

November 1991

HEALTH CARE SPENDING CONTROL

The Experience of France, Germany, and Japan





Human Resources Division

B-244648

November 15, 1991

The Honorable William S. Cohen
Ranking Minority Member
Special Committee on Aging
United States Senate

The Honorable David H. Pryor
Chairman, Special Committee
on Aging
United States Senate

The Honorable John Glenn
Chairman, Committee on
Governmental Affairs
United States Senate

This report, prepared at the request of the late Senator John Heinz, reviews aspects of the health care systems of France, Germany, and Japan. The report describes these countries' methods of providing universal coverage through their health insurance and financing systems, their policies intended to restrain increases in health care spending, and the effectiveness of these policies.

Last spring we issued a report on the Canadian health care system: Canadian Health Insurance: Lessons for the United States (GAO/HRD-91-90, June 4, 1991). As in that report, we do not endorse in this report adopting the health systems of the countries we reviewed. Instead, we believe that the merits and flaws in these countries' systems provide the United States with information that may be useful in solving U.S. health care problems.

Unless you publicly announce its contents earlier, we plan no further distribution of this report for 30 days. At that time, we will send copies to interested parties. The report was prepared under the direction of Janet L. Shikles, Director, Health Care Financing and Policy Issues, who may be reached on (202) 275-5451 if you or your staff have any questions. Other major contributors to this report are listed in appendix III.

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Executive Summary

Purpose

For two decades, the growth of health care spending in the United States has outpaced the growth of the rest of the economy—a pattern with troubling consequences for business, consumers, and government. Persistent pressures caused by rising spending have called forth various remedies, but success in containing spending has been elusive.¹ Consequently, policymakers and analysts have sought insights from the experience of industrialized countries that appear to control spending growth better, provide universal access to health care, enjoy better health, and spend a smaller share of their national income on health care.

The Ranking Minority Member, Senate Special Committee on Aging asked GAO to report on the lessons that the United States can draw from industrialized countries that spend less on health care. The Chairmen of the Senate Governmental Affairs Committee and the Senate Special Committee on Aging later joined in this request. In response, this report (1) describes how three of these countries—France, Germany, and Japan—organize their health insurance systems, achieve universal coverage, and regulate payments to providers; (2) describes the policies used in each country to contain spending for physician and hospital care; and (3) determines whether these policies were effective in moderating the rise in health spending.

Background

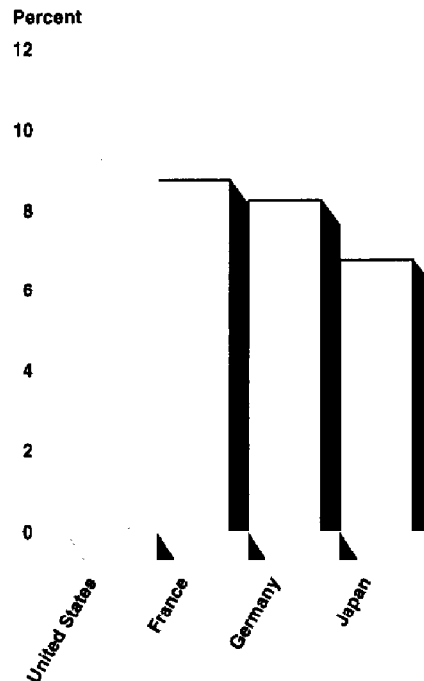
A rapid escalation in spending and a noticeable narrowing of access characterize the recent experience of the U.S. health care system. Between 1970 and 1990, the share of national income spent on health care grew by more than half: from 7.3 percent of gross national product (GNP) in 1970 to 12.3 percent in 1990; projections to the year 2000 imply a share that would most likely exceed 16 percent. Notwithstanding the high and rising level of spending, more people lack ready access to health care. Between 1979 and 1987, the number of Americans without health insurance rose by a fourth—from 29.9 million to 37.4 million.

Other industrialized countries have had more success than the United States in controlling health care spending while also providing health insurance to virtually all their citizens. For example, France, Germany, and Japan each spends a significantly smaller share of its national income on health care than does the United States (see fig. 1). The lower spending in these countries has not meant less access to basic health

¹The consequences of rising health spending are described in *U.S. Health Care Spending: Trends, Contributing Factors, and Proposals for Reform* (GAO/HRD-91-102, June 7, 1991), pp. 8-11; the record of various spending control initiatives is reviewed in the same report, pp. 14-16.

services or deterioration in broad measures of health status, such as life expectancy and infant mortality.

Figure 1: Health Care Spending as a Share of Gross Domestic Product (1989)



This study examines the policies that have been used in France, Germany, and Japan to control health care spending. In conducting this analysis, GAO obtained data on health expenditures and health status, reviewed literature on each country's health care system, and interviewed experts from the United States and from each of the countries reviewed. GAO also analyzed the likely effects of various spending control policies and statistically estimated the effects of several policies' effectiveness. Our statistical analysis was limited to France and Germany for technical reasons.²

Results in Brief

France, Germany, and Japan achieve near-universal health insurance coverage within health care systems that share three major traits with

²Unlike Japan, France and Germany made major changes in reimbursement policy during the 1970s and 1980s; those changes permitted the necessary before-and-after comparison between spending under the new policy and spending under the previous policy.

the U.S. system: (1) medical care is provided by private physicians and by both private and public hospitals, and patients have free choice of physician; (2) most people receive health insurance coverage through their workplace; and (3) health insurance is provided by multiple third-party insurers.

These similarities to the U.S. system coexist with several notable differences that follow from the far-reaching regulations used to guarantee coverage. First, insurers—who are predominantly non-profit—are required to provide minimum coverage that includes a wide range of health care benefits. Second, insurance enrollment is compulsory (with minor exceptions) for all residents, and they have little or no choice of insurers. Third, workplace-based insurance is financed not by premiums that reflect each individual group's expected costs of care, but largely by employer and employee payroll contributions that reflect the average cost of a larger cross section of the population.

In addition to mandating insurance coverage, all three countries standardize reimbursement rates for almost all physicians and hospitals and set ceilings (price controls) on these rates.³ Virtually all payers must, when reimbursing providers, abide by the standardized rates. Reimbursement rates are not promulgated by the government unilaterally, but emerge from formal or informal negotiations between physicians, hospitals, third-party payers, and (in France and Japan) the government.

Budget controls—policies that augment price controls by setting limits on overall spending for hospital care or for physician services—can moderate spending growth, particularly when they are enforced. Each country sets limits on overall health spending as national goals, but only France and Germany have added policies with teeth to achieve compliance with the limits. GAO estimated that French budget controls, between 1984 and 1987, reduced real (inflation-adjusted) hospital spending by as much as 9 percent, compared with what would have been spent had price controls alone been used. Likewise, GAO estimated that for physician care services, German budget controls reduced real spending by as much as 17 percent between 1977 and 1987, compared with what would have been spent without the budget controls. By contrast, overall spending limits on German hospitals did not reduce spending growth;

³In addition, all three countries have some controls on spending for hospital construction or the purchase of new, high-cost medical equipment.

these limits were not, however, accompanied by a mechanism to achieve compliance.

The budget controls that successfully moderated spending growth in France and Germany are not a panacea for concerns about spending. Budget controls have not relieved all pressures on spending, in part because these controls have not been applied to all segments of the health care industry. Moreover, budget controls do not assure high-quality care or efficient delivery of services. In light of these concerns, both France and Germany are exploring modifications and supplements to their current strategies for controlling the rise in health spending.

GAO's Analysis

Three Countries' Health Care Systems Retain Private Medicine, Patient Choice

In France, Germany, and Japan, as in the United States, patients generally can choose their own physician; outpatient services are provided by private physicians; and inpatient care is provided in both private and public hospitals. Physicians who provide outpatient services are paid on a fee-for-service basis—as are most U.S. physicians. (Unlike in the United States, however, physicians who deliver inpatient care are often employed by a hospital on a salaried basis.)

Countries Provide All Residents With Health Insurance Through Regulated Multipayer Systems

Each country guarantees virtually all their residents health insurance that offers a broad minimum level of benefits. Near-universal coverage is achieved by making enrollment for health insurance compulsory, with few exceptions, and virtually automatic. Health insurance is provided through a diverse mix of third-party payers that emerged from each country's particular social institutions and political history. Independent action by each payer is limited due to national regulation of enrollment, benefits, premiums, and reimbursement of providers.

Broad Package of Benefits Is Mandated

The mandated package of health benefits covers a wide range of services. Benefits generally include coverage for physician services, hospital care, laboratory tests, prescription drugs, and some dental and optical care. Patients in all three countries do not pay deductibles for health care services; copayments for physician and hospital care range from nominal amounts in Germany to as much as 20 to 30 percent of regulated fees in France and Japan.

Insurance Financed by Payroll-Based Contributions From Employer and Employee

Workplace-based insurance in France, Germany, and Japan is largely financed by mandatory payroll contributions from both employees and employers. In contrast to private insurance financing in the United States, which generally reflects each individual group's expected costs of care, these mandatory contributions reflect the average cost of a larger cross section of the population than typically used by U.S. insurers in calculating premiums. (In France and Japan, payroll-based financing is supplemented by subsidies from general tax revenues.)

Countries Set National Limits on Spending and Require Uniform Payment Rates

Each country has national procedures for setting limits on health care spending and for determining standardized reimbursement rates for providers. Generally, a government agency or other authorized body sets broad targets for all or some components of health care spending. The targets may serve as guidelines or they may be binding. National laws also require that payers reimburse providers according to rates that are, for the most part, uniform; a given service is usually reimbursed at the same rate, regardless of payer.

Each country also has a formal process for setting payment rates for physicians and hospitals. The health care system's major stakeholders—third-party payers, physicians and hospitals, and (in France and Japan) the government—participate in this rate-setting process. In France and Germany, the rates are set in formal negotiations. In Japan, they are set by the government in consultation with a body that represents insurers and health care providers.

Countries Adopt Direct Controls on Prices and Overall Spending

Seeking to moderate the rise in health care spending, all three countries have imposed direct controls on health care prices and overall spending. These controls are comprehensive—applying to the entire health care industry or to a major health care sector. By use of standardized payments, mandated coverage, and mandated benefits, the three countries have alleviated a potential problem with direct controls, known as cost shifting (that is, providers offset both the cost of charity care and the lower reimbursement from some patients' insurers by raising charges to other, more generous insurers).

**Budget Controls With
Teeth Work Better Than
Price Controls at
Containing Spending**

France and Germany implemented budget controls that were subject to different degrees of enforcement— Germany, starting in the late 1970s; France in the mid-1980s. These controls supplemented or replaced price controls that were already in place. Both countries set annual targets to limit total spending on hospital services, and Germany set targets and, later, caps to limit total spending on outpatient physician services. GAO's econometric analyses confirm that stringent enforcement makes budget controls more effective.

**Hospital Spending in France and
Germany**

Spending limits restrained hospital spending in France but not in Germany. Beginning in 1984, the French government replaced its fixed daily rates for hospital care with targets for total public hospital spending. To enhance compliance with the targets, the government participates in budget negotiations with each individual public hospital. GAO estimates that between 1984 and 1987, the targets reduced French spending on hospitals by about 9 percent below what would have been spent had price controls remained in place. By contrast, Germany in 1985 established targets for total hospital spending, but did not design the means to enforce them. GAO found no statistical evidence that the existence of targets affected German spending for total hospital services between 1985 and 1987.

**Physician Care Spending in
Germany**

Stringent enforcement enhanced the effectiveness of Germany's budget controls on physician spending. In 1978, Germany complemented its existing price controls with spending targets (though not with a formal enforcement mechanism). In 1986, however, Germany replaced targets with caps that were binding. GAO estimates that between 1977 and 1987, Germany's use of budget controls reduced inflation-adjusted spending by as much as 17 percent below what would have been spent on physician care under price controls alone. In addition, GAO found that caps reduced the rate of spending growth more than targets. Spending growth in the physician sector averaged 2 percent annually under caps, compared with 7 percent annually under targets; caps account for part, but not all, of this difference.

**Countries Seek Additional
Policies to Better Restrain
Spending, Assure Quality,
and Enhance Efficiency**

In the countries reviewed, budget controls that successfully tempered the pace of spending growth have not relieved all pressures on spending, nor have they attempted to address concerns about the quality and efficiency of health care. Increased spending can be attributed, in part, to sectors not controlled through budgets, such as physician services in France or prescription drugs in all three countries. Continued pressure to increase health care spending in the future is also expected, as the

elderly's share of the population rises further and new, expensive medical treatments are introduced.

In addition, the continued tightening of budget controls may, over time, both create political pressures for a relaxation of the controls and make a health care system less able to provide high-quality services. In France, new proposals for stronger budget controls recently sparked widespread protests by physicians. In Germany, some controls on physician spending were relaxed in mid-1991 due to pressure applied by physicians. With respect to quality, GAO found no evidence in the countries reviewed of a decline in broad measures of health status during the relatively brief period that budget controls were in effect. Experts in France, however, believe that tight hospital budgets there are discouraging hospital maintenance and the development of innovative procedures. In other countries that have used budget controls for longer periods than France and Germany, some shortages of services have appeared, indicating the potential for problems in the long run.

Health care experts in these three countries are exploring policies that enhance efficient delivery and better assure quality. For example, efforts are being made in France and Germany to develop a prospective payment system for hospitals—following the same general principles used in the U.S. Medicare program since 1983—that offers incentives for more efficient delivery of hospital care. Germany is developing programs that enhance quality by increasing physician monitoring, formalizing quality assurance procedures, and increasing the coordination of inpatient and outpatient services.

Recommendations

GAO is not making recommendations in this report.

Agency Comments

GAO did not solicit agency comments.

