THE CONGRESSIONAL BUDGET OFFICE'S BUDGET AND ECONOMIC OUTLOOK

HEARING

BEFORE THE

COMMITTEE ON THE BUDGET
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

HEARING HELD IN WASHINGTON, D.C., JANUARY 29, 2019

Serial No. 116–1

Printed for the use of the Committee on the Budget

Available on the Internet:
www.govinfo.gov

U.S. GOVERNMENT PUBLISHING OFFICE
35–565 WASHINGTON : 2019

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THE CONGRESSIONAL BUDGET OFFICE'S BUDGET AND ECONOMIC OUTLOOK

TUESDAY, JANUARY 29, 2019

HOUSE OF REPRESENTATIVES,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The committee met, pursuant to call, at 9:45 a.m., in Room 1334, Longworth House Office Building, Hon. John Yarmuth [Chairman of the Committee] presiding.

Present: Representatives Yarmuth, Higgins, Khanna, DeLauro, Doggett, Price, Schakowsky, Kildee, Morelle, Scott, Jayapal, Omar, Lee, Boyle, Horsford, Womack, Johnson, Holding, Stewart, Norman, Roy, Meuser, Timmons, Crenshaw, Hern, Burchett, Woodall, and Smith.

Chairman YARMUTH. So we will now proceed immediately to the CBO budget. We are going to now proceed immediately to the CBO Budget and Economic Outlook hearing. We invite Dr. Hall to join us at the witness table. Welcome, Dr. Hall.

I now yield myself 5 minutes for the opening statement. Oh, yes. I've gotten to use the gavel. The hearing will come to order. Once again, welcome, Director Hall. Thank you for joining us today and for all of the work you and everyone at CBO has done to update the baseline and economic outlook that will help guide our work this year. Since today was supposed to be the original day of the President's State of the Union address, let's start by acknowledging what should be obvious: The State of our Union is unsustainable. Deficit projections over the next decade are unrivaled by any time in our Nation's history, save for World War II and the immediate aftermath of the Great Recession. Only this time, we weren't responding to an emergency; we created one. We are not in this situation because we were forced to make a tough choice to save the American people.

No, we are facing this bleak fiscal reality because this President, and the so-called fiscal conservatives in his party, chose to squander our Nation's wealth and solvency, to exacerbate record income inequality, to take resources from those in need so they could bolster the already wealthy with reckless tax cuts for millionaires and multinational corporations.

Director Hall, you project a deficit this year that is $118 billion higher than last year. Average deficits over the next decade are projected to rise. The national debt is expected to reach 93 percent of GDP by 2029 before rising to an unprecedented 150 percent of GDP in 2049. This is despite the fact that the economy is undergoing the second longest expansion on record, 114 months of economic growth since 2009.

Beginning under President Obama, we have had 99 months of uninterrupted job creation with unemployment falling to historic lows. But despite all this good news, our fiscal future is getting darker, not brighter, and the reason is clear.

Just over a year ago, Congress passed a tax bill that showered the bulk of its benefits on corporations and the wealthy. My Republican colleagues didn't mind that our economy was healthy and the wealthy were doing just fine. They promised these tax cuts would trickle down to everyone else, unleashing miraculous economic growth and long overdue raises for workers. Even better, we would get all of this for free. The reality: a burst of welcome, but very brief economic growth, followed by greater income inequality, and exploding deficits.

This outcome was not a surprise. Republicans have cut taxes and sent deficits soaring time and time again. But this time around, they hit a new record. Corporations took the tax cuts handed to them and bought back more than $1 trillion worth of their own stock. Not $1 trillion worth of worker bonuses, or $1 trillion for raises when wages have been stagnant for decades, not even $1 trillion of new investment to expand business operations.

In last year's report, CBO put the cost of the tax law at $1.9 trillion over 10 years even after accounting for macroeconomic effects. Those numbers indicated that had we not passed it, the deficit outlook would have improved considerably, and the economy would likely be stronger. In fact, your report, Director Hall, confirmed that the tax cuts will reduce our economic growth rates by the end of the decade. This new forecast further confirms that inescapable reality.

And we know how this story continues. My friends on the other side of the aisle will point to Social Security, Medicare and Medicaid as the culprits of the deficit. They will call for deep cuts to these and other vital programs in order to reduce the deficit they exploded. They will call for a balanced budget and ignore the role their tax cuts played in damaging the fiscal outlook.

Make no mistake: as this and previous CBO reports have warned, we face serious challenges, serious fiscal challenges going forward. From caring for an aging population to mitigating the financial costs of a warming climate, to making the investments we need to compete in a global economy and help American families succeed, the Federal budget will be increasingly strained.

These are the real problems that demand real solutions, and they will require a fair and responsible approach that includes revenue, that tackles the causes of high healthcare costs, and that improves efficiency of Federal spending without harming seniors' retirement security or imposing more burdens on struggling families.

Returning us to a sustainable fiscal trajectory will require smarter use of the Nation's fiscal resources, and that is what I hope to do this year as Chairman of the Committee. I want our committee to help shine a bright spotlight on the reality of the situation we face, to fully vet the choices we have, and then set the stage to make the most responsible decisions as a Congress.

Director Hall, thank you for helping us begin that conversation. I look forward to hearing your testimony, and I now yield to the Ranking Member for his opening statement.

[The prepared statement of Chairman Yarmuth follows:]

Yarmuth Opening Statement
The Congressional Budget Office's Budget and Economic Outlook

January 29, 2019

Welcome Director Hall. Thank you for joining us today, and for all of the work you and everyone at CBO has done to update the baseline and economic outlook that will help guide our work this year.

Since today was supposed to be the original day of the president's State of the Union address, let's start by acknowledging what should be obvious. The State of our Union is unsustainable. Deficit projections over the next decade are unrivaled by any time in our nation's history save for World War II and the immediate aftermath of the Great Recession. Only this time, we weren't responding to an emergency, we created one. We're not in this situation because we were forced to make a tough choice to save the American people, no. We're facing this bleak fiscal reality because this president and the so-called fiscal conservatives in his party chose to squander our nation's wealth and solvency, to exacerbate record income inequality, to take resources from those in need so they could bolster the already wealthy with reckless tax cuts for millionaires and multinational corporations.

Director Hall, you project a deficit this year that is $118 billion higher than last year. Average deficits over the next decade are projected to rise. The national debt is expected to reach 93 percent of GDP by 2029, before rising to an unprecedented 150 percent of GDP in 2049.

This is despite the fact that the economy is undergoing the second-longest expansion on record – 114 months of economic growth since 2009. Beginning under President Obama, we have had 99 months of uninterrupted job creation, with unemployment falling to historic lows. But despite all this good news, our fiscal future is getting darker, not brighter - and the reason is clear.

Just over a year ago, Congress passed a tax bill that showered the bulk of its benefits on corporations and the wealthy. My Republican colleagues didn't mind that our economy was healthy, and the wealthy were doing just fine. They promised these tax cuts would trickle down to everyone else, unleashing miraculous economic growth and long-overdue raises for workers. Even better: we would get all of this for free.

The reality. A burst of welcome – but very brief – economic growth. Followed by greater income inequality, and exploding deficits.

This outcome was not a surprise. Republicans have cut taxes and sent deficits soaring time and time again. But this time around, they hit a new record. Corporations took the tax cuts handed to them and bought back more than $1 trillion worth of their own stock. Not a trillion dollars worth of worker bonuses, or a trillion dollars for raises when wages that have been stagnant for decades. Not even a trillion dollars of new investment to expand business operations.

In last year's report, CBO put the cost of the tax law at $1.9 trillion over 10 years – even after accounting for macroeconomic effects. Those numbers indicated that had we not passed it, the deficit outlook would have improved considerably. And the economy would likely be stronger. In fact, your report confirmed that the tax cuts will reduce our economic growth rates by the end of the decade. This new forecast further confirms that inescapable reality.

And we know how this story continues. My friends on the other side of the aisle will point to Social Security, Medicare, and Medicaid as the culprits of the deficit. They will call for deep cuts to these and other vital programs in order to reduce the deficit they exploded. They will call for a balanced budget and ignore the role their tax cuts played in damaging the fiscal outlook.

Make no mistake: As this, and previous, CBO reports have warned, we face serious fiscal challenges going forward. From caring for an aging population to mitigating the financial costs of a warming climate, to making the investments we need to compete in a global economy and help American families succeed, the federal budget will be increasingly strained. These are real problems that demand real solutions. And they will require a fair and responsible approach that includes revenue, that tackles the causes of high health care costs, and that improves efficiency of federal spending without harming seniors' retirement security or imposing more burdens on struggling families.

Returning us to a sustainable fiscal trajectory will require smarter use of the nation's fiscal resources and that is what I hope to do this year as Chairman of this Committee. I want our Committee to help shine a bright spotlight on the reality of the situation we face, to fully vet the choices we have and then set the stage to make the most responsible decisions as a Congress.

Director Hall, thank you for helping us begin that conversation. I look forward to hearing your testimony.

Mr. WOMACK. I thank the gentleman. Good morning, and thanks to everyone for being here as we discuss the CBO's annual budget and economic outlook report. The goal of today's hearing is to analyze the CBO's latest baseline projections. These findings shed light on our Nation's current fiscal challenges and guide us in mapping out a sustainable path for the future. This year's baseline brings daunting news with deficits projected to be $1.37 trillion by 2029 and debt reaching almost $34 trillion. While these numbers paint a sobering picture, it does not have to be America's future. Without question, we must create a new path forward.

Mandatory spending is clearly driving up deficits and debt. Our Nation's fiscal trajectory will remain unchanged if we don't address this sobering fact. And this is not only my deduction. CBO has stated in the past that revenue alone will not solve this problem.

In his testimony last year, Director Hall said that increases in entitlement spending are the largest drivers of the increase in the deficit going forward. Unfortunately, it seems that my colleagues on the other side of the aisle don't recognize the severity of this problem, or if they do, I haven't seen their plan to fix it.

So my question is pretty simple: What is your plan? I am curious to learn how can you reconcile your desire for astronomical spending increases with a need to address the issue of our ballooning national debt. Medicare for all, free college, and other initiatives touted by my Democratic colleagues will exacerbate our Nation's fiscal problems.

Rather than encouraging spending that will financially drive our country to the ground, Congress needs to face mandatory spending head on. Here is the reality: Our largest entitlement programs are facing insolvency. If we do nothing, they go under. Let me say that again. If we do nothing, if we maintain the status quo, they fail.

Now instead of fixing these programs, the new majority wants to expand them. This is irresponsible. We are facing a sovereign debt crisis that we know is coming. So again I ask, what is your plan? I assume it is to raise taxes. I have heard some would like to raise individual rates to 70 percent, possibly increase the corporate rate from 21 to 28 percent. Is that the plan, to drastically increase taxes to pay for out-of-control spending? Let me be clear, we cannot tax our way out of this problem.

Again, as CBO previously outlined, the biggest budget challenges lie in mandatory spending. If we don't address these drivers of debt, our march towards fiscal insolvency will not stop. My guess is that Director Hall will reiterate this point in this morning's hearing, as well as the fact that revenue isn't the solution. We need to work together to confront our growing debt burden and mandatory spending issues.

So I ask one last time, do you think the deficit and debt projection released by the CBO is concerning? If you do, and I hope you do, what is your plan to address these issues?

We have a moral obligation to future generations to get our fiscal house in order. I hope all committee members agree with that. I look forward to productive conversations today with Dr. Hall and my colleagues. Thank you, and with that, I yield back to the distinguished Chairman.

[The prepared statement of Steve Womack follows:]

Ranking Member Womack Opening Remarks for CBO Budget and Economic Outlook Hearing

Remarks As Prepared For Delivery:

Good morning, and thank you to everyone for being here as we discuss the Congressional Budget Office's annual *Budget and Economic Outlook* Report. The goal of today's hearing is to analyze the CBO's latest baseline projections. These findings shed light on our nation's current fiscal challenges and guide us in mapping out a sustainable path for the future.

This year's baseline brings daunting news, with deficits projected to be 1.37 trillion dollars by 2029, and debt reaching 33.7 trillion dollars. While these numbers paint a sobering picture, it does not have to be America's future. Without question, we must create a new path forward.

Mandatory spending is clearly driving up deficits and debt. Our nation's fiscal trajectory will remain unchanged if we don't address this fact. This is not only my deduction. CBO has stated in the past that revenue alone will not solve this problem. In his testimony last year, Director Hall said that increases in entitlement spending are the largest drivers of the increase in the deficit going forward. Unfortunately, it seems that my colleagues on the other side of the aisle don't recognize the severity of this problem -- or if they do, I haven't seen their plan to fix it.

So my question is, what is your plan?

I'm curious to learn, how can you reconcile your desire for astronomical spending increases with the need to address the issue of our ballooning national debt? Medicare-for-All, "free college" and other initiatives touted by my Democratic colleagues will exacerbate our nation's fiscal problems. Rather than encouraging spending that will financially drive our country to the ground, Congress needs to face mandatory spending head on.

Here is the reality: Our largest entitlement programs are facing insolvency. If we do nothing they will go under. Now, instead of fixing these programs, the new majority wants to expand them. This is irresponsible. We are facing a sovereign debt crisis – we know it's coming.

So again I ask, what is your plan?

I assume it is to raise taxes. I've heard some would like to raise individual rates to 70% and possibly increase the corporate rate from 21% to 28%. Is that the plan? To drastically increase taxes to pay for out-of-control spending? Let me be clear, we cannot tax our way out of this problem. Again, as CBO previously outlined -- the biggest budget challenges lie in mandatory spending. If we don't address these drivers of debt, our march towards fiscal insolvency won't stop. My guess is that Director Hall will reiterate this point, as well as the fact that revenue isn't the solution.

We need to work together to confront our growing debt burden and mandatory spending issues. So I ask one last time, do you think the deficit and debt projection released by the CBO is concerning? If you do – which I hope you do – what is your plan to address these issues?

We have a moral obligation to future generations to get our fiscal house in order. I hope all committee members agree with that. I look forward to productive conversations today with Dr. Hall and my colleagues. Thank you, and with that, I yield back to Chairman Yarmuth.

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Chairman YARMUTH. Thank you, Mr. Womack. And now it is my great honor to formally introduce, once again, Director Keith Hall of CBO. And, Director Hall, the floor is yours. You are recognized for 5 minutes.

STATEMENT OF KEITH HALL, PH.D., DIRECTOR, CONGRESSIONAL BUDGET OFFICE

Mr. HALL. Thank you. Chairman Yarmuth, Ranking Member Womack, and members of the committee, thank you for inviting me to testify about the Congressional Budget Office's most recent analysis of the outlook for the budget and the economy.

I would like to draw your attention to important information in that report about the amount of debt that the Federal Government will incur if we continue on the current budgetary path. I want to focus on four questions.

The first question: What does CBO project? Let me highlight a few key numbers. At the end of 2018, the amount of debt held by the public was equal to 78 percent of gross domestic product. In CBO's projections, debt equals 93 percent of GDP by 2029, and about 150 percent of GDP in 30 years. Even at its highest point ever, just after World War II, debt was far less than that, at just 106 percent of GDP.

Second question: Why does debt become so large in CBO's projections? I hopefully—we used something new this time. You can see the answer in the summary of the report. We have given you a handout that has a visual summary. Hopefully you have got that in front of you. I am going to refer to a couple of pictures. I apologize if you don't have it, or I apologize for it being difficult to see. This year, we summarized it in some charts to try to be helpful. The figure on the bottom of the first page indicates why debt is growing. Federal spending and revenues both grow through 2029, yet the gap between them persists.

Third question: What would happen if the economy grew more quickly? If GDP grew more quickly than it does in CBO's projections, revenues will increase more than spending would, and deficits would be smaller than projected. If economic growth was fast enough, deficits could actually shrink and debt could stabilize, or even fall as a percentage of GDP rather than continuing to grow. But such an outcome is unlikely.

In 2018, the real growth rate of the economy, that is growth with the effects of inflation removed, was 3.1 percent, the highest rate since 2005. Nevertheless, the deficit equaled 3.8 percent of GDP, and debt increased as a percentage of GDP. Furthermore, this year, the boost that recent tax legislation gave to business investment wanes in CBO's projections. Also, Federal purchases dropped sharply under current law starting in the fourth quarter of the year. As a result, economic growth is projected to slow in 2019.

Over the longer term, output growth is projected to be lower than its long-term historical average because the working age population is expected to grow more slowly than it did in the past. Real GDP grows by an average of 1.8 percent per year in CBO's 10-year projection. In short, the economy isn't likely to grow quickly enough to shrink the budget deficit.

We have posted an interactive workbook on our website that lets you specify different economic scenarios and see the results. For example, if productivity growth turned out to be half a percentage point higher in every year than CBO projects, real GDP would grow by 2.4 percent per year over the coming decade instead of 1.8 percent. Deficits would average 3.7 percent of GDP instead of 4.4 percent of GDP, and debt would stabilize at roughly 80 percent of GDP by 2029. Such economic growth is possible, but it is not likely under current law in our assessment.

CBO aims for its projections to be in the middle of the potential outcomes, so there is about the same chance that productivity growth could turn out to be half a percentage point lower than our projection. If that happens, real GDP growth could average 1.1 percent over the decade and average deficits would be 5.2 percent of GDP. Debt would swell even more than it does in our current projections.

Fourth question: What are the consequences of high and rising debt? If debt rose to the amounts that CBO projects, there would be troubling consequences.

First, as interest rates continue to rise towards levels more typical than today's, Federal spending on interest payments would increase, surpassing the entire amount of defense spending by 2025 in our projections, for example.

Second, because Federal borrowing reduces national savings over time, the Nation's capital stock would ultimately be smaller and productivity and total wages would be lower than would be the case if debt were smaller.

Third, lawmakers would have less flexibility than otherwise to use tax-and-spend policies to respond to unexpected challenges.

And fourth, the likelihood of a fiscal crisis in the United States would increase.

In closing, I will emphasize that debt is on an unsustainable course in CBO's projections. To put it on a sustainable one, lawmakers will have to make significant changes to tax and spending policies.

I am happy to answer your questions.

[The prepared statement of Keith Hall follows:]

Congressional Budget Office

Testimony

The Budget and Economic Outlook: 2019 to 2029

Keith Hall
Director

Before the
Committee on the Budget
United States House of Representatives

January 29, 2019

This document is embargoed until it is delivered at 10:00 a.m. (EST) on Tuesday, January 29, 2019. The contents may not be published, transmitted, or otherwise communicated by any print, broadcast, or electronic media before that time.

Chairman Yarmuth, Ranking Member Womack, and Members of the Committee, thank you for inviting me to testify about the Congressional Budget Office's most recent analysis of the outlook for the budget and the economy, which we released yesterday. This testimony includes information about that report and answers to some related questions.

Information About the Report

Today I'd like to draw your attention to important information in our report about the amount of debt that the federal government will incur if we continue on the current budgetary path. I'm going to focus on four questions.

What Does CBO Project?

Federal debt is already large, and budget deficits over the next decade and beyond are projected to keep pushing it up in relation to the size of the economy. Eventually, debt as a share of economic output would reach its highest level in our nation's history. Let me highlight a few key numbers:

- At the end of 2018, the amount of debt held by the public was equal to 78 percent of gross domestic product (GDP).
- In CBO's projections, debt equals 93 percent of GDP by 2029 and about 150 percent of GDP by 2049.
- Even at its highest point ever, just after World War II, debt was far less than that: 106 percent of GDP.

Why Does Debt Become So Large in CBO's Projections?

You can see the answer in the summary of the report. This year we've summarized our findings in a new way, using the charts in the report to illustrate some key messages. The figure on the bottom of the first page of the handout in front of you indicates why debt grows: Federal spending and revenues both grow through 2029, yet the gap between them persists.

