
Monitoring Health Spending Increases: Incremental Budget Analyses Reveal Challenging Tradeoffs

Micah Hartman, Cynthia Smith, M.A., Stephen Heffler, M.B.A., and Mark Freeland, Ph.D.

With each passing decade, health care has consumed a larger share of gross domestic product (GDP) and Federal budgets. By the 2000-2004 period, society was willing to devote over 20 percent of the cumulative increase in GDP and the cumulative increase in Federal outlays towards health care. The financing challenges are expected to become more acute for private payers as well as Federal, State, and local budgets. With the implementation of Part D in 2006, the U.S. Office of Management and Budget projects that Federal budget pressures will heighten, bringing increased attention to Medicare's long-term fiscal outlook.

INTRODUCTION

The tradeoffs required to finance health care spending have become increasingly challenging for both private and public payers. In the private market, the rate of this spending growth may limit the enrollment, breadth, and depth of health care coverage, and in the government budget process, the rapid pace poses both short- and long-term financing challenges as mandatory spending grows faster than discretionary spending. In this article, we compare the incremental or marginal increase in U.S. health spending to that of GDP, Federal outlays, and State and local government expenditures. When viewed relative to the constraints in financial resources, these incremental changes in health spending provide

The authors are with the Office of the Actuary, Centers for Medicare & Medicaid Services (CMS). The statements expressed in this article are those of the authors and do not necessarily reflect the views or policies of CMS.

a better understanding of the implications of decisions made by our Nation's health policymakers and financiers of health care.

For almost all of the past 40 years, growth in health care spending has outpaced economic growth. For the public sector, this increased spending has meant more government health coverage for a variety of populations, including people with low incomes, the working poor and their children, the elderly, and the disabled. In 1960, spending on public programs accounted for 25 percent of national health expenditures (NHE), but reached 45 percent of health expenditures by 2004 (Centers for Medicare & Medicaid Services, 2006). Within the private sector, the breadth of private health insurance coverage grew as consumer out-of-pocket spending declined, while health insurance premiums outpaced wage growth. Consequently, the health spending share of GDP more than tripled between 1960 and 2004, as it rose from 5.2 to 16.0 percent of GDP. CMS is projecting health spending to absorb an even higher share of GDP over the next decade, likely influencing the ability of governments to pay for education, defense, transportation, and other vital services.

Because resources are limited, the growth in health spending can elicit tradeoffs that are often difficult to conclusively track. Of particular concern is the increase in the health spending share of economic growth and of government outlays. For instance, health care spending absorbed well over one-half of the nominal increase in Federal Government outlays in 1993

and 27 percent of the nominal increase in the economy over the 2000-2004 period. Federal and State governments face increasing demands in providing care for low-income, elderly, and disabled individuals and will encounter even more in future years as the baby boom generation retires. In the Medicare Program, the large increase in the number of beneficiaries and in per-beneficiary spending is expected to propel spending growth even faster, while current growth already outpaces that of the Federal budget. Furthermore, an increasing proportion of total Medicare spending is expected to be financed through general government revenues, and as this occurs, the challenges of paying for Medicare and other programs will become more explicit (Board of Trustees, 2006). Concern over this has prompted a proposal in the 2007 Presidential budget that allows for an across-the-board 0.4 percent cut to Medicare spending if general revenue funding reaches 45 percent of total funding (U.S. Office of Management and Budget, 2006a). If promised benefits are paid, challenging consequences—such as a higher budget deficit or increased taxes—may result (Penner, 1999). Alan Greenspan recently told lawmakers that the Federal budget is on an unsustainable path and suggested that changes in Social Security retirement and Medicare benefits be made sooner rather than later (Andrews, 2005).

Approach

The average health spending share of GDP is frequently cited as a measure of the ability and willingness of society to purchase health care. While the average share yields information about the magnitude of health spending in relationship to GDP, it does not indicate whether health spending increased its share of total spending relative

to all other spending in a given year. One way to provide some insight into this question would be to compare, for each year, the incremental increase in health spending to that year's additional resources available to pay for it. An increase in the incremental, or marginal, share of spending for health occurs when there is faster relative growth in health spending (the numerator) or slower relative growth in the resource constraint (the denominator) (Kowalczyk, Freeland, and Levit, 1988). The analysis in this article is based on nominal values for health expenditures developed within the CMS NHE accounting framework, nominal GDP, and nominal Federal Government outlays (Bureau of Economic Analysis, 2006). Additional elaboration and caveats regarding the estimates in this article are available on the internet at <http://www.cms.hhs.gov/NationalHealthExpendData/> or by request from the authors.

Health Marginal Share of GDP

As health spending grows faster than GDP in most years (Table 1), health spending is higher at the margin than health spending as a share of GDP on average. This higher marginal relationship drives up the average share over time; from 5.2 percent in 1960 to 16 percent in 2004. Admittedly, if society weren't willing to change its preferences and health spending continued to grow significantly faster than GDP during expansionary periods, health expenditures could eventually consume almost all of the real marginal growth in a given year. To be sure, welfare can rise even if income less health care falls, because the benefits resulting from increased spending for health care can outweigh the losses in reduced consumption of other goods (Johnson and Penner, 2004). Potentially, it may be sustainable to devote an increasing marginal share of GDP

Table 1
National Health Expenditures (NHE), Gross Domestic Product (GDP), and Derivation of Health Spending's Contribution to Annual GDP Increase

