



OFFICE OF THE ACTUARY

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DATE: August 28, 2014

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SUBJECT: Projected Medicare Expenditures under Current Law, the Projected Baseline, and an Illustrative Alternative Scenario

After the publication of the July 28, 2014 version of this memorandum and the 2014 *Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, an error was found in the calculation of the long-range Part B growth rates for the illustrative alternative projections. This document provides the corrected estimates. The original memorandum that detailed the illustrative alternative projections coinciding with the 2014 report can be found at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/alternativePartB.html>

In the 2014 *Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, the Trustees do not emphasize the current-law projections of Medicare costs as the basis for projections in the report because the current-law projections are likely to understate future costs. This decision represents a significant change relative to previous reports. The projections under current law are clearly unrealistic with respect to physician expenditures and, in addition, may well understate expenditures for most other categories of health care providers. Throughout much of the report, the Trustees use a *projected baseline* scenario, which includes assumed overrides of the scheduled physician payment updates, but they also warn that “the long-range costs could be substantially higher than shown throughout much of the report if the ACA’s cost reduction measures prove ineffectual or are scaled back.” The purpose of this memorandum is to present Medicare projections under current law, the projected baseline scenario, and an illustrative alternative scenario to help illustrate and quantify the potential magnitude of the cost understatement under current law.<sup>1</sup>

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<sup>1</sup> The statements, estimates, and other information provided in this memorandum are those of the CMS Office of the Actuary and do not represent an official position of the Medicare Board of Trustees or the Department of Health and Human Services.

## Overview

Among the most important factors in projecting Medicare expenditures are the annual payment updates to Medicare providers. The estimates based on current law are complicated substantially by mandated reductions in these payment updates for most Medicare services. In particular, Medicare payment rates for physician services as determined by the Sustainable Growth Rate (SGR) system are scheduled to be reduced by almost 21 percent on April 1, 2015. For most of the other categories of Medicare providers, the Affordable Care Act (ACA), as amended, calls for a reduction in payment rate updates equal to the increase in economy-wide multifactor productivity.<sup>2</sup>

As described in more detail below, in our view the scheduled physician payment reduction is implausible, and there is a strong likelihood that the productivity adjustments will not be sustainable in the long range. It is reasonable to expect that Congress would find it necessary to legislatively override or otherwise modify the reductions in the future to ensure that Medicare beneficiaries continue to have access to health care services. If these payment reductions were moderated or removed, estimated Medicare costs would exceed the thresholds that would require the Independent Payment Advisory Board (IPAB) to develop proposals to reduce the growth rate below the threshold. These reductions would be quite challenging.

Because of the potential long-range effects of the productivity adjustments, delivery and payment innovations, and certain other aspects of the ACA are so uncertain, an independent panel of expert actuaries and economists was asked to review the assumptions and methods used by the Trustees to make projections of the financial status of the trust funds. In its final report, the 2010-2011 Medicare Technical Review Panel recommended that the Trustees incorporate a chart comparing the current-law projections to two illustrative alternatives.<sup>3</sup> The first alternative—which constitutes the projected baseline scenario emphasized throughout the 2014 Trustees Report—includes an adjustment to the physician payment reductions resulting from the SGR system. The full illustrative alternative includes the physician payment update change, adjustments to the reductions in payment updates by the increase in economy-wide productivity for most other provider categories, and the operations of the IPAB. A summary of the current-law and illustrative alternative scenario information is contained in appendix V.C of the 2014 Trustees Report, and the projected baseline scenario information is used as the basis for much of the report.

### *(1) Physician Payments*

Medicare payments for physicians' services are based on a fee schedule, which reflects the relative level of time and effort required for each service and also its relative complexity. These relative factors per service are translated into dollar payment amounts through a conversion factor, which is updated each calendar year based on the SGR mechanism specified in law. The SGR system compares the accumulated amount of actual physician-related spending to a

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<sup>2</sup> The ACA specifies use of the 10-year moving average increase in private nonfarm business multifactor productivity. *Multifactor productivity* is a measure of real output per combined unit of labor and capital, reflecting the contributions of all factors of production.

<sup>3</sup>The *Review of Assumptions and Methods of the Medicare Trustees' Financial Projections* is available at <http://aspe.hhs.gov/health/reports/2013/MedicareTech/TechnicalPanelReport2010-2011.pdf>

specified target level. If actual cumulative spending exceeds the cumulative target spending level, then one or more future physician payment updates per service will be reduced so that future actual expenditures will be lower and ultimately reach the target amount allowed under the law. Similarly, if the actual spending is below the target level, then future physician updates will be increased. The update adjustments are subject to limits on both the increase and the decrease.<sup>4</sup> The intent of the SGR system, which was enacted as part of the Balanced Budget Act of 1997, is to limit growth in spending on physician services to a sustainable rate, roughly in line with the rate of overall economic growth.

Because actual physician-related spending has exceeded the target spending levels for 2001 through 2009, physician payment reductions have been scheduled for every year since 2002. An update of -4.8 percent was required and was allowed to take effect in 2002—the only historical year in which a negative physician update was implemented under the SGR system. For 2003 through March 2015, scheduled negative updates of at least -5 percent were overridden by new legislation, which provided updates ranging from 0 percent to 2.2 percent. For 2004 through 2006, these legislative acts not only provided replacement updates and increased the actual physician spending but also specified that the target level of spending would not be increased to match.<sup>5</sup> Thus, the actual spending did not decrease, the gap between actual and target spending did not decrease, and the cumulative difference between actual and target spending grew substantially.

Each of the legislative changes to the physician updates for 2007 through March 2015 increased both actual and target spending but required that the payment updates for subsequent years be determined as if the updates in the prior years had not been changed. Without these legislative changes, actual spending would have been lowered to be closer to the level of target spending. Instead, actual spending did not decrease, and target spending was legislatively increased. Therefore, the gap between actual and target spending was narrowed, but this narrowing was caused by raising the target level of spending rather than by reducing the level of actual spending.

The physician payment update legislation for 2007 through March 2015 requires payment updates for subsequent years to be determined as if the legislation had not occurred. This requirement has the effect of accumulating the impact of the scheduled payment reductions and applying this accumulated impact in the following year. As a result, the scheduled payment update on April 1, 2015 is estimated to be -20.8 percent.<sup>6</sup>

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<sup>4</sup> For more information on the sustainable growth rate system, see [http://www.cms.hhs.gov/SustainableGRatesConFact/01\\_Overview.asp](http://www.cms.hhs.gov/SustainableGRatesConFact/01_Overview.asp).