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Abbreviations

CON	Certificate of Need
GDP	gross domestic product
GNP	gross national product
HMO	health maintenance organization
OECD	Organization for Economic Cooperation and Development
RVS	relative value scale

Introduction

For over two decades, the growth of health care spending in the United States has substantially outpaced the growth of the rest of the economy—a pattern with troubling consequences. For consumers, the resulting rise in the share of national income spent on health care means less housing, education, and other nonhealth goods. For businesses, it means greater financial difficulty in offering health insurance to employees and in maintaining retirees' health benefits. For the federal government, it means that in an era of fiscal restraint, federal health care outlays crowd out nonhealth programs.

Increases in U.S. health spending might be easily justified if they bought commensurately better health or wider access. Although medical technology and procedures have made notable advances, indicators of health status (such as infant mortality) have improved only modestly relative to the gains made in several other industrialized countries. Moreover, access to care has narrowed: between 1979 and 1987 the number of Americans without health insurance rose by a fourth—from 29.9 million to 37.4 million.

Persistent pressures caused by rising spending have called forth various remedies, but success in containing spending has been elusive. Consequently, policymakers and analysts have turned with interest to industrialized countries that appear to control spending growth better, provide universal access to health care, enjoy better health outcomes, and spend a smaller share of their national income on health care. This report examines certain spending control policies that have been adopted by three of these countries: France, Germany,¹ and Japan.

¹References in this report to Germany apply to the old Federal Republic of Germany. Characteristics of that country's health care system have been extended to the new Federal Republic of Germany since January 1, 1991.

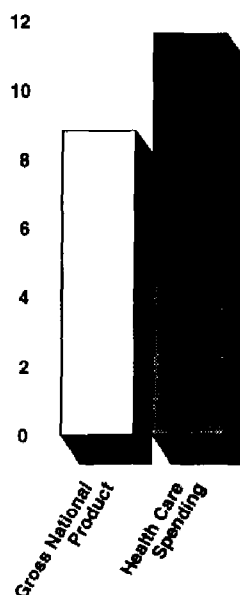
U.S. Health Care System Characterized by Rapid Spending Growth, Shrinking Access

Health Spending Has Grown Faster Than the Economy for 20 Years

Health care spending in the United States has grown faster than national income for over two decades. Between 1970 and 1990, health care spending rose at an average annual rate of 11.6 percent, while national income, as measured by gross national product (GNP), increased more slowly at an average annual rate of 8.8 percent (see fig. 1.1).

Figure 1.1: U.S. Health Care Spending Grew Faster Than Gross National Product (1970-90)

14 Average Annual Growth Rates



Consequently, between 1970 and 1990, the share of GNP spent on health care grew by more than half: from 7.3 percent of GNP in 1970 to 12.3 percent in 1990. Furthermore, according to Health Care Financing

Administration projections, health care in the year 2000 will most likely absorb over 16 percent of GNP.²

Implications of Health Care's Rising Share of National Income

The growing share of U.S. national income spent on health care affects major sectors of U.S. society differently—but none benignly. Consumers, for example, pay higher health insurance premiums, devote larger personal outlays to medical care, and incur higher taxes. Likewise, health care outlays of businesses have more than doubled relative to total employee compensation since 1970.³ In turn, businesses have, in some cases, dropped insurance coverage for their employees and, in other cases, restricted benefits for both employees and retirees. Finally, the near doubling of federal health care outlays relative to all federal outlays has pushed nonhealth programs against the fiscal ceiling,⁴ whether that ceiling was established by statute, budget summit, or public opinion.

Part of this increase in health care spending has paid for widely acclaimed improvements in procedures and technology, but higher spending has neither prevented reductions in coverage nor spurred a sizeable improvement in health status relative to other countries. Specifically, many new procedures have improved—sometimes dramatically—patients' health and quality of life. But the growth in spending associated with these medical improvements has not always been accompanied by commensurate improvements in aggregate health outcomes.⁵ While there have been improvements in life expectancy and infant mortality rates in the United States, these improvements are no better, and often less, than the gains made by other industrialized countries that have had smaller increases in health care spending.

Furthermore, there is concern that increases in the costs of providing health care have led to decreases in access to the insurance that pays for most of that care. High and rising insurance premiums are making insurance unaffordable for many Americans.

²Office of the Actuary, Health Care Financing Administration.

³From 3.1 percent of compensation in 1970 to 7.0 percent in 1989.

⁴Government spending on health care has risen from 7.6 percent of total federal outlays in 1970 to 14.4 percent in 1990.

⁵Changes in these broad measures of quality can also reflect the influence of factors other than medical care expenditures, such as lifestyle—for example, the amount of smoking and exercise—and social conditions—for example, the extent of poverty.

U.S. Less Successful Than Other Countries at Controlling Spending

Federal and state policymakers have developed numerous programs in response to recurring discontent with health care spending growth.⁶ Program initiatives by governments include hospital rate regulation, encouragement of competition between health maintenance organizations (HMOs) and traditional insurers, and Certificate-of-Need (CON) regulation of capital investment. Few of these programs have been highly successful, though, and none has been adopted systemwide.⁷

Other industrialized countries have had more success than the United States in controlling the growth of health care spending without adversely affecting coverage or broad measures of health care status. These countries had lower growth in per capita inflation-adjusted spending during the 1980s than the United States (as shown in fig. 1.2 for six major industrialized countries). Partly as a result of their lower spending growth rates, these countries spend a far smaller share of their gross domestic product (GDP) on health care than does the United States (see fig. 1.3).⁸

⁶Efforts to restrain spending growth have not been confined to the public sector. Private employers have sought lower health care outlays, offering their employees insurance plans built around delivery modes that are paid on a per patient basis rather than fee-for-service (for example, health maintenance organizations) or that offer lower rates for services provided by selected providers (for example, preferred provider organizations). Private employers have also reduced the benefits their insurance plans provide, and have shifted the costs of medical care to their employees by increasing the amount of deductibles and co-payments. Insurers, for their part, have implemented utilization review to limit the number of unnecessary or marginal procedures they pay for; insurers also have dropped coverage of particular employers or industries with especially high-cost individuals.

⁷In Karen Davis and others, *Health Care Cost Containment* (Baltimore: The Johns Hopkins University Press, 1990), cost and spending containment efforts by businesses, state governments, and the federal government are assessed.

⁸This pattern holds for all members of the Organization of Economic Cooperation and Development. See George J. Schieber and others, "Health Care Systems in Twenty-Four Countries," *Health Affairs*, Vol. 10 (Fall 1991), p. 24.

Figure 1.2: Growth in Real Health Spending Per Capita (1980-89)

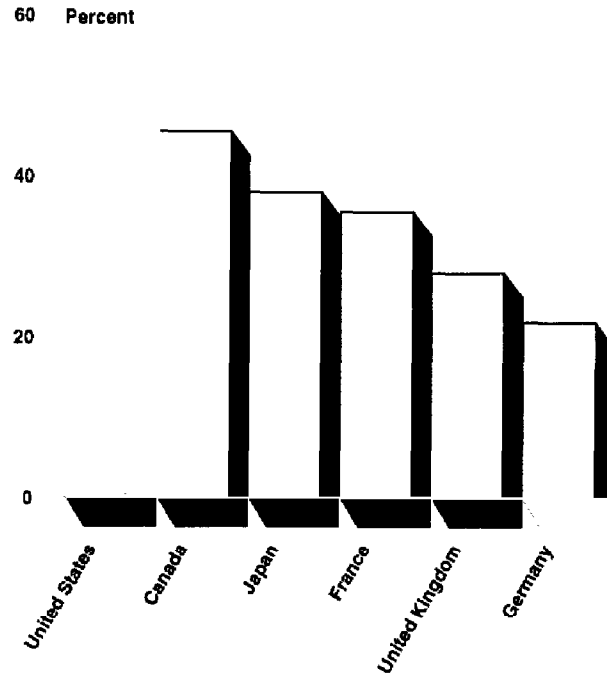
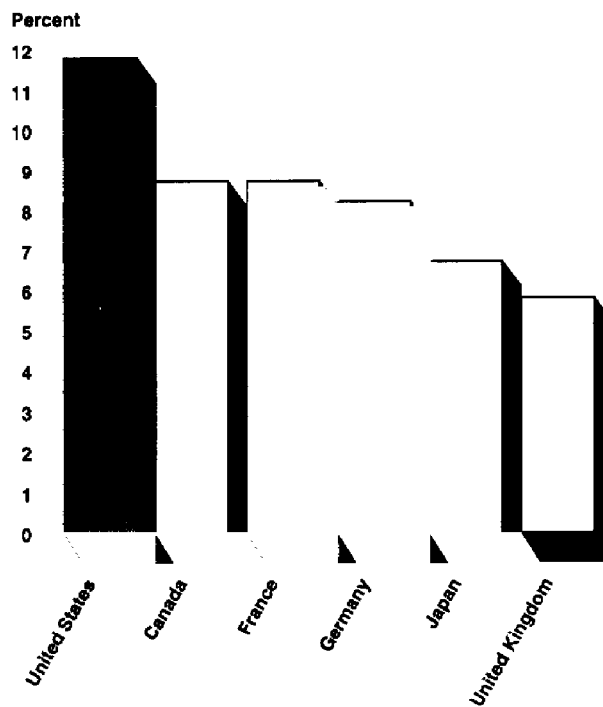


Figure 1.3: Health Care Spending as a Share of Gross Domestic Product (1989)



The lower spending in other industrialized countries has not restricted access to basic health services nor worsened broad measures of health status.⁹ Data from the Organization for Economic Cooperation and Development (OECD) show that, on average, other industrialized countries have slightly fewer physicians per capita than the United States, but more inpatient beds and days of hospital care per capita (as well as longer average hospital stays).¹⁰ In addition, life expectancy and infant

⁹In some countries, patients may be put on waiting lists for elective surgery or for certain advanced treatments and tests. See, for example, *Canadian Health Insurance: Lessons for the United States* (GAO/HRD-91-90, June 4, 1991) and Henry J. Aaron and William B. Schwartz, *The Painful Prescription: Rationing Hospital Care* (Washington, D.C.: The Brookings Institution, 1984).

¹⁰This comparison is based on an average of OECD member countries. See "A Curmudgeon's Guide to Foreign Health Systems," statement by George J. Schieber, Ph.D., Health Care Financing Administration, before the House of Representatives, Committee on Ways and Means (Apr. 16, 1991).

mortality rates in these industrialized countries are comparable with, or better than, those in the United States.¹¹

Objectives, Scope, and Methodology

The late Senator John Heinz, then Ranking Minority Member of the Senate Special Committee on Aging, asked us to report on what the United States can learn from health financing systems in industrialized countries that spend less on health care than the United States, but are able to provide universal access to quality care. We focused our analysis on countries that, like the United States, do not have a predominantly public insurance or delivery system, but that finance health care through a combination of private and public third-party payers and deliver services through private and public providers.

Specifically, the objectives of this study were to

- describe how France, Germany, and Japan organize their health insurance systems to achieve universal coverage and pay the providers of health care;
- describe the policies that these countries employ to contain increases in spending for physician and hospital care; and
- assess the effects of these policies on spending for physicians and hospitals.

We reviewed the health care financing systems of three countries: France, Germany, and Japan. We selected these countries because they have financing systems with various combinations of public and private payers and because they have important similarities to the United States. All are industrialized democracies, have relatively large populations, and retain a significant role for the private provision of health care services. We reviewed the technical literature, conference papers, and government documents that describe health financing and spending control policies in these countries; we interviewed experts on the financing systems from both the United States and the three countries; and we obtained data on foreign health care spending and health status from the OECD.

In addition, we did statistical and econometric analyses to estimate the effectiveness of alternative spending control policies. Our quantitative

¹¹Life expectancy and infant mortality data may be poor indicators of the relative quality of health delivery systems. A more discriminating measure of quality would be a comparison of incidence rates for medical conditions or stages of conditions that indicate a lack of access to quality primary care (such as measles or mumps in children and advanced breast cancer or uncontrolled hypertension in adults). Such data, however, are not readily available on a comparable basis.

Chapter 1
Introduction

analysis of these policies was limited to France and Germany. These countries made major policy changes that permitted a before-and-after analysis that statistically controls for other factors. Japan's experience during the past 30 years did not permit such an analysis. We did our review from February 1990 through May 1991 in accordance with generally accepted government auditing standards.

Multipayer Systems Achieve Universal Coverage and Set Spending Goals and Uniform Rates

In several key respects, France, Germany, and Japan resemble the United States in their methods of delivering and financing health care. As to the delivery of care, people in these countries have free choice of physicians.¹ Private physicians provide most outpatient care and charge on a fee-for-service basis; private as well as public hospitals deliver inpatient care. As to financing, the provision of insurance involves at least several payers; the three countries differ in the number of their payers and these payers' basis of organization (national/local, employer/region).² In addition, access to health insurance is typically workplace-based; a person's employer or occupation determines which insurer (payer) provides the employee coverage.

Despite important similarities, however, health financing in these three countries diverges from U.S. health financing in three distinctive and fundamental ways. First, insurers generally are subject to extensive nationwide regulation, so that despite the nominally private status of many insurers, they are better described as quasi-public. Second, these countries' insurance systems operate under government regulations that guarantee almost all residents access to insurance. The regulations also require insurers to offer a minimum package that includes a wide range of health care benefits. Enrollment for health insurance generally is compulsory. Workplace-based insurance requires payroll contributions from both employers and employees. Special groups, such as retirees, the self-employed, and the unemployed, are granted insurance coverage either through a quasi-public payer or a public insurance program.

