THE SCORING OF MAJOR HEALTH REFORM
QUESTIONS FOR THE ROUNDTABLE DISCUSSION

(1) Does CBO systematically underestimate savings from health reform? If so, why?

   a. How much of the experience reflects the slowdown over time in baseline Medicare spending?

   b. Does legislation happen when things are increasing particularly rapidly, and then mean reversion takes over? Does CBO overweight very recent trends in predicting health spending going forward?

(2) How should CBO score policy proposals for which there is NO hard evidence? How should anecdotes be taken into account?

   a. Is a score of 0 or small in those cases balanced? Does no evidence = no score?

   b. What would happen to CBO's reputation for objectivity if they used soft evidence to support their cost estimates?

(3) If CBO requires hard evidence to score something, is there a way for them to convey to policymakers that certain ideas are worth trying and have the potential to save money? Convening an outside panel of experts to do this? Should CBO be the agency to do this?

(4) Should CBO assume that going from pilot, small programs to national implementation will raise or lower the estimated effects?
   a. Lower the effects: pilot programs typically suffer from selection; good results from places like Geisinger, Health Partners, etc., who are leaders in the field and who have chosen to undertake reforms, may not be replicated more broadly.

   b. Raise the effects: National policy changes are more likely to engender culture changes and induce innovations. Also, greater fear factor?

(5) Do scoring **conventions** affect CBO's ability to capture potential effects? And does this fact mean that these policies don't get enacted?
   a. SGR means measures that promote efficient behavior by physicians don't save money.
   b. CBO scoring rules don't allow them to book savings from fraud reduction.

Hutchins Center
on Fiscal & Monetary Policy
at BROOKINGS

CBO SCORING OF HEALTH LEGISLATION

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A background paper for the Hutchins Center on Fiscal and Monetary Policy's conference,
The Congressional Budget Office at 40

February 17, 2015

The Brookings Institution
1775 Massachusetts Avenue NW
Washington, DC

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INTRODUCTION

In the world of fiscal policy making, the Congressional Budget Office (CBO) wields enormous influence. An unfavorable CBO "score" can be a death blow to a proposed bill. Because of this outsized role in shaping legislation, CBO scoring gets a lot of scrutiny and, sometimes, criticism.

Some have made the argument that CBO systematically underestimates the cost savings (or overestimates total costs) arising from health reform. Critics claim that, because there is often a lack of suitable precedent when CBO is scoring a bill, CBO takes an overly cautious stance with respect to cost savings.[1] In a September 2009 interview, CBO Director Doug Elmendorf responded to this claim, stating:

> I don't think that complaint is well-founded. I understand many people have that concern. But we try very hard to offer numbers in the middle of the distribution on outcomes, both on the spending and cost side. It's true that if you want to spend $10 billion a year of preventive medicine, we can be pretty certain that it will cost $10 billion a year. So the uncertainty is low. But when we turn to the benefits of, say, preventive health benefits of health spending, we'll try to be in the middle of the range of possibilities. That's a wide distribution of possibilities. The uncertainty will be much wider. But we don't try to be conservative in the sense of being close to zero. We try to be in the middle.[2]

However, others suggest that CBO's approach is more conservative than that. For example, Cutler, Davis, and Stremikis (2010) conclude that the cost savings from the ACA's payment reforms are likely to be almost 40 percent larger than estimated by CBO. They attribute the difference between their estimate and CBO's to the fact that CBO limits itself to evidence from careful peer-reviewed studies, whereas they are "willing to cast a wider net than traditional evidence standards." That is, they believe that when traditional studies, journalistic accounts, and case studies are taken into account, the weight of the evidence suggests larger effects than acknowledged by CBO.

Others have noted that CBO's track record in estimating health reform savings also suggest that they underestimate saving. For example, Jon Gabel of the National Opinion Research Center concluded that CBO had significantly underestimated the cost savings in three separate Medicare reforms – the implementation of the prospective payment system, the health provisions of the Balanced Budget Act of 1997, and the Medicare Modernization Act of 2003.[3]

This paper builds on Gabel's research by reviewing CBO's track record with respect to five distinct health reforms: the three studied by Gabel, along with Affordable Care Act of 2010 and the Medicare Catastrophic Coverage Act of 1988. We find that, for four out of five of these reforms, Medicare spending following the reform was significantly lower than CBO had projected. In some cases, CBO clearly underestimated the impact of the reform, although not necessarily because they ignored evidence. But, in other cases, baseline spending appeared to have been rising less rapidly than CBO anticipated.

