships between monetary policy instruments and economic outcomes. Identifying these relationships is difficult to begin with; rapid shifts make identification all the more difficult, and thus complicate the conduct of monetary policy. They also make it harder for the public to assess the stance of monetary policy.

One such change is that the volume of imports and exports relative to GNP has risen considerably. Both imports and exports are sensitive to exchange rates. Thus, the larger international sector of the U.S. economy may have caused overall production to become more sensitive to exchange rates. Because exchange rates are importantly influenced by interest rates, this change in structure may constitute one channel by which the effect of monetary policy on the economy has changed.

Financial innovation and deregulation have also been important in the 1980s and may lead to an altered responsiveness of spending to interest rates. For example, the elimination of deposit interest rate ceilings, the development of highly liquid secondary markets for mortgage loans, and the wide availability of adjustable-rate mortgages (which usually offer relatively low initial interest rates) mean that mortgage credit is no longer as constrained during a period of monetary tightening as it was before the 1980s, reducing the interest-sensitivity of residential construction activity.

Another example of possible changes in interest sensitivity relates to household consumption spending. The increasing use of adjustable-rate mortgage and consumer loans in recent years has tended to increase the sensitivity of household expenses to changes in market interest rates. Consequently, the sensitivity of household spending to changes in interest rates may have increased. However, a greater proportion of households' financial assets now bears interest returns that vary with market interest rates than was the case before the 1980s. This fact would tend to offset any increased sensitivity of consumption.

Empirical studies that attempt to determine whether the responsiveness of spending to interest rates has changed obtain mixed results. Most studies confirm a lower interest sensitivity of residential housing expenditures; a few find a reduced sensitivity in other sectors as well. On the whole, there is some evidence for the proposition that the interest sensitivity of aggregate spending has fallen

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in the 1980s, implying that larger changes in interest rates are needed to offset economic fluctuations.

THE DESIGN OF MONETARY POLICY IN THE 1980s AND 1990s

Substantial movements in the velocities of the monetary aggregates in recent years have made rigid monetary targeting inappropriate. Given this situation, but recognizing the disadvantages of shortsighted, discretionary policy discussed earlier in this chapter, the Federal Reserve has not regressed to an undisciplined, ad hoc approach to policy. Rather, it has attempted to develop a more systematic, longer run approach. By attempting to pursue such a forward-looking policy consistently over time, the Federal Reserve appears to have achieved a high degree of policy credibility.

The Framework for Monetary Policy

The Federal Reserve Act establishes a broad framework for the conduct of monetary policy. It calls for two policymaking bodies within the Federal Reserve: the 7-member Board of Governors, located in Washington; and the 12-member Federal Open Market Committee (FOMC), which includes the members of the Board and, on a rotating basis, presidents of 5 of the 12 regional Federal Reserve Banks.

The Federal Reserve Act sets goals for policy, requiring that the Federal Reserve shall "maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates." The law also requires the Fed to report to the Congress annual target ranges for growth of the monetary and credit aggregates.

Thus, the law establishes broad principles for the conduct of monetary policy. Within this framework, the Federal Reserve must design a policy to meet its goals. In the regular meetings of the FOMC (currently eight times per year), FOMC members decide what adjustments in the policy instruments, if any, are appropriate, and issue a directive for implementing these adjustments to the Federal Reserve Bank of New York, which acts as the FOMC's agent. The directive calls for adjustments in the supply of reserves; it is presented in the context of a public statement (released with a lag) that explains the FOMC's reasons for the change.

Changes in the supply of reserves lead to changes in short-term interest rates. For example, an increase in the availability of reserves means that banks will have to bid less aggressively for funds in the open market. Consequently, interest rates will decline, at least temporarily. An increase in reserve availability also means that fewer banks will need to borrow from the Fed's discount

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window to obtain funds. Consequently, lower interest rates tend to be associated with reduced borrowing at the Fed's discount window, and higher interest rates with increased borrowing.

Since 1982, the Fed has relied on this association, using an operating target for the quantity of borrowed reserves as an index of the desired availability of bank reserves. Over the past 2 years or so, however, the relationship of borrowing to reserve market conditions has shifted somewhat unpredictably. Consequently, the Federal Reserve has gradually reduced its reliance on borrowed reserves and has focused more directly on interest rates—especially the Federal funds rate, the interest rate on overnight interbank loans—in implementing monetary policy.

Operating Strategies for Reserves and Interest Rates

The Federal Reserve generally increases interest rates when inflationary pressures appear to be rising and lowers interest rates when inflationary pressures are abating and recession appears to be more of a threat. In general, Federal Reserve policymakers base their assessment of inflation pressures and the state of economic activity on several key economic and financial indicators as well as on economic forecasts; some of these forecasts are constructed judgmentally by the Fed's staff, some are econometric, and some are produced by private forecasters. Financial markets can also provide valuable information. For example, long-term interest rates incorporate market participants' assessment of the future rate of inflation.

Assessing just how much the policy instrument needs to be changed as circumstances evolve requires judgment. Thus, a policy approach that relies on the expertise of the FOMC members is appropriate and should be preserved. If the operating stance of policy is gauged in terms of monetary aggregates, appropriate settings change with shifts in the behavior of velocity; if measured by interest rates, appropriate settings vary with the interest sensitivity of aggregate demand; and, if measured in terms of borrowed or nonborrowed reserves, appropriate settings change as the relationship between reserve measures and interest rates changes. Experience has indicated that predicting such changes accurately is often impossible. The Federal Reserve's ability to react flexibly to unforeseen, adverse shifts in financial market conditions is especially useful. For example, the Federal Reserve's provision of additional liquidity in the wake of the stock market break of October 19, 1987, was appropriate and contributed to a return of market confidence.

Role of Monetary Targets

As discussed above, the law requires the Federal Reserve to set annual target ranges for the monetary aggregates. Throughout the 1980s, the Federal Reserve set annual target ranges for the mone-

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tary aggregates M2 and M3, and through 1986 it set ranges for M1. In view of the generally looser relationships of the monetary aggregates with GNP over recent years, however, the Federal Reserve has relied less on all of the aggregates. In 1988 and 1989, the FOMC set target ranges for M2 and M3 that were 4 percentage points wide, 1 percentage point more than had been specified earlier. In widening the ranges, the Federal Reserve noted the sensitivity of velocity to market interest rates as well as a more erratic relationship between velocity and interest rates. For much the same reasons, the Federal Reserve in conducting monetary policy has monitored a variety of economic and financial indicators in addition to the monetary and credit aggregates.

