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Prologue: One of the most compelling health policy questions to come before the nation in 1994 was whether the rising rate of health care spending meant that the nation’s health care system needed an overhaul. A critical part of this debate—fueled by both data and speculation—was the growing perception that in 1993 health care costs, while continuing to rise, had risen less sharply than has been the case in the past thirty years. This sense that health care spending had moderated may have taken some of the sense of urgency away from the calls for health system reform that echoed during the first two years of the Clinton administration. As economist Henry Aaron of The Brookings Institution observes, the issue is “not merely a spat among people who, figuratively, wear green eyeshades and arm garters.”

Here we present the latest health spending figures from analyst Katharine Levit and her colleagues from the Health care Financing Administration (HCFA) Office of National Health Statistics. According to HCFA’s National Health Accounts, health care spending rose 7.8 percent in 1993 and now consumes 13.9 percent of the nation’s economy (up from 13.6 percent in 1992). Haiden Huskamp and Joseph Newhouse of Harvard University propose an alternative set of spending figures, taken from the U.S. Department of Commerce, Bureau of Economic Analysis: the National Income and Product Accounts (NIPA). Their analysis concludes that any slowdown in health care spending is “modest at best.” Yet another facet of the question is the state of the Medicare program. According to an analysis by Guy King, formerly of the HCFA Office of the Actuary and now with the accounting firm Ernst and Young, Medicare’s Part A (Hospital Insurance) could run out of money by 2001. Even if comprehensive health care reform legislation had been passed in 1994, King believes, the spending cuts it contained would not have been enough to save the program from bankruptcy.
I. Thinking Straight About Medical Costs

by Henry J. Aaron

Among the many factors that contributed to the demise of the health care reform effort in 1994 was the emergence of a perception that growth of health care spending was coming under control. If one of the two major problems motivating health care reform—excessively rapid growth of health care spending—was being solved without legislation, why bother upsetting everyone with mandates, regulations, and just plain aggravation?

In fact, discussion of health care cost control gradually vanished over the course of 1994. One of the reasons for the increasing inattention to cost control may have been that, unlike extending coverage to the uninsured—the kinder, gentler part of health care reform—enforcing cost control entails taking income from good people, which is mean and nasty. A second reason was the steady accumulation of what seemed to be good news regarding costs—that premium growth had slowed, that projections of spending for Medicare and Medicaid were being revised downward, and that private cost control efforts seemed to be succeeding. This news relieved people who did not really want to talk about something as unpleasant as cost containment of any sense of irresponsibility.

The issue of whether the growth of health care spending is slowing is therefore not merely a spat among people who, figuratively, wear green eyeshades and arm garters. What is happening to the growth of health care spending contributes in a significant way to whether or not experts and the public think that a solution to one part of the health care financing problem is on the way.

In contrast to cost trends, data on insurance coverage are relentlessly discouraging. The number of uninsured persons is rising remorselessly. This trend has persisted despite liberalizations in Medicaid coverage. But decades of experience make clear that the mere lack of insurance by thirty or forty million people is not sufficient to cause politically effective angst in the United States. To their discredit, Americans display exceptional fortitude in bearing the burden of having uninsured fellow citizens. Without the fear that insurance coverage for the middle class is in jeopardy, without understanding that health care cost increases threaten the well-insured middle class and their potential wage increases—it has proved impossible to arouse much passion for health care reform among most Americans. It is against this background that the papers that follow this one should be read.

Henry Aaron, a noted health economist and health care analyst, is director of economic studies at The Brookings Institution in Washington, D.C.
Some Very Basic Concepts

Readers of this exchange need to keep straight which facts we know with some certainty and which allegations remain arguable. One simple economic concept helps to clarify matters: expenditure (E) equals price (P) multiplied by quantity (Q). In symbols, $E = P \times Q$.

Only E is directly observable. Accountants measure spending for health care services. These data are not easy to gather, and Katharine Levit and colleagues extend the exemplary public service, long performed at the Health Care Financing Administration (HCFA), of breaking down aggregate health care spending into various categories by source and use.

The largest component, personal spending on health care, is also reported by the U.S. Department of Commerce as part of gross domestic product (GDP). Commerce does not tell us in readily accessible tables, however, where all of the funds come from and where they go. HCFA does that, and everyone interested in health policy is in their debt.

