**US Fiscal Policy and the Covid-19 Crisis**

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**Introduction**

At the end of 2019 US total debt was 106.9% of GDP. In 1946 after WWII, US debt was 118.9%. As of July1, 2020 total US government debt was approaching $26 trillion. That represents approximately 123% of GDP - the highest in US history. The Covid-19 crisis will undoubtedly increase it substantially. It is easy to conceive of 150-200% before we are back to normal. While this may seem like terra incognito, it is not. There is some history to guide us in understanding our current dilemma and what should be done about it.[[1]](#footnote-1)

After 1946 the US steadily decreased its debt to 31.7% in 1981, before rebounding to its current level. The UK debt in 1950 was over 230% of GDP and was steadily decreased to less than 30% in 1993[[2]](#footnote-2) before rebounding to 85.4% at the end of 2019.

This paper is a look at US fiscal policy since 1948 until now to understand the debt buildup. It will also address what governments (US and UK) have done in the past in this situation to reduce that debt and what are the prospects that the US might escape Covid-19 with some semblance of normalcy.

We will first look at the components of Federal government spending to see how they have changed since WWII, what reveals about the nature of American government and what it implies for government flexibility to manage the Covid-19 fiscal challenges. Then we will add Total Revenue and Deficits to see how they have changed over the years. Then we will examine the detail of government Debt (types and maturities) and finally the impact of tax changes and deficit spending on GDP and government Revenues as means of decreasing the debt. Finally, we will analyze these impacts separately for Republican and Democratic Presidential.

With this background, we will attempt to address two questions. What does the government need to do to get us back on a sensible financial foundation and what does this imply for individual investors.

**DATA**

We assembled economic data from the White House Office of Management and Budget, the Economic Report of the President, the US Bureau of Economic Analysis and the St. Louis Federal Reserve Bank’s FRED databases - Federal government economic data sources[[3]](#footnote-3). We usually used data from 1948 to 2019 because some important data series only begin in 1948. We prepared graphs and elementary correlation and event analyses. Some of the analyses are of Presidential effects. We begin a Presidential term in the year after he assumed office because the budgets and spending bills for his first year are passed late in the year of his election. The presumption then is that a President does not have much influence over economic policy his first year in office.

GOVERNMENT SPENDNG SECTION – add detail to determine discretionary spending and flexibility in spending.

REVENUES AND DEFICITS TO UNDERSTAND HOW WE GOT HERE

DEBT – TO UNDERSTAND THE NATURE OF OUR DEBT – add US Treasury data on the term structure of the debt, specifically what kind of new debt are they adding – hopefully long term debt.

THE IMPACTS OF TAX CHANGES

Tax cuts on GDP and Revenue

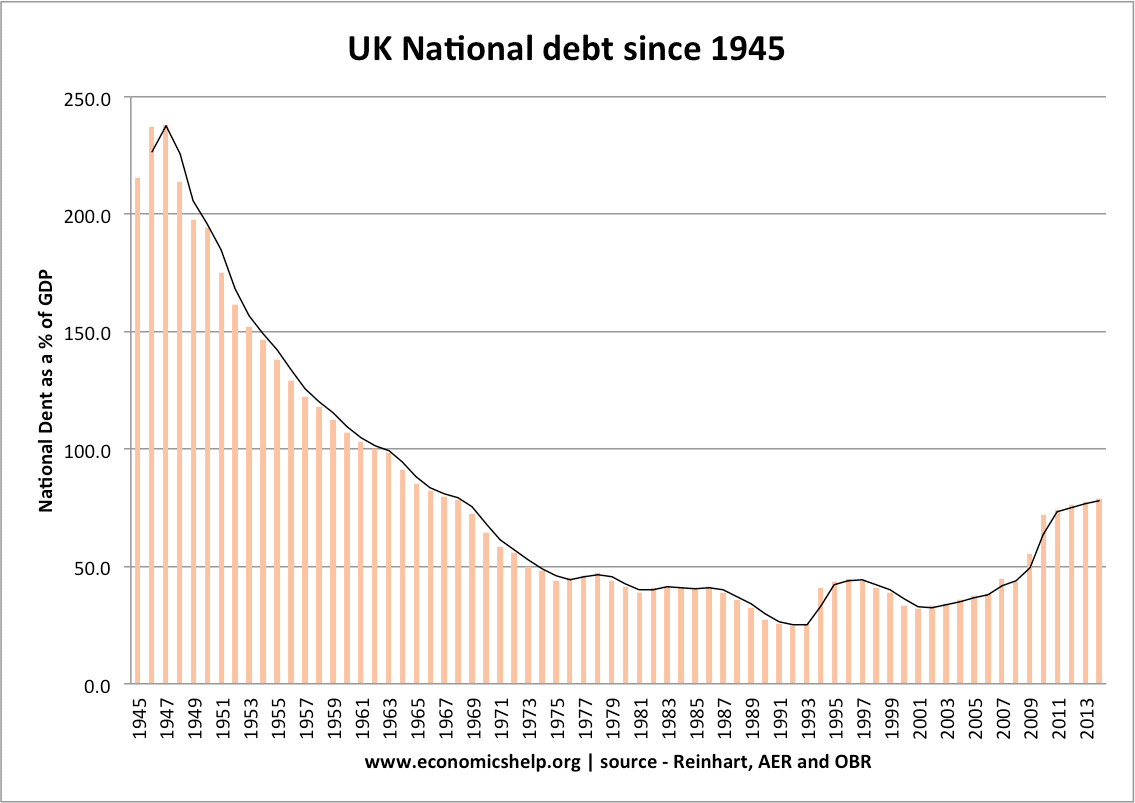
Tax Increases impact on GDP and Revenue

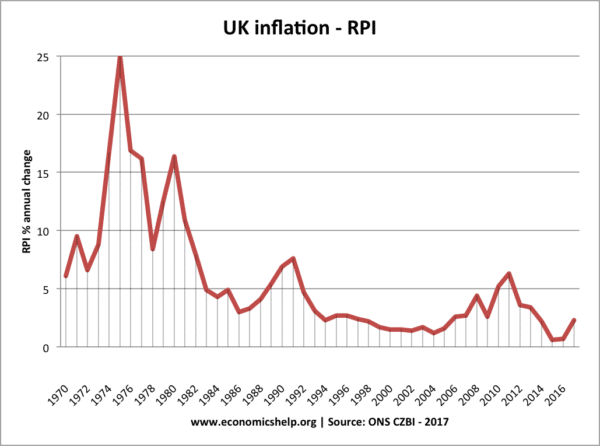
Fed and Treasury Policy – term structure > expected inflaction policy

OUR CURRENT DELIMMA – what is the nature of the pickle we are in.

WHAT ARE THE POSSIBLE OPTIONS; tax increases, decreased spending, inflation

WHAT MIGHT THIS IMPLY FOR CURRENT INDIVIDUAL INVESTORS – invest only in assets that will appreciate with inflation. Sell all fixed rate assets – bonds, real estate with long term fixed rate leases payments,





**On Federal Spending**

**Figure 1[[4]](#footnote-4)** shows data for major aggregations of government Spending, as a percentage of GDP. There are major changes in the character of the US Government since 1948. Until 1976, Defense was the largest component of spending. It dropped from 66%% of Government spending in 1955 to less than 12% in 2019. Only during the Reagan years (1981-1987) and the Bush II years (2002-2009) did it rise. Table 1 below shows 2019 Outlays in full detail. The highest spending item is Health and Human Services (Medicare, Medicaid, CDC, NIH and a host of other mostly mandatory support programs), Second is Social Security. The two are combined on Figure 1. Both have been rising and will continue to rise since Social Security began in 1935 and Medicare in 1965. These programs benefit people over 62 – the baby boomer generation. As more of this cohort retires both programs will likely increase.as a share of GDP.

The Treasury Department is third because it is where the government pays principle and interest on outstanding bills, notes and bonds. We will take a more detailed look at this portfolio later. Defense on Figure 1 includes Veterans, and Defense Civil and other items in the table below. Other Payments in Figure 1 includes many items such as disability and unemployment insurance, food and other assistance (the social safety net). After Defense, the outlays for additional programs drops off substantially.

With the increases in Social Security, Medicare, Health and Other items which include unemployment and disability insurance, the US Government has become a “social state” with ever greater emphasis on the social welfare of citizens.

Much of this spending is statutory (mandatory) – prior legislation mandates the spending such as social security. Discretionary spending is spending that is reconfirmed every year by Congress. Table 1 shows our estimate of discretionary spending as 33.6%. Other estimates are as high as 39%. The point is that there are serious constraints on how flexible the Federal Government can be for adjusting (especially decreasing) spending, especially since the biggest single item of it is Defense.

**Figure 1** also shows Total Government spending. It shows the bigger picture of the rises and falls of Total Federal Spending. It rose from 11% of GDP in 1948 to 22.3% by1983 driven generally by the increase in social programs and by increased military spending by Carter and Reagan[[5]](#footnote-5). It declined to 20.7% when Reagan left office. Bush 1 increased it to 21.5% in 1991 Clinton steadily decreased it to 18% when he left office. Then the Dot.com recession and Bush II's increased military spending increased it to 20.4% in 2008. The Great recession increased unemployment and other individual payments and spending peaked at 25% in 2009. Obama and the recovering economy brought it down to 22% where it remained until the Covid-19 crisis. As of May26, 2020 it is 29.0% and is likely to rise substantially. The House has already passed anther $3 trillion rescue bill.

**TABLE 1**

**2019 Detailed US Outlays**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Department or Agency | Rank | 2019 Outlays | Discr. |  |
| Totals |  | $ 4,696,122 |  | $ 1,576,689 |
|  |  |  |  |  |
| Health and Human Services | 1 | $ 1,213,798 |  | $ - |
| Social Security | 2 | $ 1,008,279 |  | $ - |
| Treasury | 3 | $ 689,496 |  | $ - |
| Defense--Military Programs | 4 | $ 653,992 | Y | $ 653,992.0 |
| Veterans Affairs | 5 | $ 199,580 | Y | $ 199,580.0 |
| Agriculture | 6 | $ 150,125 | Y | $ 150,125.0 |
| Education | 7 | $ 104,366 | Y | $ 104,366.0 |
| Office of Personnel Mgt | 8 | $ 103,138 |  | $ - |
| Social Security Admin | 9 | $ 93,552 |  | $ - |
| Transportation | 10 | $ 80,721 | Y | $ 80,721.0 |
| Defense Civil - Programs | 11 | $ 60,932 | Y | $ 60,932.0 |
| Homeland Security | 12 | $ 57,686 | Y | $ 57,686.0 |
| Labor | 13 | $ 35,805 | Y | $ 35,805.0 |
| Justice | 14 | $ 35,111 | Y | $ 35,111.0 |
| Housing and Urban Devel. | 15 | $ 29,193 | Y | $ 29,193.0 |
| Energy | 16 | $ 28,941 | Y | $ 28,941.0 |
| State | 17 | $ 28,004 | Y | $ 28,004.0 |
| Int'l Assistance Programs | 18 | $ 23,564 | Y | $ 23,564.0 |
| Other Independent Agencies | 19 | $ 21,031 | Y | $ 21,031.0 |
| NASA | 20 | $ 20,179 | Y | $ 20,179.0 |
| Interior | 21 | $ 13,903 | Y | $ 13,903.0 |
| Commerce | 22 | $ 11,323 | Y | $ 11,323.0 |
| EPA | 23 | $ 8,062 | Y | $ 8,062.0 |
| Judicial Branch | 24 | $ 7,988 |  | $ - |
| National Science Foundation | 25 | $ 7,257 | Y | $ 7,257.0 |
| Corps of Engineers | 26 | $ 6,458 | Y | $ 6,458.0 |
| Legislative Branch | 27 | $ 4,961 |  | $ - |
| Small Business Admin | 28 | $ 456 | Y | $ 456.0 |
| Office of the President | 29 | $ 424 |  | $ - |
| Other + balancing accts | 30 | $ (2,203) |  | $ - |
|  |  |  |  | 33.6% |

**ON REVENUES AND DEFICITS**

**Figure 2** shows Federal Revenue, Spending and Deficits. From 1948 to 1974 the average deficit was 0.48% of GDP with 7 of 27 years in surplus. During this post WWII period governments were attentive to reducing the Federal Debt. 1975 began a period of 23 years with positive deficits that averaged 3.22% and reached a high of 5.7% in 1983 under Reagan. Clinton produced 4 years of modest surpluses before another 18 years of surpluses especially under Bush II and Obama. The Great Recession produced a deficit of 10%, the highest in US history.