[1] Stoltzfus (2009).
[2] Klein (2009).
[3] Gabel (2010).

AFFORDABLE CARE ACT

The Affordable Care Act (ACA) was designed to expand health insurance coverage to millions of Americans while also reducing deficits. The ACA's largest insurance provisions included premium and cost sharing subsidies for the bill's newly created health insurance exchanges, as well as a significant expansion of Medicaid. The ACA also enacted substantial changes to Medicare, including significant changes to provider payment rates, as well as a number of reforms intended to promote greater efficiency and reduce fraud.

COSTS OF THE ACA COVERAGE PROVISIONS

CBO's cost estimates for the insurance provisions of the ACA have declined sharply over time. In January 2015, CBO estimated that between 2015 and 2019 (the end point of its initial 2010 estimate) the insurance coverage provisions would total $571 billion, about 20 percent ($139 billion) less than its March 2010 projection.

CBO has not explained the sources of this decline, but it seems likely that they were driven by the unanticipated slowdown in national health expenditures.[4] Many analysts believe that this slowdown is attributable to the effects of the recession and the muted pace of national drug spending.[5]

ACA'S MEDICARE SAVINGS

It is also true that Medicare spending has been coming well below the levels projected when the ACA was enacted. Between June 2010 and July 2014, for example, slowdowns in actual Medicare spending led CBO to revise down Medicare expenditures over the 2011 to 2022 period by 12 percent, or $715 billion.[6]

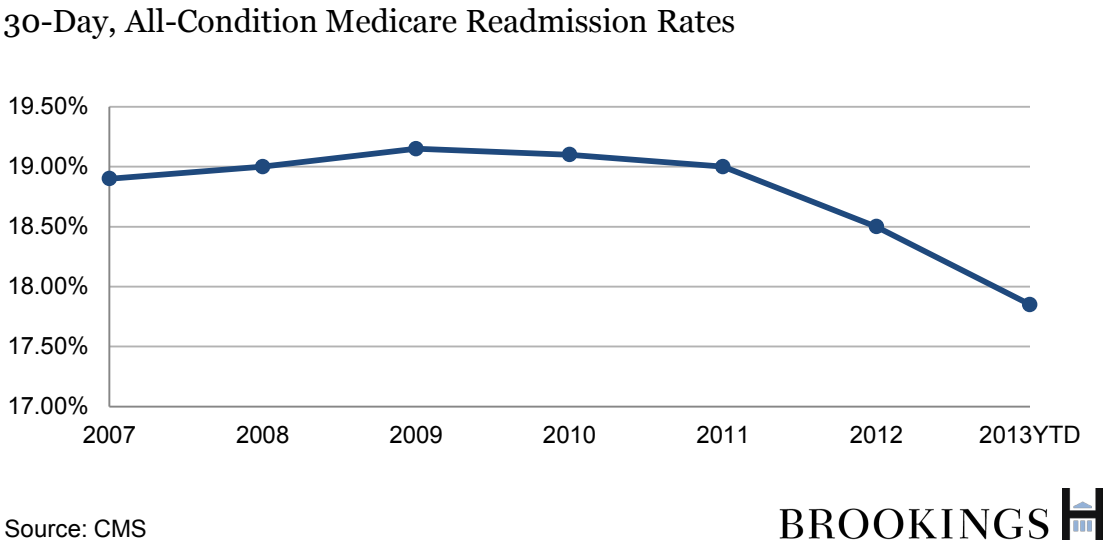
Some of this decline is attributable to the muted pace of prescription drug spending, but much of it remains unexplained. Evidence suggests that Medicare spending is generally unresponsive to economic conditions, suggesting that the recession was not an important factor[7]. Sheiner (2015), however, finds that wages in the health sector tend to rise more slowly during recessions, and shows that this explains some of the cross-state variation in Medicare spending in recent years.

