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JEFFREY MIRON

U.S. FISCAL IMBALANCE OVER TIME

THIS TIME IS DIFFERENT

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U.S. Fiscal Imbalance over Time: This Time *Is* Different

Jeffrey Miron

Executive Summary

The U.S. fiscal imbalance—the excess of what we expect to spend, including repayment of our debt, over what government expects to receive in revenue—is large and growing. And with politicians proposing large new expenditures, little is being done to rectify the country’s fiscal health. Although some policymakers argue that fiscal meltdowns have never happened in U.S. history and that therefore “this time is no different,” the reality is that the nation’s fiscal situation has been deteriorating since the mid-1960s, is far worse than ever before, and could lead to a fiscal crisis if no major spending adjustments occur in the next few decades.

To demonstrate this argument, this paper projects fiscal imbalance as of every year between 1965 and 2014, using data-supported assumptions about gross domestic product (GDP) growth, revenue, and trends in mandatory spending on Social Security, Medicare, Medicaid, and other programs. The projections reveal that the United States has faced a growing fiscal imbalance since the early 1970s, largely as a consequence of continuous growth in mandatory spending. As of 2014, the fiscal imbalance stands at \$117.9 trillion, with few signs of future improvement even if GDP growth accelerates or tax revenues increase relative to historic norms. Thus the only viable way to restore fiscal balance is to scale back mandatory spending policies, particularly on large health care programs such as Medicare, Medicaid, and the Affordable Care Act (ACA).

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Introduction

The United States faces a challenging fiscal future. According to projections from the Congressional Budget Office (CBO), the debt-to-GDP ratio will hit at least 181 percent by 2090, and continue climbing thereafter, unless the nation adjusts its tax and spending policies.¹ If no policy changes occur and if the debt ratio continues on its projected path for an extended period, the United States will eventually face rising interest rates on its debt, an even steeper debt path, and a fiscal crisis. This outcome is not inevitable; the United States likely has decades to adjust its policies. Few dispute, however, that unless the CBO's projections are substantially too pessimistic, the United States needs major adjustments in spending or tax policies to avoid fiscal meltdown.

Despite widespread agreement that spending or tax policies must change, however, appropriate adjustments have so far not occurred. Indeed, many recent policy changes have worsened the U.S. fiscal situation. These changes include the creation of Medicare Part D (\$65 billion in 2014), new subsidies under the Affordable Care Act (\$13.7 billion in 2014), the expansion of Medicaid under the ACA (from \$250.9 billion in 2009 to \$301.5 billion in 2014), higher defense spending (from \$348.46 billion in 2002 to \$603.46 billion in 2014), increased spending on veterans' benefits and services (from \$70.4 billion in 2006 to \$161.2 billion in 2014), and greater spending on energy programs (average annual spending was \$0.52 billion over 1998–2002 but \$11.43 billion over 2010–2014).^{2,3}

Politicians across the spectrum, moreover, propose additional spending all the time. President Barack Obama's 2015 budget proposal, for instance, included an extra \$38 billion in defense spending and a \$478 billion plan to revamp the nation's roads, bridges, and ports over the next six years.⁴ House Republicans responded with their own plan to set aside

¹ The 181 percent figure is for CBO's baseline scenario. Under CBO's alternative scenario, the ratio hits 250 percent by 2055 and is not calculated beyond that year. Congressional Budget Office, *The 2015 Long-Term Budget Outlook*, CBO-45308 (Washington, D.C., 2015), <https://www.cbo.gov/publication/45308>.

² All figures in this paragraph are nominal.

³ For spending increases associated with Medicaid, see Medicare Payment Advisory Commission, *Status Report on Part D* (Washington, D.C., 2014), http://www.medpac.gov/documents/reports/mar14_ch14.pdf?sfvrsn=0. For all other spending increases, refer to Office of Management and Budget, *Historical Tables* (Washington, D.C., 2015), <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/hist.pdf>.

⁴ Office of Management and Budget, *Fiscal Year 2016 Budget Overview* (Washington, D.C.), <https://www.whitehouse.gov/omb/overview>.

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over \$90 billion—tens of billions more than the White House originally requested—for a war account known as the Overseas Operations Contingency Fund, thus alleging a need for even greater defense spending.⁵ Elsewhere, Democratic presidential candidate Hillary Clinton has proposed to increase federal spending by \$350 billion over 10 years to help undergraduates afford tuition at public colleges without needing loans.⁶ Republican Senate Majority Leader Mitch McConnell has advocated boosting highway funding by about \$47 billion over the next six years.⁷

A plausible reason for America's failure to address its fiscal imbalance—the excess of what we expect to spend, including repayment of our debt, over what government expects to receive in revenue—is a belief that “this time is no different” than earlier alarms about fiscal meltdown, which have so far not occurred. In the 1980s, for example, the government experienced a large buildup of federal debt due to President Reagan's tax cuts and increases in military spending. Concern arose over the spiraling debt, causing Congressional budget show-downs during President Bill Clinton's first term, but ultimately no serious fiscal crisis ensued.

In 2011, fears of a U.S. government default arose during the debt-ceiling crisis.⁸ Disagreements between members of Congress resulted in a political stalemate, massive public apprehension, and a one-notch downgrade of the U.S. credit rating.⁹ Just before the deadline, however, the Budget Control Act was signed into law, raising the debt ceiling by

⁵ Tom Howell, “Republican Budget Proposals a Tough Sell within Increasingly Polarized GOP,” *Washington Times*, March 19, 2015, <http://www.washingtontimes.com/news/2015/mar/19/republican-budget-proposals-a-tough-sell-within-in/?page=all>.

⁶ Patrick Healy, “Hillary Clinton to Offer Plan on Paying College Tuition without Needing Loans,” *New York Times*, August 10, 2015, <http://www.nytimes.com/2015/08/10/us/politics/hillary-clinton-to-offer-plan-on-paying-college-tuition-without-needing-loans.html>.

⁷ Erin Kelly, “Senate Passes U.S. Highway Funding Bill,” *USA Today*, July 30, 2015, <http://www.usatoday.com/story/news/2015/07/30/senate-passes-highway-funding-bill/30879319/>.

⁸ The United States need not have actually defaulted on its debt, at least not in the short run. Instead, it could have continued to pay interest on its debt (using ongoing revenues) so long as it cut other expenditure. See David Boaz, “Dysfunction, Default, and the Debt Ceiling Crisis,” *Encyclopedia Britannica Blog*, August 1, 2011, <http://blogs.britannica.com/2011/08/dysfunction-default-debt-ceiling-crisis/>.

⁹ Zachary Goldfarb, “S&P Downgrades U.S. Credit Rating for First Time,” *Washington Post*, August 6, 2011, http://www.washingtonpost.com/business/economy/sandp-considering-first-downgrade-of-us-credit-rating/2011/08/05/gIQAqKeIxI_story.html.

over \$2.1 trillion and staving off the threat of immediate default.¹⁰ A similar crisis loomed in 2013, when Congressional inability to rein in the federal deficit almost triggered a “fiscal cliff”—a series of deep, automatic cuts to federal spending. Once again, with only hours to spare, lawmakers reached a fiscal compromise and averted larger economic consequences.¹¹ Overall, the past 30 years reveal a clear trend: time and time again, alarm erupts over the rising federal debt level, but full fiscal meltdown never materializes.¹²

Indeed, even amid the fiscal “close calls” over the past few years, prominent figures have argued that the growing U.S. debt level is no cause for distress. Nobel laureate economist and *New York Times* columnist Paul Krugman has stated that concerns over America’s fiscal condition are far overblown, describing the “great debt panic” in the United States as “wrongheaded.”¹³ In a 2014 op-ed titled “The Fiscal Fizzle: An Imaginary Budget and Debt Crisis,” Krugman goes on to say, “The whole thing turns out to have been a false alarm.... We don’t have a debt crisis, and never did. Why did everyone important seem to think otherwise?”¹⁴

The Center for American Progress, a think tank, similarly argued that “long-term fiscal challenges are far less frightening than we have been led to believe” and that “debt projections start to look downright manageable” once we account for recent deficit-reduction plans and slower growth in health care costs.¹⁵ In 2013, billionaire investor Warren Buffett cautioned against a rising debt-to-GDP ratio but remarked that “the debt itself is not a problem” because the debt-to-GDP ratio

¹⁰ John Diamond and George Zodrow, *Fiscal Imbalance in the United States: Where Do We Stand?* Issue brief no. 07.23.15 (Houston, TX: Rice University, Baker Institute for Public Policy, 2015), https://bakerinstitute.org/media/files/files/6fece99e/BI-Brief-072315-TEPP_Imbalance.pdf.

¹¹ Matt Smith, “Obama Signs Bill Warding Off Fiscal Cliff,” CNN, January 3, 2013, <http://www.cnn.com/2013/01/02/politics/fiscal-cliff/>.