<sup>5</sup> For these legislative acts, increasing the actual physician spending, but not changing the target spending, resulted in a lower 10-year cost estimate than would have occurred if target spending had been adjusted to accommodate the higher costs resulting from the higher payment updates. Each such action, however, contributed to a significant increase in the difference between accumulated actual and target spending, requiring additional physician payment reductions in the future under the current-law SGR system.

<sup>6</sup> The cumulative difference between actual and target physician spending has been substantially reduced, as have the resulting negative updates scheduled under the SGR system, as a result of a regulatory change in the definition of *physician services* under the SGR system. Specifically, physician-administered drugs were removed from physician services in the SGR system back to 1996 by the November 2009 final physician rule. This change reduced the estimated total reduction required at that time by the SGR system from roughly 45 percent under the prior rule to 28 percent under the new regulation.

A large negative update is extremely unlikely to occur. As noted, Congress has overridden all of the scheduled reductions from 2003 through March 31, 2015. Moreover, the projected –20.8-percent update in 2015 is as large as many of those previously avoided. Because of the improbability of a large negative update, the Part B estimates emphasized in the 2014 Medicare Trustees Report use a projected baseline, which includes an override of the physician payment updates based on the SGR system.<sup>7</sup>

## (2) Productivity Adjustments

Most of the services covered by the Medicare fee-for-service program (including inpatient hospital, outpatient hospital, skilled nursing facility, and home health care) receive annual payment increases based on statutory input price indices. These price indices, or *market baskets*, measure the increase in prices that each category of provider must pay for the goods and services they purchase to enable them to care for patients. Such inputs includes wages and other compensation for their employees, medical and other equipment, and overhead expenses such as heating, utilities, and rent. Other Medicare services, such as ambulance, ambulatory surgical centers, laboratory services, certain durable medical equipment, and prosthetics, have their payments updated annually by the increase in the Consumer Price Index (CPI). The Affordable Care Act specifies that all of these payment updates be reduced by the percentage increase in the 10-year moving average of private nonfarm business multifactor productivity beginning as early as 2011.<sup>8</sup> These update reductions cannot be modified or rescinded except through new legislation. The Protecting Access to Medicare Act of 2014 eliminated the productivity adjustments for laboratory services, requiring that payments be based instead on a periodic survey of private health insurance payment rates for those services.

In the 2014 Trustees Report, private nonfarm multifactor productivity is estimated to increase by about 1.1 percent per year in the long range, which is roughly its long-term historical average. This assumption reflects the expectation that, as has occurred historically, relatively high rates of productivity will continue in the manufacturing sector, with much lower rates in the service sector.<sup>9</sup> The theory of these findings is consistent with *Baumol's disease*, which suggests that sustained productivity gains in service industries is difficult to achieve as long as the services remain labor-intensive.<sup>10</sup>

For the health sector, measured productivity gains have generally been quite small, given the labor-intensive nature of health services and the individual customization of treatments required in many instances. To the extent that productivity gains are attainable for the health sector,

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<sup>7</sup> The 2014 Medicare Trustees Report was released on July 28, 2014. It is available at <http://www.cms.gov/ReportsTrustFunds/>.

<sup>8</sup> Note that these payment updates affect all of the services covered under Part A and many of the services covered under Part B. The Medicare Part D payments to drug plans and qualifying employers are not affected by the productivity adjustments.

<sup>9</sup> Service sector productivity—and health sector productivity in particular—is notoriously hard to measure. However, manufacturing multifactor productivity was recently estimated to have increased 1.37 percent per year from 1987 through 2006 compared to a 0.03-percent *decline* for services. Michael J. Harper, *et al.*, “Nonmanufacturing Industry Contributions to Multifactor Productivity, 1987-2006” *Monthly Labor Review*, June 2010 (<http://stats.bls.gov/opub/mlr/2010/06/art2full.pdf>).

<sup>10</sup> Baumol, William J. “Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis.” *American Economic Review*, 57, no. 3 (1967): 415-426.

Medicare should share in the resulting financial benefit. Additionally, to the extent that there is excess cost or waste in the health care system, providers should be able to withstand slower payment updates until such time as the excess cost or waste is eliminated. Historical hospital productivity growth has been estimated at about 0.4 percent per year.<sup>11</sup> For skilled nursing facilities and home health agencies, productivity gains are believed to be close to zero.<sup>12</sup>

Based on the historical evidence of health sector productivity gains, the labor-intensive nature of health care services, and presumed limits on the extent of current excess costs and waste that could be removed from the system, actual health provider productivity is very unlikely to achieve improvements equal to the economy as a whole over sustained periods. In addition, some Medicare payment systems (such as payments for ambulatory surgical centers) are updated by the CPI, which already reflects changes in economy-wide productivity gains. These updates will also be reduced by economy-wide multifactor productivity gains under the new law, a factor that will essentially require these providers and suppliers to achieve twice the rate of economy-wide multifactor productivity increases to break even.

As a result of the update reductions, affected providers will certainly have an even stronger financial incentive to reduce unnecessary aspects of care and to eliminate wasteful costs. Moreover, it is possible that providers will find new ways to take advantage of technology and otherwise improve their productivity to a greater extent than they appear to have been able to do in the past. Finally, the intensive program of research and development for innovative new approaches to health care service delivery and payment, as facilitated by the ACA, may lead to more cost-effective care, with the potential to help reduce cost growth to rates compatible with the lower Medicare price updates. These outcomes, while highly desirable, are far from certain. Until such gains can be demonstrated, it is more reasonable to expect that provider costs per service will continue to increase in the long range more in line with long-term past input price growth.

To illustrate the implications of the productivity adjustments and the physician payment reductions under current law, simulated future Medicare price levels under current law were compared to private health insurance and Medicaid. For several categories of service, including inpatient and outpatient hospital services, nursing facility care, clinic services, and laboratory tests, Medicaid payments are subject to certain upper payment limits (UPLs). For these services, total payments for all services in each category by a State Medicaid program cannot exceed what Medicare would have paid for the same care.<sup>13</sup> Medicaid payments for other categories, notably

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<sup>11</sup> See Jonathan D. Cylus, *et al.*, “Hospital Multifactor Productivity: A Presentation and Analysis of Two Methodologies” (<http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/HealthCareFinancingReview/Downloads/07-08Winterpg49.pdf>).