But it is also possible that the ACA reforms to Medicare payment and delivery systems had larger effects than CBO had anticipated. White, Cubanski, and Neuman (2014) point to several areas in which this might have been the case:

Hospital Readmissions: Medicare now imposes penalties on hospitals with high rates of avoidable readmissions (when a patient is discharged from the hospital and then readmitted for the same conditions within 30 days). Since the implementation of that provision in 2012, readmission rates have fallen

[4] CBO's initial estimate of the cost of the mid-level (silver) plan premium on the exchanges was $5,200; in April 2014, this had declined to $4,400, or about 15 percent lower.
[5] Sheiner (2014)
[6] Elmendorf (2014)
[7] Levine and Buntin (2013).

sharply, as shown below.[8] White et. al. estimate that the savings from the readmissions penalty totaled around $1 billion in 2014, more than three times as large as CBO's 2010 estimate.



Anti-fraud measures for home health: The ACA included several anti-fraud measures, including a new requirement that beneficiaries have a face-to-face encounter with their physician before being eligible for home health benefits. White et. al. report that home health spending in 2014 was about $14 billion lower than projected by CBO in 2010, and suggest that the anti-fraud measures might have been more effective than anticipated. However, as noted above, it is also possible that slower than expected wage growth, particularly for unskilled health workers like those in the home health sector, was a factor holding down expenditures.

Other payment reforms? White et. al. argue that it is possible that other payment reforms are also having larger effects than anticipated. In particular, it is possible that the reduction in Medicare payment rates under the ACA might also have had some effects on service volume. They note that the literature on this question is quite mixed—with some studies suggesting that providers will increase volume in response to payment reductions, and others studies suggesting the opposite response.

LESSONS FOR THE FUTURE?

Medicare spending has declined much more sharply than expected or than can be convincingly explained. It is possible that CBO did underestimate the impact of some of the payment reforms and anti-fraud efforts, although, apart from the larger than expected decline in readmissions, there is not much hard evidence on this. It is also possible that the tight budget conditions induced changes in volume that had not been anticipated, or that the recession had larger-than-usual effects on Medicare spending.

[8] CMS (2013).

MEDICARE MODERNIZATION ACT

By 2002, prescription drug spending was the fastest growing portion of U.S. healthcare expenditures, and creating a prescription drug benefit for Medicare enrollees had become a top priority for Congress. Although beneficiaries constituted less than 15 percent of the overall population, they accounted for roughly 40 percent of all prescription drug spending, or roughly $87 billion in 2002. That figure was expected to rise to $128 billion by 2005, with per beneficiary drug expenditures projected to increase at an average rate of over 10 percent per year from 2002 to 2013.[9]

In December of 2003, Congress enacted the Medicare Modernization Act of 2003. This legislation established Medicare Part D, a voluntary prescription drug benefit that would be provided exclusively through competing private drug plans. CBO's July 2004 cost estimate projected that, over the ten year period from 2004 to 2013, the bill's prescription drug provisions would increase outlays by $550 billion.

CBO's cost estimate was based on the assumption that by the time the program was implemented in 2006, 87% of Medicare Beneficiaries would enroll in a Medicare drug plan, and that the average cost of drug coverage per beneficiary would rise from $1,640 in 2006 to $2,713 by 2013, or about 9 percent annually.[10]

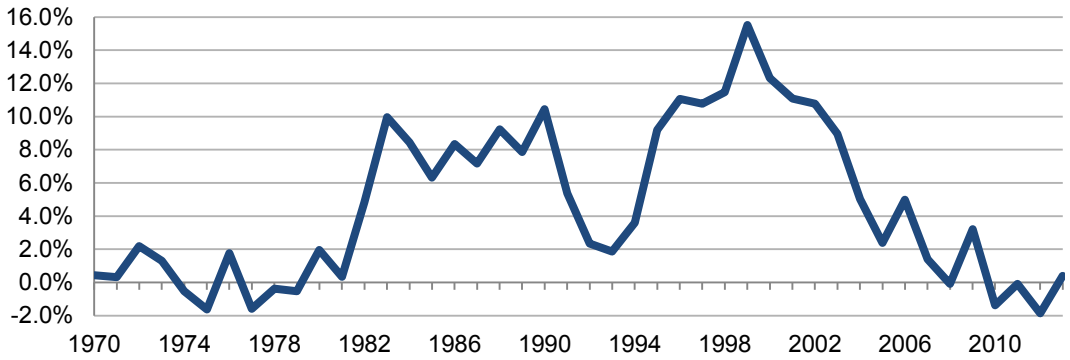
Actual Medicare Part D spending turned out to be significantly lower than initially forecast by CBO. A July 2014 CBO report noted that federal outlays for Medicare Part D in fiscal year 2013 amounted to $99 billion, roughly 50% less than had been projected. For the entire 2006-2013 window, CBO overestimated Part D expenditures by 36 percent.