¹² Jonathan Masters, “U.S. Deficits and the National Debt,” *CFR Backgrounders* (Washington, D.C.: Council on Foreign Relations, 2012), <http://www.cfr.org/united-states/us-deficits-national-debt/p27400>.

¹³ Paul Krugman, “Debt Is Good,” *New York Times*, August 21, 2015, <http://www.nytimes.com/2015/08/21/opinion/paul-krugman-debt-is-good-for-the-economy.html>.

¹⁴ Paul Krugman, “The Fiscal Fizzle: An Imaginary Budget and Debt Crisis,” *New York Times*, July 20, 2014, <http://www.nytimes.com/2014/07/21/opinion/Paul-Krugman-An-Imaginary-Budget-and-Debt-Crisis.html>.

¹⁵ Michael Linden and Sasha Post, *The United States’ Long-Term Debt Problem Isn’t as Bad as You Thought* (Washington, D.C.: Center for American Progress, 2013), <https://www.americanprogress.org/issues/budget/news/2013/03/11/56048/the-united-states-long-term-debt-problem-isnt-as-bad-as-you-thought/>.

was lower than after World War II.¹⁶ Even U.S. Treasury Secretary Jack Lew expressed a rather positive outlook over the country's debt situation. "I don't think [our national debt] is the most pressing concern today because we have controlled the rate of growth," Secretary Lew said in testimony to Congress in June 2015. "If you look at the risks to our economy from federal spending and debt, we are in a much better position now than we were six and a half years ago.... In the next ten years, we [will] have a stable debt and deficit situation."¹⁷

Thus, many people dismiss claims that the federal debt is a calamity in waiting. In their view, historical patterns predict that a fiscal meltdown will not occur. Even during past periods of growing debt-to-GDP ratios, fiscal crises never materialized, so "this time is no different."

This paper argues, however, that this time *is* different: while fiscal meltdown is not imminent, the nation's fiscal situation has been deteriorating since the mid-1960s, is far worse than ever before, and will get worse as time passes and no adjustments occur.¹⁸ The absence of past fiscal crises is no guarantee against future crises.

The paper makes this argument in three steps. First, I provide an overview of federal spending, taxation, deficits, and debt since 1792, outlining the broad trends in U.S. fiscal health over time. U.S. fiscal health has deteriorated in recent decades as measured by the debt-to-GDP ratio, but this fact alone does not suggest huge alarm. The debt is a backward-looking metric of fiscal health; it does not account for future expenditure and revenue plans. Whether the current state of fiscal health is moderately concerning or truly alarming, therefore, depends on the outlook for future expenditure and revenue.

Second, I examine the changing composition of federal expenditure during the post-1965 period. Federal expenditure has shifted in two ways: from defense toward health and retirement, and from discretionary toward mandatory programs. This change in composition has created

¹⁶ Kate Gibson, "Buffett: U.S. Debt on Its Own 'Not a Problem,'" *MarketWatch*, January 20, 2013, <http://www.marketwatch.com/story/buffett-us-debt-on-its-own-not-a-problem-2013-01-20>.

¹⁷ Susan Jones, "U.S. Treasury Secretary: \$18T Debt Is 'Not the Most Pressing Concern Today,'" *CNSNews.com*, June 18, 2015, <http://cnsnews.com/news/article/susan-jones-treasury-secretary-18t-debt-not-most-pressing-concern-today>.

¹⁸ See Congressional Budget Office, *The 2015 Long-Term Budget Outlook*, Figures 1.1 and 1.3 (Washington, D.C., 2015), <https://www.cbo.gov/publication/45308>. See also Alan J. Auerbach and William G. Gale, *Forgotten but Not Gone: The Long-Term Fiscal Imbalance* (Washington, D.C.: The Brookings Institution, 2014).

the conditions for rapidly rising future expenditure, and CBO forecasts suggest that health care spending in particular will increase substantially faster than the overall economy going forward. If those forecasts are accurate, fiscal health will decline dramatically over coming decades.

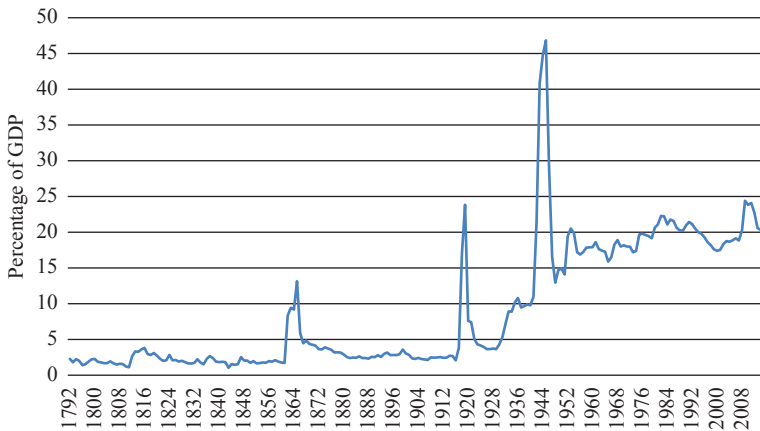
Third, I estimate the value of the U.S. fiscal imbalance as of each year from 1965 to 2014. Fiscal imbalance is a measure of fiscal health that accounts for both existing debt and future expenditures and revenues. The estimates of imbalance over time show clearly that U.S. fiscal health has been declining for several decades; such estimates also indicate how significant that deterioration has been.

The final section offers conclusions. The key policy lesson is this: to avoid a fiscal meltdown in the next few decades, the United States must slow the growth rate of federal expenditures, especially on health care. Given the magnitude of estimated imbalances, neither higher taxes nor policies to enhance growth can plausibly make a substantial difference. The good news is that reduced federal spending on health care, if carried out appropriately, can enhance the efficiency of the health care system, making such expenditure cuts a win-win for policy.

U.S. Fiscal Health over Time: A First Look

Figures 1–4 show historical data about federal expenditure, the revenue, the deficit, and the debt, all relative to GDP.

Figure 1
FEDERAL EXPENDITURE AS A PERCENTAGE OF GDP

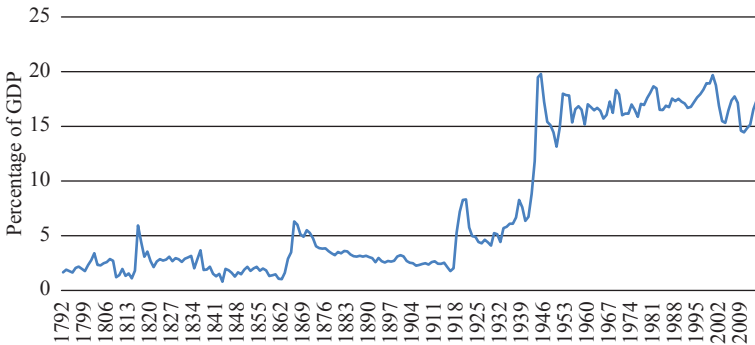


U.S. FISCAL IMBALANCE OVER TIME

Figure 1 shows that federal expenditure was less than 5 percent of GDP until the Great Depression, except during the Civil War and World War I. In the 1930s, expenditure rose to about 10 percent of GDP and then grew to over 45 percent during World War II (WWII). Expenditure declined substantially after the war but never returned to pre-Depression levels, fluctuating mainly between 15 and 20 percent of GDP but hitting almost 25 percent during the Great Recession.

Figure 2 indicates that revenue has followed a similar path to expenditure, with notable exceptions. Revenue rose less than expenditure during the Civil War, World War I, and World War II; thus, the deficit increased in each of those episodes. Revenue fluctuated between 15 and 20 percent of GDP during the post-World War II period, as did expenditure. However, revenue was lower on average, so deficits have been larger in the post-WWII period than during the peace-time portions of the pre-1929 period. Revenue dropped markedly in the early 2000s as a result of President George W. Bush’s tax cuts and the 2001 recession, and it then dropped again during the Great Recession.

Figure 2
FEDERAL REVENUE AS A PERCENTAGE OF GDP



Consistent with the data in Figures 1–2, Figure 3 shows that the deficit was less than 1 percent of GDP (or in surplus) in most years before the 1930s, except during the War of 1812, the Civil War, and World War I. The deficit rose mildly during the Great Depression and then more

noticeably during WWII, but returned to low levels in the early post-WWII period. Beginning in the 1970s and continuing through the 1980s and early 1990s, deficits were typically several percent of GDP but then turned to surpluses in the last part of the century. In the 2000s deficits returned, initially as a result of the Bush tax cuts and the 2001 recession and then because of the Great Recession and higher spending under both the Bush and Obama administrations. Deficits have declined during the past few years but are still moderately high by historical standards.

