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**National Economic Education Delegation**

**Federal Budgets Narrative**

Date: May 27, 2020

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Sources:

https://www.whitehouse.gov/omb/historical-tables/

<http://www.trivisonno.com/wp-content/uploads/Food-Stamps-Monthly-Benefit.jpg>

Slides:

1. **Opening slide**

In this talk, we will be discussing important aspects of the Federal Budget. The Federal Budget is, of course, a behemoth, with details that could take a lifetime to master. That said, we will provide an overview and will give significant treatment to important aspects of the Federal Budget. These include information about expenditures, revenues, the difference between the two – deficit – and the rapidly growing federal debt.

First, a bit about NEED.

1. **DO NOT DELETE: National Economic Education Delegation**
   1. Brief discussion of what NEED is and NEED does
      1. 360 delegates, one in each state
      2. 37 honorary board – 2 Nobel prize winners, 5 former chairs of council, and 2 former Chairs of the Federal Reserve.
   2. Use your judgement for what should be said.
2. **Who Are We?**
3. **Where Are We?**

1. **DO NOT DELETE: Credits and Disclaimer**
2. **What Does the U.S. Gov’t Budget Look Like?**

The U.S. budget is an enormously complicated thing. One could dig down into terrific detail, however, the available detail is much greater than are our needs here today.

This table gives you a brief overview of the 2019 Federal Budget. The 3 most important concepts are Revenues, Expenditures, and the Deficit.

Revenues come from a variety of sources, with the most important ones listed here.

Expenditures go to a variety of destinations, over 100 detailed categories. We won’t go into all of those. This table just lists the major types: mandatory, discretionary, and interest. We will go over just what makes spending mandatory versus discretionary and we will spend a fair amount of time discussing interest payments and how they are important both today and in the future.

In 2019, revenues fell short of expenditures by about $960 billion That creates a budget deficit for the year. This is an increase in the deficit from 2018 when it was just $779 billion ($666 in 2017).

1. **Outline:**

Here are the basic topics that we will be discussing today. They are broad categories and we will be digging deeply into each one, providing the views of the economics profession on a variety of topics within each.

1. **U.S. Government Spending**
2. **Government Expenditures and the US Economy**

When thinking about what drives the economy, there are generally four categories that are explicitly identified. These categories are:

* 1. Consumption – purchases of goods (both durable and nondurable) and services by private individuals.
  2. Investment – private housing expenditures as well as business investment in non-residential housing (durable equipment, software, and inventories)
  3. Trade (X-M) – the difference between imports and exports
     1. Imports are only included because if they are included in the other categories here. They are subtracted out to avoid counting imports as contributing to U.S. GDP growth.
     2. Imports and exports are included in this graph because they are really two different things and it is worthwhile understanding just how important exports are as a source of demand for the economy.
  4. Government – government expenditures on goods and services, both national defense related and nondefense.
     1. This measure includes federal, state, and local expenditures.

Government expenditures contribute about the same amount to GDP as private investment does, about 17%. Consumption is by far the largest contributor. But accounting for nearly one-fifth of the economy, as government does, it has significant capacity to influence GDP growth.

Note that it is government expenditures (consumption and investment) at the federal, state, and local levels. This is distinct from “government spending”, which includes transfers.

1. **Recent Amounts (EDIT: Make this graph annual.)**

In 2018, government contributed about $3.6 trillion, but again, this includes state and local expenditures. For most of this talk, we will focus on the federal budget alone.

There is another distinction that is worth making here. Not all of the Federal government’s expenditures are included as contributions to GDP. In particular, interest payments are not included as a driver of GDP growth.

1. **Where does the money go?**

Essentially, the money that the federal government spends falls into 5 different buckets:

1. Social Security
2. Health Care
3. Military
4. Interest on the federal debt
5. Everything else

And we will talk more specifically about these categories, but thinking about those buckets is not necessarily the most productive way to think about government spending.

There are aspects of spending on social security that are fundamentally different from spending on the military. In particular, one is spending according to passed law while the other is spending that is subject to renewal and appropriation each year.

