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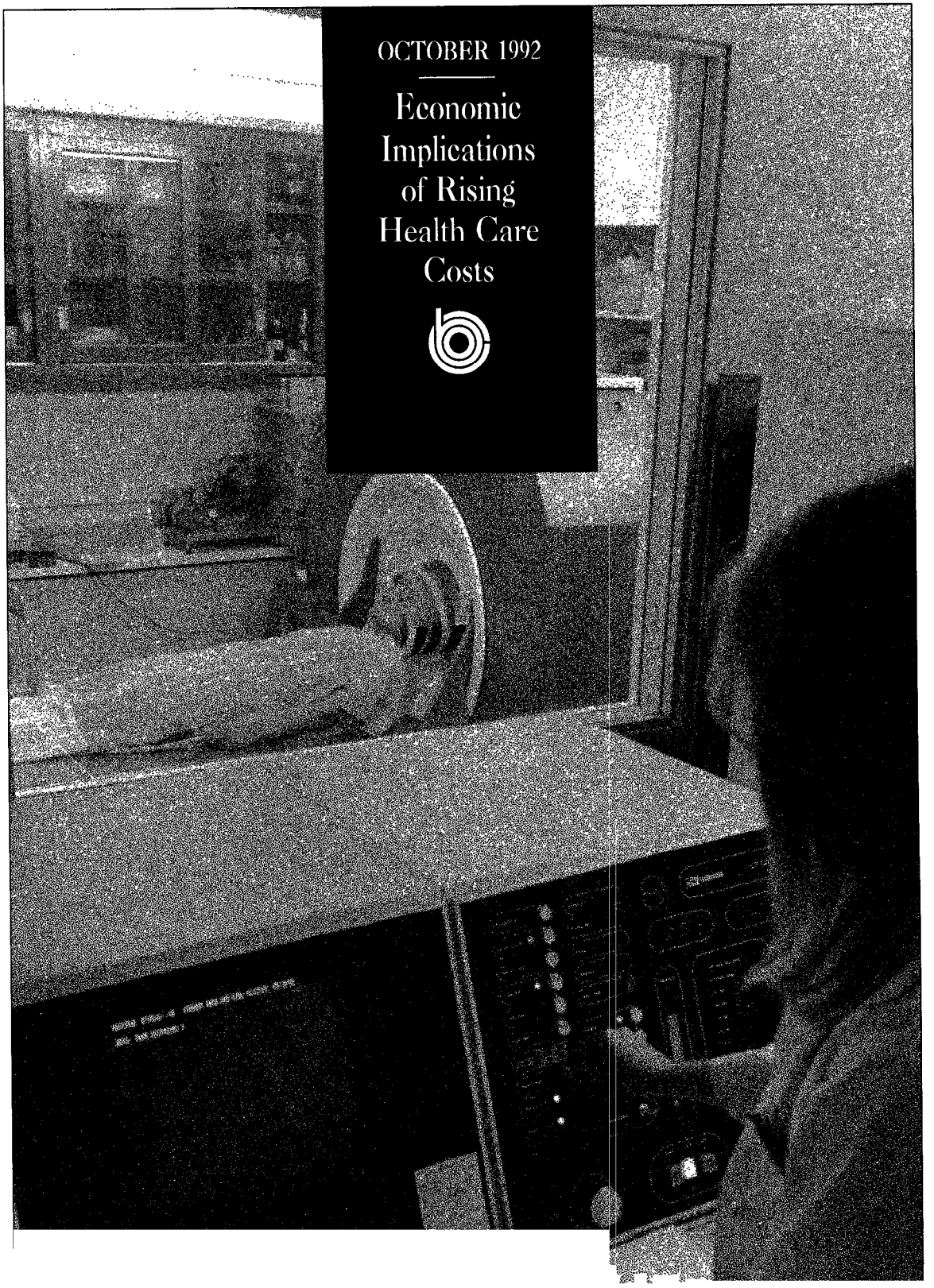
# Economic Implications of Rising Health Care Costs



# ECONOMIC IMPLICATIONS OF RISING HEALTH CARE COSTS

The Congress of the United States
Congressional Budget Office

## NOTES

All years in the text are calendar years, except for those which refer to spending and revenues of the federal government, which are fiscal years,

Details in the text, tables, and figures in this study may not add to the totals because of rounding.

Cover photo: Patient getting a CAT scan at the National Institutes of Health in Bethesda, Maryland, in 1977. (From the *U.S.* News & *World* Report Collection, Prints and Photographs Division, Library of Congress.)

# Preface

In response to a request by the House Committee on Ways and Means, this study examines the effects of rising health care costs on the economy. In particular, it examines how the costs affect workers, businesses, and governments. A companion study, Projections *of National* ***Health Expenditures,*** presents CBO's projections for national health spending to the year 2000. In keeping with the Congressional Budget Office's mandate to provide nonpartisan analysis, this report includes no recommendations.

Douglas R. Hamilton of the Fiscal Analysis Division was the principal author, under the direction of Robert Dennis. George Iden prepared chapters 2 and 3. Robert Arnold carried out the simulations in Chapter 5. Research assistance was provided by Laurie Brown, Dan Covitz, Blake Mackey, Mark McMullen, Michael Simpson, and Patricia Wahl. Special thanks to Linda Lewis for assistance in preparing the tables.

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Sherwood D. Kohn edited the report. Chris Spoor provided editorial assistance. With the assistance of Martina Wojak-Piotrow, Kathryn Quattrone prepared the report for publication.

Robert D. Reischauer
Director

October 1992

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Chapter One

# Introduction and Summary

The United States spent about 12 percent of the nation's gross domestic product (GDP) on health care in 1990. That was more than twice as much as the country spent on national defense and nearly twice as much as it spent on education. Unless current trends are altered, either in government policies or in private behavior, the Congressional Budget Office (CBO) expects that spending on health care will grow to 18 percent of GDP by the year 2000. As the baby boomers reach old age in the early part of the next century, health care costs could increase even more. And as these costs go up, less of the economy's resources will be available for everything else.

Should policymakers be concerned about such a dramatic increase? After all, the economic history of the United States shows that dramatic changes in the structure of the economy are a normal feature of growth and development. Growth in incomes, differences in rates of productivity growth among industries, major technological advances, and the opening of the economy to world trade can all bring substantial changes. Only 40 years ago, for example, agriculture accounted for about 7 percent of GDP; it now accounts for less than 2 percent. This does not signal the decline of agriculture, however, but its triumph; the nation's farmers can now feed U.S. consumers, and a significant proportion of the rest of the world, with only a small share of the country's national resources.

Although structural change is a normal part of growth and development, the growth of the health sector gives considerable cause for concern for two reasons. First, because of the way people in the United States pay for health care, most consumers pay little heed to costs when they need major medical attention. Second, because consumers know relatively little about medicine, they entrust many health care decisions to professionals rather than making them on their own.

These two characteristics mean that there is only a weak relationship between what consumers pay for health care--through health care premiums, taxes, and out-of-pocket spending--and the value they place on health care. By contrast, when people buy a car, they know how much they have to pay and how much they expect to use and enjoy the car. They then compare the two to see if the purchase is worthwhile. It is precisely this market test that makes free-market economies prosperous. But consumers of health care do not usually make such comparisons.

## Special Characteristics of the Health Care Market

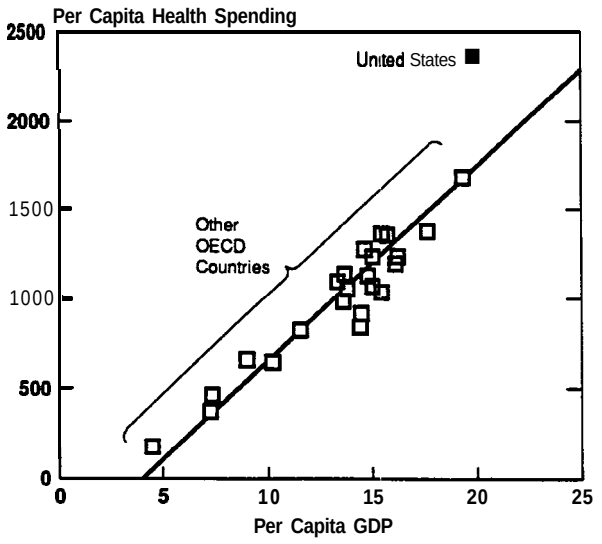
The system for paying for health care in the United States distorts decisions in a number of ways. One major distortion, known as "moral

hazard," arises unavoidably from the existence of health insurance. Because large health expenditures arise unevenly and unpredictably, it makes sense for individuals to insure against them in the same way as they insure against fire or theft. But health insurance is different from fire and theft insurance; the latter insure against a loss that is bounded and relatively easy to determine, while health insurance is a hedge against expenditures that are not bounded but are largely at the discretion of consumers and doctors. This leaves consumers and doctors with considerable freedom to choose relatively expensive treatments, a situation creating moral hazard. Insured consumers pay only relatively small copayments--sometimes none at all--and the costs are spread out among an insurance company's policyholders. Since the same discretion applies to virtually all decisions about medical treatment, the cost of health care to society can increase significantly.

Even in the absence of insurance, the limits that the market imposes on health care costs are not substantial. Because consumers cannot independently evaluate their own treatment, doctors and hospitals have considerable latitude to make treatment choices that may be as much in the providers' interests as in the patients'. For example, several hospitals in a metropolitan area might each buy expensive equipment, such as magnetic resonance imaging machines, when only one or two would be justified by the number of examinations needed in a year. The costs of the additional equipment would increase the cost of treatment at these hospitals, but because doctors send patients to the hospitals with which they are affiliated regardless of costs, such cost escalation is not penalized.

As a result of these distortions in the medical care market, many people feel that the nation pays too much for health care. Compared with other industrialized countries, the United States spends a much greater proportion of GDP on health than would be expected from its per capita income, but it seems not to have a substantially healthier population (see Figure 1).

**Figure 1.**
**Health Spending and Income in Countries of the Organization for Economic Cooperation and Development, 1989**




SOURCE: George Schieber and others, "Health Care Systems in Twenty-Four Countries," Health Affairs, vol. 10, no. 3 (Fall 1991). pp. 7-21.

NOTES: Health spending and gross domestic product are converted to dollars using purchasing power parities. Per capita gross domestic product is expressed in terms of thousands of dollars. Per capita health spending is expressed as dollars.

Of course, health insurance and delegation of authority by patients to doctors are common in many other countries as well. Many Europeans are in fact more extensively insured than their U.S. counterparts, but at lower costs. The difference is that other countries have taken additional steps to counteract the cost-increasing effects of insurance and patients' delegation of authority. By contrast, three characteristics of the U.S. health system have made cost control more difficult.

First, the system of financing health care in the United States is fragmented. That raises administrative costs and makes piecemeal reform less likely to succeed. Because costs can be shifted under such a system, controlling them in one sector of the medical care market only causes them to pop up someplace else. For example, federal efforts to control

Medicare spending have probably led to higher costs for non-Medicare patients. Second, because the health care market is fragmented, consumers generally have little bargaining clout over providers that would enable them to negotiate lower prices. By contrast, hospitals and health care providers in other countries face significant countervailing power either from organized groups of health care consumers or from the government. Third, health care markets in the United States exercise only loose control over the acquisition of new capacity in the health care system, whether it is advanced new technology, new units for cardiac surgery, or any other type of medical capital. Additional capacity can lead to higher costs, since once that capacity is put in place it tends to be used. Of course, controlling capacity through governmental fiat could also have costs, such as reduced access or misallocated resources.

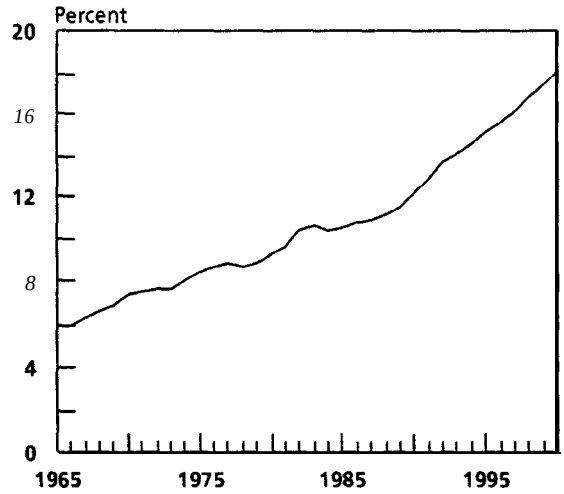
The next decade seems likely to see as large an increase in the nation's share of spending on health as that which has occurred in the last 25 years, unless government policies or private behavior changes. Much of the increase in health care spending will result from advances in medicine, which tend to be costly. And it is also likely that the misallocation of health care resources will grow along with health care spending.

## Why Are Health Costs Rising So Rapidly?

Analysts are unanimous in predicting further increases in the share of GDP devoted to health care. CBO predicts that spending on health care will rise from 12 percent of GDP in 1990 to 18 percent in 2000--an increase as large as that between 1965 and 1991 (see Figure 2). These projections are described in detail in a companion study (see Box 1).

1. Congressional Budget Office, *Projections of National Health Expenditures* (October 1992).

**Figure 2.**
**National Health Expenditure as a Share of Gross Domestic Product**




SOURCES: Congressional Budget Office; Health Care Financing Administration.

The increase in health spending is influenced by such factors as demographic change, defensive medicine, and the spread of acquired immune deficiency syndrome (AIDS), but they do not account for much of the increase. Instead, most of the growth seems to come simply from the persistent upward trend in per capita spending for health services. Measurement problems, however, make it difficult to tell how much of that increase stems solely from higher prices for medical services rather than from increased quality of those services.

Most analysts believe that the advance of medical technology is a major factor driving increases in health costs. A technological advance can make possible treatments and tests that were previously beyond the capabilities of medicine. But new medical technologies and drugs are expensive to develop and therefore costly to use, especially at first. Since, like other health spending, these treatments and tests face little market discipline, there is no assurance that their costs will be justified by their benefits. Moreover, these costs build on other cost-increasing factors as well. The explosive development of expensive medical technology increases the risk of catastrophically high medical costs in illness, which in

turn increases the demand for insurance and further numbs the market test of new technology.

## How Rising Costs for Private Health Insurance Affect the Economy

In the United States, most people's health care is financed through employment-based insurance plans. Such plans dominate the market because they are implicitly subsidized by the government: when employers provide health insurance as a fringe benefit, they can deduct it as an expense, but employees do not have to pay income tax on it. Employer-provided health insurance is also not subject to payroll taxes. In essence, employees whose jobs offer insurance can pay for it using pretax income, which encourages them to buy more insurance than they otherwise would.

As the costs of health care have risen, more people have become concerned that the expense of providing these benefits has impaired the private sector of the economy. For example, some analysts claim that these costs have reduced the ability of U.S. firms to compete in the world marketplace. This study finds that such concerns are overstated.

Box 1.
CBO Projections of National Health Expenditures

The Congressional Budget Office projects that national health expenditures (NHE) will grow from $808 billion in 1992 to $1.7 trillion in 2000, rising from a 13.6 percent share of gross domestic product in 1992 to 18 percent of GDP in 2000. Total national spending on health care includes estimates of spending by the private sector as well as by government. The projected average annual growth rate for NHE is just under 10 percent, slightly less than its annual growth during the 1987-1992 period.

Most of the projected growth in health spending is caused by continuing increases in the costs for specific services and by a continual increase in the technology and procedures available (and employed). These sources of growth dominate the influence of demographic change and other factors.1

The rapid growth of national spending on health care is based on strong growth in spending on hospitals' and physicians' services, which together make up almost 60 percent of total national health spending. Most spending on physicians and hospitals is made through public or private third-party payers, a financing arrangements that exerts relatively weak pressure to control costs.

Hospital spending is expected to grow at about 10 percent a year through the 1990s, approximately the same as in the latter half of the 1980s. The overall trend masks a significant shift in per capita use from inpatient treatment to outpatient treatment, so that while inpatient expenditures are projected to grow at about 8 percent, outpatient expenditures will increase at about 15 percent. Spending on physicians' services is expected to grow about 10 percent as well.

By contrast, categories of spending that are substantially financed out of pocket are expected to grow more slowly than those financed by private or public insurance. Spending on drugs and other nondurable medical goods, for example, rises 7.5 percent annually in the projections, and spending on durable medical equipment (including eyeglasses) rises 6.7 percent a year.

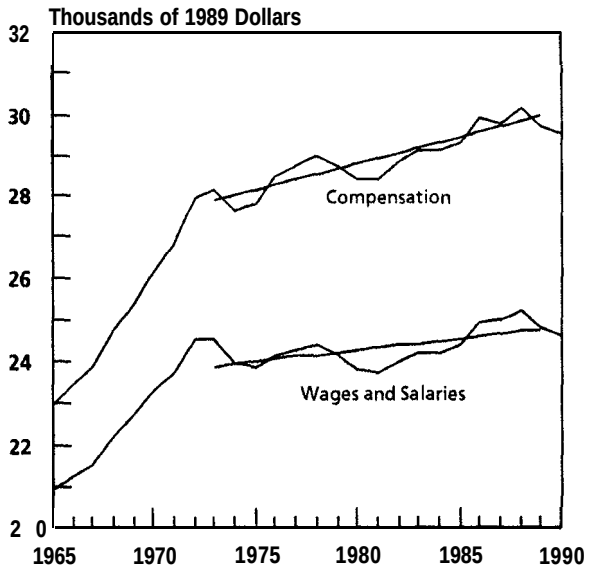
CBO developed these projections using the actuarial framework of the Health Care Financing Administration, with CBO's economic and budgetary assumptions. At the aggregate level, the projections are broadly similar to those of other agencies and analysts.2 These projections of national health expenditures and their implications and methodology are detailed in another CBO study.3

1. See Chapter 2 of this study for a description of the special features of health markets that encourage more expensive treatments and procedures.

2. For a comparison of different frameworks for projecting health spending, see Mark Warshawsky, "Projections of Health Care Expenditures as a Share of GNP: Actuarial and Economic Approaches," Finance and Economics Discussion Series 170 (Washington, D.C.: Federal Reserve Board, October 1991).

3. Congressional Budget Of&e, Projections *of National Health Expenditures* (October 1992).

Figure 3.
Inflation-Adjusted Compensation and Wages per Full-Time Employee: Actual Data and 1973-1989 Trends




SOURCE: Congressional Budget Office based on data from the Department of Commerce, Bureau of Economic Analysis.

NOTE: Deflated by the consumer price index for all urban consumers.

Although employers initially pay a significant portion of employer-provided health insurance, in the long run employers shift most of their costs to workers in the form of lower wages or less generous nonmedical benefits. Because workers largely bear these costs, the rising cost for insurance generally has little direct effect on the international competitiveness of U.S. companies (although there could be an indirect effect on competitiveness if higher health costs increase the size of the federal budget deficit, as discussed later). Likewise, business profits are probably not affected much, except for those of firms that have unfunded retiree health benefits.

In the short run, unanticipated increases in health care costs could affect employment, profits, and competitiveness, although the pattern of these effects would vary company by company and is difficult to predict. Unanticipated costs would probably be most significant for firms with long-term labor contracts, but they could also affect companies that have implicit contracts with their workers to maintain real wages at certain levels. But unanticipated health care costs probably do not have strong and persistent adverse effects on economywide profits and competitiveness.

There are other reasons, however, to be seriously concerned about the rising cost for private health insurance. The sharp rise in health costs, together with slower growth in productivity and total compensation, are the main reasons for the weak growth in workers' real wages and salaries over the past '20 years (see Figure 3). Between 1973 and 1989, two years in which the economy was operating close to full capacity, employers' contributions to health insurance absorbed more than half of workers' real gains in compensation, even though health insurance represented 5 percent or less of total compensation. Thus, the higher costs for health insurance have had a significant impact on household budgets.

## Why Do Insured Workers Ultimately Bear These Costs?

To answer this question, one must look at the self-interests of both employers and employees. In a competitive environment, employers seek to keep the total compensation of workers in line with labor productivity. If the real cost of insurance to employers goes up by a dollar (and the additional expenditures on insurance do not affect productivity), employers face strong pressure to cut a dollar from some other form of labor compensation, such as real wages. Employers who fail to make this adjustment would be raising workers' compensation above their productivity, an action that could create unsustainable losses. Such losses could make it difficult for a firm to raise funds for maintaining and modernizing its capital stock and could lead to bankruptcy.

At the same time, health insurance provides a valued service to workers, which means that they would be willing to give up some of their income to obtain it, just as they spend income to buy other goods and services.

If insurance were fully valued at the employers' cost, workers would be willing to pay that amount in the form of lower real wages. But even if workers do not fully value health insurance, it seems likely that they would eventually bear most of these costs anyway. Because many workers who have insurance are unlikely to drop out of the labor market or otherwise reduce their hours significantly when real wages decline, employers can shift the costs of health insurance to them with little adverse effect on production and profits.

Although workers probably bear the employers' costs for insurance, they do not pay for the whole cost of insurance; a portion of that cost is subsidized through the tax system. Of course, someone must ultimately pay for the subsidy, but where the burden finally falls is difficult to discern. For example, although the subsidy could be paid for by higher taxes on some people, it could also be borne by others in the form of reduced public services or, alternatively, by future generations in the form of a larger federal debt. Despite these analytical uncertainties, an increase in the subsidy (because of higher costs for insurance) would probably increase the size of the federal budget deficit under current policy because there is no automatic mechanism to offset such revenue losses with either spending cuts or tax increases.

## The Rising Number of Uninsured Workers

Another troublesome implication of rising health costs is that they are pushing more people into the ranks of the uninsured. In 1990, 33 million people under the age of 65 did not have insurance coverage. By the year 2000, CBO expects that number to grow to almost 40 million.

The pattern of who does and who does not receive employment-based health insurance is not random. Workers who receive such insurance generally have higher incomes, are more highly skilled, have stable jobs, work for large companies, and are older. By contrast, the characteristics of workers without insurance tend to be just the opposite: such workers have lower incomes, are less skilled, have unstable jobs, work for small companies, and are younger.

One approach to understanding why people are uninsured in the current employment-based system focuses on the voluntary nature of this insurance: employers do not have to offer it and employees do not have to take it; the decisions are freely made. For some employers (such as small businesses), providing insurance can be very costly and would require workers to accept substantial wage reductions. Workers at these firms, moreover, may prefer to have higher cash wages instead of insurance, especially if they earn low incomes or are insured under their spouses' policies. Being uninsured, however, may not be a truly free choice. People with limited income may be uninsured not because they choose to go without insurance but simply because they cannot afford it.

A second explanation for the patterns of insurance coverage is the increased use by insurance companies of experience rating and underwriting policies that exclude high-risk people. Although these insurance practices can lower the costs of covering low-risk employees, they significantly raise the costs of covering higher-risk ones. For example, a small company with an employee who has had health problems may be unable to find an insurer willing to provide a policy; or, if the firm can find an insurer, it may have to exclude certain employees from the company's health plan or accept limits on care for preexisting conditions. Such exclusions can effectively cut off a sick person's access to needed coverage.