Figure 3
FEDERAL DEFICIT AS A PERCENTAGE OF GDP

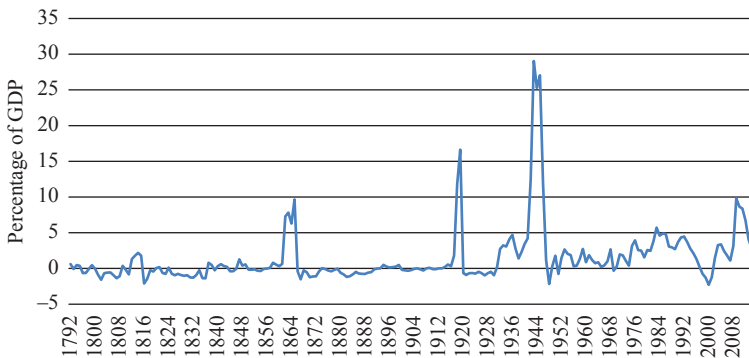
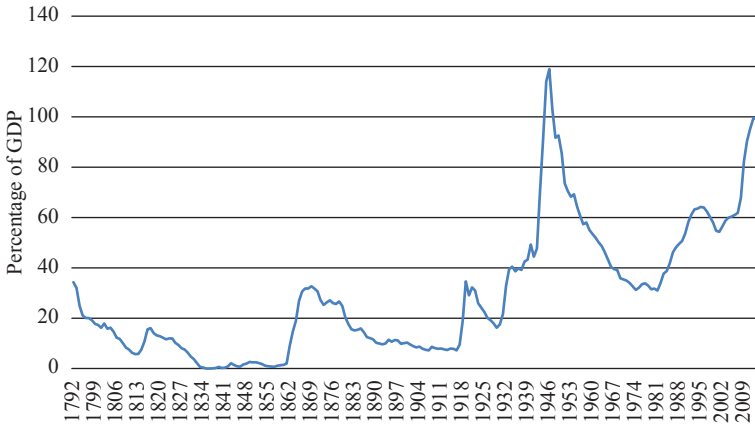


Figure 4 summarizes this history of revenue and expenditure by displaying the debt-to-GDP ratio. Debt was modest by modern standards until 1929. Debt then rose during the Great Depression and WWII but fell substantially over the next several decades. Starting in the mid-1970s, expenditure outpaced revenue, so the debt grew on average, bringing the ratio to roughly 100 percent at the end of 2014.¹⁹

¹⁹This figure is for the gross debt. Net debt held by the public was 74 percent of GDP in 2014. Congressional Budget Office, *The 2015 Long-Term Budget Outlook*, CBO-50250 (Washington, D.C., 2015), <https://www.usgovernmentspending.com>.

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Figure 4
HISTORICAL DEBT-TO-GDP RATIO



This review of U.S. fiscal history shows a deteriorating fiscal situation over the past several decades, but it does not by itself indicate whether serious concern and policy adjustment are necessary. The debt ratio, while on an upward trajectory, is no higher than at the end of WWII, after which the ratio declined for several decades. The U.S. debt ratio is also below that of other rich countries, such as the United Kingdom, France, or Japan, which have so far not experienced fiscal meltdowns.²⁰

Further, the debt accounts only for past fiscal decisions, not the effects of future spending or revenue. Thus, to assess whether the current situation is cause for serious alarm, I next examine the composition of federal spending over the post-WWII period and its likely path going forward.

The Composition of Federal Spending

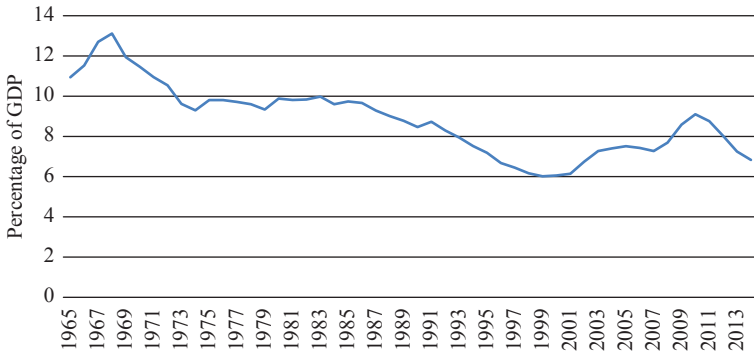
Figures 5–12 show annual federal expenditure for 1965–2014 for discretionary spending (total discretionary spending, defense spending, and other discretionary spending; for details see Appendix A, Table 1)

²⁰ In 2012, gross debt over GDP was 94 percent in the United States, 97 percent in the United Kingdom, 101 percent in France, and 196 percent in Japan. See World Bank, “World Development Indicators,” *World DataBank* (Washington, D.C., 2012), http://databank.worldbank.org/data/reports.aspx?Code=GC.DOD.TOTL.GD.ZS&id=af3ce82b&report_name=Popular_indicators&popularity=series&ispopular=y.

as well as mandatory spending (total mandatory spending, Social Security, Medicare, Medicaid, and other mandatory spending programs; for details see Appendix B, Table 2).²¹

Figure 5 shows that total discretionary spending displays a substantial downward trend over the period, declining from roughly 10.9 percent of GDP in 1965 to only about 6.8 percent in 2014.²² This overall reduction reflects a substantial decline in defense spending (Figure 6) combined with a modest decline in other discretionary spending (Figure 7). Defense spending averaged 8.4 percent of GDP in the 1960s, 5.6 percent in the 1970s, 5.6 percent in the 1980s, 3.8 percent in the 1990s, 3.7 percent in the 2000s, and 4.2 percent in the past four years.²³ Discretionary spending other than defense does not display a strong trend over this period but is slightly lower at the end of the sample than before.²⁴

Figure 5
TOTAL DISCRETIONARY SPENDING AS A PERCENTAGE OF GDP



²¹ “Other mandatory programs” include income security and other retirement and disability programs, as well as mandatory programs such as, but not limited to, the Medicare-Eligible Retiree Health Care Fund, the federal student loan subsidies, the Children’s Health Insurance Program (CHIP), and the Affordable Care Act subsidies.

²² Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025*, CBO-49892 (Washington, D.C., 2015), <https://www.cbo.gov/publication/49892>.

²³ Office of Management and Budget, *Historical Tables* (Washington, D.C., 2015), <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/hist.pdf>.

²⁴ *Ibid.*

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Figure 6
DEFENSE SPENDING AS A PERCENTAGE OF GDP

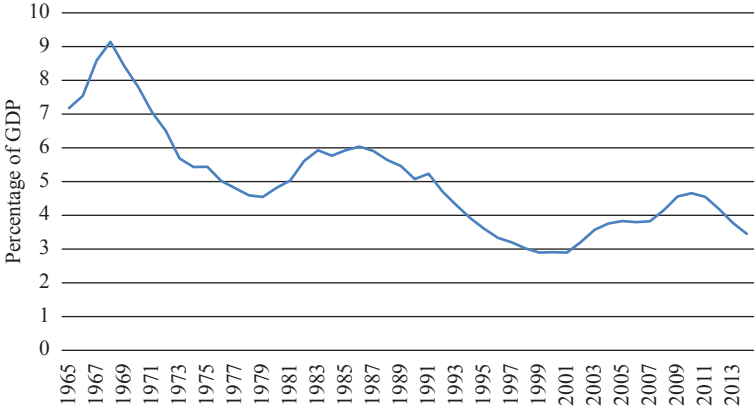


Figure 7
OTHER DISCRETIONARY SPENDING AS A PERCENTAGE OF GDP

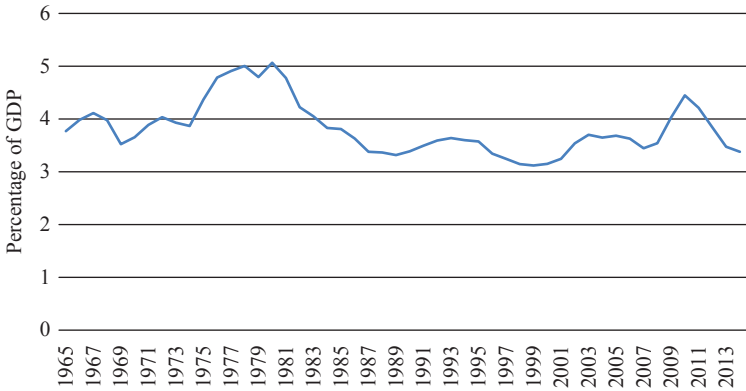
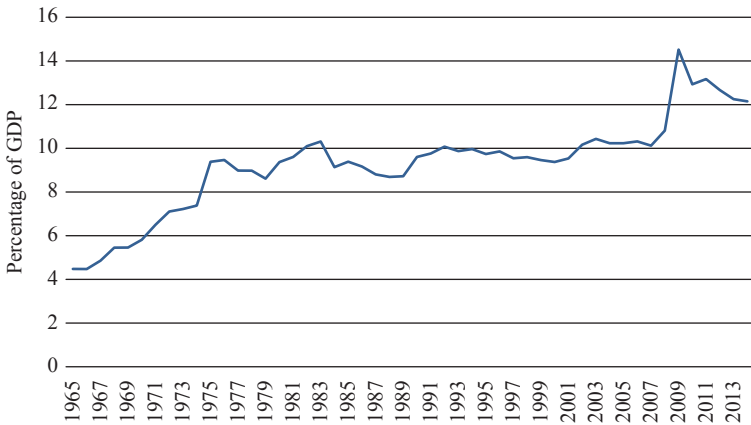


Figure 8 shows that total mandatory spending has grown from 4.5 percent of GDP in 1965 to 12.2 percent in 2014. This growth comes from three main sources. Social Security (Figure 9) has grown from 2.3 percent of GDP in 1965 to about 5 percent in recent years.²⁵ Spending on Medicare and Medicaid (Figures 10 and 11), which was zero until Congress created those programs in 1965, rose to 3.47 percent and 1.75 percent of GDP, respectively, by 2014.²⁶ Other mandatory spending (Figure 12) grew from 3.1 percent of GDP in 1965 to 3.6 percent in 2014.