For a wide variety of reasons this type of law vs appropriations bucket comparison makes more sense as a framework for thinking about spending than does looking at the individual spending categories.

1. **On What is the Money Spent? Complicated**

From: <https://www.newamerica.org/education-policy/topics/federal-education-legislation-budget/federal-education-budget/federal-budget-process/mandatory-and-discretionary-spending/>

<rewrite to make it our own and much shorter and concise>

There are two types of spending in the federal budget process: discretionary and mandatory. Discretionary spending is spending that is subject to the appropriations process, whereby Congress sets a new funding level each fiscal year (which begins October 1st) for programs covered in an appropriations bill. Roughly one-third, or about $1 trillion, of the federal government’s activities are funded through appropriations legislation. Most of the direct activities of the federal government, such as those of the Federal Bureau of Investigations and Department of Defense, are funded through the annual appropriations process. Almost all education programs are discretionary spending programs, except for a small number of programs such as student loans, some vocational grants, school lunch, and a few tax benefit programs.

Mandatory spending is simply all spending that does not take place through appropriations legislation. Mandatory spending includes entitlement programs, such as Social Security, Medicare, and required interest spending on the federal debt. Mandatory spending accounts for about two-thirds of all federal spending. In most cases, but not all, mandatory spending is ongoing; it occurs each year absent a change in an underlying law that provides the funding. Discretionary spending, on the other hand, will not occur unless Congress acts each year to provide the funding through an appropriations bill. Tax legislation is treated as mandatory spending in many areas of the Congressional budget process.

In 2018, more than two-thirds of the budget went to mandatory spending, whereas just one-third, 31% really, went to discretionary. This makes addressing a budget deficit extremely difficult, when nearly 70% of the budget is already established.

1. **What is Mandatory Spending?**

Mandatory spending results from expenditures that are mandated by Federal law. As you can see, certain programs that are a part of Federal law require significant spending each year and this spending is not subject to debate in Congress, short of passing a new law that changes the nature of the programs.

Social Security and Medicare are the two largest such programs, though there are a variety of others. Medicare, and a host of income security (often called safety net) programs make up a significant portion of what is left. These programs are also often referred to as “entitlements”.

We will go through each of these programs and will spell out what is in the “Other” category as well.

(directly lifted from: <https://www.cbo.gov/system/files?file=2019-01/54918-Outlook.pdf>)

<rewrite to make it our own and much shorter and concise>

In 2019, CBO estimates, total mandatory outlays will amount to $2.7 trillion, or 12.7 percent of GDP, up from $2.5 trillion in 2018. Most of that estimated increase is attributable to larger outlays for Social Security, Medicare, and Medicaid, moderated by an increase in offsetting receipts from Fannie Mae and Freddie Mac (among other, smaller, offsetting changes). (In the discussion of mandatory spending that follows, all numbers have been adjusted to exclude the effects of timing shifts; see Table 3-2 on page 68.)

From 2019 to 2029, outlays for mandatory programs are projected to rise by an average of about 6 percent per year, reaching $4.7 trillion by the end of the period. As a share of GDP, mandatory outlays are projected to increase slightly through 2020—to 12.8 percent—and then rise steadily, to 15.1 percent in 2029.6 By comparison, mandatory outlays averaged 12.9 percent of GDP over the past 10 years and 9.9 percent over the past 50 years.

Much of the projected growth in mandatory spending over the coming decade is attributable to two factors. First, the share of the population age 65 or older has been growing significantly—more than doubling over the past 50 years—and is expected to rise by about one-third by 2029. In CBO’s baseline projections, outlays for people age 65 or older in mandatory programs increase from 7.5 percent of GDP in 2018 to 9.8 percent in 2029, accounting for about two-thirds of mandatory spending by the end of that period.7

Second, the costs of health care (adjusted to account for the aging of the population) are projected to grow faster than the economy over the long term. Although growth in health care spending has slowed in recent years, it still has grown faster than the economy, on average.