Year	NHE	Private	Public Programs in NHE	Nominal GDP	Annual Increase in NHE	Annual Increase in GDP	Total Marginal Share of GDP	Private Marginal Share of GDP	Public Marginal Share of GDP	Average Health Share of GDP
							Percent			
1960	\$27.6	\$20.7	\$6.8	\$526.4						5.2
1961	29.4	21.9	7.5	544.7	\$1.8	\$18.3	10.0	6.5	3.5	5.4
1962	32.1	24.0	8.2	585.6	2.7	40.9	6.6	4.9	1.7	5.5
1963	35.0	26.0	9.0	617.7	2.9	32.1	9.0	6.4	2.6	5.7
1964	38.8	29.1	9.7	663.6	3.8	45.9	8.3	6.8	1.5	5.8
1965	42.3	31.7	10.6	719.1	3.5	55.5	6.3	4.6	1.6	5.9
1966	46.6	32.5	14.1	787.8	4.3	68.7	6.2	1.2	5.1	5.9
1967	52.2	32.7	19.5	832.6	5.7	44.8	12.6	0.5	12.1	6.3
1968	59.2	36.8	22.4	910.0	7.0	77.4	9.0	5.3	3.7	6.5
1969	66.6	41.4	25.1	984.6	7.4	74.6	9.9	6.2	3.7	6.8
1970	75.1	46.8	28.3	1,038.5	8.5	53.9	15.8	9.9	6.0	7.2
1971	83.5	51.2	32.3	1,127.1	8.4	88.6	9.5	5.0	4.5	7.4
1972	93.2	57.2	36.0	1,238.3	9.7	111.2	8.8	5.4	3.3	7.5
1973	103.3	62.8	40.5	1,382.7	10.1	144.4	7.0	3.9	3.1	7.5
1974	117.2	69.3	47.9	1,500.0	13.8	117.3	11.8	5.5	6.3	7.8
1975	133.6	77.2	56.3	1,638.3	16.4	138.4	11.8	5.7	6.1	8.2
1976	153.0	89.3	63.7	1,825.3	19.4	186.9	10.4	6.4	3.9	8.4
1977	173.4	102.2	71.1	2,030.9	20.4	205.7	9.9	6.3	3.6	8.5
1978	195.3	114.2	81.1	2,294.7	21.9	263.8	8.3	4.5	3.8	8.5
1979	221.3	129.0	92.3	2,563.3	26.0	268.6	9.7	5.5	4.2	8.6
1980	254.9	147.6	107.3	2,789.5	33.6	226.2	14.9	8.2	6.6	9.1
1981	295.3	171.6	123.7	3,128.4	40.4	338.9	11.9	7.1	4.8	9.4
1982	332.1	195.1	137.0	3,255.0	36.8	126.6	29.0	18.6	10.5	10.2
1983	366.8	215.7	151.1	3,536.7	34.8	281.7	12.3	7.3	5.0	10.4
1984	404.0	239.1	164.9	3,933.2	37.2	396.5	9.4	5.9	3.5	10.3
1985	441.9	262.5	179.4	4,220.3	37.9	287.1	13.2	8.2	5.0	10.5
1986	473.9	278.0	195.9	4,462.8	32.0	242.6	13.2	6.4	6.8	10.6
1987	515.3	300.6	214.7	4,739.5	41.4	276.6	15.0	8.2	6.8	10.9
1988	576.6	344.0	232.6	5,103.8	61.3	364.3	16.8	11.9	4.9	11.3
1989	641.8	382.7	259.1	5,484.4	65.2	380.6	17.1	10.2	7.0	11.7
1990	717.3	427.3	290.0	5,803.1	75.5	318.7	23.7	14.0	9.7	12.4
1991	785.0	456.2	328.8	5,995.9	67.6	192.9	35.1	15.0	20.1	13.1
1992	852.5	485.5	367.0	6,337.7	67.6	341.8	19.8	8.6	11.2	13.5
1993	916.5	514.2	402.3	6,657.4	63.9	319.7	20.0	9.0	11.0	13.8
1994	966.0	527.6	438.4	7,072.2	49.5	414.8	11.9	3.2	8.7	13.7
1995	1,020.4	553.8	466.6	7,397.7	54.4	325.4	16.7	8.1	8.7	13.8
1996	1,072.6	579.6	493.0	7,816.9	52.2	419.2	12.4	6.2	6.3	13.7
1997	1,129.7	614.1	515.6	8,304.3	57.0	487.5	11.7	7.1	4.6	13.6
1998	1,195.6	662.3	533.2	8,747.0	65.9	442.7	14.9	10.9	4.0	13.7
1999	1,270.3	710.2	560.1	9,268.4	74.7	521.4	14.3	9.2	5.1	13.7
2000	1,358.5	756.3	602.2	9,817.0	88.2	548.6	16.1	8.4	7.7	13.8
2001	1,474.2	807.2	667.0	10,128.0	115.7	311.0	37.2	16.3	20.8	14.6
2002	1,607.9	881.4	726.5	10,469.6	133.8	341.6	39.2	21.7	17.4	15.4
2003	1,740.6	957.2	783.4	10,960.8	132.7	491.2	27.0	15.4	11.6	15.9
2004	1,877.6	1,030.3	847.3	11,712.5	137.0	751.7	18.2	9.7	8.5	16.0
					Period Increase					
1960 - 1970	—	—	—	—	—	—	9.3	5.1	4.2	—
1970 - 1980	—	—	—	—	—	—	10.3	5.8	5.2	—
1980 - 1990	—	—	—	—	—	—	15.3	9.3	6.1	—
1990 - 2000	—	—	—	—	—	—	16.0	8.2	7.8	—
2000 - 2004	—	—	—	—	—	—	27.4	14.5	12.9	—

NOTES: Dollar amount in billions. Marginal share for health. First difference in nominal health spending/first difference in nominal GDP; for example, $(HS_n - HS_{n-1}) / (GDP_n - GDP_{n-1})$.