Changes in taxes or government spending are the primary tools available to the Federal government for managing the economy. The Federal Reserve Bank can manipulate interest rates and money supply. Traditional economic policy is that government and the Fed should use its tools in a manner that offsets swings in the natural economy. When the economy is sluggish, it should use tax decreases or increased government spending (or payments to individuals) to stimulate the economy. This often requires the government to use its capacity to borrow and, if necessary, go into deficit. When the economy is booming, the reverse is true. Tax increases or reduced government spending may be used to dampen an overheated economy. Government should generate surpluses to retire outstanding debt to allow operating room for down times. The capacity to borrow is essentially a reserve for rainy days.

So, has government followed this thinking? There should be a positive correlation between the growth of GDP and surpluses – surpluses should accumulate during booming economies. In Table 1 the correlation coefficient[[6]](#footnote-6) between GDP growth and surpluses from 1950-1980 was minus .118. This is slightly correlated in the un-expected direction. The correlation coefficient from 1980-2017 was minus .452. This is again a strong correlation between GDP and deficits, not surpluses. It suggests that the government used deficit spending to spur economic growth even when it was growing.

But who is driving this correlation, Democrats or Republicans? Separating the data by party we can determine separate correlations. From 1950 – 1981 Democrats had strong and negative correlation which suggests that the Democrats employed deficit spending. However, the deficits during that period were small. While the Republican were slightly positive in the expected direction. So, Republican used more traditional policy. From 1982 – 2019 the reverse is true. In the last 39 years, while the Democrats were neutral, Republicans engaged in significant deficit spending to spur the economy as indicated by the correlation coefficient of -0.719. We will see later that this policy failed to generate above average GDP growth but did generate historically high Debt.

**TABLE 1**

**Party Correlations between surpluses and GDP growth**

|  |  |  |  |
| --- | --- | --- | --- |
| Periods | Democrats | Republican | combined |
| 1950 – 1981 | -0.673 | +0.177 | -.118 |
| 1982 - 2017 | -0.001 | -0.719 | -.452 |

**ON DEFICITS AND DEBT - CONSIDER COMBINING FIGS 3 & 4.**

**Figure 3** adds total Federal Debt to the same picture. Debt decreased steadily from 96.0% in 1948 to 31.7% in 1981. Beginning with Reagan’s tax cut and the subsequent deficits, total Federal Debt climbed steadily to 106.9%. And this is without any major world wars to finance. **Figure 4** is the same graph but with Domestic Debt which is debt issued by the US Treasury minus any held by US government agencies or the Federal Reserve Bank. In this case debt dropped from 74.3% in 1948 to 17.7% in 1974 and back up to 69.2% in 2019 – an increase of 51.5%.

Of the 51.5% increase, 34.8% (of the 51.5%) was during the administrations of Reagan and Bush II. Another 13.1% was from 2010 to 2012 during the height of the Great recession. Thus, 68% of the debt buildup occurred during Reagan and Bush II’s administration and another 25% due to the Great Recession. Only 7% of the increase in debt is due to all the other administrations combined, although Clinton decreased it by 16.8%. Nixon, Ford, Carter, Bush II and Obama increased it by 23.4%

Table 2 lists several classifications of debt from the St. Louis Federal Reserve Bank for Q3 of 2019. Total Debt is the total US Treasury Securities outstanding. Intragovernmental Debt is debt held by US Governmental Agencies and the Federal Reserve Banks. Domestic Debt is the remainder which includes External or Foreign Debt. That is Debt held by foreign entities or individuals. Of the Foreign Debt Japan owned $1.27 billion and China owned 1.11 billion[[7]](#footnote-7)

**TABLE 2[[8]](#footnote-8)**

**US Debt 2019 Q3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of Debt | billions |  | % of Total | % of GDP |
| Total US Debt | $22,719 |  | 100% | 105.5% |
|  |  |  |  |  |
| Intragovernmental Debt | $ 5,894 |  | 25.9% | 27.4% |
| Held by Federal Reserve | $ 2,436 |  | 10.7% | 11.3% |
|  |  |  |  |  |
| Domestic Debt | $16,825 |  | 74.1% | 78.1% |
| Foreign Debt | $ 6,719 |  | 29.6% | 31.2% |

25.9% of US debt issued by the US Treasury is held by the Federal Reserve Bank or US government agencies that take in more revenue than they need but must maintain reserves so they buy US debt securities. They include the Social Security Trust Fund and Federal Disability Insurance Trust Fund: $2.89 trillion, Office of Personnel Management Retirement: $927.9 billion, Military Retirement Fund: $924.5 billion, Medicare: $309 billion, other retirement funds: $262 billion and others. As of July1, 2020, the Covid-19 crisis combined with Trump deficit spending due to the ’17 tax cut, has added over $3 billion in new debt since 2019 and both definitions of debt are now the highest in US history.

There are different views on what constitutes too much debt. Academic research[[9]](#footnote-9) suggests that when governments, just like homeowners or corporations, borrow too much, they are at greater risk of default since their ability to borrow more for emergencies may by diminished. Many national debt defaults have occurred because of too much debt. But there is no consensus on what constitutes too much. During WWII the US was able to borrow 106% of GDP and almost all of that was Domestic Debt.

On the other hand, economists argue that what is important is the total current cost of the debt, namely net interest expense. And since that is essentially low, there is not a serious problem. We will examine both of these views in the long run.

The United Kingdom experience after WWII is worth examining. **Figure 5** shows UK debt from 1945 to 2013. As of the end of 2019 Q1 its debt had risen to 85.3% of GDP[[10]](#footnote-10). This experience is similar to the US experience after WWII. They are both useful experiences to inform us about our current debt dilemma. Both countries generated enough income to pay down the debt steadily. Note that it took the US 19 years to reduce its debt to 50% of GDP. It took the UK 27 years.

There is a caveat here. The UK debt includes county and local debt. The US does not. As of June 1, 2020, US state debt is $1.18 trillion and local debt is $2.09 trillion for a total of $3.27 trillion[[11]](#footnote-11). This would increase the US debt number by about 13% which increases current debt to 127% of 2019 GDP on a comparable basis to UK.

The primary point is that our current debt level is historically high and our only experience with this debt is a policy of steady patience over decades to decrease the debt. As of July 1, 2020, the average US debt per taxpayer is over $230,000. And it will get worse. The Baby Boomers are certainly leaving their descendants with a mess of an economy as well as climate change and a deeply divided society that will be very difficult to focus on these problems.

When examining our debt dilemma, the first question is whether we should worry more about Total Debt or Domestic Debt. The difference is what is held by US government agencies and the Fed. These agencies are mostly retirement benefits or insurance agencies that must maintain reserves and are limited by law to investing in US Bonds. Thus, they will always be an expanding market for debt. However, the Government must still pay interest on this debt.

Domestic debt is 78.1% of GDP, which is high historically and cause for concern. But today’s interest rates are near zero. The interest payments on this debt are small 2.69% of GDP (see Figure 1). It has been as high as 3.25% in 1992. But that was when interest rates were far higher and government debt was 42% of GDP. In 2019 net interest payments were $571 billion, total debt was $22,669 billion. This an average interest rate of 2.5%. There are many old dated long term bonds outstanding with high interest rates. But if all interest rates were to rise by 3% (from today’s 0.16% for a one-year Treasury), then annual interest costs would increase by $681 billion. Total interest expense would be $798 billion and 5.5% of GDP, a significant increase in interest costs. The lesson here is that with debt levels so high, modest increases in interest rates would have significant negative impact on US expenditures.

We can also compare the government Debt to GDP ratio with large corporations and their debt to revenue ratio. At the end of 2019, General Motors had a debt to revenue ratio of 76%. Apple was 42%. Exxon was 21%. Amazon was 28%. Chevron was 22.0%. So, the US government carries much more risk that large corporations

Most economists agree that the government’s response to the Great recession was too tepid. Conservative and liberal economists seem to agree today that we cannot repeat that mistake and we must borrow whatever is needed to get the economy back to work. That could easily be $10 even $20 billion before we are done. This seems to be terra incognito. And very scary in the long run.

There are three fiscal policy options that can be used to reduce taxes. Fundamentally, the government will need to ultimately begin to record surpluses. That can occur by increasing taxes, reducing spending or stimulating the economy to generate greater income and thus tax revenues. In the period from 1948 to 1981 the average GDP growth was 3.71% whereas since 1982 it has been only 2.71%[[12]](#footnote-12). This robust growth during the post war period certainly helped pay down the war debt.

Given the social divide in the US today a tax increase can likely only be imposed on the wealthy, but that could be substantial. Reduced spending will require a totally new approach to governing than we have not seen since Clinton.

But there is another monetary policy approach that helped after WWII, especially for the UK, namely inflation. In the 1950s UK debt was over 230% of GDP. They reduced it by a combination of careful fiscal policy and inflation by increasing the money supply and fortuitous oil price shocks in the early 1970. UK inflation in 1975 was 25%. Most of their debt was low interest debt, so inflation devalued that debt, and increased nominal tax revenues to help pay off the debt. By 1993 they had reduced their debt to 25% of GDP. The US did not get the same benefit from inflation. With the exception of a two year period at the beginning of the Korean war, US inflation was under 3$ until it had paid down its debt to 50% by 1969. The oil shocks of the mid-seventies did increase inflation to over 13% in 1979 which helped reduce the debt down to 31.7% in 1981. Then Reagan fundamentally changed how we managed our economy.

Inflation helps to reduce the national debt by “deflating” the value of outstanding bonds which pay a fixed rate. When inflation goes up, interest rates generally follow. Basic economic theory holds that the nominal interest rate (the rate observed in the market) should equal the real rate of interest plus expected inflation. The real interest rate is a measure of the time value of money. For example, a dollar today is worth 1.02 dollars in a year (if there is no inflation) simply because people generally place more value on current money. But if there is an expectation of inflation investors would demand that the return on their investment “keep up” with inflation. Thus, interest rates should follow expected inflation. However, expected inflation is generally not the same as the resulting inflation. No one anticipated the OPEC oil price shocks that created the creates inflation in US history. However, once inflation has occurred investors will continue to expect it and build that expectation into the interest rate they are willing to pay (on a loan) or will demand when buying a bond.

Inflation can occur several ways. The government can increase the money supply by purchasing outstanding bonds leaving more cash in the hands of the public. This leads to an increase in demand for goods and services which leads to an increase in prices. Or a sudden decline in the supply of important goods due to say an unexpected supply constraint (the OPEC oil embargo) will drive up the price of oil which cascades through the supply chain to the prices of most goods. Another possibility is a booming economy when consumers suddenly have surplus disposable income and increase the demand for goods increasing their prices. Another possibility would be government subsidies to consumers to stimulate the economy and generate excess demand.