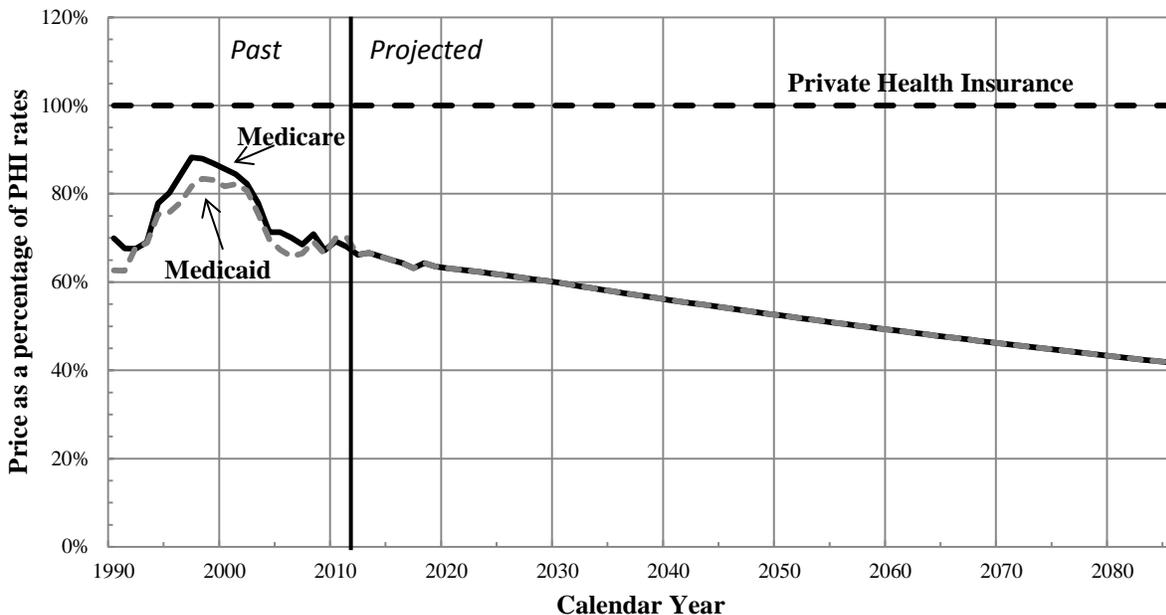
<sup>12</sup> Harper, *et al.* estimate that multifactor productivity in ambulatory health care services averaged a 0.7-percent decline per year from 1987 through 2006 and that hospitals and nursing and residential care facilities averaged a 0.9-percent decline over the same period. It should be noted that the authors and several others have discussed the difficulties in measuring health sector output, a situation that the Office of the Actuary and many prominent researchers are working to improve.

<sup>13</sup> The UPL is set as a reasonable estimate of what Medicare would have paid for those services and is not a precise calculation of exactly what Medicare would have paid for all Medicaid claims. For the purpose of this analysis, we have assumed that (i) UPLs are equal to what Medicare would have paid for Medicaid services, and (ii) Medicaid programs could make total payments that would precisely match UPLs. In actuality, there may be small differences between UPLs and what Medicare would have paid for these services, and between Medicaid payments and UPLs.

physician services, are not subject to UPLs.<sup>14</sup> The payment rates paid by private health insurers are assumed to be unaffected by the reductions in the Medicare payment rates for this illustration.

For inpatient hospital services, Medicare payment rates in 2012 were about 68 percent, and Medicaid payment rates were about 70 percent, of private health insurance payment rates (including Medicaid disproportionate share hospital, or DSH, payments).<sup>15</sup> As shown in figure 1, Medicaid payment rates equal Medicare payment rates in 2013, and both decline in tandem relative to private health insurance payment rates over the next 75 years under the illustration. The increasing differential between Medicare and private payment rates is due to the productivity adjustments in 2013 and later for the Medicare payment updates (and, to a lesser degree, to the other, smaller downward adjustments in 2010 through 2019 specified by the ACA in addition to the productivity adjustments). The smaller UPL established by the Medicare rates forces a similar differential for Medicaid payments. By the end of the long-range projection period, Medicare and Medicaid payment rates for inpatient hospital services would each represent roughly 41 percent of the average level for private health insurance.

**Figure 1. Illustrative comparison of relative Medicare, Medicaid, and private health insurance prices for inpatient hospital services under current law**



For other services subject to UPLs, future Medicaid payment rate changes would tend to follow a pattern similar to that shown above for inpatient hospital services; however, the initial Medicare and Medicaid payment rates relative to private health insurance rates, and the relative projected updates, would be somewhat different for these other services.

<sup>14</sup> There is a physician UPL in Medicaid, but it is not a binding limit, as is the case for the other services listed above.

<sup>15</sup> American Hospital Association, *2011 TrendWatch Chartbook*. For the purpose of this analysis, we have assumed that the relative rates were the same for 2010.

For physician services, Medicare payment rates are updated according to the SGR formula in current law. Medicaid payment rates are not directly related to Medicare physician fees and thus may grow at different rates over time (and can exceed corresponding Medicare payment rates). As before, we have calculated illustrative future Medicare and Medicaid payment levels for physician services relative to private health insurance payment rates. For Medicaid and private health insurance, we have assumed that payment rates would increase annually at the rate of increase of the Medicare Economic Index (MEI).<sup>16</sup> Medicaid payment rates are adjusted in 2013 and 2014 as specified in the ACA, which provides for temporary increases in Medicaid payments for primary care physicians.