Despite problems with the monetary aggregates, the Federal Reserve has not adopted a purely discretionary approach to policy. Rather, the Fed has made clear that its long-run goal is to do its part to promote economic growth by reducing inflation and ultimately achieving price stability. Within this long-run policy orientation, the monetary aggregates can play a useful role. In particular, research at the Federal Reserve and elsewhere shows that the velocity of M2 has been essentially stable over the long run. M2 could serve therefore as an anchor for price stability and as a basis for a credible, systematic long-run monetary policy. That is, as long as there are no signs of *permanent* shifts of M2 velocity, the Federal Reserve would do well to commit to eventually maintaining *long-run* growth of M2 consistent with expansion of the economy's potential to produce, while allowing higher or lower growth rates over shorter periods of time to offset shifts in velocity. Such an approach would be consistent with the Federal Reserve Act's requirements for monetary policy.

By consistently following a forward-looking policy directed at this goal, the Federal Reserve appears to have achieved a high degree of credibility. This credibility is suggested by the lack of increase in measures of inflation expectations in the late 1980s as the economy drew closer to full utilization of its productive resources, a situation that in the past typically was characterized by rising inflation expectations.

IMPORTANCE OF A CREDIBLE MONETARY POLICY

A high degree of monetary policy credibility will often lead to superior economic performance compared with the situation where a policy is not perceived to be very credible.

Credibility and Disinflation

Suppose monetary policymakers announced their intention to lower the rate of inflation over a specific time interval and, to achieve this goal, slowed the growth of the money supply and allowed interest rates to rise. If the policy was not viewed as credi-

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ble—for example, if the public thought that the policy would not be maintained—households and firms would continue to set wages and prices as they had previously, at least for a time. Meanwhile, the increasingly restrictive monetary policy would restrain demand and production. Thus, the lack of policy credibility would result in a worsening of the economic situation, as inflation remained high and unemployment rose. This outcome would persist until the public's expectations of the rate of inflation fell.

Suppose, on the other hand, that the public believed that the policy of reduced inflation would be achieved. In these circumstances, the more restrained monetary policy would be accompanied by a drop of inflationary expectations. The policy restraint would have a smaller effect on unemployment and production, relative to the situation of low policy credibility. Full employment would be maintained, or at least the period of limited slack would be shorter, and output would again achieve its potential, but with less inflation than before.

Policy credibility is also valuable during a period of falling inflation, because a temporarily higher rate of monetary growth may appear to contradict the stated policy of lower inflation. As the rate of inflation falls, the public will likely wish to hold a larger quantity of money, because the opportunity cost of doing so will be smaller—that is, money holders will be giving up less income by holding money, as opposed to investing in financial assets or appreciating durables such as housing. The Federal Reserve could accommodate this increased demand by allowing the money stock to grow more rapidly for a time. Ideally, the public will recognize that the increased rate of money growth is temporary and a natural consequence of the disinflationary policy. Even if the public does not understand this process but finds the policy of disinflation to be credible, inflation expectations will not rise in response to the pickup in money growth. If the policy does not have much credibility, on the other hand, the public might become concerned that the higher money growth is permanent, signaling an inflationary monetary policy. Any consequent heightening of inflationary expectations would hinder achievement of the Nation's economic goals.

Credibility and Economic Uncertainty

Credibility can help resolve problems that can result from unpredictably shifting economic relationships. For example, the looser relationship of the monetary aggregates to economic activity not only makes it more difficult for the Federal Reserve to conduct monetary policy, but it also causes problems for the public in monitoring the stance of monetary policy. The increased uncertainties about possible changes in structural economic relationships have a similar effect, by making it more difficult for the public to determine whether a given policy change will have the desired effect on

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the economy and on inflation. If monetary policy is credible, short-run difficulties of monitoring the stance of monetary policy will not adversely affect the public's expectations.

Achieving Policy Credibility

Policy credibility is clearly useful to have, but achieving it may not be easy. Simply announcing a change in policy does not make it believable. Credibility depends in part on the plausibility and consistency of the announced policy in the context of the overall economic environment and other policies. Credibility probably depends most importantly on a track record of following the stated principles of policy.

SUMMARY OF PRINCIPLES FOR MONETARY POLICY

- Monetary policy, and macroeconomic policies more generally, should adopt ambitious but realistic goals for economic performance. The Nation should not be satisfied merely to avoid recessions and contain inflation. The U.S. economy can and should do better than that. It should sustain growth sufficient to provide rising employment and incomes and continued low unemployment.
- Monetary policy can contribute to the achievement of these goals by systematically controlling and reducing inflation.
- Monetary policy needs to maintain credibility, because credibility helps ensure that the goals of policy will be attained during a period of dynamic economic and financial developments. Policy credibility is enhanced by building a record of achievement of the stated goals of policy and by consistently following stated policy principles.
- Over long periods of time, the monetary aggregates are useful guides to monetary policy. In view of the difficulties of predicting velocity, however, monetary policymakers also need to monitor other economic and financial measures within a credible, systematic approach to policy.

INTERNATIONAL ASPECTS OF FISCAL AND MONETARY POLICY

As discussed above, the internationalization of the U.S. economy has implications for monetary and fiscal policy. For example, there is a tendency for government deficits to crowd out net exports and for larger, more sensitive international capital flows to influence the effects of domestic policies on interest rates. This section analyzes the international dimension of economic policy considerations in more detail.

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Linkages between the United States and the rest of the world led to some of the most visible and significant features of U.S. economic performance in the 1980s. There were wide swings in the value of the U.S. dollar. For example, it rose from 1.82 Deutsche marks per dollar (DM/$) in 1980 to more than 3.40 DM/$ in early 1985 before falling back to 1.76 DM/$ on average in 1988. The U.S. current account, which includes trade in both goods and services, plummeted from a surplus of $8 billion in 1981 to a record deficit of $144 billion in 1987—a deficit equivalent to 3.2 percent of U.S. GNP. This deficit reflected a $160 billion excess of merchandise imports over exports. Since this peak, the merchandise trade deficit has been cut more than 30 percent to an annualized level of $111 billion.

