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# In Forthcoming Trump Budget, Rosy Forecasts of Economic Growth Likely to Produce Highly Unrealistic Budget Estimates

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President Trump's fiscal year 2018 budget is due to be released this month. If it reflects the very rosy assumptions of economic growth for the coming decade that he and Treasury Secretary Steven Mnuchin have been speaking about, its projections of federal revenues and deficits under Trump policies will be highly unrealistic, with serious implications for coming debates over tax reform, spending priorities, and deficit reduction. Secretary Mnuchin claimed recently that the Trump economic plan — including its large tax cuts — "will pay for itself with growth." But that claim rings hollow under more realistic growth assumptions.

The Congressional Budget Office (CBO) projects that, under current laws and policies, the economy will grow 2.3 percent this year but growth will average just 1.9 percent a year over the coming decade (i.e., between now and 2027).<sup>2</sup> As a candidate, President Trump boasted that his economic plan "would conservatively boost growth to 3.5 percent per year on average . . . with the potential to reach a 4% growth rate." And Secretary Mnuchin has said that under President Trump's policies, economic growth will pick up to "3 percent or higher."

<sup>&</sup>lt;sup>1</sup> Damian Paletta and Max Ehrenfreund, "Trump's Treasury Secretary: The Tax Cut 'Will Pay for Itself," *Washington Post*, April 20, 2017, <a href="https://www.washingtonpost.com/news/wonk/wp/2017/04/20/trumps-treasury-secretary-the-tax-cut-will-pay-for-itself/?utm\_term=.1290bd4ccc05">https://www.washingtonpost.com/news/wonk/wp/2017/04/20/trumps-treasury-secretary-the-tax-cut-will-pay-for-itself/?utm\_term=.1290bd4ccc05</a>.

<sup>&</sup>lt;sup>2</sup> Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2027," January 24, 2017, Table C-1 and Summary Table 1, <a href="https://www.cbo.gov/publication/52370">https://www.cbo.gov/publication/52370</a>.

<sup>&</sup>lt;sup>3</sup> Donald Trump Campaign, "Fact Sheet: Donald J. Trump's Pro-Growth Economic Policy Will Create 25 Million Jobs," September 15, 2015, <a href="https://www.donaldjtrump.com/press-releases/fact-sheet-donald-j.-trumps-pro-growth-economic-policy-will-create-25-milli.">https://www.donaldjtrump.com/press-releases/fact-sheet-donald-j.-trumps-pro-growth-economic-policy-will-create-25-milli.</a>

<sup>&</sup>lt;sup>4</sup> Rebecca Ballhaus and Nick Timiraos, "Treasury Secretary Steven Mnuchin Sees Tax Overhaul by August," *Wall Street Journal*, February 22, 2017, <a href="https://www.wsj.com/articles/treasury-secretary-steven-mnuchin-pushes-hard-for-stronger-dollar-1487798404">https://www.wsj.com/articles/treasury-secretary-steven-mnuchin-pushes-hard-for-stronger-dollar-1487798404</a>. Mnuchin reiterated the 3-percent-or-higher growth claim on April 26 at a briefing on the Trump tax-cut proposals; transcript posted April 27, 2016 by Tim Haines, RealClear Politics, <a href="http://www.realclearpolitics.com/video/2017/04/27/treasury secretary mnuchin and gary cohn press briefing on new trump tax proposal.html">http://www.realclearpolitics.com/video/2017/04/27/treasury secretary mnuchin and gary cohn press briefing on new trump tax proposal.html</a>.

The economic forecast is a key ingredient in formulating a budget, because both federal spending and tax collections are sensitive to changes in the economy.<sup>5</sup> Stronger growth boosts the taxable income of households and businesses and reduces spending on programs that address economic hardship like unemployment insurance and SNAP (food stamps). Under the same laws and policies, budget projections based on a stronger growth forecast will show more revenues, less spending, and smaller deficits.