## The Effects on the Shape and Structure of the Labor Market

The rising costs for health insurance may have also distorted the shape and structure of the nation's labor markets. That may explain

why some employers have moved low-wage workers to part-time status with no insurance or eliminated the lowest-paid positions and hired independent contractors to do their jobs instead. For example, many firms no longer have janitors, gardeners, cafeteria staff, and general-duty workers on their payrolls; instead, those tasks are done by independent contractors. Higher health costs have also made the availability of employment-based insurance more important in choosing a job. The result has been to reduce the flexibility of the labor market and possibly to hamper its ability to respond to new challenges and opportunities.

# How Do the Costs of Government Health Programs Affect Government Budgets and the Economy?

The growth in health care costs imposes substantial pressures on government budgets as well. The federal government's health care entitlement programs--Medicare and Medicaid--are the fastest-growing portions of its budget. Spending on these two programs has grown from about 1 percent of GDP in 1970 to 3.0 percent in 1991. CBO expects that under current policy these programs will eventually rise to 6.1 percent of GDP by the year 2002.

The increasing share of Medicare and Medicaid will make budgeting in the 1990s more difficult. Just the growth in their GDP share between 1991 and 2002 will cost the government an additional $313 billion in the year 2002. By 2002, these increased costs alone will absorb 17 percent of total federal revenues and amount to 23 percent of all nonhealth spending (excluding net interest) and almost half of all discretionary spending.2 If they are financed through a larger budget deficit, they will raise the interest costs on the federal debt by $91 billion in 2002.

## Effects on State and Local Budgets

Rising health care costs have exerted similar pressures on the budgets of state and local governments. Their spending for health care as a share of GDP has grown consistently over the past decade, and increases in health care costs will continue to challenge state and local governments in the coming years.

States spent about $100 billion on health care in 1991. CBO projects that such spending could rise to $244 billion by the year 2000--an average increase of more than 10 percent each year. Most of this increase will result from an escalation in the costs of the Medicaid program, although states also provide funds for public hospitals, clinics, and public health services. In fact, just the growth in Medicaid's GDP share between 1991 and 2000 will add almost $70 billion to the budget woes of state governments.

Because almost all states have balanced budget agreements, they will have to finance increases in health spending by raising revenues or cutting public services. Illustrative calculations suggest that the increase in Medicaid's GDP share could absorb 12 percent of state revenues (less grants-in-aid) and amount to 18 percent of nonhealth state spending (also less grants-in-aid) by the year 2002. Thus, rising Medicaid costs are likely to crowd out other state priorities, such as rebuilding infra-

2. Discretionary spending is divided among three categories: defense, international, and domestic. The domestic programs include education, training, social services, health care and research (excluding Medicare and Medicaid), income security and veterans' affairs, the environment and natural resource management, and transportation.

structure, funding grants to local governments for education, or providing tax relief.

### Effects on the Federal Budget Deficit

Increases in health costs will lead to larger federal budget deficits if policymakers do not enact legislation to finance these expenditures (either through cuts in other types of federal spending or increases in federal taxes). CBO projects that under current policy the federal deficit, after declining in the first half of the 1990s, will swell to more than $500 billion by the year 2002, largely as a result of increased spending for Medicare and Medicaid.

Federal borrowing of this magnitude will significantly affect the economy because it will cut into private saving that would otherwise have been used for investment here or abroad. CBO's calculations suggest that if federal spending on Medicare and Medicaid could be held to its 1991 share of GDP, output (real GDP) would be about 2.2 percent higher than the CBO baseline by the year 2002. Incomes (as measured by real gross national product) could rise even more--by about 2.4 percent--because servicing costs on debt to foreigners would be reduced. Of course, there is nothing unique about holding the line on health care costs. Many fiscal policies that reduce the deficit by the same amount would have roughly comparable effects, although the precise economic impact would depend on which policy was selected.

In addition, a reduction in federal borrowing would improve the competitiveness of U.S. industry. Lower levels of borrowing would permit a decline in the real value of the dollar compared with that of other currencies, which in turn would allow the prices of U.S. tradable products to fall in relation to those produced overseas. The same process operated in reverse in the 1980s; as federal deficits rose in the early 1980s, the real value of the dollar climbed about 20 percent higher than its level in the late 1970s. In turn, the trade balance--and the competitiveness of U.S. industry--deteriorated.

## Conclusions

Should policymakers be concerned about the rapid growth in health care costs? There are many reasons to answer yes. First, health care markets are not truly competitive and therefore do not work very well. Because health care spending does not have to meet the usual market tests, health resources are not allocated efficiently. Too much money seems to be spent on procedures that have little value. At the same time, many people believe that too few resources are devoted to preventive care, such as immunizations. Such allocations may not reflect individual or social preferences, and many U.S. consumers do not believe that they are receiving their money's worth in health care.

Second, rising health care costs have significantly reduced many people's access to medical care. An increasing number of people do not receive health insurance from their employers. Moreover, the costs of individual health policies have become prohibitively expensive for many. Without. access to health insurance, studies have shown that these people receive reduced levels of medical care. Rising health care costs seem to be creating a dual system of medical treatment in the United States. Although most people enjoy access to the best and latest care in the world, an increasing number of people are shut out.

Third, rising costs place significant burdens on workers. Rising health care costs have absorbed much of the growth of employees' real compensation over the past 20 years. Together with the slow growth of productivity, the rising costs for health insurance explain why workers' cash wages have hardly grown over the past two decades. The squeeze has meant that workers have less to spend on everything else. This situation has undoubtably frustrated wage earners who have trou-

ble making ends meet. These frustrations probably add to tensions between labor and management as well.

Fourth, rising health care costs have most likely distorted the nation's labor market and made it less flexible. Because the costs of insurance are now so high, the availability of health insurance is becoming a more important factor in choosing a job. Moreover, rising costs may explain why large companies are eliminating positions for low-wage workers, such as janitors, and hiring independent contractors instead.

Fifth, rising health costs have also put substantial pressures on government budgets. Health programs are gobbling up a large portion of government resources and are threatening to crowd out other priorities, too. On the federal level, health spending is the only category of the budget, with the exception of net interest, that is rising as a share of GDP. At the state level, increases in Medicaid costs will make it more difficult for states to fund other programs or provide tax relief.

The opportunity cost of rising health care spending--what the nation gives up in order to pay for it--reflects all these costs. Resources are diverted to health care and, as a result, both workers and governments have less to spend on other priorities. At the same time, the distortions in the labor market, and especially the reduction in national saving that is likely to occur as a result of the pressures on the federal budget, will reduce investment and substantially cut future incomes--in CBO's projection, by almost 2.5 percent in 2002 and even more thereafter.

Whether these opportunity costs, together with costs associated with the growing problem of the uninsured, exceed the benefits likely from an increase in health care spending, is a complex question that lies beyond the scope of this study. Without a doubt, the growth of costs has gone hand in hand with enormous improvements in the ability of doctors to diagnose, treat, and even prevent previously intractable conditions. But there is no mechanism--either a market or a government regulatory plan--in the current health care delivery system that ensures that costs will be kept in line with benefits. Instead, many factors, detailed in this study, encourage higher health care spending, and little stands in their way.

Chapter Two

# Special Characteristics of Health Care Markets

The market for health care is different from most other markets. Patients rarely are well informed about the value of the treatment they are receiving and thus delegate many decisions to doctors and other health professionals, giving providers extraordinary authority to determine spending on health care. Moreover, because good health is so important to the consumer and because most payments are made by a third party--an insurance company or the federal government--neither the patient nor the doctor is likely to pay much attention to the overall costs of treatment at the point of service. These features encourage more spending on health care than would otherwise be the case. They may also spur the development and use of new and expensive medical technologies and drugs even when their benefits do not warrant their costs.

All of these problems with health care markets may be acceptable when health care makes up a modest portion of spending, say 6 percent of gross domestic product (GDP), as it did in 1965. The trade-off might be judged worthwhile; the system may not be efficiently using all of its resources, but it promptly provides remarkably advanced care to the majority of sick people. However, when health care's share of GDP is 12 percent and rapidly rising, the opportunity cost may be too high. Indeed, as health care absorbs more of the economy's resources, less is available for everything else, whether it be nonhealth consumption or investment.

Medical care markets have special characteristics that make them different from other markets. The implications of these special features are broad; they explain why government is likely to remain heavily involved in this market and why costs in it tend to rise. Most important, they explain why the current level of spending on health care may not be socially desirable.

## Social Values and Medical Care

One of the reasons health care costs have risen so sharply is that people place a very high value on human life. Despite the diversity of backgrounds in this country, almost everyone would agree that nothing is more precious than human life. But when life is viewed as priceless, no amount of money is too much to spend on preserving it.

Of course, no one spends all of his or her income on measures to reduce life's risks. People take risks every day and thus reveal a willingness to trade a small amount of increased risk for material goods and services. Such trade-offs are also made in the public arena. The nation's roads and highways can always be made safer; its water and air can always be made cleaner; and, statistically speaking, such actions can save lives. But policymakers do not take all possible actions

to reduce risk because there is a limit to how much the public is willing to pay.

This willingness to take risks, however, reflects the fact that the risks are usually small and, perhaps more important, the victims are not identifiable. For example, no one can ever know for certain if a lung cancer victim died because of air pollution, smoking, exposure to hazardous chemicals on the job, or just unexplained genetic factors. By contrast, denying medical care to someone creates a clear victim and, in some instances, may involve a life-or-death decision for that person.

For this reason, public policy is more concerned about the availability and quality of health care than about those of most other goods and services. For most other goods, it is generally presumed that individual consumers know what they should buy and how much. For example, society does not care whether every family has a microwave or a car. Although such goods are subject to safety regulations, society is generally willing to give individuals great discretion over their purchases. But in certain cases, the community interjects its preferences and interferes with the market, partially overriding the principle of consumer sovereignty.

Medical care is one of those cases. Health care providers face strict licensing requirements that help maintain a high quality of medical care. Access to care, though not universal, has been improved by government programs, such as Medicaid and Medicare, that have helped millions of poor and elderly individuals receive quality care. Public policy has supported and encouraged the development and application of new technologies even when the expected benefits were slight. Finally, many people view access to high-quality health care as a basic right and believe that no one should be denied the best and latest medical treatments and technologies, even though the costs of providing that care could be high. The special status of medical care obviously increases the nation's spending on health, and it helps explain why, as the nation has become more affluent, the share of total resources devoted to health care has gone up.

But the special status of medical care does not entirely explain its rising cost. Because the market for health care has special characteristics, it is not efficient; that is, its prices do not send accurate signals about scarcity and benefits. As a result, decisionmakers are not confronted with the full costs of their actions, and health care markets often do a poor job of allocating scarce resources to their most important uses.

These inefficiencies undermine claims that the current institutions provide a socially or individually desirable amount of health care. Indeed, they lead to a presumption that providers are not efficiently supplying services, that the system as a whole provides an inappropriate mix of such services, and that, in the end, consumers are paying too much.

## The Inefficiencies of Health Care Markets

In most circumstances, the free market provides an efficient mechanism for allocating resources in the economy. To achieve such efficiencies, however, free markets must operate under certain conditions. They work best when the consumer has good information about the characteristics of products and their prices--information that is most easily obtained if products are well defined and standardized and if prices can be readily ascertained without excessive search. In addition, market efficiency requires that a large number of sellers compete with each other over prices that reflect true resource costs. With a large number of sellers, no single vendor has the power to control prices, and price competition among sellers lowers prices to the point that they reflect the **marginal** costs of production.

The market for health care, however, does not meet many of these conditions. (These conditions are, of course, ideal and are not frequently met precisely. But in the case of medical care, the deviations from ideal markets are particularly pervasive.) Products or services in the medical market are highly individualized and personal. Product quality is difficult to judge, and consumers often have little idea what the product is or how it works, so they delegate medical decisions to their doctors. Consumers of health care are often in no position to shop around; they may lack the necessary information or they may be sick and therefore want treatment quickly. The incentive to shop around is further reduced because much of the cost of health care is paid indirectly through third-party payers-insurance companies or the government. Thus, although there are many health care providers, they do not compete effectively with one another in terms of price.

## Consumers' Lack of Information

Consumers lack key information about the quality and price of medical services. Their ignorance about quality has two dimensions. First, most consumers do not have the expertise they need to evaluate the qualifications of their health care providers. Second, when consumers need medical care, they may not have information (independent of what they are told by a provider) about the full range of alternative treatments and the prospective outcomes of these alternatives.

Consumers also lack rudimentary information about the prices of the medical care they buy and have difficulty assessing what that price information means. Price information, such as that concerning physicians' charges, in many cases is not available to patients in advance of treatment. In some instances, the patient can call a doctor and obtain quotes for different services, but prices of physicians' services are not advertised and it may be embarrassing to ask. Sometimes even the doctor does not know the full costs of treatment, especially if it requires hospitalization **or** drugs. Although a patient can acquire some price information with repeated visits to a doctor, many reasons for seeing a doctor do not occur again.

Even if the price information is available, it can be hard to interpret. If a doctor charges a low price, he or she could be offering a bargain--or inferior-service. Without information on quality, price information has no meaning. Moreover, as discussed later, even if patients could interpret the information, many would not do so because their insurance companies typically pick up most (or all) of a bill once a deductible limit has been reached.

## Delegation of Authority to Doctors

Because consumers delegate a considerable amount of decisionmaking authority to their physicians, medical practitioners act both as agents for consumers and suppliers of medical services. With such power, physicians are in the position of being able to create a demand for their own services.1

Such a delegation of authority occurs in other markets as well. For instance, when consumers take their cars in for repair, they usually have to rely heavily on the advice of their mechanics, who (like physicians) are put in the powerful position of giving advice that can determine demand. But there is an upper limit on how much it is worth to fix a car. By contrast, when they are sick, few people limit what they are willing to pay to be made well, in part because they do not expect to pay for all of it themselves. This gives physicians extraordinary power.

Physicians' training and professional standards strongly predispose them to use their power to give the best possible medical care without regard to cost. To many physicians, it

1. For an analysis of physicians' control over the demand for their services, see Congressional Budget Office, *Physician Payment Reform Under Medicare* (April 1990).

is unethical to do otherwise. After all, since patients pay little of the cost for treatment above a deductible limit, why should anyone expect physicians, who are ethically obliged to be advocates for their patients, to recommend limiting benefits in order to reduce the social costs of health care? Moreover, because physicians can earn higher incomes by providing more care, their financial self-interest may also contribute to excessive spending.

## Providers' Lack of Information

Efficient use of medical resources requires consumers and providers to weigh the costs and benefits of alternative medical treatments. Unfortunately, this is very difficult. Obviously, patients have little knowledge upon which to judge the benefits of a new technology. But even physicians cannot always be fully informed about all the new treatments and technologies, especially given the rapid pace of complex medical advances. More important, good statistical information concerning the effectiveness of many treatments--even many common treatments--is simply not available.

The lack of good information on the outcomes of many medical treatments has created an environment in which the doctors' preferences for particular procedures--rather than science--appear to determine how they are used, a situation that leads to significant variations in the patterns and costs of medical care around the country.2 For example, a study on the practice of medicine throughout the United States found that 40 percent of men in Portland, Maine, had prostate surgery by age 85, compared with only 12 percent of men in Bangor, Maine. Similarly, heart surgery rates in Des Moines, Iowa, were nearly twice those in Iowa City. Variation in the practice of medicine largely reflects the uncertainties about the appropriate treatment for certain diseases. By contrast, there is less variation in the treatment of diseases for which a professional consensus on the appropriate care exists.3

In some instances, variations in the practice of medicine can lead to inappropriate and costly care. One example is the carotid endarterectomy, a procedure to remove arteriosclerotic plaques from the artery going to the brain. This invasive procedure, if properly applied, may provide significant benefits to patients whose carotid arteries are severely blocked.4 But the procedure also involves substantial risks. Moreover, one study, using a sample of 1,302 Medicare patients who had carotid endarterectomies, found that one-third of the operations were inappropriate according to doctors who reviewed the patients' records after the operations.5 For these patients, the expected benefit of the surgery was not sufficient to offset the risk of complications. And the risk of these complications was high; almost 10 percent of all patients in the sample who had the operation either suffered a stroke or died within a month after surgery.

Studies have found other examples of inappropriate and unnecessary care. A review of selected medical procedures provided to Medicare beneficiaries in eight states found that 17 percent of coronary angiographies and 17 percent of upper gastrointestinal tract endoscopies were inappropriate.6 Other studies have found that 20 percent of cardiac pacemaker

2. J. Wennberg and A. Gittelsohn, "Variations in Medical Care Among Small Areas," Scientific *American,* vol. 246. no. 4 (April 19821, pp. 120-134.

3. Statement of Walter McNerney, Commissioner of the Physician Payment Review Commission, before the House Committee on Energy and Commerce, September 23, 1988.

4. See H.M.G. Barnett and others, "Beneficial Effects of Carotid Endarterectomy in Symptomatic Patients with High-Grade Carotid Stenosis," New England *Journal of Medicine,* vol. *325,* no. *7* (August 15, 1991), pp. 445-453.

5. Constance Winslow and others, 'The Appropriateness of Carotid Endarterectomy," New *England Journal of Medicine,* vol. 318, no.12 (March 24, 1988), pp. 721-727.

6. See M. Chassin and others, "Does Inappropriate Use Explain Geographic Variations in the Use of Health Care Services?" *Journal of the American Medical Association,* vol. *258* (November 13, 1987), pp. 1-5.

implants are inappropriate.7 And last, episiotomies, which have been routinely performed on women during childbirth for decades, may not benefit the routine delivery.8 In fact, under certain circumstances, the procedure may increase the risk of complications.

## Ineffective Price Competition Among Sellers of Health Care

For markets to allocate resources efficiently, sellers must actively compete. In a competitive environment, individual vendors have no control over the price of what they sell or over the number of competitors. Also, more efficient suppliers can offer lower prices than those who fail to control their costs.

Patterns of Competition in the Health Market. Although there are obviously many providers in the health care sector, they do not always compete effectively on price. Of course, the medical market is diverse, and active competition can be found in some subsectors of that market. But too often, competition among medical care providers for consumers (and for the services of other providers) is directed toward the nonprice aspects of medical care.9 For example, hospitals compete for patients (and doctors) by offering them access to the best and latest medical technologies or the most comfortable surroundings. This type of competition, however, can tend to increase costs. Moreover, once a new technology is introduced, it tends to be used regardless of cost.

The lack of price competition in the medical market reflects many factors. The presence of third-party payers dulls the incentives for consumers to pay much attention to costs at the point of service. The tax subsidy for employment-based insurance, discussed in more detail in Chapter 4, also reduces some of the pressures on workers to pay attention to the costs of insurance. Difficulties in assessing information about the quality of doctors weaken the already weak incentives for consumers to seek out the lowest-cost providers. And last, many consumers have long-standing relationships with their physicians and may be reluctant to switch doctors to save money.

Consumers' Lack of Bargaining Clout. A variety of factors give physicians and hospitals some market leverage, but most consumers are not organized into groups that can exercise sufficient countervailing power. Such an imbalance can lead to higher spending, because most consumers are unable to negotiate lower prices from hospitals or doctors. By contrast, providers in other countries face significant countervailing power either from organized groups of health care consumers or the government.

Institutional Limits on Competition. These fundamental problems are reinforced by institutional factors that also work in the same direction. Partly because consumers lack the expertise for judging the competence of doctors and other highly skilled medical professionals, entry into these professions has been strictly limited by licensing in an effort to protect the patient. Although states license health professionals, physicians or their associations are critically involved in setting the standards--both for entry and for specifying who can perform which medical procedures.

Moreover, consumers are legally or effectively prohibited from making many medical decisions. Although there is a vast market for over-the-counter drugs and home remedies, most advanced drugs are sold only by prescription. In many cases, a sick person can obtain treatment only if it is prescribed by a physician, who may be highly trained but

7. See statement of Mark R. Chassin, M.D., before the House Committee on Energy and Commerce, September 23, 1988.

8. Patricia Shiono and others, "Midline Episiotomies: More Harm Than Good," Obstetrics and Gynecology, vol. 75, no. 5 (May 1990), pp. 765-770; J.M. Thorpe and others, "Episiotomy: Can Its Routine Use Be Defended?" *American Journal of Obstetrics and Gynecology, vol.* 160 (1989), pp. 1027-1030.

9. See Victor R. Fuchs, 'The Competition Revolution in Health Care," Health *Affairs,* vol. 7, no. 3 (Summer 1988), pp. 18-19.

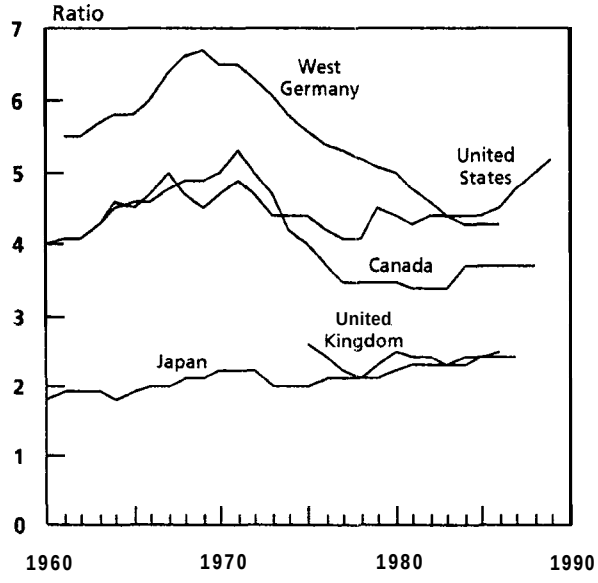
perhaps more expensive than the patient can afford. Gaining access to health services--other than those supervised by the physician, or what the druggist is willing to offer--is generally difficult.10

Limited entry and control over demand are the key elements that allow a provider to earn more than necessary to attract talented, well-trained people into the profession. Economists use the term "rents" to describe a situation in which the returns to labor or capital are above the returns needed to attract the appropriate supply of resources to an activity.

It seems likely that physicians earn rents in their profession, for two reasons.11 First, the number of qualified applicants for medical school is far greater than the number of student slots available, so the entry limits probably matter. Second, studies of the financial returns from education and training suggest that the private returns on an investment in medical school compare favorably with the returns on investments in general and exceed the returns in most other occupations.12

In addition, physicians in the United States earn about five and one-half times the average annual compensation of other wage earners. The gap is smaller in other countries. Physicians earn only about four and one-half times the income of other earners in the former West Germany, about four times more in Canada, and about two times more than other earners in Japan and the United Kingdom (see Figure 4). In 1990, the average income (after expenses) of physicians in the United States was $164,300, although the figures varied considerably. Among the highest paid specialties were surgery ($236,400) and radiology ($219,400). At the bottom were general/family practice ($102,700) and pediatrics ($106,500).13

**Figure 4.**
**Ratio of Average Income of Physicians to Average Earnings of All Employees in the United States and Selected Countries, 1960-1990**




SOURCE: Congressional Budget Office calculations based on data from the Organization for Economic Cooperation and Development's Health Data File (1991). Available on computer disk.