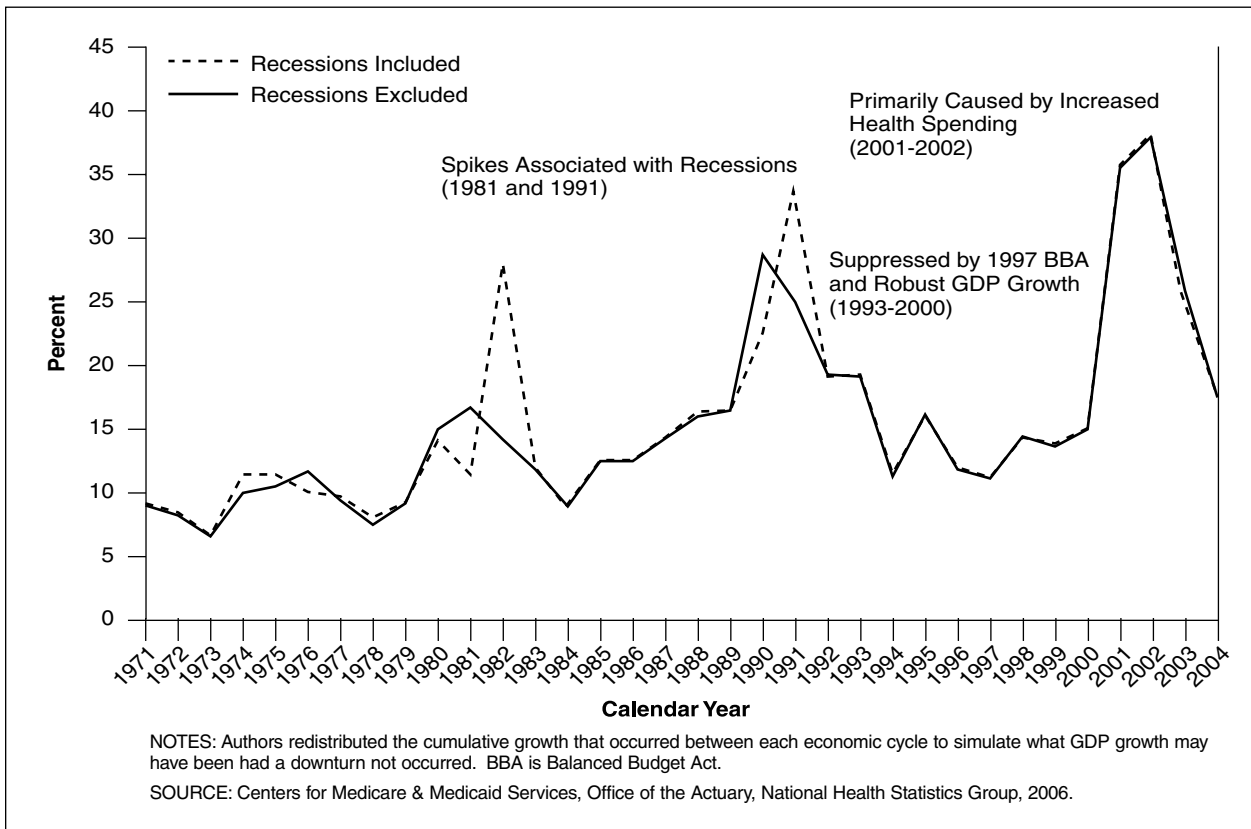
SOURCES: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2006; Bureau of Economic Analysis, 2006.

to health care as long as real spending on non-health services is preserved (Chernew, Hirth, and Cutler, 2003).

Marginal shares indicate the direction of change in the average health share. The marginal share during the 1970-1980 period (10.3

Figure 1

Marginal Share of Gross Domestic Product (GDP) Spent on Health Care: Calendar Years 1971-2004



percent) foreshadowed an increase in the average health share of GDP, which surpassed the 10.3 percent threshold by 1983 (Table 1). In the 1980-1990 period, the marginal share for health was 15.3 percent, a precursor of the average share reaching this level by 2002, despite policy changes that delayed this outcome. The most recent marginal share of 27 percent incurred in the 2000-2004 period indicates that health care may eventually reach a much higher average share of GDP. Under CMS current law projections, health care is expected to increase to 20 percent of GDP by 2015 (Borger et al., 2006).

Health Care Spending During Recessionary Periods

We also find that a larger share of the increase in GDP is spent on health during recessionary periods (Figure 1). To some

extent, the countercyclical nature of health spending is beneficial in that it helps to cushion the impact of cyclical swings in GDP. For example, Medicaid spending often increases during recessionary periods as the unemployment rate rises. A sharply rising marginal share often reflects the effect of a contraction in real GDP, and the effect becomes more significant as the average share of health to GDP increases.

The relative severity of economic downturns has a significant impact on the magnitude of the spike in the marginal share. The recession of 1980-1982 was more severe than the 1990-1991 and 2000-2001 recessions. In 1982, health spending absorbed a much higher marginal share of GDP, at 29 percent, than had yet been experienced. As the pace of health spending in the 1980s grew rapidly and pressures to constrain growth were building, the economic

contraction of 1990-1991 exacerbated the growing pressure from the health sector, with health spending absorbing 35 percent of nominal economic growth in 1991. Employers responded to this situation by encouraging employees to enroll in managed care plans, whose enrollment captured 54 percent of all insured workers in 1993 and 86 percent of those workers by 1998 (Levitt et al., 1999). Enrollment in Federal Government-sponsored managed care plans also began to pick up in the 1990s.

The most recent spike in the marginal share of GDP surpasses the levels shown for earlier periods. The marginal share reached 37 percent in the 2001 recession, which occurred simultaneously with the granting of supplemental funding to Medicare providers and the reaching of the peak of the backlash against restrictive managed care arrangements.