CBO attributed their overshoot to two primary factors: lower than expected Part D enrollment and lower than expected growth in drug costs.[11] In its original cost estimate, CBO estimated that 87 percent of Medicare beneficiaries would enroll in Medicare Part D. However, that projection turned out to be much too high: by 2012, only 73 percent of all Medicare beneficiaries had enrolled in Part D. Thus, lower-than-expected enrollment accounted for about ½ of the projection error.

In addition, CBO did not foresee the trend in prescription drug spending[12]. As shown below, national drug spending growth declined sharply in the years following the MMA, as patents on block-buster drugs expired and the rate of more expensive name-brand drugs coming to market slowed. Real per capita annual drug spending growth averaged 8 percent from 2000 to 2005, but just 3 percent in 2006 and 2007.

[9] CBO (2002).
[10] CBO (2004).
[11] CBO (2014).
[12] CMS also greatly overestimated the costs of Medicare Part D.

Growth Rate, Real RX per Capita



Source: CMS, Office of the Actuary, National Health Statistics Group

BROOKINGS

Together, these factors can account for most or all of the projections error, and there is little evidence that greater-than-expected savings from competition among multiple Part D plan was an important factor.

LESSONS FOR THE FUTURE?

Predicting health spending growth is extremely difficult, and that difficulty makes cost estimates of policy changes very uncertain. Improving baseline forecasting of health expenditures should be a priority, but projection errors are inevitable.

To the extent that CBO overestimated the enrollment in Part D, they overestimated both the costs and the benefits of the program. It is hard to use this episode to argue that CBO systematically underestimates the potential for health reforms to improve efficiency.

BALANCED BUDGET ACT OF 1997

The Balanced Budget Act (BBA) of 1997 was a sweeping piece of legislation designed to dramatically reduce the deficit and set the U.S. on a path to a balanced budget. The vast majority of the savings—$112 billion—were expected to come from changes to Medicare. The largest of these reforms, a reduction in payments to risk-based healthcare plans (like HMOs), was expected to reduce Medicare outlays by $22.5 billion dollars alone over the five year period. Other significant pieces included an update to the prospective payment schedule for inpatient hospital services achieving savings of $17.1 billion, $9.5 billion resulting from the implementation of a prospective payment system for skilled nursing facilities, and $16.2 billion from the implementation of a prospective payment system for home health services.[13]

Medicare spending following the BBA was significantly lower than CBO had projected. Although CBO expected the BBA to have sizable effects on spending (row 2 of the following table), by 1999, it was clear

[13] CBO (1997).

that spending was even lower than anticipated. For example, the July 1999 estimate of spending in fiscal year 1999 was about 10 percent ($22 billion) lower than the post-BBA estimate from August 1997.

COMPARISON OF AUGUST 1997 AND MARCH 1999 PROJECTIONS OF NET MANDATORY OUTLAYS FOR MEDICARE
By fiscal year, in billions of dollars

	1997	1998	1999	2000	2001	2002
January 1997 Projection	189	206	226	250	261	288
Minus Effects of Balanced Budget Act	-0	-6	-16	-29	-20	-41
August 1997 Projection	189	200	210	220	241	247
July 1999 Projection	187	190	188	206	218	226
July 1999 Projection Minus August 1997 Projection	-1	-9	-22	-19	-23	-22

Source: Congressional Budget Office.
Note: Numbers may not add up to totals because of rounding.

WAS THE BBA MUCH MORE EFFECTIVE THAN CBO ANTICIPATED?

CBO attributed most of the unexpected slowdown in Medicare spending to anti-fraud measures under Operation Restore Trust, which were not part of the BBA (and couldn't have been scored as cost savings even if they had been.)[14]

CBO did point to one BBA provision, the interim prospective payment system for home health, that clearly lowered spending more than anticipated. In their view, the outsized savings stemmed from a misunderstanding by home health agencies about the provision, which was intended to place a limit on the agency's average payment per beneficiary, but was instead interpreted as capping payments for each individual beneficiary. Thus, the savings were larger than expected because the law was interpreted as being tighter than it was intended to be.