Thus, either the Fed (by increasing the money supply) or the government (via tax decreases or direct subsidies), in theory, can create inflation as a strategy to devalue the government debt. However, we will see later that the six major tax cuts since 1960 were generally unsuccessful in stimulating the economy. This is probably because the major beneficiary of those cuts were the wealthy whose marginal propensity to consume is very low (close to zero). They already have what they want so extra money does not encourage them to spend more on goods and services.

An alternative approach to managing the debt is to keep interest rates and thus interest costs low. This means the Fed will manage the money supply to suppress demand (by selling its reserve of bonds) to reduce the money supply. Recall this must go on for many decades, especially given that we are far from generating any surpluses today. Furthermore, keeping interest rates low will require global collaboration or acquiescence. This would be fine if most economies had similar debt loads. If not, other central banks might want to encourage a little inflation (long a central objective of the fed) leading to higher interest rates in those economies. This would put pressure on the US to follow suit or it might not be able to refinance expiring debt at low interest rates because investors would prefer the higher returns of foreign bonds.

Table xxx lists major countries and their debt load at the end of 2019. The debt load are as little as 12.5% for Russia to 200.6% for Japan. Many countries are in a similar position to the US with more than 90%. But, generally, they are spread along the spectrum. If the low debt countries seek to finance their Covid-19 costs with debt they may compete on price, i.e. the interest rate they are willing to pay. So, it may not be possible for the US to keep interest rates near zero.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Debt Level of 17 major ountries |  |  |  |  |
|  |  |  |  |  |
| 27 EU Countries | 77.8 |  | Japan | 200.6 |
| Belgium | 98.6 |  | US | 108.3 |
| Denmark | 33.2 |  | Russia | 12.5 |
| Germany | 59.6 |  | China | 17.0 |
| Spain | 95.5 |  | Saudi Arabia | 22.8 |
| France | 98.1 |  | South Africa | 66.2 |
| Italy | 134.8 |  | S. Korea | 36.6 |
| Sweden | 35.1 |  | Switzerland | 27.5 |
| UK | 85.4 |  |  |  |

https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=teina225&plugin=1

**On Tax Cuts as a GDP Stimulus**

The next question to examine is how effective are tax cuts ate stimulating the economy or government revenues/ There were nine major tax bills since 1960 - see Table 2 below. Major tax cuts were enacted by Johnson (64), Reagan (81), Bush II (01), (02), (03) – (collectively called (01)), Obama (09) and Trump (17). Major tax increases were enacted by Clinton (93) and Obama (12). The impact of the tax events is evident in revenue data in Figure 2. There are drops in Revenue after the tax decreases in ’64, '81, '01 and '09. There are increases in revenues after the tax increases in ’93 and ‘12.

Starting in 1971 expenses outpaced revenues until 1997. This is due to both expanded spending under Nixon, Ford, Carter and Reagan but also the tax cut in 1981. The 1993 tax increase combined with reduced spending under Clinton brought the deficit down to eventual surpluses by 1998. Then Bush 2 pushed through tax cuts in 01, 02 and 03 and increased spending to reignite deficits. The Great recession and the 09 tax cuts increased the deficit to an all-time post-war record of 10%. Until these last 39 years, deficits were primarily to finance major wars. This is the first era where deficits persisted whether at war or not. Deficits were continuous from 1974 to 1997, after the Viet Nam war but before our wars in the Middle East.

The effect tax acts can be seen in Figure 3. Reagan’s Economic Recovery Tax Act of 1981 reduced tax brackets 25% and federal revenues accordingly. The deficits during Reagan and Bush I are due to this act and their large increase in defense spending. Only Clinton reduced expenses to produce a surplus by 1998. Bush 2 passed the Economic Growth and Tax Relief and Reconciliation Act of 2001 and follow up tax cuts in 2002 and 2003 which, combined with increased military spending and then the Great Recession, led to the largest deficits since WWII, Note that after these tax reduction acts (’81, and ’01,02,03) these is no accompanying reduction in spending. Indeed, spending rose substantially. In 2009, battling the Great recession, Obama passed another tax cut stimulation bill. That, plus the lingering recession and its increased spending led to record deficits.

The two tax increases, Clinton (93) and Obama (12) both led to lengthy increases in government revenues which is contrary to what would be expected.

**TABLE 3**

|  |  |  |
| --- | --- | --- |
| **Major Tax Legislation** | **Tax Cut in Billions of Constant 2003 Dollars** | **Tax Cut as a Percent of National Income per year** |
| Johnson Tax Cut (Revenue Act of 1964) | ($54.90) | -1.90% |
| The Reagan Tax Cut (Economic Recovery Tax Act of 1981) | ($68.70) | -1.40% |
| Clinton Omnibus Budget Reconciliation Act of 1993 | $241 over 5 yr | +0.82% |
| Bush Tax Cuts: |  |  |
| Economic Growth and Tax Reform Reconciliation Act of 2001 | ($75.80) | -0.80% |
| Job Creation and Worker Assistance Act of 2002 | ($52.00) | -0.60% |
| Jobs and Growth Tax Relief and Reconciliation Act of 2003 | ($60.80) | -0.60% |
| 2001, 2002 and 2003 Bush Tax Cuts if Combined in 2003 | ($188.10) | -2.00% |
| 2009 American Recovery and Reinvestment Act | ($288) in $’09 | -2.34% |
| 2010 Tax Relief Act – primarily extension of Bush 01-03 cuts |  |  |
| American Taxpayer Relief Act of 2012 | $600B in $’12 | +4.01% |
| Trumps Tax Cuts and Jobs Act of 2017 | ($1.445) B in 10 yrs | -0.83% |
| (a) First year estimate. |  |  |
| (b) National Income as measured by Net National Product. |  |  |
| Source:https://en.wikipedia.org/wiki/American Taxpayer Relief Act\_of\_2012 – see the bottom for links to all acts |  |  |

To study the power of tax bills we examine the history of recent tax cuts and increases. Table 1 lists seven "major" tax cuts since 1960[[13]](#footnote-13) and two increases.

If we look at each tax cut and increase as an "event" and tally the GDP growth in three years before (including the year of the legislation) and three after the event we get the following “event matrix” in **Table 4** An event matrix is an analytical device to examine what happened before and after an event (tax cut or increase). It shows GDP growth in the 3 years before the bill took effect (including yr. 0, when the tax cut would have no impact, and three years afterwards, when a GDP stimulus should appear. For example, the ’64 cut occurred in a year with 5.77% growth in GDP. The three prior years averaged 4.34% growth. Looking at Year 1 after the cut, GDP increased to 6.5%, year 2 was 6.59% and year 3 was 2.74%. Thus, the average post-cut growth in GDP exceeded the pre-cut growth by 1.06%. Also listed for comparison are the average GDP growth for the periods from 1949 – 2019 and 1981 – 2017.

**TABLE 4**

**REAL GDP GROWTH BEFORE AND AFTER-TAX CUTS**

All data are annual % growth of Real GDP

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Event | Yr -2 | Yr -1 | **Yr 0** | Yr 1 | Yr2 | Yr3 | Pre Avg | Post Avg | Gain | 49-19 avg | 81-19 avg |
| '64 Cut | 6.12 | 4.35 | **5.77** | 6.50 | 6.59 | 2.74 | 5.41 | 5.28 | -0.13 | 3.12 | 2.54 |
| '81 Cut | 3.18 | -0.24 | **2.59** | -1.91 | 4.63 | 7.26 | 1.84 | 3.33 | 1.49 | 3.12 | 2.54 |
| '01 Cut | 4.69 | 4.09 | **0.98** | 1.79 | 2.81 | 3.79 | 3.25 | 2.79 | -0.46 | 3.12 | 2.54 |
| '09 Cut | 1.78 | -0.29 | **-2.78** | 2.53 | 1.60 | 2.22 | -0.43 | 2.12 | 2.55 | 3.12 | 2.54 |
| ’10 Cut | -0.29 | -2.78 | **2.53** | 1.60 | 2.22 | 1.49 | -0.49 | 1.77 | 2.26 | 3.12 | 2.54 |
| ’17 Cut | 2.43 | 0.89 | **1.77** | 2.33 | 1.94 | Na | 1.70 | 2.13 | 0.44 | 3.12 | 2.54 |
| '93 Inc | -0.07 | 3.56 | **2.75** | 4.04 | 2.72 | 3.80 | 1.80 | 5.28 | -0.13 | 3.12 | 2.54 |
| ’12 Inc | 2.53 | 1.60 | **2.22** | 1.49 | 2.43 | 2.43 | 0.45 | 3.33 | 1.49 | 3.12 | 2.54 |
|  |  | Before | **Yr 0** | After |  |  |  |  |  |  |  |

Taken as a whole, these results are not strong evidence of a tax stimulus to GDP. The 64-cut produced two outstanding growths followed by a mediocre year. This cut deserves to be called successful. The 81-cut produced a steep decline in GDP growth from 2.59% to -1.91%, a 4.5% drop in GDP. It rebounded well in year 2 and sensationally in year 3. This cut should probably be called mixed. The 01 cut[[14]](#footnote-14) produced 2.77% increase over the year before coming out of the dot-com bust. The following two years produced modest growth in growth. It should be called moderately successful. The 09-cut increased growth to the 81-19 average, but the following two years were poor and bad. This cut should be called poor or weak. The 10-cut, during the Great Recession, generated a decline in year 1, mediocre growth in year 2 and poor growth in year 3. This probably reflects the comment earlier that the Government did not put enough stimulus (spending) into the rescue. It should probably be graded mediocre. The 17-cut produced a decline in growth the first year and two average growth years. This cut should be considered slightly below average.

This grading is based on an expectation of what a tax cut should accomplish to be successful. Initially, it should only occur in or immediately after a serious decline. Only the 01 and 09 cuts meet this condition. The 64 cut might be given a pass here while there was a robust economy underway, taxes were very (too) high so a robust economy would be the time to adjust the tax structure which is different from generating a stimulus. Second, it should produce immediate growth. The 64, 01, 09 and 17 cuts satisfy this criterion. Next, growth gains should continue after the first year. Only the 81 and 01 cuts satisfy this requirement. Finally, it should produce average growth for the following three years that exceeds long term averages. Only the 64 and 81 cuts satisfy this. None of the tax cuts satisfied all four criteria.

In summary, we conclude that the history of tax cuts does produce some stimulus observations, but none of them can be considered a significant success. The best of them all is the 64 cut which would have been very successful if year three had not dropped off so much.

A final note regards the ’17 cut which Trump has called the largest and greatest tax cut in history. As usual he attended a different history class that the rest of us. His tax cut ranked last among the six. And the performance of the cut can at best be called mediocre, it never reached long term average growth.

**GDP EFFECTS OF TAX INCREASES**

Another tax effect to examine is the effect the two tax increases have had on GDP growth. Generally, we would expect a decline in GDP since the tax increase is decreasing taxpayers’ disposable income. Table 5 shows the same event matrix for the two tax increase events. GDP increased after the 1993 tax relative to both prior years and above long-term average growth. GDP also increased after the 2012 tax relative to prior years but did not outperform the long-term average. From this simple result, one might conclude that tax increases are stimulating. These are the only two tax increases since 1960.