1. **Mandatory Spending: Social Security (24%)**

Social Security spending in 2018 was $974.2B[[1]](#footnote-1). This program covers the vast majority of workers in the United States. Many government employees, at all levels of government, pay into an alternative program and are exempt from the Social Security system.

Although commonly thought of as just a retirement program, Social Security is really comprised of three different programs. The first is a retirement program (OA), the most commonly recognized part of social security. The second is the Survivors program, whereby survivors of a worker may well be eligible for benefits if the worker dies (S). The final piece is disability insurance (DI). This program provides cash benefits in the event of a medical condition that is expected to be long in duration or fatal.

The three components make up the **OASDI** system: Old Age Survivors and Disability Insurance and are all administered by the Social Security Administration.

Data on receipts and expenditures and trust fund: <https://www.ssa.gov/oact/STATS/table4a3.html>

(directly lifted from: <https://www.cbo.gov/system/files?file=2019-01/54918-Outlook.pdf>)

**Social Security.** The largest federal spending program, Social Security provides cash benefits to the elderly, to people with disabilities, and to the dependents and survivors of people covered by the program. Last year, Social Security outlays totaled $982 billion, or 4.9 percent of GDP. Under current law, outlays for Social Security are projected to rise by $57 billion (or about 6 percent) in 2019. That rate of increase is greater than it has been in recent years, largely because Social Security beneficiaries received a cost-of-living adjustment (COLA) of 2.8 percent in January 2019, the largest since 2012. Growth in the number of beneficiaries is also anticipated to tick up, from 1.6 percent last year to 1.8 percent this year.

Over the 2020–2029 period, outlays for Social Security are projected to grow at an average rate of about 6 percent per year, reaching $1.9 trillion—or 6.0 percent of GDP—by 2029. That growth reflects increases in the number of beneficiaries and in the amount of the average benefit. In CBO’s projections, the number of beneficiaries grows by an average of 2.1 percent per year, from an average of 63.3 million beneficiaries in 2019 to 78.2 million in 2029. Average benefits grow by 3.8 percent per year, mainly because of annual COLAs, which are projected to average 2.4 percent, and because initial benefits are based on people’s lifetime earnings, which tend to increase over time.

<https://pocketsense.com/three-components-social-security-system-7154312.html>

1. **Where do social security funds come from?**

The primary source of social security funds is from payroll and self employment taxes. For regular wage and salary jobs, the employee pays half of the tax (6.2%) and the employer pays the other half (also 6.2%). With regard to self-employed individuals, they are responsible for the entire tax of 12.4%.

Not all earnings are taxed. There is a cap that is increased each year. In 2019, the wage base, or cap on taxable earnings is $132,900. Any earnings from work above this amount are not taxed.

This cap makes the payroll taxes regressive – meaning that the higher your income (above the cap), the lower is the share of your income that is paid in SS taxes. Up to the cap, all individuals are taxed at the same rate. Anybody earning above the cap pays a lower average tax rate.

There is an additional issue to be noted with regard to these taxes. That is the question of who actually pays the tax. Technically, we know – it is evenly shared between the employer and employee evenly. Effectively, we don’t know for sure. This is a question of “tax incidence”. We know who is charged for the tax (technically), but we don’t know about price (wage) changes that result from the implementation of the tax. If wages fall, then some of the incidence is borne by workers. The best evidence suggests that a little bit more than half of the 12.4% total tax is borne by workers, perhaps 60-70%.[[2]](#footnote-2)

Other revenues for the system come from the taxation of OASDI (Old age, survivors, disabled individuals) benefits. Yes, just as any other source of income, these benefits are taxed.

Finally, is interest on the balance of the SS Trust Fund. What is the trust fund, you ask?

1. **Social Security Trust Fund**

Social security revenues, from the taxes and interest, have exceeded expenditures since the early 1960s. The annual excess of revenues over expenditures is put in the SS Trust Fund. The trust fund was consciously created because it was clear at the time, given the baby boom, that in the future the system would run deficits.