It is interesting to consider how much of the increase in the marginal share could be attributed to the period's weakening economy, as opposed to the rising rate of health spending. That is, what would the health spending share of GDP growth have been if the economy, rather than contracting, had expanded at its average rate for the period? What would the share have been during 2000-2001, when the recession was admittedly mild compared with the prior two recessions?¹ To simulate this, we redistributed the nominal economic growth that took place as the economy contracted then rebounded from each downturn.² We then compared the data series that reflects the growth in marginal share during recessions with one that reflects what the share would have been with smoothed economic

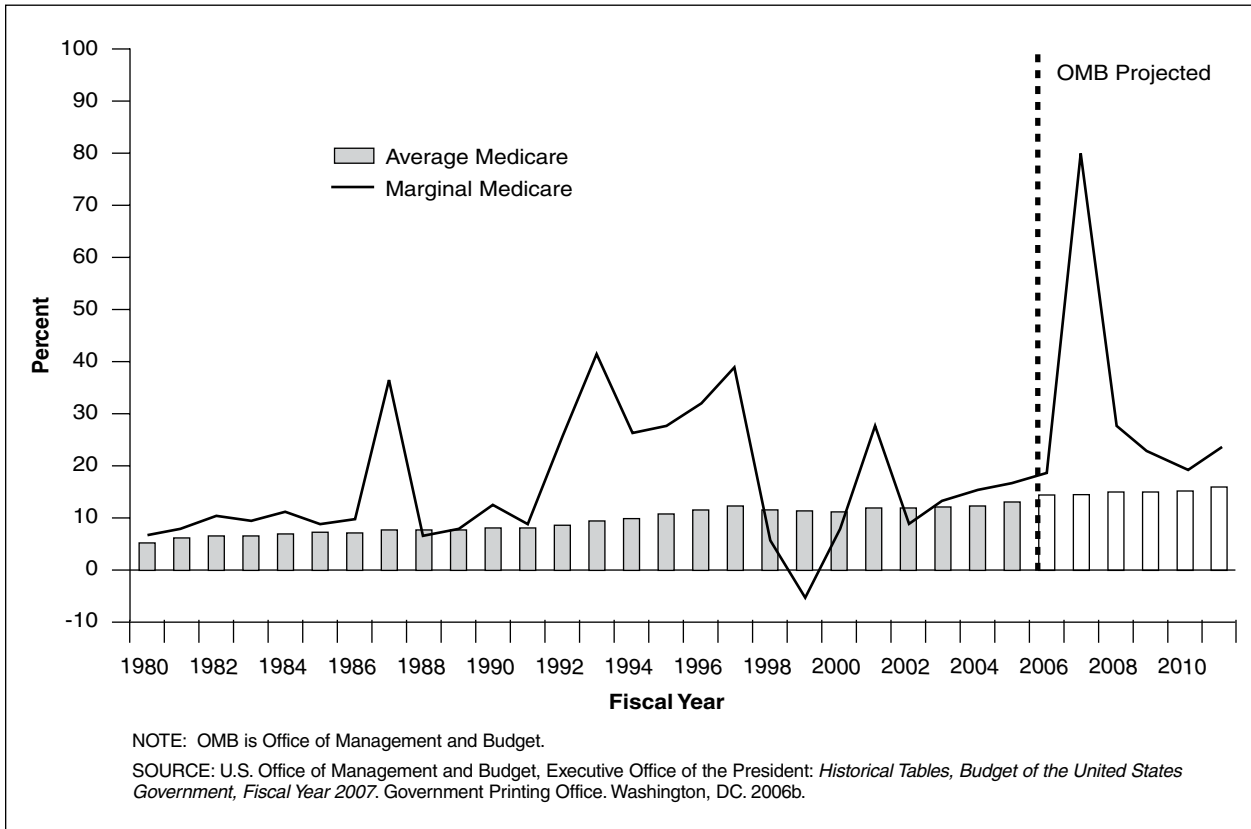
¹ As health care spending continues to increase faster than the rest of the economy, this in itself may have a stabilizing effect on the economy during recessionary periods.

² For this exercise, we redistributed the cumulative growth in GDP equally between the 3-year periods surrounding recessions. This technique may not completely remove the effect of the recession.

growth in order to approximate the impact of a recession on the health spending share. This exercise is a first approximation way to remove the influence of the GDP (denominator) from our analysis. A gap in the share of GDP accounted for by health then reflects a simulated or approximated impact of each recession. The results imply that for the 1980-1982 and 1990-1991 recessions, much of the spike in the marginal share was due to a contraction in GDP (Figure 1). That is, without the cyclical nature of GDP, health's contribution to GDP increases would not have spiked as severely, but instead would have continued to rise somewhat less slowly.

The 2000-2001 recession was both milder and of shorter duration than the two earlier recessions. As our simulation illustrates, the most recent spike in the health share of GDP in 2000-2001 appears to have had little to do with the recession. Instead, the primary cause was the faster annual growth in health expenditures, especially Federal Government spending. Supplemental Medicare funding through the Balanced Budget Relief Act and the Benefits Improvement and Protection Act converged for 2000-2001 as demands on Medicaid also intensified, contributing to increased spending for these programs. Since the expiration of this supplemental funding, however, the marginal share of GDP increases attributable to health has not fallen to levels comparable to those of other expansionary periods. This is the case, in part, because annual NHE growth has continued to increase at substantial rates after peaking at 9 percent in 2002 (Centers for Medicare & Medicaid Services, 2006). Health spending continues to rise to new thresholds, even as payers search for new cost-containment tools. Health expenditures accounted for a substantial 39 percent share of marginal nominal GDP growth in 2002, 27 percent in

Figure 2
Medicare Expenditure Share of Total Federal Outlays: Federal Fiscal Years 1980-2011



2003, and 18 percent in 2004—still higher than the historical average, and higher than similar periods of economic expansion. Spending would have been even higher had some private employers not dropped coverage, reduced benefits, or increased cost sharing; had supplemental funding provisions for Medicare not expired; and had States not aggressively pursued cost-containment strategies such as tightening eligibility requirements for Medicaid.

Medicare’s Marginal Share of Federal Budget

We can also use marginal analysis to monitor the impact of growing Medicare spending on the Federal budget over time. In the same way that the marginal share of the GDP devoted to health spikes when the economy contracts, Medicare’s marginal

share increases when Federal outlays grow more slowly. The fiscal year (FY) 1987 peak can be explained by this phenomenon (Figure 2). In 1987, annual Medicare spending grew 7.0 percent and total Federal outlay growth slowed significantly from 4.7 percent in FY 1986 to 1.3 percent in FY 1987, driven by pressure from the 1985 Balanced Budget and Emergency Deficit Control Act (Gramm-Rudman-Hollings) (U.S. Office of Management and Budget, 2006b). This act called for specific reductions in spending if the annual Federal budget was not in balance, but was found unconstitutional in 1987.