Some analysts argue that rents do not exist in medicine, for two reasons. First, the high salaries earned by physicians reflect the long hours they work and the rapid rise in the earnings of other highly skilled professionals during the last decade, suggesting that at least some of the increase for physicians may be part of a more general trend. Second, the number of physicians has been increasing relatively rapidly during the last three decades as a result of deliberate federal policies aimed at expanding medical schools and subsidizing medical education. Although

10. See Kenneth Arrow, "Uncertainty and the Welfare Economics of Medical Care," *American Economic Review*, vol. 53, no. 5 (December 1963), pp. 941-973.

11. Paul J. Feldstein, *Health Care Economics*, 3rd ed. (New York: John Wiley & Sons, 1988), pp. 368-384.

12. See Feldstein, *Health Cure Economics*, pp. 360-366; and William D. Marder and others, *Physician Supply and Utilization by Specialty: Trends and Projections* (Chicago: American Medical Association, Center for Health Policy Research, 1988), Chapter 6.

13. See James Moser, "Physician Earnings 1981-1990," in Martin L. Gonzalez, ed., *Socioeconomic Characteristics of Medical Practice 1992* (Chicago: American Medical Association, Center for Health Policy Research, 1992).

a larger supply normally puts downward pressure on wages, physicians may be able to offset the pressure and keep their income from falling by creating demands for their services (there is uncertainty, however, about the degree to which physicians exercise their power for financial gain). But even if physicians are now earning smaller rents than their predecessors, it seems unlikely that rents have disappeared completely.

## Prevalence of Third-Party Payers--Health Insurance

The bulk of medical care is purchased through third-party payers. These payers include not only private insurance companies but federal, state, and local governments.

As new and more elaborate methods of treatment are developed, the cost of an episode of illness can become extremely high. In addition, an individual's need for major medical care occurs largely by chance and is difficult to predict. Most types of illnesses are statistically predictable, however, for groups of individuals. Health insurance enables consumers to take advantage of this group predictability by pooling their risks of serious accidents or diseases.

**The Problem of Moral Hazard.** Insurance, however, imposes its own costs. Insurance means that the effective price that the patient faces at the time of treatment is much lower than the actual cost of treatment. Sick individuals and their doctors have every incentive to buy expensive treatments and tests as long as they do any good at all, because the patient does not bear much of the cost. Such incentives reflect what the insurance industry calls "moral hazard." This problem arises whenever the act of buying insurance changes an individual's behavior so as to affect the expected cost to the insurer. Such a situation can occur because parties to an insurance contract have incomplete information and because no contract can cover all situations. Thus, people who have insurance go to doctors more often, and have more tests and more elaborate treatment, than they would if they were not insured.[14]

Moral hazard occurs to some degree with all insurance, but it is more severe in medicine than in most other areas. For instance, when someone insures a car, he or she may be somewhat more careless about leaving the car where it may be stolen--an obvious moral hazard. But the terms that call for replacing a car are much clearer and easier to define than the terms for treating most serious illnesses. In most cases, the terms of health insurance policies are not fully defined; they do not call for specific payment when a person suffers an injury or illness. Instead, health insurance typically pays for most (and sometimes all) of the health costs that arise, within usually broad limits, when these contingencies occur.

Health insurance differs from other forms of insurance in another way as well; it sometimes covers people's routine health needs. For example, some health insurance plans provide payments for annual physical examinations, dental checkups (such as cleaning), and replacement of eyeglasses or contact lenses, as well as many other goods and services. By contrast, most other forms of insurance provide coverage only for rare and costly events, such as a house fire or car accident; they do not cover routine maintenance. As discussed in Chapter 4, the tax subsidy for employment-based insurance probably helps explain why routine coverage is provided. In addition, some health plans may provide routine preventative care because it can lower costs. For example, "well baby" care is probably cheaper in the long run than "sick baby" care. This coverage of routine medical events, however, further dulls the price consciousness of consumers, allowing health costs to rise.

14. See Arrow, "Uncertainty end the Welfare Economics of Medical Care," pp. 941-973; and Mark V. Pauly, "Taxation, Health Insurance, and Market Failure in the Medical Industry," *Journal of Economic Literature,* vol. *24,* no. *2* (June 1986), pp. 629-675.

Although moral hazard raises insurance rates, the connection between the decision to purchase health care and this effect is indirect. Moreover, the patients' costs are largely borne by other policyholders. Thus, anticipation of higher premiums plays little role in restraining an individual patient's consumption of health services.

**Ways to Control Moral Hazard.** One way to reduce the problem of moral hazard and overconsumption is to make the consumer pay more for medical services. Although this can be accomplished in a variety of ways, insurance companies commonly include deductibles and copayments in their health plans. With a deductible, the consumer bears the full cost until outlays reach a threshold. Up to that threshold, moral hazard is eliminated. Copayments require the patient to pay a portion of the health care costs at the time of service, thus reducing (but not eliminating) the incentive to overconsume. But most insurance policies with copayments also provide a cap on the liabilities of the insured. Above that cap, the marginal cost to the patient is zero (except for the loss of time, discomfort, and risk associated with the treatment).

Instead of relying only on copayments and deductibles, insurers also constrain moral hazard by limiting physicians' freedom to prescribe. These limits exist in their most rudimentary form in the lists of procedures that conventional fee-for-service insurance will not pay for. They are also expressed in the various forms of "managed care" that have been adopted by many insurers, which essentially review and control the care provided by physicians, either prospectively or retrospectively.[15] And they are most sophisticated in the health maintenance organizations (HMOs), which deal with moral hazard by imposing its costs directly on physicians or hospitals.

HMOs are large companies that contract to provide both health insurance and health care services. They provide medical care to enrollees over a given period for a fixed payment. Since the HMO, and not an outside insurance company, bears the costs of excessive care, the HMO has an incentive to limit costs and counterbalance physicians' natural tendency, born of their training and economic self-interest, to prescribe without concern for costs.

Although some forms of HMO have the potential for holding down the growth of their own health care costs, they do not appear to have had much effect on total spending so far. Even though the number of HMOs in the United States doubled after 1.980, with almost 39 million enrollees by the end of 1991, there was no discernible break in the strong upward trend in national health spending. To some extent, the lack of an impact on overall costs stems from the way most employers have set up their health plans. Employees too often pay the same amount for health insurance regardless of whether they join an HMO or a traditional fee-for-service plan. As a result, the incentive for HMOs to compete against traditional plans on the basis of premium costs is dulled. Instead, HMOs have competed against traditional fee-for-service plans by providing additional services and offering lower copayments on routine care. Until more employees can save significant sums of money by joining an HMO, it seems likely that HMOs' competitive potential to control costs will remain untapped.

Public insurance programs also attempted in the 1980s to gain some of the cost-reducing benefits of paying a fixed fee for services. Medicare, for example, introduced the prospective payment system for hospitals in 1983. This system sets fees by diagnosis rather than by treatment, and thus the costs of care are borne partly by hospitals or other payers rather than by Medicare.

15. Managed care may involve second opinions before surgery, prior authorization before hospital admittance, retrospective reviews of tests and treatments performed by physicians, and a variety of other measures. See Congressional Budget Office, "The Effects of Managed Care on Use and Costs of Health Services," CBO Staff Memorandum (June 1992); and Congressional Budget Office, "Managed Care and the Medicare Program: Background and Evidence," CBO Staff Memorandum (May 1990).

The Fragmented System of Insurance. Although moral hazard confronts insurance plans in other industrialized countries, the United States faces a unique situation in its financing of health care: a diversity of health plans that has both positive and negative effects. Such diversity allows consumers considerable choice in selecting the type of insurance plan that best meets their needs. But at the same time, this diversity has probably contributed to higher administrative costs. Moreover, the fragmentation has made it harder for piecemeal reform to work, because costs can be easily shifted among different payers in the system. In many ways, controlling costs in the current system is like pushing down on a balloon; it pops up someplace else. For example, federal efforts to control Medicare spending for hospitals had little effect on overall hospital spending, which suggests that these costs may have been shifted to non-Medicare payers.

## Government Subsidies

The market for medical care is also different from other markets because of the large role played by government. In particular, the government subsidizes health care, which allows some consumers greater access to medical care than they would otherwise have. Although these programs provide essential--and in some cases life-saving--medical care to millions of people, the programs also dull the price signals from the health care markets, encouraging overuse of services. The major subsidies are provided in three ways: Medicare, Medicaid, and tax expenditures.

Medicare. The largest of the government's health care programs is Medicare, which helps to pay for medical care for people age 65 or older and for certain disabled people. Medicare is composed of two parts: Hospital Insurance (HI) and Supplementary Medical Insurance (SMI), which pays for physicians' services. HI is funded by a payroll tax on the working population. SMI is voluntary; enrollees pay a premium that covers less than one-quarter of the costs, with the rest being provided from general revenue subsidies. Federal spending on Medicare reached $118 billion in fiscal year 1991, having increased at an average annual rate of 10.7 percent in the 1980s.

Medicaid. The other major federal health program, Medicaid, is a federally supported and state-administered assistance program for selected low-income populations. Eligibility is determined by state as well as federal rules. New federal rules have recently extended coverage in all states by mandating coverage for such groups as low-income infants, pregnant mothers, and children. The low-income aged and disabled populations, however, receive about 70 percent of the program's payments. Among other things, Medicaid pays for nursing home care for low-income elderly. Federal spending for Medicaid reached $53 billion in fiscal year 1991, reflecting an average annual increase of 11.9 percent over the decade.[16]

Tax Expenditures. Employment-based health insurance is not considered taxable compensation under the tax code. This treatment provides a large subsidy by significantly reducing the effective cost of the insurance. This tax subsidy for health insurance encourages people to buy more health insurance--and perhaps more medical care--than they otherwise would.[17]

Implications for Efficiency. Although there is strong justification for government involvement in health care, this involvement may cause markets to work less well in conventional terms of efficiency. When the government subsidizes the purchase or becomes the insurer, the budget constraints on consumers of health care are relaxed and, as a result, lose some effectiveness in controlling less-valued spending. Likewise, federal budget con-

16. See Congressional Budget Office, "Factors Contributing to the Growth of the Medicaid Program," CBO Staff Memorandum (May 1992).

17. See Martin S. Feldstein and Bernard Friedman, "Tax Subsidies, the Rational Demand for Insurance and the Health Care Crisis," *Journal of Public Economics, vol. 7,* no. *2* (April 1977), pp. 155-178.

straints for health care do not operate with the same force as they do in the private sector or in much of the rest of the public-sector budget. Medicare and Medicaid are entitlements, which means that their costs are strongly affected by trends in eligibility.[18] Under the Budget Enforcement Act of 1990, the federal budget constraints for Medicare and Medicaid are much weaker. Unless the Congress changes the law to expand benefits or eligibility, rising costs for these programs do not require offsetting fiscal actions to prevent an increase in the federal budget deficit. By contrast, a rise in spending for most discretionary federal programs must be financed by an increase in taxes or a cut in other spending.

18. The federal government has tried numerous policy measures to bring tax receipts and outlays for Medicare into balance, but these measures have failed to achieve long-run balance in the Medicare trust funds.

# Conclusions

There are strong reasons to believe that the marginal costs of health care often exceed the value of the marginal benefits received. Consumers lack information upon which to base their choices, and much decisionmaking authority is delegated to others, especially to physicians who are taught to provide the best possible, not the most cost-effective, care. Technological change is very rapid in the health care sector; but in many cases, market constraints that might ensure that new technologies are used in a cost-efficient way do not operate effectively. The widespread use of third-party payers for health care further dulls price signals and encourages overuse of resources. In sum, the growing public concern about the rising share of health care in GDP is not misplaced, although the drawbacks of the health care system must be weighed against its advantages, which include widespread availability of modern technology and quick service for the majority of the population.

Chapter Three

# What Has Caused the Rapid Increase in Health Expenditures?

The cost of health care in the United States has risen sharply over the past 50 years. What has caused most of the increase, however, is still not fully known. Part of the problem is that the causes are intertwined and difficult to separate. Another is that it is difficult to distinguish the effects of rising prices for medical care from the rising quality of care (see Box 2). Nevertheless, much of the cost increase can probably be ascribed to the growth of new and expensive medical technology, interacting with the increased use of third-party payers. By contrast, demographic factors, rising personal income, and malpractice costs have probably not contributed in a major way to the sharp increases in U.S. health care costs.

## Development and Use of New Medical Technologies

Modern health care has provided great opportunities for the development and use of new technologies, such as innovative diagnostic procedures and new drugs. There is no question that society has benefited greatly from advances in medical technology, especially during the last 50 years. The development and widespread use of penicillin during and following World War II has made routine the successful treatment of many types of infection that formerly caused serious long-term damage or death. In particular, during the last 20 years there have been dramatic advances in the detection and treatment of heart disease--a major killer of middle-aged and older adults. Still more recently, major advances in biotechnology are promising new uses, such as in the treatment of birth defects.

But cost savings and economic efficiency often receive short shrift in the development and application of medical technologies, and because of this, many analysts believe that technology has played a key role in causing the cost of health care to rise. Spending on new technologies, like all health spending, is subject to a weak market test; that is, a new technology may be adopted even though its benefits are slight in comparison with its costs. Moreover, technological advances that increase the cost of health care are not discouraged, because the availability of insurance means that such advances, once developed, have a ready market among consumers and providers.1

This interaction between traditional (fee-for-service) health insurance and medical technology can create a dynamic that increases the costs of health care even more.2 As long as health insurance pays for new tech-

1. See Henry J. Aaron, *Serious and Unstable Condition: Financing* America's *Health* Care (Washington, D.C.: Brookings Institution, 1991), pp. 48-49; and Burton A. Weisbrod, "The Health Care Quadrilemma: An Essay on Technological Change, Quality of Care and Cost Containment," *Journal of Economic Literature,* vol. 24, no. 2 (June 1991), pp. 523-552.

2. See Weisbrod. "The Health Care Quadrilemma." Although many analysts suspect that technology is the culprit, there are no well-designed studies to assess its true contribution to total health care costs. One problem is that identifying the relevant new technologies, defining what is meant by technological change, and tracing out their economic impacts are difficult.

nologies on a fee-for-service basis, the private sector is encouraged to develop any innovation, regardless of cost, that is likely to increase the quality of care. These technologies, in turn, raise the overall costs of health care. And as these costs go up, consumers often want more insurance coverage (from either private or public sources) to protect them from the increased costs of health care and to gain access to the new technologies But increased insurance further dulls the incentives for providers to pay attention to costs when they

## Box 2.
## The Mismeasurement of Medical Care Prices and Its Implications

Many people believe that rising health care costs are caused by unrestrained increases in health care prices, and that the former could be painlessly controlled by simply holding down the latter. It is easy to understand why the belief is so popular; every month, government statistics show rapid increases in medical care prices. Meanwhile, health care costs continue to rise. But a careful analysis shows that the price measures are seriously flawed because they do not adequately adjust for technological improvements.[1]

Certainly, the quality of medical care in the United States has improved significantly. Many procedures that were only dreamed of 10 years ago are now an everyday reality. But the official measures of price inflation in medical care, such as the consumer price index (CPI), do not adequately reflect all of these improvements. As a result, it is difficult to know how much these rising health costs reflect higher prices rather than increased (quality-adjusted) output.

The CPI for medical care suffers from other problems as well. The index measures the cost of a day in the hospital, which is not the same as the cost of treating a disease. For example, a technological improvement that reduced the length of a hospital stay would not necessarily be recorded as an improvement in the CPI, even if it reduced the total costs that consumers paid. Moreover, the prices in the CPI are generally list prices and do not reflect the growing importance of discounts that many patients now receive through their health plan. Finally, the CPI measures only the out-of-pocket costs of consumers, not total costs. As a result, hospital spending receives a disproportionately small weight in the CPI. Even though hospital spending accounts for a large fraction of total health costs, insurance pays for most of those expenses. Moreover, the falling share of out-of-pocket expenses has exaggerated this bias.

This inability to distinguish between price and quality has significant implications for the reform of the health care system. For example, if much of the rise in health spending is caused by increased prices, reform might involve cutting providers' incomes, or essentially redistributing income between providers and consumers. As long as reform focused on reducing providers' rents--and not the income necessary to keep them productively employed in the health field--it would not necessarily lead to limits on the medical goods and services available to consumers.

If much of the rise in health spending is caused by increases in the quality of medical care, attempts to control that spending may require that consumers confront the trade-off between access to high-technology treatments and costs, and reform could involve limits on the quality or quantity of care that consumers receive.

In any case, even if the rising costs of health care boost the prices of medical goods and services, these price increases do not necessarily lead to an inevitable rise in the overall level of consumer prices.[2] In the long run, consumer prices are largely determined by the monetary policies of the Federal Reserve. If monetary growth is set too fast in relation to the underlying (or potential) growth of the economy, the rate of inflation will pick up. Conversely, the Federal Reserve can reduce the rate of inflation by slowing the growth rate of money. Thus, rising prices for health care can boost the overall level of prices only if the Federal Reserve ratifies the price increase with faster monetary growth. Without such a change in monetary policy, fast-rising prices for medical care will be offset by slower rises in prices for other goods and services.

1. See Joseph P. Newhouse, "Measuring Medical Prices and Understanding Their Effects," *Journal of Health Administration Education*, vol. 7. no. 1 (Winter 1989), pp. 19-26.

2. Rising health care costs, however, are likely to alter the gap between two different price measures, the CPI and the implicit GDP deflator. The CPI measures the price increases for a fixed basket of goods and services. By contrast, the implicit GDP deflator also measures the effects of shifts in the patterns of spending on items in the basket. In the past few years, the GDP deflator has grown somewhat less than the CPI because of the growing share of computers (whose price is falling) in the economy. As health care costs rise, however, the effect of computers on the GDP deflator will be partly offset by the growing share of medical care, a rapidly rising item in the basket.

develop and use new technology. Such a cost spiral, however, may be less likely to start if reimbursement for care is made on a prospective fixed-fee basis; such reimbursements, if properly designed, could make providers bear more of the costs of unnecessary care, reducing some of the incentive to use cost-increasing technologies that provide only limited benefits.

Although the copayments and deductibles paid by patients may inhibit the use of costly new technology, the effect is likely to be slight because they are generally low and patients tend to defer to their physicians. In turn, physicians--following their training and financial self-interest--tend to put the health of the patient above cost considerations, especially since their patients bear only a fraction of those costs.

International evidence seems to point to a relationship between health costs and the widespread availability (some say excess capacity) of high-technology medical capital. New technologies are much more widely available in the United States than in other countries. For example, a recent study of hospital surgery departments found 0.7 open-heart surgical units per million people in former West Germany, 1.2 in Canada, and 3.3 in the United States. Similarly, the United States had 3.7 magnetic resonance imaging machines per million people compared with 0.9 in former West Germany and 0.5 in Canada.3

Despite its effect on costs, the current health care system has its advantages. Insurance makes it possible for patients to purchase treatments involving new technologies. This, in turn, makes it profitable for firms to develop the new technologies. Thus the system may encourage the spread of new technologies more widely in the United States than in most other countries.

Moreover, although the costs of new technologies raise many concerns, not all medical advances increase costs. The history of medical treatments suggests a complex relationship between medical knowledge and costs.4 For example, 60 years ago, doctors knew little about polio. Treating the disease was not costly because doctors could do little more than provide hospice care. In the 1940s, the iron lung machine extended the lives of patients afflicted with the disease--but at great cost. In the 1950s, further advances in science allowed the creation of the Salk and Sabin vaccines for polio, a development that greatly reduced the economic and social costs of the disease. Some of the diseases that are costly to treat today will--like polio--become cheaper to treat in the future. But medical advances will always push the boundaries, and new expensive treatments are certain to emerge, especially given the lack of market discipline in health care.

## Growing Use of Third-Party Payers

As the earlier discussion of health insurance implies, the out-of-pocket portion of health care spending is more sensitive to the discipline of the market than the amount that is paid by a third party, such as an insurance company or the government. Because of the growing cost of health care--caused in part by the increasing cost of new and more sophisticated tests and treatment--consumers' demand for health insurance has grown throughout the last half century, and the share of health care expenditures that is paid out of pocket has fallen considerably (see Table 1). For example, in 1960, consumers paid out of pocket for roughly one-half of all health care expenditures, but by 1990 they paid for only about one-fifth.

3. Congressional Budget Office, ***Rising Health Cure Costs: Causes, Implications, and Strategies*** (April 1991), pp. 24-26.

4. ***See*** Weisbrod, "The Health Care Quadrilemma," pp. 530-534.

**Table 1.**
**Payment Sources for National Health Care Expenditures as a Share of Total for Selected Years, 1960-1990 (In percent)**

| | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|---|---|---|---|---|---|---|---|
| **Private** | | | | | | | |
| **Out of pocket** | 49.2 | 45.7 | 34.4 | 29.0 | 23.8 | 22.3 | 20.4 |
| **Health insurance** | 21.7 | 24.0 | 22.5 | 24.8 | 29.3 | 31.7 | 32.5 |
| **Other** | 4.6 | 5.5 | 5.9 | 4.8 | 4.8 | 4.6 | 4.6 |
| Total | 75.5 | 75.3 | 62.8 | 58.5 | 58.0 | 58.6 | 57.6 |
| Government | | | | | | | |
| Federal | 10.7 | 11.6 | 23.9 | 27.4 | 28.8 | 29.2 | 29.3 |
| **State and local** | 13.8 | 13.2 | 13.3 | 14.1 | 13.3 | 12.1 | 13.1 |
| **Total** | 24.5 | 24.7 | 37.2 | 41.5 | 42.0 | 41.4 | 42.4 |

**SOURCE: Congressional Budget Office based on data from Health Care Financing Administration.**

The growth of the third-party system of payment alone, however, is probably not the major cause of rising health care expenditures.[5] A recent empirical study has shown that health care spending is not overly sensitive to variations in the price of health care and out-of-pocket costs.[6] One reason for this low sensitivity may be that medical treatments are often provided in emergency situations in which price factors are irrelevant. Another reason may be that consumers value long-term relationships with their physicians, making them less inclined to seek out lower-cost providers when costs go up. In any event, if demand for medical care does not respond much to prices, neither will it respond to the decrease in out-of-pocket costs caused by the spread of third-party payment. According to the study, the drop in out-of-pocket costs by itself accounted for only about one-tenth of the increase in health care spending over the 1950-1984 period.

But as we have seen, insurance contributes significantly to the impact of other factors--rapid technological change and the delegation of authority to providers--on health care costs because it effectively removes the incentives for patients at the point of service to seek out low-cost providers, or for physicians to be cost-conscious on their patients' behalf.