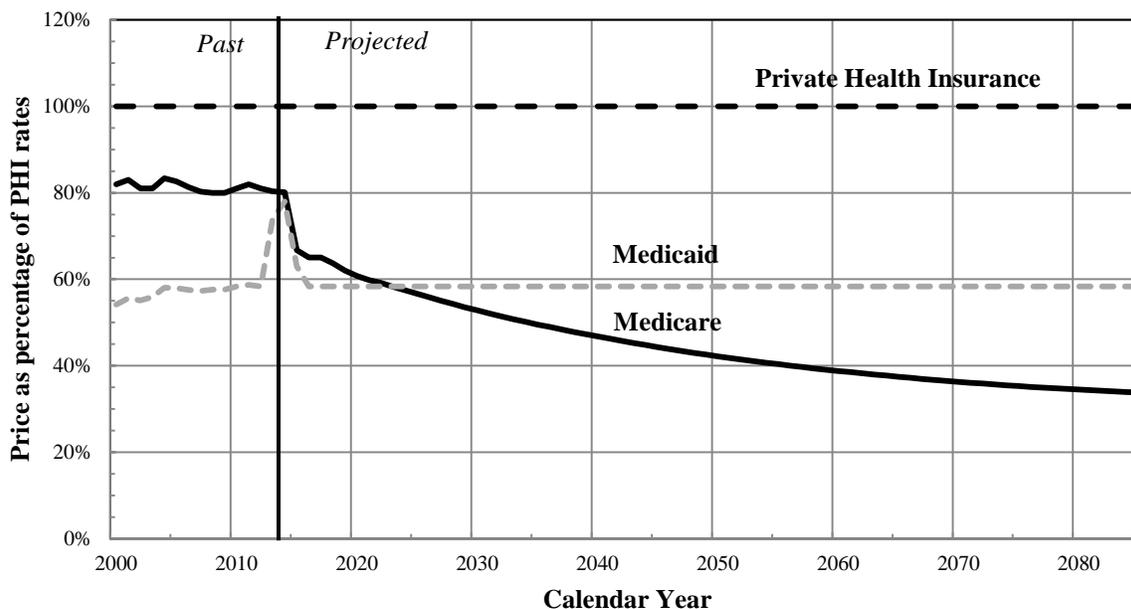
Figure 2 shows the resulting comparison of future Medicare and Medicaid payment rates for physician services relative to private health insurance payment rates under the illustration. Medicare payment levels in 2009 were about 80 percent of private health insurance payment rates, and Medicaid payment rates in 2008 were about 58 percent.<sup>17</sup> In this illustration, Medicaid payment rates increase to 73 percent of private health insurance levels in 2013 and to 77 percent in 2014 and then return to 58 percent. Medicare physician payment rates decline to 67 percent of private health insurance payment rates in 2015, due to the scheduled reduction in the Medicare physician fee schedule of about 21 percent under the SGR formula in current law. (In practice, Congress is very likely to override this reduction, as it has consistently for 2003 through March 31, 2015.) Under current law, the Medicare rates would eventually fall to 34 percent of private health insurance levels by 2088 and to less than half of the projected Medicaid rates. The continuing slower growth would occur as a result of negative update adjustment factors caused by growth in the volume and intensity of physician services that exceeds the increase factor specified by the SGR formula.

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<sup>16</sup> The MEI is a price index reflecting the weighted-average price change for various inputs needed to furnish physician services, adjusted by the change in economy-wide private nonfarm business multifactor productivity. Medicaid payments for physician services have generally not kept pace with the MEI in recent years. At today's levels, Medicaid payment rates have contributed to problems with access to such services. Because further growth below the rate of increase of the MEI would likely exacerbate these problems, especially in the long range, we believe it is reasonable to illustrate future Medicaid physician payment rates based on assumed growth equal to the MEI increase.

<sup>17</sup> Medicare Payment Advisory Commission (MedPAC), *Report to the Congress: Medicare Payment Policy*, March 2011; Zuckerman, Stephen, *et al.* "Trends in Medicaid Physician Fees, 2003-2008." *Health Affairs*, 28, no. 3 (2009): w510-w519. Medicaid physician payment rates relative to those of private health insurance are derived by multiplying the ratio of Medicare rates to private health insurance (0.80, MedPAC) by the ratio of Medicaid rates to Medicare (0.72, Zuckerman). In addition, for the purpose of this analysis, we have assumed that the relative rates in these sources were the same in 2010 as they were in the year in which they were last measured (from 2009 and 2008, respectively). The ratio of Medicaid payment rates to Medicare payment rates is interpolated between 1998 and 2003 (0.64 and 0.69) and between 2003 and 2008 (0.69 and 0.72).

**Figure 2. Illustrative comparison of relative Medicare, Medicaid, and private health insurance prices for physician services under current law**



The Office of the Actuary has estimated that by 2019 up to 5 percent more hospitals would experience negative total facility margins relative to 2012.<sup>18</sup> Additionally, 5-10 percent of hospitals would experience negative Medicare margins by 2019.<sup>19</sup> By 2040, approximately half of hospitals, two-thirds of skilled nursing facilities, and 90 percent of home health agencies would have negative total facility margins.

In practice, providers could not sustain continuing negative margins and, absent legislative changes, may have to withdraw from providing services to Medicare beneficiaries, merge with other provider groups, or shift substantial portions of Medicare costs to their non-Medicare, non-Medicaid payers. Congress would presumably act to adjust Medicare payment rates as necessary before such a situation developed. It is also reasonable to expect that health care providers, unable to match economy-wide productivity gains, will make every effort to improve efficiency, eliminate wasteful costs, and take other steps to maintain their viability despite the slower Medicare price updates. Further consolidation by hospitals, physician practices, and other providers can increase their ability to negotiate favorable prices with private health insurance plans. In some instances, substantial improvements in cost effectiveness have been achieved by particular provider groups, such as ThedaCare of Appleton, Wisconsin and the Cleveland Clinic in Ohio.

Numerous prominent experts have pondered how providers might react to the Medicare update reductions in the long range, with most noting that consistent payment reductions are unsustainable. Writing in a *National Journal* blog, Dr. David Cutler, Professor of Applied

<sup>18</sup> See <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/ACAmarginsimulations2014.pdf>.

<sup>19</sup> MedPAC recently reported in the March 2014 *Report to the Congress: Medicare Payment Policy* that payment changes may cause Medicare revenues to fall below the costs of relatively efficient providers in 2015.

Economics at Harvard University, stated that “as the actuaries ... note, traditional payment reductions are not a long-term source of financing. Prices can be reduced only so far before they become unreasonably low.” Dr. Joseph Newhouse, Professor of Health Policy and Management at Harvard, wrote in an article for *Health Affairs*: “...it is equally hard to imagine cutting only Medicare spending while spending by the commercially insured under age sixty-five continues to grow at historic rates, which would lead to a marked divergence between what providers are paid for treating the commercially insured relative to what they are paid for Medicare beneficiaries. This gap could jeopardize Medicare beneficiaries’ access to mainstream medical care.”<sup>20</sup>