The most significant period of budgetary strain occurred in FYs 1992-1997. Federal spending on health care, dominated by Medicare, grew substantially faster than private-sector health spending between FYs 1992 and 1997, in part because the

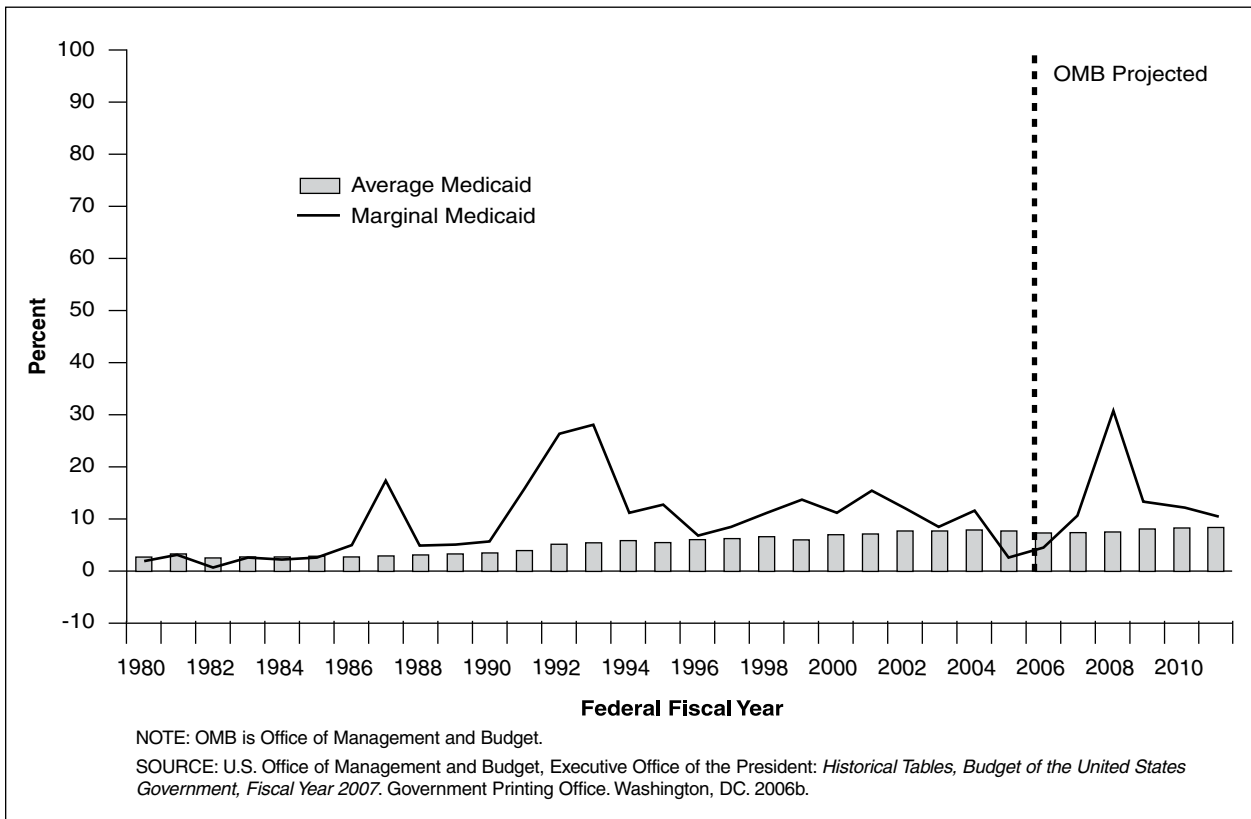
private market more intensely embraced managed care and because long-term care was primarily left to the public sector. Also, public programs by their very nature tend to respond slowly to cost pressures due to the legislative action process and the responsibility to provide benefits to a diverse mix of the population. In fact, the average share of the Federal budget devoted to Medicare increased more during this period than during any other over the past 25 years, from 8.6 percent in FY 1992 to 11.9 percent in FY 1997. Medicare spending for home health and nursing home services grew quickly in this period due to increased pressure to provide home and community-based services for those with long-term care needs. By FY 1998, anticipation of the Medicare cuts for home health and nursing homes imposed by the 1997 Balanced Budget Act (BBA) was already dampening overall Medicare spending growth, while growth was further suppressed by fraud and abuse investigations (Foster, 2000). Following this period of significant expansion in Medicare's average share of Federal outlays, Congress took action to restrain Medicare spending by passing the BBA. Interestingly enough, because of the BBA, annual Medicare spending growth was less than annual total Federal outlay growth in FY 1998 for the only time in Medicare's 40-year history. In fact, from FYs 1998-2000, incremental Medicare spending growth was below its historical average share. This period was short lived as Congress provided post-BBA give backs to the health care industry and Medicare spiked to a 27-percent share of the incremental growth in FY 2001. After a slight dip in marginal growth in FY 2002 due to an almost doubling of Federal outlay annual growth, an increasing marginal share continued into FY 2005, as Medicare grew to a 12-percent average share of the Federal budget.

Using marginal analysis to better understand projections, a major impending financing challenge can be viewed in an alternative, less traditional way. Figure 2 indirectly illustrates the increased strain that is created as Medicare starts drawing down its trust fund assets. If there is no change in current law, OMB states that "... the Treasury will have to turn to the public capital markets to raise the funds to finance the benefits, just as if the trust funds had never existed. From the standpoint of overall Government finances, the trust funds do not reduce the future burden of financing Social Security or Medicare benefits...." (U.S. Office of Management and Budget, 2006a). Similarly, the Medicare Trustees Report goes on to discuss the financial squeeze that Medicare would place on the budget: "(T)he difference between HI [hospital insurance] tax revenues and expenditures would be met for a number of years by interest earnings on trust fund assets and by redeeming those assets. Both of these financial resources for the HI trust fund require cash transfers from the general fund of the Treasury, thereby placing a further obligation on the budget" (Board of Trustees, 2006).

