On May 17, 2017, the Senate Committee on the Budget convened a hearing at which Keith Hall, Director of the Congressional Budget Office, testified about the costs of operating the federal government. After the hearing, Chairman Enzi, Senator Van Hollen, and Senator Warner submitted questions for the record. This document provides CBO’s answers. It is available at www.cbo.gov/publication/52817.

Chairman Enzi

Question. You mentioned at the hearing that converting the defined benefit portion of the federal pension plans into a defined contribution would likely entail an up-front cost in the budget window, with savings achieved only beyond the budget window.

Do you believe that having the federal defined benefit pension plans (under both FERS and CSRS) scored on a cash-flow basis—instead of a long-term accrual basis—is the best way to capture the budgetary impact of these pension programs?

Do you think the current scoring methodology dissuades policy makers from appropriately considering the long-term impact of changes to these pension programs?

Answer. There is no single best way to capture the budgetary effects of federal pension plans. As required by law, the Congressional Budget Office estimates the budgetary effects of federal defined benefit pension plans on a cash basis—that is, transactions are recorded when annuity payments are made or revenues are received. Although that method recognizes the cost of outlays when they occur, it does not reflect the cost of expected future outlays when the commitment to make those outlays occurs.

Relative to cash estimates over a 10-year projection period, an accrual measure would offer three advantages:

- The cost of providing defined benefit annuities in the future would be recognized as employees earned those benefits. By contrast, cash-based measures do not recognize such costs until after workers leave federal service, making it difficult
to implement new policies that would change those costs without altering prior commitments.

- All forms of current and deferred compensation would be measured on a consistent basis, making the trade-offs between defined benefit pension plans and defined contribution pension plans clearer to policymakers.

- By summarizing long-term budgetary effects up front, an accrual measure would give policymakers a more accurate sense of whether proposed changes to deferred compensation would increase or decrease the deficit. That is particularly important when considering modifications to defined benefit pension plans because such plans involve commitments over long periods.

However, an accrual measure would also have some disadvantages:

- Cost estimates can vary substantially depending on the discount rate used for the accrual measure, which may make them less transparent than a cash-based measure.

- Accrual accounting also depends on decades of projections for future wages and inflation—which are highly uncertain. The farther into the future such projections extend, the greater the uncertainty.

- It generally requires more time and additional resources to provide the initial estimate of future costs and the periodic reestimates that would be required to reconcile actual cash flows with the initial estimate.

Senator Van Hollen

**Question.** In CBO’s April 25, 2017, report Comparing the Compensation of Federal and Private-Sector Employees, 2011 to 2015, the increase in employees’ contributions to their defined benefit pensions does not factor into the comparisons of benefits presented in this report because workers first hired after 2012 had not yet accumulated the five years of service needed to receive the defined benefit pension. Could you tell us how much smaller the difference between the sectors would have been if all federal workers over the 2011 to 2015 period were subject to the higher contribution rate of 4.4 percent?

**Answer.** The government's cost of total compensation—the sum of wages and benefits—for federal employees would have been about 2 percent lower if, during the 2011–2015 period, all of those workers had contributed 4.4 percent of their salaries to the Federal Employees Retirement System (FERS) annuity. Under the laws in place during that period, most employees contributed 0.8 percent of their salaries to the annuity, so the higher contribution rate would have reduced their compensation by an amount equal to about 3.6 percent of their salary. Because such wages represent about 60 percent of total compensation, on average, the government's cost would have fallen by about 2 percent. The percentage reduction in federal employees’ total compensation would be slightly larger for more educated workers.

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than for less educated workers because salaries are typically a larger percentage of total compensation for more educated workers.

The difference between the compensation of federal employees and that of similar private-sector workers varies widely depending on workers’ educational attainment. If federal workers had been subject to higher contribution rates, the difference between their compensation and that of private-sector employees would have been about 2 percentage points less than indicated in CBO’s April 2017 report. In particular:

- Among workers whose education culminated in a bachelor’s degree, the cost of total compensation would have averaged 19 percent more for federal workers than for similar workers in the private sector.

- Among workers with a high school diploma or less education, total compensation costs would have averaged 51 percent more for federal employees than for their private-sector counterparts.

- Total compensation costs among workers with a professional degree or doctorate, by contrast, would have been 20 percent lower for federal employees than for similar private-sector employees, on average.

Overall, the federal government would have paid 15 percent more in total compensation than it would have if average compensation had been comparable with that in the private sector, after accounting for certain observable characteristics of workers.

CBO’s estimate of the effect of higher employee contributions on compensation is uncertain for at least two reasons. First, if federal workers had been subject to the higher contribution rate between 2011 and 2015, employees who stopped working for the federal government might have been more likely to have their contributions refunded to them instead of eventually receiving an annuity. For some of those workers, the forgone annuity payments would have been less than the additional contributions they made. Other workers who highly value having more money to spend before retirement might have decided to forgo larger annuity payments that would have cost the government more than the refunded contributions.