Estimates from both the Office of Management and Budget (OMB)<sup>6</sup> and CBO<sup>7</sup> suggest that each 0.1 percentage point increase in annual economic growth would reduce deficits by roughly \$300 billion over the coming decade. Thus, over-predicting the growth rate by just 0.5 percentage points would understate likely ten-year deficits by \$1½ trillion; over-predicting the growth rate by a full percentage point — which a 3-percent growth-rate assumption would do, relative to CBO's estimate — would understate likely deficits by \$3 trillion.

Unlike CBO's economic forecast, which assumes current laws and policies remain in place, an administration's forecast reflects its estimate of how the policies it is proposing will affect the economy. Thus, it is not unusual for an administration's economic forecast to be somewhat more optimistic than CBO's, since the administration is presumably proposing policies it contends will improve economic performance.

For example, the last Obama budget, released in 2016, projected that sustainable economic growth after 2018 would be 0.3 percentage points higher than CBO was projecting. The average longer-term growth forecast of the over 50 private forecasters compiled by the Blue Chip Economic Indicators was 0.2 percentage points higher than CBO's. But the difference between the forecast in the forthcoming Trump budget and CBO's is expected to far exceed the differences in prior administrations' budgets over the past three decades, and flies in the face of standard analyses of the economy's future growth potential.

An economy recovering from a recession can temporarily achieve relatively high rates of "catch-up" growth as demand for goods and services rebounds from weak recession levels. Businesses can readily meet the rise in demand for their output by hiring unemployed workers and more fully utilizing productive capacity that had been idled by the recession. And policymakers can soften a downturn and speed a recovery by stimulating aggregate demand for goods and services in a weak economy, using monetary and fiscal policy measures that temporarily lower interest rates, cut taxes, and increase government spending.

Once excess unemployment has been eliminated and capacity utilization is back to normal, however, the economy's growth rate is constrained by growth in the potential labor force (the number of people who seek work when the labor market is strong) and growth in labor productivity (the output produced per hour worked by that labor force). These "supply-side" constraints on

<sup>&</sup>lt;sup>5</sup> Office of Management and Budget, "The Budget of the United States Government, Fiscal Year 2017, Economic Assumptions and Interactions With the Budget," The White House, February 9, 2016, https://obamawhitehouse.archives.gov/sites/default/files/omb/budget/fy2017/assets/ap 2 assumptions.pdf.

<sup>&</sup>lt;sup>6</sup> Ibid, Table 2-4.

<sup>&</sup>lt;sup>7</sup> Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2027," Appendix B, p. 83.

growth are overwhelmingly determined by demographic and technological factors over which policymakers have limited control.

CBO projects that labor force growth is likely to slow in the next decade given the baby boom generation's aging into retirement, and it could slow further under likely restraints on immigration under President Trump. In such circumstances, productivity growth would have to be more than twice what CBO projects over the next decade — and higher than any previous sustained period of productivity growth on record in the post-World War II period — to generate the amount of economic growth the Administration is touting.

### **Sources of Economic Growth**

Economists use the term "potential output" or "potential gross domestic product (GDP)" to describe the economy's maximum sustainable level of economic activity as determined by growth in the potential labor force and growth in labor productivity. The potential labor force, in turn, grows through native population growth and immigration, while labor productivity grows through business investment in tangible capital (machines, factories, offices, and stores) as well as investments in R&D and other intangible capital. Improvements in labor quality through education and training can also boost productivity, as can improvements in managerial efficiency or technology that allow businesses to produce more with the same amount of labor and capital.

For actual GDP to equal potential GDP, aggregate demand for goods and services by households, businesses, and governments must be large enough and grow fast enough to keep workers fully employed and businesses producing to their full capacity. Actual GDP falls short of potential GDP in a recession, when aggregate demand is weak; it can temporarily exceed potential GDP in a boom, when aggregate demand is strong. But, over longer periods, actual GDP and potential GDP tend to grow together.