Currently, the trust fund is valued at nearly $3 trillion. The trust fund is invested entirely in U.S. Treasury securities. In 2018, these holdings were expected to generate $83 billion in interest earnings.

As the boomers retire and people generally live longer, expenditures will begin to exceed revenues and the value of the trust fund will decline. And we are almost there.

1. **In 2018: Deficits As Far As the eye can see**

Annual deficits are projected to begin in 2018, with insolvency currently forecast for 2034.[[3]](#footnote-3) Projections are that by 2034, the annual deficit for OASDI will amount to a little over 4% of taxable payroll. This also amounts to approximately 1% of GDP – or 1.5%, depending on the source of information.

1. **Options for Eliminating the Deficits**

The funding problem for Social Security amounts to about 1% of GDP according to the Social Security Administration, or about 1.5% of GDP according to the CBO. This is not an insurmountable sum and there are a variety of options for getting there.

First, is the possibility of raising the retirement age. By raising the retirement age, it reduces the number of people receiving benefits at any one time and simultaneously raises the number of people paying into the system. This move is not unprecedented as the retirement age was recently increased from 65 to 67. It was not increased for those close to retirement. In fact, it occurred in two stages, first to 66 and then to 67. The increase to 67 applies to those born after 1960.[[4]](#footnote-4)

This is actually a complicated issue as there are several retirement ages. The first is when one is eligible to start receiving benefits and the second is when benefits (actuarily) are maximized. It is the second that was increased to 67. Benefits can still be accessed at age 63, but they will be lower following the increased retirement age.

Second, is increasing the tax rate. This is a fairly simple way to close the gap. It is variously estimated that a 4 percentage point increase would raise 0.6% of GDP, closing the gap significantly and that a 3 percentage point increase would close the gap entirely.[[5]](#footnote-5) The differences in these estimates is due to differences in a wide variety of assumptions about things like longevitiy and labor force participation. Regardless, it seems likely that an increase of between 3 and 6 percentage points would be necessary to close the entire gap.

Third is raising the amount of income subject to tax. The cap is in place largely to facilitate passage of the program in the first place. Higher income workers, who did not believe that the program was important to them objected at having the entirety of their incomes taxed. By some estimates, taxing all wages would raise approximately 1.1% of GDP, possibly closing the gap, but potentially leaving a shortfall, so additional changes would also be necessary.

Finally is the notion of reducing benefits. Failing any other change to the parameters of the program, this could well be the solution. As the law stands, the program is not able to pay benefits in excess of its revenues. Accordingly in order to eliminate the shortfall, benefits would have to be reduced between 21 and 24% after 2034. It is not clear whether policymakers would allow such cuts and could well step in with assistance from general federal revenues, but there is certainly no guarantee of this.

There are tradeoffs between these approaches:

1. Raising tax rate just makes the system more regressive
2. Raising the cap might mean having to pay higher benefits to higher income workers
3. Reducing benefits is also regressive
4. Does raising the retirement age discriminate against low income workers given the correlation between income and lifespan? Some analysis suggests not – find a source. (Burtless – 1998)
5. Raising the retirement age is just one way or reducing benefits
   1. But gets people to work longer
   2. Given increased life expectancy, this might be politically easier than cutting benefits
6. **Mandatory Spending: Medicare (14%)**

<note from Jon: I presented this and pretty much glossed over the complexity here.>

(directly lifted from: <https://www.cbo.gov/system/files?file=2019-01/54918-Outlook.pdf>)

**Medicare, Medicaid, and Other Major Health Care Programs.** In 2018, net federal outlays for Medicare, Medicaid, and other major programs related to health care accounted for 41 percent of mandatory outlays (net of offsetting receipts; see the memorandum lines of Table 3-2) and totaled $1.1 trillion, or 5.2 percent of GDP. In CBO’s baseline projections, excluding the effects of shifts in the timing of certain payments, those outlays increase by $53 billion (or 5 percent) in 2019; from 2020 to 2029, they increase at an average rate of 6.5 percent per year, nearly doubling in nominal terms and reaching $2.1 trillion, or 6.8 percent of GDP, by the end of that period.