LESSONS FOR THE FUTURE?

Again, the lessons are unclear. CBO does not believe its estimate of the impact of the BBA was wildly off the mark. Rather, it did not anticipate, in its baseline, the effectiveness of ongoing anti-fraud efforts. Under CBO's current view, anti-fraud measures carry a significant return on investment. For example, CBO recently estimated that a one-time $100 million increase in Health Care Fraud and Abuse Control outlays would result in $160 million in Medicare savings over ten years.[15]

One possible lesson is that providers might have outsized reactions to new and uncertain payment system reforms that are intended to cut spending.

[14] According to CBO scoring rules, increased discretionary spending cannot be scored as having an effect on mandatory outlays. Thus, even though HHS believes anti-fraud efforts have very significant effects on spending, scoring rules do not allow any credit for such measures. That is, a $1 increase in discretionary spending to combat fraud that is expected to result in $2.6 lower Medicare spending is scored as costing $1.
[15] CBO (2008).

MEDICARE CATASTROPHIC COVERAGE ACT

The Medicare Catastrophic Coverage Act of 1988 (MCCA) was designed to protect Medicare beneficiaries from catastrophically large medical bills by providing additional coverage on three fronts: hospital care, physician care, and prescription drugs. Under the new legislation, beneficiaries were responsible for a single, annual deductible for hospital inpatient costs, after which all additional inpatient expenditures were covered; an annual out-of-pocket maximum for out-of-pocket expenditures for physician services was introduced. Prescription drug benefits were to be phased in between 1990 and 1993, eventually covering all outpatient prescription drugs exceeding an annual deductible, with coinsurance payments of 20% for "reasonable charges" above the deductible.[16]

In June 1988, CBO projected the additional coverage in the MCCA to cost $30.8 billion over fiscal years 1989-1993. By September 1989, the cost estimate had increased dramatically, to $48 billion[17] over the same period, due in part to significantly increased Catastrophic Drug Insurance (CDI) coverage estimates. In particular, CBO more than doubled its projection for CDI outlays, from $5.7 billion in June 1988 to $11.8 billion in July 1989.[18]

CBO's original projections of prescription drug costs were based on extrapolations of the 1980 National Medical Care Utilization and Expenditure Survey (NMCUES), which at the time was the most recent dataset available. Upon release of the 1987 National Medical Expenditure Survey (NMES), it was clear that CBO had significantly underestimated prescription drug spending. In particular, CBO's MCCA cost estimates had assumed that annual per beneficiary spending had increased at an annual rate of 10 percent between 1980 and 1987. In reality, per beneficiary prescription drug cost growth had increased 14 percent per year over that time period.

Because of rising costs and falling support amongst beneficiaries, the MCCA was repealed in November, 1989, less than 18 months after enactment.

LESSONS FOR THE FUTURE?

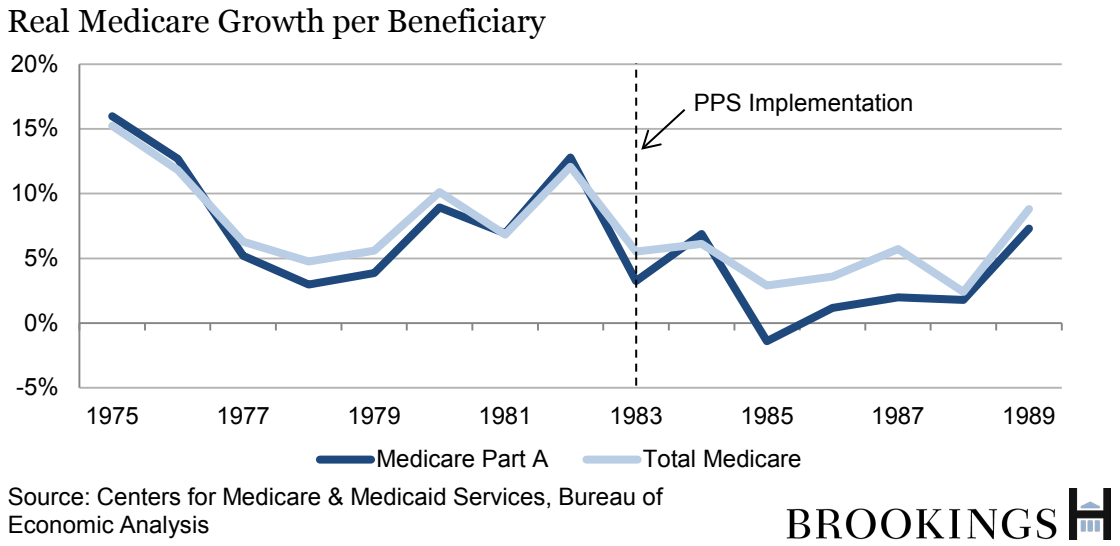
One lesson from this episode is that CBO doesn't **always** underestimate the costs of health reforms. In this case, they underestimated the costs significantly. While we were unable to uncover a full accounting for the reasons for this underestimate, it is clear that one important factor was that drug spending was increasing faster than CBO had realized and more than could be gleaned from official data. It is possible that more attention to "anecdotal" or industry reports would have been helpful in assessing trends in the prescription drug market, which would have improved CBO's estimate.