Short-term changes in monetary and fiscal policies aim to minimize bouts of inflation or unemployment due to fluctuations in aggregate demand in relation to potential GDP. Well-conceived tax, regulatory, and public investment policies can complement labor force growth and private investment in expanding potential GDP. They can also reap public benefits that GDP does not necessarily capture, such as distributional fairness and health and safety protections. Poorly conceived policies, of course, can impede growth and hurt national economic welfare.

The Great Recession produced a large output gap between actual and potential GDP, reflecting a sharp drop in aggregate demand. This gap narrowed only slowly over the next several years. Part of this narrowing reflected growth in actual GDP as the economy recovered from the recession. A significant part, however, resulted from successive downward revisions by CBO to its projections of potential GDP since 2007. CBO projects that the remaining gap will be closed by the end of 2018 and that the major constraint on economic growth going forward will be the growth rate of potential output rather than weak aggregate demand. Specifically, CBO projects that:

<sup>&</sup>lt;sup>8</sup> Center on Budget and Policy Priorities, "Chart Book: The Legacy of the Great Recession," updated April 28, 2017, <a href="http://www.cbpp.org/research/economy/chart-book-the-legacy-of-the-great-recession.">http://www.cbpp.org/research/economy/chart-book-the-legacy-of-the-great-recession.</a>

<sup>&</sup>lt;sup>9</sup> Congressional Budget Office, "Revisions to CBO's Projection of Potential Output Since 2007," February 2014, https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/45150-PotentialOutput.pdf.

- Potential GDP, which it estimates is now growing at 1.6 percent a year, will accelerate to 1.9 percent annual growth by 2022 and maintain that pace thereafter.
- Actual GDP will grow 2.3 percent this year and 2.0 percent in 2018 to close the output gap and then, consistent with the projected growth in potential GDP, settle in at 1.9 percent annual growth thereafter.<sup>10</sup>
- Over the entire 2017-2027 period, actual GDP will grow at an average annual rate of 1.9 percent, and potential GDP will grow at an average annual rate of 1.8 percent. Of that 1.8 percent, 0.5 percentage points are due to projected growth in the potential labor force and 1.3 percentage points are due to projected growth in labor productivity.

## Trump's Growth Goals Have Historical Precedents but Are Unrealistic Today

As a candidate, President Trump boasted that his economic plan "would conservatively boost growth to 3.5 percent per year on average, well above the 2 percent currently projected by government forecasters, with the potential to reach a 4% growth rate." That is highly unrealistic.

### **Trump Campaign Analysis**

The "conservative" 3.5 percent estimate can be traced to a campaign analysis by Trump senior advisers Peter Navarro (now head of the National Trade Council) and Wilbur Ross (now Secretary of Commerce). That analysis, however, relies on what has earned the sobriquet "voodoo economics." It asserts that candidate Trump's policies on trade, deregulation, and energy would restore economic growth to its 1947-2001 average of 3.5 percent. The cornerstone of this claim is a so-called analysis of how eliminating the trade deficit produces a dollar-for-dollar gain in GDP.

<sup>&</sup>lt;sup>10</sup> CBO's longer-term projections are not forecasts, but rather projections of trends in the key variables that determine potential output. To account for unpredictable business-cycle fluctuations, CBO projects that actual output will grow at the same *rate* as potential output but fall short of potential by about half a percent, which matches the long-term average gap. See Congressional Budget Office, "Why CBO Projects That Actual Output Will Be Below Potential Output on Average," February 10, 2015, <a href="https://www.cbo.gov/publication/49890">https://www.cbo.gov/publication/49890</a>.

<sup>&</sup>lt;sup>11</sup> Because actual GDP must grow faster than potential in 2017 and 2018 to close the output gap, CBO's projected rate of growth of actual GDP (1.9 percent) is higher than its projected rate of growth of potential GDP (1.8 percent) over the full 2017-2027 period. From 2022 to 2027, however, both actual and potential GDP are projected to grow at an average annual rate of 1.9 percent.

<sup>&</sup>lt;sup>12</sup> Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2027," Chapter 2, Table 2-3.

<sup>&</sup>lt;sup>13</sup> Donald Trump Campaign.