On the spending side, growth is driven by benefits for older people and by interest costs.

- Outlays for Social Security and Medicare increase significantly in CBO's baseline projections. As members of the baby-boom generation age, the number of people at least 65 years old—who are the main beneficiaries of that spending—is expected to grow by about one-third, and their health care costs will continue to rise.
- Interest costs are also projected to rise, primarily because of increases in federal borrowing and higher interest rates.

As for revenues, they too are projected to increase through 2029, partly because of the scheduled expiration of some tax cuts at the end of 2025. However, that growth in revenues is not enough to keep deficits from being significantly larger than they have been over the past 50 years.

In CBO's projections, the average deficit over the next 10 years equals 4.4 percent of GDP. That average deficit is not only large but also unusual for times of low unemployment—in contrast to times of high unemployment, when the government sometimes implements policies aiming to stabilize the economy, causing deficits to be larger.

What Would Happen If the Economy Grew More Quickly?

If GDP grew more quickly than it does in CBO's projections, revenues would increase more than spending would, and deficits would be smaller than projected. If economic growth was fast enough, deficits could actually shrink, and debt could stabilize or even fall as a percentage of GDP rather than continuing to grow.

But such an outcome is unlikely. In 2018, the real growth rate of the economy—that is, growth with the effects of inflation removed—was 3.1 percent, the highest rate since 2005. Nevertheless, the deficit equaled 3.8 percent of GDP, and debt increased as a percentage of GDP.

Furthermore, this year the boost that recent tax legislation gave to business investment wanes in CBO's projections. Also, federal purchases drop sharply under current law, starting in the fourth quarter of the year. As a result, economic growth is projected to slow in 2019. Over the longer term, output growth is projected to be lower than its long-term historical average because the working-age population is expected to grow more slowly than it did in the past. Real GDP grows by an average of 1.8 percent per year in CBO's 10-year projections. In short, the economy isn't likely to grow quickly enough to shrink the budget deficit.

We have posted an interactive workbook on our website that lets you specify different economic scenarios and see the results. For example, if productivity growth turned out to be half a percentage point higher in every year than CBO projects, real GDP would grow by 2.4 percent per year over the coming decade instead of by 1.8 percent. Deficits would average 3.7 percent of GDP instead of 4.4 percent. And debt would stabilize at roughly 80 percent of GDP by 2029. Such economic growth is possible, but it is not likely under current law, in CBO's assessment.

CBO aims for its projections to be in the middle of potential outcomes. So there is about the same chance that productivity growth could turn out to be half a percentage point lower than CBO projects. If that happened, real GDP growth would average 1.1 percent over the next decade, average deficits would be 5.2 percent of GDP, and debt would swell even more than it does in CBO's projections.

What Are the Consequences of High and Rising Debt?

If debt rose to the amounts that CBO projects, there would be troubling consequences.

- First, as interest rates continued to rise toward levels more typical than today's, federal spending on interest payments would increase—surpassing the entire amount of defense spending by 2025 in CBO's baseline projections, for example.

- Second, because federal borrowing reduces national saving over time, the nation's capital stock ultimately would be smaller, and productivity and total wages would be lower, than would be the case if debt was smaller.

- Third, lawmakers would have less flexibility than otherwise to use tax and spending policies to respond to unexpected challenges.

- Fourth, the likelihood of a fiscal crisis in the United States would increase.

In closing, I will emphasize that debt is on an unsustainable course in CBO's projections. To put it on a sustainable one, lawmakers will have to make significant changes to tax and spending policies—making revenues larger than they would be under current law, making spending for large benefit programs smaller than it would be under current law, or adopting some combination of those approaches.

What Are the Effects of the Partial Government Shutdown?

CBO has estimated the effects of the five-week partial shutdown of the government that started on December 22, 2018, and ended on January 25, 2019.[1] CBO's findings include the following:

- CBO estimates that the five-week shutdown delayed approximately $18 billion in federal discretionary spending for compensation and purchases of goods and services and suspended some federal services.

- As a result of reduced economic activity, CBO estimates, real GDP in the fourth quarter of 2018 was reduced by $3 billion (in 2019 dollars) in relation to what it would have been otherwise. (Such references are in calendar years or quarters.) In the first quarter of 2019, the level of real GDP is estimated to be $8 billion lower than it would have been—an effect reflecting both the five-week partial shutdown and the resumption in economic activity once funding resumed.

- As a share of quarterly real GDP, the level of real GDP in the fourth quarter of 2018 was reduced by 0.1 percent, CBO estimates. And the level of real GDP in the first quarter of 2019 is expected to be reduced by 0.2 percent.[2] (The effect on the *annualized* quarterly growth rate in those quarters will be larger.)[3]

- In subsequent quarters, GDP will be temporarily higher than it would have been in the absence of a shutdown. Although most of the real GDP lost during the fourth quarter of 2018 and the first

1. Congressional Budget Office, *The Effects of the Partial Shutdown Ending in January 2019* (January 2019), www.cbo.gov/publication/54937.

2. The economic forecast that CBO released in *The Budget and Economic Outlook: 2019 to 2029* was completed before the partial shutdown of the federal government began. Therefore, that forecast does not incorporate any of the shutdown's economic effects. See Congressional Budget Office, *The Budget and Economic Outlook: 2019 to 2029* (January 2019), www.cbo.gov/publication/54918.

3. To annualize an amount is to adjust it so that it applies to an entire year.

quarter of 2019 will eventually be recovered, CBO estimates that about $3 billion will not be. That amount equals 0.02 percent of projected annual GDP in 2019. In other words, the level of GDP for the full calendar year is expected to be 0.02 percent smaller than it would have been otherwise.

- Underlying those effects on the overall economy are much more significant effects on individual businesses and workers. Among those who experienced the largest and most direct negative effects are federal workers who faced delayed compensation and private-sector entities that lost business. Some of those private-sector entities will never recoup that lost income.

- All of the estimated effects and their timing are subject to considerable uncertainty. In particular, CBO is uncertain about how much discretionary spending was affected by the partial shutdown, how affected federal employees and contractors adjusted their spending in response to delayed compensation, and how agencies will adjust their spending on goods and services now that funding has resumed.

In CBO's estimation, the shutdown dampened economic activity mainly because of the loss of furloughed federal workers' contribution to GDP, the delay in federal spending on goods and services, and the reduction in aggregate demand (which thereby dampened private-sector activity).[4]

CBO's estimates do not incorporate other, more indirect negative effects of the shutdown, which are more difficult to quantify but were probably becoming more significant as it continued. For example, some businesses could not obtain federal permits and certifications, and others faced reduced access to loans provided by the federal government. Such factors were probably beginning to lead firms to postpone investment and hiring decisions. In addition, risks to the economy were becoming increasingly significant as the shutdown continued. Although their precise effects on economic output are uncertain, the negative effects of such factors would have become increasingly important if the partial shutdown had extended beyond five weeks.

4. In CBO's estimates, workers who were required to continue to work at agencies that did not have funding contributed to real GDP during the shutdown, while furloughed workers did not—an approach that accords with the methods typically used by the Bureau of Economic Analysis to measure real GDP.

What Are the Effects of Recent Changes in Trade Policy?

In 2018, the United States imposed new tariffs on 12 percent of imported goods. Some of those tariffs were on goods and commodities, such as solar panels and steel, imported from most countries, and others were only on various products imported from China. The new tariffs range from 10 percent to 30 percent of the imports' assessed customs values. In response, U.S. trading partners imposed tariffs on 9 percent of all goods exported by the United States.

CBO's baseline projections incorporate the assumption that all newly *implemented* changes to trade policy, both domestic and foreign, are permanent and that *scheduled* changes to trade policy do not take effect. The Administration possesses broad authority to adjust tariff policy without legislative action, but CBO did not attempt to predict those adjustments.

On net, CBO estimates that the new tariffs on both imports and exports will reduce U.S. real GDP by about 0.1 percent, on average, through 2029. The changes in trade policy also increase uncertainty among investors, which may further reduce U.S. output. CBO's estimates of the economic effects of the new tariffs are subject to considerable uncertainty, particularly over the longer run.

In addition to their broad effects on the economy, the new tariffs are projected to boost customs duties. Such duties have equaled 0.2 percent of GDP in recent years, amounting to $41 billion in 2018. In CBO's baseline projections, they increase to 0.3 percent of GDP in 2019 and remain between 0.3 percent and 0.4 percent of GDP through the next decade. (For additional details, see Box 2-1 in yesterday's report.)

How Does CBO Make Projections of Immigration and Its Effects?

Underlying CBO's baseline projections are estimates of many demographic factors, including immigration. CBO estimates the annual net flows of three kinds of immigrants: legal permanent residents, legal temporary residents, and foreign-born individuals without legal status. The agency's estimates are informed by analyses of recent trends and current immigration policy. CBO's baseline projections incorporate the following estimates:

- Annual net flows of legal permanent residents grow at an average rate of about 0.4 percent per year over the next 10 years, averaging approximately 860,000 per year.

- Annual net flows of legal temporary residents remain steady at approximately 80,000 per year over the next decade.

- Annual net flows of foreign-born individuals without legal status increase over the next five years, from zero in 2019 (meaning that immigration is offset by emigration) to about 170,000 in 2024. After that, annual net flows remain about the same through 2029.

All told, in CBO's projections, net immigration to the United States—a measure that accounts for all people who either enter or leave the country in any year—grows by an average of 2.0 percent per year over the next decade.

In estimating the budgetary effects of proposed legislation related to immigration, CBO and the staff of the Joint Committee on Taxation start with the baseline projections and then examine many aspects of the legislation, including the immigration status of affected people, where they currently live, and factors related to their employment and their use of federal benefits. Such factors include the ways in which the legislation would change people's eligibility for federal benefits and ability to work, which are defined in current law. They also include the ways in which the legislation would affect people's behavior.

The Budget and Economic Outlook: 2019 to 2029 is one in a series of reports on the state of the budget and the economy that CBO issues each year. The report satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. This testimony highlights key issues related to that report.

In accordance with CBO's mandate to provide objective, impartial analysis, neither that report nor this testimony makes any recommendations. Both publications are available on CBO's website, at www.cbo.gov/publication/54918 and www.cbo.gov/publication/54944, respectively.

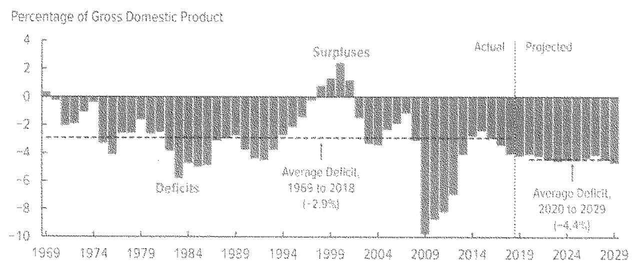
Keith Hall
Director

A Visual Summary of *The Budget and Economic Outlook: 2019 to 2029*

Congressional Budget Office
Nonpartisan Analysis for the U.S. Congress
January 2019

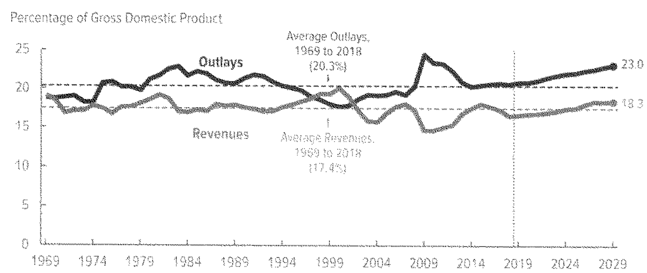
In a report issued each year, the Congressional Budget Office provides projections of the federal budget and the U.S. economy under current law for that year and the following decade. The deficits projected in the latest edition are smaller than those in the projections that CBO published last spring, primarily because funding for emergencies is now projected to be lower. The agency's economic forecast has changed little since it was last updated in August 2018.

Deficits CBO projects a 2019 deficit of about $900 billion, or 4.2 percent of gross domestic product (GDP). The projected shortfall (adjusted to exclude the effects of shifts in the timing of certain payments) rises to 4.7 percent of GDP in 2029.



See Figure 1-1

Over the 2020–2029 period, deficits are projected to average 4.4 percent of GDP, totaling $11.6 trillion. Such deficits would be significantly larger than the 2.9 percent of GDP that deficits averaged over the past 50 years.

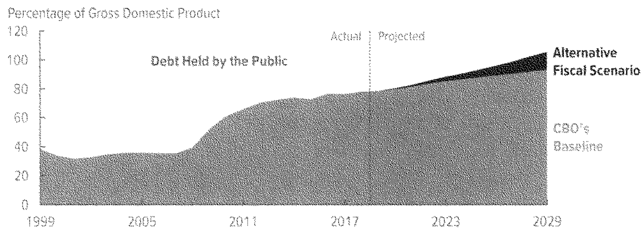


See Figure 1-2

Revenues and outlays are both projected to rise in relation to GDP, but the gap between them is projected to persist, resulting in large deficits and rising debt.

Debt

Federal debt held by the public is projected to reach $16.6 trillion at the end of 2019. Relative to the size of the economy, that amount—at 78 percent of GDP—would be nearly twice its average over the past 50 years. By 2029, debt is estimated to reach $28.7 trillion, or 93 percent of GDP—a higher level than at any time since just after World War II. It would continue to grow after 2029, reaching about 150 percent of GDP by 2049.

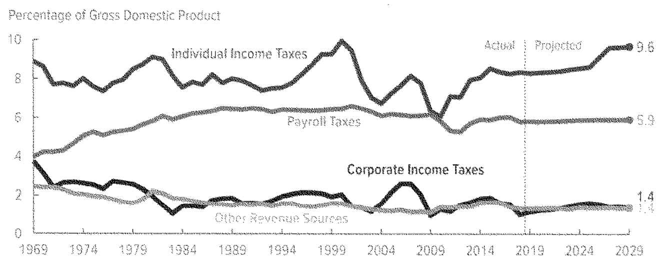


See Figure 5-3

In addition to its projections of outcomes under current law, CBO analyzed an alternative fiscal scenario in which substantial tax increases and discretionary spending cuts would not take place as scheduled; instead, major policies that are currently in place would be maintained. Under that scenario, federal debt would rise to 105 percent of GDP in 2029.

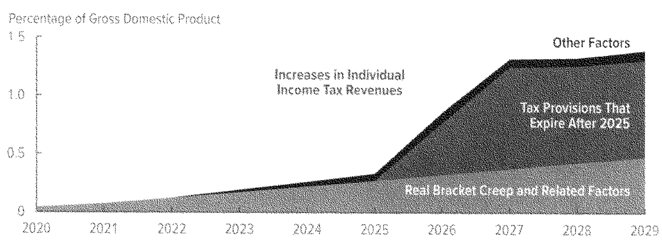
Revenues

In CBO's baseline projections, revenues total $3.5 trillion in 2019, or 16.5 percent of GDP, and rise to 18.3 percent of GDP in 2029. Over the past 50 years, revenues averaged 17.4 percent of GDP.



See Figure 4-2

Total revenues as a share of GDP are projected to rise, largely because of increases in individual income taxes.

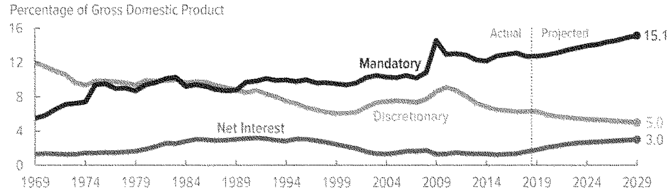


See Figure 4-3

Individual income taxes as a share of GDP are projected to rise by a total of 1.4 percentage points over the next decade. The biggest contribution to that increase is the expiration of certain provisions of the 2017 tax act at the end of 2025.

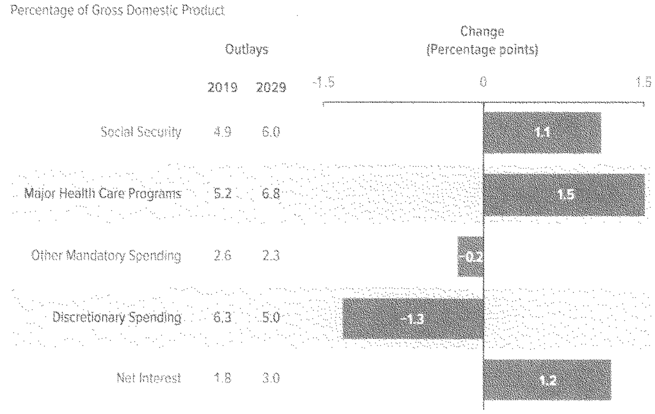
Spending

In 2019, outlays in CBO's baseline projections total $4.4 trillion, or 20.8 percent of GDP. They rise to 23.0 percent of GDP in 2029 (after an adjustment to exclude the effects of certain timing shifts). Over the past 50 years, outlays averaged 20.3 percent of GDP.



Increases in projected outlays stem from growth in mandatory spending (particularly for Social Security and Medicare) and in net interest costs.

See Figure 3-1

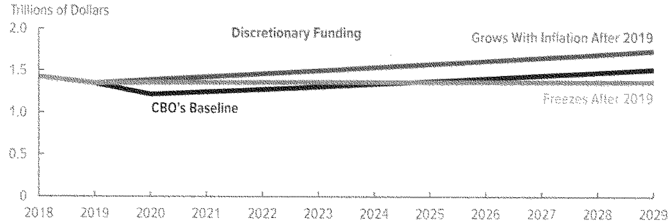


The aging of the population and rising cost of health care drive the increase in outlays for programs that provide benefits to the elderly.

Outlays for discretionary programs fall relative to GDP because of caps on funding and because rates of inflation, which are used to project future funding, are lower than the rate of nominal GDP growth.

Net interest costs rise sharply because of accumulating debt and rising interest rates.

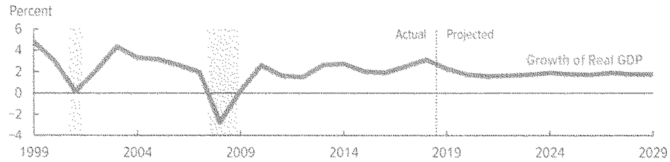
See Figure 3-2



Discretionary funding in future years could differ from the amounts in CBO's baseline projections, which reflect the assumption that funding will adhere to the current-law caps through 2021. In later years, funding is projected to grow with inflation.

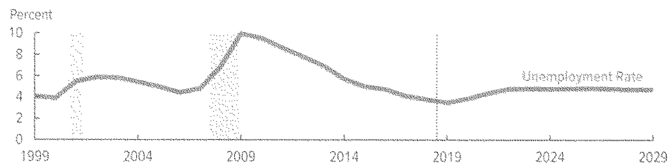
See Figure 5-1

The Economy In CBO's economic forecast, which underlies its budget projections, the economy expands more slowly over the next decade than it did in 2018, averaging annual growth of 1.7 percent over the 2020–2029 period. The slowdown begins in 2019 as the positive effects of recent tax legislation on business investment are expected to wane and federal purchases under current law are projected to drop sharply starting in the fourth quarter of the year. Over the longer term, growth is below its historical average, primarily because the labor force is expected to grow more slowly than it has in the past.



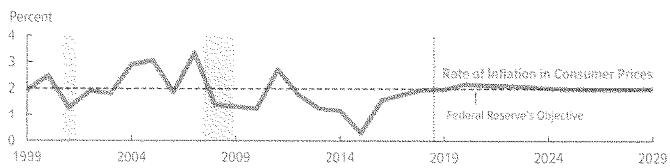
After growing by an estimated 3.1 percent in 2018, real GDP is projected to grow by 2.3 percent this year and more slowly thereafter—reflecting slower growth in business fixed investment after 2018 and in consumer spending after 2019.