The fact that the United States has important connections to the rest of the global economy must be considered in the design of fiscal and monetary policy. These policies influence economic performance in part through their effects on exchange rates, on international capital flows, and on the trade balance. The United States accounts for more than one-quarter of total world production of goods and services. Not surprisingly, U.S. policy actions have implications for other industrialized economies and for developing economies. Policy actions taken by other countries, especially the larger ones, also influence U.S. economic performance. Growing recognition of mutual concerns and international economic linkages has heightened awareness of the potential benefits from enhanced international coordination of economic policies. A challenge for the 1990s is to use and improve the process for policy coordination developed in the 1980s to achieve sustained, noninflationary growth for the global economy.

INCREASED OPENNESS OF THE U.S. ECONOMY

The growing economic interdependence of the United States and other countries is reflected in expanding international trade and capital flows. U.S. imports of goods and services increased from less than 5 percent of total demand on average in the 1960s to more than 11 percent on average in the 1980s and 12.7 percent in 1988. This increased presence of foreign products has generated concern over the competitiveness of U.S. industries. What is not as frequently recognized is that U.S. exports of goods and services to other countries have also grown to record levels. Nearly 11 percent of domestic production was sold abroad during the 1980s, compared with just 6 percent on average during the 1960s. Through international trade, economic expansion in the rest of the world contributes to the health of the U.S. economy.

International financial markets have also grown dramatically over the past decade. Capital flows from abroad help to finance in-

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vestment expenditures in the United States. These flows respond quickly in 24-hour financial markets to differences in short-term interest rates and other developments across countries. Because capital movements are sensitive to differences in policy, the globalization of financial markets has increased the interdependence of what were traditionally regarded as domestic policies.

Implications of Openness for Monetary and Fiscal Policies

International considerations do not alter the basic principle that credible, systematic monetary and fiscal policies can promote noninflationary growth. The complex interactions among countries, however, should be taken into account in policy design.

U.S. policymakers must recognize that international linkages influence the effectiveness of their policy actions. The experience of 1980 to early 1985 provides an example. In a determined effort to bring inflation under control, the Federal Reserve, supported by the Administration, pursued firm anti-inflationary policies during 1980-82. Fiscal policy turned expansionary during the 1982 recession. These policies did contribute to the reduction of inflation and to strong economic growth in 1983 and 1984. However, they also contributed to rapid appreciation of the U.S. dollar (Chart 3-3) and a decline in net exports. First tight monetary policy and then declines in government and private saving relative to investment put upward pressure on interest rates in the United States. Partly in response to the resulting interest rate differentials, the dollar appreciated. Imports became relatively cheap, while U.S. exports became more expensive abroad. The resulting trade and current account deficits were the counterparts to the net capital inflows.

U.S. policy also affected the global economy. In particular, the U.S. economic recovery helped spur growth worldwide in the wake of the deep 1981–82 recession. At the same time, the increased demand for funds in international markets as the world economy recovered contributed to a rise in world interest rates, which added to the difficulties developing countries faced in meeting their external debt obligations.

EXTERNAL BALANCE AND EXCHANGE-RATE OBJECTIVES

To what extent should exchange-rate stability and external balance—current account and trade balance—be objectives of macroeconomic policy? The short answer is that both should be of concern to policymakers because, in an open economy, both are related to the fundamental objectives of economic growth and rising living standards. Like price instability, current account imbalances and exchange-rate fluctuations—especially large, persistent misalignments—may jeopardize efficient resource allocation and, thus, economic growth.

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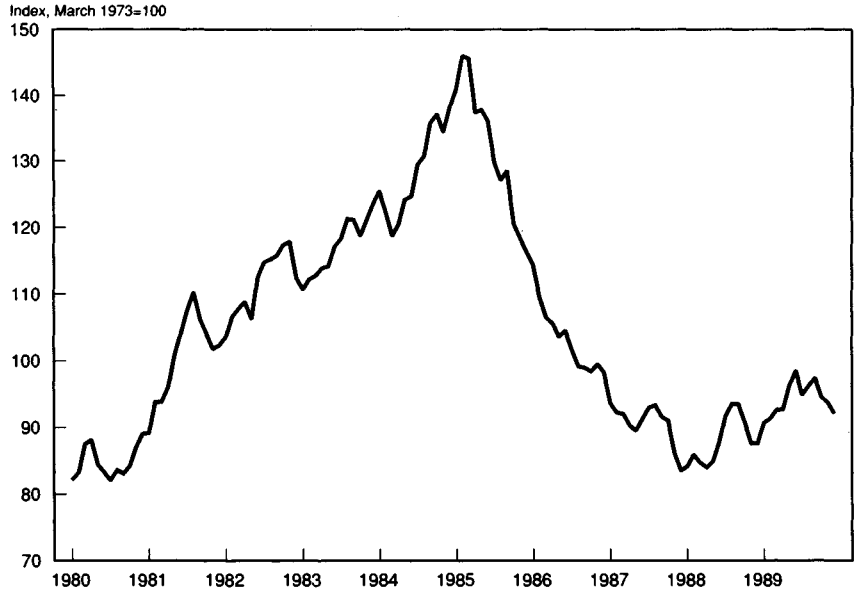
Chart 3-3

U.S. REAL EFFECTIVE EXCHANGE RATE. The real value of the U.S. dollar appreciated sharply in the first half of the 1980s before depreciating and then stabilizing at lower levels.



Note: Data are monthly.
Source: Board of Governors of the Federal Reserve System.

External Imbalance

Current account deficits reflect an excess of investment over domestic saving. If that gap resulted from unusually strong investment, it would not generally be considered a problem. Inflows of foreign savings can contribute to higher investment, spurring economic growth and putting in place productive capacity to service the debt in the future without slowing the growth of domestic living standards. A reason for concern over the rise in the U.S. current account deficit from 1982 to 1987 was that it primarily reflected a decline in domestic saving. As saving has revived, the deficit has been cut by more than 30 percent since the mid-1987 peak.

An aggregate current account deficit implies that imports exceed exports in some sectors, and some of these sectoral trade imbalances are often large. Competitively priced imports may threaten domestic production and fuel pressures for protectionist trade policies, such as import tariffs or quotas. Yielding to these pressures impedes the efficient allocation of resources and harms consumers. Taken to an extreme, increased barriers to trade in one country result in a retaliatory trade war that can lead to worldwide reces-

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sion. This danger provides a second reason for concern about large and persistent external imbalances.

Exchange Rates

Chart 3–3 shows the value of the dollar relative to currencies of the main U.S. trading partners since 1980. The graph shows both short-term volatility and sharp longer term swings in the value of the dollar. In asking whether policymakers should be concerned about exchange-rate changes, it is important to distinguish between the two.