<sup>&</sup>lt;sup>14</sup> Peter Navarro and Wilbur Ross, "Scoring the Trump Economic Plan: Trade, Regulatory, & Energy Policy Impacts," September 29, 2016, <a href="https://assets.donaldjtrump.com/Trump">https://assets.donaldjtrump.com/Trump</a> Economic Plan.pdf.

<sup>&</sup>lt;sup>15</sup> Chad Stone, "Trump's Voodoo Economics," *U.S. News & World Report,* February 17, 2017, https://www.usnews.com/opinion/economic-intelligence/articles/2017-02-17/donald-trumps-budget-could-bevoodoo-economics.

Knowledgeable economic analysts have dismissed that analysis, however, as "magical thinking," <sup>16</sup> based on "a remarkably silly mistake," <sup>17</sup> "a complete mess," <sup>18</sup> and "just wrong."

Besides these trade, deregulation, and energy policies, candidate Trump proposed massive tax cuts that would lose trillions of dollars of revenue under the traditional methods that Congress's official estimating agencies, CBO and the Joint Committee on Taxation (JCT), use to "score" tax legislation — and President Trump's latest tax proposal, unveiled in late April, has similarly large tax cuts. <sup>20</sup> Tax cut proponents argue that the traditional estimates ignore "macroeconomic feedback" effects in which the tax cuts generate additional economic growth not accounted for in traditional estimates, which, in turn, generates additional revenue. Such "dynamic scoring" lowers the net revenue loss from tax cuts that have positive economic growth effects.

CBO and JCT have conducted several illustrative analyses of the macroeconomic effects of tax cuts, <sup>21</sup> and in 2015 Congress directed them to estimate the macroeconomic effects of major legislative proposals. <sup>22</sup> Neither CBO nor JCT analyzes candidates' proposals, and the latest Trump proposal doesn't have sufficient detail, so at this point we lack CBO and JCT estimates of the Trump proposals' cost.

In their analysis claiming higher economic growth from Trump policies, Navarro and Ross cite dynamic scoring of the Trump tax plan by the Tax Foundation, whose models tend to produce estimates showing much larger dynamic effects than CBO or JCT have found in their analyses.<sup>23</sup> The Tax Foundation estimated that the Trump campaign's tax plan would increase the long-run size of the economy by between 6.9 and 8.2 percent (depending on how certain business income is treated) and assumes that this happens within a decade. That would raise the ten-year average annual growth rate by about 0.7 or 0.8 percentage points, which, in turn, would reduce the Tax Foundation's estimate of the Trump plan's revenue loss to between \$2.6 and \$3.9 trillion over ten

<sup>&</sup>lt;sup>16</sup> Marcus Noland, "Scoring the Trump Trade Plan: Magical Thinking," Peterson Institute for International Economics, September 28, 2016, <a href="https://piie.com/blogs/trade-investment-policy-watch/scoring-trump-trade-plan-magical-thinking">https://piie.com/blogs/trade-investment-policy-watch/scoring-trump-trade-plan-magical-thinking</a>.

<sup>&</sup>lt;sup>17</sup> Matthew Yglesias, "Donald Trump's Trade Team Has Based Their Analysis on a Remarkably Silly Mistake," Vox, December 21, 2016, <a href="http://www.vox.com/2016/12/21/14044376/trump-navarro-ross">http://www.vox.com/2016/12/21/14044376/trump-navarro-ross</a>.

<sup>&</sup>lt;sup>18</sup> Scott Sumner, "Who is Peter Navarro?" Library of Economics and Liberty, September 27, 2016, http://econlog.econlib.org/archives/2016/09/who is peter na.html.

<sup>&</sup>lt;sup>19</sup> Noah Smith, "Trump's Trade Chief Makes a Rookie Mistake," Bloomberg, December 28, 2016, https://www.bloomberg.com/view/articles/2016-12-28/trump-s-trade-chief-peter-navarro-makes-a-rookie-mistake.