See Figure 2-1



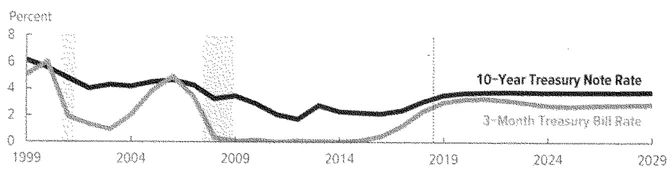
CBO expects the unemployment rate to continue to fall this year, putting upward pressure on wages. The rate begins rising next year because of the slower projected growth of real GDP.

See Figure 2-1



Stronger demand for goods, services, and labor is expected to push the rate of inflation in consumer prices slightly above the Federal Reserve's objective of 2 percent over the next few years.

See Figure 2-1



Interest rates are projected to continue to rise over the next two years as the Federal Reserve raises the federal funds rate to slow the growth of overall demand and reduce the associated inflationary pressures.

See Figure 2-1

Chairman YARMUTH. Thank you very much, Director Hall. I appreciate your testimony. Pursuant to the policy that the Ranking Member and I actually used in the last Congress, we are both going to defer our questioning until after all of our members have been recognized. So in light of that, I now recognize Mr. Khanna of California for 5 minutes.

Mr. KHANNA. Thank you, Chairman Yarmuth. Thank you, Director Hall, for your work and leadership. You are a distinguished economist, and I hope this Congress, everyone on both sides of the aisle will recognize that.

Your report stated that the tax bill paid for about 30 percent of itself rather than 100 percent of itself, the tax bill that the Republicans passed last Congress. Would that suggest that any person who claims that the tax bill was going to pay for itself is wrong?

Mr. HALL. Well, obviously projecting the future you can be wrong, we can be wrong. We did a really careful analysis of the tax bill. We looked at research. We tried to base it on real data, real evidence. And our estimate did, in fact, show that the GDP benefits of the tax bill would increase revenues, but not enough to fully cover the bill. As you said, it covers about 30 percent of the tax bill with respect to the deficit.

Mr. KHANNA. Director Hall, I am not suggesting that you are wrong, I am suggesting that people around the President when they claim that this tax cut is going to pay for itself with the magical 4 percent or 5 percent growth, is it fair now that we can say they are just—that is economic nonsense?

Mr. HALL. Well, that is certainly a much bigger effect than we would estimate. It is well outside our forecast for the effects of the tax bill.

Mr. KHANNA. And one of the things—I mean, you are obviously a distinguished economist. I don't have a Ph.D., but as I understand it, on the other side, they always talk about these deficits. Now, correct me if I'm wrong, this is a bit of a simplistic theory, but does this make economic sense?

My understanding is that when Bill Clinton left the presidency, we had budget surpluses. And then three things happened: George Bush passed large tax cuts to the very wealthy; Trump passed large tax cuts to the very wealthy, and we got into a lot of foreign wars. If none of those three things had happened, would we still have budget surpluses?

Mr. HALL. The answer, I think, is no. We had really unexpectedly strong productivity growth during that time period. Also, it was also a time period where the labor force was growing much quicker than in the past, and that was particularly because of women entering the labor force in greater numbers. So women's labor force participation sort of closed a gap at that time period. So we had much stronger labor force growth. We had unexpectedly big productivity. Neither of those things we are projecting going forward.

Mr. KHANNA. What do you think accounted for the strong labor force growth and productivity, other than you said women entering in the 1990s accounted for that?

Mr. HALL. Well, it wasn't women entering the labor force, it was also the baby boomers were in sort of in their prime working ages during that time period. They still sort of are, but near the end. So the aging population, at some point, is going to start working against us. And so we see, for example, the labor force growing much slower now from this sort of demographic handicap going forward than happened in the late 1990s.

Productivity is harder to project. You know, we see productivity heading back to somewhere near its normal range. Productivity has been very low the last 7 or 8 years, the past decade, and it has been unexplained, unexplainable. So we sort of have hopes on the productivity. Also, it is really hard to forecast productivity going forward.

Mr. KHANNA. You said that it wouldn't have wiped out all of the debt. Do you have a rough estimate if we didn't have the Bush tax cuts and Trump tax cuts, and we didn't have a perpetual war in Afghanistan and Iraq, how much money we would have saved?

Mr. HALL. We haven't done that sort of analysis.

Mr. KHANNA. Could we do that analysis?

Mr. HALL. We could look at it to get a feel for what difference it would make. A lot of things have changed since then, as well, but we could take a look a little bit, give you some idea.

Mr. KHANNA. And my final question is about the shutdown. Your office estimated that it cost us about .2 percent the first year. We have the President going on television saying, well, we may have a shutdown again. And as someone who studied rational expectations knows that investors and people take into account what we can expect. Do you think when he does that, he is hurting confidence in the markets and hurting our economy because people don't know what to expect?

Mr. HALL. Well, when we did our estimate of the shutdown, we essentially didn't take that into account, we just looked at the effect of having the labor force idle for a while, and then the add-on effects. But there is certainly other effects that you mentioned that we think were getting stronger as the shutdown continued, and we think if the shutdown were to recur and continue for a while, we would have some additional changes.

You know, one of the things I think that is underappreciated is, we would have a higher risk for low probability/high cost events happening, at from security. We would also have a lack of economic data that would, over time, could possibly lead to households and businesses holding back because of business confidence and because of consumer confidence. Federal permits and certifications, at some point, that is going to start to have an effect perhaps on business investment.

So there are these additional impacts that could occur if the shutdown recurs and it gets harder, not to mention it is really hard to measure, but the impact on the morale of the Federal workforce. The ability to hire high quality workers could be impacted—and contractors. Contractors could actually cost us more money going forward.

Chairman YARMUTH. The gentleman's time has expired. I now recognize the gentleman from Ohio, Mr. Johnson, for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman, and I, too, look forward to serving with you and our colleagues to address our Nation's spending and budget issues.

Director Hall, you have previously told our committee here that tax increases will not come close to covering this Nation's ballooning deficits, and it is clear from your newly released report that that fact remains true even today. Yet even in light of our inability to cover existing deficits, my Democratic colleagues are proposing massive new spending programs, which would dramatically increase our future deficit.

Take a look, if you would, at this series of charts behind me, which shows existing projected deficit down at the bottom in navy blue. Under your current baseline, if Congress was to do nothing for the next 10 years, that is, pass no laws, enact no new revenue or spending, the result would be a deficit of $1.43 trillion by fiscal year 2028. That is a lot of money. But it is dwarfed by the spending my Democratic colleagues would enact on top of it.

For example, if we add expanded Federal housing, the deficit would be $1.48 trillion in 2028, an increase of $50 billion from the baseline. Pile on the expanded opportunity credits, expansion of the earned income tax credit, and universal child care, and you are looking at a deficit of $1.92 trillion in 2028. Then we get to the really expensive part of their proposals, free college for all, establishment of the LIFT credit and a guaranteed Federal job results in a deficit approximately $3 trillion by 2028.

Finally, there is the pinnacle of budget busting proposals, Medicare for All, which, with an estimated 2028 deficit of $6.78 trillion required us to break the scale on the chart just to fit it all on one page.

So my question to you, Director Hall, given that our revenues can't come close to covering our existing deficit, how then should we cover the deficit created by these new spending programs?

Mr. HALL. Well, I will start with the track that CBO has always taken is we don't make policy recommendations, but I will say that some pretty big changes would need to be made in tax policy or spending policy or both things.

Mr. JOHNSON. Like a good lawyer then, I will rephrase my question.

Mr. HALL. Okay.

Mr. JOHNSON. Under current law, can we cover these massive increases in spending with current law?

Mr. HALL. Under current law——

Mr. JOHNSON. Given the assumptions that you made——

Mr. HALL. Right.

Mr. JOHNSON.——in your proposal—I am sorry, in your report, would we come even close to covering these massive new spending programs and reduce the deficit?

Mr. HALL. No, no. Under current law, without these programs we are heading towards 93 percent of GDP, almost 100 percent of GDP in just 10 years. That is a pretty big challenge.

Mr. JOHNSON. And if I read your report correctly, I would have to pull it out to look at the exact number, but by 2028, we are looking at a deficit that exceeds the highest peak in American history, which was right after World War II, correct, if we keep going in the direction that we are going.

Mr. HALL. Right. If we keep going, the highest peak was about 106 percent of GDP.

Mr. JOHNSON. Right.

Mr. HALL. So it is not far from the 93 percent.

Mr. JOHNSON. And these are going to take them—these programs, if enacted, would take it so much higher than even that.

Mr. HALL. That is likely correct, although we would have to look at the programs carefully to have an estimate.

Mr. JOHNSON. Well, these are huge numbers, and they can, you know, sound very abstract if you don't study this stuff every day. What are the concrete impacts of unsustainably increasing deficits on average Americans?

Mr. HALL. Well, one of the problems I would like to point out about the deficit is, I didn't highlight, is when it is occurring. Every time we go through a business cycle—I don't know if the graphs, if you all did get the graphs, but if you look at the debt the cycle of the debt going up and down, after every recession, deficits and the debt go way up. And for example, in the Great Recession debt was about 35 percent of GDP. When the Great Recession was over it doubled, the debt doubled to about 75 percent. Right now we are starting at 93 percent, right, so one of the big impacts is the risk going forward.

If you go through another business cycle, have another recession, debt is going to be piled up on top of 93 percent debt, and that is going to get to a very high level.

Another thing is the deficit, the borrowing, raises the cost of capital to the private sector. So the cost of capital goes up, the cost of business investment goes up, and there is less in the private sector. So productivity is lower, which means wages are lower.

So it is a drag on productivity, it is a drag on wages, and it is a drag on GDP growth going forward. Those are two of the effects that I think are very straightforward and very clear.

Mr. JOHNSON. Mr. Chairman, it sounds like all the work that we have done to increase wages for the American people under these scenarios with this massive debt added on, we would be depressing wages for the American people, and thank you for indulging the extra time. I yield back.

Chairman YARMUTH. Absolutely. The gentleman's time has expired. I now recognize the gentlelady from Connecticut, Ms. DeLauro, 5 minutes.

Ms. DELAURO. Thank you very much, Mr. Chairman. I am delighted to be back on the Budget Committee, and welcome, Director Hall. It is always good to hear from you, and thank you for your thoughtfulness.

My questions have to do with healthcare. New polling from Gallup suggests that the U.S. uninsured rate has risen to a 4-year high. At the same time, the Trump administration has repeatedly taken steps to sabotage our Nation's healthcare system by weakening consumer protections and causing premiums to skyrocket.

First question here is how does CBO estimate the effects of this Trump administration's sabotage on enrollment and spending in the marketplaces? I will ask the follow-up.

Mr. HALL. Okay.

Ms. DELAURO. CMS has also approved unlawful Medicaid work requirements in seven States, despite mounting evidence that they cause significant harm. Arkansas, the first State to implement the work requirements, and the State reports that more than 18,000 people have lost coverage since they were implemented last June. That is about 23 percent of those subject to the requirement.

What have you learned from the Arkansas experience that informs CBO's estimates of the number of people who will lose coverage due to Medicaid work requirements?

So enrollment—sabotage in enrollment and spending in the marketplace, the effects of your calculating those effects, and the Arkansas experience.

Mr. HALL. Okay. Let me start with the rule changes. We, of course, have been studying the effects of the rule changes on healthcare coverage. As it turns out, some of the rule changes encourage enrollment, some discourage enrollment. So it is not really clear yet what the net effect is going to be. So we will continue to sort of watch that effect.

The information that you mentioned, the Gallup poll, is maybe an indication that coverage is going down, but let me just say that that is a private poll, it doesn't meet the usual standards of a Federal Government poll. It doesn't have the sample size and et cetera, so we wait for a poll that is done by the CDC to get those numbers.

We do expect enrollment to drop, though. We expect it to drop in 2019 because of the elimination of the penalty in the individual mandate. So we wouldn't be surprised to see the enrollment start to drop. It is just too early to tell if it is really dropping in 2018 yet.

Ms. DELAURO. I would be very, very interested in following that up with you, because we look at the reduction and the cost-sharing payments in addition to looking at the cutback in navigators, in enrollment times, in periods of time, thereby circumscribing the effort to be able to enroll people to expand the opportunity, so I would love to have a continued dialogue, the Arkansas experience and Medicaid work requirements.

Mr. HALL. That is another one we are watching the effect. We don't understand what the effect is going to be. So we will watch the Arkansas experience. Every year we change our forecast of enrollment, and it will be based in part on that experience to see how that affects things. But, of course, you are right in the sense that that could change enrollment over time.

Ms. DELAURO. 18,000 people have lost coverage already, so. Thank you.

Let me just, on the shutdown, we talked about $11 billion short term, $3 billion long term. The President has talked about another multiweek shutdown, and, you know, the question, I think, has been asked about what that effect would be, but people are very, very uncertain at the moment, and they will not be spending in the next 3 weeks, so it is not a 5-week shutdown, it is going forward. And we also have created a climate of instability, and there is caution, whether it is businesses, et cetera, but I am talking about individuals' caution about spending. Does that have an economic effect, in your view, and because it goes beyond the Federal workforce, and what kind of an economic effect, in your view, will that have? What is the economic effect?

Mr. HALL. Sure. Well, we certainly do think that those things would have an economic effect, and would potentially slow down economic growth. We just weren't able to sort of measure that over just a 5-week period, but I do think that that is right that those things were getting to be more important, and those things might affect economic growth more in the future. This increased uncertainty, to the degree it impacts household and business decisions can slow down things. Reducing the efficiency of government is never a good thing. So I think all those things are things that have a potential impact. We just weren't able to really get our hands and measure those yet.

Ms. DELAURO. Will you be doing that?

Mr. HALL. If the shutdown recurs, we would be happy to take a look at that.

Ms. DELAURO. Well, but you are looking at—it is beyond 5 weeks.

Mr. HALL. Oh, I see.

Ms. DELAURO. You have a longer lasting period of uncertainty——

Mr. HALL. Right.

Ms. DELAURO.——and instability——

Mr. HALL. Right.

Ms. DELAURO.——that is really captured in the public, and the data shows that in terms of people who rely on their paychecks, it is paycheck to paycheck.

Mr. HALL. We will certainly look at the data and look to see if there is more an effect there that is measurable.

Ms. DELAURO. Okay, what I would love to do is to be able to follow up with you on measurability. Thank you very much.

Chairman YARMUTH. The gentlelady's time has expired. I now recognize the gentleman from Utah, Mr. Stewart, for 5 minutes.

Mr. STEWART. Thank you, Mr. Chairman, and to the Chairman and Ranking Member, as the new member of the committee representing Appropriations, I am honored to work with you and look forward to doing something productive, I hope. And, Mr. Hall, you and I have several things in common. You have a Ph.D. in economics. I took Econ 101 when I was a freshman. Actually, I have a degree in economics, as well, although not an advanced degree. I read your computational partial equilibrium modeling. I don't know what that is. It sounds very cool, though. And one other thing we have in common is I think you are serious about the deficit and recognize the problem. You must feel like a lone man in the wilderness, and I am sure that frustrates you because it is an enormous challenge. I would argue is, if not the most, it is one of the two most single greatest challenges facing our future. It is the reason I ran in 2012 was because of our debt and our spending.

And just very quickly, because I want to ask you a question many of us have been kind of torn by this, because I also work on the Intel Committee. I am a former Air Force pilot. I recognize national security is a concern, but I try to balance these two all the time.

And it is interesting to my colleagues on the committee as well to hear how, you know, in just a few minutes, we become tribal on this. You know, one side wants to blame tax cuts, the other side wants to blame spending, and at the end of the day, after all the politics and pontificating, the thing about economics is there is a number, and the number is pretty obvious, and you can also understand where that number came from. And I hope as a committee, we can make serious and sincere efforts to try to address it, because if we don't, then we are in a world of hurt, and we mess up our children's future, and there is just no question about that, which brings me to my question to you. And that is, I love the part of your written testimony here.

What are the consequences of high debt, because most Americans, if they don't understand what are the consequences, then they go what difference does it make? I have been hearing about this for a long time, and my life seems to be okay. What difference does it make?

To go through them quickly, I want you to emphasize the last one, increased interest payments. Obvious, you have talked about that. Decrease in national savings. Again, obvious how that impacts people. A decrease in flexibility of government, of Congress, to address those problems. That should be important to all of us here.

And then the last, the fourth one is the likelihood of a fiscal crisis. I would like you, if you could, to give us kind of your worst-case scenario, because I know you have to work within the margins of we think it might be this, but tell us what happens, worst-case scenario, what does this mean to people so that maybe we can get their attention and why we need to address it?

Mr. HALL. Well, sure. I think one of the things that we try to do is try to give you some feel for the uncertainty in our forecast, what a reasonable range is for the outcomes. You know, for example, in the near term over the next 10 years, we see deficits being at something over 4 percent. Not hard to imagine deficits becoming 6 ½ percent, getting larger, and that is without a recession going forward. That sort of effect would raise the debt after 10 years from 93 percent of GDP to a record, could be 120 percent after just 10 years, something like that. I don't have the numbers right in front of me, but we try to do some of that, and again, that is without a fiscal crisis. We aren't forecasting a fiscal crisis, but the one thing we do know is the chances of that happening increase.

Mr. STEWART. So I am going to narrow your response if I could, because seeing your clock, you only have a few minutes. Talk to me about the word you just said, a "fiscal crisis." Help people understand what that means. I know you are not projecting that.

Mr. HALL. Right.

Mr. STEWART. I know, you know, heaven help us, we all want to avoid that. But if it isn't avoided, what does that mean to people? Talk to me about what that means to people.

Mr. HALL. The most important part of that is that the borrowing cost to the Federal Government goes up. Because of a lack of trust or whatever if people start asking for premium to lend the government money to run the government, interest rates could be much higher than we project at the moment.

I will give you a—for example, if interest rates—we think interest rates will go up to around 3.7 percent, 10-year treasuries. That a pretty low historical level. If they went up a whole percentage point higher than that, we are talking about an extra $2 trillion in debt, if they go up an extra—you know, a debt crisis would be more than a percentage point. If it is 2 percentage points higher, we are talking about $4 trillion in extra debt over the next 10 years. So the debt of the Federal Government gets to be really significant, and the basic punch line is, in that case, if you want to fix that, now you are talking about really draconian measures. You are talking about really decreasing spending or really increasing tax revenues or both things if you let this get out of hand.

Mr. STEWART. And we are out of time, so I will just conclude with this: I appreciate your answer, although it frustrated me just a little because most Americans, once again, well, what does that mean to me? I remember at the end of Jimmy Carter, and I am not blaming Jimmy Carter, it just happens to be that was the time, but we were borrowing money at 20 percent at that time. And that is the thing I want to talk about. This is what it means to you. Borrowing money at 20 percent, a 20 percent mortgage, an 18 percent mortgage, a 21 percent car loan, those are the numbers we need to be talking about with people so they understand this matters to me. Thank you, sir.

Chairman YARMUTH. The gentleman's time has expired. I now recognize the gentleman from North Carolina, Mr. Price.

Mr. PRICE. Thank you, Mr. Chairman. I also am happy to be back on the committee after a number of years away. I appreciate your leadership, Mr. Womack. I look forward to working with all of you. And thank you, Director, for a helpful report.

I want to revisit your line of questioning with Mr. Khanna having to do with not so ancient history of the 1990s and those years when we saw budget surpluses and actually paid off something like $400 billion of the national debt, I believe. You talked about the factors that had produced a strong economy in those years, and, of course, that tends to address the budget deficit in a positive way, but those were also the years of comprehensive budget agreements. There were comprehensive agreements in 1990 and 1997 on a bipartisan basis. There was an important agreement in 1993 with democratic heavy lifting alone. And if Mr. Stewart is worried about tribalism, those were not tribal agreements, they were—in the sense that they offended everybody. Something in those agreements for everybody to hate because they did raise some taxes, they did restrain some mandatory spending, and they did impose some discipline on discretionary spending across the board.