Unlike the other episodes examined, however, the MCCA didn't include payment reforms, so it doesn't shed any light on how providers respond to changes in the incentives they face directly.

[16] CBO (1988).
[17] Tolchin (1989).
[18] CBO (1989).

PROSPECTIVE PAYMENT SYSTEM

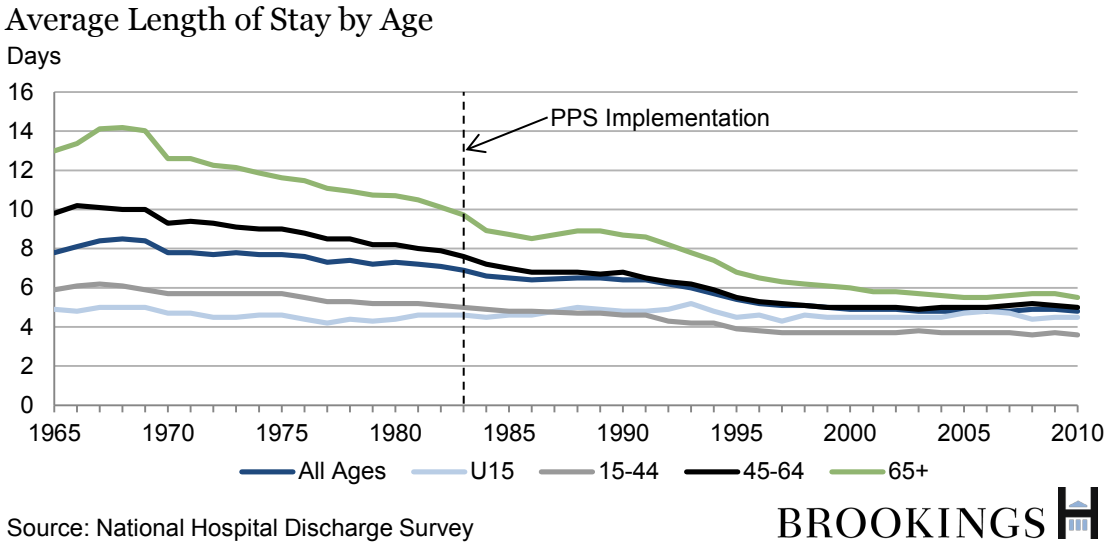
In 1983, Medicare introduced a prospective payment system (PPS) for inpatient hospital services. The PPS paid hospitals a flat rate for each admission based on one of 471 diagnosis-related groups (DRG), regardless of the services provided or length of stay. DRG payment levels were proscribed at the beginning of the year based on national average costs of treatment for each illness, with more resource intensive or costly-to-treat illnesses receiving higher payments. PPS was a significant departure from Medicare's prior cost-based system, whereby hospitals were reimbursed for each day that a patient spent in the hospital and the cost of each day of care.[19] The change to PPS was designed to provide incentives for hospitals to improve efficiency, particularly by reducing the average length of stay, reducing the number of unnecessary tests or procedures performed, and adopting cost-saving technology.



PPS was supposed to be budget neutral. Instead, Medicare spending over calendar years 1983-1986 came in almost 3 percent below baseline; hospital spending, which had been rising rapidly prior to the implementation of the PPS, slowed dramatically (although part of this slowdown reflected reduced payments to hospitals enacted prior to PPS implementation).