The increase in the Federal budget, projected to be comprised of Federal Medicare and Medicaid payments, is over 91 percent in FY 2007 and nearly 60 percent in FY 2008, respectively (Figure 4). Medicare is expected to account for nearly 80 percent of this increase in FY 2007 as the Medicare prescription drug benefit becomes fully effective. According to OMB projections this may be partly responsible for a reduction of other spending in the short term, including defense (minus 1.5 growth in FY 2007 and minus 6.3 percent growth in FY 2008), and education, training, employment, and social services (minus 20 percent growth in FY 2007). Medicare's share of the budget is expected to jump, from

Figure 3

Federal Medicaid Expenditure Share of Total Federal Outlays: Federal Fiscal Years 1980-2011



12 percent in FY 2005 to 14 percent in FY 2008, a \$106 billion increase. Part of this increase can be attributed to a shift in spending from Medicaid to Medicare, as the Medicare Program picks up prescription drug spending for the dually eligible population.³ Even before this benefit was added, promised Medicare benefits were absorbing increasing marginal shares of Federal outlays for FYs 2004 and 2005.

Federal Medicaid’s Marginal Share

Like Federal Medicare spending, Federal Medicaid expenditures have consumed an increasing share of the Federal budget. In fact, the Federal Medicaid share of total Federal spending tripled from FYs 1980-

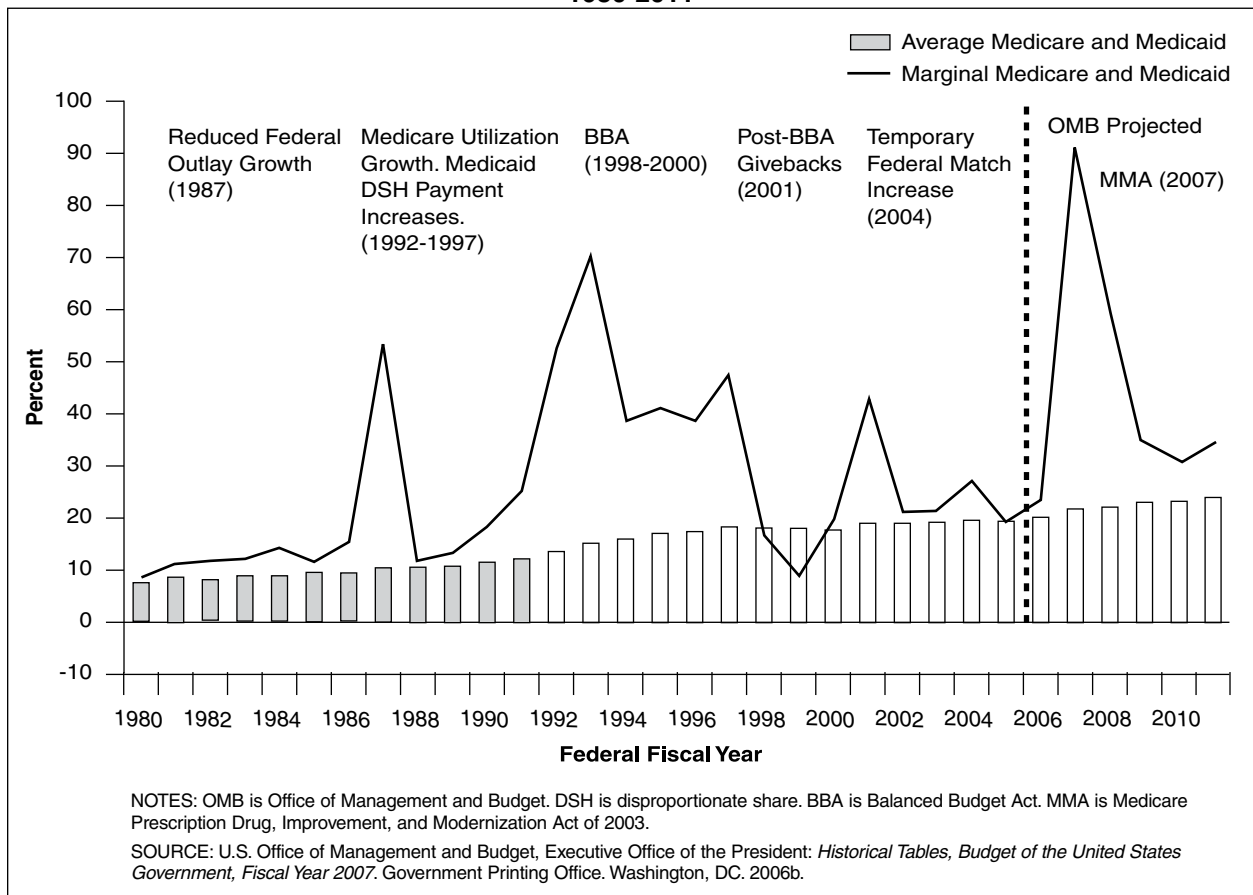
2005, from 2.4 to 7.4 percent (Figure 3). During that time, Federal Medicaid spending grew an average of 10.8 percent annually, compared with the Federal budget’s average annual growth of 5.9 percent (U.S. Office of Management and Budget, 2006b).

Medicaid spending is affected by cyclical patterns of enrollment growth, changes in the interpretation of legislation, fiscal policy, and financial payment incentives. As was the case with Medicare, the first marginal spike in FY 1987 was a result of slowed total Federal outlays, while Federal Medicaid spending growth stayed relatively constant. During the period FYs 1991-1993, increased State use of disproportionate share hospital (DSH) spending caused the Federal Medicaid marginal share to reach as high as 29 percent. DSH payments were used by States to shift a greater share of increasing costs of Medicaid to

³ The dually eligible population consists of those elderly and disabled individuals that qualify for Medicare but, due to low income, rely on Medicaid to assist in paying all or part of their premiums, copays, deductibles, and non-Medicare covered services.