Similarly, in an article for *Foreign Affairs*, former CBO and OMB Director Peter Orszag said, “[One] approach is to simply reduce payments to providers—hospitals, doctors, and pharmaceutical companies. This blunt strategy can work, often quite well, in the short run. It is inherently limited over the medium and long term, however, unless accompanied by other measures to reduce the underlying quantity of services provided. If only Medicare and Medicaid payments were reduced, for example, providers would shift the costs to other patients and also accept fewer Medicare and Medicaid patients.”<sup>21</sup> Washington and Lee University law professor Timothy Jost wrote in the *New England Journal of Medicine* that “If the gap between private and Medicare rates continues to grow, health care providers may well abandon Medicare.”<sup>22</sup> Finally, in a recent editorial in *Health Services Research*, Austin Frakt found that “The ACA includes both a blunt Medicare payment cut (the predicted 1.1 percent annual productivity adjustment) and designs for incentives for higher quality and better outcomes (like ACOs). Evidence suggests the former is not productivity enhancing....”<sup>23</sup>

### (3) Independent Payment Advisory Board

The Affordable Care Act calls for the creation of an independent 15-member Independent Payment Advisory Board (IPAB) aimed at slowing Medicare cost growth. Under current law, the IPAB must submit proposals to the President for years in which the projected rate of growth in Medicare spending per beneficiary exceeds specified thresholds. For 2015 through 2019, the threshold rate of growth in Medicare spending per beneficiary is the average of the increases in the CPI for all items and in the CPI for Medical Care. Thereafter, the law requires IPAB proposals if the projected rate of growth in Medicare spending exceeds the estimated increase in the Gross Domestic Product (GDP) plus 1.0 percentage point.

If the growth in Medicare spending exceeds the threshold, the IPAB must develop savings provisions to bring the growth rate down to the threshold (subject to certain maximum reductions). These provisions will automatically take effect unless lawmakers enact an

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<sup>20</sup> Newhouse, Joseph P. “Assessing Health Reform’s Impact on Four Key Groups of Americans.” *Health Affairs*, 29, no. 9 (2010): 1-11.

<sup>21</sup> Orszag, Peter R. “How Health Care Can Save or Sink America.” *Foreign Affairs*, 90, no. 4 (2011): 42-56.

<sup>22</sup> Jost, Timothy Stoltzfus, J.D. “The Independent Payment Advisory Board.” *New England Journal of Medicine*, 363, no. 2 (2010):103-105.

<sup>23</sup> Frakt, Austin B. “Hospital Cost Shifting and Productivity.” *Health Services Research*, 49, no. 1 (2014): 1-10. Frakt also comments on developing research literature about the price and quantity effects of Medicare price changes, and he notably concludes that, as public payments to hospitals are moderated, private ones do not necessarily increase. Such research often finds that moderated public payments can lead to an expansion in the supply of services to private patients and a contraction in the supply of services to Medicare patients. We have illustrated in this memorandum scenarios in which private prices do not contract with public prices; however, even when the price measures do not diverge, issues of access and quality may arise, as noted in Frakt’s research.

alternative measure that achieves the same level of savings. The IPAB's efforts are complicated by provisions that prohibit increases in beneficiary cost-sharing requirements and that exempt certain categories of Medicare expenditures from consideration.<sup>24</sup>

## **Estimation Methodology**

Since there is a strong likelihood that the current-law Medicare expenditure projections are based on payment updates that are not feasible, we have prepared a set of alternative projections to illustrate the level of Medicare expenditures that could result if these current-law provisions are not sustained in all future years. The following section describes the methodology used to determine both the projected baseline projections that are emphasized in the 2014 Trustees Report and the projections for the illustrative alternative scenario.

The projected baseline scenario includes assumed physician payment updates rather than the physician payment reductions resulting from the SGR system. Under this scenario, Medicare payments to physicians would be updated by 0.6 percent annually for the next 10 years, reflecting the average update that has occurred over the most recent 10 years (the 10 years through March 2015) during which Congress overrode the SGR reduction otherwise required. For 2023 through 2037, the illustration assumes that the Medicare physician spending growth would gradually transition to the per capita increase in health spending in the U.S. overall and then equal that rate for the last 50 years of the projection. On average, this long-range growth rate is equal to GDP plus 1 percent. (Parts A and D are negligibly affected under the projected baseline scenario.)

The illustrative alternative scenario includes the same physician assumptions as the projected baseline scenario, but it also includes a gradual phase-down of the productivity adjustments and the elimination of the IPAB requirements. Specifically, the productivity adjustments of roughly 1.1 percent would be applied fully through 2019 but then would be phased down to 0.4 percent over the 15 years beginning in 2020. In 2034 and later, Medicare Part A and Part B per capita cost growth rates are assumed to equal the growth rates for national health expenditures, which are estimated to average GDP plus 1 percent.

The illustrative alternative projections are shown for Parts A and B and for Medicare in total. The Part D projections under current law are not affected by the payment-update issues and are only negligibly affected by the IPAB requirements.

## **Comparison of Results**

This memorandum compares the Medicare projections under current law with the projected baseline scenario and an illustrative alternative scenario. This analysis is for comparison purposes only and should not be interpreted or construed as advocating any particular legislative change. In particular, no endorsement of this alternative by the Office of the Actuary, CMS, or the Medicare Board of Trustees should be inferred. Similarly, our description of the problems

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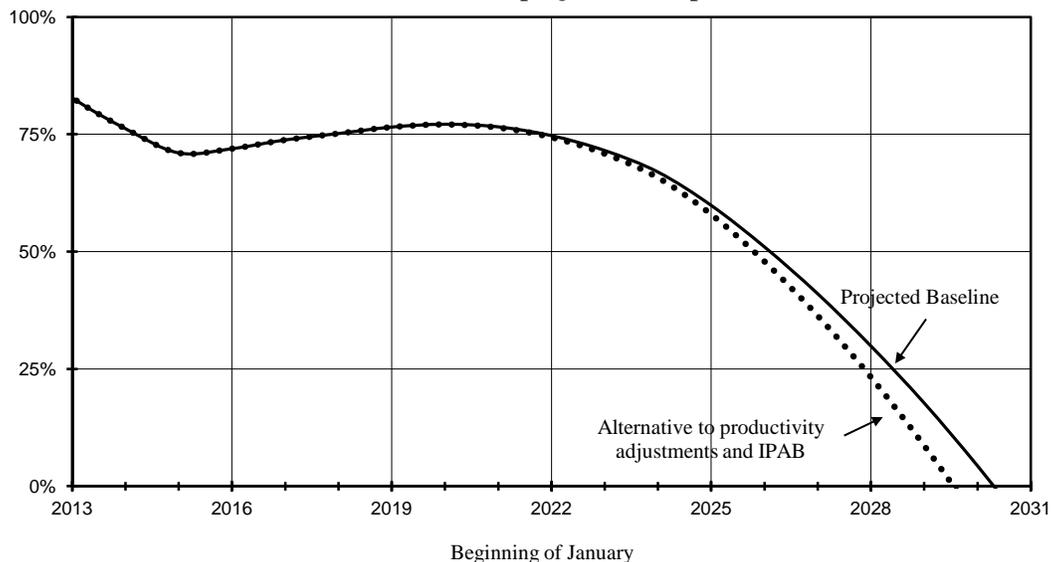
<sup>24</sup> The estimates in the 2014 Medicare Trustees Report result in reductions in Medicare growth rates in 2024, 2026, 2028, 2031, 2033, 2035, 2037, 2040, and 2042.