Third, France, Germany, and Japan have national policies and institutions that set goals for much or all of health care spending and that govern the rates for reimbursing providers. All three countries grant the government or a nongovernmental body the authority to set goals for spending on all health care or for an entire health care sector (for example, physician services). In addition, all three countries combine government regulation with participation by the health system's stakeholders in determining providers' reimbursement for specific services and budgets for individual hospitals. National laws require that payers reimburse providers according to uniform rates. Laws also designate

¹In the United States, most insured people have considerable choice of provider, but some have limited choice: in some rural areas and inner cities, alternative providers are few. Moreover, some have opted for limited choice: those enrolled in HMOs and other forms of organized care, such as preferred provider organizations.

²The payers in these countries are largely nonprofit and have no precise counterpart in the United States.

institutions (such as payer alliances and physician associations) to negotiate or otherwise participate in setting the levels of these rates each year.

Like the U.S., the Three Countries Have Private Medicine, Insurance Provided Through Employers, and Multiple Payers

Health care financing and delivery in France, Germany, and Japan share important institutional traits with those of the United States. First, most outpatient care is given by private, office-based physicians; hospital care is given in both public and private institutions, and people generally have free choice of physicians. Second, most people obtain their health insurance through their employers or their occupations. Third, health insurance is offered by multiple third-party payers. These similarities are interesting because they suggest that the United States could, if it chose to do so, achieve universal coverage and other large-scale goals in health financing while retaining key features of its current health care system.³

Private Medicine With Patient Choice

As in the United States, choice by patients and private delivery of care are important features of the health systems in France, Germany, and Japan. Specifically, patients generally can choose their own physicians. With respect to the delivery of care, outpatient services generally are provided by private physicians. Although much hospital care is given in public facilities, private hospitals in all three countries also play an important role. Private hospitals provide about one-third of the inpatient beds in France, about one-half of the beds in Germany, and about two-thirds of the beds in Japan.

Physicians who provide outpatient services in an office-based setting are paid on a fee-for-service basis—as are most U.S. physicians.⁴ Physicians who deliver inpatient care are often employed by a hospital on a salaried basis. In determining the appropriate medical procedures for

³Other approaches to achieving universal coverage while retaining private medicine, multiple payers, and workplace-based insurance are possible, and have been discussed by health policy analysts. For example, two different models (one proposed by Karen Davis, the other by Alain C. Enthoven) are described in Shelah Leader and Marilyn Moon, eds., *Changing America's Health Care System: Proposals for Legislative Action* (Washington, D.C.: American Association of Retired Persons and Scott, Foresman and Company, 1989), pp. 1-19 and 21-42. Davis advocates a regulated multipayer system that uses price controls to restrain spending, while Enthoven proposes a framework of "managed competition" among health insurance carriers. The Netherlands is initiating a reform that resembles Enthoven's approach.

⁴Alternatives to fee-for-service payment for outpatient care are much more prevalent in the United States than in the three countries reviewed. HMOs are particularly known for their use of capitated payments in place of payments for each specific service rendered. Use of capitated payments is rare or nonexistent in the three countries reviewed.

patients, physicians enjoy a high degree of clinical autonomy. Utilization review—scrutiny by payers or others of providers' medical decisions—is conducted in all three countries, but its amount is limited and its purpose is more to detect overbilling by individual providers than to assess the appropriateness of treatment.

The Role of Employers and Payers in the Provision of Insurance

The countries reviewed resemble the United States in having health financing systems with multiple payers and in providing much health insurance through the workplace. These skeletal features of health financing—multiple payers and workplace-based insurance—are fleshed out differently in the three countries reviewed, as revealed in the consideration of two issues:

- First, the extent to which consumers acquire insurance through their employers versus directly from insurers. People in these countries typically do not purchase their insurance policies directly from insurance carriers (payers). Instead, their employers serve as middlemen who offer the employees insurance plans provided by particular insurers. Such insurance can be termed workplace-based, in that, typically, which insurer provides a person's coverage is determined by the person's status as an employee of a particular firm or member of a particular occupation.

In the United States, insurance need not be provided to employees through the workplace: employers are not required to offer coverage to their employees, and individuals may purchase insurance policies directly from insurers. In France, Germany, and Japan, by contrast, most people are not permitted to purchase insurance directly from insurers, in lieu of their workplace-based plan.⁵

- Second, the extent to which the provision of insurance in the countries reviewed is highly concentrated in a small number of payers or is dispersed among many payers. Like the United States, Germany and Japan have large numbers of payers. Each of these two countries has over 1,000 autonomous payers that generally provide insurance through employers. These payers may draw their members (enrollees) from one of three sources: a particular company or type of employer (for example, a small business); a particular geographic locale; or, in Germany, a particular craft, trade, or occupation. The extent of concentration among payers is considerably greater, however, in France. It has

⁵The major exception to this generalization are people in Germany with high incomes. (See p. 29.)

only a few types of payers, one of which alone provides insurance to nearly 80 percent of the population. The greater concentration of French payers, compared with German payers, is consistent with the national organization of French insurance and the local or regional organization of German insurance.

Nonprofit and For-Profit Payers

The health systems of the three countries, like that of the United States, not only have more than one payer, but accord nonprofit payers a major role in the provision of health insurance. This qualitative similarity notwithstanding, significant quantitative disparities are evident: in the United States, nonprofit insurers (that is, Blue Cross-Blue Shield plans) cover a substantial proportion of the insured population—about 40 percent in 1988—but in the countries reviewed, they are predominant.⁶ In France and Japan, nonprofit payers provide health insurance coverage for virtually all people; in Germany, they cover about 90 percent of the population.

Nonprofit payers in both the United States and the countries reviewed are major sources of workplace-based insurance. Indeed, in the three countries, workplace-based insurance is the exclusive province of nonprofit payers. In France and Germany, these payers, known as sickness funds, also are the most common type of payer that offers insurance to those who do not obtain it at the workplace—such as retirees, self-employed people, and the unemployed.⁷ In Japan, workplace-based insurance can be provided by “insurance societies” or “mutual aid associations.” (Public insurance covers people not insured through their employers.) In addition, some nonprofit payers in France (mutuelles) provide supplemental benefits that are not covered by the sickness funds.⁸

In addition to nonprofit payers, the three multiple-payer systems reviewed include private for-profit payers but, compared with their U.S.

⁶See *Source Book of Health Insurance, 1990* (Washington, D.C.: Health Insurance Association of America), pp. 22-23, tables 2.1 and 2.2. While the Tax Reform Act of 1986 removed the federal tax exemption for Blue Cross-Blue Shield organizations engaged in providing commercial-type insurance, they are still referred to as nonprofit organizations by the Health Insurance Association of America.

⁷Dependents in all three countries are automatically covered through the insurance of a family member.

⁸This coverage might include (but is not limited to) patient copayments, nursing home care, and certain dental services.

counterparts, these payers occupy a modest niche. This niche is considerably smaller than what for-profit commercial insurers occupy in the United States, where they cover about half of the insured population; and this niche constitutes a significant difference between the U.S. insurance industry and those of France, Germany, and Japan. For-profit payers in France and Germany are available to provide coverage that supplements or replaces mandated coverage available through a non-profit payer. (Mandated coverage is more fully described below.) In Germany, private payers also provide insurance to some people who prefer the benefits of a private health plan and who, by virtue of their high incomes, are not required to purchase workplace-based insurance. Compared with French and German private insurers, Japanese private payers offer a much more limited range of benefits (such as for specific diseases, cash benefits during hospitalization, and reimbursement of private-room charges).

Regulated Payers, Mandated Coverage, and Coordination of Payments Distinguish the Three Countries' Health Financing Systems

Notwithstanding the traits shared by the health care systems of France, Germany, and Japan with the U.S. health system, other key traits concerning health financing distinguish the three countries from the United States. Specifically, these three countries impose extensive, national regulations on payers; mandate insurance coverage of almost all residents; and require that the multiple payers coordinate their payments to physicians and hospitals.

Insurance Regulation Makes Nonprofit Payers Quasi-Public

The similarity between U.S. nonprofit insurers, like Blue Cross-Blue Shield, and nonprofit insurers in France, Germany, and Japan should not be overdrawn. Though in some sense private, these foreign nonprofit payers are sufficiently regulated that they are better termed quasi-public.⁹ National regulation of enrollment, benefits, premiums, and reimbursement of providers limits the range of independent action by each payer. By contrast, regulation of U.S. insurers is largely conducted at

⁹ Although all German sickness funds and all Japanese insurance societies and mutual aid associations are subject to government regulation, they are administratively autonomous. In addition, Germany's sickness funds are, for the most part, financially self-sustaining. The French funds, however, are part of the social security system. Although they have private legal status and relative autonomy from the state, they are not only subsidized, but supervised, by the central government.

the state level and is selective (for example, a mandate for alcohol treatment as a benefit) rather than comprehensive. Consequently, U.S. private insurers retain substantial room to maneuver vis-à-vis their competitors concerning what segment of consumers to pursue (for example, younger consumers), what benefits to offer, what premiums to charge, and on what terms to reimburse providers.

The quasi-public character of the three countries' nonprofit payers may explain the greater reliance on public insurance in the United States than in either France or Germany. Public payers cover about 23 percent of all Americans but insure only one percent of the population in France and are nonexistent in Germany.¹⁰ In these countries, nonprofit insurers tend to perform similar functions to public payers in the United States—providing health benefits to low-income and elderly people.

Mandated Coverage Entails Requirements for Enrollment, Benefits, and Financing

To achieve virtually universal health insurance coverage, France, Germany, and Japan retained workplace-based insurance as a foundation and extended coverage to those not included at the workplace. Specifically, the countries passed laws with mandates that require that

- workplace-based insurance cover most employees and their dependents, and one or more payers—public or nonprofit—cover most of the remainder of the population;
- the minimum package of benefits covers a wide range of specified services; and
- health insurance be financed predominantly by payroll contributions.

Enrollment and Mandated Access

In the three countries reviewed, national legislation mandates most employees' access to insurance through the workplace. Employers are required to make contributions, for their employees, to an insurance plan with a wide range of benefits, and all employees (except for those with high incomes in Germany) are required to enroll in such a plan. In addition, all three countries require that the insurer of an employee provide coverage for that employee's dependents.

As a result of these countries' mandated approach to insurance, most people have little choice of insurer. Correspondingly, most insurers have no opportunity to seek out individuals with low risk of illness, nor to

¹⁰The major public insurers in the United States are Medicare, Medicaid, and the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). France's public coverage extends to those publicly indigent who are not members of a sickness fund. Japan also has a public payer, which provides coverage to 37 percent of the population.

attract more customers by offering lower premiums or better packages of benefits, as shown in the following specifics:

- In France and Japan, people have no choice of insurance carrier. (Moreover, French employers are legally restricted from choosing the sickness fund that will cover their employees.) Most French residents belong to a single national sickness fund (the *régime générale*), and virtually all other employees and their dependents—about 20 percent of the population—are insured by smaller funds whose membership is limited to a particular occupational group, such as agricultural workers, miners, railroad workers, and the self-employed.

Like France, Japan eliminates individual choice of insurer, but bases the placement of an individual into a specific sickness fund on different criteria. A major criterion is size of firm. Employees of large firms are insured by one of about 1,800 independent “health insurance societies,” each organized to cover employees of a single company or group of companies. Employees of small and medium-sized firms typically are enrolled in Government-Managed Health Insurance—an insurer that is managed by the central government. A second criterion is status as public employees. Civil servants and teachers receive insurance through one of 82 “mutual aid associations,” organized on either a national or local basis to provide insurance exclusively to these groups.¹¹

- In Germany, most employees must enroll in the sickness fund that their employer has selected.¹² Some people—those in white-collar occupations—can choose, however, to enroll in one of 15 special nationally based sickness funds, instead of in the fund chosen by their employer.

¹¹In 1989, 24.9 percent of the Japanese population received health insurance through insurance societies; 27.3 percent through Government Managed Health Insurance; and 9.8 percent through mutual aid associations. Almost all the rest of the population—37.1 percent—was covered by public insurance (National Health Insurance). Less than 1 percent of the population were beneficiaries of small programs, administered by the national government, that insure seamen and day laborers.

¹²The types of sickness funds that a German firm might choose for its employees include company-based funds, whose membership is restricted to employees of a particular firm or set of firms; craft- or trade-based funds, whose membership is limited to people in a specific occupation; and local or regional funds, whose membership is limited to residents of a particular geographic area. The selection of a sickness fund for a given firm is generally made by the employer, but employees' views are often represented through their labor unions' participation in the selection process.

Furthermore, people with sufficiently high incomes can choose not to enroll in employment-based insurance.¹³

Other members of the population—those who are not employed or have a special employment status—receive health benefits in one of two ways. The first method is illustrated by France and Germany, where the sickness funds that insure most employees also cover retirees and unemployed people.¹⁴ France also has national sickness funds for self-employed persons and for agricultural workers. Germany requires self-employed persons below an income threshold to join one of the workplace-based sickness funds.¹⁵ By contrast, in Japan, members of these groups are generally covered through a separate program of public insurance known as National Health Insurance.¹⁶

Despite the differences between countries in their evolution toward universal access to insurance, their paths display certain similarities. Each country, at some point in its history, instituted compulsory insurance coverage for specific groups of workers. Typically, the first group to have insurance coverage made compulsory was manufacturing workers and miners. Over time, coverage was extended to additional groups in the labor force: white-collar workers, employees of small businesses, agricultural workers, laborers and craftsmen, the self-employed, and the unemployed. By 1970, all three countries had achieved near-universal coverage.

Mandated Benefits

The mandated package of health benefits covers a wide range of services and supplies (see table 2.1). Benefits generally include coverage for physician services, hospital care, laboratory tests, prescription drugs, and some dental and optical care. Patients in all three countries do not pay deductibles for health care services; copayments for physician and hospital services range from nominal amounts in Germany to as much as 20 to 30 percent of regulated fees in France and Japan.