**TABLE 5**

**REAL GDP GROWTH BEFORE AND AFTER-TAX INCREASES**

All data are annual % growth of Real GDP

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Event | Yr -2 | Yr -1 | **Yr 0** | Yr 1 | Yr2 | Yr3 | Pre Avg | Post Avg | Gain |
| '93 Inc | -0.07 | 3.56 | **2.75** | 4.04 | 2.72 | 3.80 | 2.08 | 3.52 | 1.44 |
| ’12 Inc | 2.53 | 1.60 | **2.22** | 1.49 | 2.43 | 2.43 | 2.12 | 2.12 | 0.00 |
|  |  | Before | **Yr 0** | After |  |  |  |  |  |

The 93 increase was after a very robust year and during an average year. The Clinton government was probably trying to reverse some of the Reagan tax decreases and accumulate surpluses to reduce debt. If so, it worked. The three years after the increase produced three excellent years with an average gain of 1.44%.

The 12 increase was less successful but still did not suffer any loss of GDP growth and allowed Obama to get close to a zero deficit. But with pre and post growth is identical at 2.12% during recovery from the Great Recession and is also a substantial success since tax increases are supposed to decrease GDP. The standard Republican talking point that a tax increase will “Crater” the economy is not consistent with history.

**REGIME CHANGE AND PRESIDENTIAL EFFECTS**

Another way to look at this data is to ask if there were a “regime change” whereby after 1981 something fundamentally changed in the nature of the economy. Did the new regime of large tax reductions and deficits result in higher overall GDP growth over the longer period? Note in **Table 6** that from 1948 to 2019 GDP growth averaged 3.12%. But it was 3.70% before 1980 and 2.61% afterwards. So, tax cuts since 1980 have not stimulated growth on average during the past 39 years.

Another regime shift to consider is the difference between Presential Parties. Democrats appear to be better stewards of growth than Republicans substantially so before 1982 and slightly so after. Since 1982 Democratic Presidents have a 0.31% advantage over Republicans.

**TABLE 6**

**AVERAGE GDP GROWTH DURING PARTY PERIODS**

|  |  |  |  |
| --- | --- | --- | --- |
| Period | Total Avg Gr | Republicans | Democrats |
| 1949 - 2019 | 3.12% | 2.64% | 3.66% |
| 1949 – 1981 | 3.70% | 2.86% | 4.48% |
| 1982 - 2019 | 2.61% | 2.48% | 2.79% |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**On Tax Cuts as a REVENUE Stimulus**

One of the most debated claims in economics is that tax cuts stimulate the economy enough to offset the lost tax revenue. This claim sets a high standard. Suppose a tax cut of 1% (of all tax revenues) were passed. Since total tax revenues are $3464 billion (15.2% of GDP), a 1% decrease in taxes would produce $34.6 billion extra consumer disposable income.

Economics try to estimate how much consumers spend of a sudden increase in income. The economic term is “marginal propensity to consume”. The estimates range from 2% to 40%. The difference is due to the nature of the stimulus. If the stimulus is a sudden, one time increase in revenue consumers are very cautious about spending new-found money. But if the new money is from an event that should be repeated such as a salary increase or a tax reduction. Then estimates range up to 40%. A reasonable estimate would be 10%.

So, 10% of the $34.6 billion in the tax reduction would be $3.6 in new consumer spending. If all of that spending on good and services trickled down to individuals providing the products and services that were consumed. But the government only recovers income taxes paid by those who sold the $3.6 billion. If the average income tax rate is 25% then the government receives $0.9 billion on the first wave of newly stimulated tax revenue. This process will multiply on and on for a while but will eventually damp down to zero.

There is no consensus among economist on the tax multiplier effect. It has been estimated as low as zero or as high as four after several years. A best estimate of estimates would be 1.0[[15]](#footnote-15). That means that the initial $34.6 billon will generate another $0.9 in consumer spending ($0.9 billion in taxes from the first round of spending and $0.9 per year from the second. So, the new taxes from the tax cut of $34.6 would be $1.8 billion. In order for the tax cut to pay for itself the multiplier would have to be 20. That is impossible.

But that is not the end of the story. The supply side economists who support the claim say that if taxes are “too high” so as to discourage entrepreneurs and investors from working as hard as they might, cutting taxes there is now an incentive to work harder. That theory might have had some merit in 1975 when the tax rate on the top income tax bracket was 70% and the maximum long-term capital gains tax rate was 35%. But today those rates are 37% and 28%. It is hard to say that lowering those rates will change anyone’s enthusiasm for working harder or investing more.

**Table 7** looks at each tax cut event and the revenue per GDP in the year of the tax cut, the three years prior and the following three years. Compare the year 1 column versus the year 0. In ’64, ’01 and ’17 revenues dropped considerably. In ’81 and ’09 they dropped slightly. In ’10 they increased. The average one-year change was a drop of 0.6%. Only the ’09 and ’01 tax cuts generated more revenue after 4 years. But those two cuts were at the beginning of the Great Recession when revenues were historically low. The average revenue for the three years before the cut exceeded the average for the four years after, in three cases by more than 1.3%.

The Bush 1 (’01) cuts are noteworthy. They produced on average 3.2% lower revenue than before the cuts. And in Table 3 the Bush 1 (’01) cut is the only one that had average GDP growth decrease after the cut compared to before.

There is no evidence that tax cuts increase revenues. In fact, the evidence is overwhelmingly the opposite.

**TABLE 7**

**REVENUE PER GDP BEFORE AND AFTER-TAX CUTS**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Event | Yr-2 % | Yr-1 % | Yr 0% | Yr1 % | Yr2 % | Yr3 % | Pre Avg | Post Avg | 49-19 avg | 81-19 avg |
|  |  |  |  |  |  |  |  |  |  |  |
| 1964 | 16.5% | 16.7% | 16.4% | 15.7% | 16.1% | 17.3% | 16.5% | 16.3% | 13.0% | 10.4% |
| 1981 | 17.6% | 18.1% | 18.7% | 18.5% | 16.5% | 16.5% | 18.1% | 17.2% | 13.0% | 10.4% |
| 2001 | 18.9% | 19.7% | 18.7% | 16.9% | 15.5% | 15.3% | 19.1% | 15.9% | 13.0% | 10.4% |
| 2009 | 17.7% | 17.1% | 14.6% | 14.5% | 14.8% | 15.2% | 1 6.5% | 14.8% | 13.0% | 10.4% |
| 2010 | 17.1% | 14.6% | 14.5% | 14.8% | 15.2% | 16.7% | 15.4% | 15.6% | 13.0% | 10.4% |
| 2017 | 18.0% | 17.6% | 17.2% | 16.4% | 16.3% |  | 17.6% | 16.4% | 13.0% | 10.4% |
|  |  | Before | Yr 0 | After |  |  |  |  |  |  |

In summary, tax cuts reduced revenues and thus increase debt.

**An Academic Study of Growth and Revenue By Presidential Terms**

A working paper by Blinder and Watson (Princeton University professors)[[16]](#footnote-16) published in 2014 by VOX analyzes the economic performance gap between Democratic and Republican presidents. It addresses the same questions that this paper addresses but in considerably more detail and scientific rigor. They use quarterly data over the period 1948:Q1 to 2013:Q1. They incorporate only a one quarter policy lag versus the 1-year lag used in this paper. Their basic statistically significant results are summarized in **Table 8** below (whichare taken directly from their Table 1). Each category of economic performance is indicated in the Variable title (GR is growth, Chg is change, GDI is Gross Domestic Income). The result is in the top row of each data cell. The two parenthetic measures below is a statistic that measure the strength of the results.[[17]](#footnote-17)

This paper does not attempt to study revenues or the stimulus effects of tax cuts or to examine the debt. It only studies economic performance by Presidential terms.

In general, this study more than confirms the results here that Democratic presidents produce better economic performance by a host of important measure. They measure a GDP Growth performance gap of 1.80%; our result above is 1.19% These results are stronger than our growth results, probably due to the use of quarterly data and only a one quarter lag. Many second quarters in new Democratic presidents have had strong performance. Other measures of economic performance where they found strong statistically significant performance gaps include quarters-in-recession (the number of quarters in a four year term when the economy is in recession), GDP per capita, Non-Farm Business Output, Industrial Production, Employment Payroll, Unemployment Rate Changes, S&P 500 Annual Returns, and Corporate Profits. Total Factor Productivity was also strongly in favor of the Democrats but not at what is considered a statistically significant level.

**Table 8**

**Average Values by President**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Democratic** | **Republican** | **difference** | **p-value** |
|  |  |  |  |  |
| **Real GDP (GR)** | **4.35%**  **(0.57)[.046]** | **2.54%**  **(0.33)[0.45]** | **1.80%**  **(0.66)[0.64]** | **0.01** |
| **Quarters-in-recession** | **1.14**  **(0.51)[0.56]** | **4.56**  **(0.78)[1.03]** | **-3.41**  **(0.93)[1.13]** | **0.01** |
| **GDP Per Capita (GR)** | **3.11%**  **(0.46)[0.41]** | **1.35%**  **(0.36)[0.45]** | **1.76%**  **(0.58)[0.61]** | **0.01** |
| **Non-Farm Bus. Output (GR)** | **4.82%**  **(0.56)[0.53]** | **2.67**  **(0.44)[0.61]** | **2.15**  **(0.71)[0.80]** | **0.01** |
| **Industrial Production (GR)** | **5.56%**  **(0.96)[0.84]** | **1.79%**  **(0.61)[0.93]** | **3.77%**  **(1.14)[1.24]** | **0.00** |
| **Employment (Payroll (Gr)** | **2.59%**  **(0.41)[0.366]** | **1.17%**  **(0.32)[0.38]** | **1.42%**  **(0.52)[0.49]** | **0.02** |
| **Unemployment Rate (Chg)** | **-0.83%**  **(0.42)** | **1.09%**  **(0.45)** | **-1.91**  **(0.62)** | **0.01** |
| **S&P 500 Returns (annual)** | **8.08%**  **(2.00)[2.57)** | **2.70%**  **(2.84)[3.20]** | **5.39%**  **(3.48)[4.32]** | **0.03** |
| **Corporate Profits (per GDI)** | **5.62%**  **(0.32)[0.23]** | **4.74%**  **(0.20)[0.16]** | **0.88%**  **(0.38)[0.27]** | **0.03** |
| **Total Factor Productity (GR)** | **1.89%**  **(0.47)[0.37]** | **0.86%**  **(0.31)[0.35]** | **1.03%**  **(0.56)[0.53]** | **.08** |

The bulk of the study is dedicated to attempts to try to understand why this dramatic difference in performance exists. Is it the luck of events (e.g. OPEC oil shocks, or random productivity spikes)? Was the economy primed for a take-off or consumer confidence happened to be high upon the election of a Democrat. Perhaps independent Federal Reserve monetary policy is to blame (or credit) for some of the difference. Maybe the President had a more favorable congress.

After an extensive study of many different variables they could only explain half of the GDP gap using ..."several variables that are mostly "good luck", with perhaps a touch of "good policy." Specifically, better oil shocks [in 1973 and 1979-80]… productivity shocks, more favorable international economic conditions and perhaps more optimistic consumer confidence..."

They specifically ruled out favorable economic potential, favorable congress, Fed policy and a host of other variables.

**MY OVERALL CONCLUSIONS – list in order of investigation**

Some of my findings (not necessarily new but up to date) are that our government has changed recently since WWII from a manager of our military to a social state where military has decreased dramatically as a share of Government spending, though not necessarily in absolute term, Social Security is the single largest component of the government budget.

Tax cuts do appear to stimulate GPD growth.

The conservative claim for revenue benefits from tax cuts is not supported by the data. Moreover, Republicans (especially Reagan and Bush 2) were both the biggest spenders and the biggest tax cutters and are almost entirely responsible for today's enormous debt.

Interest on Debt expense has not been a big problem only because Treasury rates are near 0%. Rates will eventually go back up. If T-Bill rates return to the “normal” 3% range. The interest expenditure will likely increase from 2.09% in 2014 to over 24% of GDP - greater than the entire federal budget.