<sup>&</sup>lt;sup>20</sup> Chuck Marr, "Commentary: New Trump Tax Plan Has Specific Costly Tax Cuts at the Top, Fuzzy Promises for Everyone Else," Center on Budget and Policy Priorities, April 27, 2017, <a href="http://www.cbpp.org/federal-tax/commentary-new-trump-tax-plan-has-specific-costly-tax-cuts-at-the-top-fuzzy-promises-for">http://www.cbpp.org/federal-tax/commentary-new-trump-tax-plan-has-specific-costly-tax-cuts-at-the-top-fuzzy-promises-for</a>.

<sup>&</sup>lt;sup>21</sup> Paul N. Van de Water and Chye-Ching Huang, "Budget and Tax Plans Should Not Rely on 'Dynamic Scoring," Center on Budget and Policy Priorities, November 17, 2014, <a href="http://www.cbpp.org/research/budget-and-tax-plans-should-not-rely-on-dynamic-scoring?fa=view&id=3598">http://www.cbpp.org/research/budget-and-tax-plans-should-not-rely-on-dynamic-scoring?fa=view&id=3598</a>.

<sup>&</sup>lt;sup>22</sup> Congressional Budget Office, "Dynamic Scoring at CBO," May 14, 2015, <a href="https://www.cbo.gov/publication/50179">https://www.cbo.gov/publication/50179</a>.

<sup>&</sup>lt;sup>23</sup> Chad Stone and Chye-Ching Huang, "Trump Campaign's 'Dynamic Scoring' of Revised Tax Plan Should Be Taken With More Than a Grain of Salt," Center on Budget and Policy Priorities, September 15, 2016, <a href="http://www.cbpp.org/research/federal-tax/trump-campaigns-dynamic-scoring-of-revised-tax-plan-should-be-taken-with-more">http://www.cbpp.org/research/federal-tax/trump-campaigns-dynamic-scoring-of-revised-tax-plan-should-be-taken-with-more</a>.

years, compared with between \$4.4 and \$5.9 trillion under traditional scoring. In other words, the Tax Foundation estimated that dynamic scoring of the Trump tax under its model would produce between \$1.7 and \$2.0 trillion more revenue over the decade than traditional scoring.

That finding stands in stark contrast to an analysis of the Trump tax plan by the Tax Policy Center (TPC), using the Penn-Wharton Budget Model to estimate dynamic effects. The TPC analysis found somewhat larger revenue losses than the Tax Foundation using traditional methods, and substantially smaller dynamic effects. TPC's estimate of the 2016-26 revenue loss under the Trump campaign plan would be \$6.2 trillion before macroeconomic feedback effects, and \$6.0 trillion using dynamic scoring that incorporates macroeconomic feedback effects, which TPC estimates to be about \$200 billion. Moreover, TPC found that the tax plan's dynamic effects would result in a \$1.4 trillion revenue *loss* in the subsequent decade (2027-2036), because the negative effects on growth of the higher budget deficits that would result from the tax cut's steep revenue losses — something the Tax Foundation assumes away — would outweigh any of the tax cut's positive growth effects.

CBO and JCT likely would produce dynamic estimates more like these than like the Tax Foundation's, based on how the JCT and CBO have done dynamic analyses in the past.

Navarro and Ross, however, took the Tax Foundation's dynamic estimate that the Trump tax plan would lose \$2.6 trillion over the coming decade and combined it with their own dubious calculations that the Trump trade, deregulation, and energy policies would *increase* revenue by \$2.4 trillion in order to claim that "with proposed spending cuts, the overall Trump economic plan is revenue neutral." This analysis is probably what Secretary Mnuchin has in mind when he states that the Trump economic plan, which encompasses both the Trump tax cuts and these other policies, will pay for itself with growth.

Leaving aside the dubious assumption that the disparate Navarro-Ross and Tax Foundation estimates can simply be added together in this way, these claims ignore the fact that each of the two estimates is unrealistically optimistic about the economic growth that Trump policies would generate. Under more realistic assumptions, any boost to economic growth from the overall Trump economic plan would likely be much smaller, and the adverse budgetary effects (which can reduce long-term economic growth) much larger, than claimed.