that would likely result from the physician payment reductions and/or the long-term application of the productivity adjustments should not be interpreted as a criticism of the statutory policy. Our intent is to help inform Congress and the public at large that an evaluation of the financial status of Medicare that is based on the provisions of current law is likely to portray an unduly optimistic outcome. This paper is also an attempt to promote awareness of these issues, to illustrate and quantify the amount by which the Medicare projections are potentially understated, and to help inform discussions of potential policy reactions to the situation.

(1) Part A

The alternative projection begins phasing down the productivity adjustments prescribed in the Affordable Care Act after the first 8 years of the projections and eliminates the reductions that the IPAB is required to produce. The resulting expenditure projections for Part A are therefore slightly higher than the current-law and projected baseline projections starting in 2020 and ultimately become substantially higher by the end of the 75-year period. Since the impact is relatively modest in the short term, there is only a negligible difference in the expected trust fund exhaustion date. Figure 3 shows projected Part A trust fund assets as a percentage of annual expenditures for the alternative and projected baseline scenarios. Under the illustrative alternative projection, the Part A trust fund is estimated to be exhausted in 2029, about 1 year earlier than the projected baseline.

**Figure 3. Projected HI trust fund assets as a percentage of annual expenditures under the illustrative alternative projection compared to current law**



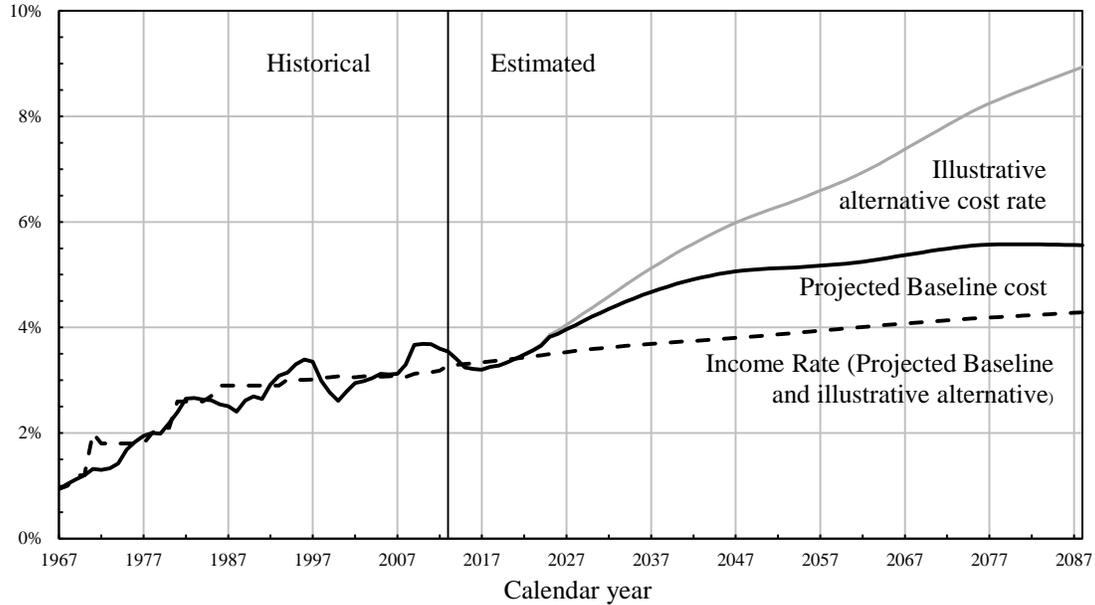
Note: The projected baseline scenario and current-law projections are negligibly different for Part A.

Figure 4 shows the projected Hospital Insurance (HI) income and cost rates for the illustrative alternative compared to the results shown in the 2014 Trustees Report under the projected baseline. Since the projected baseline and illustrative alternative projections are varying only the payment rates to providers, the income rate is the same as current law.

HI expenditures are projected under the projected baseline to rise from about 3.6 percent of taxable payroll in 2013 to 4.8 percent in 2040 and to 5.6 percent in 2088. Under the illustrative alternative projection, costs would continue increasing as a percentage of taxable payroll

throughout the long-range period, reaching 8.9 percent in 2088—or 3.3 percentage points higher than under the projected baseline. This comparison shows the strong impact of the statutory productivity adjustments; as the slower payment rate updates compounded over time, their impact on HI costs as a percentage of taxable payroll would offset much of the combined effects of the aging of the beneficiary population, excess medical price inflation, and growth in the volume and intensity of services. As noted, however, there is considerable doubt as to the long-range feasibility of the lower HI payment rates.

**Figure 4. Projected HI income and costs as a percentage of taxable payroll under the illustrative alternative projection compared to current law**



Note: The projected baseline scenario and current-law projections are negligibly different for Part A.

Table 1 shows the HI actuarial balance, for the next 25, 50, and 75 years, from the 2014 Trustees Report under the projected baseline and the illustrative alternative. For the 75-year projection period, the HI actuarial deficit is estimated to be 0.87 percent of taxable payroll in this year’s report. If the productivity adjustments were gradually phased down starting in 2020, and if the IPAB requirements were rescinded, then the long-range HI deficit would be 1.92 percent of taxable payroll, as indicated by the alternative projection.

**Table 1. HI actuarial balances under the illustrative alternative scenario compared to the 2014 Trustees Report**  
(as a percentage of taxable payroll)

	2014 Report (projected baseline)	Alternative projection
Valuation periods: <sup>1</sup>		
25 years, 2014-2038:		
Summarized income rate	3.61%	3.61%
Summarized cost rate	4.03	4.18
Actuarial balance	-0.42	-0.57
50 years, 2014-2063:		
Summarized income rate	3.71	3.71
Summarized cost rate	4.46	5.03
Actuarial balance	-0.75	-1.32
75 years, 2014-2088:		
Summarized income rate	3.82	3.82
Summarized cost rate	4.69	5.74
Actuarial balance	-0.87	-1.92

<sup>1</sup>Income rates include beginning trust fund balances, and cost rates include the cost of attaining a trust fund balance at the end of the period equal to 100 percent of the following year's estimated expenditures.