## Escalating Costs of Administering Health Insurance

One consequence of the growth in medical care costs has been an increase in the competitive pressures on insurers. They, in turn, have responded by making increased use of experience-based underwriting and managed care.

5. Joseph P. Newhouse, "Medical Care Costs: How Much Welfare Loss?" *Journal of Economic Perspectives,* vol. 6, no. 3 (Summer 1992). pp. 3-22; Aaron, *Serious and Unstable Condition,* pp. 10-13.

6. Medical care, like food, is considered more essential than moat other purchases made by consumers. Satisfying the need for medical care has a special urgency that seems unmatched by most other categories of goods and services that consumers purchase. One consequence is that the demand for medical care may not be very responsive to variations in price, so that when prices of medical care are lowered, consumers are inclined to increase their demand by only a little. Some estimates suggest the demand for health care is "highly inelastic"--around -0.1 to -0.2, meaning that for a 10 percent increase in the price of medical care, consumers reduce the quantity demanded by roughly 1 percent to 2 percent. See Willard G. Manning and others, "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," *American Economic Review,* vol. 77, no. 3 (June 1987), pp 251-277.

These responses themselves have caused the costs of administering health insurance to increase rapidly in the 1980s and burdened many health care providers and policyholders with red tape and heavy paperwork.7

Although definitive, comprehensive measures of the costs of administering health insurance are not available, administration costs seem to have been rising far more rapidly than health care benefits. Private insurers' administrative costs increased some '277 percent between 1980 and 1990, compared with an increase of 185 percent in benefits. These increases in administrative costs are affecting small businesses disproportionately because administrative costs account for a much higher share of total premium costs in small businesses than in large ones. In addition, small firms tend to switch insurers more frequently, adding to the costs of selling and setting up new policies. For many small companies, the longer the firm has remained in a single insurance pool, the more premium rates tend to rise, because the cost-reducing effect of initially excluding preexisting conditions wears off over time as some workers in the pool become sick. This situation creates incentives for firms with healthy workers to seek out new policies relatively frequently.

Not all of the increased administrative burden, however, has necessarily raised costs.8 Administrative costs partly reflect efforts to control moral hazard by limiting physicians' freedom to prescribe. Insurance companies now require physicians to show why treatment is needed; in some cases they require second opinions or advance notification (especially for surgery). Therefore, some of the growth in administrative expenses may have succeeded in reducing the amount of unneeded treatment, thus helping to control, rather than raise, overall costs.

### Growing Government and Social Support for Health Care

Growing government support has added to the demand for health care directly, through the Medicare and Medicaid programs, and indirectly, through tax policies that encourage purchases of private health insurance. The government's share of health care expenditures jumped during the mid-1960s, with the introduction of Medicare and Medicaid, and then continued to grow rapidly until approximately 1980 (see Table 1). In 1990, the government paid more than 42 percent of the nation's health care bill.

## Demographic Factors

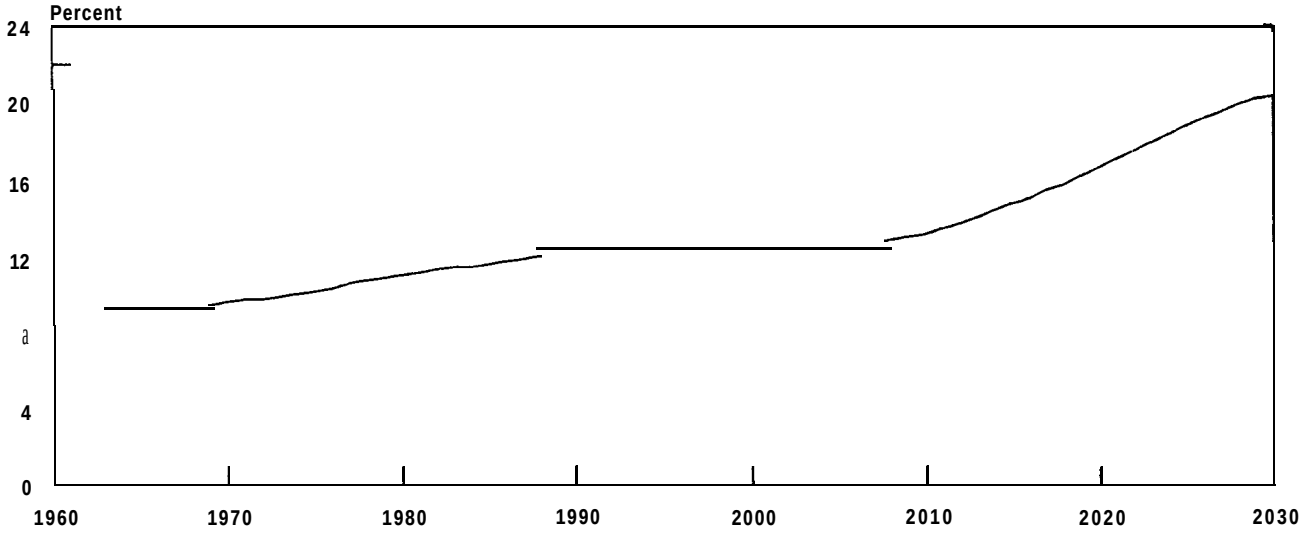
Changes in the age distribution of the population are not major factors that account for the rise in per capita health spending over the past three decades, although demographic shifts are expected to have a more important effect on health care spending in the next century. (Population growth has been a relatively small but constant factor adding to the demand for health care. Since 1960, the U.S. population has grown roughly between 1 percent and 2 percent annually.) In general, health care spending is greatest for most people in their first and last years of life. For example, roughly four times as much is spent on health care for people 65 years old and older as for the rest of the population on average.9 Even so, because the share of the population that is 65 and older is relatively small, demographic factors have not been a major force in rising health care costs. According to CBO estimates, demographic factors ac-

7. For an analysis of the administrative costs of health insurance, and potential cost savings from going to less complex systems, see Congressional Budget Office, ***Rising Health Cure Costs;*** and Congressional Budget Office, ***Universal Health*** Insurance ***Coverage Using Medicare's Payment Rates*** (December 1991).

8. Patricia Danzon, "Hidden Overhead Costs: Is Canada's System Really Less Expensive?" ***Health*** Affairs, vol. 11, ***no.*** 1 (Spring 1992), pp. 21-43.

9. See Daniel R. Waldo and others, "Health Expenditures by Age Group, 1977 and 1987," ***Health Care Financing Review,*** vol. 10, no. 4 (Summer 1989), pp. 111-120.

**Figure 5.**
**Percentage of the U.S. Population Age 65 and Older, 1962-2030**




**SOURCE:** Congressional Budget Office using data from the Social Security Administration.

counted for approximately 5 percent of the increase in per capita spending on personal health care between 1965 and 1990.

This factor will become somewhat more significant in the early 21st century when the baby-boom generation reaches retirement age (see Figure 5).[10] The proportion of the population 65 years old and older increased from 8.0 percent to 12.3 percent between 1950 and 1990. This proportion is projected to increase modestly by the year 2000, before rising sharply to 20.1 percent by the year 2030, when the entire baby-boom generation will be 65 years old or older.

## Rising Personal Incomes and the Demand for Health Care

As per capita real incomes increase (they have done so during the last half-century), consumer demand for real medical services also tends to rise. Moreover, with prices for medical care possibly rising, this increased real spending on health could boost the health sector's nominal share of GDP.[11]

There is substantial variation among the available estimates of how much spending on health care increases when household income rises. The results depend heavily on whether the study is examining how spending on health care varies with household income at a point in time, how spending varies from one country to another, or how it varies within a single country over time. A recent study of factors that determine differences in health

10. Following World War II, birth rates increased substantially, peaking in about 1957. The cohort born between 1945 and about 1965 is commonly referred to as the baby-boom generation.

11. Prices for medical care could rise in comparison with those in other sectors if productivity growth in the health care sector (like that in other service sectors! were slower than productivity growth elsewhere in the economy. But changes in the quality of medical care have made it impossible to measure the growth of productivity and prices in the health sector. For a discussion of how productivity differences can affect relative prices and growth, see William J. Baumol, "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *American Economic Review*, vol. 57 (June 1967), pp. 415-426.

care spending among countries suggests that a 10 percent increase in income may be associated with an increase in health care spending of between 8 percent and 12 percent.12

Although there is much uncertainty about such estimates, a reasonably good approximation for the income elasticity of health care spending is probably a ratio of 1. In this case, when incomes increase by 1 percent, spending on health care could eventually be expected to increase by 1 percent as well. Because health spending as a share of GDP has been growing, the increase in the share of income devoted to health care over the past 30 years must be attributable to factors other than income growth by itself. Even if the true income elasticity were on the high side of the estimates, income growth alone could not account for the sharp growth in U.S. health care spending over the past 40 years.

## The Malpractice Issue

Some analysts believe that the possibility of malpractice lawsuits has substantially increased health care expenditures, not only by raising malpractice insurance premiums but also by inducing physicians to adopt "defensive" medical practices aimed at reducing the risk of lawsuits.13 For several reasons, however, CBO infers from the available evidence that the larger published estimates are too high and that restructuring malpractice liability alone would not generate large savings in U.S. health care costs.14

First, malpractice premiums amount to less than 1 percent of national health expenditures. Thus, these premiums directly contribute little to the nation's overall health costs. Second, much of the care that is commonly dubbed "defensive medicine" would probably still be provided for reasons other than concerns about malpractice. Physicians have always sought to provide patients with the best possible medical care at the lowest risks and would continue to do so even without the threat of lawsuits. Because much of this "defensive care" helps to reduce the uncertainty of medical diagnoses, it seems unlikely that physicians would change their practice patterns dramatically in response to malpractice reform.

## Conclusions

Health care spending is propelled upward by powerful forces. Dramatic technological breakthroughs have improved medical care, but at a very high cost. Moreover, 'the presence of insurance and heavy government involvement has eased the pressures on consumers to reject high-cost treatments. This means that new medical technologies do not have to meet the usual market tests that face other goods and services. As a result, when the boundaries of science are pushed out, medical breakthroughs that increase costs are not discouraged. Although several other factors--rising incomes, demographic changes, and higher medical malpractice costs--have been blamed for increasing the nation's health care bill, they do not appear to account for much of the increase.

12. See David Parkin and others, "Aggregate Health Care Expenditures and National Income: Is Health Care a Luxury Good?" Journal *of* Health *Economics,* vol. 6, no. 2 (1987), pp. 109-127; and Newhouse, "Medical Care Coats: How Much Welfare Loss?"

13. Roger A. Reynolds, John A Rizzo, and Martin L. Gonzalez, "The Coat of Medical Professional Liability," *Journal of the American Medical Association,* vol. *257,* no. *20* (May 22/29, 1987), pp. 2776-2781.

14. See Statement of Robert D. Reischauer, Director of the Congressional Budget Office, before the House Committee on Ways and Means, March 4, 1992.

Chapter Four

# The Economic Effects of Rising Costs for Employer-Provided Insurance

Most people in the United States receive health insurance through an employer, either as a worker or as a dependent of a worker. In 1990, about 70 percent of the population under the age of 65 was covered by such plans (see Table 2). Although the popularity of employment-based insurance plans can be explained in part by their natural cost advantages over individual plans, the major reason for their dominance is that they are subsidized through the federal and state tax codes.

At first glance, the employment-based system seems to provide workers with insurance at exceptionally low costs, since employers generally pay most of the premium. But a careful analysis shows that in the long run employers' costs are largely shifted back to workers in the form of lower real wages and reduced nonmedical benefits. Despite claims to the contrary, such costs are generally not borne in the long run by businesses in the form of lower profits, nor do they much affect the ability of U.S. firms to compete in international markets. In the short run, unanticipated increases in health care costs could affect profits and competitiveness, especially for industries with long-term labor contracts. These costs, however, would eventually be passed on to workers. By contrast, anticipated increases in health care costs would have little short-term effect on either profits or competitiveness, since such costs could be built into wage schedules in advance.

The rise in health care costs, in combination with the slow growth of productivity, has had a significant impact on household budgets. These developments have made it more difficult for many people to make ends meet; as the costs of health insurance have gone up, workers have had less to spend on everything else. And because health care markets do not use their resources efficiently, what consumers receive in exchange for fewer nonhealth goods and services may not be worth the costs.

One of the most troubling developments is the increase in the number of people who do not have health insurance. Even though it is subsidized, employment-based insurance does not provide coverage to millions of U.S. workers and their families. This lack of coverage causes a particularly acute problem among certain groups of workers, such as those employed by small businesses or those who work for low wages. For example, only 39 percent of small firms (25 or fewer employees) offer insurance to their workers, compared with 99 percent of firms with 100 or more employees. This pattern is not accidental, but reflects inherent weaknesses in the current system of employment-based insurance. As health care costs continue to grow, moreover, the disparity between coverage in small and large firms is likely to intensify.

Rising health costs may have also distorted the shape and structure of the nation's labor markets. Because the current system provides uneven benefits among firms, it makes the availability of health insurance a more important factor in choosing a job. Such a development may reduce the mobility of workers between firms and, in doing so, may limit the flexibility of the labor market in responding to new challenges and opportunities. Finally,

**Table 2.**
**Health insurance Coverage for U.S. Population Under Age 65, by Source of Coverage, 1990**

| | People Under Age65 | |
|---|---|---|
| | Number (Millions) | Percentage of Total |
| Insurance Status | | |
| Insured | 183.5 | 84.7 |
| Not insured | 33.1 | 15.3 |
| Total | 216.7 | 100.0 |
| Source of Insurance Coveragea | | |
| Private | | |
| Employment-based | 150.6 | 69.5 |
| Other | 14.6 | 6.7 |
| Medicaid | 14.6 | 6.7 |
| Medicare | 3.0 | 1.4 |
| Veterans Administration | 0.8 | 0.4 |
| Total | 183.5 | 100.0 |

SOURCE: Congressional Budget Office calculations based on data from the Current Population Survey, March 1990.

a. Refers to the individual's primary insurance coverage when there are multiple sources of coverage.

rising health care costs--in combination with minimum-wage laws--have encouraged employers who offer health plans to move low-wage workers to part-time status with no insurance, or eliminate their positions and use contract workers instead. These distortions, of course, will become even more important as health costs continue to rise.

# Why Do Most People Obtain Health Insurance Through Their Employers?

Many people think employers only supply goods and services to their customers. But most employers are also involved in another business: that of supplying health insurance and other fringe benefits to their workers. Despite differences between these two types of businesses, the basic principles of supply are the same; employers offer health insurance to their workers when they can do so at lower costs than alternative suppliers. Four factors account for such a cost advantage: access to tax subsidies, lower administrative costs, reduced adverse selection, and the benefits of a healthy work force.

## Tax Incentives for Employment-Based Health Insurance

Federal and state tax codes are the major reason that employers dominate the market for supplying health insurance. Employer-sponsored health insurance can be deducted by employers as an expense, but is not taxed as income to the employees. Moreover, the portion of health insurance paid by the employer is not counted in the wage base for the purpose of calculating payroll taxes.

These tax rules create a significant subsidy for employment-based coverage that is not available to alternative forms of group insurance. Consider, for example, workers who face a 28 percent marginal federal tax rate, a 4 percent state income tax rate, and a 7.65 percent federal payroll tax rate that applies to both employers and employees.[1] If these workers receive an insurance policy through their employers, they must give up only 64 cents of after-tax cash income for each dollar of insurance (see Table 3). The discount comes about because they can purchase health insurance through the employer using pretax dollars. By contrast, a person purchasing the same amount of health insurance outside the work place through an individual plan pays a full dollar because the purchase must be made using after-tax income.

The nature of the subsidy may favor high-income workers, although its precise distribu-

1. The employers' share of the payroll tax is also shifted to workers.

tional effect is quite complicated. To begin with, high-income workers are much more likely to be offered health insurance by their employer than are low-income workers. Unless insurance is offered, workers receive no subsidy. Second, the value of the subsidy increases with the tax bracket of the individual. But these two factors may be offset by the fact that the subsidy for low-income workers who get health insurance may represent a larger fraction of their income than it does for workers in the same tax bracket with somewhat higher incomes. Perhaps the most significant equity problem with this subsidy program is that it treats identical people differently. For example, a worker with employment-based insurance receives a subsidy, but an identical worker without such insurance does not.

Policymakers have attempted to deal with some of the equity problems of the tax subsidy within firms. For example, in order to receive the tax exemption, each firm must show that its health insurance plans are nondiscriminatory in the sense that most workers, regardless of income, are eligible to receive the benefit. Health plans that are designed solely to benefit only the most highly compensated em-

Table 3.
**Effect of a Tax Subsidy on the Cost of Employment-Based Insurance to Workers: An Illustrative Example (In dollars)**

| | People with Employment-Based Coverage | | People with Nonemployment-Based Coverage | |
|---|---|---|---|---|
| | Baseline Insurance Coverage | Baseline Coverage Plus $1.00 of Additional Coverage | Baseline Insurance Coverage | Baseline Coverage Plus $1.00 of Additional Coverage |
| Total Compensation | 100.00 | 100.00 | 100.00 | 100.00 |
| Minus employer share of payroll tax | 6.38 | 6.32 | 6.68 | 6.68 |
| Minus employer share of health insurance | 4.25 | 5.10 | 0 | 0 |
| Minus other fringe benefits | 6.00 | 6.00 | 6.00 | 6.00 |
| Equals Base Wage | 83.37 | 82.58 | 87.32 | 87.32 |
| Base Wage | | | | |
| Minus employee share of payroll tax | 6.38 | 6.32 | 6.68 | 6.68 |
| Minus federal Income tax | 22.41 | 22.20 | 23.47 | 23.47 |
| Minus state and local income tax | 3.33 | 3.30 | 3.49 | 3.49 |
| Minus employee share of health insurance | .75 | .90 | 5.00 | 6.00 |
| Equals Net Income After Taxes and Health Insurance | 50.50 | 49.86 | 48.68 | 47.68 |
| Loss in Net Income from Adding $1.00 of Coverage | n.a. | .64 | n.a. | 1.00 |
| **Memorandum:** | | | | |
| Total Cost of Health Insurance | 5.00 | 6.00 | 5.00 | 6.00 |

SOURCE: Congressional Budget Office calculations.

NOTES: The example employs the following assumptions: (1) payroll taxes are 7.65 percent of the base wage for both employers and employees; (2) employers pay 85 percent of the costs of health insurance and employees pay 15 percent; (3) other fringe benefits are 6 percent of total compensation; (4) the federal tax is 28 percent of the base wage less payment for state and local taxes; and (5) the state and local income tax is 4 percent of the base wage.

n.a. = not applicable.

**Table 4.**
**Breakdown of Administrative Expenses for Health insurance Plans, 1988**
**(As a percentage of benefit cost)**

| Size of Firm (Number of Employees) | General Administration | Sales Commissions | Claims Administration | Risk and Profit | Premium Taxes | Interest Credit | Total |
|---|---|---|---|---|---|---|---|
| 1 to4 | 12.5 | 8.4 | 9.3 | 8.5 | 2.8 | -1.5 | 40.0 |
| 5 to 9 | 11.2 | 6.0 | 8.6 | 8.0 | 2.7 | -1.5 | 35.0 |
| 10 to 19 | 9.2 | 5.0 | 7.2 | 7.5 | 2.6 | -1.5 | 30.0 |
| 20 to 49 | 7.6 | 3.3 | 6.3 | 6.8 | 2.5 | -1.5 | 25.0 |
| 50 to 99 | 4.8 | 2.0 | 4.3 | 6.0 | 2.4 | -1.5 | 18.0 |
| 100 to 499 | 4.0 | 1.6 | 4.1 | 5.5 | 2.3 | -1.5 | 16.0 |
| 500 to 2,499 | 1.4 | 0.7 | 3.9 | 3.5 | 2.2 | -1.5 | 12.0 |
| 2,500 to 9,999 | 0.7 | 0.3 | 3.8 | 1.8 | 2.2 | -1.5 | 8.0 |
| 10,000 or More | | 0.1 | 3.0 | 1.1 | 2.1 | -1.5 | 5.5 |

SOURCE: Estimates by Hay-Huggins Company based on underwriting practices of major insurers. Reprinted from House Committee on Ways and Means, Subcommittee on Health, *Private Health Insurance: Options for Reform* (September 20, 1990), p. 12.

ployees would be considered ineligible by the Internal Revenue Service.2 But such rules only address some of the equity concerns within a firm and do not deal with the inequities that develop among firms.

The tax exemption has helped increase the amount of insurance coverage that workers purchase and has expanded their access to health insurance. In fact, the tax exemption may help explain why health insurance, unlike many other forms of insurance, covers routine medical care. Because each worker uses the benefit each year, it is nothing more than a way for employers to give workers tax-free income. But, as Chapter 2 showed, such insurance can significantly increase the costs of the service.

The total amount of these subsidies is sizable. The tax exemption of employment-based health insurance is estimated to cost $46 billion in lost federal income tax revenue in fiscal year 1993.3 By comparison, the federal government is expected to spend $80 billion on Medicaid--a means-tested health program for the poor--in fiscal year 1993.

## Lower Administrative Costs

Employment-based plans allow workers to purchase health insurance as a group. Group purchase of insurance can offer significant savings in administrative costs over an individual health insurance policy, because the fixed costs of setting up and administering an insurance policy are spread among many people, which reduces the average per-person cost. If the group is sufficiently large, the per capita administrative costs can become very small (see Table 4). Economies of scale can be achieved in such items as billing, advertising, sales commissions, claims administration, and general overhead.

2. Employers can lose the tax benefits of an employer-sponsored plan unless that plan is nondiscriminatory. To meet this standard, the plan must pass one of three tests: at least 70 percent of workers must benefit from the plan; at least 80 percent of eligible employees must receive the benefit, where eligible workers are those who work full time, are over the age of 25, and have been employed more than three years; or the Internal Revenue Service has certified the plan as nondiscriminatory.

3. Revenue loss from both income and payroll taxes--$65 billion in 1993--is sometimes used as a measure of the subsidy. But that ignores the link between current payroll taxes and future Social Security benefits. See Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options* (February 1992).

Such administrative savings, however, are not unique to employment-based group plans. To a significant extent, they could be achieved by any large group of people who pool their resources to purchase insurance. For example, such alternative groups could be the members of local churches or professional organizations, parents from local school districts, or even residents in a geographic area. And indeed, insurers now provide several other forms of insurance, particularly life and disability coverage, to members of professional organizations. Under current law, however, such groups are unlikely to emerge as significant providers of health insurance because they, unlike employers, do not receive a tax subsidy.

Whether alternative groups could, in the absence of the tax subsidy, provide insurance at lower prices than employers depends on several factors. Very large employers have a slight administrative edge over most other groups because they already collect much of the information needed to set up such insurance policies for payroll purposes and have mechanisms in place for financing them.