Short-term volatility of the major currency-exchange rates has been much greater during the floating exchange-rate period since 1973 than during the previous two decades of the Bretton Woods System of fixed but adjustable rates. Although this fact is widely recognized, the problems associated with short-term volatility may be overstated. Exchange rates are the prices of assets (U.S. dollars relative to other currencies). Short-term interest rates and other asset prices, such as stock prices, are even more volatile than exchange rates. Furthermore, short-term volatility should not disrupt production decisions, such as where to purchase imported inputs, provided that longer term trends are predictable. Forward and futures markets can be used to hedge against short-run uncertainties. Also, empirical studies have found very little evidence that short-term exchange-rate volatility has a significant influence on the volume of international trade, once the influence of other factors (including real incomes and the relative prices of traded goods) is taken into account.

Concern about pronounced medium-term swings in exchange rates is based on the perception that they reflect misalignments relative to long-term, sustainable exchange-rate levels. Although there are disagreements about which exchange-rate level is appropriate to use as a benchmark, swings in the 1980s were so large that they were widely believed to represent misalignments. Unlike short-term variance, medium-term misalignments can have a profound effect on the allocation of resources. Large changes in the value of the dollar relative to the Japanese yen, for example, have led to large changes in prices of American goods relative to prices of Japanese goods. These large relative price movements, and uncertainty about how quickly they might be reversed, may complicate decisionmaking for both producers and consumers.

An appreciation of more than 60 percent, such as the U.S. dollar experienced in the mid-1980s, can erode the international competitiveness of domestic exporters and import-competing firms, putting firms out of business and generating unemployment. At the same time, goods and services produced abroad become bargains to domestic consumers, helping foreign firms to capture a larger share of the home market. Even if the appreciation is fully reversed

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within a few years, domestic firms may find it difficult to recapture the market share they held before the exchange-rate cycle. Macroeconomic policies that avoid large exchange-rate swings help to create an environment conducive to long-term growth.

MACROECONOMIC POLICY TOOLS

Monetary and fiscal policies influence external balances and exchange rates. For example, monetary policy can be used to maintain fixed exchange rates—at least temporarily. Monetary and especially fiscal policy can alter domestic saving and investment, and thus the current account balance. External balance and exchange rates are determined by a wide variety of factors, however, including policy and economic performance in other countries. Exchange-rate determination is especially complex. There is some tendency for high interest rates in the United States relative to those abroad to be associated with a stronger dollar. However, political events, credibility of policies, and news about economic performance at home or abroad also influence the value of the dollar. Furthermore, objectives of policymakers may come into conflict. A more expansionary monetary policy would tend to bring down the value of the dollar, but often with the cost of increased domestic inflation.

Exchange-Market Intervention

Policymakers can intervene directly in foreign exchange markets by buying and selling currencies. Following the dollar's peak in February 1985, policymakers used this tool more actively. However, the amounts of dollars sold or purchased by authorities are small relative to the total daily sales and purchases in the foreign exchange market, approximately $650 billion per day.

As a hypothetical example of foreign exchange intervention, suppose the dollar were overvalued. The Federal Reserve or the Treasury could sell dollars and purchase Deutsche marks in attempting to decrease the value of the dollar. When such actions are not permitted to affect the level of bank reserves, they are said to be "sterilized" intervention. The Federal Reserve can always sterilize any change in bank reserves through offsetting transactions in Treasury securities. If the Federal Reserve made no transactions to offset, or sterilize, the increase in bank reserves from a sale of dollars, the intervention would be called unsterilized. Unsterilized interventions, in effect, constitute monetary policy actions. The general practice of the Federal Reserve has been to sterilize intervention operations.

There is little disagreement that expansionary monetary policy tends to depreciate exchange rates. Most of the recent intervention by major central banks has been routinely sterilized, however, and some analysts have raised doubts about the effectiveness of steri-

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lized intervention—at least as an instrument that produces lasting changes in exchange rates. Arguments in support of the effectiveness of sterilized intervention hinge largely on the fact that official transactions may signal the future course of domestic policy. If other market participants recognize, believe, and act in response to the signal, then sterilized intervention can be an effective tool for moving exchange rates.

What has been the actual experience with intervention in foreign exchange markets? Most studies have concluded that sterilized intervention is unlikely to be an effective tool for moving exchange rates in directions that are inconsistent with underlying fundamentals of policy and performance—except perhaps in the very short run. The effects are larger and more lasting if backed by other policy changes such as interest rate adjustments, which help to make the signal credible. Also, coordinated intervention by monetary authorities in more than one country seems to have a greater and more sustained effect on exchange rates than intervention by a single country alone.

INTERNATIONAL POLICY COORDINATION

Recognition of the increasingly integrated global economy and dissatisfaction with economic performance, including exchange-rate swings and persistent external imbalances, have precipitated calls for more consistent and compatible policies among major industrial countries. Since 1985, these countries have strengthened the process for international coordination of policies.

What Is Policy Coordination?

There is no single definition of international policy coordination. To some, the term has a rather lofty meaning: jointly determined policy actions in support of mutually agreed-upon objectives. However, national objectives will often differ substantially or conflict with one another. A more limited definition of policy coordination would be: a process through which national policies are modified in recognition that economic performance is interdependent.

Neither definition need imply that countries follow identical policies. Countries have different technologies, tastes, and political institutions. They may also be subject to different economic shocks. For example, many economists believe that a coordinated effort to reduce external imbalances while avoiding a slowdown in real growth worldwide would include fiscal contraction in the United States, which has a current account deficit, and an expansionary fiscal stance in Japan and West Germany, which have current account surpluses. Thus, even if countries adopt the same policy objective, actual policy settings are likely to differ.

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Is Macroeconomic Policy Coordination a Good Idea?

The arguments in favor of policy coordination stress that the effects of one country's policies spill over to other countries. This spillover is especially true for the larger industrial economies, but even here, the linkages are stronger among some countries, such as those within Western Europe, than for others. However, policymakers may not take these spillover effects into account in weighing the costs and benefits of policy options. Coordination can improve domestic policy decisions by helping policymakers to consider the global implications of their actions. Small developing countries are likely to benefit greatly from policy coordination among the developed countries, if such coordination is successful in increasing world growth. At the same time, the most important aspect of promoting noninflationary growth in any one country is that it pursue sound domestic monetary and fiscal policies. Thus, macroeconomic policy coordination can also make a positive contribution by encouraging individual countries to pursue the proper credible and systematic policies at home.