#### **Trump Budget Assumptions**

Economist Edward Lazear, Chairman of President George W. Bush's Council of Economic Advisers, attempted in a recent *Wall Street Journal* op-ed to offer explanations for how the policies President Trump advocates might boost labor-force growth and productivity enough to achieve 3.2 percent growth, which he cites as the Administration's target.<sup>25</sup> Like the Trump team, Lazear touted the purported benefits of "investment-friendly tax policy" and business relief from "burdensome" regulations. But Lazear concluded that achieving such a high growth rate is "unlikely."

<sup>&</sup>lt;sup>24</sup> James R. Nunns *et al.*, "An Analysis of Donald Trump's Revised Tax Plan," Tax Policy Center, October 18, 2016, http://www.taxpolicycenter.org/publications/analysis-donald-trumps-revised-tax-plan/full

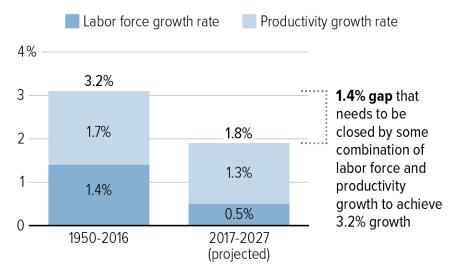
<sup>&</sup>lt;sup>25</sup> Edward P. Lazear, "How Trump Can Hit 3% Growth — Maybe," *Wall Street Journal*, February 27, 2017, <a href="https://www.wsj.com/articles/how-trump-can-hit-3-growthmaybe-1488239746">https://www.wsj.com/articles/how-trump-can-hit-3-growthmaybe-1488239746</a>.

The main reason to be skeptical of the Trump growth assumptions is that they are so much higher than CBO's projection that *potential* GDP — which, as noted, is essentially a ceiling on the rate of growth in *actual* GDP that's possible over time — will grow by 1.8 percent<sup>26</sup> a year over 2017-2027. To match a 3.2 percent average annual growth in potential GDP, Trump policies would have to add 1.4 percentage points to CBO's projection of the amount of growth possible in the U.S. economy for the decade ahead, through some combination of additional labor-force growth and productivity growth (see Figure 1).<sup>27</sup>

FIGURE 1

# 3.2% Not a Realistic Target for Future Growth

Percent contributions to average annual growth in potential GDP



Note: Data may not sum to total due to rounding.

Source: Actual and projected growth figures from Congressional Budget Office

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As a point of comparison, CBO estimates the economy achieved an annual average potential growth rate of 3.2 percent between 1950 and 2016. <sup>28</sup> Over that period, growth in the labor force averaged 1.4 percent per year, which is substantially higher than CBO's current projection that with the baby boomers retiring, labor-force growth will average only 0.5 percent per year over the coming decade. Without a large increase in projected immigration, the growth needed to bear out the Trump team's rosy estimates is extremely unlikely to occur. Moreover, President Trump's policies are likely to reduce immigration, rather than increase it. Growth in labor force participation was a major contributor to growth in potential GDP as the baby-boom generation reached working age,

<sup>&</sup>lt;sup>26</sup> Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2026," Tables 2-1 and 2-3. See footnote 11 for more detail on the different time paths of actual and potential GDP growth over the 2017-2026 period.

<sup>&</sup>lt;sup>27</sup> See Jason Furman, "Trump promised 4 percent growth. Here's why we'd be very lucky to hit 3," Vox, March 21, 2017, <a href="http://www.vox.com/the-big-idea/2017/3/21/14938698/growth-trump-economic-us-slowdown-demographics-stagnation">http://www.vox.com/the-big-idea/2017/3/21/14938698/growth-trump-economic-us-slowdown-demographics-stagnation</a>.