But the administrative savings of group purchase strongly depend on the size of the group. As a result, organizations with large memberships could have lower administrative costs than do many small employers (although they would face adverse selection). As discussed in a later section, the high costs of administering small group policies constitute one reason that so many small employers do not provide health insurance to their workers.

## Reduced Adverse Selection

Employment-based plans help to control adverse selection, that is, the tendency of an insurance plan to attract individuals with medical needs that an insurance company cannot detect. Unless somehow controlled, adverse selection can create serious financial problems for an insurance company.

To illustrate the problem, consider what happens to the costs and profits of an insurance company that offers policies on equal terms to all comers. At first, the company will set its premium rates to reflect the expected, average costs of providing insurance to an initial group of policyholders (plus a markup for normal profits and risk). Given these rates, individuals in the pool who pose higher-than-average risks will be paying premiums that are low in relation to their risks--and such rates will naturally attract more high-risk people to the plan. Over time, of course, these people will file higher-than-average claims against the company, which will raise the costs--and depress the profits--of the insurance company. At some point, the insurance company (to avoid bankruptcy) will either raise its premiums to reflect higher costs or change its underwriting policies to hold down expenses. If it raises premiums, it runs the risk that low-risk individuals (who have been paying premiums that are actuarially too high) will drop out of the plan, further raising the average costs of those who remain in the plan. Alternatively, it can write policies that exclude coverage for preexisting medical conditions. In either case, adverse selection can lead to breakdown in the market for insurance; that is, some people who want insurance may be unable to get it.4

Employment-based insurance policies, when properly structured, offer an alternative way of reducing adverse selection; they limit the easy entry and exit of policyholders from the insurance pool. Without easy entry and exit, the composition of risks in an insurance pool can remain somewhat stable over time, and this stability can prevent a spiral of cost and premium increases from ever starting.

Employment-based plans achieve this kind of stability because work forces are organized for producing goods and services, not for buying insurance. Under an employment-based plan, a high-risk individual cannot simply

4. For details on how adverse selection can interfere with the workings of a competitive insurance market, see Michael Rothschild and Joseph Stiglitz, "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," Quarterly *Journal of Economics*, vol. SO (November 1976), pp. 629-649.

obtain coverage by requesting it; he or she has to have job skills that a company needs. Moreover, employers take additional steps to control adverse selection by imposing waiting periods before a new employee is eligible for insurance and establishing personnel policies that reduce employee turnover. Of course, some high-risk individuals will seek--and get--work from a company that offers a generous health plan. But the risk that such individuals will completely dominate a large employment-based pool is not high and, in any case, is much smaller than that for health plans that are open to all comers.

Many employers who offer multiple plans to employees must take additional steps to control adverse selection. Without such steps, competitive pressures could lead some insurers to write "bare-bones" policies that attracted only the low-risk individuals in the work force, leaving the high-risk individuals adversely selected in the other plans. Employers counteract these pressures in two ways. First, they can require each plan to offer a minimum set of standard benefits. Second, they can limit the number of "open seasons" each year (periods during which an employee can switch plans), reducing the chance that employees will switch into high-option plans just before they need expensive medical treatment and switch back into low-option plans after care is provided.

Although employment-based policies are less likely to suffer adverse selection than are insurance plans solely organized to provide health insurance and open to all comers, adverse selection will continue to challenge the nation's employment-based insurance system. With health care costs rising, high-risk individuals will face continued pressure to seek out employers that offer generous insurance plans--actions that will raise the risks and costs of such plans. One way to eliminate this problem is to create health insurance pools that prohibit entry and exit of their members at will.

### Health Care as an Investment

Some employers may choose to provide a minimal level of health care to their employees out of pure self-interest. Healthy workers spend less time on sick leave and may be more productive at work. In addition, providing family coverage may attract older and more dependable workers, which also benefits the firm. Health expenditures may also be viewed as an investment in protecting a firm's stock of human capital. Because some firms spend a considerable amount of time and money training their workers, keeping these workers healthy is clearly in the interest of the employers. For all of these reasons, a profit-maximizing firm would be expected to bear the burden of health care up to the point that the value of the additional output produced by its healthier workers was just equal to the cost of making them healthier. In essence, the cost of supplying this level of health care pays for itself in terms of increased output.

Despite all of these considerations, it seems unlikely that this factor--health care as an investment--is important in explaining why many employers provide relatively extensive health insurance coverage to their workers. Once a work force has a minimal level of health care, the connection between additional spending on health care and increased productivity is probably not very strong. Moreover, because workers are free to quit and work elsewhere, employers cannot be assured that they will be able to reap the full rewards of keeping their work force healthy.

## Who Ultimately Bears the Burden of Rising Insurance Costs?

Although employers initially pay most of the costs for employees' health insurance, in the

long run these costs are largely shifted to workers in the form of lower real wages and reduced nonmedical benefits. Such costs are unlikely to affect relative product prices in the long run and, thus, health insurance probably has little effect on the international competitiveness of U.S. companies. Likewise, business profits are also unlikely to be affected significantly, except possibly at those firms that have large, unfunded health plans for retirees.

## Effects on Wages

Factors operating on both the demand and supply side of the labor market explain why workers largely bear the costs of their insurance in the long run. On the demand side, the major concern of employers in a competitive environment is to keep the total compensation of workers (wages plus benefits) in line with labor productivity. If the real cost of insurance for employers goes up by a dollar (and the additional expenditures on insurance do not affect productivity), employers face strong pressures to cut a dollar from some other form of labor compensation, such as real wages.5 An employer that fails to make this long-run adjustment would essentially be raising the total compensation of its workers above their productivity--an action that could create unsustainable losses and eventual bankruptcy.

Of course, expenditures for health insurance could affect labor productivity. But there is little empirical evidence concerning either the magnitude or direction of its effect on productivity. If insurance raised productivity for the reasons noted earlier, employers would be willing to provide insurance for less than a dollar-for-dollar adjustment in wages. Conversely, health insurance could increase absenteeism if it attracted workers who were sicker than average. In this case, employers would want more than a dollar-for-dollar adjustment in wages. Unfortunately, there is little evidence at present to reconcile these opposing views.6 Until evidence is available, it seems prudent to take the neutral stance that additional expenditures on health have little effect on overall productivity.

On the supply side, health insurance is valued by many employees, which means that they would be willing to give up some of their income to get it, just as they give up income to buy other goods and services. Moreover, the employer faces competitive pressures to provide benefits that are valued by employees. If the insurance is fully valued, employees would be willing to pay the whole cost incurred by employers in the form of lower wages. Indeed, it is this willingness to pay for a valued service that is one of the reasons that employers provide insurance in the first place and are able to shift their insurance costs to workers.

Although workers will try to find firms that provide the best mix of wages and benefits, few will find the perfect mix, and as a result, many workers may not fully value the health insurance they get from their employers. But even in this case, workers probably end up bearing the costs of that insurance because supplies of labor are not elastic. Workers who are insured are not likely to drop out of the labor market or otherwise reduce their hours significantly when real wages decline; thus, employers can shift the costs of health insurance to them with little adverse effect on production and profits. Although the labor force participation of low-wage workers seems to be sensitive to changes in real wages, these

5. Cuts to real wages do not necessarily require worker "give-backs." Such cuts could be accomplished by not compensating workers fully for general inflation or gains in productivity. For example, a firm that did not give its workers a nominal pay raise in 1991 effectively cut their real wages by 3 percent.

6. Researchers have found mixed evidence on the effect of nonhealth fringe benefits on absenteeism. Pension benefits seem to raise absenteeism; short-term accident insurance does not appear to have any effect. See Steven G. Allen, "Compensation, Safety, and Absenteeism: Evidence from the Paper Industry," *Industrial and Labor Relations Review*, vol. *34*, no. *2* (January 1981), pp. 207-218. There is little direct evidence, however, about the effects on productivity of health insurance.

workers typically do not receive insurance from their employers.7

Although workers probably bear the employers' costs for insurance, they do not pay the whole cost; a portion of that cost is subsidized through the tax system. Of course, someone must ultimately pay for the subsidy, but the incidence of this burden is difficult to discern. The subsidy could be paid for by higher taxes, reduced public services, or a larger federal budget deficit. Although it is difficult to draw conclusions about who bears the existing burden, an increase in the subsidy (because of higher costs for insurance) would increase the size of the federal budget deficit because current law has no mechanism for offsetting such revenue losses with either spending cuts or tax increases. The economic implications of such a rise in the deficit are discussed in Chapter 5.

Departures from Competitive Markets. The logic of competition explains why workers bear most of the additional burden of spending on health insurance, but this conclusion still holds even if markets are less than fully competitive. A unionized work force represents one common departure from competitive markets because unionized workers have some power to influence the wages and benefits they receive and thus can obtain compensation in excess of competitive levels. But it seems doubtful that rising health costs can increase unionized workers' power to affect total compensation, and without such a change, rising insurance costs for these workers translate into lower real wages, just as for competitive firms. Similarly, firms that face limited competition from other producers have some monopoly power with which to influence prices. But it is unlikely that rising health insurance costs could boost their power and allow them to pay higher levels of compensation. Without changing compensation, workers bear the costs of health care.

Empirical Estimates. Although this analysis of health cost burdens agrees with basic notions of market forces, researchers have only recently begun to find supporting evidence. Many early studies seemed to show that, contrary to theory, workers who have insurance tend to be paid more.8 But those studies did not adequately take into account the productivity of workers, and thus the apparent positive relationship between insurance and wages could simply reflect the fact that more productive workers are receiving both more insurance and higher wages. To control for productivity for each occupation, these studies typically use simple measures, such as highest educational level attained and years on the job, which fall short of fully explaining productivity differences.9 Within any profession or trade, there are enormous differences in productivity, despite common levels of education and experience. Moreover, ignoring these unobserved productivity differences can significantly bias estimates of the relationship between wages and fringe benefits.10

A recent empirical study applied a different approach not subject to some of these problems and found evidence that workers were willing

7. For a discussion of how labor supply responds to real wages, see Barry Bosworth and Gary Burtless, "Effects of Tax Reform on Labor Supply, Investment, and Saving," *Journal of Economic Perspectives,* vol. *6,* no. 1 (Winter 19921, pp. 3-26. For low-wage workers' labor supply, see Chinhui Juhn, Kevin Murphy, and Robert Topel, "Why Has the Natural Rate of Unemployment Increased Over Time?" *Erookings Papers on Economic Activity* (1991), pp. 75-142.

8. Alan Monheit and others, 'The Employed Uninsured and the Role of Public Policy," *Inquiry,* vol. 22 (Winter 1985), pp. 348-364; and Arlene Leibowitz, "Fringe Benefits in Employee Compensation," in Jack Triplett, ed., *The Measurement of Labor Cost* Chicago: University of Chicago Press, 1983).

9. For a discussion of types of data that would be needed to carry out a valid statistical test of the trade-off, see Robert Smith and Ronald Ehrenberg, "Estimating Wage-Fringe Trade-Offs: Some Data Problems," in Triplett, *The Measurement of Labor Cost.*

10. Hae-shin Hwang, W. Robert Reed, and Carlton Hubbard, "Compensating Wage Differentials and Unobserved Productivity," *Journal of* Political *Economy,* vol. 100, no. 4 (August 1992).

11. Stephen A. Woodbury and Wei-Jang Huang, *The Tax Treatment of Fringe Benefits* (Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 1991).

to give up about 82 cents of cash wages for each dollar of health benefits provided by the employer.11 In addition, researchers have also been able to find evidence to support a trade-off between wages and a related employer-provided benefit: pensions.12 These results, in combination with the low elasticity of labor supply, strongly support the notion that workers largely pay for employer-provided benefits through lower wages.

The role of higher health costs in real wages can also be seen in the national income accounts. Since 1973, the increased costs for health care and other benefits have absorbed most of the gains in inflation-adjusted compensation since 1973, leaving little room for real growth in wages and salaries. Between 1973 and 1989, two years in which the economy was operating close to full capacity, employers' contributions to health insurance absorbed more than half of the increase in real compensation per full-time equivalent worker, even though it represented 5 percent or less of total compensation in any one year.

Cross-Subsidization Within Firms. Although the average worker within a firm pays for his or her own health insurance through lower wages, this cost is probably not spread evenly; some workers probably pay more than their actuarially fair share, and others pay less. Because antidiscrimination laws generally limit employers from paying workers higher cash wages for their expected lower usage of health services, these workers implicitly subsidize those who expect to use the services more intensively (although, for reasons discussed below, the amount of this cross-subsidization can be limited in various ways).

Identifying who ultimately pays--and who ultimately receives--these subsidies is difficult. At first, the answer appears to be easy: the losers are younger and healthier workers, But it is not clear that all of these workers are necessarily cross-subsidizing those who are older and sicker. For one thing, even if all workers were paying actuarially fair premiums, some employees would always receive more health services than others. Although there may be no apparent differences in health among workers when an insurance plan is first established (or more technically, no anticipated or *ex* ante differences), real differences can certainly emerge *ex* post as a result of bad luck. Second, although some people may pay too much when they are young, they may receive subsidies when they are old; thus, it is more appropriate to view things from a lifetime perspective in order to determine who ultimately benefits and who loses. Despite these considerations, workers who are healthier (in a lifetime sense) and workers who do not need insurance (because they can get it through their spouses or other family members) probably subsidize those who are sicker, although the extent of these cross-subsidies is uncertain. In any case, it would be hard to identify these workers in advance.

Moreover, *ex* ante cross-subsidization can be reduced (though not eliminated) in three ways. First, an employee is free to quit and find an alternative work place that has less cross-subsidization (because its employees are more homogenous in their health and insurance needs). For example, younger workers could seek out work forces that are predominately young; married people with coverage through their spouses could seek out work places that do not offer insurance.13 If enough alternative wage/benefit packages were available to each worker, such sorting of workers could in principle eliminate all ***ex ante*** cross-subsidization. But, in practice, workers'

12. E. Montgomery, K. Shaw, and M.E. Benedict, "Pensions and Wages: A Hedonic Price Approach," Working Paper No. 3458 (Cambridge, Mass.: National Bureau of Economic Research. October 19901. For a general discussion of the literature, see Michael Morrisey, "Mandated Benefits and Compeneating Differentials: Taxing the Uninsured" (paper presented at the American Enterprise Institute conference "American Health Policy: Critical Issues for Reform," Washington, D.C., October 3-4, 1991).

13. It is interesting to note that small firms (which generally do not offer insurance) disproportionately hire people who are covered through a family member. Congressional Budget Office calculations based on the March 1990 Current Population Survey.

choices are limited, and some cross-subsidization among workers therefore is likely to persist and could grow as fewer employers offer insurance.

Second, there is a natural sorting of workers within each work place that also reduces cross-subsidization. Workers who need more medical care tend to choose plans with more coverage than those who are healthy. Moreover, workers in more senior positions tend to be older (and thus need more health care) than those in more junior positions. Such differences could allow an employer to reduce the cash wages of workers in its more senior positions by more than those in junior roles to reflect these differential insurance costs. But even within a single job classification, workers can have significantly different health and insurance needs. Moreover, decisionmakers within a firm hold senior positions and therefore may not want to adjust salaries to reflect health and insurance needs.

Third, since 1978, employers have been able to offer "cafeteria plans" to their workers, which can also significantly reduce the amount of cross-subsidization within the work force. These plans give workers the option of choosing the mix of benefits and wages that best meet their needs, subject to some restrictions.[14] In other respects, they are just like ordinary benefit plans: wages are fully taxable, but benefits are tax-exempt. The availability of these plans has grown over the past five years. In 1986, only 2 percent of full-time employees in medium-sized and large firms were eligible to participate in such plans. By 1989, about 9 percent of all such workers were eligible to join these plans.[15]

Sorting workers into different risk classes brings up some thorny ethical issues (see Box 3). Some people believe that such sorting is desirable; others view it as reprehensible. Many of the current proposals for reforming the health insurance market actually involve less risk sorting and more cross-subsidization. For example, President Bush's plan for health

**Box 3.**
**The Ethics of Risk Sorting**

The desirability of sorting workers by health status depends on fundamental social judgments about who should pay the costs of health care. On the one hand, some people argue that each person should pay the full bill for his or her own expected health care use. In this view, cross-subsidization is both inefficient and inequitable. It is inefficient in the sense that subsidies may encourage unhealthy lifestyles (such as smoking), and inequitable because the people who lead healthy lives must pay for those who do not. Implicit in this view is the belief that people can to a large extent control their health.

On the other hand, some argue that a person's health is influenced by factors, including genetics and luck, that are beyond his or her control. In this view, it is wrong to discriminate against those who are unhealthy, just as it is wrong to discriminate on the basis of genetic factors. Moreover, advocates of this view point out that if risk sorting is pervasive, the chronically sick would be unable to obtain insurance except at exorbitant rates and, without insurance, would receive less medical care. In this view, people who are lucky enough to be healthy have a social obligation to take care of those who are less fortunate. But among even those who support this view, some are critical of the fact that the current system does not allocate the social burden of caring for the sick according to "ability to pay." Instead, in the current system, healthier employees, regardless of their income or wealth, bear these costs.

It seems inevitable that this debate will intensify. Advances in biotechnology are likely to bring new ways to test for genetic predispositions--and new and more effective ways to sort people into risk categories.

14. James R. Storey, "Flexible Benefit Plans: Policies and Issues," CRS Report No. 90-54 EPW (Congressional Research Service, January 19, 1990).

15. Department of Labor, Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1989.* Bulletin 2363 (June 1990); and Department of Labor, Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1986,* Bulletin 2281 (June 1987).

care reform places some restrictions on the ability of insurers to use experience-rated premiums.

## Effects on Profits

The rising costs of employment-based health insurance for workers are unlikely to affect business profits substantially, because in the long run these costs are largely borne by workers. Of course, in the short run an unexpected increase in the costs could temporarily depress profits. Most wages and prices do not adjust immediately to changes in the economic environment. These short-run effects would probably be most significant for those companies with long-term labor contracts, although implicit agreements between labor and management could also make it difficult for employers to pass unexpected costs into wages. The precise effects, however, vary company by company and are difficult to predict.

But health care costs probably do not have large and persistently adverse effects on economywide profits. There are three reasons. First, few firms are totally surprised when health care costs go up. Anticipated increases in costs can be incorporated into salaries in advance, with little effect on profits. Second, unanticipated increases in costs will eventually be passed on to workers, leaving little lasting effects on profits. Third, cost surprises can be favorable as well as unfavorable and thus do not necessarily have to reduce profits; they could raise profits as well.

Health benefits provided by employers to retirees, however, have probably affected the financial position of some companies.16 By 1987, about 40 percent of the retirees between the ages of 65 and 69 were covered by an employment-based plan (see Table 5). Some firms, however, found these programs costly.

**Table 5.**
**Employment-Based Health Insurance Coverage of Retirees, 1987**

| Age Cohort of Retirees | Percentage of Cohort with Employment-Based Coverage: Policyholder Only | Percentage of Cohort with Employment-Based Coverage: Dependent Coverage |
|---|---|---|
| 55 and Older | 38.8 | 9.9 |
| 55 to 59 | 50.1 | 20.6 |
| 60 to 64 | 51.9 | 15.0 |
| 65 to 69 | 40.3 | 11.1 |
| 70 to 74 | 37.1 | 7.6 |
| 75 and Older | 28.1 | 4.9 |

SOURCE: A.C. Monheit and C.L. Schur, *National Medical Expenditure Survey: Health insurance Coverage of Retired Persons,* Research Finding 2, DHHS Pub. No. (PHS) 89-3444 (Department of Health and Human Services, September 1989).

Analysts have estimated that health benefits to retirees in 1988 imposed a liability of $98 billion to $145 billion on U.S. business as a whole.17 If the present value of the costs of providing retiree health benefits to workers who have not yet retired is included, the estimated 1988 liability soars to between $227 billion and $332 billion. These liabilities are largely unfunded and represent direct claims on the net worth of U.S. companies. These costs cannot be so easily passed back to the wages of current employees; employers who attempt to do so would lose employees to firms that are not burdened with such liabilities.

These liabilities can be paid off in a variety of ways. If a firm has sufficient resources, it could pay off the liability all at once by wiping out some of its shareholders' equity. Or it could pay off the liability over time by taking

16. There are two types of retiree programs: programs that provide primary health benefits to early retirees (who are not yet eligible for Medicare), and programs that supplement Medicare for retirees 65 years old and older.

17. See Mark J. Warshawsky, *The Uncertain Promise of Retiree Health Benefits: An Evaluation of Corporate Obligations* (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1992); General Accounting Office, "Employee Benefits: Companies' Retirees Health Liabilities Large, Advance Funding Costly," GAO/HRD-89-51 (June 1989); and Deborah Chollet, "Retiree Health Insurance Benefits: Trends and Issues," in *Retiree Health Benefits: What Is the Promise?* (Washington, D.C.: Employee Benefits Research Institute, 1989).

deductions against current and future profits (until net worth was reduced to the same level as in the "all-at-once" scenario). Some firms may try to reduce their commitment to retirees. For those firms that find themselves saddled with insufficient resources and legally binding commitments, a reorganization in bankruptcy court may be the only option. In this case, shareholders, bondholders, current workers, and retirees would share the costs.

Why did some employers accrue such large unfunded liabilities? There are a variety of explanations.[18] Perhaps managers of these companies made long-term commitments to workers when the costs of health insurance were low, and were simply surprised by the rapid rise in costs. Or perhaps managers were short-sighted, because they should have recognized that these programs would eventually become very costly. This myopia may have been tolerated because the managers did not have to recognize the costs of these unfunded liabilities in their accounting statements to shareholders. Finally, some managers may have welcomed the opportunity to hold down current wage costs by promising future benefits to retirees, especially since they did not have to be funded or reported to shareholders. The Financial Accounting Standards Board has recently taken steps to deal with these reporting problems and has issued rulings that require an accounting of the liabilities.

## Effects on International Competition

One often hears the claim that the rising cost of employment-based health insurance makes it difficult for U.S. companies to compete in the world marketplace. The argument is based on the claim that such insurance raises the cost of producing goods in the United States. Because governments of other countries provide health insurance, it is argued that foreign producers do not face such costs and thus have a competitive advantage.

Although there may be some truth in these arguments, they are largely overstated.[19] The rising cost of insurance, by itself, has little long-run effect on the average competitiveness of U.S. companies (in which competitiveness is defined as the price of tradable U.S. goods and services in relation to that of foreign goods and services, converted into a common currency). Of course, relative prices and competitiveness could be affected temporarily as markets adjust to unanticipated increases in health care costs. But these disequilibrium effects would probably not be long lasting for most firms or have a strong effect on U.S. competitiveness in general.

The key problem with the popular argument that health costs impair U.S. competitiveness is that it assumes that these costs are passed along to the relative prices of U.S. tradable goods and services. On the contrary, it is workers who bear the costs. Because the total compensation of workers is not affected, rising insurance costs have little effect on either the firm's long-run supply of goods and services or their relative prices. And with unchanged prices, the long-run competitiveness of U.S. companies cannot be affected, regardless of how much health care costs go up.