- Notes: 1) Totals do not necessarily equal the sums of rounded components.  
2) The projected baseline scenario and current-law projections are negligibly different for Part A.

Another way to compare the expenditures in the alternative projection to the projected baseline amounts in the 2014 Trustees Report is to examine HI expenditures as a percent of GDP over the next 75 years. Under the projected baseline, HI costs are projected to increase to 2.37 percent of GDP in 2080, or roughly 52 percent greater than their 2013 level. Under the illustrative alternative to current law, costs would be 3.59 percent of GDP in 2080, or roughly 130 percent greater than their 2013 level.

**Table 2. Projected HI expenditures as a percentage of Gross Domestic Product (GDP) under the illustrative alternative compared to the projected baseline, selected calendar years 2013-2080**

Calendar year	HI expenditures as a percentage of GDP	
	Projected baseline	Alternative projection
2013	1.56%	1.56%
2020	1.53	1.53
2030	1.91	1.98
2040	2.17	2.43
2050	2.26	2.74
2060	2.28	2.97
2070	2.35	3.30
2080	2.37	3.59

Note: The projected baseline scenario and current-law projections are negligibly different for Part A.

The 2014 Trustees Report notes that HI still fails both the short-range test of financial adequacy and the long-range test of close actuarial balance, indicating a need for further reforms to bring the program into financial balance. As illustrated by the illustrative alternative projection, if the

annual productivity adjustments were to become unworkable over time and were overridden, the financial challenges would be much more severe.

(2) *Part B*

The illustrative alternative scenario for Part B assumes that (i) the physician payment update reductions required by the SGR system would be replaced with a 0-percent update for 2015 and increases of 0.6 percent annually in 2016 through 2022, and would grade up thereafter until average physician expenditures per beneficiary would increase at the same rate as per capita national health expenditures;<sup>25</sup> (ii) the productivity adjustments for many other Part B providers would be phased down beginning in 2020 until the estimated level of achievable health provider productivity (0.4 percent) was reached in 2034; and (iii) the cost reductions from the IPAB would be eliminated. The projected baseline scenario includes the physician payment update override assumptions, but it does not include the assumption of the phase-out of the productivity adjustments and the assumption of no IPAB cost reductions. Table 3 shows projected short-range Part B expenditures and growth rates under current law compared to the projected baseline and the illustrative alternative scenario.

**Table 3. Estimated Part B expenditures under the projected baseline and illustrative alternative scenario compared to current law, calendar years 2013-2023**

Calendar year	Current law		Projected baseline scenario			Illustrative alternative scenario		
	Expenditures (billions)	Growth rate	Expenditures (billions)	Growth rate	Percent of current-law expenditures	Expenditures (billions)	Growth rate	Percent of current-law expenditures
2013	\$247.1	2.7%	\$247.1	2.7%	100.0%	\$247.1	2.7%	100.0%
2014	262.8	6.4	262.8	6.4	100.0	262.8	6.4	100.0
2015	260.2	-1.0	268.9	2.3	103.3	268.9	2.3	103.3
2016	272.3	4.6	283.6	5.5	104.2	283.6	5.5	104.2
2017	292.1	7.3	303.0	6.8	103.7	303.0	6.8	103.7
2018	314.1	7.5	326.2	7.7	103.8	326.2	7.7	103.8
2019	338.4	7.7	352.3	8.0	104.1	352.3	8.0	104.1
2020	366.9	8.4	382.5	8.6	104.2	382.5	8.6	104.3
2021	397.3	8.3	414.3	8.3	104.3	414.5	8.3	104.3
2022	430.4	8.3	448.7	8.3	104.2	449.0	8.3	104.3
2023	465.4	8.1	485.2	8.1	104.2	485.8	8.2	104.4

Table 4 shows the estimated Part B premiums under current law compared with the projected baseline scenario and the illustrative alternative scenario for 2013 through 2023. The 2014 monthly Part B premium rate of \$104.90 is estimated for 2023 to rise to \$149.70 under current law, \$156.20 under the projected baseline, and \$156.40 under the illustrative alternative.

<sup>25</sup> This illustration effectively assumes that the SGR system would no longer be used to determine physician payments. In practice, many other approaches could be taken. In addition, Congress could legislatively change additional Medicare provisions to help offset the cost of any legislated increase in physician updates.

**Table 4. Estimated Part B premiums under current law, the projected baseline scenario, and the illustrative alternative scenario, calendar years 2013-2023**

Part B standard monthly premium			
Calendar year	Current law	Projected baseline scenario	Illustrative alternative scenario
2013	\$104.90	\$104.90	\$104.90
2014	104.90	104.90	104.90
2015	104.90	104.90	104.90
2016	104.90	106.50	106.50
2017	104.90	113.20	113.20
2018	111.00	119.20	119.10
2019	120.70	125.80	125.80
2020	127.50	133.00	133.00
2021	134.40	140.20	140.40
2022	141.90	148.00	148.00
2023	149.70	156.20	156.40

Table 5 shows the long-range Part B expenditure projections under current law, the projected baseline, and the illustrative alternative. It is customary to express long-range Part B costs as a percentage of GDP to facilitate interpretation and comparison of costs over such distant periods. As shown in table 5, the Part B cost in 2080 under the illustrative alternative projection would be 3.87 percent of GDP compared to 3.09 percent of GDP under the projected baseline, and 2.56 percent of GDP under current law.

**Table 5. Projected Part B expenditures as a percentage of Gross Domestic Product (GDP) under current law, the projected baseline scenario, and the illustrative alternative scenario, selected years 2013-2080**

Part B expenditures as a percentage of GDP			
Calendar year	Current law	Projected baseline scenario	Illustrative alternative scenario
2013	1.47%	1.47%	1.47%
2020	1.56	1.62	1.62
2030	2.14	2.24	2.29
2040	2.35	2.53	2.72
2050	2.38	2.66	2.98
2060	2.45	2.82	3.28
2070	2.53	2.99	3.61
2080	2.56	3.09	3.87

*(3) Total Medicare*

Total Medicare spending under the illustrative alternative projection includes the higher costs for Parts A and B resulting from the phase-down of the productivity adjustments and the elimination of the IPAB reductions. The Medicare payments to Part D plans and qualifying employers are not affected by the productivity adjustments (and only negligibly affected by the IPAB requirements) and are therefore nearly equal to the projected baseline projections emphasized in the 2014 Medicare Trustees Report.