As expected, the average length of stay for patients aged 65 and over—which was already on a downward trajectory—fell significantly after the implementation of PPS, dropping by 8.2% in the first year and continuing to fall for several years thereafter.

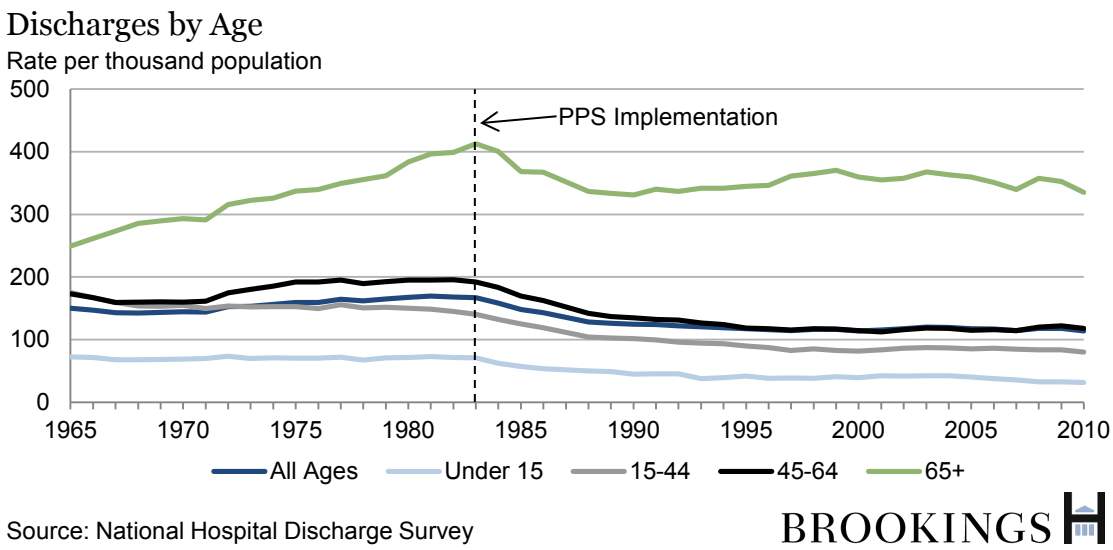
[19] Altman (2012).



What was not expected, however, was the significant drop in admissions following the switch to prospective payments. Underlying the CBO's PPS projection was the assumption that, while length of stay would drop under PPS, the number of inpatient admissions would rise. Evidence from New Jersey, which had introduced prospective payments for hospitals prior to the national implementation, showed that a rise in admissions offset much of the savings from reduced length of stay.[20]

However, no such rise in admissions was observed following the implementation of the Medicare PPS. After increasing at an average rate of 2.9% per year the 18 years leading up to PPS, the discharge rate for Medicare patients (closely correlated with the admissions rate) fell 3% in 1984 and 8% in 1985. This unexpected drop in admissions appears to have been a significant driver behind the larger-than-expected slowdown in Medicare spending growth.

[20] Rosko and Broyles (1987).



DID CBO UNDERESTIMATE THE BEHAVIORAL EFFECT OF PPS?

There are a number of hypotheses about why hospital admissions fell following PPS implementation.

Technological Innovation: The drop in hospitalization rates around the time of PPS implementation was not unique to the Medicare population. Indeed, as shown in the figure above, hospital discharges fell for people of all ages, likely representing technological improvements that allowed many procedures to be done on an outpatient basis, suggesting that decline in hospitalization may have been the result of outside forces, rather than the PPS itself.

More effective oversight: In order to prevent "gaming" of the PPS system, PPS required the Health Care Financing Administration (HCFA) to employ professional review organizations (PRO) to review hospital's admissions, discharges, and quality of care. Some observers believe that the PROs were far more effective than had been anticipated. For example, Vladeck (1991) notes that, the PROS "established by simple administrative fiat that Medicare would no longer pay for cataract operations on an inpatient basis, except under extraordinary circumstance. Seven other routine elective surgical procedures were treated in the same manner." According to this view, the decline in admissions is attributable to the combination of enhanced oversight with the technological innovations that allowed such operations to be done on an outpatient basis. This combination was likely necessary for the under-65 population as well. Guterman and Dobson (1986) note that, at about the same times as PPS, both state Medicaid programs and private Blue Cross and Blue Shield plans were also adopting prospective payments.