Yet, I think the consensus of economic opinion is that they are at least an important ingredient in the discipline that was achieved and the period of surpluses that we enjoyed.

Now, we are far from that now. We are far from that economically, we are far from it politically. We have had, from our Republican friends, $1.5 trillion in tax cuts, mainly benefiting the wealthiest people, and groups in this society, totally unpaid for. Restraint, the only restraint that seems to be proposed these days is on domestic discretionary spending, leaving the rest of the budget aside. That strikes me as a lose-lose proposition. You are not really addressing the overall fiscal crisis with constraining only domestic discretionary spending, but at the same time, you are starving our country of needed investments.

So, all that by way of asking you, what should we be looking for in the way of a comprehensive approach to this, is sometimes we call it a grand bargain. Is that still the best bet if our politics could ever come around to achieving that? Are there any different ingredients that would need to be achieved?

So I am interested in the impact of such comprehensive budget policies in the past, and what the implications are for the dilemma that you very well outlined.

Mr. HALL. Well, I want to steer a little clear of recommending policy changes, so I will try to talk generally about this. The debt problem now is really large, and under current laws we are going, it is going to be a bigger and bigger problem, so the longer we wait, the more draconian the measures would have to be to fix it.

So one of the things that is an important thing is to think about something early. And second is, the debt is at a high level, so you need something big to change. You talked about discretionary spending. One of the reasons that I often make the point about just the net interest costs of the current debt is on its way to exceed all of defense spending, and it is on its way, after 30 years, of maybe exceeding all of discretionary spending, just the interest cost, that is not fixing the problem, that is just holding it still. So the problem is getting much bigger than discretionary spending, for example.

So if you have to think about things, you need to think big, and you think in terms of revenues, you need to think in terms of spending. One or the other, or both things, are perfectly fine. I think it is helpful. This is—I don't want to make recommendations, but having some sort of plan, I think, would be a good signal.

Mr. PRICE. Well, what quickly can you say about the history of this? Were those three agreements an important ingredient of the fiscal discipline achieved in the 1990s?

Mr. HALL. Those things all contributed. I haven't done a detailed analysis of that, but I do want to point out that that was a different time than now. All right. There were a couple things we had going for us that we don't have going for us now. One was that productivity surge, and the other was a more quickly growing labor force.

Heading forward, you know, unless we have an unexpected surge in productivity, or I don't know what would happen on the labor force side. We have an aging workforce. Those things are going to be big drags going forward, and it is going to make it more difficult to deal with this than perhaps was the time in the late 1990s.

Mr. PRICE. Thank you. Thank you, Mr. Chairman.

Chairman YARMUTH. The gentleman's time has expired. I now recognize the gentleman from Texas, Mr. Crenshaw, for 5 minutes.

Mr. CRENSHAW. Thank you for being here. I appreciate what the CBO does. You have the most difficult job imaginable, which is giving apolitical advice to Congress. I can't even imagine that. The reason we are here, I believe, is because we have a fundamental difference in questions of why deficits exist, whether it is spending or too little taxes, and—but it is really a fundamental question of why government exists in the first place.

If you believe government exists to sustain itself and fund pet projects for politicians, well, then it, therefore, makes sense to simply tax the people in order to fund that. If you believe that government exists to protect inalienable rights and freedoms, well, then we have a difference of opinion. And so the question then becomes, okay, and as my colleagues have pointed out, you know, what has actually caused these deficits? So we are going to go through some numbers specifically on the tax cuts from last year. According to CBO's projections right now, the debt in 2029 is projected to be $33.7 trillion, correct?

Mr. HALL. That sounds right.

Mr. CRENSHAW. The tax cuts cost $1.5 trillion, and was that with or without dynamic scoring?

Mr. HALL. Well, it was $1.9 trillion with everything included with dynamic scoring.

Mr. CRENSHAW. Okay. Well, let's just leave it at 1.5 then. It is the——

Mr. HALL. Yeah. That just doesn't include the extra interest cost of the debt.

Mr. CRENSHAW. Okay. So 33.7 minus 1.5 is 32.2. So without the tax cuts, our debt in 10 years would still be $32 trillion. With the tax cuts, it would be $33 trillion. It is not a huge difference.

The tax cuts also did what they were designed to do. They have increased job growth. They have increased wages. And it is also worth highlighting, and according to the graph you gave us, revenues continue to increase every year. Do you know off the top of your head what they are projected to increase just next year? This is government revenue.

Mr. HALL. Right. I don't off the top of my head.

Mr. CRENSHAW. Okay. It is over $100 billion increase from the year before.

Also worth noting, according to this graph you gave us, as a percentage of GDP, meaning relative to the size of the economy, revenues have basically stayed around the same. In fact, they have been on an upward trajectory, again, with the tax cuts. The government continues to make more money as a percentage of GDP. Is that correct?

Mr. HALL. That is right, although I will caution, a little bit of that is the expiration of the reduction in individual income taxes. So that——

Mr. CRENSHAW. Right. Yeah, if politicians decide to increase people's taxes,

Mr. HALL. That is right.

Mr. CRENSHAW. Correct. So when my colleagues say that it is absolutely clear that tax cuts from last year are the only reason that we have these deficits, is that really true?

Mr. HALL. Deficits are much larger.

Mr. CRENSHAW. Okay, that is what I figured. So it brings us to our next issue then, which is mandatory spending. It is true that 70 percent of our spending in government is mandatory side, right?

Mr. HALL. Yes.

Mr. CRENSHAW. And it is also accurate that mandatory spending on health programs alone will double from $1.3 trillion in 2019 to $2.4 trillion in 2029?

Mr. HALL. Yes.

Mr. CRENSHAW. That is according to your estimates. So in the little time we have, the CBO does analysis on certain policy considerations. You are not recommending policies, but you do do analysis on certain policy recommendations. When it comes to mandatory spending programs like Medicare and Social Security, what are some of the top recommendations that you all analyze?

Mr. HALL. Well, I will tell you, I will point you to a report that we recently finished, Options to Reduce the Deficit. It is a rather big volume. It is about 120 different options that Congress could take, all of which would reduce the deficit on the spending side, revenue side. We give you actual estimates. You get some idea of how much bang for the buck you would get.

Mr. CRENSHAW. My last question, how much would you have to raise taxes—without changing spending, how much would you have to raise taxes in order to not even balance our budget but get our deficits on par with our growth, meaning that debt-to-GDP ratio would actually stay the same?

Mr. HALL. I think if you raised everybody's taxes, all the tax rates by about 10 percentage points, 10 percent, that would generate enough revenue to reduce the deficit down to about zero, not fixing the debt.

Mr. CRENSHAW. Okay. Ten percent, which would be a pretty enormous raise——

Mr. HALL. It would.

Mr. CRENSHAW.——for quite a lot of people.

And what is the main—what is the best indicator of your wealth in a group of people? Would you say it is age? Would age be a good indicator of wealth if you had a random group of people?

Mr. HALL. Well, sure, age is definitely associated.

Mr. CRENSHAW. My last closing comment in this amount of time would be to say that what we are talking about when we are talking about expanding entitlement programs is taxing the poor to pay for the rich. That is what we are actually talking about, because you are taxing people of my generation to pay for people who have their entire lives to save, and we have to question whether that is fair.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentlelady from Illinois, Ms. Schakowsky.

Ms. SCHAKOWSKY. Thank you, Mr. Chairman, Ranking Member, and Mr. Hall for being here.

You know, one of the things that the shutdown I think illustrated, many people think about Federal jobs as middle-class jobs. And what we actually saw was that these are workers who live paycheck to paycheck, and a couple of them gone means that they are in serious sometimes crisis, going to food pantries. But it also reflects, I think, what the majority of workers face. We find out, there has been research that even a $500 accident or something happening, that most families can't afford that.

One of the benefits that was promised in the tax cuts or projected in the tax cuts was that it would spur rapid wage growth for workers. But it actually appears that instead of delivering raises for workers, that corporations use their windfall to enrich their shareholders through stock buybacks. In fact, 2018 set a record, with companies spending more than $1 trillion on buybacks.

And so my question to you is, how do these buybacks affect the economy? And do you see their effect in your most recent estimates of economic growth? And do those buybacks actually then interfere with wage growth?

Mr. HALL. Well, let me first say we expected stock buybacks. It was part of our forecast. And what we have seen happen so far is not at all inconsistent with what we expected. So buybacks actually aren't bigger than we thought they would be.

Ms. SCHAKOWSKY. No, I just want to say I am not surprised either about the buybacks.

Mr. HALL. I am warming up here to get to your question.

Ms. SCHAKOWSKY. Okay.

Mr. HALL. The wage impact of that is less clear to us, whether the stock buybacks will impact wage growth or not. And we think the labor market is tightening up and we think wages are starting to rise and we think they will rise in the future. You know, it is hard to say what the effect of stock buybacks, if that has had or that is going to have an effect on wage growth.

Ms. SCHAKOWSKY. Did you expect any higher wage growth as a result of the tax cuts?

Mr. HALL. I think we did in the long run, because the tax cuts lowered the cost of capital, lowered the cost of work. So we did expect more people to reenter the labor market like has perhaps been happening. We expected higher investment. We thought that would raise wages some. We did forecast that. But we expect that over 10 years.

Ms. SCHAKOWSKY. Another claim was that the Republican tax bill would increase investment, which in the case of an industry like Pharma, like the pharmaceutical companies, could, in theory, lead to lower costs for consumers. And we would all agree that that would be a good thing.

But last summer, I wrote to the CEO of Eli Lilly, and actually of some other companies as well, asking him about the impact on consumers' out-of-pocket cost for different drugs. And their response left a lot to be desired.

And, Mr. Chairman, I ask unanimous consent to submit for the record my letter as well as the response from Eli Lilly.

Chairman YARMUTH. Without objection.

[The information follows:]

Congress of the United States
Washington, D.C. 20515

October 15, 2018

David A. Ricks
Eli Lilly and Company,
Lilly Corporate Center,
Indianapolis, IN 46285

Dear David A. Ricks:

Your company is one of the largest pharmaceutical corporations producing many lifesaving and life-sustaining drugs, but a life-saving drug is 100% ineffective when it is unaffordable. Eli Lilly, like many other pharmaceutical manufacturers, benefits from taxpayer assistance through publicly funded research and corporate tax breaks. We write on behalf of our constituents who are paying multiple times over for their prescription drugs with questions to ensure that the products they help pay to develop are affordable.

Despite resounding pleas from the American public to lower prescription drug prices, an AARP analysis found that the prices of 268 brand name drugs increased at least 15% a year from 2013 to 2015.[1] A recent Americans for Tax Fairness (ATF) report found retail prices for a sample of leading American drugs had soared by 40% to 70%, or increased 14 times the rate of inflation, between 2011-2015.[2] In that time period, Eli Lilly raised its prices on Humalog and Humulin, insulin drugs used to treat Type 1 Diabetes. ATF also found that over that same period profits for the ten largest pharmaceutical corporations rose by almost 40% and a report from Oxfam found that large pharmaceutical corporations may be dodging $3.8 billion in taxes each year through off-shore tax havens.[3] This is especially troubling to tax-payers (our constituents) as publicly funded research contributed to every new drug that was approved from 2010–2016.[4]

The Republican Tax Cuts and Jobs Act was introduced in November and signed into law December 22, 2017, the corporate tax rate was reduced by 40% and it is estimated that Eli Lilly would receive nearly $164 million in tax cuts in 2018.[5] In addition, Eli Lilly will receive an

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[1] Rx Price Watch Report: Trends in Retail Prices of Prescription Drugs Widely Used by Older Americans: 2006 to 2015, https://www.aarp.org/ppi/info-2016/trends-in-retail-prices-of-drugs.html

[2] The Pharma Big 10: Price Gougers, Tax Dodgers, December 2017, https://americansfortaxfairness.org/wp-content/uploads/Pharma-Drug-Price-Gougers-Tax-Dodgers-Report-FINAL-12-5-17.pdf

[3] Prescription for Poverty, https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620548/cr-prescription-for-poverty-pharma-180918-en.pdf

[4] Contribution of NIH funding to new drug approvals 2010–2016, February 2018, http://www.pnas.org/content/early/2018/02/06/1715368115

[5] Trump Tax Law and the Health Care Industry: A $100 Billion Bonanza, April 17, 2018, https://www.finance.senate.gov/imo/media/doc/Wyden%20Report%20-%20Trump%20Tax%20Law%20and%20the%20Health%20Care%20Industry%20041718.pdf

estimated one-time tax cut of $4.4 billion on offshore profits.[6] Given these large windfalls, we ask that you respond in writing to the following questions:

1) Since November 28, 2017, has your company changed the list price of any pharmaceuticals? If so, please list every drug that had a price increase or decrease along with the original prices and the percentage change.
    a. Despite severe problems in access to affordable insulin, a recent study showed that Eli Lilly prices its insulin product, Humalog, 5.6 to 7.8 times higher than its production cost.[7] Why has the price of Humalog continually risen and priced 5.6 to 7.8 times higher than its production cost?
2) Since November 28, 2017, how much have you invested in:
    a. each clinical trial sponsored or funded by the company,
    b. preclinical data development,
    c. acquisition costs of startup firms, patent license or other drug development assets from third parties,
    d. direct-to-consumer advertising including television, digital, and any other platform,
    e. direct to prescriber marketing including all costs for Continuing Medical Education, provider office visits, and company sponsored trips and speaking fees.
3) Since November 28, 2017, have you discontinued certain drug development portfolios? If so, what drug development products were discontinued and why?
4) What is the median and of annual total compensation for all executives at present?
5) What is your country-by-country financial report?

Thank for you the attention to this matter. We respectfully request that you answer us no later than November 12, 2018.

Sincerely,

Jan Schakowsky
Member of Congress

Mark Pocan
Member of Congress

Raúl M. Grijalva
Member of Congress

[6] BAD MEDICINE: How GOP Tax Cuts Are Enriching Drug Companies, Leaving Workers & Patients Behind, April 2018, https://americansfortaxfairness.org/wp-content/uploads/Pharma-Tax-Cut-Report-4.26.18-FINAL-.pdf
[7] Production costs and potential prices for biosimilars of human insulin and insulin analogues, BMJ Journal, September 25, 2018, https://gh.bmj.com/content/3/5/e000850

Kathy Castor
Member of Congress

Steve Cohen
Member of Congress

Peter A. DeFazio
Member of Congress

Rosa L. DeLauro
Member of Congress

Eleanor Holmes Norton
Member of Congress

Pramila Jayapal
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Marcy Kaptur
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Ro Khanna
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Chellie Pingree
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Tim Ryan
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November 14, 2018

The Honorable Jan Schakowsky
United States House of Representatives
2367 Rayburn House Office Building
Washington, D.C. 20515

Dear Representative Schakowsky:

Eli Lilly and Company (Lilly) appreciates the opportunity to respond to your letter dated October 15, 2018. Affordable access to medicines is an issue that Lilly takes very seriously. We have delivered new ways to reduce patient costs and welcome further constructive dialogue that can reduce out of pocket costs for more people with diabetes while ensuring research can continue for newer therapies and better management of this lifelong debilitating condition.

I. Investing in Discovery and Innovation

Lilly, a 142-year old company headquartered in Indianapolis since its founding in 1876, is one of the country's leading innovation-driven, research-based pharmaceutical and biotechnology corporations, employing over 18,000 employees in the United States. Our company is devoted to seeking answers for some of the world's most urgent medical needs through discovery and development of breakthrough medicines and through the health information we offer.

We operate in approximately 120 countries around the world. In 2017, approximately 56% of our global revenue was generated in the United States, and 44% was generated outside of the United States. With respect to the 2017 Tax Cuts and Jobs Act, American companies like Lilly can now deploy more of our foreign earnings here in the U.S. The new law also places American companies on a more level playing field with our foreign-owned peers and, thereby, helps enhance our ability to acquire and develop new medicines that benefit people with a variety of conditions.

Supporting patients and the U.S. economy alike, biopharmaceutical companies must make long-term commitments to remain viable generators of new therapies and cures. Indeed, discovering, developing and manufacturing innovative medicines is scientifically and technically precise, difficult, and capital-intensive, requiring billions of dollars in long-term investments and years of research. For example, in 2017, Lilly spent more than $5 billion on research and development, accounting for nearly 23 percent of total revenues, one of the highest commitments to research amongst all public companies. The vast majority of our research investment occurs in the United States.

We also continue to make significant U.S. investments that enhance our mission to deliver a reliable and high quality supply of diabetes products, investing more than $1 billion over the past five years to expand our U.S. diabetes manufacturing operations. Last year, Lilly announced an $85 million expansion of our U.S diabetes device assembly facilities, a $90 million expansion of our biotechnology center in San Diego, and we dedicated our $140 million insulin cartridge production plant in Indianapolis. Lilly is also looking to bring in more innovation from outside our company. Just this year, Lilly announced two acquisitions of companies developing cancer therapies. Additionally, we made a significant investment in a Boston-area company developing potentially breakthrough technology for Type 1 diabetes. Ultimately, Lilly's goal through these investments is to develop medicines that save and improve patients' lives.

For over 140 years, Lilly has been committed to developing innovative medical breakthroughs for patients. We believe that finding a balance between investing in innovation and providing affordable medicines is key to bettering the health of the world. It is critical that patients have access to our products, which improve – or more importantly save – lives. This hope for improving patient outcomes crystalizes not only why the risk is worthy of the associated investment, but it also fuels the greatest disappointments when investment in best-in-class research and development risk falls short of our therapeutic goals. A recent and heartbreaking example of the risk that our company undertakes can be seen in solanezumab, a potential treatment for Alzheimer's disease that did not succeed in its last stage of clinical testing. Had it succeeded, solanezumab would have been the first disease-modifying drug to treat Alzheimer's. Nevertheless, Lilly remains committed to Alzheimer's research, and our portfolio includes other potential approaches, including a BACE inhibitor in clinical trials. It is important to know that today's medicines, and the revenues from them, support the kind of complex and high risk research that creates tomorrow's breakthroughs.

II. Focus on Access and Affordability

We fully understand that some patients experience access and affordability challenges and can face financial and other barriers adhering to prescription drug treatments. To this end – and while no single, simple solution will alleviate these challenges – we will continue to work with Congress and the Administration to propose public policy solutions to help address health care affordability for people using our medicines, employees and the healthcare system, as a whole.

Lilly provides rebates and discounts – which have continued to increase in recent years – to payer customers and supply chain entities. Because of these significant discounts, the increases in list prices for Lilly medicines do not reflect increases in the net amount Lilly ultimately receives (sometimes referred to as a "net price"), especially for insulins. Indeed, Lilly's net prices have grown at a significantly lower rate than medical inflation over the last decade, and in 2018, we made no changes to our insulin product list prices. In the case of Humalog® – Lilly's most commonly used insulin product – while Lilly has increased the list price during the past several years, the average net price has remained relatively stable during that same period. Overall, average discounts on U.S. list prices have grown from 30 percent to 51 percent in the past five years, with rebates for our insulin products substantially above these rates. For instance, mandatory U.S. government discounts in state Medicaid – now more than 20% of U.S. insulin volume – and other mandated programs result in costs amongst the lowest in the world, and lower than developed markets with single-payer, direct-purchase models. We estimate that the average Medicaid rebate for Lilly insulin exceeds 99%, prices far below manufacturing costs.