<sup>&</sup>lt;sup>28</sup> Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2026," Table 2-3.

adding 2.5 percentage points a year in 1974-81, on average. But labor-force participation's contribution to growth has been declining ever since and will decline further as the baby boomers continue moving into their retirement years. Thus, policies aimed at substantially boosting potential GDP growth must rely on very big gains in productivity growth.

Productivity growth contributed 1.7 percentage points per year to the potential GDP growth of 3.2 percent per year over the 1950-2016 period, on average, but its contribution within that span varied widely. From 1950 to 1973 it contributed 2.4 percentage points to the 4.0 percent average annual growth of potential GDP in those years. Both figures are the highest over any sustained period in the entire 1950-2016 period; the 1950-1973 period was part of a "golden age" of productivity growth that has not been replicated since (except briefly in the late 1990s), and some argue may never be.<sup>29</sup> It was marked not only by strong economic growth, but also by broadly shared prosperity, with wages and incomes roughly doubling up and down the income distribution in a generation.<sup>30</sup>

Productivity growth added 2.0 percentage points to potential GDP growth in the 1990s — but its contribution has come down since, bottoming out at 0.9 percentage points in the Great Recession and its aftermath. CBO expects it to increase modestly and average 1.3 percentage points over the next decade. To get to 3.2 percent growth, however, productivity growth would have to more than double to 2.7 percentage points (assuming no additional contribution from further increases in labor force participation beyond those CBO anticipates). That would exceed the record 1950-1973 contribution.

Navarro and Ross simply dismiss the argument that demography and other non-policy factors are largely responsible for our diminished growth prospects compared with earlier periods. They blame "poorly-negotiated trade deals, over-regulation, and an excessive tax burden." But their analysis of the effect of trade policy on growth is seriously flawed, as noted above. In addition, tax rates were higher in 1950-73 than they are now, and regulation of banking and finance, airlines, trucking, railroads, and telecommunications was extensive. In short, their argument collapses under scrutiny.

As discussed earlier, temporary monetary and fiscal stimulus policies played an important role in closing the large gap between actual and potential GDP that emerged in 2008-2009; these policies helped prevent the Great Recession from turning into a second Great Depression.<sup>31</sup> Nevertheless, the financial crisis and the Great Recession saw reduced investment and an erosion of workers' skills, due to long-term joblessness, which appears to have had a lasting effect in depressing potential GDP growth. That's one reason CBO has lowered its projection of potential GDP compared with what it was projecting in 2007. But CBO has also reassessed recent trends in labor-force

<sup>&</sup>lt;sup>29</sup> Robert J. Gordon, "Goodbye, Golden Age of Growth," Bloomberg, January 26, 2016, <a href="https://www.bloomberg.com/view/articles/2016-01-26/u-s-unlikely-to-see-rapid-tech-fueled-growth-in-future">https://www.bloomberg.com/view/articles/2016-01-26/u-s-unlikely-to-see-rapid-tech-fueled-growth-in-future</a>.

<sup>&</sup>lt;sup>30</sup> Chad Stone *et al.*, "A Guide to Statistics on Historical Trends in Income Inequality," Center on Budget and Policy Priorities, updated November 7, 2016, <a href="http://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality">http://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality</a>.

<sup>&</sup>lt;sup>31</sup> Alan S. Blinder and Mark Zandi, "The Financial Crisis: Lessons for the Next One," Center on Budget and Policy Priorities, October 15, 2015, <a href="http://www.cbpp.org/research/economy/the-financial-crisis-lessons-for-the-next-one">http://www.cbpp.org/research/economy/the-financial-crisis-lessons-for-the-next-one</a>.

participation and productivity that were not yet clearly apparent before the recession began. That reassessment also produced a significant downward adjustment to projected potential GDP.<sup>32</sup>

To be sure, CBO could be underestimating the size of the remaining output gap or overestimating the permanent damage the Great Recession caused to investment and labor force participation, or the irreversibility of recent longer-term trends. In other words, there could be somewhat more room for stronger growth in aggregate demand before we reach the point where actual GDP bumps up against potential GDP. But there is little reason to think the Trump policies will have a significant effect on potential GDP — and they could well have a *negative* effect if they result in much larger budget deficits. Moreover, even well-conceived supply-side policies only work slowly to raise potential GDP.