¹³In Germany, people with sufficiently high incomes (about US \$36,000 per year in 1989) have this option, but it is tied to a significant disincentive. If a person exercises this option and declines to enroll for the mandated insurance, enrollment for mandated insurance at a later time is prohibited. Only about 8 percent of the population—about one-third of those eligible—choose this option. Most of these people buy private, commercial health insurance.

¹⁴Retirees are typically covered by the workplace insurers that provided them benefits during their working years. Unemployed people in Germany are covered by their previous employer's sickness fund; unemployed people in France are guaranteed coverage in the wage earners' sickness fund.

¹⁵Self-employed people with incomes above the threshold have the option of joining a sickness fund, buying private insurance, or self-insuring.

¹⁶Some retirees are insured by the workplace insurers that covered them during their working years.

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Japan limits monthly copayments for catastrophic medical expenses;¹⁷
France waives copayments for childbirth and for certain high-cost
illnesses.

¹⁷The catastrophic cap is about US\$400 per month for each person (or about US\$200 per month for people with low incomes).

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Table 2.1 Health Insurance Benefits in France, Germany, and Japan

	France	Germany	Japan
Outpatient services and inpatient hospital care	Most treatment and diagnostic services covered		
Maternity care	<p>Prenatal, maternity, and well-baby care services are covered</p> <p>Cash benefit—about US\$150 a month—paid for 9 months (5 months before birth, the birth month, and 3 months after birth)</p> <p>Additional 16-week maternity leave paid to mother; rate is based on previous income and is limited to a maximum of about US\$50 a day</p>	<p>All necessary medical care covered</p> <p>Cash benefit paid 6 weeks before and 8 weeks after birth</p> <p>Home nursing for women in "childbed"</p>	<p>Costs not specifically covered by health insurance system, but rather by public health programs</p> <p>Cash benefits for childbirth and for mother's loss of wage income (for up to 6 weeks before birth and 8 weeks after)</p>
Preventive care	<p>Covered care includes (1) free preventive exam every 5 years and (2) mammographies for women over the age of 45</p> <p>Immunizations also provided; funding comes from government</p>	<p>Preventive medical exams for (1) children to the age of 6, (2) women over the age of 20, (3) men over the age of 45, and (4) health check-ups after the age of 35</p>	<p>Generally covered by workplace-based insurance; not covered by public insurers, although local governments provide screening at little or no cost</p>
Dental and optical care	<p>Covered items include basic dental care, dentures, and eyeglasses</p>	<p>Preventive check-ups for people aged 12 to 20</p> <p>Partial payment of dentures and crowns</p> <p>Cost of eyeglasses</p>	<p>Dental services covered</p>
Long-term care	<p>Home care services, day care, and some inpatient chronic care services are covered</p>	<p>Long-term care given in the hospital setting, rather than in a nursing home or other chronic care setting, is covered by the insurance system</p>	<p>Services are covered, but there are few nursing homes or other long-term care facilities; long-term care provided by hospitals is covered</p>

(continued)

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	France	Germany	Japan
Prescription drugs	Covered, subject to some restrictions	Covered, subject to some restrictions	Covered
Income maintenance	Generally, workers are entitled to 50 percent of wages, up to about US\$33 a day, for up to 360 days in any 3-year period (for certain diseases, such as cancer, benefits may be granted for an unlimited number of days, for up to 3 years)	Income support, for the most part, of up to 80 percent of lost income (not to exceed total net income), for up to 78 weeks in any 3-year period	Income support, of up to 60% of standard daily wage (40% if insured person has no dependents and is hospitalized), paid for up to 18 months
Cost sharing by patients	Standard cost-sharing rates: (1) 25% for physician visits, (2) 20% for hospital services, up to the 30th day of care (and 0% afterwards), plus a US\$6 fee for daily room charges, (3) 30% for laboratory tests and dental services, and (4) 30%-70% for covered prescription drugs, depending on the necessity of the medication; patient must bear full costs of other (uncovered) prescription drugs Cost sharing for poor people is paid for by the social welfare system Cost sharing for hospital costs waived for maternity care and for certain high-cost illnesses	Limited cost sharing for hospital care (about US\$6 a day) Cost sharing for some prescription drugs	Cost sharing ranges from 10% to 30% of costs, depending on insurance carrier, whether insured is an employee or a dependent (dependents sometimes have higher cost sharing) or whether treatment is in a hospital or in an outpatient setting Cost sharing waived after monthly payment reaches catastrophic cap of about US\$400 (US\$200 for low-income people)

Payroll-based Financing

Workplace-based insurers are largely financed through mandatory payroll contributions from both employees and employers (see fig. 2.1). This contrasts with the financing of most U.S. insurers, which is done through premiums that reflect actuarial estimates of expected future illnesses and health care expenses of an enrolled group. In France and Japan, payroll-based financing is supplemented by subsidies from general tax revenues.

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Figure 2.1: Financing of Mandated Health Insurance in France, Germany, and Japan

Country	Financing Structure	Government Subsidy
France	<p>Source of Funds: Mandatory Payroll Contributions</p> <p>Contributions: Determined by Central Government</p> <p>Employers' Share – 12.6% of Total Wage Bill</p> <p>Employees' Share – 6.8%^a (No Wage Ceiling)</p>	Subsidies From General Revenue and Specific Taxes
Germany	<p>Source of Funds: Mandatory Payroll Contributions</p> <p>Contributions: Determination by Individual Sickness Funds</p> <p>Contribution Shared Equally by Employer and Employee</p> <p>Average: About 13% of Wages</p> <p>Range: 8% – 16% of Wages, Subject to a Wage Ceiling</p>	No Government Subsidy
Japan	<p>Source of Funds: Mandatory Payroll Contributions</p> <p>Contributions: Determined by the Individual Carrier</p> <p>Average: About 8% of Standard Monthly Salary</p> <p>Employer Pays at Least 50% of Contribution</p> <p>Range: 3.5% – 13.3% of Salary</p>	<p>Central Government Pays Most Administrative Costs^b</p> <p>Subsidies to Some Insurers: (for Some of the Insurance Societies) to 52 % of Costs</p>

^aEmployee contribution rate was 5.9 percent before July 1991.

^bLocal governments in Japan pay the administrative costs of the mutual aid associations (insurers) that cover local public service employees.

Payments Regulated Through Spending Limits; Involvement of Payers and Providers in Rate Setting

France, Germany, and Japan each has national procedures for coordinating payments—setting targets on health care spending and determining reimbursement rates for providers. These procedures have three features in common:

- In each country, a government agency or other authorized body sets broad targets for all or some components of health care spending. The targets may serve as guidelines or they may be binding.
- Each country has a formal process for setting payment rates for physicians and hospitals. In one way or another, each country’s process incorporates the views of the health care system’s major stakeholders: the government, third-party payers, and physicians and hospitals.
- National laws require that payers reimburse providers according to rates that are, for the most part, uniform; a given service is usually reimbursed at the same rate, regardless of payer.

Governments or Other Bodies Set Limits for Health Spending

All three countries vest the authority to set spending limits in either the government or a nongovernmental body. France’s targets cover total spending, but spending limits on public hospitals are more rigidly enforced than are limits on other sectors. Germany’s limits cover spending for several major sectors of health care services, and Japan’s cover total health care spending. (See table 2.2.) The way these countries use their announced spending limits in controlling health spending is discussed further in chapter 3.

Table 2.2: Each Country Sets Overall Health Spending Goals

Country	Goals set by	Goals apply to	
		Entire system	Specific sector
France	Central government	X	Public hospitals
Germany	Nongovernmental body (called Concerted Action)	X	Hospitals, physician care, prescription drugs, and some other services
Japan	Central government	X	None

France and Japan

In France and Japan, the central government sets a desired growth rate for total health care spending. This rate is set unilaterally without participation by providers or payers: in France, the rate is set annually by the central government; in Japan, the rate is generally tied to the increase in the country’s GDP.

France’s announced target rate of increase for overall health spending is also used as a benchmark for limiting the annual increase in budgets for

public hospitals.¹⁸ By contrast, Japan does not set budgets for either out-patient physician services or hospital care, but rather has goals that are viewed as the government's preferences vis-à-vis increases in health spending.

Germany

In Germany, the government sets the stage for establishing spending limits, but is not otherwise a player. The 1977 Cost Containment Act required the formation of a body called Concerted Action, made up of representatives from the health care system's organized stakeholders—physicians, hospitals, and pharmacists; sickness funds and private insurers; drug manufacturers; employers and labor unions; and state and local governments. Spending limits are announced for health care overall and for major sectors, such as physician services, hospital care, and prescription drugs.

The statute mandates that Concerted Action meet twice each year to reach a consensus among its members on limits for spending increases. In the last few years, the political context for Concerted Action's deliberations has included the advocacy by elected officials of stabilizing the rate of the payroll contributions that finance most health care spending.

Regulation of Payments and Insurance Generates Political Pressures on Systems

The health care systems of France, Germany, and Japan are not free of pressures, both political and economic, so these systems are unlikely to remain frozen, as described above, but to evolve further. One important source of pressure on these systems is regulation itself. Providers as a group tend to act politically, seeking to undo or soften the effects of the regulation on their incomes. The extent to which providers succeed in changing the regulations, whether by amendment or repeal, depends upon the stringency of the regulatory tools applied, as well as on numerous political and other factors specific to the country.

Physicians' Responses to German and French Regulation

Physicians' trade unions in France have long fought efforts by the government to restrict physicians' incomes. Physicians ignored early efforts at controlling spending on their services, thereby rendering the controls ineffective, and subsequently physicians' unions called strikes to protest various proposals to control spending. Most recently, in June 1991, the French government's proposals that would restrict physicians' incomes stimulated street demonstrations by thousands of physicians; whether their opposition will prove successful is yet to be seen.

¹⁸Most of the hospital services in France are provided in public hospitals.

Physicians in Germany have been less successful than their French counterparts at blocking regulations that would limit physicians' fees and incomes. Nonetheless, German physicians have been able, at various times, to mobilize as a group and roll back government or third-party payers' restrictions on physicians' incomes. In September 1991, for example, the physicians' association negotiated the partial removal of a cap on spending that had been in place since 1986.¹⁹ This change applies only to spending by the optional sickness funds that provide coverage for some white-collar workers (about one-fourth of the population).

Pressures May Arise Due to Differences in Regulations of Insurers

Lack of uniformity in the regulation of insurers, particularly with respect to contribution rates and benefits, stimulates additional pressure on these countries' financing systems. For example, wide differentials in payroll contribution rates exist among Germany's sickness funds, despite the similarity in their benefit packages.²⁰ In response to these differentials, some large firms are taking their employees out of high-cost sickness funds and instead establishing company-based sickness funds whose actuarial costs may be lower. This switch may yield companies and employees substantial savings so long as the members of the company-based funds are relatively young and healthy.²¹

In Japan, national regulations permit differences not only in payroll contributions between payers but also in the benefits they provide. Employees of large firms tend to have a higher share of their contributions paid by employers, more extensive benefits, and lower cost sharing than dependents or than many employees of smaller firms. We were not able to determine the extent to which these differences contribute to pressures for reforming the insurance financing system.

¹⁹This change applies only to spending by the optional white-collar sickness funds that provide coverage for some white-collar workers (about one-fourth of the population). As of October 1991, caps are still being imposed on physician care spending by Germany's other sickness funds.

²⁰In 1988, payroll contribution rates for workplace-based insurers ranged from 7.5 to 16 percent of gross compensation.

²¹Many sickness funds in Germany have advocated measures that would reduce or eliminate disparities in contribution rates. This approach is criticized by people who advocate a market-based insurance system, in which consumers would have more choice of sickness funds. The German government, as of this writing, has not addressed either of these approaches for resolving disparities in contributions that finance health care. See Uwe E. Reinhardt, Ph.D., "West Germany's Health-Care and Health-Insurance System: Combining Universal Access with Cost Control," U.S. Bipartisan Commission on Health Care (Sept. 1990), pp. 15-16.

Countries Slow Growth of Physician and Hospital Spending by Applying Controls Systemwide

Seeking to moderate the unrelenting rise in health care spending, the governments of France, Germany, and Japan have imposed nationwide controls on health care prices and budgets within a regulatory framework that encompasses health insurance and provider payment. The existence of such a framework of financing institutions and policies made it easier for these countries to introduce controls on prices, spending, or both, and to sustain their use.

The connection between the financing framework and the nationwide controls is manifested in three ways: first, in France, Germany, and Japan, institutions have the authority to impose ceilings on payment rates for some or all providers. Second, institutions authorized to set spending limits are positioned to assure compliance with those limits. Finally, the three countries' use of price controls, mandated coverage, and mandated benefits alleviates a potential problem known as cost shifting.¹ With these three elements in place, physicians and hospitals have less reason to view the controls as inequitable, because the spending restraints affect providers relatively uniformly. That is, providers are less burdened than they would otherwise be by uncompensated care and by unequal reimbursements for the same service.

Efforts to restrain health spending increases in the countries reviewed have emphasized comprehensive and direct controls on prices and spending. Specifically, these countries' controls apply to virtually the entire health care industry or to a major health care sector, not simply to spending by one payer. These controls also are direct, placing limits on prices or overall spending. Each of these three countries has imposed price controls that limit the fees which physicians and hospitals can charge to insurers. In addition, France and Germany have each adopted budget controls that set limits for total spending within a segment of its health care industry. Moreover, France, Germany, and, to a lesser extent, Japan try to control spending on capital through regional planning; they may regulate the expansion of hospitals, the diffusion of high-cost medical equipment, or both.² (See fig. 3.1 and app. I.) In the United States, by contrast, spending restraints typically are indirect, involving increased incentives for consumers to be cost conscious (for

¹Cost shifting, which is prevalent in the United States, refers to providers raising prices to more generous (or less price-sensitive) payers in order to recoup losses from uncompensated care or to offset lower reimbursement rates from other payers.