While E is directly observable, neither P nor Q is observable. The key point, which many seem not to recognize, is that you have to know both P and Q to know either. Put another way, one can know how much the price of health care changes only if one can measure changes in the quantity of health care services, and vice versa.

The problem is that we do not know how to measure Q. The character of health care services is changing at blinding speed. No market evaluations of these services exist to permit comparisons among services and over time. If outpatient lens replacement goes up and inpatient exploratory surgery goes down, has the quantity of medical care risen or fallen? If magnetic resonance imaging (MRI) exams replace myelograms, has the quantity of health care risen or fallen? What is the exchange ratio? No one knows, and under current financing arrangements, no one can know.

But, one might reply, similar problems bedevil the measurement of price and quantity of other goods. Despite these difficulties, the national income accounts division somehow manages to tell the public not only nominal GDP, but also real GDP and the implicit price deflator. True enough. But where technology changes fast, as with computers, serious problems arise—even in the conventional national income accounts—that have not been fully resolved. In those cases, market evaluations exist. All we know about health care services is what they cost—in other words, E—and often we do not know even that very accurately. We never know what the services are worth to willing buyers. Hence, Levit and colleagues cloud understanding, instead of clarifying it, when they discuss health care price indices and the levels of “real” health care spending that they derive by dividing nominal health care spending by these health care price indices.
To put the matter bluntly, health care price indices are largely worthless (except in a few cases in which markets exist and products are somewhat more commensurable—pharmaceuticals, for example). For that reason, we cannot know what is happening to real health care services. To put the matter even more bluntly, despite the attention lavished on various health care price indices, we do not know whether health care prices are rising more rapidly than general prices, are rising more slowly than general prices, are rising at about the same rate, or are falling.

What we can know is whether the quantity of resources absorbed in providing health care is rising or falling. To calculate this quantity, one must deflate nominal health care spending by the general price level. This is exactly what Haiden Huskamp and Joseph Newhouse do. The resulting statistical series will tell the public the rate of increase in the use of resources by the health care sector. It will not tell us what we as a nation are getting out of the health care sector—the quantity of health care services—but it will tell us what we are putting in.

### Trends In Health Care Spending

Exhibit 1, based on nominal health care spending shown in Exhibit 3 of the Levit paper, shows annual changes in health care spending deflated by the personal consumption deflator for 1993. This series shows the increase in the share of resources used in the health sector. It says little or nothing about the rate at which the real quantity of health services has increased. It tells a story quite similar to the conclusions of Huskamp and Newhouse,

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**Exhibit 1**

**Annual Growth In Personal Health Care Expenditures, In 1993 Dollars, Rates And Three-Year Moving Average**

<table>
<thead>
<tr>
<th>Percent</th>
<th>10</th>
<th>8</th>
<th>6</th>
<th>4</th>
<th>2</th>
<th>0</th>
</tr>
</thead>
</table>

The graph displays great variability, with mean annual growth in per capita use of real resources of 5 percent and standard deviation of 1.54 percentage points. On the central question-Has the growth of health care spending slowed materially?—Exhibit 1 lends support to those who claim that the rate of growth of health spending is falling. Growth of per capita health spending in 1993 of 3.35 percent is the lowest in the past fifteen years. If the increase in health costs occurred randomly, one could expect a growth rate of 3.35 percent or less about once every sixteen years. But recently released quarterly GDP statistics indicate that growth of real health spending between the third quarter of 1993 and the third quarter of 1994 was back up to 4 percent. This jump raises serious doubts about whether the slowdown in 1993 was anything more than an aberration.

Closer examination of the historical record raises an additional warning. The 1993 growth rate was matched in several previous years. Furthermore, reform of health care financing was high on the public agenda in 1993 and 1994. The threat of price regulation caused the stock market prices of pharmaceutical products to drop precipitously. Health care mutual funds, which had been veritable mints for those smart or lucky enough to have invested in them, fell in value. The drug company executives or hospital administrators or physicians who set prices and fees in 1994 without regard for how their actions might affect the public debate would have been the thick-skinned and thick-headed indeed. No hard test is available to measure the presence or size of such considerations, but a look back at price trends the last time that health care financing controls were on the national agenda is sobering. From 1977 through 1980, when Congress was debating President Jimmy Carter's proposals for hospital cost control and was awaiting his proposed health care financing plan, growth of per capita health care spending averaged 3.5 percent, a pace virtually indistinguishable from that in 1993.