I was surprised at how much defense has declined over the decades. It has gone steadily down since WWII. Only Carter, Reagan and Bush 2 increased defense spending.

The most astounding observation is the enormous impact of the Bush recession - huge increases in spending and deficits in 2008 and 2009. It is easy to see why it was called the greatest recession since the Great Depression. It is surprising that spending is declining steadily afterwards.

The Reagan tax cut was successful in lifting the economy. But the simultaneous increase in defense spending and lost revenue led to the largest deficits in any president ever.

If anyone is interested in the data behind this discussion, I can send them the spreadsheet.

Jerry Bock

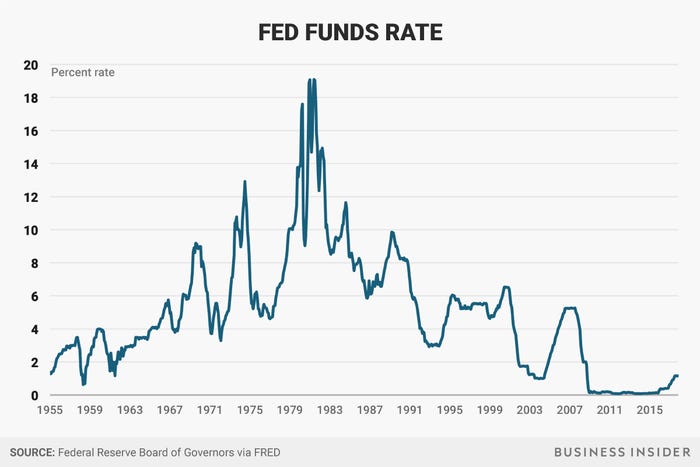
jerometbock@gmail.com

**Figure 1**

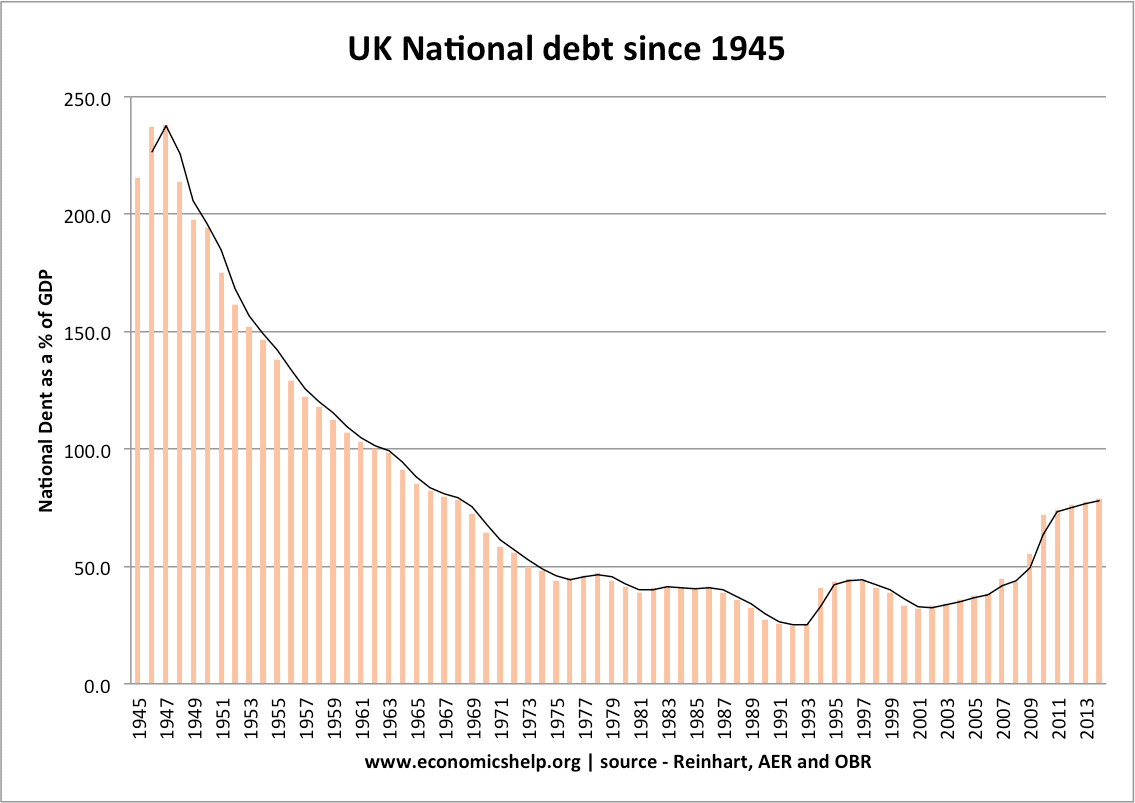
**Figure 2**

**Figure 3**

**Figure 4**



**FIGURE 5**



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Department or Agency | Rank | 2019 Outlays | Discr. |  |
| Totals |  | $ 4,696,122 |  | $ 1,576,689 |
|  |  |  |  |  |
| Health and Human Services | 1 | $ 1,213,798 |  | $ - |
| Social Security | 2 | $ 1,008,279 |  | $ - |
| Treasury | 3 | $ 689,496 |  | $ - |
| Defense--Military Programs | 4 | $ 653,992 | Y | $ 653,992.0 |
| Veterans Affairs | 5 | $ 199,580 | Y | $ 199,580.0 |
| Agriculture | 6 | $ 150,125 | Y | $ 150,125.0 |
| Education | 7 | $ 104,366 | Y | $ 104,366.0 |
| Office of Personnel Mgt | 8 | $ 103,138 |  | $ - |
| Social Security Admin | 9 | $ 93,552 |  | $ - |
| Transportation | 10 | $ 80,721 | Y | $ 80,721.0 |
| Defense Civil - Programs | 11 | $ 60,932 | Y | $ 60,932.0 |
| Homeland Security | 12 | $ 57,686 | Y | $ 57,686.0 |
| Labor | 13 | $ 35,805 | Y | $ 35,805.0 |
| Justice | 14 | $ 35,111 | Y | $ 35,111.0 |
| Housing and Urban Devel. | 15 | $ 29,193 | Y | $ 29,193.0 |
| Energy | 16 | $ 28,941 | Y | $ 28,941.0 |
| State | 17 | $ 28,004 | Y | $ 28,004.0 |
| Int'l Assistance Programs | 18 | $ 23,564 | Y | $ 23,564.0 |
| Other Independent Agencies | 19 | $ 21,031 | Y | $ 21,031.0 |
| NASA | 20 | $ 20,179 | Y | $ 20,179.0 |
| Interior | 21 | $ 13,903 | Y | $ 13,903.0 |
| Commerce | 22 | $ 11,323 | Y | $ 11,323.0 |
| EPA | 23 | $ 8,062 | Y | $ 8,062.0 |
| Judicial Branch | 24 | $ 7,988 |  | $ - |
| National Science Foundation | 25 | $ 7,257 | Y | $ 7,257.0 |
| Corps of Engineers | 26 | $ 6,458 | Y | $ 6,458.0 |
| Legislative Branch | 27 | $ 4,961 |  | $ - |
| Small Business Admin | 28 | $ 456 | Y | $ 456.0 |
| Office of the President | 29 | $ 424 |  | $ - |
| Other + balancing accts | 30 | $ (2,203) |  | $ - |
|  |  |  |  | 33.6% |

**TABLE ?**

**Detailed Federal Outlays – total and discretionary**

APPENDIX:

History of US tax changes since 1960 (see https://en.wikipedia.org/wiki/Tax\_Reform\_Act\_of\_1969 at the bottom of the page for a chronology and explanation of every tax bill since 1789)

1964 - The [United States](https://en.wikipedia.org/wiki/United_States) **Revenue Act of 1964** ([Pub.L. 88–272](http://legislink.org/us/pl-88-272)), also known as the **Tax Reduction Act**, was a bipartisan tax cut bill signed by President Lyndon Johnson on February 26, 1964. Individual [income tax](https://en.wikipedia.org/wiki/Income_tax) rates were cut across the board by approximately 20% Reduced top level tax bracket from 91% to 70%.

1968 - The [United States](https://en.wikipedia.org/wiki/United_States) **Revenue and Expenditure Control Act of 1968** created a temporary 10 percent [income tax](https://en.wikipedia.org/wiki/Income_tax) surcharge on both individuals and [corporations](https://en.wikipedia.org/wiki/Corporation) through June 30, 1969

1969 - The [United States](https://en.wikipedia.org/wiki/United_States) **Tax Reform Act of 1969** was a federal tax law signed by president [Richard Nixon](https://en.wikipedia.org/wiki/Richard_Nixon) in 1969. The largest impact of the act was the creation of the [Alternative Minimum Tax](https://en.wikipedia.org/wiki/Alternative_Minimum_Tax), which was intended to tax high income earners otherwise exempt from income taxes through various exemptions and deductions. In addition to the AMT, the act established individual and corporate minimum taxes, established a new tax schedule for single taxpayers, and slightly increased standard deductions and personal exemptions.

1971 - The [United States](https://en.wikipedia.org/wiki/United_States) **Revenue Act of 1971** reinstated the investment tax credit, repealed the 7% [automobile](https://en.wikipedia.org/wiki/Automobile) [excise tax](https://en.wikipedia.org/wiki/Excise_tax), and increased the minimum [standard deduction](https://en.wikipedia.org/wiki/Standard_deduction) from $1,000 to $1,300.

1975 - The [United States](https://en.wikipedia.org/wiki/United_States) **Tax Reduction Act** of 1975 provided a 10 percent rebate on 1974 tax liability ($200 cap) and created a temporary $30 general tax credit for each taxpayer and dependent

1977 - The **Tax Reform Act of 1976** the percentage [standard deduction](https://en.wikipedia.org/wiki/Standard_deduction) to 16% ($2,800 max) and minimum standard deduction to $2,100 (joint returns). The general tax credit (max of $35/capita or 2% of $9,000 income) was temporarily extended and small business tax rates were temporarily lowered through 1977.

1978 - The [United States](https://en.wikipedia.org/wiki/United_States) **Revenue Act of 1978**, reduced individual [income taxes](https://en.wikipedia.org/wiki/Income_tax) (widening [tax brackets](https://en.wikipedia.org/wiki/Tax_bracket) and reducing the number of tax rates), increasing the personal exemption from $750 to $1,000, reducing [corporate tax](https://en.wikipedia.org/wiki/Corporate_tax) rates (the top rate falling from 48 percent to 46 percent), increasing the standard deduction from $3,200 to $3,400 (joint returns), increasing the capital gains exclusion from 50 percent to 60 percent (effectively reducing the rate of taxation on realized capital gains to 28%), and repealing the non-business exemption for state and local [gasoline](https://en.wikipedia.org/wiki/Gasoline) taxes.

1981 - The **Economic Recovery Tax Act of 1981** was an act to encourage economic growth through reductions in individual income tax rates, the expensing of depreciable property, incentives for small businesses, and incentives for savings, and for other purposes. Included in the act was an across-the-board decrease in the marginal [income tax](https://en.wikipedia.org/wiki/Income_tax) rates in the United States by 23% over three years, with the top rate falling from 70% to 50% and the bottom rate dropping from 14% to 11%. This act slashed [estate taxes](https://en.wikipedia.org/wiki/Estate_tax_in_the_United_States) and trimmed taxes paid by business corporations by $150 billion over a five-year period. Additionally the tax rates were indexed for [inflation](https://en.wikipedia.org/wiki/Inflation), though the indexing was delayed until 1985.