Figure 4

Federal Medicare and Medicaid Expenditures as a Share of Total Outlays: Federal Fiscal Years 1980-2011



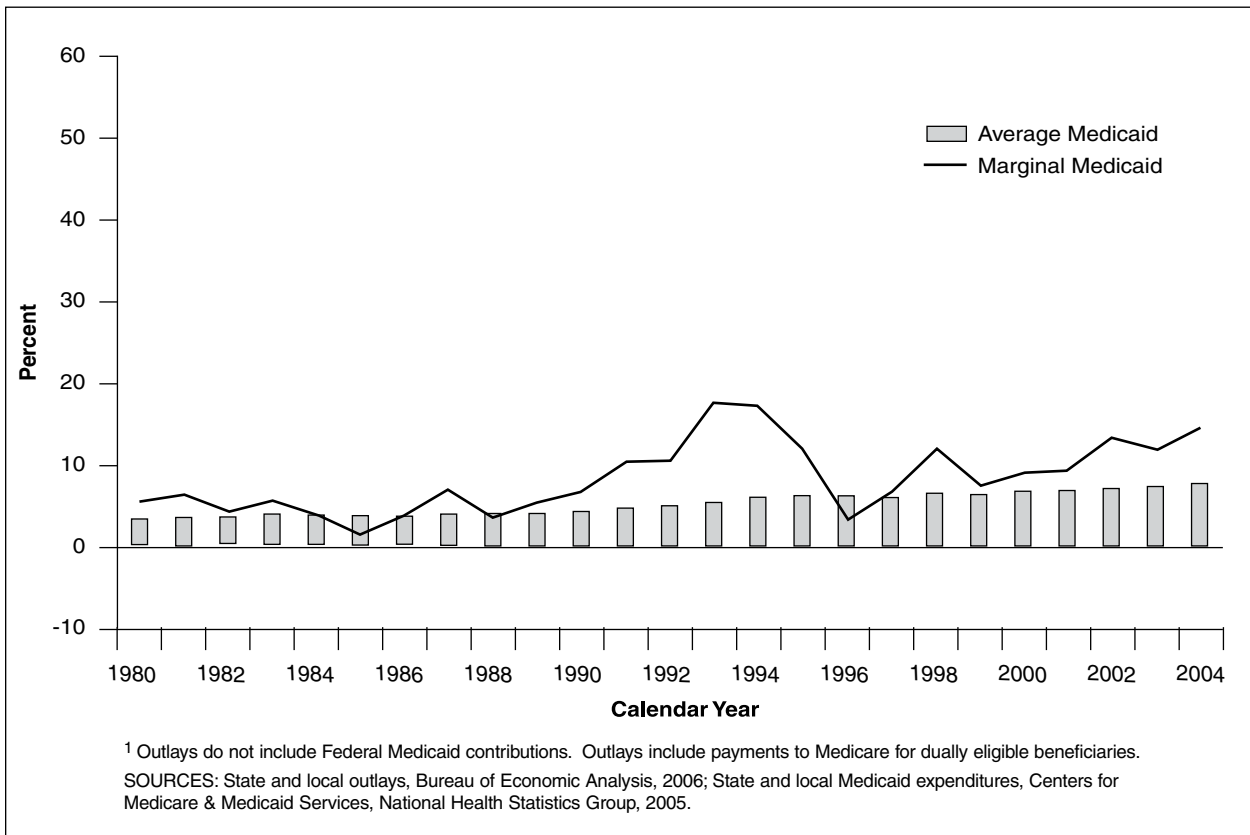
the Federal Government. When combined with Federal Medicare spending, 70 percent of the increase in Federal budget outlays in FY 1993 was attributable to these two programs (Figure 4).

In response to the accelerated growth of the early 1990s, Medicaid reform (that is, managed care and statewide cost control) reduced Medicaid’s marginal share of Federal spending growth from FYs 1993-1996. From the late 1990s through the recession in 2001, and even into 2002, States used upper payment limits (UPL) to increase Federal payment, causing a spike in the Medicaid share of Federal outlay growth. Marginal growth then slowed through FY 2003 as the Federal Government began to tighten control of these revenue-enhancing efforts.

The slightly increased marginal growth in FY 2004 is primarily a result of the temporary increase to the Federal matching rate for State Medicaid payments in FYs 2003 and 2004, which raised the share of Medicaid spending paid for by the Federal Government (National Governors’ Association and National Association of States’ Budget Officers, 2004). FY 2005 marked slowing marginal growth resulted from improved economic conditions and lowered spending growth for prescription drugs. Recent OMB projections are that marginal Federal contributions to Medicaid Program growth will continue below the average share in FY 2006 as the Federal Government allocates funding for the expected increased costs for the dually eligible under the new Medicare prescription

Figure 5

State Medicaid Expenditures Share of State and Local Outlays¹: Calendar Years 1980-2004



drug benefit. This occurs in part because the 2005 Deficit Reduction Act is expected to produce reductions in Medicaid outlays of \$6.9 billion through FY 2010 (U.S. Congressional Budget Office, 2006) as the aforementioned planned reductions in defense and education work to reduce total Federal outlays. After this slowdown, the Federal marginal Medicaid share is projected to be higher than the average share, peaking in FY 2008. Finally, Medicaid is expected to return to an annual rate of growth that is more consistent with its historical trend after the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 moves some Federal Medicaid expenditures to the Medicare Program in FYs 2006 and 2007.

State and Local Medicaid Outlays

States' Medicaid share of total State outlay growth does not spike during recessionary periods like we've discussed for the overall economy and the Federal Medicare and Medicaid share of total government outlays (Figure 5). This observation at first seems counterintuitive, as eligibility for Medicaid should rise during recessions. However, the requirement of most State and local governments to maintain balanced budgets in each FY may be the more important driver. During times of tightened budgets, States must scrutinize their expenses, and as a result, they occasionally turn to federally matched payment programs as a way to shift payment burdens to

the Federal Government, in effect reducing the State and local share of outlays. For example, States used DSH funding to help with the financial pressures associated with the 1991 recession, enabling States to provide a level of services that otherwise would have been unaffordable (Medicare Payment Advisory Commission, 2001). Eventually, as the Federal Government began to retract DSH funding, States were not willing or able to scale down benefits as rapidly, resulting in greater strain on their budgets as the postponed effects of the recession came to fruition. In doing so, States total outlay spending annual growth slowed from calendar years (CY) 1992–1995, but State Medicaid expenditure annual growth remained above 10 percent.