²Data limitations prevented us from assessing the effectiveness of regional planning in restraining health care spending.

example, through cost sharing) and for providers to be efficient (for example, through the use of managed care and utilization review).³

The targets and caps applied in France and Germany, when accompanied by a meaningful mechanism of achieving compliance, were more effective than price controls. In two of three cases, budget controls significantly slowed the growth of spending, compared with price controls alone. Compliance was achieved in several ways: for example, through direct government participation in budget negotiations, as with French hospitals, or by tying the fee schedule directly to volume, as with German physicians.

Budget controls are not a panacea for problems of the three health care systems reviewed. Despite the success of budget controls in moderating spending growth in France and Germany, health care spending continues to rise. In this environment, government officials and health care experts in both countries are now considering the extension of budget controls to segments of the health industry currently uncontrolled. Moreover, budget controls were designed to restrain spending increases, not to achieve other objectives, such as quality assurance. Concerns exist, however, about the side effects of the controls on the efficiency of health care provision and (especially in the long run) on the quality of care. Given these concerns, health officials and analysts in France and Germany are considering certain measures that have been applied in the United States, such as prospective payment for hospitals adopted by Medicare.

³In the United States, the Medicare program's prospective payment system for hospitals is an important though partial exception. This system is, in effect, a centrally administered system of direct controls on hospital prices; it is not, however, a comprehensive policy, because it sets prices only for the hospital care provided to Medicare patients. In addition to the ongoing prospective payment system, Medicare will soon implement (in 1992) a "resource-based relative value scale" method of reimbursing physicians. This method represents a form of price controls, but is also partial in scope.

Chapter 3
Countries Slow Growth of Physician and
Hospital Spending by Applying
Controls Systemwide

Figure 3.1: Spending Control Policies Applied in France, Germany, and Japan

Policy	France	Germany	Japan
Price controls			
Physician fee schedules:			
Office-based services	✓ ^a	✓ ^b	✓
Hospital-based services	✓ ^c		✓
Hospital fee schedules			
Hospital per diem payment rates:			
Public hospitals		✓	✓
Private hospitals	✓	✓	✓
Budget controls			
Physician services:			
Aggregate spending targets		✓ ^d	
Aggregate spending caps		✓ ^e	
Hospital services:			
Global budgets for individual hospitals	✓	✓	
Aggregate spending targets	✓	✓	
Capital spending controls			
Hospital construction	✓	✓	✓ ^g
High-cost medical equipment	✓	✓	

^aSome office-based physicians in France (about 27 percent in 1987) are allowed to balance bill (that is, charge prices that exceed the fee schedule).

^bPhysicians treating the small proportion of privately insured patients in Germany may bill insurers up to 2.3 times the official fee schedule.

^cFee-for-service payments for hospital-based physician services in France apply only to those services provided in private hospitals.

^dGermany's spending targets for physician services were in effect from 1977-85.

^eGermany's spending caps for physician services were applied to all sickness funds from 1986-91; currently the caps are not applied to Germany's optional white-collar sickness funds.

^fFrance's budget controls apply to public hospitals only.

^gLimits on hospital construction in Japan do not apply to clinics (facilities with less than 20 beds).

Price Controls in Three Countries Limit Charges for Physician Care and Hospital Services

Price controls—which may apply to physician services, inpatient hospital care, or other services—set uniform ceilings on prices or reimbursement rates for health services covered by compulsory insurance.⁴ All payers offering compulsory insurance must conform to these uniform prices when reimbursing providers of care. In general, annual negotiations between providers and payers determine prices. Two types of price controls are typically applied: fee schedules, which set uniform rates—either across the whole country or across particular regions—at which insurers will reimburse providers and administered hospital per diem rates, which are negotiated for individual hospitals and used by all compulsory insurers to reimburse these hospitals.

Price Controls in France

France's fee schedule for physicians sets nationally uniform reimbursement rates that apply to services provided outside of public hospitals (that is, in private offices and in private hospitals). Technically, the fee schedule does not set ceilings on prices charged by all physicians. Some physicians who bill under the compulsory insurance system are allowed to charge their patient additional fees.⁵ The fee schedule has two components: a relative value scale, which defines the value of one procedure or test relative to another,⁶ and a conversion factor that translates all the points on the relative value scale into monetary amounts. The conversion factor is determined in annual, government-supervised negotiations between the physicians' unions and the sickness funds.

France also regulates the rates charged by private hospitals, that is, clinics (known in France as cliniques).⁷ Clinics charge a fixed per diem rate that is not related to the type and number of procedures and tests

⁴In France, some physicians are allowed to pass on additional charges to patients.

⁵Physicians who want to charge prices in excess of the fee schedule are considered to be in a separate payment "sector." These physicians lose fringe benefits and financial advantages associated with the insurance system: they are restricted from joining the sickness fund for salaried workers and must join the less generous sickness fund for the self-employed. Despite this financial disincentive, about 27 percent of all French physicians (in 1987) chose this separate sector. The figure is lower for general practitioners and higher for specialists. It is also much higher for physicians in urban areas: for example, about 50 percent of physicians in Paris are members of this sector. See Victor Rodwin and others, "Updating the Fee Schedule for Physician Reimbursement: A Comparative Analysis of France, Germany, Canada, and the United States," Quality Assurance and Utilization Review, Vol. 5 (Feb. 1990), p. 20.

⁶The French relative value scale is not a technical valuation of medical procedures based on time, complexity, or intensity. While the values assigned to surgical procedures are related to differences in these factors, they also tend to reflect interspecialty medical politics and/or societal preferences for different branches of medicine. See Rodwin and others, "Updating the Fee Schedule" (1990), p. 17.

⁷Per diem rates were also applied to public hospitals before the development of global budgets.

provided to a patient. Per diem rates differ between clinics, but each clinic must charge the same rate to all sickness funds. That is, clinics are not allowed to cost shift. Annual increases in the per diem rate are determined in government-supervised negotiations between the hospital and the major sickness fund in the hospital's region.

Price Controls in Germany

Germany, like France, has fee schedules for outpatient physician services that are negotiated between sickness funds and physicians. In Germany, the fee schedules set the total amount that physicians can charge—in general, no balance billing is allowed (that is, physicians generally must accept the fee schedule amount as payment in full and may not bill their patients for any additional amounts). This situation contrasts with France, which allows balance billing by many physicians. Germany's price controls differ from France's in two respects: first, the government sets the context for negotiating the fee schedule, but otherwise has no formal role in the negotiations; second, there is no single national fee schedule but rather a set of regional schedules.

Physician prices are determined by regional fee schedules that are based on a national relative value scale (RVS) that assigns points to each medical procedure. The monetary equivalent of a point on the RVS is determined, for all sickness funds in a given region, in annual negotiations between the regional association of sickness funds and the corresponding association of sickness fund physicians.⁸ Like collective bargaining in the United States, these negotiations in Germany are conducted without any participation by the federal, state, or local governments. (Monetary values for the substitute sickness funds are negotiated separately from those of other sickness funds.) Fees tend to vary by region and to be higher for the national substitute sickness funds than for the regular sickness funds. The RVS, revised infrequently, is negotiated at the national level between the national associations of sickness funds and sickness fund physicians.

Price Controls in Japan

Japan has a single fee schedule that applies to both outpatient physician and inpatient hospital care (there is little differentiation in Japan between inpatient and outpatient services—hospitals and physicians' clinics both can provide either inpatient or outpatient care). The fee

⁸By law, physicians must join the association of sickness fund physicians in order to treat sickness fund patients.

schedule applies nationally and sets one fixed price that providers can charge (that is, balance billing is not allowed).

In contrast to France and Germany's reliance on payer-provider negotiations, the fee schedule in Japan is set by the central government's Ministry of Health and Welfare. Payers and providers do have a consultative role, however. In setting the fee schedule, the Ministry is required to work with the Central Social Insurance Medical Council, a body composed of eight providers (five of whom are physicians), eight representatives of payers (four from insurers and two each from management and labor), and four representatives of the public interest (one lawyer and three economists).

Budget Controls Used to Limit Total Spending for Physician or Hospital Services

As health care spending continued to rise in the 1970s despite nationwide controls on most health care prices, France and Germany began introducing additional policies to further limit spending growth. Budget controls, both spending targets and spending caps, were designed to limit all spending within a particular health care sector (such as physician services or hospital care). These controls differ in the extent to which they rely on formal mechanisms of achieving compliance with spending limits.

For hospitals, budget controls are designed to restrain operating expenses only; another policy tool—regional planning—is used to control capital spending. Under this approach, a government agency determines the appropriate level of hospital beds and medical equipment for a given segment of the population (for example, for every 100,000 persons). The resulting “needs plan” guides government decisions on authorizing additional facilities and new equipment. (See app. I.) France and Germany have less high-cost medical equipment per capita than does the United States, and they both experienced a decline in the number of hospital beds, but these facts are only suggestive; we do not

have sufficient data to attribute such facts to the use of regional planning. The mere presence of a planning mechanism does not ensure effective control of either capital spending or overall health spending, as the U.S. experience with the CON program demonstrates.^{9, 10}

The following sections describe budget controls applied to physician spending in Germany since 1978, to hospital spending in France since 1984, and to hospital spending in Germany since 1986.

Germany's Controls on Spending for Physician Care

Germany imposed two types of budget controls on physician care expenditures: spending targets, which were in effect between 1978 and 1985, and spending caps, a more stringent type of control that has been in effect since 1986.¹¹ The spending targets established annual goals or desired limits for the growth in outpatient physician expenditures. These targets were based on spending in the previous year, anticipated changes in service volume, and changes in the wage base of sickness fund members. The spending targets coexisted with price controls, but the two policy tools were not otherwise coordinated. Targets were not binding; when spending exceeded the target, allowable spending for the subsequent period was not reduced. Despite the prevailing policy to do just that, the policy was not enforced.

Because spending consistently exceeded targets, Germany in 1986 adopted caps on physician expenditures. Unlike targets, spending caps set binding limits on what can be spent for physician services in a given year. Increases in the caps are tied to the growth rate in allowable spending to the growth rate in sickness fund members' wages.

⁹See, for example, *Rising Health Care Costs: Causes, Implications, and Strategies*, U.S. Congressional Budget Office (April 1991), p. 48.

¹⁰Unlike the CON program in the United States, the approach used in Germany to control capital spending places planning and budgetary decisions in the same hands. That is, in Germany, if the planning body authorizes a certain level of capital purchases, that same body must, when allocating funds for those purchases, also draw upon its own fixed budget. In the American CON program, however, planners at the state level could authorize levels of capital spending without regard to how they would be funded. Further research is needed to determine whether the linkage of planning and budgeting makes regional planning effective in limiting spending.

¹¹As of September 1991 (and retroactive to July 1991), the optional white-collar funds removed spending caps on physician services. The decision to remove these caps was made in recent negotiations between the sickness funds and the national association of sickness fund physicians. (As of this writing, Germany's other sickness funds have maintained the use of spending caps.)

Key to the enforcement of the spending caps is the "flexible fee schedule." Under the flexible fee schedule, physician fees for each medical service are adjusted downward when the volume of services provided exceeds the level consistent with the spending limit. These downward adjustments in price guarantee that total expenditures stay within the level of the cap.¹² By contrast, the targets had no mechanism for reducing prices when expenditures exceeded the target. Instead, the amount of excess spending was carried over from one year to another.

France's Controls on Spending in Public Hospitals

Beginning in 1984, France sought to restrain spending in public hospitals by adopting a policy that combined hospital-specific global budgets with sectorwide spending targets.¹³ This policy replaced one that relied on administered per diem rates. Each public hospital negotiates its proposed budget with the predominant sickness fund in its region and with representatives of the national government. This budget covers operating costs as well as debt service costs for construction and high-cost medical equipment.

The nationwide hospital spending target, set by the government, provides the context for the negotiations of each hospital budget, and the government uses its participation in the budget negotiations to keep total spending from growing faster than specified by the target. Not all budgets increase at the target rate—some are allowed to grow more and others less. But by participating in all budget negotiations, the government is able to monitor the direction of these negotiations and to use its influence with the negotiating parties to restrain the growth of hospital spending overall.

¹²Since 1987, some regions in Germany have adopted separate spending caps for three categories of physician care: direct consultation services, laboratory testing, and other services. Under this system, a high volume of services in one category does not affect the fees in other categories. For example, if laboratory tests exceed anticipated volume, then the fees for all laboratory tests are reduced while the fees for consultation and other services remain unchanged. See Bradford Kirkmann-Liff, "Physician Payment and Cost Containment Strategies in West Germany: Suggestions for Medicare Reform," *Journal of Health Politics, Policy, and Law*, Vol. 15 (Spring 1990), pp. 80-81.

¹³The budget controls were adopted in two stages. In 1984, the controls were applied to regional hospitals. In 1985, they were extended to local hospitals (about two-thirds of all hospital beds in France are in public hospitals).

Germany's Controls on Public and Private Hospitals

Beginning in 1986, Germany required all its hospitals to adopt global budgets. This policy was coordinated with existing targets for annual hospital spending. Unlike French policy, the German spending targets for hospitals are not reinforced by government participation in budget negotiations or by any other formal mechanism.

Under the German statutes governing health care, an advisory body on national health policy recommends annual spending targets for hospitals, while global budgets for individual hospitals are negotiated between each hospital and the association of sickness funds for the hospital's geographic region. The overall spending target is not binding on the budget negotiations. Although the target is an informal guideline in the negotiations for individual hospital budgets, neither the government nor the health advisory body can formally enforce compliance with the targets.