Second, if federal workers had been subject to the higher contribution rate, some of them might have left federal employment, which might have increased or decreased total compensation, on average. Most of those workers would probably have left earlier because the higher contributions would have made federal employment less attractive when compared with nonfederal jobs, retirement, or other alternatives. Other federal employees might have extended their service because the higher contributions would make an earlier retirement harder to afford. The way in which those shifts in retention changed average compensation would depend on the characteristics of the affected employees because the cost of the FERS annuity varies considerably with the worker’s age and years of service.

The increase in contributions made by employees hired after December 31, 2013, will eventually lead to a reduction in compensation for federal employees, holding all else equal, but it is unclear how their compensation will compare with that of their private-sector counterparts in the future. The full reduction in federal compensation will not be realized for several decades (that is, until the entire federal workforce consists of people hired after
Forecasts of differences between federal and private-sector compensation that far into the future are subject to considerable uncertainty.

Senator Warner

Question. In the wake of the budget deal reached in Congress a few weeks ago, President Trump said that “our country needs a good shutdown in September to fix [this] mess.” I find that statement extraordinarily reckless and shortsighted.

Over 170,000 federal workers call Virginia home. A shutdown is not just a temporary inconvenience for them. A government shutdown means they don’t get a paycheck. It means that small businesses that contract for the government aren’t paid. Shutdowns hurt our economy and negatively affect all Americans.

Furthermore, when government employees are diverted to planning for and executing shutdown and startup activities, thousands of employee hours are wasted. This hearing is titled “Running the Government for Less.” I believe simply keeping our government running instead of shutting it down or going to the brink of a shutdown is one way to reduce costs.

A. What sort of impact does a government shutdown have on our economy and on the costs of running the federal government?

B. Does the mere threat of a shutdown have an impact on the U.S. economy?

Answer. CBO has not explicitly calculated the costs of shutdowns, continuing resolutions, or near breaches of the debt ceiling. However, the Congressional Research Service (CRS) and the Government Accountability Office (GAO) have both produced useful material relating to government shutdowns.3 For instance, CRS issued a report in 2015 about studies that assessed the effects of the October 2013 shutdown.4 According to that report, economic forecasters found that the two-and-a-half-week shutdown directly affected the economy by modestly reducing economic output around that time. However, any such loss in output was subsequently recouped, so the overall effect on the economy was minimal. A longer shutdown would probably increase the loss in economic output that could not be recovered.

There might be other, indirect, effects on the economy that stem from heightened uncertainty about the occurrence or possibility of a government shutdown, but such effects are much harder to estimate. In general, households’ and businesses’ uncertainty about fiscal and regulatory policies tends to dampen economic output. However, quantifying that uncertainty and identifying its sources is difficult. Possible sources of recent uncertainty include disagreement among policymakers about whether to extend certain key provisions governing fiscal policy, the debate about how to put debt on a sustainable path, the protracted debate


about rules for implementing major legislation in the health care and financial sectors, possible changes in rules related to energy and the environment, and the unpredictability of the appropriation process. Those and other sources of uncertainty have probably dampened growth, but CBO has not estimated to what extent.

**Question.** I have long been concerned with the danger posed by our country’s national debt, which is currently just shy of $20 trillion. Since the financial crisis in 2008, record low interest rates have kept debt payments low and mitigated the cost of our growing debt.

As interest rates go up, I think more and more people will realize the threat posed by the debt. Our debt has grown so large that if interest rates go up 1 percent, or 100 basis points—and they will at some point—that adds $140 billion per year in additional debt servicing.

By 2029, every dollar of tax revenue will go to auto-pilot spending—debt payments, Social Security, Medicare, and other non-discretionary spending. That means that every dollar we spend on public investment—things like infrastructure, research, education—and defense will be borrowed money.

A. Can you explain the impact of rising interest rates on our federal budget?

**Answer.** CBO has written frequently about the potential negative consequences of high and rising debt, as well as the interest costs associated with servicing that debt. The economic projections underlying CBO’s most recent baseline (the agency’s projections of revenues and outlays, if current laws remained generally unchanged) include rising interest rates. Along with greater amounts of debt, escalating interest rates would cause net interest outlays to rise from $295 billion (1.5 percent of gross domestic product) in 2018 to $768 billion (2.7 percent of GDP) in 2027. Such a path for interest and the debt could have significant long-term consequences, both for the economy and for the federal budget.

Interest rates could be higher or lower than in CBO’s projections. For example, CBO estimates that if interest rates were 1 percentage point higher than projected in the baseline and all other economic variables were unchanged, the deficit would progressively worsen over the projection period by amounts increasing from $71 billion in 2018 to $262 billion in 2027. The cumulative deficit for the 2018–2027 period would be $1.6 trillion higher.

Most of that increase would arise because of the higher interest rates on the debt that the Treasury is projected to issue in the baseline. Specifically, as the Treasury replaced maturing securities and increased borrowing to cover future deficits, the budgetary effects of higher interest rates would mount. Under that scenario, the added costs of higher interest rates on the debt projected in CBO’s baseline would reach $210 billion in 2027 and would total $1.3 trillion over the 2018–2027 period.

The larger deficits generated by the increase in interest rates would require the Treasury to borrow more than it is projected to borrow in the baseline. That additional borrowing would raise the cost of servicing the debt by amounts that would reach $63 billion in 2027 and total $264 billion over the 2018–2027 period.