1982 - The **Tax Equity and Fiscal Responsibility Act of 1982** rescinded some of the effects of the [Kemp-Roth Act](https://en.wikipedia.org/wiki/Economic_Recovery_Tax_Act_of_1981) passed the year before. As a result of [ongoing recession](https://en.wikipedia.org/wiki/Early_1980s_recession), a short-term fall in tax revenue generated concern over the budget deficit. TEFRA was created in order to reduce the budget gap by generating revenue through closure of tax loopholes and introduction of tougher enforcement of tax rules, as opposed to changing marginal income tax rates

1984 - The **Deficit Reduction Act of** repealed scheduled 15% net interest exclusion ($900 cap), reduced benefits from income averaging, reduced tax benefits for property leased by tax exempt entities, temporarily extended telephone excise tax (through 1987), increased depreciation lives for real property from 15 years to 18 years

1986 - **Tax Reform Act of 1986** to simplify the [income tax](https://en.wikipedia.org/wiki/Income_tax) code, broaden the tax base and eliminate many [tax shelters](https://en.wikipedia.org/wiki/Tax_shelters). Referred to as the second of the two "Reagan tax cuts" (the [Kemp-Roth Tax Cut](https://en.wikipedia.org/wiki/Kemp-Roth_Tax_Cut) of 1981 being the first)The Tax Reform Act - Reduced top level bracket from 50% to 28% and expanded lower brackets to be revenue neutral.

1990 - The **Omnibus Budget Reconciliation Act of 1990** to reduce the United States federal budget deficit. The Act included the [Budget Enforcement Act of 1990](https://en.wikipedia.org/wiki/Budget_Enforcement_Act_of_1990) which established the "pay-as-you-go" process for discretionary spending and taxes.The Act was signed into law by [President](https://en.wikipedia.org/wiki/President_of_the_United_States) [George H. W. Bush](https://en.wikipedia.org/wiki/George_H._W._Bush)

1993 - The **Omnibus Budget Reconciliation Act of 1993** has been referred to, unofficially, as the **Deficit Reduction Act of 1993**. Part XIII, which dealt with taxes and is also called the **Revenue Reconciliation Act of 1993**.2001 - The Economic Growth and Tax Relief Reconciliation Act - Tax rebates for single ($300), single parent ($500) and married ($600) filers. Lowered all tax brackets. Repealed estate tax by 2010. Decreased top tax bracket from 39.6 to 35%.  Previously the top individual tax rate of 31% applied to all income over $51,900. The Act created a new bracket of 36% for income above $115,000, and 39.6% for income above $250,000.[[2]](https://en.wikipedia.org/wiki/Omnibus_Budget_Reconciliation_Act_of_1993#cite_note-2) Previously, corporate income above $335,000 was taxed at 34%. The Act created new brackets of 35% for income from $10 million to $15 million, 38% for income from $15 million to $18.33 million, and 35% for income above $18.33 million.[[3]](https://en.wikipedia.org/wiki/Omnibus_Budget_Reconciliation_Act_of_1993#cite_note-3) The 2.9% [Medicare](https://en.wikipedia.org/wiki/Medicare_%28United_States%29) tax previously was capped to only apply to the first $135,000 of income. This cap was removed. Transportation fuels taxes were raised by 4.3 cents per gallon. The portion of [Social Security](https://en.wikipedia.org/wiki/Social_Security_%28United_States%29) benefits subject to income taxes was raised from 50% to 85%.[[4]](https://en.wikipedia.org/wiki/Omnibus_Budget_Reconciliation_Act_of_1993#cite_note-4)

1997 - The **Taxpayer Relief Act of 1997** reduced several federal taxes in the [United States](https://en.wikipedia.org/wiki/United_States). Starting in 1998, a $400 tax credit for each child under age 17 was introduced, which was increased to $500 in 1999. This credit was phased out for high income families. The top marginal long term [capital gains](https://en.wikipedia.org/wiki/Capital_gains) rate fell from 28% to 20%, subject to certain phase-in rules. The 15% bracket was lowered to 10%. [Roth IRAs](https://en.wikipedia.org/wiki/Roth_IRA) were established, permanently exempting these retirement accounts from capital gains taxes.The act permanently exempted from taxation the capital gains on the sale of a personal residence of up to $500,000 for married couples filing jointly and $250,000 for singles. This exemption applies to residences the taxpayer(s) lived in for at least two years over the last five. Taxpayers can only claim the exemption once every two years. The $600,000 estate tax exemption was to increase gradually to $1 million by the year 2006. As inherited assets are automatically revalued to their current or "stepped-up" basis, any capital gains are permanently exempted from taxation. Family farms and small businesses could qualify for an exemption of $1.3 million, effective 1998. Starting in 1999, the $10,000 annual gift tax exclusion was to be corrected for inflation.

1998 - The **Internal Revenue Service Restructuring and Reform Act of 1998**, also known as **Taxpayer Bill of Rights III**, ([Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress" \o "Act of Congress) [105–206](http://legislink.org/us/pl-105-206), 112 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [685](http://legislink.org/us/stat-112-685), enacted July 22, 1998), resulted from hearings held by the United States Congress in 1996 and 1997. The Act included numerous amendments to the [Internal Revenue Code](https://en.wikipedia.org/wiki/Internal_Revenue_Code) of 1986.

2001 - The **Economic Growth and Tax Relief Reconciliation Act of 2001** was a major piece of [tax](https://en.wikipedia.org/wiki/Tax) legislation passed by the [107th United States Congress](https://en.wikipedia.org/wiki/107th_United_States_Congress) and signed by President [George W. Bush](https://en.wikipedia.org/wiki/George_W._Bush). It is also known by its abbreviation EGTRRA (often pronounced "egg-tra" or "egg-terra"), and is often referred to as one of the two "[Bush tax cuts](https://en.wikipedia.org/wiki/Bush_tax_cuts)".

GTRRA generally reduced the rates of individual [income taxes](https://en.wikipedia.org/wiki/Income_tax):

* a new 10% bracket was created for single filers with taxable income up to $6,000, joint filers up to $12,000, and heads of households up to $10,000.
* the 15% bracket's lower threshold was indexed to the new 10% bracket
* the 28% bracket would be lowered to 25% by 2006.
* the 31% bracket would be lowered to 28% by 2006
* the 36% bracket would be lowered to 33% by 2006
* the 39.6% bracket would be lowered to 35% by 2006

The [capital gains](https://en.wikipedia.org/wiki/Capital_gain) tax on qualified gains of property or stock held for five years was reduced from 10% to 8% for those in the 15% income tax bracket.

2002 - The **Job Creation and Worker Assistance Act of 2002** ([Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress" \o "Act of Congress) [107–147](http://legislink.org/us/pl-107-147), 116 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [21](http://legislink.org/us/stat-116-21)), increased carryback of net operating losses to 5 years (through September 2003), extended the exception under Subpart F for active financing income (through 2006), and created 30 percent expensing for certain capital asset purchases (through September 2004).



2003,The **Jobs and Growth Tax Relief Reconciliation Act of 2003** ("**JGTRRA**", [Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress) [108–27](http://legislink.org/us/pl-108-27), 117 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [752](http://legislink.org/us/stat-117-752)), was passed by the [United States Congress](https://en.wikipedia.org/wiki/United_States_Congress) on May 23, 2003 and signed into law by [President](https://en.wikipedia.org/wiki/President_of_the_United_States) [George W. Bush](https://en.wikipedia.org/wiki/George_W._Bush) on May 28, 2003. Nearly all of the cuts (individual rates, capital gains, dividends, estate tax) were set to expire after 2010.[[1]](https://en.wikipedia.org/wiki/Jobs_and_Growth_Tax_Relief_Reconciliation_Act_of_2003#cite_note-1)

Among other provisions, the act accelerated certain tax changes passed in the [Economic Growth and Tax Relief Reconciliation Act of 2001](https://en.wikipedia.org/wiki/Economic_Growth_and_Tax_Relief_Reconciliation_Act_of_2001), increased the exemption amount for the individual [Alternative Minimum Tax](https://en.wikipedia.org/wiki/Alternative_Minimum_Tax), and lowered taxes of [income](https://en.wikipedia.org/wiki/Income) from [dividends](https://en.wikipedia.org/wiki/Dividend) and [capital gains](https://en.wikipedia.org/wiki/Capital_gain). The 2001 and 2003 acts are known together as the "[Bush tax cuts](https://en.wikipedia.org/wiki/Bush_tax_cuts)".

2005 - The **Tax Increase Prevention and Reconciliation Act of 2005** (or TIPRA, [Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress) [109–222](http://legislink.org/us/pl-109-222), 120 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [345](http://legislink.org/us/stat-120-345)) is an American law, which was enacted on May 17, 2006.

This bill prevents several tax provisions from [sunsetting](https://en.wikipedia.org/wiki/Sunset_provision) in the near future. The two most notable pieces of the bill are the extension of the reduced tax rates on capital gains and dividends and extension of the [alternative minimum tax](https://en.wikipedia.org/wiki/Alternative_minimum_tax) (AMT) tax reduction.

2008 - The **Economic Stimulus Act of 2008** ([Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress" \o "Act of Congress) [110–185](http://legislink.org/us/pl-110-185), 122 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [613](http://legislink.org/us/stat-122-613), enacted February 13, 2008) was an [Act](https://en.wikipedia.org/wiki/Act_of_Congress) of [Congress](https://en.wikipedia.org/wiki/United_States_Congress) providing for several kinds of [economic](https://en.wikipedia.org/wiki/Economy) stimuli intended to boost the United States [economy](https://en.wikipedia.org/wiki/Economy_of_the_United_States) in 2008 and to avert a [recession](https://en.wikipedia.org/wiki/Recession), or ameliorate economic conditions. The stimulus package was passed by the [U.S. House of Representatives](https://en.wikipedia.org/wiki/United_States_House_of_Representatives) on January 29, 2008, and in a slightly different version by the [U.S. Senate](https://en.wikipedia.org/wiki/United_States_Senate) on February 7, 2008. The Senate version was then approved in the House the same day.[[1]](https://en.wikipedia.org/wiki/Economic_Stimulus_Act_of_2008#cite_note-1) It was signed into law on February 13, 2008 by President Bush with the support of both Democratic and Republican lawmakers. The law provides for [tax rebates](https://en.wikipedia.org/wiki/Tax_rebate) to low- and middle-income [U.S. taxpayers](https://en.wikipedia.org/wiki/Taxation_in_the_United_States), [tax incentives](https://en.wikipedia.org/wiki/Tax_incentive) to [stimulate](https://en.wikipedia.org/wiki/Economic_stimulus) business investment, and an increase in the limits imposed on [mortgages](https://en.wikipedia.org/wiki/Mortgage_loan) eligible for purchase by [government-sponsored enterprises](https://en.wikipedia.org/wiki/Government-sponsored_enterprise) (e.g., [Fannie Mae](https://en.wikipedia.org/wiki/Fannie_Mae) and [Freddie Mac](https://en.wikipedia.org/wiki/Freddie_Mac)). The total cost of this bill was projected at $152 billion for 2008.[[2]](https://en.wikipedia.org/wiki/Economic_Stimulus_Act_of_2008#cite_note-govtrack_budget-2)2010 - Tax Relief, Unemployment Insurance Reauthorization and Jobs Creation Act - Temporary reduction of FICA, extended Bush tax cuts, and unemployment benefits

2008 - **Public Law 110-343** ([Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress" \o "Act of Congress) [110–343](http://legislink.org/us/pl-110-343), 122 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [3765](http://legislink.org/us/stat-122-3765), enacted October 3, 2008) is a US [Act of Congress](https://en.wikipedia.org/wiki/Act_of_Congress) [signed into law](https://en.wikipedia.org/wiki/Signed_into_law) by [U.S. President](https://en.wikipedia.org/wiki/U.S._President) [George W. Bush](https://en.wikipedia.org/wiki/George_W._Bush), which was designed to mitigate the growing [financial crisis of the late-2000s](https://en.wikipedia.org/wiki/Late-2000s_financial_crisis) by giving relief to so-called "Troubled Assets."[[1]](https://en.wikipedia.org/wiki/Public_Law_110-343#cite_note-White_House-Press_Release-2008-10-03-1)[[2]](https://en.wikipedia.org/wiki/Public_Law_110-343#cite_note-2)

Its formal title is "An Act To provide authority for the Federal Government to purchase and insure certain types of troubled assets for the purposes of providing stability to and preventing disruption in the economy and financial system and protecting taxpayers, to amend the Internal Revenue Code of 1986 to provide incentives for energy production and conservation, to extend certain expiring provisions, to provide individual income tax relief, and for other purposes."