Budget Controls in Two of Three Cases Slowed Spending Better Than Price Controls Alone

In our analysis of two of the health sectors where budget controls were applied—German physician services and French hospital services—budget controls were more effective in constraining spending increases than price controls alone.¹⁴ These controls were accompanied by a formal mechanism to achieve compliance with the announced spending limits. In contrast, budget controls applied to a third sector—German hospital services—were no more effective at limiting spending increases than price controls used alone. These controls lacked a formal means for ensuring compliance.

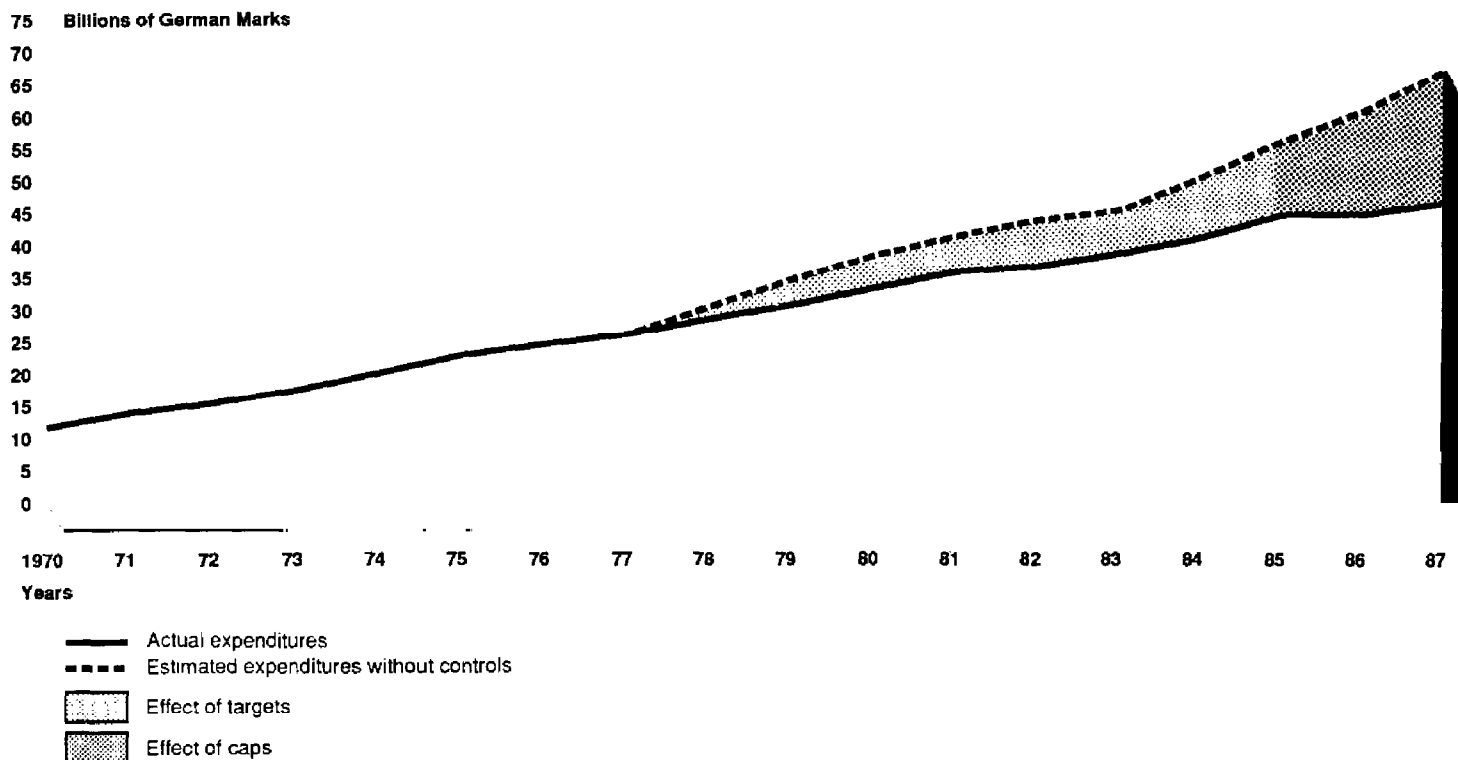
A basic fact—that total spending on health care services equals their price times their volume—helps in understanding why budget controls can be more effective than price controls at controlling spending. Price controls can limit only the price component of spending. The effect of price controls on spending may be blunted, therefore, when providers respond to lower prices by raising the volume of services to maintain their incomes. By contrast, budget controls limit total health spending in a sector, regardless of the volume of services.

¹⁴We could not evaluate the effectiveness of price controls alone compared with a situation with neither price nor budget controls. See pp. 20-21.

Germany's Budget
 Controls Reduced Real
 Physician Spending by as
 Much as 17 Percent

For the period covered by our analysis, Germany's spending targets and caps—used in conjunction with fee schedules—slowed the growth of physician care spending significantly,¹⁵ relative to its growth if price controls alone had prevailed. We estimate that the targets and caps reduced inflation-adjusted spending on ambulatory care, between 1977 and 1987, by as much as 17 percent (compared with what would have occurred without the budget controls). The rate of increase in nominal spending slowed to an average annual rate of 6 percent, compared with the 9 percent rate that our estimates suggest would have occurred under price controls alone (see fig. 3.2).

Figure 3.2: Effect of Budget Controls on Physician Care Spending in Germany



¹⁵While data on ambulatory care spending include many outpatient procedures and laboratory tests, the bulk of such spending is for outpatient physician services.

Our estimates show that a binding spending cap controlled the growth in Germany's physician care expenditures better than a spending target. This finding is consistent with the nature of caps that, unlike targets, build in a mechanism designed to make a spending limit stick. We could not quantify how much more effective caps would be if maintained over the long run (for instance, over the next 5 to 10 years), because we could only get data on Germany's caps for the 2-year period 1986-1987.¹⁶ During that short period, however, physician care spending—unadjusted for inflation—increased at an average annual rate of 2 percent, much slower than the 7 percent average rate of increase that prevailed during 1977 through 1985, when targets were in place.¹⁷ If caps were maintained over the longer run, they would be expected to retain their advantage as spending controls, but (as explained in app. II) the size of that advantage would undoubtedly be much less dramatic.¹⁸

France's Budget Limits Cut Real Hospital Spending by as Much as 9 Percent

During the 3-year period we examined, the budget controls used in France slowed the growth of hospital spending significantly, compared with what would have occurred under price controls (see fig. 3.3). We estimate that global budgets and sectorwide spending targets, which were in place between 1984 and 1987, reduced the 1987 level of inflation-adjusted inpatient care spending by as much as 9 percent. The effect of budget controls can also be seen in terms of the rate of spending growth: the increase in nominal spending (shown in fig. 3.3) slowed to an average annual rate of 5 percent, compared with the estimated 9 percent rate that would have occurred if France had continued to use price controls. We cannot determine from our estimates whether this slowdown in growth would persist over the long run, because these controls have only been in place for a few years.¹⁹

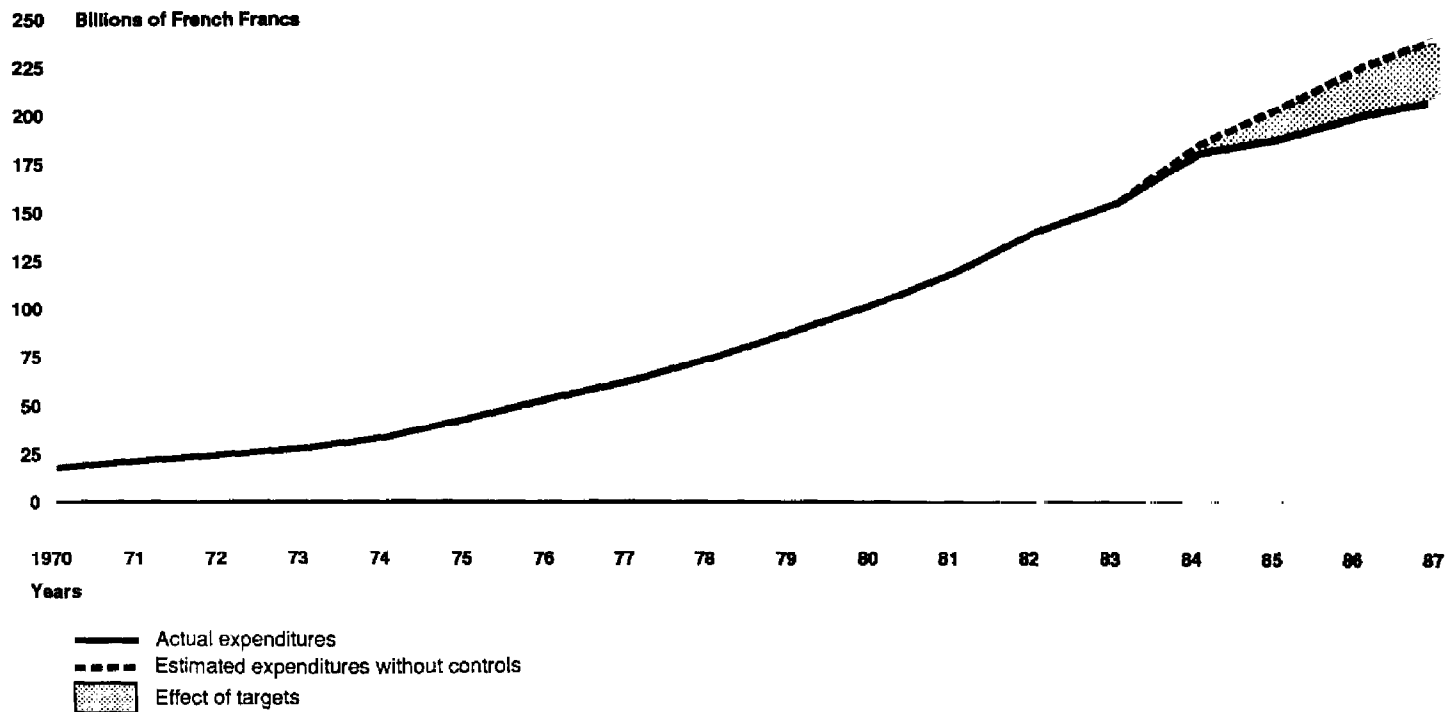
¹⁶ Furthermore, caps for some components of physician care spending were removed in 1991 (see fn. 11).

¹⁷ Only part of the difference in rates of increase between these two periods can be attributed to the different effects of targets versus caps. Other factors, such as the slowdown in the average rate of inflation between 1977-85 and 1986-87, also help explain the slower rate of growth when caps were in place. (Inflation-adjusted spending increased 3.3 percent between 1977-85, and was virtually unchanged between 1986-87.)

¹⁸ Our estimates suggest that the share of national income spent on physician care would drop continuously if the short-run effect of caps was sustained. We believe that caps would be applied less stringently if this pattern was to persist in the long run since there is no evidence that German policymakers' objective is a persistent decline in health's share of national income.

¹⁹ Our econometric estimates are discussed in appendix II.

Figure 3.3: Effect of Budget Controls on Hospital Care Spending in France



Germany's Budget Limits on Hospitals Failed to Contain Spending

Our econometric analysis suggests that Germany's budget limits for hospitals, which do not have a formal mechanism to assure compliance, did not slow the growth rate in hospital spending, at least in the short run (see app. II). This failure to moderate the rise in hospital spending cannot be definitively attributed to the absence of a formal mechanism to assure compliance with the budget limits. Some experts on the German health financing system do assert, however, that the persistent increases in Germany's hospital care spending are the byproduct of a fragmented system of hospital financing, in which no policymaker or entity has the authority to restrain overall spending increases.

Modifications May Be Needed to Extend Scope of Controls, Assure Quality, and Enhance Efficiency

Despite the effectiveness of budget controls at reducing the growth in spending for hospital services in France and physician services in Germany, officials in these countries are still concerned with rising health care spending. Health care spending in France, adjusted for inflation, rose at an average annual rate of 2.1 percent between 1984 and 1987 (the last year for which comparable data are available). This rate of increase can be explained, in part, by the scope of French budget controls, which do not apply to outpatient physician services or to the purchase of prescription drugs. Moreover, the French national insurance fund is expected to face a US \$1.6 billion deficit in 1991. In Germany, real health care spending has grown more slowly—at an average annual rate of 1.9 percent between 1984 and 1987.²⁰

This increase in spending can be attributed to factors such as the aging of the population and the introduction of expensive new medical treatments. Faced with these spending pressures, France and Germany are either expanding the scope of their budget controls or are supplementing these budget controls with policies designed to further moderate the rise in health care spending.²¹ There is concern in the countries reviewed that some cuts in spending may be at the expense of health care quality.²² Our review of the three countries' spending control strategies shows that officials and analysts are increasingly aware of the desirability of developing policies that promote high-quality care as well as limiting spending growth.

Budget Controls Might Not Promote Efficient Behavior by Individual Providers

Policies that limit aggregate spending may not reward individual providers for achieving economies that permit the same volume of services to be delivered for less than the budgeted amount of spending. Nor do these policies necessarily penalize providers who, despite keeping spending within the prescribed budget, are wasteful and inefficient.

For example, where hospitals' global budgets are based on past spending levels (as in France and Germany), hospitals may sustain high spending

²⁰Health care spending in the United States, adjusted for inflation, rose by 5.9 percent in the same period.

²¹Officials in Japan are exploring policies to improve the efficiency of health care delivery within the existing framework of price controls.