Although the current health care system largely ensures affordable access to medicines, we recognize that the system does not work for everyone. As our U.S. health insurance system has increasingly shifted the cost burden onto the growing number of patients in high deductible health plans, some patients may incur relatively higher out-of-pocket costs for their medicines depending on the design of their insurance benefits. In these instances, patients may not receive the benefit of the more than $130 billion in rebates paid by prescription drug manufacturers to health plans and pharmacy benefit managers (PBMs). Consequently, patients with high deductible plans may have to pay some or all of the retail price for medicines before their deductible is met and their insurance begins paying for their care. We believe this is both financially unfair and medically unsafe, as patients with diabetes are subsidizing artificially low premiums for those without chronic disease and too often discontinue use of essential medication to save money – even though they are participating in an insurance program. We are employing multiple strategies to address this trend.

Most recently, to help address the ongoing issue of insulin affordability that some patients experience, Lilly launched the Lilly Diabetes Solution Center.[1] Under this program, Lilly provides point-of-sale savings on our insulins through the dedicated helpline, donates Humalog® and Humulin® to approximately 150 free clinics across the U.S., and provides short-term and long-term solutions for patients with immediate Lilly insulin needs. While anyone experiencing difficulty affording a Lilly insulin is encouraged to contact the helpline, the program is intended for those most in need, particularly low-income, the uninsured, and those in the deductible phase of a high deductible commercial plan.

One of Lilly's public policy priorities is to seek solutions that help patients with high deductible health insurance who share a disproportionate amount of their health care costs. Pending bi-partisan, bi-cameral legislation championed by Lilly (H.R. 4978/S. 2410) would allow high deductible health plans to cover chronic disease prevention services on a pre-deductible basis. In the case of Lilly employees, preventative medications by-pass the deductible, achieving similar goals for our employees as we continue to advocate for policy changes at the Federal level. Further – for other expenses – we limit the deductible to $550 (for single) coverage and $1,100 for (family coverage) by contributing to our employees' HRAs and HSAs in January to offset their deductible. While these programs only benefit Lilly employees, we encourage other companies to consider similar programs to help their employees, too (see https://www.lilly.com/annualreport2017 for additional information on Lilly employee compensation and benefits).

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[1] Additional information is available at https://www.lilly.com/diabetessolutioncenter.

Another policy solution consists of point-of-sale rebates. For example, beginning this year, Lilly employees see their out-of-pocket pharmacy costs for their non-preventative medications reduced by the applicable price rebates paid to their health plan. This is especially beneficial for employees in the deductible phase of their prescription drug coverage.

As the debate continues regarding health care and pharmaceutical innovation, we are committed to participating in the public policy process. I sincerely appreciate your thoughtful consideration of the issues presented above and look forward to working with you in the future. Please do not hesitate to contact me at (202) 393-7950 or jbk@lilly.com with any questions.

In responding to your letter, Lilly has used its best efforts to be as accurate and responsive as possible based on our understanding of the terms used in your letter. The representations herein are based on current information and belief.

Sincerely,

J. B. Kelley

Joseph B. Kelley
Vice President, Global Government Relations

Ms. SCHAKOWSKY. So my question to you, Mr. Hall, is have you analyzed the impact of pharmaceutical companies' decision to invest in buybacks rather than lowering out-of-pocket costs for consumers on the trajectory of our out-of-pocket healthcare spending for middle class Americans?

Mr. HALL. Well, we do keep track of pharmaceutical prices and we do try to monitor, and we have done some looking at that.

Relying on my memory now is not very good, but we can follow up and talk to you about what we see with the pharmaceutical prices and talk about what we think could be an impact going forward, if you like.

Ms. SCHAKOWSKY. In general, did you see that we had any lowering of consumer prices as a result of the tax cuts that many big industries enjoyed with the tax cut?

Mr. HALL. I think that is something that right now would be impossible to tell in such a short time period. And it would require us to do a little more research than we have done.

Ms. SCHAKOWSKY. I think I don't have time for a third question. Thank you, Mr. Hall.

Chairman YARMUTH. The gentlelady's time has expired.

I now recognize the gentleman from Oklahoma, Mr. Hern, 5 minutes.

Mr. HERN. Director Hall, it is great to be here. It is great to be a freshman, with all the challenges we have ahead of us here. As a small business owner for over 34 years in various industries, having the privilege of serving as the CFO for a large franchise group, all over the country I have seen the problems we have across the country and the various issues we have when intrusion in the job creators and trying to put people to work. So I have been on the other side of these policies that I am going to venture now to create or to unwind, if you will.

You know, if I ran my businesses like we run the Federal Government, we would be out of business a long time ago. And so I would have to assume that in that realm, it is not like a business, but it is about how we get after growing and stimulating our economy and controlling spending. It is math. You are a math guy. I happened many years ago to get an MBA from the University of Arkansas, so I am familiar with that area, familiar with the economics. There is no other solution. No matter how much we try to color it up, we have to get after both.

Much has been made about the 1996 welfare to work. Not much has been made about that, but a lot has been talked about the results of that act that President Clinton signed when we had a Republican House and Republican Senate. And the results of that were is that we encouraged people that were able-bodied to go back to work into a growing workforce, job market, and we saw budget surpluses in 1997, 1998, 1999 and 2000. We had a tech burst in 2000 that caused that to start unwinding a little bit, because we were focused on one industry.

We did have labor participation hit 67 percent, the highest in recorded history that we know of. Today, we are at 4 percent less than that, roughly, 63 percent. We are pretty much maxed out on who can go to work in this economy. We have an aging population. We have employment rates that are considered beyond full, that I question whether they are looked at the same way as they were 50 years ago.

The mandatory spending levels are growing at a rate that is unsustainable. The amount of money that we all appropriate and argue over and fuss over up here is diminishing quite rapidly as compared to the GDP, so that we are only after just a small portion of our budget that we are talking about. The rest of it is on auto pilot.

The fertility rates in this country to maintain a population that will keep this country as we know it today is woefully low. It is below the 2.1 percent.

So with all that said and the dire note that you made that the interest rate very quickly is going to—or the interest on our debt is going to surpass our ability to protect ourself or the money we spend to protect ourself, I am always looking at this is what we know. And you have the ability to look at various things, because at the end of the day, it is just math and behavior.

What are some of the ideas—and you alluded to the 120 different options we have to change some of our trajectory. But in my short period of time that is left here, could you share with us just a couple of things that are imminent or does that get into the policy side?

Mr. HALL. Imminent as in which——

Mr. HERN. What we could change. As an example——

Mr. HALL. Sure.

Mr. HERN.——what would be the impact—there has been much said about the $15 an hour minimum wage. What would that do to us both in the short term and long term? There has been much made about legal immigration. How much legal immigration do we need to get us back on—to make up for the 2.1 differential?

Mr. HALL. Well, with respect to minimum wage, we would have to see a proposal. We have certainly been thinking about that. We did an analysis in 2014 of a 10 percent minimum wage. We are thinking about the 15 that has been talked about. So I don't want to guess as to what the numbers are going to look like in something like that.

And I am sorry, the other thing was the——

Mr. HERN. How much legal immigration do we need to add to replace our aging workforce so that we can sustain our mandatory spending levels?

Mr. HALL. Yeah. I don't know the answer to that one. You know, generally, if you increase immigration, first of all, the impact depends upon what kind of immigration you are talking about. It is not just any immigration that it is all the same. It differs a little bit. If you talk about it broadly, if you increase the labor force, you increase GDP, because you have a bigger labor force. But it does matter what kind of immigration you have and that sort of thing. So it is hard for me to give you some idea of what would fix things.

Mr. HERN. But as it relates to immigration, it would be some combination of skill versus wages for those skills across the entire spectrum, correct?

Mr. HALL. Right. Yeah. The research suggests that the higher skilled immigrants actually can raise productivity in an economy. The lower skilled more basic ones probably don't as much, and they actually probably crowd out wage increases for the lower skilled folks who are here now.

Mr. HERN. And also would crowd out the ability for younger Americans to get that first-time job to start learning the process of work?

Mr. HALL. Right, right. That is actually one of the concerns if you look at labor force participation by age right now. Once you get the baby boomers, past the baby boomers, the rates are still pretty low even today, lower than they were for the baby boomers.

Mr. HERN. Thank you. I could spend like 4 or 5 more days asking you questions, but thank you so much for your time, and thank you for the difficult job that you have.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentleman from New York, Mr. Morelle.

Mr. MORELLE. Thank you, Mr. Chairman. First of all, congratulations, and thank you for the opportunity to serve on this committee.

Dr. Hall, thank you for your testimony. I appreciated the materials that were sent over. I only had a brief chance to look at them since you released them yesterday, but I am anxious to pore through them.

But I had a couple of very basic questions. The first is—and I have asked a number of people this and I have a hard time getting an answer, maybe you could take a whack at it—what, in your opinion, should the optimal debt level be as a percentage of GDP?

Mr. HALL. Well, CBO has very intentionally avoided making recommendations like that, what is the optimal debt level. We wouldn't offer an opinion on that. We can give you some idea of where the debt level is, what some changes, that if you suggested some changes being made, we could tell you what it would likely be as a result, but I wouldn't want to tell you what I think the optimal is.

Mr. MORELLE. It is hard to figure out from a policy point of view where you want to be when the folks that you rely on have a difficult time coming to it. Obviously, you are concerned about the increasing debt as a percentage of GDP, but it is curious just because it is hard to guide your thinking when you don't know where the target is. But I may want to pursue that line of questioning with you further offline.

I did want to—first of all, thanks for the report, which was very helpful. And as I pored through it in the last day and a half, much like I think my colleague Mr. Hern expressed, I see this, in part, as something of a function of demographics. And I have been thinking about the U.S. population.

So the percentage of people over the next 10, 20 years and beyond that are in the workforce as a percentage of all Americans versus the number of retirees is clearly changing, and that is driving a fair amount of this. Am I reading that effectively the right way?

Mr. HALL. That is right. Yes.

Mr. MORELLE. And also, Mr. Hern mentioned fertility rates and the replacement of workers. So as I think about this, if you have enough people in the workforce who are working as a percentage of the number of people retired, then essentially part of your problem goes away. Even the mandatory spending just becomes a fixed number. If you could maintain the percentages that had been in force 30 years ago, you would have a much different picture, wouldn't you?

Mr. HALL. Yes.

Mr. MORELLE. And that is what is driving a lot of this.

Mr. HALL. Yes.

Mr. MORELLE. Which does lead us to have the conversation about immigration, because it is clear that, given the incumbent population, we don't have enough people and the fertility rate is not enough, as I understand it from reading.

So that does—in terms of the imperatives around debt and debt burden in the out years, immigration policy will play a very significant role in how we address debt. Is that correct?

Mr. HALL. That is right, to the degree it affects the labor force. And labor force is an important sort of part of the recipe for growth and revenues and budget spending.

Mr. MORELLE. I do want to come back to you at some point about that. I am also inclined to be concerned about the impact that climate change is having on debt loads.

And one of the things that I thought about a couple months ago when we were doing an orientation for freshmen members and we were talking about debt, it occurs to me that unanticipated international engagements, unanticipated natural disasters, which are certainly occurring at a higher rate with concerns by the scientific community and many of us about climate impacts, that those will have a much greater impact, and we are going to be in a much more precarious position related to how much we can address those through debt because of the situation we find ourselves in. And to me, those are two very, very grave dangers looking forward.

Do you factor that in here?

Mr. HALL. Yes, it is implicitly in there. That is right. And I can give an add. We have done some work, for example, of we do have a nice piece on the impact of increased hurricane frequency because of climate change. It will give you some idea of how much we think that will impact the economy and the budget going forward.

Mr. MORELLE. Yeah. And the last point, I just wanted, I think I am reading this right in terms of the charts. I looked at 1969 and 2029, and it is hard to tell exactly on the charts with these numbers, but it looks to me, though, outlays in 1969 were about 18 ¾ percent of GDP. In 2029, they are expected to be 23 percent, whereas revenue has actually dropped as a percent of GDP over that period of time.

But even if you look at just today, those outlays have gone from 18 ¾ to about 20 percent, in looking at your line; whereas, on the revenue side, 18 ¾ to about 17 percent. So I want to come back at some point to talk about the immigration policy and having more people in the workforce, and appreciate all your great work, sir.

Mr. HALL. Sure.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentleman from Tennessee, Mr. Burchett.

Mr. BURCHETT. Thank you, Mr. Chairman. It is Burchett, Birch like the tree and et like I just et lunch. Thank you so much. I appreciate that. Thank you, Ranking Member, for your indulgence.

Chairman YARMUTH. Thank you very much for you so graciously were willing to defer to your senior colleagues, and they said they wanted me to——

Mr. BURCHETT. Yes, sir. Well, thank you. I appreciate that.

As a freshman, I would like to say I still don't have a door on my bathroom, but I understand that Mr. Hall has little or nothing to do with that, so I will not bring that up during our conversation. Although my daughter did say I could put a curtain across there, and I told her, I said, baby, this isn't church camp, we got to have a little more prestige here in the United States Congress.

Dr. Hall, I want to thank you so much for indulging us with your questions, and I want to ask you a question about tariffs. It seems the President mentioned tariffs and, you know, the dark clouds are looming. But I remembered I think it was either my first or second sophomore year in college in the eighties that we were one of the—well, the only American motorcycle manufacturer was about to go out of business because the Japanese were, in fact, dumping motorcycles, and it was primarily 1,000 cc bikes and above, onto the market for cheaper than they could actually produce them. And then they would drive everybody else out of business and then they would jack the prices up.

And I have noticed that we are now exporting to China rice now. It seems that some of these talks of tariffs have brought some of our sometimes friends and sometimes enemies to the table. And I wonder if you could comment on that and the effects that that has on our economy.

Mr. HALL. Sure. Sure. Let me say how tariffs are working into our forecast here. Right now, tariffs imposed are impacting about 11 percent of imports. We think that that is reducing GDP by maybe a tenth of a percent, on average, over the next 10 years. But it is generating about $34 billion in customs duties next year.

So we have assumed that those stay in place forever or they stay in place for the time period. We have not assumed the scheduled tariff increases, that those occur yet, because the President seems to have a lot of discretion on that. So we are going to wait to see if actually that, in fact, gets done.

The effect of just tariffs themselves are kind of like any other tax. It is a tax on imports. It is a tax paid by domestic importers. And then they burden, the price can be borne by foreign producers, U.S. businesses, U.S. consumers, that sort of thing. And then you have the retaliations probably affecting exports.

So those are all sort of the direct effects. It is not the strategic aspects of the tariffs, which I think is a bit of what you are talking about. But we have talked about that, and I would say the effects are—the kinds of effects are well-known. The actual numbers are a little bit hard to come by, because it is hard to know how much will be passed forward and not passed forward.

Mr. BURCHETT. Sort of an aftereffect. I mean, you see it after it is already done and then you come back and tell us, and then——

Mr. HALL. That is right. That is right.

Mr. BURCHETT. All right. Another question I had is, at least in Tennessee, the tax cuts are working. Revenue is growing. If you want a job, you can find a job in Tennessee. And it seems obvious that the increased mandatory spending is the problem. In fact, our

Ranking Member speaks very eloquently on this. I am not quite at that level.

But, in your opinion, what is the source of that problem?

Mr. HALL. The mandatory spending I think is relatively clear. We have an aging population, and there is no way around that. That is driving a lot of, including the healthcare costs. And even the aging population aside, we have rising healthcare costs that rise faster than GDP. They have for a long time. We think they are going to continue to rise faster. It is those two things that are really driving this big increase in the deficit in spending going forward.

Mr. BURCHETT. All right. I have one more question, if that would be all right. Mandatory spending programs, it seems like they are approaching unsustainable levels. And could you share your thoughts on being a little more fiscally responsible with those programs? I realize you have to be careful about opinions. I understand that.

Mr. HALL. Yeah. Sorry if it sounds—but read our book, our Options to Reduce the Deficit. We really do have a number of options there.

Mr. BURCHETT. Is this like in college where I have to buy the professor's book that actually is teaching the class?

Mr. HALL. That is right. And we are happy to follow up and talk about any of those things and how, you know, the scale and that sort of thing.

Mr. BURCHETT. I will warn you about that. My buddy Sheddy Ward found a bunch of those at the used book store, and he went and bought them and sold them back to the University of Tennessee at the full cost. So just remember that.

Thank you, Mr. Chairman.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentlelady from California, Ms. Lee, 5 minutes.

Ms. LEE. Thank you very much. Thank you, Mr. Chairman, for this hearing. Thank you, Ranking Member Womack, and good to be back on the committee.

Thank you, Director Hall, for being here. Let me ask a couple questions and following up, really, from Mr. Hern's line of questioning from a different perspective.

First of all, we know that Americans not only need jobs, but they need to be paid a living wage to lift themselves and their families out of poverty. Unfortunately, wages have remained very stagnant, with the Federal minimum wage still at $7.25 an hour. Yet the cost of living has increased, on average, I think it is by about 12 percent. Now, at the same time, the value of the minimum wage has fallen by 20 percent and there is not a single county in the country where a minimum wage matches the local cost of living.

And so let me ask you, in terms of just economic impacts, what would raising the Federal minimum wage to a living wage, so people can take care of their families, what type of impact would that have on economic growth and the budget outlook?

Secondly, let me just ask you—I want to ask my questions in one block—in terms of just strong wage gains. I don't see any predicament—or prediction, excuse me, for unemployment in communities of color, which at least, and I just have to say in the African American community is still double that of White unemployment. It is 6.6 percent in the Black community. In my home State, the unemployment rate among African Americans is at 10.7 percent.

So how do you address this disparity in unemployment rates, which are very large in the African American community, as well as the impact of a living wage on economic growth and the outlook for our budget?

Mr. HALL. Sure. I need to be a little careful in talking about minimum wage, because, you know, we would need to see exactly what the minimum wage was if there was a proposal and work through the impacts.

On the most basic level, right, raising the minimum wage raises the cost of hiring somebody. So one of the really key things is, does that discourage employment or not? So a relatively modest increase in minimum wage will have less likelihood of that if a very large one could have a labor market impact like that. But if it does not discourage employment, then, of course, wages go up and you have——

Ms. LEE. So we don't know historically if it has or has not encouraged or discouraged employment?

Mr. HALL. Well, I think we did a report on raising the minimum wage 10 percent in 2014, and we did talk about the effect, especially on low-skill workers, as having an effect on lowering employment in some places. A lot of that depends upon local cost of living, local wages, that sort of thing.

So the result is almost mixed by part of the country, because, you know, if local wages are already pretty close to minimum wage, then that is much less of an impact, both good and bad. If it is well off that, then the impact really depends a lot on the labor market.

We really do look carefully at the literature and see what sort of reaction in the past has happened. For example, if we were to look at minimum wages now, we would look at the recent experience at the State level, sort of see how those impacted employment and et cetera.

But the concern on it would be the low-skilled end of things, because those would be the people who would be most likely to be adversely affected, but also they are the ones you are looking to help at the same time. I am trying to give you—I am trying to give you a bit of a wishy-washy answer on purpose.

Ms. LEE. Yes, I understand that, but also I do understand that the 12 percent cost of living increase, you would look at that as compared to the Federal minimum wage. We have got to figure out how to address that, because people shouldn't have to live at $7.25 per hour with a 12 percent cost of living increase throughout the country.

Mr. HALL. Yeah. And with the differential unemployment rates, you know, that is a tough one that has been around for a long time. One of the things that really has always jumped out at me is when we go into recession, the people who are most hurt are people who already have high unemployment rates. So you actually see, for example, the African American unemployment rate really increasing during recessions, more so than for other groups.

Ms. LEE. But, Director Hall, I want to know, though, how you see this gap being closed because, again, 6.6, 7 percent unemployment rate in the African American community, in my State 10.7 percent in the golden State of California, that is unacceptable. And so we have got to come up with a specific strategy as it relates to communities of color, the African American and Latino community, in terms of how to begin to close that gap.

Mr. HALL. I will beg off, because we don't make policy recommendations.