The Act created a $700 billion [Troubled Asset Relief Program](https://en.wikipedia.org/wiki/Troubled_Asset_Relief_Program) under the [Emergency Economic Stabilization Act of 2008](https://en.wikipedia.org/wiki/Emergency_Economic_Stabilization_Act_of_2008) ([division A](https://en.wikisource.org/wiki/Emergency_Economic_Stabilization_Act_of_2008)), and also enacted the *Energy Improvement and Extension Act of 2008* ([division B](https://en.wikisource.org/wiki/Energy_Improvement_and_Extension_Act_of_2008)), *Tax Extenders and Alternative Minimum Tax Relief Act of 2008* ([division C](https://en.wikisource.org/wiki/Tax_Extenders_and_Alternative_Minimum_Tax_Relief_Act_of_2008)), which also included the *Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008*, and the *Heartland Disaster Tax Relief Act of 2008*.[[3]](https://en.wikipedia.org/wiki/Public_Law_110-343#cite_note-LOC-THOMAS-HR1424-3)[[4]](https://en.wikipedia.org/wiki/Public_Law_110-343#cite_note-USPL-110-343-4)

2009 - The **American Recovery and Reinvestment Act of 2009** (**ARRA**) ([Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress" \o "Act of Congress) [111–5](http://legislink.org/us/pl-111-5)), nicknamed the **Recovery Act**, was a [stimulus package](https://en.wikipedia.org/wiki/Stimulus_(economics)) enacted by the [111th U.S. Congress](https://en.wikipedia.org/wiki/111th_U.S._Congress) and signed into law by [President Barack Obama](https://en.wikipedia.org/wiki/President_Barack_Obama) in February 2009. Developed in response to the [Great Recession](https://en.wikipedia.org/wiki/Great_Recession), the primary objective of this federal statute was to save existing jobs and create new ones as soon as possible. Other objectives were to provide temporary relief programs for those most affected by the recession and invest in infrastructure, education, health, and renewable energy.

The approximate cost of the economic stimulus package was estimated to be $787 billion at the time of passage, later revised to $831 billion between 2009 and 2019.[[1]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-1) The ARRA's rationale was based on the [Keynesian economic theory](https://en.wikipedia.org/wiki/Keynesian_economics) that, during recessions, the government should offset the decrease in private spending with an increase in public spending in order to save jobs and stop further economic deterioration.

Surveys of economists show overwhelming agreement that the stimulus reduced unemployment.[[2]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-2)[[3]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-:1-3) In a 2014 IGM Forum survey, only one economist disagreed that the stimulus had lowered unemployment.[[3]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-:1-3) The survey also showed majority support for the notion that the benefits of the stimulus outweighed the costs, with only two economists disagreeing.[[3]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-:1-3)

The politics around the stimulus was very contentious. On the right, it spurred the [Tea Party movement](https://en.wikipedia.org/wiki/Tea_Party_movement) and may have contributed to Republicans winning the House in the 2010 midterms.[[4]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-4)[[5]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-:2-5)[[6]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-6) Not a single Republican member of the House voted for the stimulus.[[7]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-7) Only three Republican Senators voted for it.[[8]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-8) On the left, there were criticisms that the stimulus was watered down and did not do enough.[[9]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-9) Economist Paul Krugman argued that the stimulus was far smaller than the economic crisis warranted.[[5]](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009#cite_note-:2-5)

2010 - The **Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010** ([Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress" \o "Act of Congress) [111–312](http://legislink.org/us/pl-111-312), [H.R. 4853](https://www.congress.gov/bill/111th-congress/house-bill/4853), 124 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [3296](http://legislink.org/us/stat-124-3296), enacted December 17, 2010), also known as the **2010 Tax Relief Act**, was passed by the [United States Congress](https://en.wikipedia.org/wiki/United_States_Congress) on December 16, 2010, and signed into law by [President](https://en.wikipedia.org/wiki/President_of_the_United_States) [Barack Obama](https://en.wikipedia.org/wiki/Barack_Obama) on December 17, 2010.[[2]](https://en.wikipedia.org/wiki/Tax_Relief,_Unemployment_Insurance_Reauthorization,_and_Job_Creation_Act_of_2010#cite_note-wh-taxcut-2)

The Act centers on a temporary, two-year reprieve from the [sunset provisions](https://en.wikipedia.org/wiki/Sunset_provisions) of the [Economic Growth and Tax Relief Reconciliation Act of 2001](https://en.wikipedia.org/wiki/Economic_Growth_and_Tax_Relief_Reconciliation_Act_of_2001) (EGTRRA) and the [Jobs and Growth Tax Relief Reconciliation Act of 2003](https://en.wikipedia.org/wiki/Jobs_and_Growth_Tax_Relief_Reconciliation_Act_of_2003) (JGTRRA), together known as the "[Bush tax cuts](https://en.wikipedia.org/wiki/Bush_tax_cuts)." Income taxes would have returned to [Clinton administration](https://en.wikipedia.org/wiki/Clinton_administration)-era rates in 2011 had Congress not passed this law. The Act also extends some provisions from the [American Recovery and Reinvestment Act of 2009](https://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009) (ARRA or 'the Stimulus'). The act also includes several other tax- and economy-related measures intended to have a new stimulatory effect, mostly notably an extension of unemployment benefits and a one-year reduction in the [FICA payroll tax](https://en.wikipedia.org/wiki/Federal_Insurance_Contributions_Act_tax), as part of a compromise agreement between Obama and Congressional Republicans. The overall monetary impact of the measure has been placed at $858 billion.[[3]](https://en.wikipedia.org/wiki/Tax_Relief,_Unemployment_Insurance_Reauthorization,_and_Job_Creation_Act_of_2010#cite_note-cnn-signs-3)

The law was also known, during its earlier formulation in the House of Representatives, as the **Middle Class Tax Relief Act of 2010**. The package has been referred to as the "Obama-GOP tax deal" as well as the "Obama tax cuts

2012 - The **American Taxpayer Relief Act of 2012** (**ATRA**; [Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress) [112–240](http://legislink.org/us/pl-112-240), [H.R. 8](https://www.congress.gov/bill/112th-congress/house-bill/8), 126 [Stat.](https://en.wikipedia.org/wiki/United_States_Statutes_at_Large) [2313](http://legislink.org/us/stat-126-2313), enacted January 2, 2013) was passed by the [United States Congress](https://en.wikipedia.org/wiki/United_States_Congress) on January 1, 2013, and was signed into law by US President [Barack Obama](https://en.wikipedia.org/wiki/Barack_Obama) the next day.

The Act centers on a partial resolution to the [US fiscal cliff](https://en.wikipedia.org/wiki/United_States_fiscal_cliff) by addressing the expiration of certain provisions of the [Economic Growth and Tax Relief Reconciliation Act of 2001](https://en.wikipedia.org/wiki/Economic_Growth_and_Tax_Relief_Reconciliation_Act_of_2001) and the [Jobs and Growth Tax Relief Reconciliation Act of 2003](https://en.wikipedia.org/wiki/Jobs_and_Growth_Tax_Relief_Reconciliation_Act_of_2003) (known together as the "[Bush tax cuts](https://en.wikipedia.org/wiki/Bush_tax_cuts)"), which had been temporarily extended by the [Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010](https://en.wikipedia.org/wiki/Tax_Relief,_Unemployment_Insurance_Reauthorization,_and_Job_Creation_Act_of_2010). The Act also addressed the activation of the [Budget Control Act of 2011](https://en.wikipedia.org/wiki/Budget_Control_Act_of_2011)'s [budget sequestration](https://en.wikipedia.org/wiki/Budget_sequestration) provisions.

A compromise measure, the Act gives permanence to the lower rate of much of the Bush tax cuts, while retaining the higher tax rate at upper income levels that became effective on January 1 due to the expiration of the Bush tax cuts. It also establishes caps on tax deductions and credits for those at upper income levels. It does not tackle federal spending levels to a great extent, rather leaving that for further negotiations and legislation. The American Taxpayer Relief Act passed by a wide majority in the Senate, with both [Democrats](https://en.wikipedia.org/wiki/Democratic_Party_(United_States)) and [Republicans](https://en.wikipedia.org/wiki/Republican_Party_(United_States)) supporting it, while most of the House Republicans opposed it.

* For individuals with taxable income of $400,000 per year or less ($450,000 for a married couple on a joint tax return, both thresholds to be indexed for inflation after 2013),[[1]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-nlj-kreutzer-1) the tax rates for income, capital gains, and dividends remained at their 2012 levels, instead of reverting to the higher rates from the expiration of the Bush tax cuts.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)[[3]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-wapo-div-cg-3)
* For individuals with taxable income over the $400,000/$450,000 thresholds:
  + The top marginal tax rate on income of 39.6%, provided for under the expiration of the 2001 portion of the Bush tax cuts, was retained. This was an increase from the 2003–2012 rate of 35%.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)
  + The top marginal tax rate on long-term capital gains of 20%, provided for under the expiration of the 2003 portion of the Bush tax cuts, was retained. This was an increase from the 2003–2012 rate of 15%.[[3]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-wapo-div-cg-3)
  + The top marginal tax rate on dividends, which would have increased to the ordinary income rate of 39.6% due to the expiration of the 2003 portion of the Bush tax cuts, was set to the capital-gains rate of 20%. This was an increase from the 2003–2012 rate of 15%.[[3]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-wapo-div-cg-3)
* A phase-out of tax deductions and credits for incomes over $250,000 for individuals and $300,000 for couples was reinstated. These limits on deductions had existed before the Bush tax cuts, and had disappeared in 2010.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)
* Estate taxes were set at 40% of the value above $5,000,000, indexed for inflation, an increase from the 2012 rate of 35% of the value over $5,120,000.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)[[4]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-hook1-4)
* Changes were made to the [Alternative Minimum Tax](https://en.wikipedia.org/wiki/Alternative_Minimum_Tax) to permanently index it to inflation and thus to avoid the annual "patch" that was previously required to prevent it from impacting middle-class families.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)
* The two-year-old cut to payroll taxes was not extended. The rate had been reduced from 6.2% to 4.2% for 2011 and 2012.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)
* Some tax credits for poorer families were extended for five years, including ones for college tuition and an expansion of the [Earned Income Tax Credit](https://en.wikipedia.org/wiki/Earned_Income_Tax_Credit).[[4]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-hook1-4)
* A number of corporate tax breaks were extended, including the "active financing" tax exemption for major corporations (cost $9 billion),[[5]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-5) the [New Markets Tax Credit Program](https://en.wikipedia.org/wiki/New_Markets_Tax_Credit_Program) (cost $1.365 billion annually),[[6]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-6) a rum tax supporting Puerto Rico and Virgin Islands rum industry ($547 million in 2009), a tax benefit for NASCAR racetrack owners (around $43 million), tax credits for two- and three-wheeled electric vehicles and hiring of individuals who are members of a Native American tribe.[[7]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-7)[[8]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-8)