*Medicare*. Outlays for Medicare, a program that provides subsidized medical insurance to people age 65 or older and to some people with disabilities, account for about half of the projected increase in outlays for the major health care programs from 2018 to 2019. CBO estimates that Medicare outlays (net of offsetting receipts—mostly in the form of premiums paid by beneficiaries—and adjusted to exclude the effects of timing shifts) will grow from $605 billion to $632 billion, or by 4 percent, from 2018 to 2019. Enrollment is projected to increase by 2.7 percent this year, the same rate of increase recorded last year.

Over the 2020–2029 period, Medicare outlays are anticipated to increase by 7 percent per year, on average, representing about two-thirds of the growth in spending for the major health care programs. About two-thirds of that annual growth is driven by the rising costs of medical care per beneficiary; growing enrollment accounts for the remainder. By 2029, projected net outlays for Medicare total $1.3 trillion.

*Medicaid.* Outlays for Medicaid, a joint federal-state program that funds medical care for certain low-income, elderly, and disabled people, are estimated to increase by 4 percent (or $14 billion) to $406 billion in 2019. After 2019, outlays for the program are projected to grow at an average rate of about 4 percent per year through 2021 and 6 percent per year from 2022 through 2029. Slower overall growth in costs per person and a slight decline in enrollment among children and adults largely explain the lower average rate of growth through 2021. The higher projected growth rates after 2021 (which are closer to historical growth rates for the program) result from slightly greater increases in spending per beneficiary and higher unemployment, which would boost enrollment in the program.

*Health Insurance Subsidies and Related Spending*. Outlays for health insurance subsidies and related spending are estimated to increase by about $8 billion (or 17 percent) this year.8 That jump mostly stems from two sources. First, in July 2018 the Department of Health and Human Services temporarily halted risk-adjustment payments, which are amounts paid to health insurance plans that attract less healthy enrollees, in response to a federal court decision. Typically, those risk-adjustment outlays occur in September, but most of those payments were delayed from the end of 2018 to the first quarter of fiscal year 2019. Second, premiums for the second-lowest-cost “silver” plan in the health insurance marketplaces established under the Affordable Care Act were an average of 34 percent higher in calendar year 2018 than in 2017—and those premiums are the benchmark for determining subsidies for plans offered through the marketplaces. As a result, total subsidies for the first quarter of fiscal year 2019 were substantially higher than they were one year earlier.

Over the 2020–2029 period, the average growth in outlays for health insurance subsidies and related spending is projected to lessen considerably, to nearly 4 percent per year. Total subsidies depend on per-beneficiary spending and on the number of subsidized enrollees. Although per-beneficiary spending is estimated to rise with the costs of providing medical care, the number of subsidized enrollees is projected to decline slightly over time. As a result, total subsidies are projected to rise more slowly than the average costs of providing medical care. CBO estimates that, under current law, outlays for health insurance subsidies and related spending would rise by 44 percent over the projection period, increasing from $58 billion in 2019 to $83 billion by 2029.

*Children’s Health Insurance Program*. Financed jointly  
by the states and the federal government, the Children’s Health Insurance Program provides health insurance coverage to children in families whose income, although modest, is too high for them to qualify for Medicaid. CBO estimates that outlays for CHIP in 2019 will be about $18 billion, which is $1 billion higher than in 2018. After 2019, federal outlays for CHIP are projected to decline through 2021, because the average federal matching rate for the program is scheduled to decrease from 93 percent in 2019 to 70 percent in 2021 and subsequent years. After 2021, outlays for the program are projected to grow by an average of 4 percent per year, principally because of increasing costs per enrollee.

1. **Where do Medicare funds come from?**

Medicare revenues are collected generally along with the Soc Sec revenues and are collected in largely the same way, with 4 exceptions:

* 1. the tax rate is much lower – 2.9% instead of 12%
  2. there is no cap on income that is taxed.
  3. Some revenues do come out of federal government general revenues
  4. There are classes of beneficiaries who pay premiums

1. **Medicare Finances in 2017**

As with Social Security, the parameters of Medicare were adjusted so as to result in surpluses and the development of a trust fund. Also, as with SS, we have reached a period of deficits for as far as the eye can see. The deficits began earlier, in 2016.