Ms. LEE. I understand that. But you can tell us what some of the economic assumptions are and how we could begin to look at policy recommendations.

Mr. HALL. We are happy to talk about what we think would be the effect of particular policy proposals. That is sort of what we do.

Ms. LEE. But you couldn't tell us what——

Chairman YARMUTH. The gentlelady's time has expired.

Ms. LEE.——policy proposals make sense or not?

Mr. HALL. No, I would back off from doing that. Happy to follow up and talk about some of the proposals, if you like.

Ms. LEE. Okay. Thank you very much.

Thank you, Mr. Chairman.

Chairman YARMUTH. Absolutely. The gentlelady's time has expired.

I now recognize the gentleman from Pennsylvania, Mr. Meuser.

Mr. MEUSER. Thank you, Chairman. Thank you, Ranking Member Womack.

Chairman YARMUTH. Microphone.

Mr. MEUSER. Maybe I am not the only one making a rookie mistake. All right. My first hearing with the Budget Committee, I am very happy to be here. I hope our work on this committee results in a more balanced, effective budget for the people and the taxpayers that are counting on us to bring accountability and return on investment of their money.

Dr. Hall, you have undoubtedly heard the saying, we don't have a revenue problem, we have a spending problem. I served as secretary of Department of Revenue in Pennsylvania, and I always felt that the statement beared a lot of truth, and I also know that job creation and wage increases was the best revenue generator.

Currently, our national unemployment rate is 3.9 percent. Two years ago, it was 4.7 percent. This is an increase of 4.8 million jobs across the country. Can you provide an estimate of the revenue increase of a .8 percent decrease in the unemployment rate?

Mr. HALL. We would have to think about that. We could probably work through something with that.

Mr. MEUSER. And on wages as well. Do you have an estimate of what the wages increase were over the last 2 years or just over the last year?

Mr. HALL. Well, wages have been surprisingly unexplainably flat, and they are starting to rise now. The labor market is generally getting tight, and we do forecast that wage growth is actually going to continue and strengthen going forward. We don't have sort of a budgetary impact of that sort.

Mr. MEUSER. That is what I expect as well. And was it in the neighborhood of about 4 percent over the last 6 to 8 months or two or three quarters?

Mr. HALL. I would have to check. That number is not——

Mr. MEUSER. And I would also be curious as to what your revenue numbers show for new revenue coming from wages, if that was something that we could get.

Mr. HALL. Yes, we can follow up and probably give you a feel for that.

Mr. MEUSER. Great. I mean, that certainly provides some guidance as to what needs to be focused on in order to best raise revenues, of course.

The GDP has improved over the last 2 years. 2017, we were at 2.3 percent. 2018, we were at 3.1, 3.2. What is projected for 2019, GDP?

Mr. HALL. We have it slowing a bit to 2.3 percent.

Mr. MEUSER. Okay. So what would you estimate—and it may be in your summary here—the level of revenue increase for a 1 percent increase in GDP?

Mr. HALL. We would have to look that up. You know, we have some—those interactions we have got, you can vary productivity, and that is pretty close to varying GDP and that will give you some idea of the budgetary impact of that.

Mr. MEUSER. All right. Well, it is fair to say we have a strong economy, we are growing jobs, and we are increasing revenue. What was the percentage of revenue increase over the past 2 years or even just the past year, in 2018 or 2017?

Mr. HALL. Yeah, I don't know offhand. I am sorry.

Mr. MEUSER. All right. What I have what is projected for 2019 is 5.6 percent. That is very high. When I was revenue secretary a 4-year period, we grew revenues by about 10.5 percent in the Commonwealth of Pennsylvania. That is 2.5, 2.6 percent a year. So we are projected to grow revenues next year by $186 billion or 5.6 percent. That is strong. Would you agree?

Mr. HALL. Yes. Is that from our numbers?

Mr. MEUSER. It is.

Mr. HALL. Oh, okay. Then I will stand by those.

Mr. MEUSER. Now, the percentage of spending increases over the past 2 years was my next question, but we will forego that. And we do have a projected revenue in 2019 of 7.4 percent or $304 billion. That is extraordinarily high, 7.4 percent increase in spending. In fact, I was surprised to see that. The most that we ever had when I served as revenue secretary for the sixth largest State and the 19th largest economy in the world was about 4 percent, which, frankly, was about a point and a half too high, since we had to have a balanced budget.

So I would just add, based upon these numbers, and if you go back 5 years, where our spending levels were in 2013, in 2013, our spending levels were equivalent to where they were in 2018. So I look at that—and not to mention the fact that prior to 2013, we had 4 years of the largest unprecedented level of spending, as you are well aware, $5.4 trillion over a 4-year period. And yet, even that, even with that prior, the 2013 levels of spending are equivalent now to where our revenue levels were.

And it is data like this that tells me that—look, we always want to try to increase revenues. We want the strongest economy and the most competitive tax rates that has the largest max/min possible, but we really have continue to have a huge spending problem.

So clearly, these numbers show that. And what we are hearing today, I am looking at things like this with enormous levels of spending, with no chance that a higher rate of taxes unless it was near 100 percent would cure. Would you agree that we largely have a—one side of the ledger is more of a problem than the other, meaning spending?

Mr. HALL. I would try to avoid, in a sense, taking sides. You know, obviously, one needs either less spending or more revenue or both to fix this problem.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentleman from Virginia, Mr. Scott.

Mr. SCOTT. Thank you. Thank you, Mr. Chairman.

Mr. Hall, I appreciate your presence. And I remember in the opening comments we were challenged to state what our plan was. And I can tell you that our plan is to resort to PAYGO, where you don't have $1.5 trillion in unpaid-for tax cuts. In fact, if you go back, as Mr. Connor was asking, to 2000, when we had a significant surplus—I remember in 2001, after President Clinton left office, Chairman Greenspan was peppered with questions at a hearing as to what would happen when there is no government debt, because we were projected at that time to pay off the entire debt held by the public by 2008 and by 2013 return all the money to the trust funds. But we had massive tax cuts, fought two wars without paying for it, passed a prescription drug benefit without paying for it, violating the PAYGO principle, and all of a sudden we are back heavily in the ditch.

If we had paid for everything we have done since 2000 and hadn't cut taxes without paying for them, we would be in a lot better shape than we are now.

One question I had, have you been following the multi-pension employer crisis?

Mr. HALL. Yes. We do have some work on that, yes.

Mr. SCOTT. We have noticed that if these pension funds—well, there is an old saying, if you don't change directions, you are going to end up where you are headed. We are headed to many of these funds going bankrupt, taking down people's pensions and taking down a lot of businesses.

Have you calculated what impact that would have on the Federal budget, in terms of increased food stamps, Medicaid, lower taxes?

Mr. HALL. I am not sure. We have a report on it. I would have to take a look at that. We can get you that report. I am not sure if that would be in there or not. I think we do talk about some proposals to help fix the problem, at least.

Mr. SCOTT. The proposals to fix the problem, best we can determine are actually cheaper than letting the problem occur. So that doing nothing is about the stupidest thing that we can do, because the effect on the budget would be profound. And there are a lot of suggested proposals that are cheaper than to the hit on the Federal budget ignoring all of the pain and suffering.

Can you tell me a little bit about what the effect immigration has on Social Security, immigration policy?

Mr. HALL. Sure. Sure. We would have to—changes in policy, we would have to know what the change is and do an evaluation of that, that sort of thing. Immigration, I think right now we have settled into something like a little under 1 million legal immigrants a year coming in. That contributes to the labor force growth. I don't know that we have done anything in particular about what if that immigration didn't happen.

Mr. SCOTT. If you have people coming in working, they would be contributing to Social Security.

Mr. HALL. Right.

Mr. SCOTT. And that would actually help the Social Security crisis. Is that right?

Mr. HALL. Yes, I think we have done some work on that. I am not remembering exactly what we found. If I could follow up with you, I could give you some idea of what we found with the effects of that.

Mr. SCOTT. You indicated that the tax cut was helping to pay for itself. I understand that the later years in this decade, the tax cut actually is a drain on revenues. Is that right?

Mr. HALL. Well, our analysis is that the tax bill does leave GDP over 10 years at a higher level, on average. It is about seven-tenths higher, the level, on average, through the decade. So there is that going forward. I am not sure about the pay-for aspect at the end. I would have to take a look.

Mr. SCOTT. I thought in your testimony you said it actually had a drag on the economy in the last few years.

Mr. HALL. Well, no, no. The lower taxes on investment in particular probably is helping economic growth in the near term. I think perhaps the part that I referred to was the end of the stimulus from the tax bill going away is going to leave us with slower growth in the next couple of years. So that is the drag, I think.

Mr. SCOTT. Right. Slower growth because of the tax cut?

Mr. HALL. Right. The stimulus effects will wear off.

Mr. SCOTT. And there will be slower growth because of the tax cut?

Mr. HALL. Right.

Mr. SCOTT. Thank you, Mr. Chairman.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentleman from Georgia, Mr. Woodall.

Mr. WOODALL. Thank you, Mr. Chairman. Thank you for holding the hearing. You have always been one of my top two choices to chair this committee, and I am glad to see you in that chair today.

Mr. Hall, you were talking about inexplicably flat wage growth. I am not an economist; I am a lawyer. Help me to understand what we call wage growth. I think about when we went into the Great Recession and folks who would have been working in a top financial institution in my community were now working the customer service desk at Macy's. They were making the top wage there at the Macy's customer service desk, but they were making substantially less than they were making in the financial services industry.

Does that count as a wage drop? Is that reflected in wage growth statistics when you move from one job type to another?

Mr. HALL. It does. It depends a little bit on which measure you are talking about. Something simple like just wages, it doesn't capture that very well. One of the things that we look at is something called the Employment Cost Index, which sort of holds the composition of the labor force constant and look at how wages drop.

So different wage measures tell you different things. Some of them include full compensation. Some don't include all the compensation. So there are a lot of measures that sort of can tell you sometimes a little bit different pictures of things.

Mr. WOODALL. Because when we look at the who is quitting their job index, more Americans leaving the job they had to pursue new opportunities, it just stands to reason to me that if more Americans are taking advantage of a superior opportunity, more Americans are acting in their own economic self-interest, we should see a positive bump in those remuneration measurements somewhere, but we are not, as you pointed out, in wage growth. Help me to understand why.

Mr. HALL. Sure. Well, we are not really sure, because we didn't expect this. And I think the profession didn't expect wages to take quite so long to get going. But they are starting to get going now. We have seen some growth.

The ECI in particular, I mentioned, was one that we look at. And we think that it is going to continue going forward, because the labor market is still pretty tight. We still think the unemployment rate, even though it is very low, we still think it can go down from here. So we do think it is going to increase going forward.

Mr. WOODALL. Thinking about Mr. Scott's question about long-term economic growth, as long as I have been on this committee and as long as you've been in your position, you have come and made that same testimony. There are things we can do early that will benefit us early, but they will cost us later, or there are things we can do that will cost us early that will benefit us later. We are always in that tradeoff.

I look at the long-term growth numbers, your projections this year from the 2017 projections 2 years ago, and we are about one-tenth of a percentage point off in long-term growth from your projections 2 years ago in the out years, but we are a trillion dollars higher in GDP 10 years out from there. We have had growth in these near-term years 50 percent higher than what you would have anticipated 2 years ago.

What is the long-term measure that we look at to say, yes, there is a tradeoff between what we do early and what we do late, but it is worth it? What do the economists look at to say it is worth it?

Mr. HALL. Well, one of the ways to think about it is we have really kind of two distinct models that we use to forecast growth. One is a demand side model. It sort of looks in detail about where we are now and where we are going that has all the detail about, you know, consumer behavior and investment and that sort of thing. But we also have a second model, which is our long-term model, which is a supply side model. And it generates something we call potential GDP, potential growth, which is that supply side. And that is the one that tells you where we are going, we think, in the long run. So we then focus on things like labor force growth and productivity and capital investment and that sort of thing. And those are the things that are going to be the big determinants of long-run growth and long-run prosperity.

Mr. WOODALL. And you use the term “long-run” to describe what time window?

Mr. HALL. Yeah, by long-run, I really kind of mean—I kind of mean once the economy reaches its potential. You know, what is—by potential, I mean the supply side constraint on where we can go. We only have so many workers. We only have so much capital. That is sort of what I mean by the long-run, when that constraint becomes binding.

Mr. WOODALL. So as I look at the projections you have made this year versus those you have made prior to the tax cuts, I see a larger GDP than you had expected in the 10-year window——

Mr. HALL. Right.

Mr. WOODALL.——suggesting cumulative growth greater than you had expected in the 10-year window.

I recognize the concerns that folks have about we are trading away prosperity tomorrow for prosperity today, but it seems like we have increased prosperity relative to your expectations just 2 years ago over the entire 10-year window.

Mr. HALL. Well, when we looked at the effect of the tax cut, we expected the tax cut raised GDP last year by about three-tenths of a percentage point. So it did have an impact on growth there. We think the impact continues going forward so that, on average over 10 years, we think the GDP level will be seven-tenths of a percentage point higher. So we do think we have a bigger economy this next 10 years because of the tax cut.

Chairman YARMUTH. The gentleman’s time has expired.

Mr. WOODALL. Thank you, Mr. Chairman.

Chairman YARMUTH. I now recognize the gentleman from Pennsylvania, Mr. Boyle.

Mr. BOYLE. Thank you. And congratulations, Mr. Chairman.

Thank you, first and foremost, for the work that the CBO does. Especially at this point in history of this institution, the history of our country, to have public servants who are attempting to call the balls and strikes is an incredibly important public service. I want to say thank you to you and everyone who works at CBO.

With respect to the deficits, it appears that the latest projection is that the deficit will reach just under $1 trillion in this fiscal year and then exceed $1 trillion for a number of years to come. The deficit has spiked dramatically this past year, specifically because of a GOP tax cut that wasn’t paid for.

Can you cite for me—and I should add, we are approximately 9 years into this economic expansion. Can you cite for me any other time in American history during an economic expansion where you have seen such a dramatic increase in the deficit?

Mr. HALL. No, not really. And, in fact, the visual summary that I handed out, if you sort of look at that visual summary, you sort of get to see deficits historically.

And one of the interesting things to me is if you look at this and look at, gee, 1980 was a recession, we saw a deficit spike. 1990, they spiked. 2001, they spiked. 2008, they spiked. And now they are not spiking, but they are at a really high level for such a low unemployment rate and for such strong growth. That is different.

Mr. BOYLE. Yes. And given the previous examples you cited, and you can go back even before 1980 and it would show the same thing——

Mr. HALL. Right.

Mr. BOYLE.——typically, budget deficits dramatically increase when there is a recession.

Mr. HALL. Yes.

Mr. BOYLE. So when inevitably this economic expansion ends and there is another recession, what would you expect to happen to this already large budget deficit?

Mr. HALL. We think the deficit would likely increase. Now, we do, in the long run when we do forecast, we do have a little bit lower growth in there because we think, okay, there might be a recession in there. And so growth, on average, is lower than we would forecast without a recession. So there is a recession sort of in there over 10 years, but it is not actually visible. But you are absolutely right, if we did hit a recession, we would expect the deficits to spike more than where they are now, which is already a high level.

Mr. BOYLE. Let me just shift quickly to the longest government shutdown in American history. I was struck by the fact that the equity markets reacted almost not at all to this and to the effect on first quarter growth, presumably under the belief that anything we lost in the first quarter will then just be added back on in the second quarter. It is hard for me to understand how that squares with so many contractors who now will permanently lose the pay that they lost over the last month.

Can you help me try to understand that? And do you agree with what seems to be the perception out there that this government shutdown, as awful as it was, somehow we would make back up the revenue and growth that was lost?

Mr. HALL. Well, first of all, when we did our estimate, we do think that Federal spending—that Federal agencies will spend their appropriations. So their spending stopped, but they will continue and they will spend all the money. And we think that people who were not paid for a while, they will get back maybe to normal patterns.

Part of what is not captured by that is the distributional effects, right. So we are looking at the effect over in the context of the entire economy, which is really huge; but if you look at the impact on just Federal workers, it is much higher. If you look at the impact on private contractors, it is higher. And some of that effect is going to be permanent for those contractors. Even if the Federal Government goes ahead and spends the money, they aren't necessarily going to spend it the same way that they did before.

So there is that distributional effect. And we also don't see it entirely recovering. We think that, on the whole, we will see some recovery over the next three quarters, but we will still be—GDP output will still be short about $3 billion. You won't make up for that government output.

Mr. BOYLE. So just to underscore that point, we won't be, as you put it, entirely whole, and that is $3 billion that we lost because of this government shutdown?

Mr. HALL. That is our estimate, yes.

Mr. BOYLE. Thank you.

Thank you, Mr. Chairman.

Chairman YARMUTH. Thank you. The gentleman's time has expired.

I now recognize the gentleman from Missouri, Mr. Smith.

Mr. SMITH. Thank you, Mr. Chair. Mr. Hall, great to have you today. In 2016, I believe the yearly GDP was 1.5 percent. In 2017, it was 2.3 percent. And it is estimated 2018 is going to be 3.3 percent. So definitely, why would you say that it went from 1.5 in 2016, 2.3 in 2017, and now 3.3 in 2018?

Mr. HALL. Well, part of it is the continued recovery from the Great Recession. The recovery was really quite slow. But we do think a lot of it was the stimulus from the Tax Act. We do think that that has had an impact and there has been a bit of stimulus out there.

Mr. SMITH. So what happened in 2003—I mean 2017? Because the Tax Act was passed in December of 2017.

Mr. HALL. Right. We just sort of had a strengthening economy. You know, it is quite possible——

Mr. SMITH. Could it have been President Trump's regulatory relief?

Mr. HALL. That may have had an impact. You know, it may have been—I do think there were probably some signs that people anticipated a Tax Act coming up.

Mr. SMITH. Or optimism by consumers?

Mr. HALL. That is quite possible, yes.

Mr. SMITH. Because of President Trump's policies?

Mr. HALL. Well, I would say anticipation of a Tax Act.

Mr. SMITH. Of his policies, because he pushed tax reform, right?

Mr. HALL. Right.

Mr. SMITH. Okay. Also, we have heard some discussion in here earlier that said that tax revenues are up for last year. Is that correct?

Mr. HALL. I believe that is true, yes.

Mr. SMITH. So after passage of the Tax Cut and Jobs Act, what did we lose in revenue? Because the prior discussion from the gentleman from Pennsylvania said we have the highest deficit now because of the tax cut. So how much did we lose last year because of the tax cuts?

Mr. HALL. I would have to look. I would have to look that up.

Mr. SMITH. I think that is a pretty important issue. You made that—you know, you didn't counter that statement.

Mr. HALL. Right.

Mr. SMITH. So I would like that number of how much revenue we lost.

Mr. HALL. Okay. I can give you some idea. We will follow up. But if you look at the second graph on the visual summary, you will see that the revenues as a share of GDP sort of fell below 50-year averages. That is, in part, because of the Tax Act.

Mr. SMITH. What your report did say—and correct me if I am wrong—that because of the Tax Cut and Jobs Act, we added 900,000 new jobs. Is that correct?

Mr. HALL. That is right, over a 10-year period——

Mr. SMITH. Over a 10-year period.

Mr. HALL. That is right.

Mr. SMITH. And also, your report says that wages raised by $1.2 trillion over 10 years?

Mr. HALL. I don't know that number in my head, but if it is our estimate.

Mr. SMITH. Those were the numbers that you gave us in spring of last year, and they also are in this report.

Mr. HALL. Well, we still stand by those numbers. We are still happy with the estimate.

Mr. SMITH. So that is good, because that is a highlight. And I think that we need to talk about wages increasing instead of your statement just earlier saying that they have been flat.