In all, the bill included $600 billion over ten years in new tax revenue, about one-fifth of the revenue that would have been raised had no legislation been passed. For the tax year 2013, some taxpayers experienced the first year-to-year income-tax rate increase since 1993, although the rate increase came about not as a result of the 2012 Act, but as a result of the expiration of the Bush tax cuts. The new rates for income, capital gains, estates, and the alternative minimum tax would be made permanent.[[2]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-weisman1-2)[[4]](https://en.wikipedia.org/wiki/American_Taxpayer_Relief_Act_of_2012#cite_note-hook1-4)

2017 - The **Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018**,[[2]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-2) [Pub.L.](https://en.wikipedia.org/wiki/Act_of_Congress) [115–97](http://legislink.org/us/pl-115-97), is a congressional revenue act of the United States originally introduced in Congress as the **Tax Cuts and Jobs Act** (**TCJA**),[[3]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-Watkins-3)[[4]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-4) that amended the [Internal Revenue Code of 1986](https://en.wikipedia.org/wiki/Internal_Revenue_Code_of_1986). Major elements of the changes include reducing tax rates for businesses and individuals, increasing the [standard deduction](https://en.wikipedia.org/wiki/Standard_deduction) and family tax credits, eliminating [personal exemptions](https://en.wikipedia.org/wiki/Personal_exemption) and making it less beneficial to itemize deductions, limiting deductions for state and local income taxes and property taxes, further limiting the mortgage interest deduction, reducing the [alternative minimum tax](https://en.wikipedia.org/wiki/Alternative_minimum_tax) for individuals and eliminating it for corporations, reducing the number of estates impacted by the estate tax, and cancelling the penalty enforcing individual mandate of the [Affordable Care Act](https://en.wikipedia.org/wiki/Affordable_Care_Act) (ACA).[[5]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-CBO_Senate1-5)[[6]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-6)

The Act is based on tax reform advocated by congressional [Republicans](https://en.wikipedia.org/wiki/Republican_Party_(United_States)) and the [Trump administration](https://en.wikipedia.org/wiki/Economic_policy_of_Donald_Trump).[[7]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-7) The nonpartisan [Congressional Budget Office](https://en.wikipedia.org/wiki/Congressional_Budget_Office) (CBO) reported that under the Act individuals and [pass-through entities](https://en.wikipedia.org/wiki/Pass-through_entities) like partnerships and [S corporations](https://en.wikipedia.org/wiki/S_corporation) would receive about $1,125 billion in net benefits (i.e. net tax cuts offset by reduced healthcare subsidies) over 10 years, while [corporations](https://en.wikipedia.org/wiki/C_corporation) would receive around $320 billion in benefits. The CBO estimates that implementing the Act would add an estimated $2.289 [trillion](https://en.wikipedia.org/wiki/Trillion_(short_scale)) to the [national debt](https://en.wikipedia.org/wiki/National_debt_of_the_United_States) over ten years,[[8]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-CBO_April2018Update-8) or about $1.891 trillion after taking into account [macroeconomic feedback effects](https://en.wikipedia.org/wiki/Laffer_curve), in addition to the $9.8 trillion increase forecast under the current policy [baseline](https://en.wikipedia.org/wiki/Baseline_(budgeting)) and existing $20 trillion national debt.[[9]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-CBO_BEO17-9)

The individual and pass-through tax cuts fade over time and become net tax increases starting in 2027 while the corporate tax cuts are permanent. This enabled the Senate to pass the bill with only 51 votes, without the need to defeat a [filibuster](https://en.wikipedia.org/wiki/Filibuster), under the [budget reconciliation process](https://en.wikipedia.org/wiki/Reconciliation_(United_States_Congress)).[[10]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-CBO_Final1-10) The House passed the penultimate version of the bill on December 19, 2017. The Senate passed the final bill, 51-48, on December 20, 2017. On the same day, a re-vote was held in the House for procedural reasons; the bill passed, 224-201. The bill was signed into law by President [Donald Trump](https://en.wikipedia.org/wiki/Donald_Trump) on December 22, 2017. Most of the changes introduced by the bill went into effect on January 1, 2018, and did not affect 2017 taxes.[[11]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-11)

Some critics in the media, think tanks, and academia assailed the law, mainly based on forecasts of its adverse impact (e.g., higher budget deficit,[[12]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-CRFB_MM1-12) higher trade deficit,[[13]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-:0-13) greater income inequality,[[14]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-Vox_Inequality-14)[[15]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-NYT_Kingmakers-15) lower healthcare coverage and higher healthcare costs),[[16]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-Vox-Health-16) disproportionate impact on certain states and professions[[17]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-17)[[18]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-18) and the misrepresentations made by its advocates.[[19]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-Summers1-19)[[20]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-Krugman_Everybody-20) Some of the reforms passed by the Republicans have become controversial within key states, particularly the $10,000 cap on state and local tax deductibility, were challenged in federal court[[21]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-21) before being upheld.[[22]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-SALTCapUpheld-22) Polling shows that there are more Americans opposing the law than those supporting it.[[23]](https://en.wikipedia.org/wiki/Tax_Cuts_and_Jobs_Act_of_2017#cite_note-realclearpoliticsPolls_20181221-23)

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| **Major Tax Legislation** | | **Tax Cut in Billions of Current Dollars (a)** | **Tax Cut in Billions of Constant 2003 Dollars** | **Tax Cut as a Percent of National Income (b)** | **Surplus or Deficit (-) as a Percentage of National Income (b)** |
| The Kennedy Tax Cut (Revenue Act of 1964) | | ($11.50) | ($54.90) | -1.90% | -1.00% |
| The Reagan Tax Cut (Economic Recovery Tax Act of 1981) | | ($38.30) | ($68.70) | -1.40% | -2.80% |
| Bush Tax Cuts: | |  |  |  | |
| Economic Growth and Tax Reform Reconciliation Act of 2001 | | ($73.80) | ($75.80) | -0.80% | 1.50% |
| Job Creation and Worker Assistance Act of 2002 | | ($51.20) | ($52.00) | -0.60% | -1.70% |
| Jobs and Growth Tax Relief and Reconciliation Act of 2003 | | ($60.80) | ($60.80) | -0.60% | -3.20% |
|  | 2001, 2002 and 2003 Bush Tax Cuts if Combined in 2003 | NA | ($188.10) | -2.00% | - |
| 2009 American Recovery and Reinvestment Act ($288) in $’09 | | | | | |
| 2010 Tax Relief Act – primarily an extension of Bush cuts | | | | | |
| 2012 Obama tax increase $600B in $’12 | | | | | |
| (a) First year estimate. | | | | | |
| (b) National Income as measured by Net National Product. | | | | | |
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*Source: Joint Committee on Taxation; Tax Foundation*

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| **Tax Legislation** | | **As a Percent of Federal Budget (a)** | | | |
| **Tax Relief** | **Social Security** | **Defense** | **All Other Domestic Spending** |
| The Kennedy Tax Cut (Revenue Act of 1964) | | 8.80% | 12.80% | 42.10% | 36.30% |
| The Reagan Tax Cut (Economic Recovery Tax Act of 1981) | | 5.30% | 19.50% | 22.00% | 53.20% |
| Bush Tax Cuts: | |  |  |  | |
| Economic Growth and Tax Reform Reconciliation Act of 2001 | | 3.80% | 22.30% | 15.80% | 58.10% |
| Job Creation and Worker Assistance Act of 2002 | | 2.50% | 22.10% | 16.90% | 58.50% |
| Jobs and Growth Tax Relief and Reconciliation Act of 2003 (Bush/Thomas Proposal as of May 5, 2003) | | 2.70% | 21.70% | 17.10% | 58.40% |
|  | |
|  | 2001, 2002 and 2003 Bush Tax Cuts if Combined in 2003 | 8.10% | 20.50% | 16.20% | 55.20% |  |
|  | | | | | |  |
| (a) Percentages treat tax relief as if it were a budgetary item. | | | | | |  |
| (b) National Income as measured by Net National Product. | | | | | |  |

1. This paper’s focus on debt is not to ignore or diminish the difficulties we face in recovering from the crisis. While they are related, the paper only focuses on the long term implications of our historic level of debt. [↑](#footnote-ref-1)
2. https://www.economicshelp.org/blog/3015/economics/why-inflation-makes-it-easier-for-government-to-pay-debt/ [↑](#footnote-ref-2)
3. See http://www.bea.gov/national/index.htm#gdp and https://www.whitehouse.gov/omb/budget/Historicals and <https://fred.stlouisfed.org/series/GDP> for convenient excel files of historical data. https://www.govinfo.gov/app/collection/erp/2020

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   . [↑](#footnote-ref-3)
4. Economic Report of The President, Table B-47, only includes data from 1955 [↑](#footnote-ref-4)
5. We often refer to a President having an impact on policy recognizing that it takes a complicit Congress to take action. [↑](#footnote-ref-5)
6. A correlation coefficient measures how much two data series move together. A value of 1.0 is perfect correlation so the two series move in lock step, though not necessarily with the same magnitude. A value of -1.0 is perfect negative correlation where the two series always move in opposite directions. A value of 0.0 is neutral as if each series is an independent random variable. [↑](#footnote-ref-6)
7. In Feb 2020, U.S. Department of the Treasury. "[Major Foreign Holders of Treasury Securities](https://ticdata.treasury.gov/Publish/mfh.txt), April 18, 2020 [↑](#footnote-ref-7)
8. See St. Louis Federal Reserve data series: <https://fred.stlouisfed.org/series/FDHBFIN> and others. [↑](#footnote-ref-8)
9. Reinhart, Carmen M. and Kenneth S Rogoff, This Time Is Different, Princeton University Press, 2009 [↑](#footnote-ref-9)
10. See https://ec.europa.eu/eurostat/documents/2995521/9984123/2-19072019-AP-EN.pdf/437bbb45-7db5-4841-b104-296a0dfc2f1c [↑](#footnote-ref-10)
11. See USDOBTCLOCK.com [↑](#footnote-ref-11)
12. See Table 6 later in this paper. [↑](#footnote-ref-12)
13. There were actually 18 tax bills passed after 1960. These four were very much the largest cuts. [↑](#footnote-ref-13)
14. One might quibble with the treatment of the Bush 2 tax cuts as all beginning in 2001 when they were spread out over 3 years. Thus, years 5 and 6 after 2001 produced GDP growth of 2.7% and 1.8% which yielded 6-year average after-event growth of 2.7% - even worse than the 4 year results. [↑](#footnote-ref-14)
15. See Faverri and Giavazzi, Center for Economic Policy Research. https://voxeu.org/article/how-large-us-tax-multiplier [↑](#footnote-ref-15)
16. Binder, Alan S. and Mark W. Watson (July 2014), "Presidents and the US Economy: An Econometic Exploration," Woodrow Wilson School and Department of Economics, Princeton University [↑](#footnote-ref-16)
17. The statistics are standard deviations; it is measured across all like party presidential terms. A standard deviation of (0.46) relative to the average data item (4.35) for Democratic Real GDP implies a low probability that the true average is 0. Whenever the average result is more than twice the standard deviation there is at least a 95% probability that the true underlying result is greater than 0.The p-value is a statistic that measures the probability that the difference between the two party results is a random result from a true underlying distribution where the two party distributions are in fact identical. A value of .01 means that there is a 1% probability that the difference is a random result from identical data distributions. That is a very strong statistical result. [↑](#footnote-ref-17)