International cooperation is important in other areas as well. In particular, agreement on rules for trade improve the functioning of the international trading system, with widespread benefits. The United States places a high priority on its active participation in the General Agreement on Tariffs and Trade, and is pursuing further international cooperation to advance mutual concerns about the environment.

What Is the Policy Coordination Process?

Since 1975, the leaders of the seven largest industrial economies (the United States, Japan, West Germany, France, the United Kingdom, Italy, and Canada) have met in annual economic summits to discuss economic issues of common concern. Over time, recognition of the growing integration of world goods and financial markets and shared concerns have led to the realization that further policy cooperation could be mutually beneficial.

The divergence of economic policies and performance among the major industrial countries after 1982 contributed to the sharp rise in the value of the dollar and to the emergence of large trade imbalances. In 1985, responding to shared concerns over these developments, finance ministers and central bankers from the United States, Japan, West Germany, the United Kingdom, and France (collectively called the G–5) met in New York. They agreed to work to strengthen the process for coordinating macroeconomic policies, to bring down the value of the dollar, and to reduce trade imbalances while maintaining noninflationary growth. In 1986, the G–5 together with Canada and Italy (the G–7) initiated regular meetings of their finance ministers and central bank governors. The

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purpose of these G–7 meetings is to promote more consistent and compatible economic policies among members so as to work toward sustained global growth with low inflation, reduced trade imbalances, and greater exchange-rate stability.

The policy coordination process that evolved during the 1980s has two main elements. First, the G–7 has instituted a regular, high-level dialogue on economic policy, performance, and objectives. Second, the G–7 has developed economic indicators to provide a framework for multilateral surveillance of their economies and to help monitor the international effects of national policies. This process is supplemented through frequent additional discussions in other forums, notably the International Monetary Fund, the Organization for Economic Cooperation and Development, and the Bank for International Settlements.

To What Extent Has Policy Coordination Been Useful?

To what extent has the G–7 process achieved its goals? Some observers note the continued fluctuations and last year's appreciation of the dollar and the persistence of trade deficits in the United States and surpluses in West Germany and Japan and conclude that policy coordination has been a failure. This view is extremely narrow and misleading. The economic policy coordination process has promoted more consistent and compatible policies among the major countries, helping to sustain the expansion of output and employment while reducing external imbalances. A regular dialogue on key economic policy issues now exists. The use of indicators has helped to focus their discussions on key linkages between economies. Further, the discussions have highlighted the importance of structural measures, such as lowering marginal tax rates, decreasing regulation, and reducing barriers to trade, to promote greater efficiency and openness, thereby facilitating noninflationary growth and adjustment of external balances.

Over the past decade, a substantial convergence in the longer term orientation of monetary policies among G–7 members has occurred. This convergence reflects increased mutual awareness among central bankers of the desirability of reducing inflation rates and moving toward price stability. As shown in Chart 3–4, this convergence has resulted in an overall reduction in the average inflation rate and the range of inflation rates among West Germany, Japan, and the United States. With this awareness, there was also a common response to the indications of inflation resurgence in 1988. At the same time, international discussions have reflected concern that the effects of several countries responding together might result in too great a response. Such discussion is a natural part of the evolving policy coordination process and would have been more difficult just 15 years ago.

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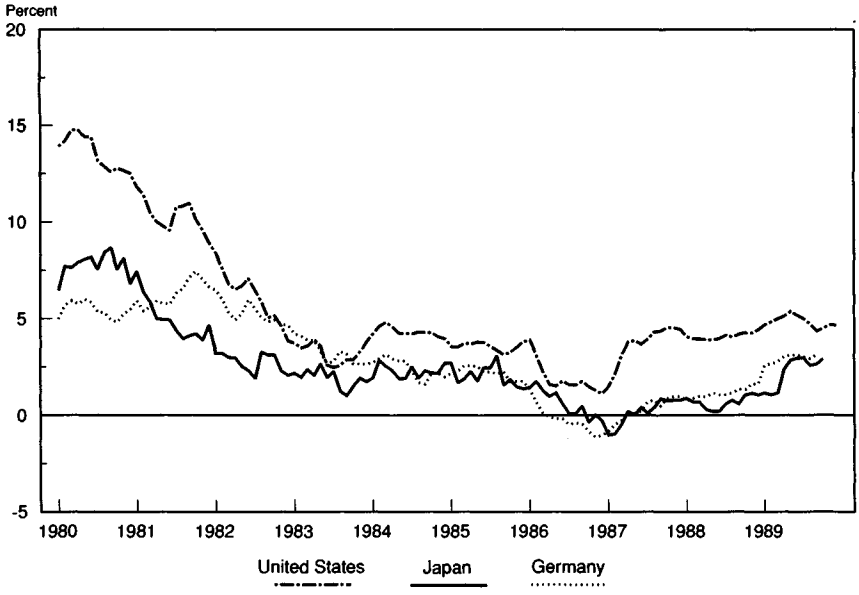
Chart 3-4

CONSUMER PRICES. During the 1980s consumer price inflation rates declined and converged among industrial countries.



Note: Data are 12-month changes.
Source: Department of Commerce.

SUMMARY OF PRINCIPLES FOR INTERNATIONAL MACROECONOMIC POLICIES

The increased internationalization of the U.S. economy has important implications for monetary and fiscal policies and helps shape the principles that should form a basis for such policies.

- The United States is part of a global economy that is becoming increasingly integrated. This development implies both that policymakers must take international linkages into account when they design monetary and fiscal policies and that there are potential gains from working together.
- Credibility, highlighted in the previous discussions of monetary and fiscal policy, is equally important in this context. Consistently following appropriate policies, both in the United States and abroad, fosters an environment conducive to saving, investment, and economic growth.
- The ultimate objectives of monetary and fiscal policy are economic growth and rising living standards, *not* exchange-rate stability or current account balance per se. Nonetheless, reasonably stable exchange rates and sustainable external bal-

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ances are important aspects of a healthy economy. Particularly when these variables get far out of line, they should be of concern to policymakers.

- The best means to adjust external imbalances and to avoid dollar misalignments is to alter the fundamentals. In the United States, such measures should include reducing the Federal budget deficit and taking steps to raise private saving. Sterilized intervention by itself is not an effective means for altering long-run exchange-rate levels.
- International macroeconomic policy coordination has had some important successes over the past 5 years but further progress could be made. The G–7 coordination process has been most effective in coordinating policies to respond to shared concerns.