Even if health insurance could affect relative prices of domestically produced goods and services, average U.S. competitiveness in world markets would still remain largely unaffected because the international financial markets could respond in ways that offset some (or possibly all) of the increase in the relative prices of tradable goods and services. As higher health costs pushed up the average price of U.S. tradable goods and services, the dollar would depreciate, offsetting the effects of higher health care costs. Because the depre-

18. Uwe Reinhardt, "Health Care Spending and American Competitiveness," *Health* Affairs, vol. 8, no. 4 (1989). pp. 5-21.

19. For two discussions of health care costs and the competitiveness issue, see Henry J. Aaron, *Serious* and *Unstable Condition: Financing America's Health Care* (Washington, D.C.: Brookings Institution, 1991), pp. 94-101; and Reinhardt, "Health Care Spending and American Competitiveness."

ciation of the dollar would reflect the average increase in prices, manufacturers who raised their prices by an average amount would see relatively little change in their ability to compete against foreign producers.

Although U.S. companies on average are unlikely to see much change in their ability to compete against overseas competitors, rising health costs could affect competition among domestic producers in two ways. First, as discussed later, the tax subsidy for employment-based health insurance gives a competitive edge to large U.S. firms that provide insurance over small domestic firms that do not. Thus, the current system encourages large firms at the expense of small ones. Second, if health costs were passed into relative prices, some U.S. firms would benefit, but others would lose. The depreciation of the dollar, described above, would reflect the extent to which average health care costs raised average U.S. prices. Thus, U.S. firms that had lower-than-average health care costs (or passed less of their costs into prices) might see their competitiveness enhanced. Conversely, firms that had higher-than-average health care costs (or higher passthrough rates) could see an erosion in their competitiveness.

Despite these considerations, rising health costs could indirectly affect trade because they are likely to increase the federal budget deficit. For example, CBO projects that under current policies the deficit will rise from $314 billion in 1992 to $514 billion in the year 2002, largely because Medicare and Medicaid costs are expected to escalate.20 A rise of this magnitude in the deficit could impair the competitiveness of U.S. business over the next decade. But such effects do not come about because of anything unique about health spending; the effects stem solely from the deficit. Because part of the deficit will be financed by foreigners, the trade balance will become worse in the short run; in other words, the "export" of government debt will crowd out exports of U.S. goods and services (see Chapter 5).

20. Congressional Budget Office, *The Economic and Budget Outlook: An Update* (August 1992).

# Why Are So Many Workers Uninsured?

The nation's health insurance system (both private and public) does not provide coverage to millions of U.S. workers or their dependents. In 1990, more than 33 million people under the age of 65 were uninsured. Moreover, by most accounts, the percentage of people under the age of 65 who were uninsured has increased about 3 percentage points since the late 1970s. To a significant extent, the number of people who are uninsured reflects the inability of the current system of employment-based insurance to provide universal coverage to workers. Since the 1970s, the loss of insurance coverage through employers has been the prime factor responsible for the growth of the uninsured population. Indeed, in 1990, most of the uninsured--about 80 percent--were employed or were dependents of workers (see Table 6).

The lack of health insurance is concentrated among certain groups. In 1990, about half of the working uninsured and their dependents were connected to the labor force through a small business employing 25 or fewer people. More than half had incomes that were no more than twice the poverty threshold. This pattern of who receives employment-based insurance--and who does not--is not accidental but to a significant extent is determined by economic forces.

## Factors That Influence the Number of Uninsured

Three factors can explain why many people do not have health insurance. The first factor is that employment-based insurance is voluntary. Employers do not have to offer it as a benefit, and employees do not have to take it.

Table 6.
Work Force Connections of the Uninsured Population Under the Age of 65, March 1990

| Relationship to Work Force | Uninsured: Number (Millions) | Uninsured: As a Percentage of All Uninsured Under 65 | Percentage of Group by Status: Uninsured | Percentage of Group by Status: Insured |
|---|---|---|---|---|
| Work Force Connection | | | | |
| Employed | 16.1 | 48.7 | 14.2 | 85.8 |
| Dependent of employed person | 10.6 | 31.9 | 14.4 | 85.6 |
| Unemployed or not in labor force | 6.4 | 19.4 | 21.6 | 78.4 |
| Total | 33.1 | 100.0 | n.a. | n.a. |
| Employment Level | | | | |
| Full-time worker | 13.4 | 40.4 | 12.6 | 87.4 |
| Dependent of full-time worker | 9.0 | 27.2 | 13.3 | 86.7 |
| Part-time worker | 2.7 | 8.2 | 34.2 | 65.8 |
| Dependent of part-time worker | 1.6 | 4.7 | 28.7 | 71.3 |
| Unemployed or not in labor force | 6.4 | 19.4 | 21.6 | 78.4 |
| Total | 33.1 | 100.0 | n.a. | n.a. |

**SOURCE:** Congressional Budget Office calculations based on data from the Current Population Survey, March 1990.

**NOTES:** Workers include all reporting that they were employed during the survey week, including those not at work.

n.a. = not applicable.

For some employers (such as small businesses), providing insurance can be very costly and would require workers to accept substantial wage adjustments. Workers at these firms, moreover, may prefer to have higher cash wages instead of insurance, especially if they have low incomes or are covered by a spouse's policy. More generally, the labor market tends to match workers who have low demands for insurance with firms that have high costs of supplying it.

Although being uninsured may reflect a conscious decision, it is not completely clear that such decisions always represent informed, free choices. People with limited income may be uninsured, not because they choose to go without insurance, but simply because they cannot afford it. When faced with the "choice" of paying rent or buying insurance, these people probably pay the rent and forgo the insurance. The problem here, however, is not that these workers lack insurance but that they lack sufficient income to purchase essential goods and services.

But the lack of insurance could itself be a problem. For example, a person may decide to go without insurance but be unaware of the true risks of being uninsured. And there is evidence to suggest that this situation may be more than a mere possibility; empirical studies show that people tend to underestimate greatly the true risks of low-probability events (such as the need for expensive medical care).[21] If people do not evaluate such risks properly, how can they make informed decisions about forgoing insurance?

The second major factor that explains the uninsured is the increased use of experience rating (risk sorting) and restrictive under-

21. Amos Tversky and Daniel Kahnemann, "Judgement Under Uncertainty: Heuristics and Biases," *Science,* vol. 1985 (September 27, 1974), pp. 1124-1131.

writing by insurance companies. Under experience rating, firms are assessed premiums on the basis of the health experience of their own workers. Thus, firms that have high-risk employees pay much higher premiums than firms that do not have such employees. (As discussed in Box 4, many large and medium-sized firms have chosen to go into the insurance business in-house--or, more precisely, become self-insured--instead of purchasing it through a third-party insurer, but in both cases the insurance is experience-rated.) At the same time, insurers have imposed restrictive underwriting standards on small firms. These standards may require each worker to take a medical exam, and if any worker is found to have a potentially costly illness, that worker (or that worker's medical condition) may be excluded from coverage. As a result of these developments, a small company that has an employee who has had health problems may be unable to find any insurer willing to provide a policy--or if an insurer is found, the firm may have to pay exorbitant rates unless it is willing to accept exclusions for certain employees or for preexisting conditions--in either case effectively cutting off the sick employee's access to needed coverage.

Aggressive experience rating and restrictive underwriting standards in the insurance market are relatively new. Historically, insurers--especially Blue Cross and Blue Shield--provided policies to all companies (and individuals) based on the health risks of their communities, which effectively spread the risks among many policyholders. But in recent years, as competition intensified, insurance companies that used experience rating and strict underwriting standards found that they could offer lower premiums to some firms with fewer risks and make, at least initially, higher profits (by now, most of those excess profits have probably been passed to low-risk policyholders). But such risk sorting greatly raised the costs of insurance to firms that had higher risks--and made insurance unaffordable and unavailable to some people in small firms. To a significant extent, restrictive availability of insurance policies for workers at small firms provides an example of how a

**Box 4.**
**The Benefits of Self-Insured Health Plans**

Over the past decade, an increasing number of large and medium-sized firms have stopped purchasing health insurance through traditional insurance companies and instead have developed self-insured health plans. In 1987, about 40 percent of large and medium-size firms had self-insured health plans, up from 19 percent in 1979.

In some respects, self-insured health plans are just like traditional insurance plans except that the firm itself performs some (or all) of the insurance function. (Firms that want to limit their liability can purchase "stop-loss" insurance from a third party in the reinsurance market.) Instead of paying premiums to an insurance company that in turn pays the medical bills sent by hospitals, doctors, and other health care providers, self-insured firms pay these bills directly from reserves established by the firm. These reserves are maintained through regular contributions and are subject to certain federal solvency regulations. Although many self-insured firms hire third-party administrators--generally insurance companies--to process claims and deal with other administrative paperwork, the risks of unforeseen health costs are borne by the self-insured firms themselves. Although these risks can be reduced by contracting with a private insurance company to cover losses above a certain level, self-insurance still makes more sense for companies that are large enough to pool some of their risks than for small firms that have more difficulty doing so.

Moreover, self-insurance provides two key benefits over traditional private insurance plans. First, self-insurance plans are exempt from state mandates that require private insurers to cover specific services or providers. Although most of these mandates cover commonly desired benefits (such as maternity services and care for newborns), others require more exotic (and possibly costly) therapies.[1]

Second, self-insured plans do not have to pay taxes on their contributions to reserves. By contrast, commercial insurers in all 50 states (and Blue Cross/Blue Shield in 26 states) are required to pay a tax on the premiums they collect. Depending on the state, these taxes average about 2 percent to 3 percent of gross premiums.

1. State-mandated benefits generally increase the costs of health insurance, which ultimately are passed to workers in the form of lower cash wages. See Jon Gabel and Gail Jensen, "The Price of State Mandated Benefits," *Inquiry, vol.* 26 (Winter 1989), pp. 419-431.

competitive market for health insurance does not necessarily give consumers what they want.

The third reason that some people may go without insurance is that they are planning to rely upon the subsidized medical care provided in the emergency rooms of public hospitals. Public hospitals do not turn away patients who cannot afford medically necessary care and do not have insurance. The costs of providing such uncompensated care can be quite high, however, because the health problems of these patients are usually ignored until they reach a critical stage. Some of these costs are absorbed by doctors and hospitals; some of the costs are paid for by federal programs that compensate hospitals for serving indigent patients or by subsidies from state and local governments. But many observers believe that a significant portion of the costs for uncompensated care are also shifted to insured patients in the form of higher medical bills.

## Trends and Patterns in Health Insurance Coverage

Who does and does not receive employment-based health insurance exhibits a distinct pattern. Workers who receive such insurance generally work in large companies, have higher incomes, are more highly skilled, have stable jobs, and are older. By contrast, workers without insurance tend to be just the opposite; they work for small companies, have lower incomes, fewer skills, and unstable jobs, and are younger.22

**Workers in Small Companies.** In 1989, virtually all companies with 100 or more employees offered some type of insurance plan to their workers (see Table 7). But only 33 percent of firms with fewer than 10 employees offered any sort of health insurance plan.

22. A detailed discussion of the uninsured is presented in an earlier CBO publication. For more details, see Congressional Budget Office, *Selected Options for Expanding Health* Insurance Coverage (July 1991).

**Table 7.**
**Availability of Employment-Based Health insurance Plans, by Size of Firm, 1989**

| Number of Employees in Firm | Percentage of Firms Offering Plans | Percentage of Employees Covered by Those Plans |
|---|---|---|
| Under 25 | 39 | 55 |
| 0 to 9 | 33 | 42 |
| 10 to 24 | 72 | 70 |
| 25 to 99 | 94 | 94 |
| 100 to 499 | 99 | 97 |
| 500 to 999 | 100 | 100 |
| 1,000 and Over | 100 | 100 |
| All Firms | 43 | 77 |

SOURCE: Congressional Budget Office based on data from 1989 Employer Survey by Health Insurance Association of America.

Small businesses do not provide insurance to their employees for several reasons. First of all, many of their workers earn relatively low wages and may prefer more cash instead. In addition, some workers in small companies have insurance from other sources and thus do not need additional coverage. But perhaps the most important reason is that it is very costly for small firms to supply health insurance. Three factors account for these higher supply costs:

- The administrative cost per employee of providing insurance is high for small businesses.
- Small firms cannot easily self-insure, a technique used by large firms to hold down health care costs.
- Owners of small businesses receive a smaller tax subsidy for providing insurance to themselves or their dependents.23

23. Although small businesses can fully deduct the costs of unrelated employees, owners of unincorporated companies (and partnerships) have been able to deduct only 25 percent of the cost of providing insurance to themselves or their dependents. Although the provision technically expired on July 1, 1992, several legislative proposals are being considered to extend this deadline and possibly to increase the percentage as well.

The lack of insurance among workers in small firms accounts for a large percentage of the total uninsured. As of March 1990, more than half of the working uninsured were employed by small businesses having 25 or fewer employees.24

**Low-Income Workers.** Employment-based insurance is strongly correlated with the income of the worker. To some extent, this pattern can be explained by the fact that low-wage workers are more likely to work in small than in large businesses. In 1989, 24 percent of all workers in small firms (those with fewer than 10 employees) earned $10,000 or less annually. By contrast, only 14 percent of workers in large firms (100 or more employees) earned $10,000 or less.

But workers' incomes also affect the likelihood of insurance coverage, independent of firm size. Firms that offer insurance have a much smaller percentage of low-wage workers than comparably sized firms that do not offer insurance.25 This result holds true for firms of all sizes, including those that have 10 or fewer employees.

There are several reasons that low-wage workers tend to be uninsured. First, because they do not make much money, they economize on the purchase of health insurance, just as they economize on other consumer purchases. Second, low-wage workers are in lower tax brackets and, as a result, receive a smaller tax subsidy than do high-wage workers for purchasing insurance through the employer. Third, such workers are subject to minimum-wage laws that set a floor under nominal wages. As the costs for health insurance rise, the cash wage that a firm is willing to pay to its lowest-paid workers may be pushed below this minimum. Unless the firm is willing and able to raise prices or provide compensation in excess of productivity (and implicitly accept subpar profits), employers are likely to reduce workers' coverage.

**Part-Time Workers and Those with Unstable Jobs.** Part-time workers are less likely to obtain health insurance through their employers than are full-time workers. In 1990, one-third of workers employed less than 35 hours a week (and their dependents) were uninsured. By contrast, only 13 percent of full-time workers and their families were uninsured.

In addition, workers who hold unstable jobs are also less likely to be insured, regardless of the size of the firm for which they work. For example, small firms (25 or fewer employees) that offered insurance in 1989 had relatively modest annual turnover rates--about 17 percent. But similar firms that did not offer insurance had relatively high turnover rates; they replaced about one-half of their work force each year.26

Such employees tend to be uninsured chiefly because they earn low wages and cannot afford health insurance. In addition, the cost of insurance per hour worked can represent a large fraction of a part-time worker's hourly wage because the cost of insurance is a lump-sum payment that does not vary with the hours of work. The costs of insurance can be high for workers who hold unstable jobs because work force instability increases administrative costs and the risk of adverse selection.

## How Rising Costs Shape the Structure of Work

The labor market plays a key role in the performance of the nation's economy by allocat-

24. Calculations by the Congressional Budget Office using data from the March 1991 Current Population Survey.

25. Cynthia Sullivan, Steven DiCarlo, and Clare Lippert, "Characteristics of Firms That Do and Do Not Offer Health Insurance," in Richard Curtis, ed., *Providing Employee Health Benefits: How Firms Differ* (Washington, D.C.: Health Insurance Association of America, 1990).

26. Sullivan, DiCarlo, and Lippert, "Characteristics of Firms That Do and Do Not Offer Health Insurance."

ing valuable human resources to various productive uses. When this market fails to do its job properly, the impact is felt not only by those who are currently employed, but by all U.S. residents. In a variety of ways, rising health costs have distorted the structure of the nation's labor market and, in doing so, have reduced the efficiency of this crucial sector. Although the quantitative magnitudes of these distortions are uncertain, their impact is likely to intensify as health care costs continue to rise.

## Effect on Hours and Employment

Federal policies can distort labor markets both within and among firms. Within firms, rising health care costs motivate employers to move some of their low-wage workers to part-time status or rely upon contract work (with independent firms or individuals). For example, minimum-wage laws can prevent the pay of some low-wage workers from adjusting in response to higher costs for health insurance. Although dropping such workers from an insurance plan could keep their compensation in line with productivity, employers who do so may run afoul of antidiscrimination laws unless they move these workers to part-time status or contract work. Antidiscrimination laws generally limit the ability of firms to offer different benefit packages to full-time workers, but such protections are not extended to part-time or contract workers.

Thus, firms that want to retain health insurance coverage for their highest-paid employees may put some of their lowest-paid workers on part-time status without any health insurance coverage. Alternatively, such firms may eliminate their lowest-paid positions and contract instead with independent firms to perform the tasks. For example, many firms no longer have janitors, gardeners, cafeteria staff, and general-duty workers on their payrolls; instead those tasks are performed by independent contractors. Of course, the low-paid worker whose position was eliminated at the large firm may have been rehired by the independent contractor--but without health benefits.

Although part-time and contract work is certainly desirable for workers who want flexibility in their work schedules, such a development may offer dismal prospects to many workers. Part-time and contract workers may get less on-the-job training and face poorer chances for career advancement in the primary labor markets.[27] Workers who are involuntarily employed part time also tend to be paid less. Some part-timers may hold more than one job, spending more time commuting between jobs and less time with their families. To the extent that part-time and contract work is not freely chosen by both employees and employer, it wastes total resources and burdens those who are least able to afford it.

The allocation of labor among firms is also distorted by federal and state tax laws that subsidize the employment-based insurance system.[28] Because employers' contributions for health insurance are not taxable as income to employees, firms that provide health insurance have lower labor costs than firms that do not, giving them a competitive edge in bidding for employees over those that do not offer insurance. Because larger firms are more likely than smaller ones to offer insurance in the first place, the tax subsidy results in too many workers in large firms--and too few in

27. Such workers are likely to have higher-than-average turnover rates, which reduce the returns to employers training those workers. Because training involves large fixed costs, firms are less likely to invest in it unless there is a high likelihood that the trained worker will remain with the firm. For details on the factors that influence on-the-job training, see Walter Oi, "The Fixed Employment Costs of Specialized Labor," in Triplett, ed., *The Measurement of Labor Cost.* For an overview of part-time work, see Rebecca Blank, "Are Part-Time Jobs Bad Jobs?" in Gary Burtless, ed., *A Future of Lousy Jobs? The Changing Structure of U.S.* Wages (Washington, D.C.: Brookings Institution, 1990).

28. Leonard Burman and Jack Rodgers, "Tax Preferences and Employment-Based Health Insurance," *National Tax Journal,* forthcoming; and B.K. Atrostic and Leonard Burman, "Allocative Effects of Fringe Benefit Taxation" (paper prepared for the American Economic Association Annual Meetings, Washington, D.C., December 29, 1990).

small firms. In turn, the output of large firms is higher than optimal, while the output of small firms is less than optimal.29 Such distortions reduce the efficiency of the economy because workers are not necessarily employed most productively.

### Effect on Labor Supply

Employment-based health insurance has ambiguous effects on labor supply, but would probably not affect a large number of people. On one hand, it could raise participation in the labor force among people who need access to health insurance. For example, a person who has a sick child and a spouse whose job does not offer insurance may enter the labor force simply to gain access to coverage. On the other hand, some workers who do not value health insurance may leave the labor force if their wages are less than desirable. The workers most likely to leave the labor force are those with alternative sources of income and insurance from, say, a working spouse.

These effects are likely to become less important in the future. Firms now have the option of offering "cafeteria" benefit plans that allow workers to choose what best meets their needs. The use of such plans is increasing. In the future, continued growth reduces the chance that such workers would be unable to find a suitable mix.

### Effect on Job Mobility

The nation's employment-based system of health insurance may also reduce the mobility of workers between jobs, especially between large and small firms. For example, a worker in a large firm that offers health insurance may be somewhat reluctant to take advantage of an opportunity offered by a small employer who does not have such a plan. Even if the small employer offered health insurance, workers may still be reluctant to make a move since small firms are more likely to lose insurance if a single worker gets sick, or be subject to underwriting restrictions that exclude coverage for certain people or medical conditions. For some workers who have family responsibilities, this risk might be uncomfortable. For workers with preexisting medical conditions (or family members with such conditions), the risk would be unacceptable. For all of these reasons, the employment-based system of health insurance could cause some workers to stay at jobs that do not maximize their potential earnings or give them personal satisfaction. As a result, this system may reduce the ability of the nation's labor market to respond to challenges and opportunities and provide workers with a full range of employment choices. The quantitative impact of these effects, however, is unknown.

## Conclusions

The increase in health care costs seems likely to affect the private economy significantly, although not through the usually perceived channels. Indeed, there is a set of myths about health care financing that has obscured its economic implications. For example, many people erroneously believe that employment-based health insurance is largely paid for by the employer and that a worker who receives these benefits does not have to give up anything in return. But a careful analysis shows that the rising costs of employer-paid health insurance are largely shifted to workers in the form of lower real wages. Despite claims to the contrary, such costs are generally not borne by businesses in the form of lower profits, nor do they have much effect on the ability of U.S. firms to compete in international markets.

29. Although administrative savings for health plans in large firms certainly provide them with a competitive edge over smaller firms in providing insurance, the resultant savings do not introduce a distortion (or inefficiency) in the allocation of labor. In fact, the opposite is true: exercising such advantages improves efficiency because it helps to deliver health insurance to policyholders at truly lower costs.

This shifting of costs to workers is just the final stage of a much more complicated set of economic interactions. Health care providers pass their costs to patients, who in turn send the bills to insurance companies. Insurance companies raise the premiums on employment-based insurance to cover these costs. Because the link between those who receive benefits and those who pay for them is so tenuous, it is often difficult for the ultimate payer--workers--to exercise much direct control over suppliers.

Chapter Five

# How the Rising Costs for Government Health Programs Affect the Economy

According to Congressional Budget Office projections, if current policies are not altered, health care spending in the United States will rise from 1‘2 percent of gross domestic product in 1990 to 18 percent by the year 2000. In turn, the costs of government health programs will escalate and crowd out other budget priorities. These rising costs will translate into larger budget deficits if the projected increases in federal health spending are not offset by increases in taxes or cuts in other federal spending. In the CBO baseline projections, the growth of federal health programs is the main reason that the federal deficit is expected to swell to more than $500 billion by the year 2002.1 Such an increase in the deficit could hamper the growth of U.S. living standards during the early decades of the 21st century. A larger deficit reduces the nation’s overall level of saving, which slows the rate of capital accumulation, increases our indebtedness to foreigners, and reduces the competitiveness of American industry.