²²In line with other health care literature, we use the term quality of care to refer to several aspects of quality: (1) the mix of inputs available in providing care, (2) the manner in which services are provided, and (3) the outcomes of care. For additional references and discussion, see Michael D. Rosko and Robert W. Broyles, *The Economics of Health Care* (New York: Greenwood Press, 1988), p. 125.

levels so that they will be allocated larger budgets in subsequent years. These lump-sum budgets—sometimes perceived as entitlements—may even help keep open inefficient hospitals that otherwise would be forced to close. Furthermore, the practice of basing budgets on previous levels of spending may have the perverse effect of reducing budgets for hospitals that achieve savings through more efficient practices.

Physicians practicing under a sectorwide expenditure cap may try to maintain or increase their incomes by increasing the volume of low-value or unnecessary services or by “unbundling” services.²³ Yet physicians who do not increase their billings may receive a reduced share of the mandated budget because their share of total services performed has decreased.

Experts’ observations suggest that spending controls may contribute to inefficiency in the health care systems we reviewed. For example, a number of studies note that French and German hospital payment methods may induce lengthened hospital stays, irrespective of the severity of illness or the resources used in providing care.²⁴ In addition, some experts on the German system attribute increased volume of physician services (which occurred since the imposition of spending caps), in part, to the spending control policies, not to increased medical need.²⁵

Countries Are Adopting Reforms to Further Reduce Spending and to Improve Cost-Effectiveness

Government officials and other health care experts in the countries reviewed are exploring additional approaches to improve the cost-effectiveness of these countries’ health care spending. For example, the French government is considering measures to expand the use of budget controls for physician services and to reduce the reimbursement rate to private hospitals for prescription drugs. In 1989, Germany instituted a set of health care reform measures that were designed to increase efficiency in the delivery and payment of services; these measures included allowing sickness funds to deny payments to inefficient hospitals and

²³Unbundling refers to the practice of billing for narrowly defined units of service. Unbundling can increase the reimbursement received for performing a treatment compared with what would be received when the payment is calculated for some combination, or bundle, of services.

²⁴See, for example, Jean-Jacques Rosa and Robert Launois, “France,” in *Comparative Health Systems: The Future of National Health Care Systems and Economic Analysis*, ed. Jean-Jacques Rosa (Greenwich, Conn.: JAI Press Inc, 1990) and J.-Matthias Graf v.d. Schulenburg, “The West German Health Care Financing and Delivery System: Its Experiences and Lessons for Other Nations” (Paper presented at the International Symposium on Health Care Systems, Taipei, Dec. 18-19, 1989.)

²⁵The increase in physician services has also been attributed to increased competition among physicians, whose numbers are rising despite restrictions in aggregate physician income.

promoting greater coordination between inpatient and outpatient medical services.

Some of the approaches being explored in these countries have already been employed successfully in the United States. For example, experts in Germany and France are exploring ways to implement a prospective payment system for hospitals—similar to the DRG-based system that the U.S. Medicare program uses—that offers incentives for more efficient delivery of hospital care.²⁶ Some proposals have been made in France to incorporate HMOs, on a limited basis, into the national insurance framework.²⁷

Budget Controls' Effect on Quality Is Modest in the Short Run, Uncertain in the Long Run

Stringent budget controls that successfully stem the rise in health spending also can conceivably reduce the availability of services and, hence, the overall quality of care received by patients. Too-low payments to hospitals and too-low capital investment can hinder the ability of hospitals to maintain their facilities, inhibit the development of innovative treatments, and reduce patient access to high-cost treatments involving expensive medical technology and equipment. Excessively low reimbursement rates for physicians can skew the provision of services away from those services that receive relatively low payments. Germany, for example, is reviewing how quality assurance programs can be applied to maintain and improve the quality of medical care received.

We were not able to locate data on which to base a rigorous evaluation of budget controls' effects on the quality of care, but the evidence that does exist is inconsistent with a significant decrease in health care quality. First, these countries have experienced increases in average life expectancy and decreases in infant mortality rates since the imposition of budget controls.²⁸ Second, the level of public dissatisfaction with health care in these countries is generally low, according to public opinion surveys. Third, our review of the literature and interviews with government officials and providers revealed little evidence of queuing

²⁶Under Medicare's DRG-based prospective payment system, hospitals are paid a fixed amount for a patient's care, with the payment rate determined by the patient's diagnosis.

²⁷For a description of the proposals, see Victor Rodwin, "American Exceptionalism in the Health Sector: The Advantages of 'Backwardness' in Learning from Abroad," *Medical Care Review*, Vol. 44 (Spring 1987), pp. 138-40.

²⁸These facts alone are not sufficient to demonstrate that budget controls have not harmed quality of care, because changes in other factors may have offset any true adverse effects of the controls. Furthermore, we were unable to locate data on less tangible factors, such as pain and suffering, or on the quality of health care procedures.

Chapter 3
Countries Slow Growth of Physician and
Hospital Spending by Applying
Controls Systemwide

for services in the countries. For example, in Germany, access to outpatient services seems unaffected, despite the relatively stringent controls on physician spending.²⁹

Other evidence, however, indicates that budget controls have reduced the quality of care to some extent, but not dramatically. In France, where hospital spending controls are relatively stringent, hospitals are having difficulty, officials say, in maintaining their facilities and acquiring up-to-date medical equipment. Moreover, experts on the French system believe that French global budgets discourage institutional innovation and improvements in the quality of care.

In the long run—a decade or more—as spending controls become more stringent, the likelihood of an adverse effect on quality increases. The experience of Canada, Sweden, and the United Kingdom with budget controls has been relatively long, and suggests the need to observe the effects of controls on quality in France and Germany during the 1990s.³⁰

²⁹The relatively large supply of physicians in Germany may have prevented any adverse effects of controls on outpatient care from appearing.

³⁰In Canada, Sweden, and the United Kingdom, queues for some services have emerged, leading hospitals to ration services to patients. The United Kingdom, in particular, where health care spending growth has been severely restricted in recent years, appears to be experiencing significant problems with access to expensive medical treatments. See, for example, Canadian Health Insurance: Lessons for the United States (GAO/HRD-91-90, June 4, 1991); Henry J. Aaron and William B. Schwartz, The Painful Prescription: Rationing Hospital Care (Washington, D.C.: The Brookings Institution, 1984); and Richard B. Saltman, "Competition and Reform in the Swedish Health System," The Milbank Quarterly, Vol. 64 (1990), pp. 597-618.

Conclusions and Policy Implications

Twin ailments afflicting U.S. health care—chronic escalation of health care spending and the lack of health insurance for more than one in eight Americans—have been recognized by observers as diverse as senior officials of the executive branch, Members of Congress, and leaders of the American Medical Association. Consensus on a solution to these problems, however, has been elusive, as the public debate proceeds on the merits of divergent regulatory and market-oriented approaches. In this context, the findings of this report suggest four lessons that should be considered:

1: Universal Coverage Can Be Achieved With Many Payers (Insurers)

Each of the three countries offers near-universal coverage and a mandated package of benefits in an insurance system with multiple payers. Each system employs a distinctive combination of nonprofit and public payers that reflects the country's unique political and social institutions.

Universal coverage serves the primary function of guaranteeing all residents access to a minimum benefit package that covers primary and acute care. Universal coverage has a secondary function of alleviating difficulties faced by providers of health care. For example, in a health care system with universal coverage and a broad package of standard benefits, providers face less financial stress and uncertainty than many American physicians and hospitals currently do. Providers, who might otherwise bear the burden of charity care, know that each patient's medical expenses will be paid by some insurer. Moreover, knowing the standard benefit package, providers can make medical decisions without having to guess which services are covered by the patient's insurer.

2: Reimbursement Rates Can Be Standardized Without Government Setting Rates Unilaterally

In each of the three countries, payment rates for providers are typically standardized, although exceptions exist.¹ These rates may be determined through formal negotiation between, for example, a physicians' association and an alliance representing payers.² Payment rates may also be set by a government agency in consultation with payers and providers. Regardless of the rate-setting process, all payers must abide by the established rates when reimbursing providers.

This arrangement differs greatly from that in the United States, where physician fees are largely determined in a market involving the interaction of thousands of physicians, millions of patients, and hundreds of insurers.³ The uniformity of reimbursement in these countries prevents providers from shifting costs of care from less generous payers to more generous ones. In addition, the more standardized prices are, the less incentive providers have to withdraw their services from people whose payers otherwise might reimburse less generously. (In the United States, people insured by the Medicaid program have encountered reluctance by providers to serve them because of Medicaid's relatively low rates.)

3: Controls That Set Budgets for Entire Sectors of Health Care Can Moderate Spending Increases

Budget controls that are enforced are effective in slowing spending growth when they set spending limits for whole categories of services, namely all physician care or all hospital care. That they are budget controls is important because price controls alone have a potential limitation: price controls can induce providers to protect their incomes by increasing the volume of services provided. But budgets set limits on the product of price and volume—and therefore a budget that is fixed and binding must limit total spending. That these budget controls apply to all physician services or all hospital services—and to all payers of those services—is also important. Budget controls that are comprehensive are likely to have greater impact than those that are limited in scope. That

¹A uniform pricing system, when compared with a system like that in the United States—in which the diversity of payment policies mirrors the diversity of insurers—seems likely to realize substantial administrative savings. These tend to be one-time savings, not a flattening of the long-term trend of health care spending.

²To engage in bilateral negotiations, payers in an alliance must coordinate their negotiating strategy. This coordinated approach enables them to act as a single purchaser of medical services, thereby giving them market power (technically, "monopsony power"). Such market power tends to enable payers to obtain prices that are lower than those prevailing in an unregulated, competitive market.

³Beginning in 1992, when the Medicare program introduces an RVS for physician services, physician payment rates for a substantial proportion of the U.S. population will be determined administratively, not through market interactions.

is, controls that reduce spending increases for all payers tend to trim total spending more than controls that apply to only half of the payers.

4: Budget Controls Do Not Relieve All Spending Pressures, Nor Do They Assure Quality or Efficiency

The success of budget controls at slowing health spending growth in France and Germany has not relieved pressures for increased spending in those countries. These countries' health care expenditures continue to rise, in part because some sectors (such as prescription drugs or, in France, physician services) are not subject to spending caps or targets.⁴ In addition, the budget controls do not address the anticipated spending increases associated with the aging of populations in these countries and with the introduction of expensive medical treatments.

Furthermore, spending targets and caps are not designed to maintain the quality of care or curb waste in the provision of health services. The singleminded and sustained pursuit of spending containment through the use of targets and caps may, however, harm quality. Budget controls can so restrict funding that some services are made less available, and some hospitals and medical equipment are not maintained properly or modernized. As the experience of countries such as Canada and the United Kingdom suggests, such threats to availability of services are probably most noticeable in hospitals' provision of expensive acute care; these threats are most likely to emerge after controls have been in place for a protracted period of time. Moreover, as new medical needs emerge (for example, the AIDS epidemic), budget controls that rigidly link health spending to national income might prevent a country from responding adequately.

Effective budget controls also may not encourage individual providers to deliver care efficiently. For example, fixed budgets for hospitals do not reward administrators and physicians for making cost-saving innovations. Likewise, fixed budgets can permit the continued operation of inefficient hospitals that otherwise might succumb to market forces and shut down.

To complement spending control with assurance of quality and promotion of efficiency, budget controls (similar to those used in France and

⁴To infer from continued spending growth in France and Germany that their budget controls were ineffective would be incorrect. Determining the effectiveness of a policy requires a comparison of actual spending growth under the policy in place with spending growth that would have occurred without the policy. By this standard, budget controls were effective in two of three cases reviewed. Policies that are effective may still be insufficient to relieve all spending pressures or reduce spending growth to the extent some may wish.

Germany) need to be modified or supplemented with additional policies. This point has been recognized in France and Germany, where proposals and policy reforms have recently been made to improve the efficiency with which health care is provided. These proposals include the use of prospective payment for hospitals and, in Germany, increased coordination between the inpatient and outpatient sectors. Moreover, further refinements of budget controls to promote efficiency may be possible. For example, fixed budgets might be accompanied by rewards for providers that generate less than the budgeted level of spending.

Use of Regional Planning to Allocate Construction and High-Cost Medical Equipment

France	<p>Hospital construction must be approved by national government. Any addition of hospital beds must be offset by closings elsewhere.</p> <p>High-cost medical equipment must be authorized by national government.</p>
Germany	<p>Hospital construction and high-cost medical equipment are licensed and financed by the states.</p>
Japan	<p>Hospital construction subject to regional planning, but limits do not apply to private clinics (defined as facilities with less than 20 beds).</p> <p>No planning to control growth or distribution of high-cost medical equipment.</p>

Economic Analysis of the Effects on Spending Growth of Changes From Price Controls to Budget Controls

Did a change from price controls to budget controls slow the growth of nominal health care spending relative to the growth of the national economy? This question has different answers in different sectors—German physician care, German hospital care, and French hospital care. To provide a basis for answering the question, we developed an economic model and used it to evaluate the relative effectiveness of these two types of policies in controlling health care expenditure growth. This model relates spending levels in a sector (physician care or hospital care) to key policy and nonpolicy determinants. Using multiple regression analysis, we estimated the model on time-series data for each of the three sectors cited above. This technique enabled us to control for other factors that affect health care spending and to determine whether a new policy was accompanied by a lower rate of growth of health care expenditures relative to national income.

Price controls seek to limit spending growth indirectly (by fixing prices), and budget controls (that is, spending targets and spending caps) seek to limit expenditures directly. Targets suggest maximum spending levels, but may lack formal enforcement. Caps set maximum spending levels and have the means to enforce these limits.

During the late 1970s and 1980s, France and Germany altered their approaches to containing health care spending and adopted budget controls for at least one sector. With respect to physician services, Germany moved, in 1977, from price controls (on physician fees) to spending targets, used in conjunction with price controls. In 1985, it converted these targets into binding caps. With respect to hospital care, both Germany and France moved, in the mid-1980s from regulated per diem rates to global budgets and aggregate spending targets for hospital services.