Figure 8
TOTAL MANDATORY SPENDING AS A PERCENTAGE OF GDP



²⁵Social Security taxes and lump sum payments began in 1937. However, the majority of receipts from January 1937 through December 1939 were through annual Congressional appropriations. Disbursements during the first three fiscal years of the program were exclusively lump-sum payments to the estates of deceased insured workers. Regular monthly benefits did not begin until 1940, when the Old-Age and Survivors Insurance trust fund was created and became effective. A 1941 report provides minimal information on receipts and expenditures (see the trustees report at <http://www.ssa.gov/OACT/TR/historical/1941TR.html>). Of about \$1.75 billion in receipts of the old-age reserve account in 1937–1939, \$1.31 billion was transfers from appropriations made by Congress. Over that three-year period, only \$25 million was disbursed. See Social Security Administration, “FAQs,” *Social Security History* (Washington, D.C.), <http://www.ssa.gov/history/hfaq.html>.

²⁶Congressional Budget Office, *2015 Long-Term Budget Outlook*.

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Figure 9
SOCIAL SECURITY SPENDING AS A PERCENTAGE OF GDP

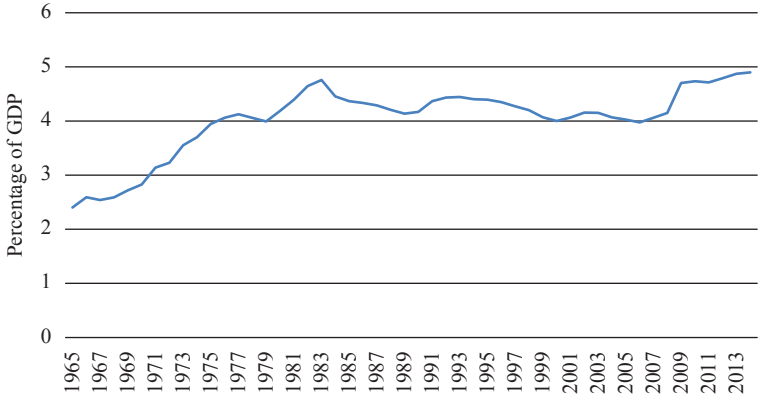


Figure 10
MEDICARE SPENDING AS A PERCENTAGE GDP

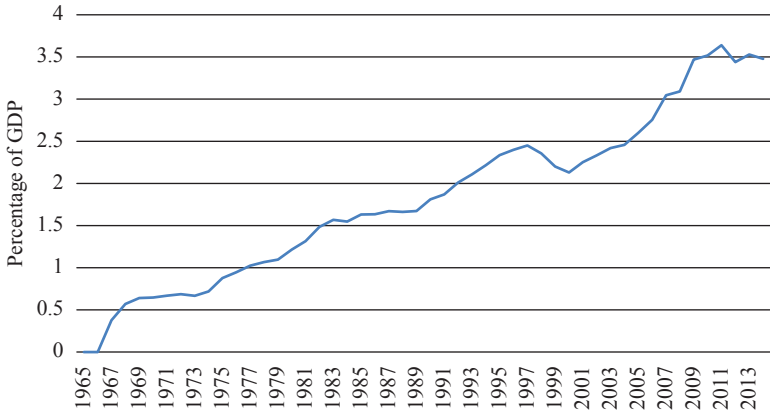


Figure 11
 MEDICAID SPENDING AS A PERCENTAGE OF GDP

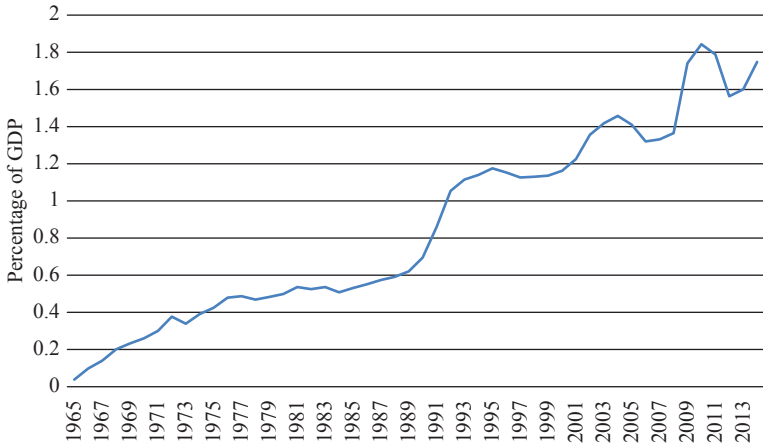
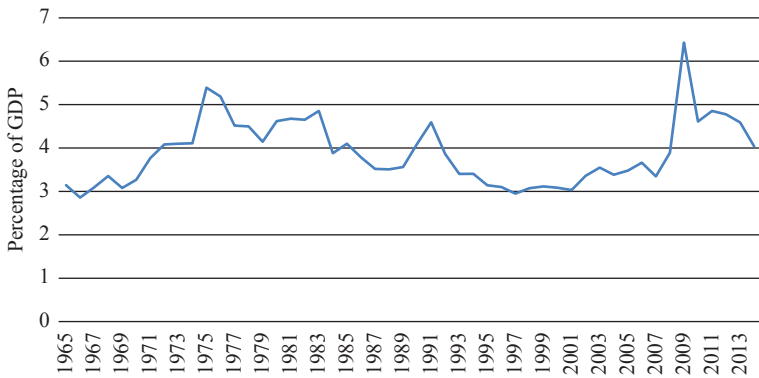


Figure 12
 OTHER MANDATORY SPENDING AS A PERCENTAGE OF GDP (INCLUDING
 INCOME SECURITY, OTHER RETIREMENT AND DISABILITY, OTHER PROGRAMS,
 AND OTHER HEALTH PROGRAMS; EXCLUDING OFFSETTING RECEIPTS)



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Thus, the composition of federal spending has changed dramatically since 1965. Defense spending then accounted for 43.16 percent of federal spending, and Social Security accounted for 14.44 percent. Medicare accounted for 0 percent, Medicaid was 0.23 percent, other mandatory spending was 17.77 percent, and other discretionary spending was 2.64 percent.²⁷ In particular, health care spending was close to zero.²⁸ Starting in the mid-1960s, however, health care expenditure (consisting mainly of Medicare, Medicaid, disability and retirement spending, the Children's Health Insurance Program, and health insurance subsidies) began to grow, reaching 23.71 percent of expenditure in 2014.²⁹ At the same time, Social Security grew significantly, reaching about 24 percent of total federal spending and 5 percent of GDP in 2014. Thus, health care plus retirement spending is now 63.4 percent of total spending, while national defense is only 15.99 percent, and total discretionary is only 30.44 percent.^{30,31}

An additional change in the nature of federal spending, concomitant with the first, has been the shift from discretionary to mandatory programs. Congress sets discretionary spending each year in annual appropriations bills. Discretionary spending consists mainly of defense, which was 48.6 percent of total discretionary in 2014. Other major components include transportation (7.6 percent), education (6.1 percent), veterans' benefits (5.4 percent), and international affairs (4.2 percent).³²

Mandatory spending is set by laws that allow such spending to continue indefinitely unless Congress modifies the law. Mandatory spending consists mainly of Social Security (40.3 percent of total mandatory spending in 2014), Medicare (24.1 percent), Medicaid (14.4 percent), federal employee retirement and disability (6.4 percent), Supplemental Nutrition Assistance Program (4.6 percent), veterans' benefits (4.1 percent), earned income tax credit (2.9 percent), Supplemental Security Income

²⁷ Ibid.

²⁸ Other mandatory spending included some health expenditure in 1965.

²⁹ Congressional Budget Office, *2015 Long-Term Budget Outlook*.

³⁰ Ibid.

³¹ Total federal spending consists of the following components: discretionary spending (defense spending and nondefense spending) and mandatory spending (Social Security, Medicare, Medicaid, income security, other retirement and disability programs, and other programs).

³² Congressional Budget Office, *2015 Long-Term Budget Outlook*.