Policymakers could improve the economic outlook by reducing future deficits, and one important way to do so would be to control the growth of federal spending on health care. Such improvements, however, do not necessarily require controlling federal health costs; many other fiscal actions (such as raising taxes or cutting nonhealth spending) that reduce the deficit and increase saving by a comparable amount would have a similar effect on the economy, although the precise economic impact would depend on the fiscal policy selected.

It is beyond the scope of this study to discuss specific proposals to bring federal health spending under control, or to discuss in detail alternative fiscal policies to reduce the deficit. Such an omission is not meant to imply that such steps would be easy. Without a doubt, the budget arithmetic implies that such steps would be unpleasant. But if the nation’s fiscal policy is not changed, these deficits will continue to hamper the economy and hold down the growth of U.S. living standards.

## The Impact of Rising Health Costs on the Federal Budget

Federal spending for health care has grown dramatically during the past 20 years. In 1970, health expenditures for Medicare and Medicaid accounted for only 5 percent of total federal outlays. By 1990, they had more than doubled to 12 percent, and CBO projects that they will double again--to 25 percent of the total budget--by the year 2002.

### Implications for Budgeting in the 1990s

Medicare and Medicaid are currently the fastest-growing portions of the federal budget,

1. Congressional Budget Office, The Economic and *Budget Outlook: An Update* (August 1992).

reflecting both the overall growth in health costs and recent decisions to expand Medicaid coverage. Spending on these two programs has grown from about 1 percent of gross domestic product in 1970 to an estimated 3.4 percent in 1992. CBO expects that under current policy these programs will grow to 6.1 percent of GDP by the year 2002 (see Table 8). By that time, the combined costs of Medicare and Medicaid are expected to be only $75 billion less than the cost of all discretionary programs--defense, domestic nondefense, and international.

By contrast, the shares of federal spending in other categories (except interest payments on the federal debt) have generally fallen during the past decade (see Figure 6). Defense discretionary spending has gradually shrunk to about 5.5 percent of GDP. The share of do-

**Table 8.**
**The Budget Outlook Through 2002 in the CBO Baseline (By fiscal year)**

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | In Billions of Dollars | | | | | | |
| Revenues | 1,088 | 1,162 | 1,242 | 1,323 | 1,390 | 1,455 | 1,534 | 1,612 | 1,693 | 1,779 | 1,870 |
| Outlays | 1,402 | 1,493 | 1,511 | 1,567 | 1,644 | 1,745 | 1,845 | 1,962 | 2,093 | 2,233 | 2,384 |
| Deficit | 314 | 331 | 268 | 244 | 254 | 290 | 311 | 350 | 400 | 454 | 514 |
| Standardized-Employment Deficit[a] | 232 | 223 | 214 | 212 | 240 | 291 | 314 | 352 | 396 | 447 | 504 |
| Debt Held by the Public | 3,000 | 3,326 | 3,597 | 3,847 | 4,107 | 4,403 | 4,720 | 5,075 | 5,481 | 5,941 | 6,461 |
| | | | | | As a Percentage of GDP | | | | | | |
| Revenues | 18.6 | 18.8 | 18.9 | 19.1 | 19.0 | 18.9 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Discretionary | 9.3 | 8.8 | 8.2 | 7.7 | 7.6 | 7.5 | 7.3 | 7.2 | 7.1 | 7.0 | 6.9 |
| Mandatory | | | | | | | | | | | |
| Social Security | 4.9 | 4.9 | 4.9 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| Medicare and Medicaid | 3.4 | 3.6 | 3.8 | 4.0 | 4.3 | 4.5 | 4.8 | 5.1 | 5.4 | 5.8 | 6.1 |
| Other | 4.0 | 3.8 | 3.6 | 3.4 | 3.3 | 3.3 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 |
| Deposit insurance | 0.2 | 0.8 | 0.3 | 0.1 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 |
| Net interest | 3.4 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 | 3.8 | 3.9 | 4.0 | 4.2 |
| Offsetting receipts[b] | -1.2 | -1.1 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -0.9 |
| Total | 24.0 | 24.1 | 23.0 | 22.6 | 22.5 | 22.7 | 22 8 | 23.1 | 23.4 | 23.8 | 24.2 |
| Deficit | 5.4 | 5.3 | 4.1 | 3.5 | 3.5 | 3.8 | 3.8 | 4.1 | 4.5 | 4.8 | 5.2 |
| Standardized-Employment Deficit[a,c] | 3.8 | 3.5 | 3.2 | 3.0 | 3.3 | 3.7 | 3.9 | 4.1 | 4.4 | 4.7 | 5.1 |
| Debt Held by the Public | 51.3 | 53.7 | 54.8 | 55.5 | 56.1 | 57.1 | 58.3 | 59.7 | 61.4 | 63.4 | 65.6 |

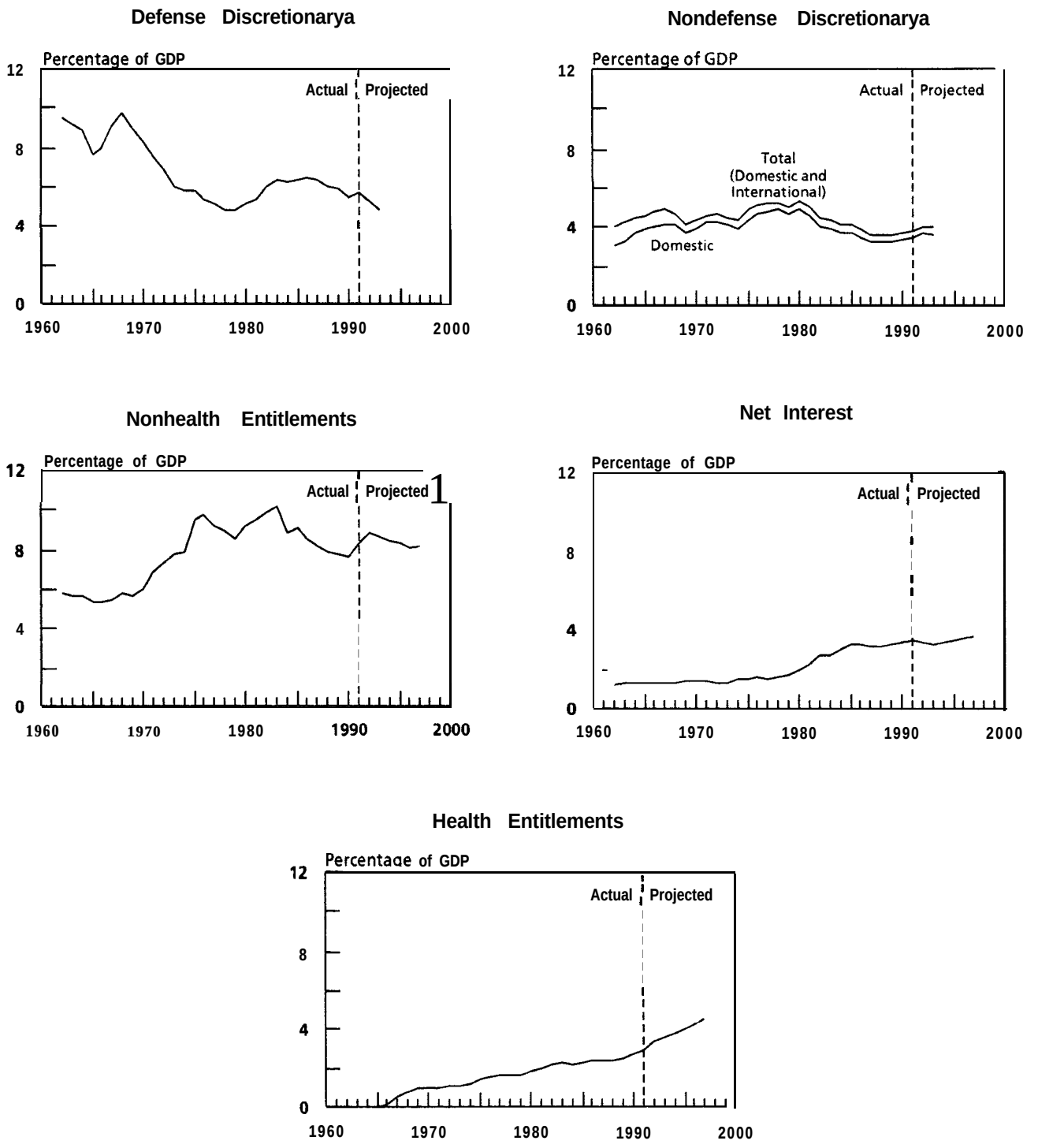
SOURCE: Congressional Budget Office, *The Economicand Budget Outlook: An Update* (August 1992).

a. Excludes deposit insurance and Desert Storm contributions.

b. Includes contributions from allied nations for Operation Desert Storm.

c. Shown as a percentage of potential gross domestic product.

**Figure 6.**
**Federal Outlays as a Share of Gross Domestic Product**




SOURCE: Congressional Budget Office.

NOTE: GDP = gross domestic product.

a. Assumes compliance with discretionary spending caps in the Budget Enforcement Act. Caps are not specified in detail after 1993

**Table 9.**
**How the Federal Budget Is Affected if Spending on Medicare and Medicaid Rise Above Their 1991 Shares of GDP**

| Health Costs | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Billions of Dollars | | | | | | |
| Increased Federal Health Costs[a] | 25 | 42 | 57 | 75 | 97 | 121 | 149 | 182 | 220 | 264 | 313 |
| | | | | | Percent | | | | | | |
| increased Federal Health Costs | | | | | | | | | | | |
| As a percentage of federal revenue | 2.3 | 3.6 | 4.6 | 5.7 | 7.0 | 8.3 | 9.7 | 11.3 | 13.0 | 14.8 | 16.7 |
| As a percentage of discretionary spending[b] | 4.6 | 7.7 | 10.6 | 14.0 | 17.5 | 21.1 | 25.1 | 29.6 | 34.7 | 40.2 | 46.1 |
| As a percentage of total nonhealth spending[c] | 2.5 | 4.0 | 5.5 | 7.2 | 9.1 | 10.9 | 12.9 | 15.1 | 17.5 | 20.1 | 22.9 |
| | | | | | Billions of Dollars | | | | | | |
| Memorandum increased Debt Service Costs[d] | 0 | 2 | 6 | 11 | 17 | 26 | 35 | 47 | 60 | 74 | 91 |

SOURCE: Congressional Budget Office calculations.

a. The difference between the CBO projection for Medicare and Medicaid and the amount that would be spent if the costs of these programs were held to their 1991 share of GDP. In 1991, Medicare and Medicaid absorbed 3.0 percent of GDP. CBO projects that by the year 2002 these programs will absorb 6.1 percent. This table shows the costs of allowing Medicare and Medicaid spending to rise above their 1991 share.

b. Includesall spending on defense and domesticand international discretionary programs.

c. includes all discretionary spending plus Social Security, civil service and military retirement, and other nonhealth mandatory programs. Excludes Medicare, Medicaid, and net interest.

d. If increased health costs are financed through a larger deficit, they will increase the interest costs of servicing the federal debt, as shown in the table.

mestic discretionary spending, which grew in the 1960s and 1970s, was cut back in the 1980s and is now only about two-thirds of its peak in the 1970s.2 Spending on nonhealth entitlements as a share of GDP, despite rising last year, is also down from its high point in the early 1980s. Although these comparisons are useful in relating spending to resources, they do not indicate whether that kind of spending meets the nation's needs,

CBO projects further declines during the next 10 years in the share of federal discretionary spending. Total discretionary spending (defense, domestic, and international) is expected to fall from 9.3 percent of GDP in 1992 to 6.9 percent in 2002. CBO assumes that policymakers will adhere to the spending caps set forth in the Budget Enforcement Act (BEA), which would reduce discretionary spending over the next couple of years. If those limits are not kept, the deficit will be even larger than projected. The BEA, however, does not impose spending caps on Medicaid and Medicare. Although legislated expansions in the benefits of these programs must be paid for with tax hikes or cuts in spending on

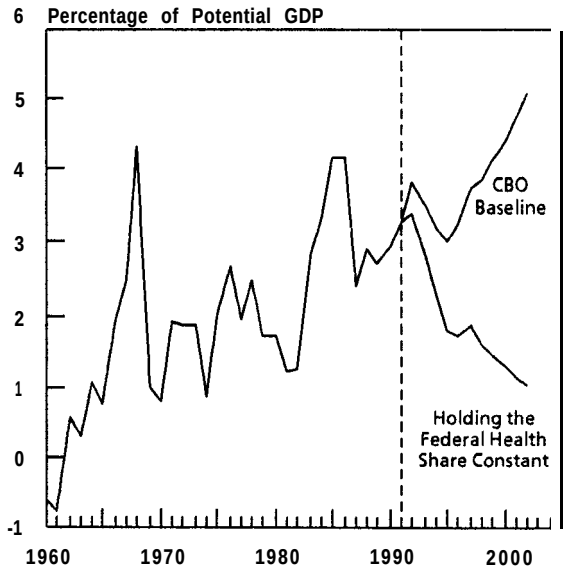
2. Domestic discretionary programs cover a broad range. They include programs for education, training, social services, health care and research (excluding Medicare and Medicaid), income security and veterana' affairs, transportation, and management of the environment and natural resources.

other entitlement programs, "automatic" increases in health expenditures, such as those from higher costs for physicians' services, do not require those kinds of offsetting changes.

The rising share of Medicare and Medicaid expenditures will significantly encumber budgeting for the next decade. It seems obvious that Medicare and Medicaid will not be financed through some mysterious source, but will be paid for by reducing nonhealth spending, raising taxes, or incurring larger deficits,

Just the growth in the GDP share of Medicare and Medicaid between 1991 and 2002 will cost the government an additional $313 billion by the year 2002 (see Table 9). By then, these increased costs alone will absorb 17 percent of total federal revenue and amount to 23 percent of all nonhealth spending (excluding net interest) and almost half of discretionary spending. If these increased costs were financed through a larger budget deficit, they would increase the nation's interest payments on the federal debt by $91 billion in the year 2002.

**Figure 7.**
**The Standardized-Employment Budget Deficit**




SOURCE: Congressional Budget Office.

NOTES: The alternative projection to the CBO baseline assumes that federal spending on Medicare and Medicaid is held to its 1991 share of gross domestic product (GDP), which was 3.0 percent, instead rising to 6.1 percent by 2002, as in the CBO baseline.

Figures after 1991 are projected.

## Implications for the Budget Deficit

The projected rise in federal health costs is a major reason for pessimism regarding the long-term outlook for the federal budget deficit. Health programs are the only major category of the budget (except interest payments on the debt) that is expected to increase during the 1990s. The shares of all other major categories either fall or remain the same. Moreover, federal tax revenues under current law remain a steady 19 percent of GDP over the decade.

CBO projects that the deficit will balloon to more than $500 billion by the year 2002 (see Table 8). Although CBO expects the deficit to fall in the next few years, that decline reflects an expected improvement in the economy, not a change in the nation's underlying fiscal policy.[3] The standardized-employment deficit (excluding deposit insurance and Operation Desert Storm) increases from 3.8 percent of potential GDP in 1992 to 5.1 percent in 2002. The growth of the standardized deficit is most striking in the second half of the 1990s, when it rises 2.1 percentage points between 1995 and 2002. By historical standards, such a sustained rise in the deficit is large and exceeds the records set during the 1984-1991 period (see Figure 7).

3. Examining long-term trends in the federal budget deficit requires the use of special measures that strip out the effects of special, nonrecurring factors that distort the true stance of fiscal policy. One such measure, the standardized-employment budget deficit, eliminates the effects of the business cycle. Spending for deposit insurance should be subtracted because it largely involves a transfer of assets, which has different economic effects than other types of spending. See Congressional Budget Office, *The Economic Effects of the Savings & Loan Crisis* (January 1992). Spending for Operation Desert Storm, which is a nonrecurring expense, should also be deducted.

By contrast, if federal spending for health could be held to 1991 shares of GDP, the outlook for the deficit would be dramatically changed. The standardized-employment deficit would fall to about 1 percent of potential GDP by the year 2002, down from 5.1 percent in the CBO baseline. Such a drop is very significant and would reverse all of the increase in the federal deficit during the 1980s (see Figure 7). Between 1960 and 1980, the standardized-employment deficit fluctuated around 1 percent to 2 percent of potential GDP. During the 1980s, however, the U.S. budget deficit rose more than a percentage point to better than 3 percent of potential GDP. Holding health spending to its 1991 share would push the federal deficit back to the levels of the 1960-1980 period.

## The Impact of Rising Health Costs on State and Local Budgets

The increasing cost of health care squeezes state and local budgets as well (see Figure 8). State and local governments have consistently spent an increasing share of GDP on health over the past decade. The share of spending on public safety (police, fire, and corrections) has also risen. By contrast, the share of spending by state and local governments on transportation and income support have both shrunk. Although the share of spending on education has grown in the last five years, it is down from its peak in the mid-1970s when the baby-boom generation was in school.

Increases in health care costs will continue to challenge state and local governments. In 1991, states and localities spent $100 billion on health care. CBO projects that by the year 2000 they will spend $244 billion. Most of this increase will result from an escalation in the costs of the Medicaid program, although these governments also provide funds for public hospitals, clinics, and public health services.

Assuming an unchanged health policy, the increased costs of the Medicaid program alone will probably require offsetting policy actions by state governments. Just the growth in Medicaid's GDP share between. 1991 and 2000 will cost states an additional $69 billion in the year 2000 (see Table 10). Because virtually all states require balanced budgets, they would have to raise revenues or cut public services to finance these increases in Medicaid costs (unless they were operating with budget surpluses). An illustrative calculation suggests that the increase in Medicaid's GDP share alone could absorb 12 percent of state revenues (less grants-in-aid) and possibly amount to 18 percent of state nonhealth spending (less grants-in-aid) by the year 2000 (see Table 10).[4] Thus, rising health costs will make it significantly more difficult for states to rebuild infrastructure, fund grants to local governments for education, or provide tax relief.

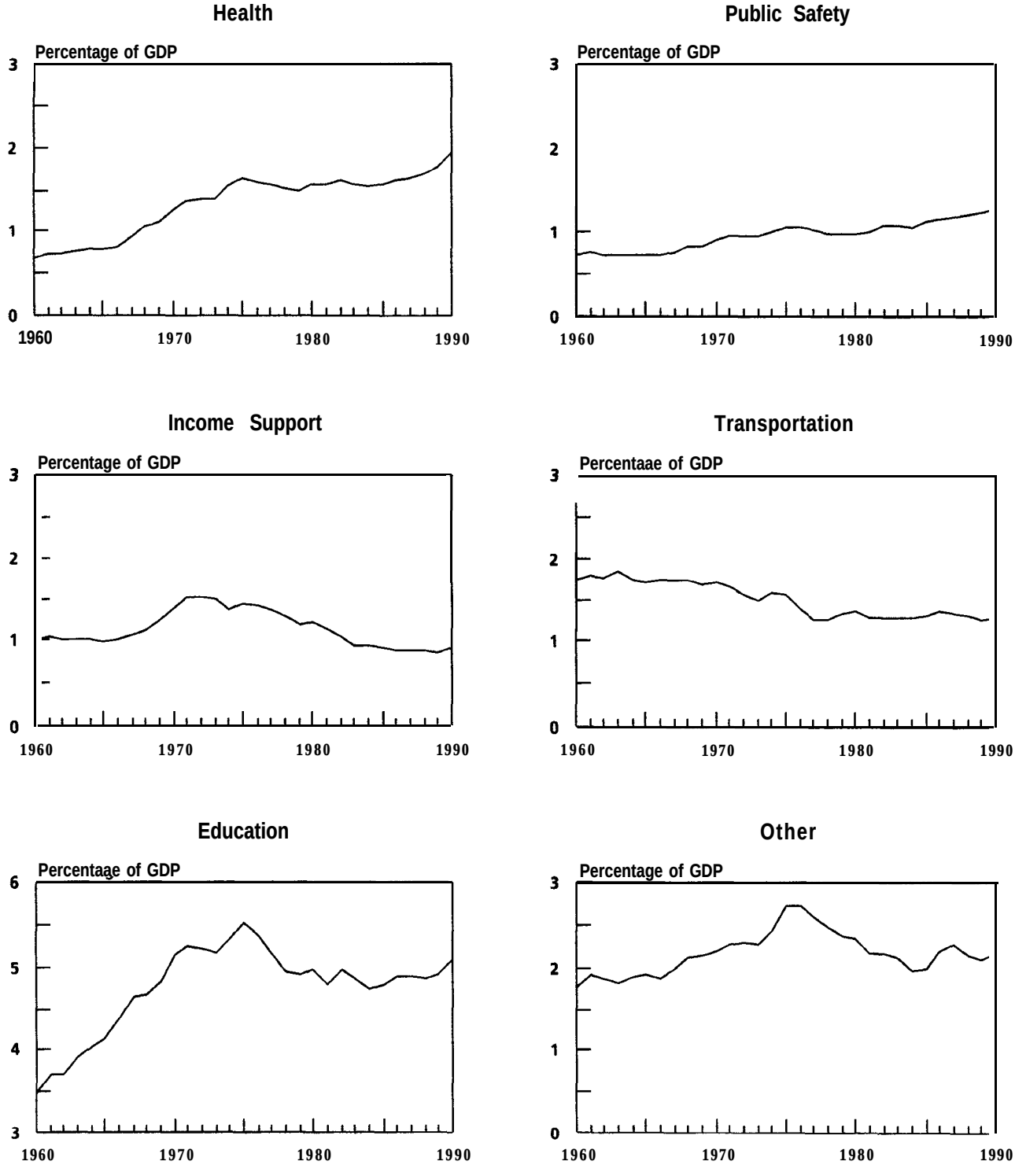
## The Economic Benefits of Controlling Government Health Costs

Controlling the growth in government health care costs could significantly benefit the economy. Lower health costs would allow governments to spend more money on programs that may enhance economic performance, such as education, infrastructure, or research and development.[5] Lower health costs could also be used to finance tax reductions that may

4. Although CBO forecasts revenues and expenditures for state and local governments, the agency does not prepare forecasts for state budgets by themselves. The calculations in the text assume that state revenues (less grants-in-aid) remain at their shares of total state and local revenues in the 1987 census of governments. A similar assumption was used to project state nonhealth expenditures (less grants-in-aid).

5. See Congressional Budget Office, *How Federal Spending for Infrastructure and Other Public Investments Affects the Economy* (July 1991).