FINANCIAL EVOLUTION AND FINANCIAL SOUNDNESS

A highly developed financial system is central to a modern economy. Financial institutions perform the vital function of channeling savers' funds into the hands of those who wish to use the resources for investment. When these institutions do their job well, funds flow to their most productive uses, stimulating growth and improvements in the standard of living. One of the most important challenges facing policymakers over the next several years is to ensure that the financial system continues to adapt efficiently to both domestic and international competitive challenges. At the same time, policymakers must take care to preserve the fundamental soundness of the system, and to prevent it from imposing unnecessary costs on taxpayers.

BANKING-TYPE INSTITUTIONS AND THEIR COMPETITORS

Broadly speaking, savers' funds can be allocated to investors in three ways. The first is through banking-type financial intermediaries such as commercial banks and savings and loans. The second is through nonbanking financial intermediaries such as pension and mutual funds. The third way is for funds to move directly from individual lenders to borrowers via securities markets. All three have advantages. Banking-type institutions, however, have historically received special attention from policymakers because they hold the bulk of the funds used by the public to make payments—deposits on which checks can be written. For this reason, preserving the integrity and stability of the banking system is essential to the daily functioning of the economy.

In recent years, the banking industry has been buffeted by unanticipated problems with loans to developing countries and to the oil

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and real estate industries, as well as by increased competition from other types of financial institutions, such as securities firms. The increased competition comes from both foreign and domestic sources and shows no signs of abating; the innovation of financial products and the globalization of financial services continues at a rapid pace.

While these competitive developments enhance efficiency, they are worrisome to many observers in view of the government's enormous stake in the financial sector. As the thrift industry crisis has illustrated, the combination of poorly designed policies and sharp changes in the external environment can be extraordinarily costly.

In the larger commercial banking sector, where the Federal Deposit Insurance Corporation insures almost $2 trillion of deposits, difficulties have also arisen. For example, in 1988, the commercial banking industry suffered bad debt losses (also known as charge-offs) on almost $18 billion of loans, representing 0.97 percent of loans outstanding. Before peaking in 1986, this ratio had climbed steadily over the decade—in 1980, it stood at only 0.36 percent. Although the problems in commercial banking are not comparable in scope with those in the thrift industry, they do underscore the importance of sound regulatory and supervisory policies to ensure that taxpayers are not asked to bear undue costs.

Thus, policymakers must deal with a difficult tension: many of the banking industry's troubles can be traced to increased competition from other providers of financial services, but policies that would protect banks from competition would impose large costs on their customers and on the economy as a whole. For example, restricting competition in financial services could lead to lower returns to savers, higher borrowing costs for companies, and a concomitant decrease in investment. Furthermore, any such restrictions may be unworkable as international competition increases. In planning more sensible policies, it is useful first to understand the basic economic functions of banks and of their principal competitors, the securities markets.

The Economic Role of Banks

Banks have traditionally performed two distinct economic services, one on the asset side of their balance sheets, and one on the liability side. On the asset side, banks produce and monitor information that is used to evaluate the returns on investment projects. When such information production is expensive, it is more efficient to have it carried out in a centralized institution (i.e., a bank) than to have the work needlessly duplicated by a large number of securities market participants.

On the liability side, banking-type institutions provide a medium of exchange by issuing claims (checking accounts) that are immediately payable on demand, and that can be used by consumers and

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firms for transactions purposes. Unlike money market mutual funds, banks issue these claims while simultaneously devoting some of their investment portfolios to illiquid assets. Consequently, bank instability can pose a serious threat to the financial system and to the functioning of the broader economy. If many of a bank's depositors demand immediate repayment and a run begins, the bank will be unable to satisfy its contractual obligations. Furthermore, a sharp drop of bank liabilities, if not offset by other factors, would result in a decrease in the money supply, which could cause a recession. The U.S. experience with bank panics in the late 19th and early 20th centuries was the motivation for the current system of deposit insurance, as well as for the Federal Reserve's role as lender of last resort to banks. This system has worked very well in preventing further panics, although it has become apparent that deposit insurance can also encourage excessive risk-taking by institutions that do not have enough of their own capital at stake.

While banking-type institutions have clear economic advantages, allocating credit directly through the securities markets also has benefits. First, circumventing the intermediary reduces costs. These costs take the form not only of brick-and-mortar overhead for banks, but also of reserve requirements, capital requirements, and deposit insurance premiums, which act as a "tax" on intermediated, or bank-channeled credit. Second, securities markets create assets that, unlike many bank loans, are easily traded among a wide array of investors seeking to diversify their portfolios.

CHANGES IN THE FINANCIAL INDUSTRY

Many recent developments in the financial system can be understood in the context of a single trend: an increase in the appeal of direct, or securities-channeled, credit allocation relative to fully intermediated credit allocation.

Examples of the growing importance of direct credit abound. On the lending side, commercial paper—uncollateralized borrowings in the open market—has made large inroads into commercial banks' traditional business of short-term lending to industrial corporations. The volume of nonfinancial corporations' commercial paper outstanding has grown from $7 billion in 1972 to $125 billion today, an annual rate of increase of 18 percent. Over the same time, bank commercial and industrial loans have grown at only 10 percent per year. Partly as a consequence, banks' market share of short- and intermediate-term credit extended directly to domestic nonfinancial companies has fallen from 82 percent to 49 percent.

A similar phenomenon has occurred in mortgage finance. Mortgage-backed securities allow home loans to be purchased directly by investors, rather than being funded by thrifts or banks. These securities were developed in the mid-1970s, and by the end of 1988,

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approximately $810 billion in these securities were outstanding. More than one-third of the financing for mortgage loans on one- to four-family homes is currently channeled through the mortgage-backed securities market.

The high yield, or "junk" bond market, provides another example of the move to direct finance. Before this market's development in the late 1970s, only the relatively small number of companies with investment grade (top-quality) debt ratings of BBB and above were able to access the public markets for debt. Lesser known or riskier borrowers had to rely on banks or privately placed debt. By 1988, such noninvestment grade companies had issued more than $130 billion in new public debt.

Several structural factors, notably the revolution in information and communications technology, have produced this shift toward directly allocated credit. With information costs reduced, banks have found that one of their principal comparative advantages—efficient production of credit information—is no longer as valuable for some types of credits as it used to be.