## **Unrealistic Growth Assumptions Produce Unrealistic Budget Estimates**

Even small differences in economic and technical assumptions can have a noticeable impact on budget estimates. Very large differences, like those between the Trump Administration's expected growth forecast and CBO's, have a substantial impact.

An appendix in CBO's annual *Budget and Economic Outlook* explores how changes in economic projections can affect budget projections.<sup>33</sup> In years without a change of administration, OMB includes a similar discussion in its annual *Analytical Perspectives* volume, which accompanies the President's budget.<sup>34</sup> These discussions are rough "rules of thumb," which (as CBO says) "provide a sense of how differences in individual economic variables would affect the budget totals," but don't account for how "changes in any single variable would...quite likely affect many other variables in ways that would depend crucially on the cause of the original change and on the general economic conditions prevailing at the time."

Last year, both CBO and President Obama's OMB estimated the effect of slower growth on the budget for the years 2016-2026. OMB estimated that a 1 percentage-point decrease in the GDP growth rate would increase deficits by \$3.2 trillion, mostly due to lower revenues. Similarly, CBO estimated that a 0.1 percentage-point decrease in the GDP growth rate would increase deficits by \$327 billion. Extrapolating CBO's estimate to a 1 percentage-point-lower GDP growth rate, the deficit increase would be \$3.3 trillion, virtually identical to OMB's estimate.

CBO's January 2017 Outlook estimates that if the economy grew at a rate 0.1 percentage point lower than in CBO's baseline projections, the cumulative deficit from 2018 through 2027 would be

<sup>&</sup>lt;sup>32</sup> Congressional Budget Office, "Revisions to CBO's Projection of Potential Output Since 2007," February 2014, https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/45150-PotentialOutput.pdf.

<sup>&</sup>lt;sup>33</sup> Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2027," Appendix B.

<sup>&</sup>lt;sup>34</sup> Office of Management and Budget.

<sup>&</sup>lt;sup>35</sup> *Ibid.*, Table 2-4.

<sup>&</sup>lt;sup>36</sup> Congressional Budget Office, "The Budget and Economic Outlook, 2016 to 2026," January 25, 2016, Appendix B, <a href="https://www.cbo.gov/publication/51129">https://www.cbo.gov/publication/51129</a>.

\$273 billion higher.<sup>37</sup> Revenues would fall by \$315 billion and outlays (primarily interest on the debt) would fall by \$42 billion. This suggests that a 1 percentage-point-lower growth rate would add about \$2.7 trillion to the cumulative deficit over the decade.

Thus, if the Trump budget overestimates the average annual GDP growth rate over the decade by 0.5 percentage points, it would understate deficits by something like \$1½ trillion over this period. Over-predicting growth by a full percentage point, as the Trump budget appears likely to do, would understate deficits by something like \$3 trillion.

#### Conclusion

President Trump has claimed that his tax cuts will provide a dramatically larger boost to economic growth than most analysts believe is realistic, and Treasury Secretary Mnuchin has said the Trump economic plan of tax and spending cuts combined with changes to our trade, regulatory, and energy policies will "pay for itself with growth." Those claims do not stand up to scrutiny. Actually achieving such growth would generate substantial additional revenue over what would come in with slower growth. But adopting unrealistically rosy economic assumptions for one's policies as a way to avoid offsetting their cost (or scaling them back) will markedly understate the adverse impact those policies have on actual future deficits.

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<sup>&</sup>lt;sup>37</sup> Until this year, CBO estimated the effect of a 0.1 percent lower growth rate in GDP. This year it switched to estimating the effect of a 0.1 percent lower growth rate of "total factor productivity," a technical term for increases in output over and above what can be accounted for by growth in the labor force or the capital stock. In practice, this is a good proxy for GDP growth for rule-of-thumb exercises like these.