**Figure 8.**
**Outlays by State and Local Governments as a Share of Gross Domestic Product**




SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

**Table 10.**
**How State Budgets Are Affected if Medicaid Costs Rise Above Their 1991 Share of GDP: An Illustrative Calculation**

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Billions of Dollars | | | | | |
| Increase in State Medicaid Costs[a] | 9 | 14 | 19 | 25 | 31 | 38 | 47 | 58 | 69 |
| | | | | Percent | | | | | |
| Increase in State Medicaid Costs | | | | | | | | | |
| As a percentage of state revenues[b, c] | 2.5 | 3.7 | 4.5 | 5.7 | 6.8 | 7.9 | 9.4 | 11.0 | 12.4 |
| As a percentage of state non-Medicaid spending[b, c] | 3.2 | 4.9 | 6.0 | 7.7 | 9.2 | 10.8 | 12.9 | 15.3 | 17.6 |

SOURCE: Congressional Budget Office calculations.

a. The difference between the CBO projection for Medicaid costs and the amount that would be spent if state Medicaid expenditures were held to their 1991 share of GDP. In 1991, state spending on Medicaid absorbed an estimated 0.75 percent of GDP. CBO projects that by 2000 it will absorb about 1 .S percent.

b. Less federal grants-in-aid.

c. CBO does not forecast state revenues and expenditures. In this table, state revenues are assumed to be a fixed share of total state and local revenues, which CBO does project. The shares are based on the 1987 census of government. Similarly, state non-Medicaid expenditures are assumed to be a fixed share of state and local spending.

improve the economy's growth. Last, lower health costs could be used to reduce the federal government's gargantuan budget deficit. Because analysts best understand the linkage between government deficits and economic performance, they can quantify the economic effects of deficit reduction with more certainty.

Reducing the size of the federal deficit by controlling federal health spending could have a significant effect on the living standards of future generations by raising national saving, which would increase the nation's investment in new capital equipment and structures and reduce its indebtedness to foreigners. Investment in new physical capital, such as business plant and equipment, has traditionally been important in economic progress because it allows the economy to become more productive. Faster rates of capital accumulation also enable more rapid adoption of new technologies, thus helping to modernize the economy and boost its medium-term growth rate.6 Reducing the amount owed to the rest of the world has important benefits as well, because these debts represent claims on future U.S. output. When such claims are cut back, more of the U.S. output can be devoted to raising incomes rather than simply paying off the interest and dividends that the country owes abroad.

## The Effect of Deficit Reduction on National Saving

Reducing the deficit is likely to translate into increased national saving. Although deficit reduction could lead to a modest decline in personal saving that would partially offset higher federal saving, the empirical evidence on whether such an effect exists--and how large it is--is mixed. Moreover, the size of this offset probably depends on the type of fiscal policy used to reduce the deficit. Because of these uncertainties, CBO adopts the traditional stance that deficit reduction has no effect on the rate of personal saving. If it did

6. In the very long run. increased saving raises only the level of output, not the growth rate. But in the medium term, economic growth can be affected by the level of saving. See Robert Solow, Growth Theory: *An Exposition* (New York: Oxford University Press, 1970).

have such an effect, the benefits of deficit reduction estimated in this chapter would be smaller.

Although this chapter is narrowly focused on federal spending for health care, it is also important to mention that personal saving rates can be affected by changes in the overall cost of health care, not just the federal portion. Although the direction of these effects depends on several factors (and, as a result, is ultimately uncertain), analysis of this issue can provide insights into the ways in which expectations, insurance, and government can affect the behavior of personal saving (for more details, see Box 5).

**Box 5.**
**The Effect of Rising Health Costs on the Personal Saving Rate**

Rising health care costs can affect the personal saving rate in complicated, and sometimes offsetting, ways. To some extent, higher future expenses for health care, if anticipated, increase pressures to save, especially among consumers who are sufficiently foresighted and have the means to boost their personal saving rates. But the widespread availability of insurance for medical care dulls these pressures to increase saving. Moreover, the rising costs for long-term care may lead some people to consume more than they would have otherwise in order to qualify for Medicaid, which has stringent asset tests for eligibility.

Anticipated Increases in Health Costs. Anticipated increases in health care costs could encourage some consumers to save more. Because most health care costs occur late in life, prudent consumers will try to save in order to meet out-of-pocket health expenses during retirement, higher costs of health insurance premiums they expect to pay during their working lives, and possibly higher taxes to cover the increased costs of federal health programs.

Advances in medicine during the past 20 years have made it more important to save for the expenses of health care in old age. First, these advances have reduced the chances of dying quickly (say, from a heart attack) and correspondingly increased the chances of living longer with diminished health--and at great expense, possibly in a nursing home. At present, such long-term care accounts for a significant portion of the out-of-pocket health expenses of the elderly and represents a major uninsured risk for many people. Second, medical advances also increase life expectancy, which could lengthen the number of years in retirement and raise saving.

Not all consumers, however, will save more in response to anticipations of higher future costs. Some consumers may not be sufficiently foresighted to anticipate these higher costs, some may not think they will have to pay such costs, and others may lack sufficient income to save more.

Health Insurance. The widespread presence of private and government health insurance lightens the normal pressures to increase saving. Because insured individuals do not face the risk of ruinously high costs for a severe illness or accident, they feel they do not have to set aside funds to meet such emergencies.[1]

Both of the major insurance programs financed by the government provide additional incentives for consumers to reduce their private saving. The Medicare system provides subsidized medical care to the elderly, with the benefits largely financed on a pay-as-you-go basis. Premiums paid by the elderly fund only a fraction of their Medicare benefits; most of the spending is financed by payroll and other taxes, paid largely by U.S. workers. Therefore, even if people recognize that health care costs in old age are growing sharply, they may not increase their saving because they expect those increased costs to be borne by future taxpayers.

Medicaid. The Medicaid system also reduces the incentive to save by subsidizing the long-term care of elderly people who have income and assets below certain levels. Thus, people who are planning to rely on Medicaid for long-term care may not increase their saving as health care costs go up because they do not expect to pay by themselves. Moreover, the increased costs for long-term care will cause some people who may have paid for their own care at an earlier time to rely on Medicaid instead. To qualify for the program, however, these people will have to meet its income and asset restrictions, which could mean that they will consume their accumulated wealth--or give it away to others who may also consume more than they would have--before applying for government support. In either case, increases in the expected cost of long-term care may actually reduce the saving rate for this group of people.

1. Although the reserves established by insurers are a form of accumulated saving, total economywide saving falls because insurance companies can bear the risks better than can individuals and thus do not have to save as much. See Laurence J. Kotlikoff, "Health Expenditures and Precautionary Saving," Working Paper No. 2008 (Cambridge, Mass.: National Bureau of Economic Research, August 1986).

## Capital Investment and Economic Performance

An increase in national saving would noticeably brighten the outlook for capital investment and economic activity. If federal spending for Medicare and Medicaid were held at 1991 shares (and there were no offsetting increases elsewhere), real capital investment in the United States by the year 2002 would be about 22 percent higher than in the CBO baseline (see Table 11). Over time, such investment would accumulate into larger capital stocks and higher levels of domestic production. By the year 2002, the real capital stock would be 5.6 percent higher than its level in the CBO baseline.

These developments would translate into a significant boost in U.S. economic output. CBO estimates that if federal spending on health care could be held to 1991 shares, the output of the economy (as measured by real GDP) would be 2.2 percent higher than in the baseline by the year 2002. Incomes, as measured by real gross national product, would be even higher because the costs of servicing the nation's debt to foreigners would be reduced. And the benefits--the increase in incomes--would continue to grow in later years.

**Table 11.**
**Effects of Deficit Reduction on the U.S. Economy Relative to CBO Baseline Projections**

| | Percentage Difference in 2002 |
|---|---|
| Real Gross National Product | 2.4 |
| Real Gross Domestic Product | 2.2 |
| Real Investment | 21.5 |
| Real Capital Stock | 5.6 |

SOURCE: Congressional Budget Office calculations using CBO's long-term growth model.

NOTE: In the simulation, the deficit was reduced relative to the baseline by holding federal spending for Medicare and Medicaid to its 1991 share of gross domestic product (which was 3.0 percent), instead of allowing it to rise to 6.1 percent by 2002, as in the baseline.

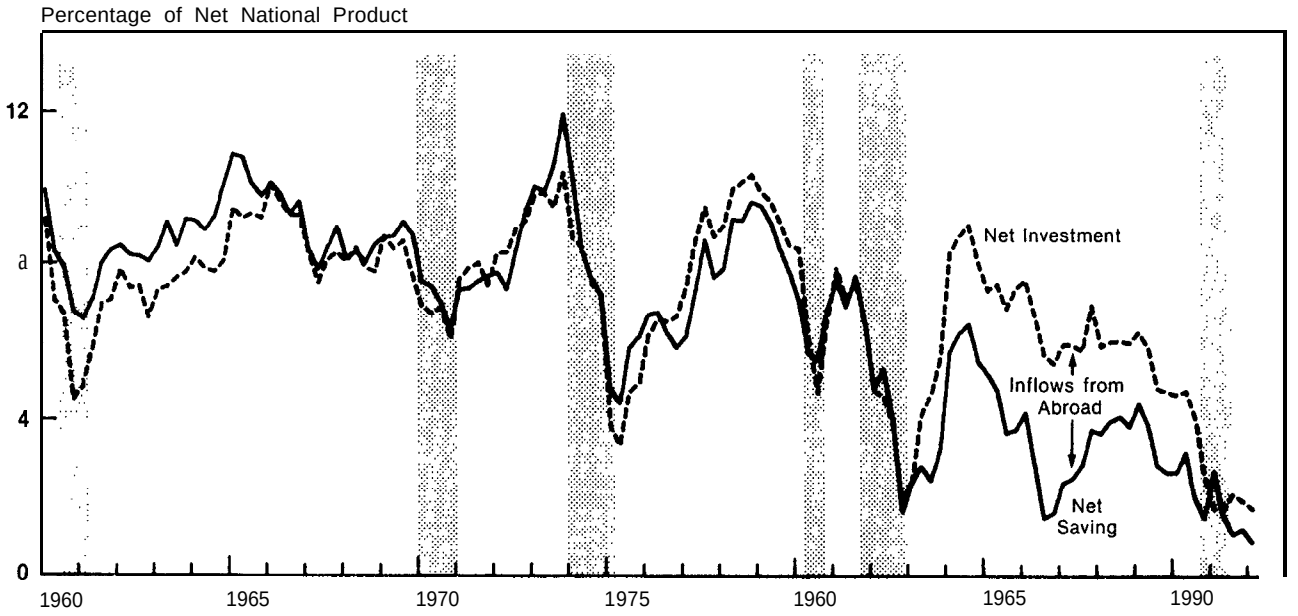
The costs of servicing the foreign debt would fall because part of the increase in national saving would reduce the overall level of U.S. borrowing from abroad. Such a development would represent a significant change from the 1980s, when such borrowing grew rapidly.[7] During that time, as net national saving in the United States fell sharply, capital from the rest of the world was financing an increasing amount of U.S. investment (see Figure 9). The collapse in capital investment in the 1990-1991 period partly reflected the effects of the recession. The relationship between U.S. saving and capital inflows during the 1980s provides the basis for the CBO estimates on how deficit reduction would affect U.S. borrowing from abroad during the 1990s.

A health care system that controlled overall health spending (not just the federal share) could have additional benefits not included in these estimates. For the reasons discussed in Chapter 2, the lack of discipline in the health care market creates an environment that fosters unnecessary and uneconomical spending. If that spending could be reduced, the general welfare of all U.S. residents could be raised. Such gains, however, would not show up in GDP or similar measures of national income.

The estimates presented in this section are based on a traditional growth model that gives capital only a modest role in determining long-run economic growth. In the model, the growth of economic output depends on the growth of labor, capital, and technology. Assumptions about the growth of the labor force reflect demographic developments in the economy and were made by the Department of Labor. The growth of the capital stock reflects the growth of private and public saving, as well as capital inflows from abroad. Tech-

7. For an overview of this topic, see Congressional Budget Office, Policies for *Reducing the Current- Account Deficit* (August 1989). For a recent evaluation of empirical evidence, see Martin Feldstein and Phillip Bacchetta, "National Saving and International Investment," in B. Douglas Bernheim and John B. Shoven, eds., *National Saving and Economic Performance* (Cambridge, Mass.: National Bureau of Economic Research, 1991)

**Figure 9.**
**Net National Saving and Investment**




SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTES: Net investment is gross investment less depreciation. Net saving is the sum of public and private saving, adjusted for depreciation. Shaded areas indicate recessions. The last shaded bar assumes that the second quarter of 1991 will be designated the official trough of the recession.

nological change (as measured by growth in multifactor productivity) is assumed to proceed at the 1981-1991 rate. In the simulations, a reduction in the deficit increases public saving, which in turn raises capital investment both at home and abroad and boosts domestic output.

Other estimates, such as those suggested by some international studies or from new theories on economic growth, provide a much greater role for investment in physical capital. For example, the traditional growth accounting approach implies that a permanent reduction of 2 percentage points in the deficit relative to GDP raises living standards by about 2 percent 50 years hence. By contrast, the evidence from some international studies suggests a much larger increase--l4 percent--over the same period.8 Although intriguing, these alternative approaches are subject to criticisms, and the weight of the current evidence seems to support the traditional approach used in this analysis for estimating the effects of deficit reduction.9

## The Trade Balance, Exchange Rate, and U.S. Competitiveness

Holding federal health costs for Medicare and Medicaid at 1991 shares would improve the international competitiveness of U.S. business in the short run. That improvement, however, would come about solely because such policies would reduce the size of the federal budget deficit. As discussed in Chapter 4, a change in health spending without an accompanying

8. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1990-1994* (January 1989), Chapter 3.

9. Martin Neil Baily and Charles L. Schultze, "The Productivity of Capital in a Period of Slower Growth." *Brookings Papers on Economic Activity: Microeconomics 1990* (Washington, D.C.: Brookings Institution, 1990), pp. 369-417.

change in the deficit would have little effect on the ability of U.S. firms to compete. Moreover, other fiscal actions that reduce the deficit and raise national saving by the same amount would have roughly comparable effects on the nation's trade situation.

Deficit reduction improves the short-run ability of U.S. producers to compete with foreign manufacturers in two ways. First and foremost, it increases national saving and, in doing so, leads to a real depreciation of the dollar in relation to other currencies.10 Such a depreciation would make US. exports less costly to foreign purchasers--and imports more expensive to U.S. residents.11 In response, the market share of U.S. producers would improve at the expense of foreign competitors, and with it the trade deficit. Second, increased saving would improve U.S. capital investment, which could raise labor productivity and lower unit labor costs. Over time, such a development could make it somewhat easier for US. manufacturers to remain competitive in capital-intensive industries.

The dollar would depreciate in response to the actions of international investors seeking the highest returns for their money. As the budget deficit shrank over the decade, the pressures in U.S. financial markets would abate, causing interest rates here to fall and making dollar-denominated assets less attractive to foreigners. To induce investors to hold such assets, the dollar in the short run would have to fall below its long-run level, Such a decline would foster expectations that the dollar would eventually rise back to its long-run equilibrium--a rise that would compensate investors for the lower interest rates on dollar-denominated assets. Until it actually rose, the depreciated dollar would make U.S. goods more competitive on world markets.

Such borrowing is also linked to the trade deficit by a simple accounting identity: the net amount of U.S. borrowing from foreigners is just the difference between what the United States pays for its imports and what it receives for exports (plus interest and dividend payments, among other things). Thus, a decrease in the amount of foreign borrowing implies an increase in exports in relation to imports. For such a change to occur, the real value of the dollar would have to depreciate to make US. exports less expensive and imports more expensive.

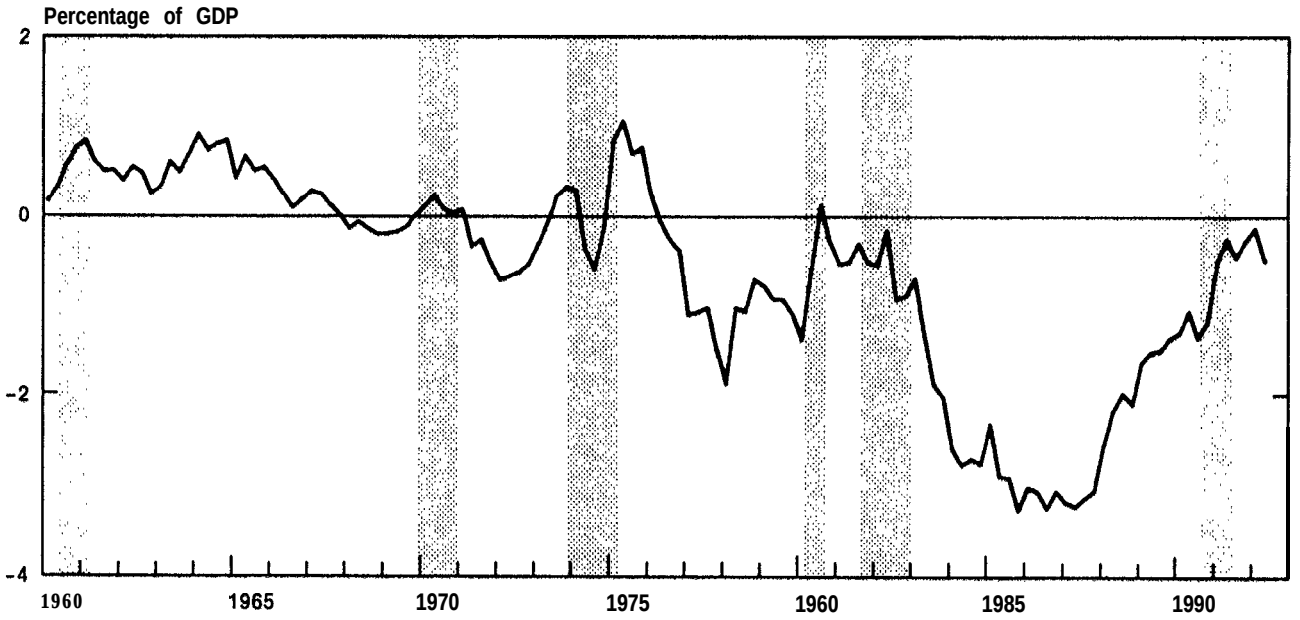
The magnitudes of these changes could be quite significant. During the 1980s, national saving as a share of GDP fell by 2 percentage points and was a major reason that the real exchange value of the dollar in the 1980s rose about 20 percent above its levels in the late 1970s (based on a trade-weighted average of currencies from 10 of the major US. trading partners). As a result, the trade balance deteriorated significantly, reflecting a large loss in the international competitiveness of U.S. producers (see Figure 10).[12] Because holding federal health spending to its share of GDP in 1991 would reverse much of the decline in national saving during the 1980s, the trade gains in the 1990s under such a policy could be as large (in absolute terms) as the losses in the 1980s. Such. a development

10. Strictly speaking, a one-time reduction in the budget deficit results in just a temporary, short-run depreciation of the dollar; over time, the dollar will rise in value following a one-time reduction. But holding federal health spending to its 1991 share would require a sequence of deficit reductions every year, each of which would bring about a new dollar depreciation. For this reason, the dollar could remain depreciated for an extended period. See Jeffrey Sachs and Warwick McKibbin, ***Global Linkages: Macroeconomic Interdependence and Cooperation in the World Economy*** (Washington, D.C.: Brookings Institution, 1991).

11. Making such a change in relative prices, however, implies a deterioration of the terms of trade. But this loss in consumer power is more than made up by gains in national wealth that the increased saving brings,

12. The turnaround in net exports in recent years reflects several factors. First and foremost, the 1990-1991 recession has reduced U.S. demand for imports, causing a sharp improvement in net exports over the past year and a half. Second, it partly reflects a natural adjustment by the economy. In the short run. an increase in the budget deficit results in an increase in borrowing from abroad and an immediate deterioration of net exports. Over time, however, as the current account moves into long-run balance, net exports must improve in order to cover the increased cost of servicing the nation's foreign debt.

**Figure 10.**
**U.S. Net Exports of Goods and Services**




SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis,

NOTES: Shaded areas indicate recessions. The last shaded bar assumes that the second quarter of 1991 will be designated the official trough of the recession.

would greatly benefit a large number of US. industries, although it would come at the expense of health care providers and possibly health care consumers as well.

# Conclusions

The growth of the federal budget deficit as a result of higher health care costs is likely to hold down the growth of productivity and the overall growth rate of the economy during the 1990s. The budget deficit will also impair the international competitiveness of U.S. producers. If policymakers could stabilize health costs in relation to GDP, the outlook for medium-term economic growth and competitiveness would be much brighter. But controlling federal health costs will not be painless; it could involve cutting the employment or income of health care providers or setting limits on the care sold to consumers.

This chapter has examined some of the effects of reducing the budget deficit by holding federal health spending at its 1991 share of GDP. But many policies (such as cutting nonhealth spending or raising taxes) that reduced the deficit and raised national saving by the same amount would probably have similar economic effects.13

Making cuts in nonhealth spending to reduce the deficit significantly, however, would not be easy because by the end of the decade the health budget will account for such a large part of the total budget. By that time, health care spending will be almost as large as all discretionary spending taken together: defense, nondefense and international. For example, the experience of the last few years has

13. Far a discussion of poasible ways to cut the federal budget deficit, see Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options* (February 1992).

shown how difficult it is to obtain agreement on cuts of defense spending even when aided by reductions in international tensions.

But raising hundreds of billions of dollars in additional tax revenue would also be a daunting task and would have additional macroeconomic consequences; higher marginal tax rates usually distort incentives to work and to save and can only rarely be designed to avoid such distortions. Significant increases in taxes could discourage work and saving and reduce growth, offsetting part of the gain from reduced deficits, although most estimates suggest that these offsets would not be large.

Recognition of the difficulties of carrying out these alternative policies--together with the reduced access to medical care for the uninsured--has led to enormous interest in reforming the whole system of delivering medical care in the hope of cutting its cost and extending its reach. Some analysts believe that certain improvements could slow the growth in overall medical care costs to a pace slower than that of the projections presented in this report.

But reforming the current health care system to achieve better cost control would adversely affect some of the desirable aspects of the current system. In particular, health care reform could mean less spending on research and development, longer waiting times for access to new technologies, and limitations on existing choices of providers, health insurance coverage, and treatment alternatives. Whether these trade-offs are desirable depends on the priority that the nation places on controlling costs rather than maintaining the other characteristics of the health care system.

## RELATED CBO STUDIES

*Rural Hospitals and Medicare's Prospective Payment System,* January 1992.

*Universal Health Insurance Coverage Using Medicare's Payment Rates,* December 1991.

*Restructuring Health Insurance for Medicare Enrollees,* August 1991.

*Selected Options for Expanding Health Insurance Coverage,* July *1991.*

*Policy Choices for Long-Term Care,* June 1991.

*Rising Health Care Costs: Causes, Implications, and Strategies,* April 1991.

*Medicare's Disproportionate Share Adjustment for Hospitals,* May 1990

*Physician Payment Reform Under Medicare,* April 1990.

Questions about these studies should be directed to CBO's Human Resources and Community Development Division at (202) 226-2653. The Office of Intergovernmental Relations is CBO's Congressional liaison office and can be reached at 226-2600. Copies of the studies may be obtained by calling CBO's Publications Office at 226-2809.

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