The 1992-1995 CY period of high growth sparked congressional momentum to control costs by converting Medicaid into a block grant program. Although this never happened, anticipation of the legislative change caused many States to run up costs in CY 1995, the base year for the block grant calculation, contributing to the substantial slowdown in marginal growth seen in CY 1996 (Klemm, 2000). The CY 1998 marginal spike can be attributed to health spending increases in administrative costs, hospital services, and prescription drugs. From CYs 1997–2000 States began relying on upper-payment-limit rules to secure a greater share of Federal funding. In effect, States paid providers at enhanced rates, earned Federal matching funds at these high rates, and then recouped a portion of the money. This temporarily brought more funding into States for both health and potentially non-health outlays, causing the State marginal share to be only slightly above that of the average share. A tightening of the rules for UPL in CYs 2002 and 2003 combined with further restrictions on DSH payments in CYs 2001-2003 and the

2001 recession, led the marginal share to move upward as States shouldered a larger proportionate share of actual Medicaid burden. In late CY 2003 and CY 2004, the temporary Federal Match Rate increase included in the 2003 Jobs and Growth Tax Reconciliation Act intended to relieve some of the financial pressures of health care obligations by States. The increased Federal matching rates enticed States to increase health spending faster than all other spending in CY 2004, creating a marginal spike of roughly 13.7 percent, one of the highest levels in the past 24 years.

CONCLUSION

The United States faces increasingly challenging tradeoffs as health spending continues to outpace growth in the economy and in governments' budgets. Using marginal analysis, we have illustrated the impact of purchasers' incremental decisions at the aggregate economy, Federal, and State and local levels. To reach projected health spending consumption of 20 percent of GDP by 2015, society must be willing to spend between 20 and 40 percent of incremental nominal GDP growth on health each year over the next 10 years (near its all-time highs reached between 2000 and 2004) (Borger et al., 2006). It seems clear that all else being equal, society will continue to demand increasing amounts of health care. However, as the share of resources devoted to health care increases, so does the opportunity and marginal costs of forgoing other goods and services. These increasingly sensitive choices may compel society to reduce the rate of the increase of health care consumption or alter the distribution of the burden to be paid. To be sure, the future will lead to even higher scrutiny of health care spending dollars, which may lead to innovative cost-reducing technologies and

payment systems that slow the growth of health care spending in the future and increase its value to all.

ACKNOWLEDGMENTS

The authors would like to thank Suzanne Codespote, Rick Foster, Sean Keehan, John Klemm, and several anonymous reviewers for their valuable comments and suggestions.

REFERENCES

- Andrews, E.: Greenspan Urges Congress to Rein in Federal Benefits. *The New York Times*, April 22, 2005.
- Boards of Trustees: *2006 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, May 1, 2006. Internet address: <http://www.cms.hhs.gov/ReportsTrustFunds/> (Accessed 2006.)
- Borger, C., Smith, S., Truffer, C., et al.: Health Spending Projections through 2015: Changes on the Horizon. *Health Affairs* 25(2):61-73, March/April 2006.
- Bureau of Economic Analysis: Gross Domestic Product Data. Internet address: <http://www.bea.doc.gov/bea/dn1.htm> (Accessed 2006.)
- Centers for Medicare & Medicaid Services: *National Health Expenditure Account Data*. Internet address: http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage (Accessed 2006.)
- Chernew, M., Hirth, R., and Cutler, D.: Increased Spending on Health Care: How Much Can The United States Afford? *Health Affairs* 22(4):15-25, July/August 2003.
- Foster, R.: Trends in Medicare Expenditures and Financial Status, *Health Care Financing Review* 22(1):35-51, Fall 2000.
- Johnson, R. and Penner, R.: Will Health Care Costs Erode Retirement Security? *Center For Retirement Research At Boston College* 23:3-4, October 2004.
- Klemm, J.: Medicaid Spending: A Brief History. *Health Care Financing Review* 22(1):105-112, Fall 2000.
- Kowalczyk, G., Freeland, M., and Levit, K.: Using Marginal Analysis to Evaluate Health Spending Trends. *Health Care Financing Review* 10(2):123-129, Winter 1988.
- Levitt, L., Lundy, J., Hoffman, C., et al.: Employer Health Benefits, 1999 Annual Survey. Henry J. Kaiser Family Foundation and Health Research and Educational Trust, 1999.
- Medicare Payment Advisory Commission: *Report to the Congress: Medicare Payment Policy* 78-79. Washington, DC. 2001.
- National Governors' Association and the National Association of States' Budget Officers: *The Fiscal Survey of States: April 2004*. Washington, DC. June 2004. Internet address: www.nasbo.org/Publications/fiscsurv/2004/fsapril2004.pdf (Accessed 2005.)
- Penner, R.: The Coming Collapse of the U.S. Economy? The Retirement Project, Brief Series No. 4. Urban Institute. Washington, DC. 1999.
- U.S. Congressional Budget Office: Cost Estimate, S.1932, Deficit Reduction Act of 2005, Conference Agreement, January 27, 2006. Internet address: <http://www.cbo.gov/ftpdocs/70xx/doc7028/s1932conf.pdf> (Accessed 2006.)
- U.S. Office of Management and Budget, Executive Office of the President: *Analytical Perspectives, Major Savings and Reforms in the President's 2007 Budget, Budget of the United States Government, Fiscal Year 2007*. Government Printing Office. Washington, DC. 2006.
- U.S. Office of Management and Budget, Executive Office of the President: *Historical Tables, Budget of the United States Government, Fiscal Year 2007*. Government Printing Office. Washington, DC. 2006b.

Reprint Requests: Micah Hartman, Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Baltimore, MD 21244-1850. E-mail: Micah.Hartman@cms.hhs.gov