Impact of Innovation on Bank Profits

Whatever their causes, the innovations of the past several years have had a profound impact on the business of banking. Overall, bank profitability has been falling modestly. The average return on assets for all banks was 0.79 percent in 1980; over the period 1986 to 1988, it averaged 0.52 percent. This broad trend, however, does not fully capture the changes in the industry's economics. Variations between the performance of successful and unsuccessful institutions have become much more pronounced. For example, the return on assets for banks in the lowest 5 percent of the industry fell precipitously over the same interval, dropping from 0.28 percent in 1980 to an average of -2.18 percent during 1986 to 1988. In many cases, the largest banks (known as money center banks) experienced more pronounced declines in profitability than their smaller counterparts, partly as a result of their large exposure to developing country loans. These banks' traditional customers had included the largest and most well-known corporations, for whom the shift to securities market credit was often accomplished with relative ease.

ADAPTATION TO CHANGE

The widening variations in profitability across banks highlight a fundamental economic reality: as competition intensifies, some banks will find that the range of activities where they retain a distinct competitive advantage has narrowed. Many banks still maintain an economic advantage in some traditional lines of business, such as consumer lending, where information costs are still rela-

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tively high, and where banks and thrifts in the aggregate have maintained their market share.

New Lines of Business for Banks

Some banks have also successfully redeployed old skills into new lines of business that have been spawned by innovation. The rapid growth of standby letters of credit (SLCs) illustrates this trend. Bank SLCs are often used to guarantee the creditworthiness of commercial paper issues, particularly those of less well-known borrowers. In this way, the provision of credit to corporate borrowers is efficiently specialized into two component parts—credit analysis and funding. Banks continue to perform a portion of the credit analysis, and bear a contingent responsibility should the borrower be unable to repay. At the same time, the loan is funded more cost-effectively through the public market. Thus, unlike a conventional loan, an SLC does not appear as an asset on a bank's balance sheet.

The volume of bank SLCs grew at a 26-percent annual rate from 1980 to 1988. SLCs are disproportionately important for money-center banks, which have been most affected by the loss of traditional lending customers. More generally, other activities have been specialized in such a way that banks only participate in an off-balance-sheet fashion. This change is reflected in the increasing relative importance of fees to banks. From 1984 to 1988, the ratio of noninterest income to assets for all banks rose from 1.09 percent to 1.47 percent. The increase was much more dramatic for money-center banks, which saw the ratio rise from 1.15 percent to 2.11 percent. As the above discussion suggests, valid economic reasons support the shift by banks to off-balance-sheet activities. Still, some have expressed concern about the risks involved, particularly in light of the fact that current regulations do not impose capital requirements or deposit insurance premiums on all of these activities. (As discussed below, recently adopted international risk-based capital standards do include letters of credit and thus mitigate this concern.)

Efficiency of Industry Adaptation

In an unregulated industry, the market mechanism can be relied on to carry out adjustment efficiently. Indeed, the widening gaps between strong and weak firms that accompany intensified competition would be seen as a healthy sign of evolution—those that found a niche of competitive advantage would prosper, while those that failed to adapt would quickly find themselves in trouble. Unfortunately, deposit insurance can hamper the ability of the banking industry to adapt efficiently to changes in the competitive environment. Normally, firms that stop being profitable are subject to discipline from their capital suppliers—they are no longer able to raise money to reinvest in unprofitable lines of business. In this

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way, excess capacity is flushed from an industry. However, deposit insurance allows banks to keep raising funds even when these funds are being devoted to activities that are not economically viable.

According to this line of reasoning, the deterioration in bank credit quality seen in recent years (as measured, for example, by the increases in loan chargeoffs) may not simply reflect one-time adverse shocks in particular sectors and geographic regions. It may in part be systemic, and attributable to the interaction of intensified competition and lack of capital market discipline. It is interesting to note that the growth in loan chargeoffs has occurred while net interest margins for banks have remained fairly stable. In other words, banks have suffered from more bad loan experience, but in the aggregate have not received increased compensation from borrowers. One interpretation of this evidence is that some banks have reacted to heightened competition in part by loosening their credit standards and offering better terms to lower quality borrowers.

From the perspective of a policymaker, it is extremely difficult to identify *a priori* when banks are pursuing activities where they add real economic value as opposed to ones where they do not earn sufficient profits to justify continued investment. A line of business that is wholly appropriate for one institution may be a money-loser for another. Often it can take several years for the costs and benefits to show up in the data in such a way that they are visible to an outsider.

POLICY ACTIONS AND PROPOSALS

The events of the past few years have prompted some important changes in banking policy. In addition, other options are receiving increased attention.

Risk-Based Capital Requirements

Risk-based capital requirements are an example of a policy measure that addresses the issues discussed above. In the summer of 1988, 12 industrial nations, including the United States and its major trading partners, agreed to phase in a risk-based capital system by the end of 1992. The essence of the system is that banks investing in riskier types of assets would be made to hold more capital against such assets, that is, assets would be "risk-weighted" for the purposes of calculating capital requirements. Two other noteworthy features are that: (1) some off-balance-sheet items such as SLCs would also be added to risk-weighted assets, and hence would require a capital cushion of their own; and (2) banks from the 12 participating countries would, for the first time, be subject to common minimum capital standards.

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By making required capital a function of risk, these rules increase the incentives for self-monitoring among banks choosing the most aggressive strategies. Also, the risks associated with off-balance-sheet activities are now explicitly recognized. This diminishes the likelihood that banks will want to engage in such activities simply as a way to do business without increasing their capital base.

While the self-disciplinary benefits of increased capital are well understood, risk-based requirements also allow banks whose comparative advantage lies in safer activities—gathering deposits from smaller, retail customers, for example—to focus on such a niche without being unduly penalized for doing so. Were all institutions to face the same high capital requirements, relatively safe ones would find it difficult to earn a satisfactory return, and might even feel pushed toward riskier activities in an attempt to boost returns.

Finally, the international nature of the accord recognizes that although not all bank product lines should be treated the same, all banks offering the same product lines should. Maintaining a level regulatory playing field across different countries is an important goal, and will become increasingly crucial as cross-border investment in financial services continues. Indeed, the need for an international approach to financial policy extends well beyond banking regulation, and includes such key objectives as harmonizing the clearing and settlement procedures for securities transactions.

The risk-based capital agreement is certainly not a panacea. The risk categories involved are quite broad, and do not capture true economic risk precisely. For example, there is no consideration of risk caused by movements in the general level of interest rates. Nonetheless, the accord is a step in the right direction. Improvements in the quality of information available to regulators—perhaps through the adoption of market-value accounting techniques—could lead to better risk measurement and further benefits from such an approach.