Specification of the Multiple Regression Model

In our model, total nominal spending,¹ in a particular health care sector (physician or hospital),² depends on both policy and nonpolicy variables. The nonpolicy variables included are the country's national income and population,³ as well as a measure of resources in the particular sector—the number of practicing physicians (for the physician care sector) or the number of inpatient medical care beds (for the hospital sector). These nonpolicy variables are commonly used as control variables in regression analysis of health care spending.⁴ We expect spending to rise with national income—previous work has shown national income to be the prime determinant of health care spending levels.⁵ We also expect spending to rise as population rises.⁶ Finally, we also expect the amount of resources in a sector (number of physicians or of hospital beds) to have a positive effect on spending. Previous studies have found evidence of providers autonomously increasing the utilization of their services, so we included this variable to control for the possibility of provider-induced demand for medical services.⁷

To capture the influence of budget controls, the model includes a pair of variables: the first, an additive dummy variable, indicates for each year

¹Nominal spending, not real spending, is used, because the policies analyzed are "nominal" in nature; that is, they are designed to limit the growth of current (nominal) spending relative to current national income.

²We use ambulatory care expenditures data as an estimate of spending on physician services because spending on physician services is the dominant component of ambulatory care spending. Expenditure data on physician services alone were not available.

³In our regressions, income is represented by GDP for France and by total employee compensation in the national economy for Germany. Total employee compensation, while not a complete measure of national income, is used because Germany's ambulatory and inpatient sector targets are tied to this variable.

⁴See Thomas E. Getzen, "Macro Forecasting of National Health Expenditures," *Advances in Health Economics and Health Services Research*, Vol. 11 p. 27-48, and A.J. Culyer, "Cost Containment in Europe," in *Health Care Financing Review*, Annual Supplement, Vol. 11 (Winter 1989), pp. 21-32.

⁵Articles by Culyer and Jonsson cite several studies on the determinants of national health care spending. See Culyer, "Cost Containment," p. 32, and Bengt Jonsson, "What Can Americans Learn from Europeans?" *Health Care Financing Review*, Annual Supplement, Vol. 11 (Winter 1989), pp. 79-93.

⁶Unlike our model, other studies of health care spending calculate spending and its determinants in per capita terms. This specification is plausible, but the data available may not permit it. Consequently, we adopted a more general specification that is consistent with the conventional specification, but is not restricted to that hypothesis.

⁷For references to studies that document this effect, see Burton A. Weisbrod, "The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care, and Cost Containment," *Journal of Economic Literature*, Vol. 29 (June 1991), p. 525. (For evidence on physicians' responses to price controls, see Physician Payment Review Commission, *Annual Report to Congress 1991* (Washington, D.C.), pp. 387-96).

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the policy regime in effect—price controls or budget controls—and the second, a variable that indicates the interaction or product of the policy dummy and national income.

The coefficient on national income measures the responsiveness of spending to changes in national income under price controls alone. The coefficient on the policy interaction term answers this question: Did the policy change lead to smaller increases in health care spending for given increases in national income? If the estimated coefficient on the interaction term is negative, the change from price controls alone to budget controls succeeded in slowing health care spending growth (relative to the growth of the economy as a whole).⁸ The sum of the coefficients on national income and the interaction term measures the responsiveness of spending to income under budget controls.⁹

The model is estimated in a double-log specification: all numerical variables are evaluated at their natural logarithms. As a result of this specification, a coefficient estimate can be interpreted as an elasticity, that is, the percentage change in expenditures resulting from a percentage change in the explanatory variable. For example, a coefficient estimate of 0.5 implies that a 1 percent increase in the explanatory variable results in a 0.5 percent rise in spending.

The variables used and brief descriptions of each are given in table II.1.

⁸For the additive dummy variable, a positive coefficient estimate indicates that the change in policy is accompanied by an increase in the intercept of the expenditure function.

⁹The sum of these two coefficients equals the partial derivative of log(health spending) with respect to log(national income). A different issue—the total effect of the policy change on spending—can be addressed by examining the partial derivative of log(spending) with respect to the policy change: the coefficient on the additive dummy plus the product of the interaction term coefficient and log(national income).

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Table II.1 List of Variables

Physician care spending	Total expenditure on ambulatory medical services, including expenditures for outpatient physician services (such as office visits and procedures performed in a physician's office) and outpatient lab tests
Hospital care spending	Total expenditure on inpatient care, including expenditures for conventional hospital services and physician care in the hospital
National income	Gross domestic product (GDP) for France and total employee compensation in the national economy for Germany
Population	Mid-year estimates
Number of physicians	Number of active practicing physicians, including physicians practicing in hospitals (number of hospital physicians not available separately)
Hospital beds	Average daily census of inpatient medical care beds
Spending target	Dummy variable with the value of 1 during periods in which spending targets are in effect, 0 otherwise
Spending cap	Dummy variable with the value of 1 during periods in which spending caps are in effect, 0 otherwise

Data

The data used in our regression analysis were compiled by the Organization for Economic Cooperation and Development (OECD);¹⁰ these data are the most comprehensive and carefully assembled source of international health care statistics. They are not, however, well suited for comparing health expenditures by sector (for example, hospital care) across countries because no commonly accepted international accounting system exists for measuring economic activity in the health care industry. This lack of comparability across countries, however, does not impair our analysis because we examine specific sectors within individual countries across time.

Results

Our empirical results indicate that budget controls are more effective than price controls in limiting health care spending growth. The effectiveness of budget controls, however, is enhanced by the presence of strict enforcement mechanisms. Without such enforcement mechanisms, the change from price controls to budget controls had an insignificant

¹⁰See *Health Care Financing Review, Annual Supplement (Winter 1989)*, pp. 111-94, for data used and a detailed description.

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effect in one case. In another case, a target without enforcement did slow spending growth, but incorporating an enforcement mechanism achieved greater spending restraint.

For the German physician care sector, the shift—from price controls to sectorwide spending targets and then to spending caps—was accompanied by slower growth of expenditures relative to the growth in total employee compensation, as indicated by the negative parameter estimates for the interaction terms. This effect is estimated to be statistically significant (see table II.2).¹¹

Table II.2 The Effect of Targets and Caps on Physician Care Spending—Germany (1970-87)^a

Variable	Coefficient estimate	Standard error
Intercept	-17.93	19.62
Log (population)	-0.74	1.66
Log (national income)	0.73 ^b	0.31
Log (number of physicians)	1.82 ^b	0.72
Spending target	9.30 ^b	2.72
Log (national income)* spending target	-0.46 ^b	0.13
Spending cap	33.58 ^b	7.94
Log (national income)* spending cap	-1.62 ^b	0.38
R-squared	0.99	
Durbin-Watson statistic	2.67	

^aAll figures are nominal, that is, unadjusted for inflation. Expenditure targets were implemented in 1977, caps in 1985. "National income" refers to total employee compensation in the national economy.

^bSignificant at the 0.05 level.

Furthermore, our results confirm our expectation that binding spending caps should have had an effect significantly greater than that of non-binding spending targets.¹² We are reluctant, however, to attach too much weight to the value of the point estimates because spending caps, in our data set, were in effect for only 2 full years. The point estimates indicate that with caps in place, increases in national income led to decreases in physician care spending rather than to the moderation in spending increases that would be expected.¹³ We believe that this is a

¹¹ An estimate is considered statistically significant if the probability is low that the true value of the coefficient is 0. A conventional significance level is 0.05: that is, the probability of the true coefficient being 0 is no greater than 0.05.

¹² Based on an F-test, we rejected the null hypothesis that the effects of targets and caps are equal.

¹³ The income elasticity of physician care spending was estimated to be -0.89 with caps, compared with 0.27 with targets and 0.73 without budget controls.

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short-term phenomenon that cannot persist in the long run; the policy is designed to dampen the relationship, not reverse it. The large absolute value of the point estimate is explained by the rather severe imposition of the cap—total spending essentially did not rise in the initial year (whereas the year before, spending grew at 9 percent, and the year after, at 4 percent.) Given that we have an observation for only 1 full year after that, this initial period of zero-growth drives the large size (in absolute value) of the negative point estimate of the interaction term. We expect zero-growth under the cap to be an anomaly since zero growth is not the goal of the cap. Consequently, as more years of data become available, we still expect to find a significant negative effect for caps if the policy remains unchanged. The point estimate of the interaction coefficient should no longer, however, be larger than the coefficient on national income.

The estimated elasticity of physician spending with respect to national income before the policy changes—0.73—may appear somewhat low, given the common finding that health care spending is elastic—that is, the estimated elasticities are equal to, or exceed, 1.¹⁴ In fact, several considerations suggest caution about drawing this conclusion from the literature. First, these estimated income elasticities are for total health care spending, not for a component such as inpatient care spending. No strong presumption exists that all components of total health spending should have the same income elasticity. In fact, we estimated an elasticity for German hospital spending of 1.40 (see table II.3.) Second, the estimated income elasticities are for cross-section data, but our estimates are for time series. Estimated elasticities from cross-section data may differ from those based on time series data.¹⁵ Third, income elasticities based on time series data have been reported to equal or exceed 1, but these elasticities are not comparable with our estimates, because they were not estimated from regression equations. Instead, these elasticities represent arithmetical calculations—the percentage change in health spending between 2 years, divided by the percentage change in GDP over the same period.¹⁶

¹⁴Culyer, "Cost Containment," pp. 30-31.

¹⁵For example, this phenomenon is found in the literature on personal consumption spending and on production functions.

¹⁶Culyer, "Cost Containment," p. 30, table 2.

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For the French hospitals, the shift from regulated per diem rates to sectorwide spending targets with global hospital budgets was accompanied by a statistically significant reduction in expenditure growth relative to economywide growth.^{17,18} For German hospitals, which experienced a similar shift from price controls to budget targets, we did not find a statistically significant effect of budget controls (see table II.3). Differences in enforcement mechanisms could explain why targets had a significant effect in the French case but an insignificant one in the German case. The French government's participation in each hospital's budget negotiations encourages observance of the targets, but the German targets are guidelines that lack an enforcement mechanism to reconcile actual spending with the targets.^{19,20}

These budget controls were typically in effect for only a few years (during the period for which we have data on France and Germany), and some might question whether this fact precludes meaningful analysis of the policies' effectiveness.²¹ Our procedures take account of this issue, however. More precisely, the fewer the number of years for which the policy was in place, the more imprecise the estimate of policy effectiveness, other things being equal.²² The conventional test of the statistical significance of the estimated policy coefficient, however, considers the imprecision of the estimate. The significance test will reject a nonzero effect if the imprecision of the estimate is relatively large. By contrast, the estimated effect of a policy can be properly viewed as nonzero if it passes the significance test, even if the policy was in place for only a few years. In fact, GAO did find statistically significant effects for German spending caps and French spending targets that were in place for relatively brief periods.

¹⁷As with the German ambulatory care sector, given that targets were in effect for only 3 full years in France, the point estimate of the coefficient should not be interpreted as a long-run elasticity.

¹⁸The estimated income elasticity of hospital spending decreased from 1.38 to 0.77.

¹⁹The effect of population is statistically insignificant in all three cases studied. This is not surprising, however, given the relatively small variations in population over the periods considered.

²⁰The high R-squares obtained here are typical of time series analysis and, to some extent, reflect common trends in many variables over time. In the cases studied here, both expenditures and national income trend rapidly upward during the sample period.

²¹German physician spending caps were in effect for only 2 full years and French hospital spending targets were in effect for only 3 full years.

²²Imprecision is measured by the standard error of the estimated coefficient in the regression analysis.

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Table II.3 The Effect of Spending Targets on Hospital Care Spending—France and Germany^a

Variable	France ^b (1960-87)		Germany ^c (1970-87)	
	Coefficient estimate	Std. error	Coefficient estimate	Std. error
Intercept	-8.81	5.28	-54.53 ^d	14.83
Log (population)	0.01	0.53	2.04	1.51
Log (national income)	1.38 ^d	0.04	1.40 ^d	0.03
Log (hospital beds)			1.03 ^d	0.35
Spending target	9.37 ^d	3.63	6.05	9.64
Log (national income)* spending target	-0.61 ^d	0.24	-0.29	0.46
R-squared	0.99		0.99	
Durbin-Watson statistic	1.09		0.91	

^aAll figures are nominal, that is, unadjusted for inflation.

^bTargets with global hospital budgets for public hospitals were implemented in 1984. Data on number of hospital beds are not available for 13 out of 28 years. National income is measured by GDP.

^cTargets with global hospital budgets were implemented in 1985. National income is measured by total employee compensation in the national economy.

^dSignificant at the 0.05 level.

**Additional Technical
Issues**

A potential shortcoming of our approach is the simplicity of the model specification. Variables besides national income and population that one would expect to affect the level of health care spending—such as demographic characteristics, particularly the age distribution, income distribution, and health status of the population—are not included in the regression equation. This is due to a lack of available data. Furthermore, even if these data were available, the limited number of observations restricts the number of explanatory variables that can be included. In light of previous research showing national income to be the single most important factor determining health expenditures, we do not consider omitted variables to be a serious problem. We do not believe that their inclusion would change the qualitative results for policy outcomes.

Another potential problem with our estimation is serial correlation among the error terms, a common problem with time-series analysis. Serial correlation refers to the interdependence of the error terms in the regression equation. This statistical problem affects the accuracy with which the parameters of the model are estimated. Tests indicate evidence of serial correlation in the French hospital regression, and are inconclusive for both German regressions. Therefore, new regressions were run using Cochrane-Orcutt iterative least squares, a procedure correcting for the problem if it exists. The results remained basically

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unchanged—that is, the sign and statistical significance of all policy variables, and of most other independent variables, stay the same. In addition, the magnitude of the coefficients themselves generally is little changed.

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