(2.4 percent), unemployment insurance (2.0 percent), and health insurance subsidies (0.4 percent). See Appendix B, Table 2, for further details.³³

Given those changes in the composition of federal spending, the case can plausibly be made that spending will continue to grow faster than GDP in the future. The shift from national defense and other discretionary spending to health care and retirement spending represents a change from controversial spending to “popular” spending. The shift to mandatory spending means that a greater portion of federal expenditure can increase from year to year without new legislation or agreement between Democrats and Republicans. Such increases are likely because the aging of America’s population means that a higher and higher proportion of the population is eligible for these mandatory programs. Plus, health care subsidies tend to raise health care prices, which further increases spending.

Figures 13 and 14 present the Congressional Budget Office’s projections of discretionary and mandatory spending, respectively, over the next 75 years. Consistent with the reasoning above, those figures show stable discretionary spending but persistently increasing mandatory spending, especially for Medicare and Medicaid. Whether the projections will prove accurate depends on economic and demographic variables such as real GDP growth, wage rates, health care cost inflation, birth and death rates, immigration rates, and more. Deviations from the projections can be too pessimistic or too optimistic.

A possible caveat about such projections is that since the early 2000s, health care cost inflation has moderated substantially in the United States. The reasons for this slowdown are not fully understood, but they predate the recession and the Affordable Care Act, so those two factors are at a minimum not the whole story. If this slowdown continues over the long term, that change will moderate the growth in government health care expenditure and therefore imply smaller estimates of fiscal imbalance.³⁴

For several reasons, however, this “good news” should be taken with a large grain of salt. Health care cost inflation slowed in the early 1990s but then accelerated again. Some of the growth of federal health care expenditure reflects demographics rather than health care cost inflation. As the baby boom generation retires and life expectancy increases,

³³ Congressional Research Service, *Mandatory Spending Since 1962*, CRS-7-5700 (Washington, D.C., 2015), <https://www.fas.org/sgp/crs/misc/RL33074.pdf>.

³⁴ See Chandra Amitabh, Jonathan Holmes, and Jonathan Skinner, “Is This Time Different? The Slowdown in Health Care Spending,” *Brookings Paper on Economic Activity*, Fall 2013, pp. 261–311.

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the fraction of the population receiving Medicare will continue to grow, implying rising expenditure even with less health care cost inflation. Moreover, the most recent data on health insurance premiums suggest substantially faster health care cost inflation over at least the next year

Figure 13
CBO PROJECTIONS OF TOTAL DISCRETIONARY SPENDING AS A PERCENTAGE OF GDP

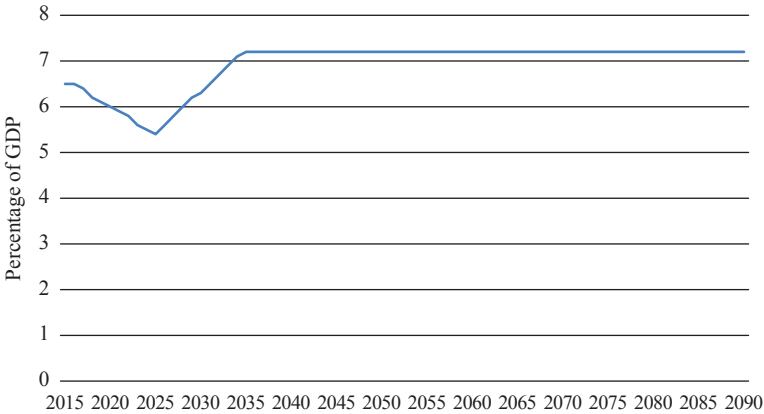
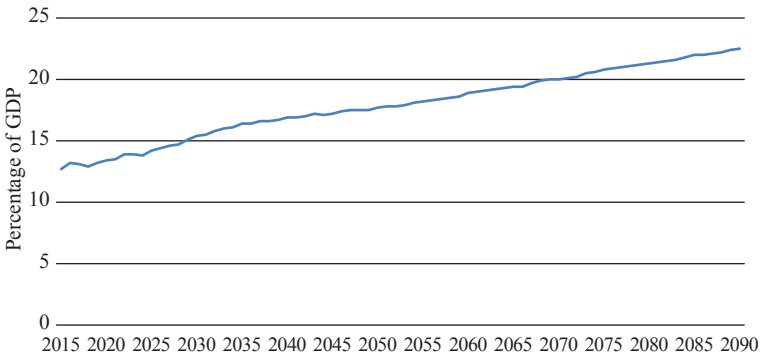


Figure 14
CBO PROJECTIONS OF TOTAL MANDATORY SPENDING AS A PERCENTAGE OF GDP



or so. In fact, Bureau of Labor Statistics data from early 2015 showed surprisingly large monthly jumps in the cost of hospital services.³⁵ And even projections that incorporate less rapid health care cost inflation still show Medicare and other health care expenditure growing faster than GDP by enough to make fiscal imbalance large.^{36,37}

The CBO's projections make clear why, as noted earlier, the debt-to-GDP ratio is an incomplete picture of fiscal health: the debt accounts for past spending and taxation but ignores future spending or future ability to raise revenue.³⁸ Similarly, the existing debt-to-GDP ratio takes no account of the economy's future growth. If expenditure growth slows sufficiently relative to current projections or if the economy grows faster than current projections, implying greater revenue, then the debt ratio could decline enough to avoid fiscal difficulties. A complete picture of fiscal health must therefore integrate both past and future, and it must combine all the components of fiscal health quantitatively.

An Estimation of Fiscal Imbalance over Time

To show the quantitative effect of changes in U.S. fiscal policy over time, I estimate fiscal imbalance for each year starting in 1965. I start

³⁵Dan Mangan, "Medical Cost Inflation: Highest Level in 8+ Years," CNBC.com, May 22, 2015, <http://www.cnbc.com/2015/05/22/medical-cost-inflation-highest-level-in-8-years.html>.

³⁶See Douglas Elmendorf, "Comment," *Brookings Paper on Economic Activity*, Fall 2013, pp. 311–19.

³⁷The CBO's baseline debt projections assume a 1.4 percent annual rate of health care excess cost growth, a rate that declines gradually to zero for Medicaid and to 1.0 percent for Medicare over the next 75 years. Those rates would be much lower than average health care cost inflation over the past two decades. Even given the conservative assumptions, however, the CBO still forecasts that 8 percent of GDP will be spent on major health care programs by 2040. For more information, see Congressional Budget Office, "Summary," *Long-Term Budget Outlook*.

³⁸See Laurence J. Kotlikoff, "Deficit Delusion," *Public Interest* 84 (1986): 53–65; Laurence J. Kotlikoff, *Generational Accounting: Knowing Who Pays, and When, for What We Spend* (New York: Free Press, 1992); Laurence J. Kotlikoff, "From Deficit Delusion to the Fiscal Balance Rule: Looking for an Economically Meaningful Way to Assess Fiscal Policy," *The Journal of Economics* 58, no. 1 (1993): 17–41; and Alan J. Auerbach and Laurence J. Kotlikoff, *Dynamic Fiscal Policy* (Cambridge, England: Cambridge University Press, 1987). An important theme in this literature is that fiscal imbalances typically imply large redistributions across generations, with future generations facing substantially higher taxes to pay for the retirement and health care benefits of existing retirees. I abstract from those issues here. For an excellent discussion, see Alan J. Auerbach, Jagadeesh Gokhale, and Laurence J. Kotlikoff, "Generational Accounting: A Meaningful Way to Evaluate Fiscal Policy," *Journal of Economic Perspectives* (1994): 73–94.

then because the data considered earlier suggest the United States had no serious issue of fiscal imbalance before that date. Further, the data necessary to construct the fiscal imbalance estimates are more readily available starting in 1965.

Fiscal imbalance (FI) is a measure of government financial health that, at a point in time, accounts for both explicit debt (the sum of all past deficits and surpluses, plus interest payments on the debt) and implicit debt (the expected value of all future deficits and surpluses, adjusted for the time value of money using present value).³⁹ Formally,

$$\text{Fiscal Imbalance} = \text{Present Value of Future Expenditure} - \text{Present Value of Future Revenue} + \text{Outstanding Debt}$$

Calculation of fiscal imbalance requires projections of future spending and revenue, starting from each date for which one calculates FI, plus an assumed interest rate with which to discount future inflows and outflows.⁴⁰ I construct projections based on simplifying assumptions that allow clean analysis of the issues underlying the estimates.

As a first step, I create projections for real GDP, starting in 1965 and going forward as far as necessary. Those projections are calculated by taking actual real GDP in 1965, followed by 2.55 percent growth every year thereafter.⁴¹ This assumed growth rate matches the average of the actual growth rate of real GDP over the past 40 years and the CBO's own long-term projections for GDP growth over the next 75 years.⁴² (For consistency, throughout this model I use actual growth rates over the past four decades as well as CBO projections for the next 75 years to project future revenue and spending trajectories). This approach does *not* "reset" every year; that is, it does not assume 2.55 percent growth starting from the actual value of real GDP in each start year. Instead,

³⁹ For details, see Jeffrey Miron, *Fiscal Imbalance: A Primer* (Washington, D.C.: Cato Institute, 2015). Also refer to Kotlikoff, "Deficit Delusion"; Kotlikoff, *Generational Accounting*; Kotlikoff, "From Deficit Delusion to the Fiscal Balance Rule"; and Auerbach and Kotlikoff, *Dynamic Fiscal Policy*.