Risk-Based Deposit Insurance Premiums

A similar measure that is often discussed is the use of risk-based deposit insurance premiums. Institutions currently pay a flat fee per dollar of deposits for deposit insurance, irrespective of the riskiness of their portfolios. Making the cost of insurance vary in a market-like fashion, with the risk assumed by the insurer, would further improve the incentives of banks with respect to choice of investments.

Both risk-based capital requirements and risk-based deposit insurance programs illustrate an important general principle: many of the concerns outlined above can be addressed with a system that allows institutions to opt into a set of rules that best suit their strengths and strategies. In the above examples, banks can choose

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whether to adopt high- or low-risk strategies, and are then presented with capital requirements or insurance premiums appropriate for the strategy selected. This opting feature is consistent with the goal of encouraging institutions to focus on the activities that they do best.

Thrift Industry Legislation

The recent thrift legislation, the Financial Institutions Reform, Recovery, and Enforcement Act of 1989, also contains such opting features. The legislation curtails the direct powers of savings and loan institutions (S&Ls), requiring them to focus more narrowly on their traditional areas of expertise, deposit-taking and home mortgage lending. At the same time, the act permits separately capitalized affiliates of thrifts to engage in a broad range of activities so long as these activities are not funded with insured deposits.

The new law also recognizes that the traditional direct product lines alone may no longer be profitable for all S&Ls, and provides for a market-based transfer of S&L assets into the less-restrictive commercial banking regulatory system: S&Ls can either be acquired by existing commercial banks, or, with some costs, can choose themselves to switch to a commercial banking charter.

The Need to Modernize the Financial Framework

The dramatic changes of recent years have exerted pressure on the Nation's Depression-era financial framework. Financial institution law consists of half-century-old statutes and ad hoc deregulation by courts, States, and Federal regulators. The result is a complex web of overlapping rules that can potentially create inequities and market inefficiencies.

One example is the Glass-Steagall Act, a 1933 law designed to separate investment banking from commercial banking. Although recent rulings by the Federal Reserve and the Comptroller of the Currency have eased certain restrictions, banks are still constrained in a number of activities, including the underwriting of corporate equity securities. In the current environment, these activities may represent a natural way for some banks to redeploy existing assets and skills, with concomitant benefits for the economy.

While some favor abolishing Glass-Steagall constraints, others have expressed concerns—namely, that some institutions might take advantage of broadened powers to diversify in an uneconomic fashion, and that the costs of such mistakes may ultimately be borne in part by Federal deposit insurance. These concerns underscore the fact that Glass-Steagall initiatives, and those related to deposit insurance, cannot be considered separately from one another. Rather, they must all be seen as coherent parts of a larger

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effort—an attempt to reevaluate and modernize the Nation's laws to compete in a global context.

There is no consensus on a single paradigm for modernizing financial regulation, although several models have been proposed. A glance at other countries reveals a diversity of approaches to issues such as deposit insurance and the separation between banking and securities activities. Moreover, many countries are in the midst of financial reforms themselves, reforms that may have important implications for global competition in financial services.

Clearly, any sweeping proposals to revamp the structure of financial regulation would require study and refinement before they could be seriously considered for implementation. The Department of the Treasury is now coordinating a detailed study of Federal deposit insurance, as mandated in the thrift legislation. The time may be ripe for further work that provides a fundamental reassessment of financial policy, particularly if the analysis is grounded in the sound logic of encouraging efficient, focused competition among financial institutions.

SUMMARY OF PRINCIPLES FOR FINANCIAL REGULATION

As the above analysis makes clear, no easy solutions exist to the difficult problems surrounding financial regulation. Nevertheless, important policy principles emerge:

- Continued competitive pressures on banks from new products and new institutions (domestic as well as foreign) are both desirable and inevitable. Predicting exactly the areas in which these pressures will next manifest themselves is difficult. Thus, regulation should create an environment that is hospitable to a broad range of adaptive behavior by banks.
- Efficient adaptation entails not only entering profitable new lines of business, but also exiting old ones that are no longer attractive, and avoiding inappropriate new ones. Regulation must not encourage institutions to do business in areas where they would not otherwise be competitive.
- A great deal of information is needed to assess precisely which activities are profitable for a given institution. Thus, rather than relying on an inevitably arbitrary list of prohibited activities to guide decisions, it may be preferable to let institutions themselves make the assessments. If this is to be done, however, it is critical that incentives be properly aligned—institutions must be forced to bear the costs of their mistakes.
- Rules should be applied consistently across all types of institutions undertaking the same activities. At the same time, it can make sense to have different rules for different activities, and

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to allow institutions to opt for those rules that best fit their competitive strengths.

SUMMARY AND CONCLUDING COMMENTS

Macroeconomic policies can make substantial contributions to achievement of the Nation's economic goals if these policies are formulated appropriately. Experience and research have indicated that a properly chosen systematic policy program is more likely to perform well than a short-sighted discretionary approach to policy. Unpredictable changes in economic and financial relationships imply that appropriate rules for policy in some circumstances are rather general. In such cases, when it is inappropriate to specify in advance how the tools of policy will be adjusted in reaction to particular events, policy credibility is especially useful. Credibility that policy will achieve its ultimate goals helps to bring about a better economic outcome in the face of unpredictable change by reducing uncertainty about future developments and making it easier for economic decisionmakers to plan for the future.

Increased credibility in one area of economic policy can reinforce credibility in another area. For example, public belief that the deficit will be reduced according to the Gramm-Rudman-Hollings targets would help build credibility that monetary policy will succeed in achieving low inflation.

The increasingly integrated world economy implies that policymakers must take careful account of international linkages in designing macroeconomic policies. The international macroeconomic coordination process can help policymakers work toward sustained global growth with low inflation, reduced trade imbalances, and greater exchange-rate stability.

The pace of innovation in financial markets remains rapid. Maintaining a healthy economy and efficient markets for capital allocation will require that policies enhance rather than constrain the ability of financial institutions to adapt to change.

Macroeconomic policies should emphasize long-run economic performance. Thus, these policies should be directed at strong economic growth through increased national saving and investment, controlling and gradually reducing inflation, and fostering a safe and competitive financial marketplace. Such policies will ensure both continued leadership by the United States in the world economy and rising living standards for American families.

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