I believe that it would be prudent for those who claim that Medicare regulation and private market actions have ended the era of excess growth of health care spending not to uncork the champagne just yet. Preliminary evidence from 1994 is encouraging. But we face a technological onslaught, as recently outlined by William Schwartz.¹ That and the rebound observed in 1981 and 1982 after the health sector’s last fleeting episode of financial self-control should encourage celebrants anxious to declare victory over rising health care costs to await some additional evidence.

Medicare

Whatever happens to growth in general health care spending, Medicare is underfinanced. Guy King points out that regardless of the assumptions
that one makes regarding medical cost control and general economic growth, taxes earmarked for Medicare Hospital Insurance (Part A) are insufficient to pay for promised benefits.

While the qualitative nature of King’s projection is unchallengeable, I am less impressed than King is by the immutability of the actuarial projections on which his analysis relies and that he helped to produce. Exhibit 2 is the source of my irreverence. It indicates that actuarial projections are not exactly immutable. Part of the flexibility comes from legislative changes. The introduction of diagnosis-related groups (DRGs) and the associated cost shifting to private payers (as Exhibit 1 makes clear, the 1980s saw no slowing in the growth of overall per capita spending) helped to explain the sharp drop between 1982 and 1987 in Medicare costs estimated for the year 2002.

More generally, however, any projection based on extrapolations of even slightly erroneous assumed compound rates of growth becomes progressively more inaccurate with time, and the errors can become very large. Herb Stein, former chair of the Council of Economic Advisers, is fond of pointing out that if something can’t possibly happen, it won’t. While the assumed compound rates of growth of hospital spending are not quite in the realm of the impossible, they imply enormous social strains and may well not materialize.

The most likely reason for inaccuracy of the assumptions would be the enactment of significant health care reform. King’s comment to the contrary notwithstanding, the health care reform proposal advanced by President Bill Clinton promised major changes in the financing of health care. Although it left the Medicare system intact, it would have drastically slowed the growth of overall health care spending, an event that could hardly have left real resource use in Medicare unaffected. Furthermore, it is naive, in my view, to believe that, had the president’s plan been enacted

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### Exhibit 2

**Medicare Cost Projections, Alternative Trustees Reports**

<table>
<thead>
<tr>
<th>Projections for the year 2005</th>
<th>Revenue</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982 Trustees Report</td>
<td>2.90%</td>
<td>6.70%</td>
</tr>
<tr>
<td>1987 Trustees Report</td>
<td>2.90</td>
<td>3.65</td>
</tr>
<tr>
<td>1994 Trustees Report</td>
<td>3.05</td>
<td>4.52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Twenty-five-year projections</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1982 Trustees Report (1982-2006)</td>
<td>2.90</td>
<td>4.70</td>
</tr>
</tbody>
</table>

*Source:* Annual Reports of the Trustees of the Medicare Hospital Insurance Trust Fund.  
*Note:* Projected cost as a percentage of Social Security-taxable wage base (payroll).
and implemented, the Medicare system would have continued as an independent program for much longer.

Even without federally sponsored health care reform, developments now taking place in the private health care marketplace will affect Medicare, too, if they have lasting effects on private spending.

Finally, and perhaps most importantly, it is a breathtaking act of analytical hubris to treat projections of health care spending beyond, say, twenty five years-to say nothing of projections to the year 2068—as anything other than a waste of paper. The biomedical revolution spawned by the decoding of DNA and now coming into full flower will transform medicine beyond current imaginings. It is easy to imagine that costs will rise more or less than the rates assumed. What is impossible to imagine is that current projections stretching into the last half of the next century mean anything at all.

King seems to think that because his projections of the costs of Medicare benefits and the taxes that would cover them rise continuously, future retirees will not “get a good deal” from the system. This belief is wrong. As long as medical costs increase, each generation will collect more in benefits than they paid in taxes. The faster the increase, the better the deal. The reason is that workers pay taxes at an early date, when costs are relatively low, and collect benefits later, when costs have increased. The more costs rise, the greater the gap between the taxes paid and the benefits received and the higher the implied rate of return. Each generation gets a favorable rate of return as long as costs increase. This situation cannot go on indefinitely, however. And when it stops, genuine inequities can arise. One should be clear, however, that it is the cessation of growth, not growth itself, that is the source of the problems. As Scottish folk singer Andy Stewart said of the risks of jumping from tall buildings: “It’s not the fall, but landing, that alters social standing.”

NOTE