Also, in your report in spring, and you just highlighted again, you said that the Tax Cut and Jobs Act will create $1.7 trillion in GDP. Is that correct?

Mr. HALL. What's that?

Mr. SMITH. Over 10 years.

Mr. HALL. Over 10 years? I am not sure of that raw number. I have got the seven-tenths of a percent higher, on average, over 10 years. That may work out to be that number.

Mr. SMITH. Yes, seven-tenths over 10 years. Those were the numbers you gave us on the Ways and Means Committee, so I just wanted to highlight it. It shows the successes of the Tax Cut and Jobs Act, of how it is growing the economy and how we are affected.

I clearly believe that your report highlights that the policy that was pushed by President Trump and the Republican House and Senate for tax cuts clearly has showed a growth in the economy.

And also, you made a statement earlier that you said that the economy would slow down at the expiration of the Tax Cut and Jobs Act, correct?

Mr. HALL. Of the individual income tax rates, if they go back up.

Mr. SMITH. When they expire in a couple years?

Mr. HALL. Yes.

Mr. SMITH. So you are basically testifying that by increasing taxes will slow the economy, correct?

Mr. HALL. That is right.

Mr. SMITH. No further questions.

Chairman YARMUTH. The gentleman's time has expired.

I now recognize the gentleman from Nevada, Mr. Horsford.

Mr. HORSFORD. Thank you very much, Mr. Chairman. I am looking forward to serving with you and the other members of the committee.

Dr. Hall, I would like to ask you to expand on your office's report on the economic effects of the recent partial government shutdown. I would specifically like to focus on the economic impact of missed pay by Federal workers. There are 3,520 Federal employees in Nevada who were furloughed or forced to work without pay during the 35-day government shutdown. That is 35 days of money that they could not buy groceries, repair their cars, pay for childcare, or other contributions to Nevada's economy.

In total, Nevada has 19,117 Federal employees, and those are employees who are impacted by President Trump's recent executive order, which will prohibit them from receiving their scheduled pay increases this year.

Mr. HALL. Let me give you just a little context. There were 12 departments or agencies affected by the partial shutdown, which is not trivial. It impacted about 800,000 people, which is about 40 percent of the Federal workforce.

And you are right, the lack of pay was something to the tune of $9 billion that those workers didn't get for that time period. And we think the effects, of course, are really strong on those workers. It is also there is an indirect effect of their spending patterns change for a while. So you have impact on the rest of the economy as well.

Mr. HORSFORD. So in addition to the impact from the shutdown, will the CBO release any kind of estimate on the public and private sector revenue loss as a result of the freeze in pay for these workers, both in Nevada and across the country?

Mr. HALL. Yeah. We haven't looked at the freeze in pay part, and I don't know that we have any plans to look at that.

Mr. HORSFORD. Can I ask why not, since that is such a big part of the economic stimulus, both in the public and private sector?

Mr. HALL. Sure. It is not something we would normally—in a sense, we will take it on board when we look at our forecast, budget forecast going forward. You know, we will update this in the spring. So we will take that into account.

It is a little different for us to actually get down and do sort of a real detailed analysis on the impact of just that, but that is something that we will take on board and look at when we look at Federal spending and then the economic growth aspects.

Mr. HORSFORD. I think it is incredibly important. As you note, $9 billion of lost economic activity just in 35 days from people being furloughed.

Mr. HALL. Right.

Mr. HORSFORD. The impact of people not receiving, you know, a pay increase of 2.9 percent in their pay is quite a significant loss, both in the public and the private sector. And that has lost again an ability for people to meet their individual needs, family needs, community needs. And I think that, for whatever reason, there has not been enough discussion about the fact that Congress appropriated those funds for that pay increase and that the President unilaterally froze those pay increases. So I would like to request your office to provide that information once it is available.

Mr. HALL. Okay. We will circle around and talk about it, if you like.

Mr. HORSFORD. Thank you, Mr. Chairman. I yield back.

Chairman YARMUTH. The gentleman's time has expired.

It is now my honor to yield for the first time to the Ranking Member, Mr. Womack, for 10 minutes.

Mr. WOMACK. Thank you very much to the chair, and thank you, Director Hall, for your continued work at CBO. And I think we have had a pretty good discussion today on your economic outlook, and there have been a lot of, I think, really substantive questions raised here. I will try to amplify on some of those.

It is obvious to—my friends on the other side have targeted the corporate tax rate. They believe cutting the corporate tax rate down to 21 percent was ill-advised, and I think the plan right now is to move it to 28 percent. Can you give me a quick assessment as to what CBO thinks would happen in the event that the corporate rate went from 21 to 28 percent?

Mr. HALL. Sure. I suppose without doing the estimate, I suppose we would see sort of the inverse of what we saw from having it lowered to begin with. It would likely have an impact on investment and lower levels investment, meaning lower capital stock. So we might take a hit on—GDP might take a hit actually in wage growth a little bit from having that increase.

Mr. WOMACK. Without a model in front of you, what kind of a hit on GDP?

Mr. HALL. It is hard—it is hard to know. I don't want to sort of guess on that. We would have to do some thinking on it. You know, I don't know that we separated out the effect of lowering the corporate tax rate to begin with really separated that out really carefully. I would have to take look and see what we have done.

Mr. WOMACK. Well, I know the Tax Cuts & Jobs Act has been assailed by my friends on the other side quite frequently. Economic growth of 3.1 percent in 2018, best since 2005. Unemployment projected to be 3 ½ percent in 2019, the lowest since the 1960s. I think it would be a stretch to say that the effects of the Tax Cuts & Jobs Act did not have an impact on those two statistics. Would that be correct?

Mr. HALL. Well, that is right, and I think that was actually in our original forecast. I really do think we suggested that GDP was going to be at three-tenths higher in 2018, so some of that we think is from the Tax Act and the same with the wage growth.

Mr. WOMACK. So assuming that is correct that the growth rate and the unemployment rate coming down are—have been impacted by the Tax Cuts & Jobs Act, then is it fair to say that the Tax Cuts & Jobs Act from that standpoint, growth in the economy, lower unemployment is, in fact, working?

Mr. HALL. Well, I think—let me put it this way, I don't want to sort of take sides, but I think it is——

Mr. WOMACK. Well, I am not asking you to take sides. I am just simply asking the CBO director to opine whether the effects—based on your modeling, whether the effects of the Tax Cuts & Jobs Act—we can set aside the argument of does it pay for itself. I mean, that is an entirely different subject, because you have to look at tax rates instead of in a vacuum as a total package. I mean, we have got deregulation that is happening. That is having an impact on the confidence of the job creator out here. That is just one example of many. We have got portfolios that are going up on the stock exchange where a whole lot of people have their 401(k)'s, et cetera, invested, and so that is a consideration. We have some companies that are investing in healthcare now for their employees as a result of the Tax Cuts & Jobs Act that had not been previously provided.

So using the metrics CBO has given us growth in the economy, low unemployment. Again I ask, is it fair to say that from those standpoints the Tax Cuts & Jobs Act is working?

Mr. HALL. I think we stand by our estimate, and I think our estimate is consistent with that, that there would be stimulus effect, there would be higher growth. There would be an increase in labor force participation from the Tax Act. And so far after a year, I think our estimate is looking pretty good.

Mr. WOMACK. So then would the inverse be true that if you raise the corporate rate from 21 to 28 percent and allow the individual rates to expire in whatever that eighth year is from the inception of the Tax Cuts & Jobs Act, that it would have an impact?

Mr. HALL. I think it would have an impact, and some of that would be on investment and capital stock and growth.

Mr. WOMACK. I want to pivot now to mandatory spending. We have talked a lot about it. It is one of my chief concerns, because as you have already said today in your testimony and has been covered in your economic outlook, as a percentage of GDP, as a percentage of GDP, mandatory spending in your 10-year window in your analysis goes higher and discretionary spending as a percentage of GDP goes lower.

In your opinion as a director, is there a better argument or a better example of what the—on the spending side; we can set revenues aside, but on the spending side is there a better example to illustrate the point that this country has a spending problem and it is not discretionary, it is mandatory?

Mr. HALL. Well, I won't offer an opinion on what the biggest problem is, but it is certainly true I think discretionary spending right now is at a low level historically. You know, the lowest level I think ever historically is about 6 percent of GDP. We are at 6.3 percent, and we are heading for only 5 percent. So discretionary spending is heading towards its lowest level ever. Mandatory spending is growing, and it is growing towards its highest level. I don't think we are going to hit it in 10 years, but we are going to get pretty close. We are talking about having it get up to about 15 percent of GDP. So that is making a big contribution to the deficit.

Mr. WOMACK. In my opening, I asked my friends on the other side what is your plan based on the notion that deficits and debt just continue to be piled on to future generations, and that given what I just said about the percentage of GDP tied up in mandatory versus the declining side on the discretionary, I am not real—I am not real confident that there is a plan out there, except maybe to try to tax our way out of it. By itself, are taxes going to solve the problem?

Mr. HALL. Taxes or spending or both. Obviously——

Mr. WOMACK. Now, wait a minute, Director Hall. The question is can we reasonably—you are an economist. Can we reasonably tax our way out of this problem?

Mr. HALL. Well, the problem is what is reasonable. We can give you some idea of the effect of raising taxes, how much revenue that would generate. You know, in our options we have the effect of raising—this is something that is worth looking at a little bit—of raising all tax rates 1 percent and give you some idea. So if you put in maybe a 10 percent raise in all tax rates, you get something where the deficit starts to close, it gets pretty much to being closed. I am not sure that solves the problem, because closing the deficit problem means, okay, now you have got the hold over debt problem to solve. So the tax change would have to be pretty large to overall fix the problem by itself.

Mr. WOMACK. We have been beat up on our side of the aisle because in our budget resolution last year, we did some reconciliation numbers and we had some proposals that we were ready to present to deal with mandatory spending, particularly on the Medicare side, which is growing, as you have already said, faster—healthcare costs, growing faster than the growth of the economy and that that program is exceedingly expensive. If we don't do anything, if we just let things go as they are present, status quo, what happens to part A?

Mr. HALL. It becomes a bigger and bigger part of our budget.

Mr. WOMACK. Is there an insolvency date?

Mr. HALL. Certainly the trust fund dates, we estimate those. I don't happen to have that in front of me, but it would come up.

Mr. WOMACK. 2026?

Mr. HALL. Yes, that sounds right.

Mr. WOMACK. What about Social Security?

Mr. HALL. Same deal.

Mr. WOMACK. 2033 maybe, 2032, 2033, 2034. DI, faster than that, but on—but at the end of the day, the point I am trying to make is that if we do nothing, if we just allow status quo, that these programs become insolvent on their own. So I think it begs that we do something, and that is where I think we are getting not necessarily crickets, but we just don't have a plan from the other side that is purposed in addressing the true drivers of the deficit and the debt, and it is not that we tax too little, it is that we have promised way too much, and these programs are running out of control and becoming so expensive that they are unsustainable in the long term.

And I know my time is out. I am not going to take any more time than my 10 minutes, and I yield back to the distinguished Chairman.

Chairman YARMUTH. Thank you very much, Ranking Member.

I now yield 5 minutes to the gentlelady from Washington, Ms. Jayapal.

Ms. JAYAPAL. Thank you so much, Mr. Chairman. It feels good to say that.

Welcome back, Mr. Hall. We appreciate your being here. If we are concerned about deficits, then let me just remind my colleagues that the Republican majority passed a $1.9 trillion tax giveaway to giant corporations and the wealthiest Americans. It included provisions that slashed the corporate rates, so the largest companies got giant windfalls; cut the top marginal tax rate for the richest Americans so that 83 percent of the benefits of the cuts went to the top 1 percent of taxpayers; and there were additional handouts for the wealthiest Americans, like the $40 billion that were showered on the owners of so-called passthrough businesses.

Let's start with Treasury Secretary Steve Mnuchin's promises, because there were a lot of promises made about how the tax plan was going to benefit workers. And so, Mr. Hall, as the director of the CBO, you studied the tax plan and the budgetary effects of the legislation. Steve Mnuchin said that, quote, not only will this tax plan pay for itself, it will also pay down debt. So let me just ask you if the tax bill lived up to Steve Mnuchin's promise. Did the tax bill pay for itself? Just a yes or no is perfectly fine.

Mr. HALL. No.

Ms. JAYAPAL. It did not pay for itself.

Now, let's look at whether the tax plan delivered for workers. Shortly after he signed the bill, President Trump said that corporations were, quote, already giving billions and billions of dollars away to their workers. He was referring to the bonus pay that some companies announced shortly after the bill became law.

Mr. Hall, based on your understanding of how bonus compensation has changed since the bill passed, how much did the average American make in bonus pay as a result of the tax bill?

Mr. HALL. I don't know.

Ms. JAYAPAL. Well, I happened to do a little research into this topic for this hearing, and according to a recent study from the Economic Policy Institute based on 2018 data from the Bureau of Labor Statistics, after adjusting for inflation, the average worker got an increase of only 2 cents per hour. Workers literally got pennies.

So Republicans passed a $1.9 trillion tax plan, the money didn't go to workers, and it didn't go to paying down the debt. So where did it go?

For one, companies spent $1 trillion on corporate stock buybacks last year alone. That is companies using their profits to buy back their own stock, rather than paying their workers, investing in research and development, or making capital investments. And I think that is just a very important backdrop to have as we look at the economy and the effects of the Republicans deficit spending that simply benefited the wealthiest individuals.

You spent some time in your summary talking about immigration, and I believe that you looked at current immigration policy and you calculated that net immigration flows would grow by an average of 2 percent per year. Is that correct?

Mr. HALL. Yes.

Ms. JAYAPAL. And so when you look at current immigration policy, did you not factor in the President's proposal and Republicans proposal last year that would dramatically restrict legal immigration to this country?

Mr. HALL. We did a current law estimate, so when we talk about it, we talk about it in terms of current law.

Ms. JAYAPAL. Right. So if the President's proposal were to go through or Republicans proposal restricting legal immigration, it would have dramatic effects on our economy and on our ability to continue to grow and our labor flows being supported.

Mr. HALL. We would have to look at that specific proposal and do an analysis of it. I wouldn't want to offer an opinion now.

Ms. JAYAPAL. And, Mr. Hall, do you know that we have a near stagnant native born population if you look at our economy?

Mr. HALL. I haven't looked at that, but I am not surprised.

Ms. JAYAPAL. You trust me. Thank you. I appreciate that very much.

Let me ask you about one of my favorite topics, which is the Social Security contributions of undocumented immigrants. Do you know, if all undocumented immigrants were deported today, how much next year's Social Security trust funds would be reduced for benefit payments?

Mr. HALL. Yeah, I don't offhand.

Ms. JAYAPAL. Let me tell you how much that is according to a marketplace report that just came out. Approximately $13 billion less for benefit payments for existing Social Security recipients. And in 2016 alone, there were $13 billion paid into the retirement trust fund and $3 billion to Medicare. And so I just would like the American people to understand the tremendous contributions that immigrants, both documented and undocumented, make to our economy.

Mr. Hall, thank you so much for your presence, and I yield back, Mr. Chairman.

Chairman YARMUTH. The gentlelady's time is expired.

I now yield 5 minutes to the gentleman from Texas, Mr. Roy.

Mr. ROY. Thank you, Mr. Chairman. I appreciate it.

Thank you for being here and testifying with us here today. I just have got one quick question. As a Texan, as a former first assistant attorney general in Texas, you are aware that there is a large case pending, Texas v. The United States, involving ObamaCare regarding the constitutionality of that act, which would have huge implications for Medicaid for future mandatory spending. Did this case affect the development of the baseline or any projections with regard to the economy in future mandatory spending in you all's calculations?

Mr. HALL. It did not. Our practice is on something like this is you wait till the appeals court deals with it before we think about taking it on board.

Mr. ROY. Okay. Thank you.

No further questions, Mr. Chairman.

Chairman YARMUTH. I thank the gentleman.

I now yield myself 10 minutes. Director Hall, thanks once again for taking all of our questions and your statement and your work.

I want to return to the issue of tax cuts for a second. Your report says and your testimony said that you estimate that about 30 percent of the tax cuts in the 2017 act were paid for. They paid for—30 percent of it paid for itself, but left 70 percent. Would you actually define what that means if only 30 percent of the tax cuts were paid for, explain what that means?

Mr. HALL. Sure, sure. I am not doing anything really sophisticated. We made an estimate of the tax cuts without taking the economic growth aspects into account, and we found that the tax bill would increase the revenue—the deficit by about $2.3 trillion. Then we took the growth effects into account, which are generally positive, you have higher growth, higher employment, and we found that the net effect would be $1.9 trillion. So that difference between those two things sort of gives you an idea of how much it pays for itself.

If it had gone down to zero, for example, from $2.3 trillion down to zero, that would have been 100 percent paid for. If it went down to 1.9, that is about 30 percent of the cost. That is how I got that number.

Chairman YARMUTH. All right. And you said earlier, I believe you said that you did not break out those percentages for corporate tax cuts versus individual tax cuts. Is that correct?

Mr. HALL. That is right.

Chairman YARMUTH. Just an overall figure.

Do you have any sense of whether individual tax cuts paid back a higher percentage or a lower percentage of corporate rates did one or the other?

Mr. HALL. I don't know offhand. We might be able to look at it later and give you an idea of what we think and what we did.

Chairman YARMUTH. But the bottom line is that of the $1.9 trillion over 10 years, most of that was a cost to the taxpayers in terms of reduced revenue and increased deficits and not an increase to the taxpayers benefit.

Mr. HALL. That is right. And by the way, after a year after that estimate, we are still comfortable with that estimate. Things have come in about as we expected, so we would still say that it is about a $1.9 trillion increase in the deficit over the next decade.

Chairman YARMUTH. All right. So is it not logical to say that increasing the corporate tax rate, if only 30 percent of it was paid for, would improve the deficit situation by some percentage?

Mr. HALL. We would have to look at that. I don't want to—I don't want to kind of try to guess on something like that.

Chairman YARMUTH. What factors would make that not logical?

Mr. HALL. Well, on the plus side, of course, is to the degree it increases investment, you have an increase in the capital stock when you lower corporate taxes. That is sort of on the positive side, the marginal costs. But the question is does it increase it enough that it stimulates enough growth that it pays for itself? So in the reverse, you have kind of got raising corporate taxes, will it discourage enough investment and lower the capital stock enough that it doesn't increase revenue. We would have to work that through.

Chairman YARMUTH. Okay. I would like to see that, that analysis.

We have a date approaching, I believe it is in March, when the statutory debt ceiling arrives, and while we may have some fudge room in terms of being able to pay debt—pay obligations of the government past that, we still face that crisis once again. What would be the consequences of not addressing the debt ceiling in a timely manner?

Mr. HALL. I guess the thing we would worry about is ultimately you worry about the believability of Federal debt, whether or not you affect the rating of the U.S. as a borrower, that sort of thing, I suppose. I don't know that we have ever really projected what the impact would be if you missed that deadline.

Chairman YARMUTH. All right. Well, I hope we don't have to.

Going to healthcare for a second. We saw the projections in your report. I think in Medicare you are projecting about a 7 percent growth over the window, the 10 years. And that is based on current law, right? So if we were to—and I don't know, I can't remember exactly what the 120 suggestions were from last year, but if we were, for instance, able to, through policy, to change the law and reduce prescription drug prices by 20 percent, you could have a considerable impact on that growth rate. Is that not correct?

Mr. HALL. That is probably correct. We would have—again, we would have to sort of look at that and try to noodle it through.

Chairman YARMUTH. But current law does not—I mean, were there any suggestions, by the way, in terms of healthcare policy that you made in that 120 that would help reduce the growth rate? I mean, I understand part of it is demographics.