Table 6 indicates the magnitude of the difference relative to the projected baseline projections by showing total Medicare expenditures as a percent of GDP. Under the projected baseline, Medicare spending is projected to be 3.72 percent of GDP in 2020 and to grow to 6.78 percent

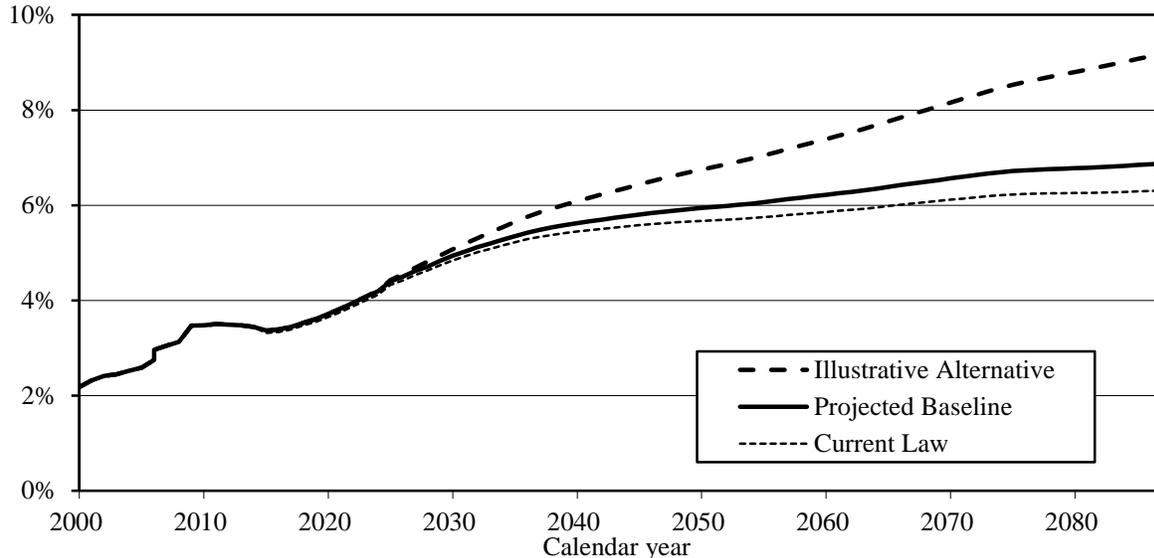
by 2080, while expenditures increase to 8.80 percent of GDP in the illustrative alternative projection.

**Table 6. Projected total Medicare expenditures as a percentage of Gross Domestic Product (GDP) under current law, the projected baseline scenario, and the illustrative alternative scenario, selected years 2013-2080**

Calendar year	Total Medicare expenditures as a percentage of GDP		
	Current law	Projected baseline scenario	Illustrative alternative scenario
2013	3.48%	3.48%	3.48%
2020	3.65	3.72	3.72
2030	4.84	4.94	5.08
2040	5.45	5.62	6.09
2050	5.67	5.94	6.75
2060	5.86	6.22	7.39
2070	6.12	6.56	8.16
2080	6.26	6.78	8.80

Figure 5 illustrates the large impact on Medicare expenditures in the long range from the steadily compounding effect of the current-law productivity adjustments to most provider payment updates. The comparison of the current-law, projected baseline, and illustrative alternative projection reflects this substantial difference in Medicare provider prices. This comparison is also affected by the assumed 0.6-percent updates for physician payments in 2014 through 2022 under the illustration, compared to the nearly 21-percent reduction required in 2015 and the subsequent physician payment update reductions under the current-law SGR system.

**Figure 5. Medicare expenditures as a percentage of Gross Domestic Product (GDP) under current law, projected baseline, and illustrative alternative projections**



Under current law, Medicare expenditures as a percentage of GDP would increase rapidly as the baby boom generation reaches eligibility age. After about 2040, however, the effects of the productivity adjustments (and, to a lesser degree, the impact of the SGR) would largely offset the

growth that would otherwise occur due to the aging of the beneficiary population, excess medical price inflation, and increases in the volume and intensity of Medicare services. In the absence of these reductions in payment rate updates, Medicare costs would continue to grow steadily as a percentage of GDP throughout the long-range period.

## **Conclusion**

The current-law Medicare projections likely understate the future cost of the program. The immediate physician fee reductions required under current law are clearly unworkable and are almost certain to be overridden by Congress. As a result, the projections emphasized throughout the 2014 Trustees Report reflect a projected baseline scenario that assumes an override to the SGR formula physician payment updates. The productivity adjustments will affect other Medicare price levels much more gradually, but a strong likelihood exists that, without very substantial and transformational changes in health care practices, payment rates would become inadequate in the long range. As a result, actual Medicare expenditures are likely to exceed the projections shown in the 2014 Trustees Report for the projected baseline, possibly by considerable amounts.

In practice, of course, lawmakers may enact any number of changes to the Medicare program in coming years. While some of these modifications are likely to address the adequacy of provider payment rates, others may be designed to reduce expenditure levels or growth rates in other ways that may be more sustainable over time. In view of the very substantial uncertainty associated with possible changes to Medicare, readers should interpret the current-law and projected baseline projections cautiously. For example, the Protecting Access to Medicare Act increased physician payments for April 2014 through March 2015 and removed the productivity adjustment from laboratory payment updates. The possibility of changes to the productivity adjustments for other provider payment updates is both less certain and more distant than the probable changes to physician payments—but the cumulative impact of these changes to the productivity adjustments could ultimately be much larger than the effect of continuing SGR system overrides.

Thus, neither the current-law projections nor the projected baseline scenario should be interpreted as the most likely expectation of actual Medicare financial operations in the future but rather as illustrations of the very favorable impact of permanently slower growth in health care costs, if such slower growth can be achieved. The illustrative alternative projection shown here helps to quantify this potential understatement.

While the substantial improvements in Medicare's financial outlook under the Affordable Care Act are welcome and encouraging, expectations must be tempered by awareness of the difficult challenges that lie ahead in improving the quality of care and making health care far more cost efficient. The sizable differences in projected Medicare cost levels among current law, the projected baseline scenario, and the illustrative alternative scenario highlight the critical importance of finding ways to bring Medicare costs—and health care costs in the U.S. generally—more in line with society's ability to afford them.

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