Fear Factor: Vladeck also notes that "There was simple panic and hysteria in many quarters of the hospital community in what might be called the peri-PPS period. Many hospital managers did a lot of irrational and thoughtless things, including clamping down on admissions for fear of economic loss when a more dispassionate analysis would have shown those admissions to be profitable on the margin."

LESSONS FOR THE FUTURE?

It is hard to know what lessons can be gleaned from CBO's (and HCFA's) overestimate of Medicare spending post-PPS. Both standard economic analysis and empirical evidence from New Jersey suggested that admission rates would increase post-PPS. And, as pointed out by Sennett (1990), prior experience with outside review boards have shown them to be extremely ineffective at curtailing utilization. Thus, CBO's estimates appear to be based upon reasonable assumptions.

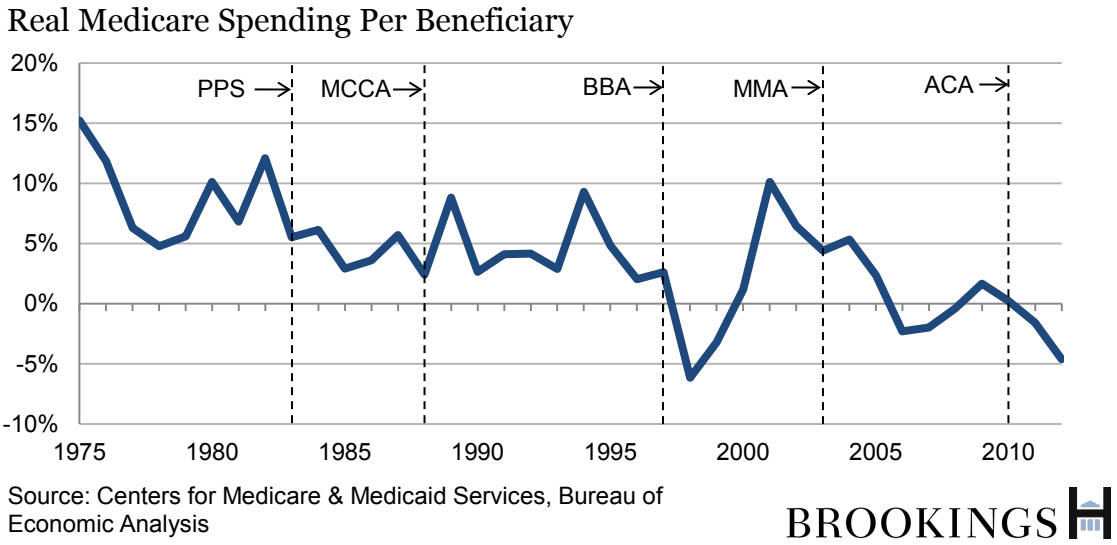
One question is whether baseline hospital spending could have been projected better Hospital spending was rising very rapidly in the years immediately preceding PPS, and both CBO and HCFA expected spending to increase rapidly going forward. Perhaps CBO and HCFA assume(d) too much persistence in short-term trends, not recognizing that these tend to reverse themselves. That is clearly an empirical question that could be examined.

In addition, there may be something to Bruce Vladeck's "fear factor" hypothesis. Perhaps significant clamp downs on health spending have larger effects than a purely rational model would predict, because providers instinctively pull back on spending when they feel uncertain about future payment rates.

DISCUSSION

In four of the five healthcare reform cases studied in this paper, health spending following major health reforms was significantly lower than CBO had projected. However, in the majority of cases, it is unclear whether CBO underestimated the impact of the health reform, or whether the underlying baseline projections were incorrect.

In general, health reforms follow periods of unusually rapid growth in health spending (this was true of hospital spending pre-PPS and drug spending pre-MMA) so perhaps there is more mean reversion in the level of spending than CBO takes into account.



It is also true that excess cost growth for health spending has been declining over time, although whether this would have occurred in the absence of all the legislative changes is unclear. In any case, it is not surprising that CBO has overpredicted health spending in an era of declining spending growth.

It is also possible that providers are very responsive to expected cuts in Medicare payments. It has been noted that providers were very cautious about spending following the implementation of both the hospital and home health prospective payment systems PPS. It is quite plausible that this responsiveness also accounts for some of the recent declines in Medicare.

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