Mr. HALL. Right, right. You know, I haven't refreshed my memory on that. Odds are we have got some things in there, because we made an effort to use proposals from committees, the things that they thought were interesting, so we tried to find interesting things.

Chairman YARMUTH. Right. When I read through your report and your testimony, one of the things that I thought was particularly frightening was all the different ways in which the situation could get worse, and not just through policy but through economic factors, through all sorts of things. Would you say that the odds of the situation getting worse are higher, lower, or you can't tell, than that they might get better?

Mr. HALL. We actually really tried really hard to make those equal, that we are in the middle. We think there is likely things are worse, and it is just as likely things are better, to give you some idea as part of our effort to sort of be objective on this. So we think we are in the middle.

Chairman YARMUTH. And what are the possibilities—what are the worst possibilities that might occur over the next 10 years, either policy wise—I know we are talking about the expiration of the tax cuts in a few years. I know that is a big factor. What would be the worst scenarios?

Mr. HALL. Well, I would focus on nonpolicy things. I think our forecast with the interest rates included. Interest rates are really hard to forecast and interest rates have a really big impact on this. And because we have a large debt and the cost of borrowing is a big part of the Federal budget now, and so higher or lower interest rates makes a pretty big impact on this. So I would say that is one of the big important items.

Chairman YARMUTH. Again, one final question, and that is we have talked about this innumerable times over the years, but how much does uncertainty as to probabilities grow the farther we go into the budget window, and obviously past that you have got a 2049 projection as to overall debt?

Mr. HALL. The uncertainty clearly in our forecast clearly increases pretty significantly the further we go into the future. You know, we have done some analysis of how accurate we are in projecting, and as you might expect, we are generally more accurate a year or two than we are 5 years down the line, so that is an important thing. We try to give you a feel for that sometimes in our uncertainty chapter of how much that grows, you know, 10 years out.

Chairman YARMUTH. Has uncertainty increased over the last few decades or is it about the same? It seems to me there is a lot—the world is changing a lot more quickly than it used to.

Mr. HALL. I am not so sure it is in our report so much, but it really does seem like that the level of policy uncertainty these days is higher than it has been, and that adds to, I think, to the uncertainty that we may not have captured.

Chairman YARMUTH. All right. Well, I have no further questions. Once again, thank you so much.

Mr. SCOTT. Mr. Chairman?

Chairman YARMUTH. Oh, I am sorry.

Mr. SCOTT. Unanimous consent request.

Chairman YARMUTH. Go right ahead. The gentleman is recognized.

Mr. SCOTT. Mr. Chairman, I ask unanimous consent that a fact sheet prepared by the Committee on Education and Labor on the multiemployer crisis, the cost and consequences of inaction pointing out that the PBGC may collapse and the revenues will go down, increased safety net spending will go up, costs as much as $275 billion over 10 years if we do nothing. I would like this entered for the record.

Chairman YARMUTH. Without objection. So done.

[The information follows:]

Fact Sheet

COMMITTEE ON EDUCATION & LABOR

EDLABOR.HOUSE.GOV

The Hon. Bobby Scott • Chairman

The Multiemployer Pension Crisis: The Cost and Consequences of Inaction

Doing Nothing is the Most Expensive Option on the Table

Many multiemployer pension plans are in financial crisis and will soon be unable to pay out the benefits they owe to retirees. These impacted retirees earned their pensions in demanding industries, such as construction, trucking, and mining. Through no fault of their own, their pensions and their ability to retire with dignity are now in jeopardy. But the cost of inaction is not limited to retirees. Participating employers, regional economies, and communities across the country will suffer severe consequences as well.

Additionally, according to one estimate, congressional inaction would cost as much as ***$100 billion in lost federal tax revenue*** and ***$175 billion in increased social safety net spending*** over the next ten years.

What's at stake for retirees if Congress does not act?

More than a million retirees involved in multiemployer pension plans are at risk of losing nearly everything they earned over their careers. If plans fail, retirees will not receive their promised benefits. Making matters worse, the Pension Benefit Guaranty Corporation (PBGC), which insures private sector pension plans, is rapidly running out of money to backstop failed multiemployer pension plans. Unless the status quo changes, *there's a greater than 90 percent chance the PBGC's multiemployer program becomes insolvent by Fiscal Year 2025*.

If plans fail, and if the PBGC's multiemployer program becomes insolvent, retirees will only receive a small fraction of their benefits, essentially pennies on the dollar.

What's at stake for employers if Congress does not act?

The multiemployer pension crisis also carries severe risks for employers. A conservative economist at the American Enterprise Institute projects that the failure of the Central States Teamster Pension alone *would cost 55,000 jobs* by 2025. That's just one plan in one year. There are more than a hundred plans that are at real risk of failing in next decade.

What's at stake for taxpayers if Congress does not act?

The US Chamber of Commerce noted that "insolvencies and the subsequent benefit cuts that follow also have deep impacts on the communities where participants live. Retirees will see their standard of living reduced. . .This will cause many to become reliant on social programs that have to be funded by taxpayers at a time when tax revenue will be declining."

According to one estimate, congressional inaction would lead to a dramatic increase in spending on federal social safety net programs – such as Medicaid, the Supplemental Nutrition Assistance Program (SNAP), HUD Housing Assistance, and the Low-Income Home Energy Assistance Program (LIHEAP). Spending would increase by more than $17 billion annually and $175 billion over ten years. That same estimate indicated that the U.S. Government would lose between $31 billion and $101 billion in tax revenue over the ten years if Congress fails to address this crisis.

Is there some agreement on how Congress should act?

Yes. A broad range of stakeholders have endorsed a loan program, which would prevent catastrophic cuts to retiree pensions. In fact, last fall, nearly 30 organizations – including the US Chamber of Commerce, the Business Roundtable, and National Association of Manufacturers – wrote to the Joint Select Committee and voiced support for a loan program.

Chairman YARMUTH. I want to thank Director Hall once again for being with us today. Please be advised members can submit written questions to be answered later in writing. Those questions and your answers will be made part of the formal hearing record. Any members that wish to submit questions for the record may do so within 7 days.

Without objection, this hearing is adjourned.

[Whereupon, at 11:59 a.m., the committee was adjourned.]

Question for the Record
Congressman Chip Roy (TX-21)
January 29, 2019
Hearing: "The Congressional Budget Office's Budget and Economic Outlook"

In your letter to Rep. Meadows of September 27, 2018, you claimed that, in changing the budgetary treatment of cost-sharing reductions (CSRs), CBO "analyzed how premiums for 2018 had been affected by the lack of CSR payments in all states and the implications for the agency's baseline projections before those projections were finalized in March 2018." However, in response to state public records requests, not only did the insurance commissioners' offices in North Dakota, Vermont, and the District of Columbia—states that did NOT adjust premium rates to reflect the lack of CSR payments in 2018—indicate that they had no documents related to any dealings with CBO on this issue, they each noted that no one from CBO had ever contacted their offices.

Which officials did CBO consult with in these specific states about the impact of CSR payments on 2018 premiums—and when did it do so? If CBO cannot provide any evidence that it undertook due diligence about the impact of CSRs in states that did NOT adjust premiums to reflect the lack of payments in 2018 prior to releasing its 2018 baseline projections, then it cannot claim to have upheld its statutory remit under 2 U.S.C. 907(b)(1), which requires CBO to assume that "funding for entitlement authority is...adequate to make ALL payments required." Moreover, a lack of due diligence surrounding these specific states would raise additional questions about whether CBO provided full, complete, and accurate responses to questions from Rep. Meadows and other Members of Congress about this issue over the course of the past year.

Questions for the Record – Rep. Jan Schakowsky

Budget Committee Hearing – The Congressional Budget Office's Budget and Economic Outlook – January 29th, 2019

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1. Your report released on January 28, 2019 reflected a shrinkage in the potential labor force due to this Administration's immigration policy. How would comprehensive immigration reform affect the labor force and in turn GDP? Does the CBO have updated evaluations of the economic implications of comprehensive immigration reform, and if not, does it intend to conduct an updated analysis?

2. In 2013 you analyzed the Senate passed comprehensive immigration reform bill, the Border Security, Economic Opportunity, and Immigration Modernization Act, and found that it would decrease federal budget deficits by $158 billion over a 10-year period and would lead to a net savings of about $135 billion over the same period. If passed today, would a similar immigration reform bill have the same impact on the budget?

3. In 2013 your report also found that the Senate immigration reform bill would lead to the increased solvency of Medicare and Social Security. The Social Security Trustee has additionally reported that as net immigration increases, the cost rate of Social Security decreases because increased legal immigration leads to an increase in the number of covered workers paying into the system. If passed today, would similar legislation have the same impact on Medicare and Social Security?

4. Previous CBO reports have shown a correlation between taxing fossil fuels and the reduction of greenhouse gas emissions. Also, CBO's options for reducing the deficit published in December 2018 show imposing a tax of $25 per metric ton on most emissions of greenhouse gases would raise $1.1 trillion of revenues over ten years. What would be the ideal carbon tax rate that raises the most net revenue accounting for the offsetting reductions in taxable business and individual income? What would be the reduction of total U.S. greenhouse gas emissions as a result?

5. Additionally, what would be the cost estimate for rebating a portion of these tax revenues to households (specifically low-income households) to offset the additional costs they incur because of the carbon tax?

Congressional Budget Office

MARCH 20, 2019

Answers to Questions for the Record Following a Hearing Conducted by the House Committee on the Budget on *The Budget and Economic Outlook: 2019 to 2029*

On January 29, 2019, the House Committee on the Budget convened a hearing at which Keith Hall, Director of the Congressional Budget Office, testified about CBO's report The Budget and Economic Outlook: 2019 to 2029.[1] *After the hearing, Congressman Roy and Congresswoman Schakowsky submitted questions for the record. This document provides CBO's answers. It is available at www.cbo.gov/publication/55033.*

Congressman Roy

Question. In your letter to Rep. Meadows of September 27, 2018, you claimed that, in changing the budgetary treatment of cost-sharing reductions (CSRs), CBO "analyzed how premiums for 2018 had been affected by the lack of CSR payments in all states and the implications for the agency's baseline projections before those projections were finalized in March 2018." However, in response to state public records requests, not only did the insurance commissioners' offices in North Dakota, Vermont, and the District of Columbia—states that did NOT adjust premium rates to reflect the lack of CSR payments in 2018—indicate that they had no documents related to any dealings with CBO on this issue, they each noted that no one from CBO had ever contacted their offices. Which officials did CBO consult with in these specific states about the impact of CSR payments on 2018 premiums—and when did it do so? If CBO cannot provide any evidence that it undertook due diligence about the impact of CSRs in states that did NOT adjust premiums to reflect the lack of payments in 2018 prior to releasing its 2018 baseline projections, then it cannot claim to have upheld its statutory remit under 2 U.S.C. 907(b)(1), which requires CBO to assume that "funding for entitlement authority is . . . adequate to make ALL payments required." Moreover, a lack of due diligence surrounding these specific states would raise additional questions about whether CBO provided full, complete, and accurate responses to questions from Rep. Meadows and other Members of Congress about this issue over the course of the past year.

Answer. In preparing its baseline budget projections early in 2018, CBO analyzed how premiums for 2018 had been affected by the lack of payments for CSRs in all states. For many states, including North Dakota and Vermont, as well as the District of Columbia, CBO relied on information provided by the National Association of Insurance Commissioners and the Commonwealth Fund and on information in insurers' public rate filings for the

1. See testimony of Keith Hall, Director, Congressional Budget Office, before the House Committee on the Budget, *The Budget and Economic Outlook: 2019 to 2029* (January 29, 2019), www.cbo.gov/publication/54944.

2018 plan year.[2] In a very small number of states, insurance regulators did not allow insurers to explicitly increase premiums for silver plans in the marketplaces to account for CSRs. However, CBO estimated that premiums in those areas were sufficient to cover the cost of CSRs. The approach CBO used allowed the baseline projections to reflect what was actually happening in insurance markets, rather than the alternative of assuming the continuation of direct payments that were not being made.

Congresswoman Schakowsky

Question. Your report released on January 28, 2019 reflected a shrinkage in the potential labor force due to this Administration's immigration policy. How would comprehensive immigration reform affect the labor force and in turn GDP? Does the CBO have updated evaluations of the economic implications of comprehensive immigration reform, and if not, does it intend to conduct an updated analysis?

Answer. CBO's reduced projection of the potential labor force in its January report reflects a reassessment of long-term immigration trends under current law rather than specific Administration policy.

Estimating the effect of comprehensive changes to immigration policy on the labor force and on gross domestic product (GDP) is complicated and highly uncertain. The estimated effects would depend to a large extent on the details of the legislation, particularly on whether it increased or decreased the total amount of immigration and whether it increased or decreased the emphasis on economic skill levels in determining eligibility. Effects would tend to vary across industries as well, because foreign-born workers tend to be concentrated in certain industries.

Broadly speaking, policies that changed the total number of foreign-born people would tend to affect total output, investment, and labor productivity—as well as interest rates—all in the same direction. That is, an increase in net migration would raise them all, whereas a decrease would lower them.

Because the effects of comprehensive changes to immigration policy depend so much on the details of the proposal, CBO cannot conduct an updated analysis until specific legislation becomes available.

Question. In 2013 you analyzed the Senate passed comprehensive immigration reform bill, the Border Security, Economic Opportunity, and Immigration Modernization Act, and found that it would decrease federal budget deficits by $158 billion over a 10-year period and would lead to a net savings of about $135 billion over the same period. If passed today, would a similar immigration reform bill have the same impact on the budget?

Answer. CBO and the staff of the Joint Committee on Taxation (JCT) have not completed any similar detailed analysis since the cost estimate for S. 744, the Border Security, Economic

2. See National Association for Insurance Commissioners, "System for Electronic Rates & Forms Filing" (accessed most recently on February 25, 2019), www.serff.com; Sabrina Corlette, Kevin Lucia, and Maanasa Kona, "States Step Up to Protect Consumers in Wake of Cuts to ACA Cost-Sharing Reduction Payments," *To the Point* (blog entry, October 27, 2017), http://tinyurl.com/y728ro2y; and Centers for Medicare & Medicaid Services, "Rate Review" (accessed most recently on February 25, 2019), https://ratereview.healthcare.gov.

Opportunity, and Immigration Modernization Act of 2013, was completed.[3] The estimated budgetary effects of a similar bill today would not necessarily be the same as the estimate for S. 744. Legislative and administrative changes in immigration, benefit, and tax policies in the past few years have affected CBO's baseline projections and would affect CBO's estimates for future immigration proposals. Additionally, the behavior of U.S. employers and foreign-born employees and students changes over time, and those changes could affect how CBO estimates changes in the effects of immigration proposals on the U.S. population. Finally, CBO and JCT continually incorporate new research and information into their baseline projections and estimates.

Nevertheless, the major factors that underpinned CBO's estimate of S. 744's population effects remain fundamentally unchanged:

- American employers petition each year for hundreds of thousands of workers to receive temporary or permanent immigration status.
- American citizens and lawful permanent residents (LPRs) petition each year for hundreds of thousands of their relatives to become LPRs.
- Millions of noncitizens who are the beneficiaries of approved LPR petitions await the availability of a green card—often for decades.
- An estimated 11 million to 12 million noncitizens are present in the United States without legal immigration status.

Question. In 2013 your report also found that the Senate immigration reform bill would lead to the increased solvency of Medicare and Social Security. The Social Security Trustee has additionally reported that as net immigration increases, the cost rate of Social Security decreases because increased legal immigration leads to an increase in the number of covered workers paying into the system. If passed today, would similar legislation have the same impact on Medicare and Social Security?

Answer. The 2013 estimate for S. 744 did not directly address the effect of the legislation on the long-term solvency of Social Security and Medicare. CBO estimates that, in general, a permanent increase in the level of net immigration would increase the ratio of workers to Social Security and Medicare beneficiaries and improve the long-term financial outlook for those programs. The magnitude of the financial effects would depend on the size, pattern, and types of changes in net immigration flows. Not all changes to immigration law would result in improved solvency.

In 2013, CBO and JCT estimated that S. 744 would result in more people being admitted into the United States and in providing legal status, work authorization, or both, to many noncitizens who were unlawfully present in the country. CBO estimated that those changes would give rise to more future Social Security and Medicare beneficiaries. However, the additional workers were expected to be younger and healthier than the rest of the U.S. workforce, and most would not work in authorized employment for long enough—generally

3. CBO used its 2013 estimate as the basis for projecting the effects of a proposal similar to S. 744 in the President's 2017 budget. After adjusting the cost estimate for that legislation to reflect changes in the baseline budget projections that had been made since 2013, and after taking into account other changes to the tax code proposed by the President, CBO and JCT projected that the proposal's effects on revenues and direct spending would reduce deficits by $101 billion over the 2017–2026 period (compared with $158 billion over the 2014–2023 period projected in the original cost estimate). See Congressional Budget Office, *An Analysis of the President's 2017 Budget* (March 2016), page 6, www.cbo.gov/publication/51383.

10 years—to qualify for Social Security and Medicare within the 10-year budget window. Therefore, CBO projected that the bill would result in relatively few additional people receiving Social Security and Medicare benefits in the first decade of the projection period, though more people would qualify in later years. Outlays for Social Security and Medicare would have increased by an estimated $3 billion over the 2014–2023 period. Over that 10-year period, the bill would have resulted in more than $250 billion in additional Social Security and Medicare payroll tax revenues, due both to increases in the number of workers and to changes in legal status for some current workers, CBO and JCT estimated.

CBO has not completed any detailed new analyses of proposals to make major changes to immigration law since 2013, and the estimated budgetary effects of a bill similar to S. 744 might differ from those made six years ago. But in the initial decade after enactment of a similar bill, additional revenues to the Social Security and Medicare programs would significantly exceed additional outlays, CBO expects.

Question. Previous CBO reports have shown a correlation between taxing fossil fuels and the reduction of greenhouse gas emissions. Also, CBO's options for reducing the deficit published in December 2018 show imposing a tax of $25 per metric ton on most emissions of greenhouse gases would raise $1.1 trillion of revenues over ten years. What would be the ideal carbon tax rate that raises the most net revenue accounting for the offsetting reductions in taxable business and individual income? What would be the reduction of total U.S. greenhouse gas emissions as a result?

Answer. CBO has not estimated the tax rate on greenhouse gas emissions that would maximize the revenue from a carbon tax; however, the agency expects that the rate would be high (substantially higher than the rate used in CBO's December 2018 budget option). In addition, the tax rate at which revenue would peak would depend on the cost of low-carbon technologies. Because a carbon tax would spur innovations in such technologies, predictions about the cost of future technologies under a tax, particularly one with a high rate, are very uncertain.

Question. Additionally, what would be the cost estimate for rebating a portion of these tax revenues to households (specifically low-income households) to offset the additional costs they incur because of the carbon tax?

Answer. The fraction of tax revenue that would be required to offset the average cost that a tax would impose on lower-income households would depend on the share of the tax burden that would fall on those households. Estimates of that share, in turn, vary based on how the tax would affect households. Analysts have considered two possibilities: The tax might raise the prices of the goods and services that households purchase, or it might lower the wages that workers earn and the returns on capital that businesses receive, thus lowering households' income from those sources.

CBO is in the process of reassessing how much such a tax might raise prices and how much it might reduce wages and returns. CBO expects that the cost of compensating the 20 percent of households in the lowest income quintile would be largest if the tax only raised prices. In a previous analysis of such a case, the agency concluded that the inflation-adjusted income of the lowest quintile would be unaffected if they received a transfer equal to roughly 10 percent of the revenue raised by the policy.[4] The share of revenue that would be required to compensate the lowest quintile would depend on the details of the policies involved.

4. See Congressional Budget Office, *The Economic Effects of Legislation to Reduce Greenhouse-Gas Emissions* (September 2009), p.26, www.cbo.gov/publication/41254.