⁴⁰ Ideally, one calculates the present values over the infinite future. Under the assumptions used here, however, the present values over the infinite future are unbounded. I therefore use a 75-year horizon.

⁴¹ The CBO's long-term budget forecast for 2015 projects a real growth rate of 2.3 percent for the next 75 years. Over the past 40 years, however, GDP growth has been 2.8 percent per year. The average of those two figures is 2.55 percent, the assumed growth rate here.

⁴² Bureau of Economic Analysis, *National Income and Product Account Tables* (Washington, D.C.: U.S. Department of Commerce, 2015), http://www.bea.gov/iTable/index_nipa.cfm.

this approach creates one series for projected GDP, starting in 1965, and then uses that series for all future projections. The reason is to abstract out booms and recessions and instead to focus attention on how changes in spending or tax policies have changed fiscal imbalance.

Given those projected values for real GDP, I construct projections for revenue and discretionary spending by assuming they always equal 17.3 percent and 8.2 percent of real GDP, respectively. The values equal the average revenue-over-GDP and discretionary-spending-over-GDP ratios, respectively, between 1975 and 2014.⁴³

The growth model for mandatory spending is constructed differently. The projections for Social Security for each start year equal actual spending on Social Security in that year, followed by 2.58 percent real growth per year for the next 75 years.⁴⁴ The average annual growth rate in real Social Security expenditure for the 1965–2014 period was 2.49 percent.⁴⁵ This figure is close to CBO projections, which predict that Social Security spending will increase at an average pace of 2.6 percent per year over the next 75 years.

The projections for Medicare and Medicaid are calculated using the same method as for Social Security, but with different spending growth rates. Medicare and Medicaid spending for each start year equals the actual value in that year followed by 4.58 percent and 4.29 percent real growth per year, respectively. The assumptions are derived by averaging the growth of Medicare and Medicaid spending over the past several decades with CBO projections for future decades.⁴⁶ Here, too, the approach is different than for real GDP, because the projection of future

⁴³ Congressional Budget Office, “January 2015 Baseline,” *Budget and Economic Outlook: 2015 to 2025*, CBO-49892 (Washington, D.C., 2015), <https://www.cbo.gov/publication/45249>.

⁴⁴ I can illustrate this point with an example: if we were to project Social Security spending from the year 1990 onward, we would take the actual real expenditure in 1990 (\$446.5 billion), then multiply that by 1.03 (i.e., a 3 percent annual growth rate) to get an estimate for spending in 1991 (\$459.9 billion), in 1992 (\$473.7 billion), and so on each year for the next 75 years. Together, those projections are used to calculate an estimate of fiscal imbalance in the year 1990. To calculate an estimate of fiscal imbalance in 1991, we would repeat the pattern using real Social Security spending from that “start year.”

⁴⁵ Congressional Budget Office, “January 2015 Baseline.”

⁴⁶ Those growth rates differ slightly from those offered by the CBO and other literature (e.g., Jagadeesh Gokhale, “Spending Beyond Our Means: How We Are Bankrupting Future Generations,” Cato Institute White Paper, February 13, 2013), <http://object.cato.org/sites/cato.org/files/pubs/pdf/spending-beyond-our-means.pdf>. The CBO assumes a 4 percent growth rate for Medicare and a 3 percent growth rate for Medicaid over the

growth starts fresh from each projection date's actual value. This approach allows the present values to reflect the fact that those programs have expanded in scope over time.

I further include projections for mandatory spending on other programs. Lumped into this category are components such as unemployment insurance, the Supplemental Nutrition Assistance Program (formerly known as food stamps), retirement and disability programs, benefit programs for veterans, Medicare-Eligible Retiree Health Care Fund, ACA subsidies, federal student loan subsidies, and the Children's Health Insurance Program. Combined, those other programs account for roughly 30–35 percent of mandatory spending each year. Projections are calculated in a fashion parallel to Social Security, Medicare, and Medicaid. Spending for each start year equals the actual value in that year followed by 2.37 percent growth per year.

Next, to estimate fiscal imbalance, I calculate for each projection start year the present value of projected revenue and of each major expenditure component over the subsequent 75 years.⁴⁷ I then sum the present values of the expenditure projections, subtract the present value of the revenue projection, and add the explicit debt. This number gives an estimate of fiscal imbalance as of that start year. All present values assume a real interest rate of 3.22 percent, which equals the average real interest rate on 30-year long-term government bonds in the United States over the past four decades.⁴⁸

Figure 15 plots the results. As of 1965, the assumptions made here imply a fiscal *balance* of \$6.92 trillion expressed in terms of 2014 dollars. In other words, projected discounted revenue exceeded projected discounted spending by that amount. Thus the U.S. fiscal plan was sustainable at that time. Starting around that time, however, fiscal balance began a gradual but persistent deterioration, and balance had become imbalance by 1969. Around 2000, fiscal imbalance started to deepen more swiftly, caused in part by an acceleration in Medicare expenditures. In the wake of the Great Recession in 2008–2009, fiscal imbalance

next 75 years. This discrepancy may be one reason that my estimates for fiscal imbalance are larger than previous estimates.

⁴⁷ As noted, I use a 75-year rather than an infinite horizon because the latter is unbounded.

⁴⁸ The average real rate on long-term (30-year) government bonds was 3.2 percent over the past 40 years. See Federal Reserve Bank of St. Louis, Economic Data (2015), <http://www.research.stlouisfed.org>.

worsened because of a spike in Medicaid expenditures and other health care program costs. As of 2014, my assumptions produce an estimated imbalance of \$117.9 trillion.⁴⁹

The main improvement in FI occurs in 2010. Indeed, for 2010, the fiscal situation ameliorated from an imbalance of \$129.59 trillion to \$118.42 trillion. This improvement is a break with the previous 20-year downward trend, which plausibly reflects a reversal of exceptionally large federal spending during the Great Recession, particularly for income security programs and Medicaid. The slowdown in the growth of health care costs may have also played a role, though the CBO believes health care costs will pick back up according to recent data. In any case, the fiscal gains made in 2010 have not continued.

Overall, the main drivers of America's fiscal deterioration appear to be the ever-growing costs associated with Medicare, Medicaid, and other health programs. Whereas Social Security has accounted for a relatively constant share of expenditure in proportion to GDP, Medicare and Medicaid costs have been growing as a ratio of GDP for the past four decades. This growth is what makes the country's fiscal path unsustainable.

The estimates in Figure 15 rely on assumptions about future growth, revenue, spending, and interest rates. Sufficiently large changes in those assumptions can generate far less gloomy projections. Figures 16–20 show, however, that modifications over the plausible range do not change the main story. Figure 16 considers a real GDP growth rate 0.5 percent higher or lower, Figure 17 considers a real interest rate 0.5 percent higher or lower, Figure 18 considers growth rates for Medicare and Medicaid 1 percent higher or lower, Figure 19 considers raising or lowering discretionary spending as a share of GDP by 1 percent, and Figure 20 considers raising or lowering tax revenues as a share of GDP by 1 percent. None of those variations on the assumptions change the basic message: U.S. fiscal imbalance has been growing for several decades and is now larger than it has ever historically been.

⁴⁹For comparison, other literature estimates the imbalance at \$79.4 billion as of 2010. See Jagadeesh Gokhale and Kent Smetters, "Fiscal and Generational Imbalances: An Update," *Tax Policy and the Economy* 20 (2006): 193–223, <http://www.nber.org/chapters/c0066.pdf>. A more recent study by Gokhale estimates fiscal imbalance in 2014 at \$94.9 trillion under CBO's alternative policies. For more, see Gokhale, "Spending Beyond Our Means," p. 12.

U.S. FISCAL IMBALANCE OVER TIME

Figure 15
PROJECTED FISCAL IMBALANCE (BASELINE ASSUMPTIONS)

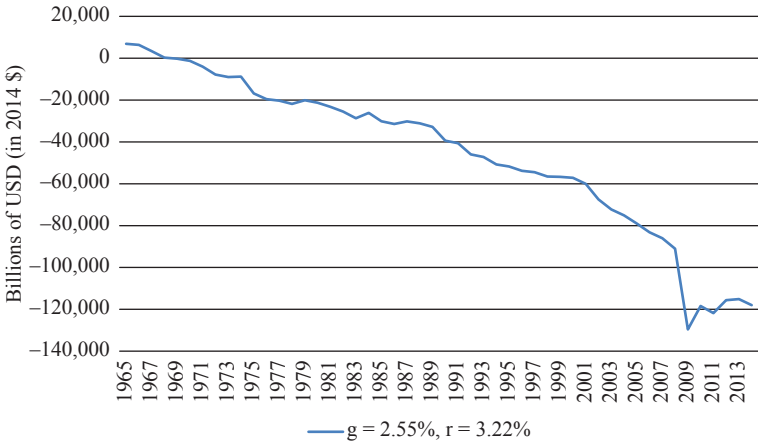


Figure 16
FISCAL IMBALANCE WITH VARYING GDP GROWTH RATES

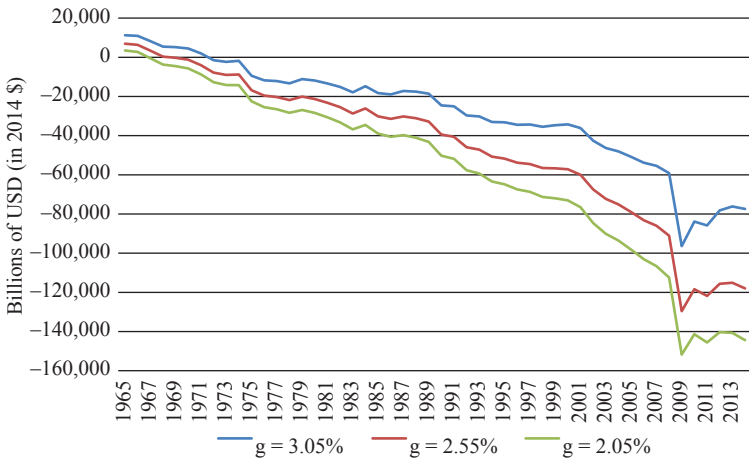


Figure 17
FISCAL IMBALANCE WITH VARYING INTEREST RATES

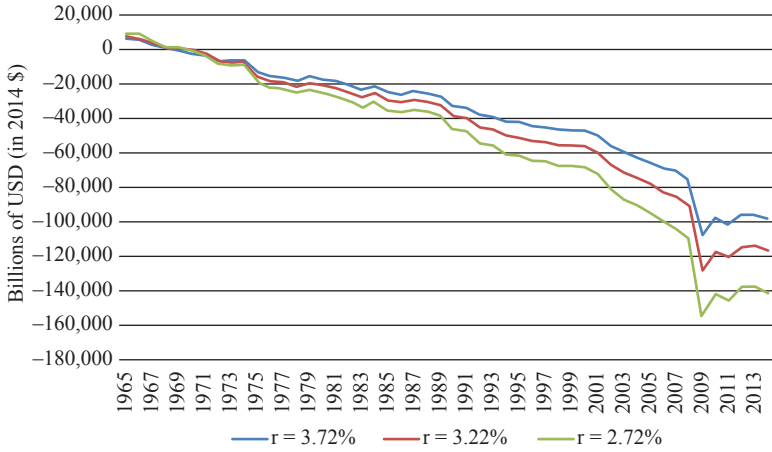
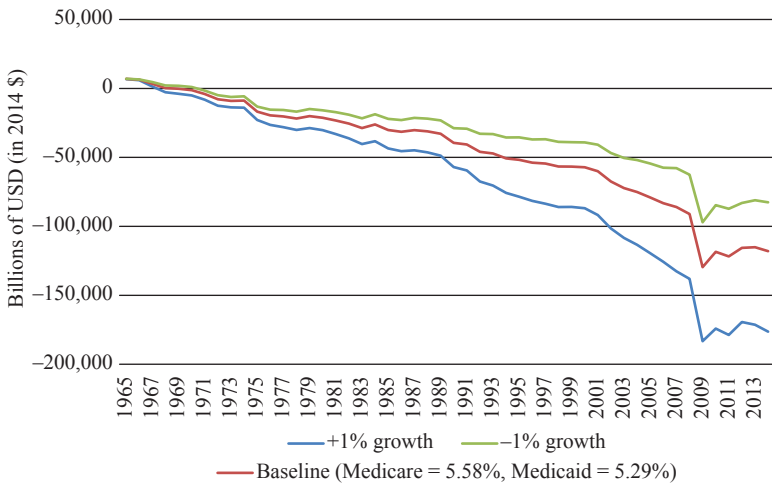


Figure 18
FISCAL IMBALANCE WITH VARYING MEDICARE AND MEDICAID GROWTH RATES



U.S. FISCAL IMBALANCE OVER TIME

Figure 19
FISCAL IMBALANCE WITH VARYING DISCRETIONARY SPENDING-TO-GDP RATIOS

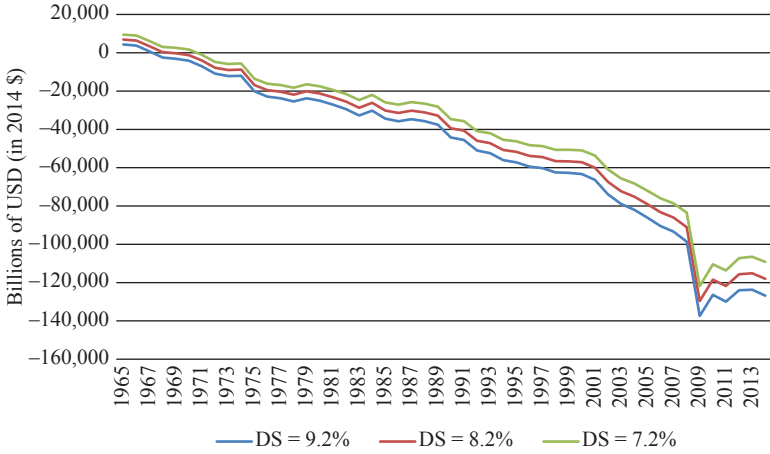
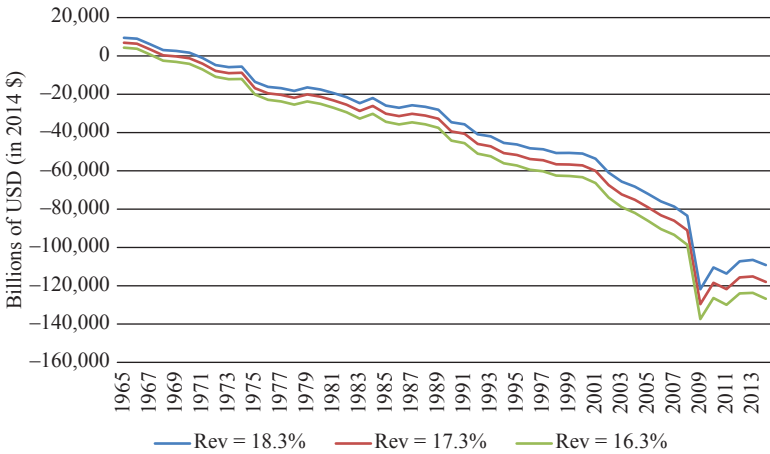


Figure 20
FISCAL IMBALANCE WITH VARYING REVENUE-TO-GDP RATIOS



Discussion

The analysis presented here shows that until the 1930s, the United States faced no serious fiscal imbalance, it had not accumulated substantial explicit debt, and it had not adopted policies like Social Security or Medicare that generate implicit future liabilities. Prospects for continued economic growth, moreover, seemed good.

The situation changed somewhat in the 1930s and early 1940s. Certain policies adopted during the Great Depression—and especially WWII—generated greater spending, and the Great Depression reduced revenue. By the second half of the 1940s, the Great Depression and WWII turned out, however, to have been “transitory” shocks that did not by themselves cause permanent deterioration in fiscal health. Some policies adopted during the Depression implied higher expenditure on average (e.g., unemployment insurance) but not an ever-increasing expenditure relative to GDP.

Over the first two decades after WWII, fiscal health generally improved. Social Security expenditure increased relative to GDP, but the decline in defense expenditure combined with solid GDP growth implied that deficits were small on average, so the debt ratio declined.

Starting in 1965, however, Medicare, Medicaid, and more recently the ACA added the potential for major expansions of expenditure relative to output, and subsequent experience has confirmed this potential. By 2014, America’s present-value fiscal imbalance, calculated over a 75-year horizon, had reached 797 percent of GDP.

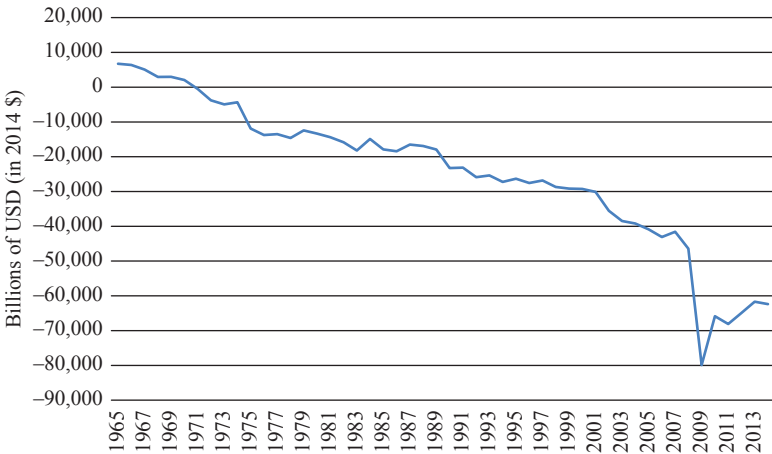
In principle, the United States has three options for restoring fiscal balance: adopting policies that promote faster growth, raising taxes, or slowing the growth in expenditure.

In practice, as the estimates just described indicate, only expenditure cuts can make a significant difference. Faster growth is always desirable, other things being equal, though many current policies are both ill-advised and inimical to growth. Yet as Figure 16 shows, even a substantial increase in the growth rate would make only a moderate difference to fiscal imbalance, and adjusting policy sufficiently to achieve this growth rate would likely prove politically difficult. Similarly, Figure 20 suggests that even with tax revenue substantially above its postwar average, and assuming no effect on growth, fiscal imbalance would still be large. If higher taxes have even a modest negative impact on growth, tax increases have no capacity for restoring fiscal balance.

U.S. FISCAL IMBALANCE OVER TIME

That finding leaves expenditure cuts—especially to Medicare, Medicaid, and ACA subsidies—as the only viable avenues for significant reductions in fiscal imbalance. Figure 21 shows the estimates of fiscal imbalance if all mandatory spending grew at a rate of just 2.55 percent—that is, the same rate as GDP. Under those assumptions, fiscal imbalance becomes substantially smaller.⁵⁰ Such large cuts are politically difficult given that the programs benefit a huge fraction of Americans, but they would indeed diminish fiscal imbalance. The crucial difference between cuts in expenditure and tax hikes is that the former could plausibly increase economic growth, or at worst have a minor effect, while the latter almost certainly reduce growth, making imbalance worse.⁵¹

Figure 21
FISCAL IMBALANCE WITH STABLE MANDATORY SPENDING GROWTH
(2.55 PERCENT)



⁵⁰The magnitude of fiscal imbalance shrinks by about half in those circumstances. Even though mandatory spending equals GDP growth in this scenario, fiscal imbalance does not fall to zero because current expenditure still outpaces revenue, so a “stable growth” scenario merely maintains the status quo. If one were to actually erase the fiscal imbalance, mandatory spending programs would have to grow at a rate slower than GDP growth.

⁵¹For overviews on how tax cuts and hikes can affect economic growth, see Christina Romer, “The Case for Fiscal Stimulus: The Likely Effects of the American Recovery and Reinvestment Act,” Chair’s Remarks, U.S. Monetary Policy Forum, New York, February 27, 2009. See also Mark Zandi, chief economist and cofounder of Moody’s Economy.com,

Thus, cutting the growth of federal health expenditure is a win-win for the economy because it reduces fiscal imbalance and enhances the efficiency of the health care system at the same time.

Testimony before the Joint Economic Committee, October 29, 2009, "The Impact of the Recovery Act on Economic Growth," <https://www.economy.com/mark-zandi/documents/JEC-Fiscal-Stimulus-102909.pdf>.

Appendix A: Total Discretionary Spending, Defense Spending, and Other Discretionary Spending

Table 1
DISCRETIONARY OUTLAYS, FISCAL YEARS 2014–2015

	Billions of Dollars		Percent of GDP		Percent of Total Expenditures	
	2014	2015	2014	2015	2014	2015
National defense						
Department of Defense/military	572.71	560.83	3.32	3.14	16.33	15.25
Other defense	23.74	27.79	0.14	0.16	0.68	0.76
Subtotal	596.45	588.62	3.46	3.30	17.01	16.01
Nondefense						
International affairs	49.60	55.16	0.29	0.31	1.41	1.50
General science, space, and technology	28.47	29.75	0.16	0.17	0.81	0.81
Energy	5.43	7.34	0.03	0.04	0.15	0.20
Natural resources and environment	35.60	38.11	0.21	0.21	1.02	1.04
Agriculture	5.54	7.03	0.03	0.04	0.16	0.19
Commerce and housing credit	-6.83	-4.89	-0.04	-0.03	-0.19	-0.13
Transportation	89.99	33.49	0.52	0.19	2.57	0.91
Community and regional development	22.04	25.47	0.13	0.14	0.63	0.69
Education, employment, and social services	92.10	93.22	0.53	0.52	2.63	2.54
Health	55.73	59.82	0.32	0.34	1.59	1.63
Medicare	6.39	6.43	0.04	0.04	0.18	0.17
Income security	64.21	67.34	0.37	0.38	1.83	1.83
Social Security	5.66	5.54	0.03	0.03	0.16	0.15
Veterans' benefits and services	63.13	64.69	0.37	0.36	1.80	1.76
Administration of justice	49.41	51.94	0.29	0.29	1.41	1.41

Continued on p. 30

U.S. FISCAL IMBALANCE OVER TIME

General government	15.76	17.08	0.09	0.10	0.45	0.46
Subtotal	582.22	557.52	3.37	3.12	16.61	15.16
Total discretionary outlays	1,178.67	1,146.14	6.83	6.42	33.62	31.17

Source: Office of Management and Budget, *Historical Tables, Table 8.7: Outlays for Discretionary Programs* (Washington, D.C., 2015), <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/hist08z7.xls>.

Appendix B: Total Mandatory Spending, Social Security, Medicare, Medicaid, and Other Mandatory Spending Programs

Table 2
MANDATORY OUTLAYS, FISCAL YEARS 2014–2015

	Billions of Dollars		Percent of GDP		Percent of Total Expenditures	
	2014	2015	2014	2015	2014	2015
Social Security						
Old-Age and Survivors Insurance	702.91	738.29	4.07	4.14	20.05	20.08
Disability Insurance	141.97	143.72	0.82	0.81	4.05	3.91
Subtotal	844.88	882.01	4.89	4.94	24.10	23.99
Major health care programs						
Medicare	599.81	639.02	3.47	3.58	17.11	17.38
Medicaid	301.47	350.12	1.75	1.96	8.60	9.52
Health insurance subsidies and related spending	14.87	36.94	0.09	0.21	0.42	1.00
Children's Health Insurance Program	9.31	9.04	0.05	0.05	0.27	0.25
Subtotal	925.47	1,035.12	5.36	5.80	26.40	28.15
Income security						
Earned income, child, and other tax credits	86.01	84.94	0.50	0.48	2.45	2.31
Supplemental Nutrition Assistance Program	76.24	76.32	0.44	0.43	2.17	2.08
Supplemental Security Income	54.04	54.85	0.31	0.31	1.54	1.49
Unemployment compensation	43.89	33.49	0.25	0.19	1.25	0.91
Family support and foster care	30.75	30.85	0.18	0.17	0.88	0.84
Child nutrition	20.00	21.66	0.12	0.12	0.57	0.59
Subtotal	310.93	302.12	1.80	1.69	8.87	8.22

Continued on p. 32

U.S. FISCAL IMBALANCE OVER TIME

Federal civilian and military retirement						
Civilian	93.68	96.62	0.54	0.54	2.67	2.63
Military	55.35	56.62	0.32	0.32	1.58	1.54
Other	8.47	6.65	0.05	0.04	0.24	0.18
Subtotal	157.51	159.89	0.91	0.90	4.49	4.35
Veterans						
Income security	70.94	75.85	0.41	0.43	2.02	2.06
Other	15.82	16.07	0.09	0.09	0.45	0.44
Subtotal	86.76	91.92	0.50	0.52	2.47	2.50
Other programs						
Agriculture	19.19	13.28	0.11	0.07	0.55	0.36
Medicare-Eligible Retiree Health Care Fund	9.26	10.03	0.05	0.06	0.26	0.27
Deposit insurance	-13.85	-10.23	-0.08	-0.06	-0.40	-0.28
Fannie Mae and Freddie Mac	0	0				
Higher education	-11.97	21.35	-0.07	0.12	-0.34	0.58
Other	51.73	59.67	0.30	0.33	1.48	1.62
Subtotal	54.35	94.10	0.31	0.53	1.55	2.56
Offsetting receipts						
Medicare	-94.51	-98.47	-0.55	-0.55	-2.70	-2.68
Federal share of federal employees' retirement	-65.36	-67.61	-0.38	-0.38	-1.86	-1.84
Fannie Mae and Freddie Mac	-74.39	-22.80	-0.43	-0.13	-2.12	-0.62
Other	-47.14	-79.07	-0.27	-0.44	-1.34	-2.15
Subtotal	-281.39	-267.94	-1.63	-1.50	-8.03	-7.29
Total mandatory outlays	2,098.50	2,297.21	12.16	12.87	59.85	62.47

Source: Congressional Budget Office, *The 2015 Long-Term Budget Outlook: January 2015 Baseline* (Washington, D.C., 2015), Table 3.2, <https://www.cbo.gov/publication/45069>.

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