The deficit in 2017 was about $5.1 billion, but is projected to grow rapidly.

Given the current parameters of the program, the trust fund will be eliminated by 2026. It is important to note that this doesn’t portend great trouble for Medicare in 2026. At that time, Medicare will still be able to cover 91% of its costs. The difference will have to be made up by some combination of tax increases and reductions in costs.[[6]](#footnote-6)

1. **Mandatory Spending: Medicaid (9%)**

<https://www.kff.org/medicaid/state-indicator/federalstate-share-of-spending/?currentTimeframe=0&selectedDistributions=federal&selectedRows=%7B%22states%22:%7B%22all%22:%7B%7D%7D,%22wrapups%22:%7B%22united-states%22:%7B%7D%7D%7D&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

1. **Mandatory Spending: Income Security (7%)**

(directly lifted from: <https://www.cbo.gov/system/files?file=2019-01/54918-Outlook.pdf>)

**Income Security.** Mandatory spending for income security includes outlays for certain refundable tax credits, the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI), unemployment compensation, and certain programs that support children and families. CBO estimates that outlays for income security will rise by 3 percent, from $290 billion in 2018 (excluding the effects of a shift in the timing of $4 billion in SSI payments) to $299 billion, or 1.4 percent of GDP, in 2019. Over the 2020–2029 period, total mandatory outlays for income security are projected to increase by an average of 2 percent per year, which is slower than the rate at which GDP is projected to grow. As a result, by 2029, such outlays are estimated to shrink to 1.2 percent of GDP.

*Earned Income, Child, and Other Tax Credits.* Refundable tax credits reduce a filer’s overall income tax liability;  
if the credit exceeds the filer’s income tax liability, the government pays all or some portion of that excess to the taxpayer.9 Those payments are categorized as outlays.

Projected outlays for refundable tax credits vary significantly over the projection period in CBO’s baseline. The refundable amounts of the credits are projected to jump from $81 billion in 2018 to $93 billion in 2019, mostly because Public Law 115-97, referred to here as the 2017 tax act, expanded the child tax credit. In addition, the 2017 tax act temporarily reduced tax liabilities, thereby boosting outlays for the refundable portion of certain tax credits.

After remaining close to $95 billion a year for much of the coming decade, projected outlays for the tax cred-its fall to $84 billion in 2027. Many provisions in the 2017 tax act expire at the end of 2025 under current law, decreasing the amount of the child tax credit and increasing tax liabilities for most people. (Those out-lays are smaller than they would have been before the 2017 tax act because one provision of the law that lowers outlays—a change in the measure of inflation used to adjust tax parameters, including tax brackets—does not expire under current law.)

*Supplemental Nutrition Assistance Program.* SNAP provides benefits to help people in low-income households purchase food. CBO expects that outlays for the program, which peaked in 2013, after the 2007–2009 recession, will decrease slightly this year—because of a continued decline in participation.

In CBO’s projections, participation rates continue to decrease through 2029 until they return to rates seen just before the recession (about 9 percent of the population, or 32 million people). However, because decreased outlays from lower participation are expected to be offset by increases in the cost of food (which SNAP benefits are linked to), projected outlays for the program remain roughly constant from 2020 through 2024. In 2025, projected outlays for the program begin to rise more rapidly as the decline in participation moderates but the price of food continues to rise. By 2029, CBO projects, outlays for SNAP would total $72 billion under current law.

*Supplemental Security Income.* SSI provides cash benefits to people with low income who are elderly or disabled. CBO estimates that outlays for SSI will rise by about$5 billion in 2019, largely because $4 billion in payments were shifted from 2018 into the previous fiscal year. (Excluding the effects of that timing shift, outlays would rise by $1 billion this year.) Over the 2020–2029 period, outlays for the program are projected to grow by 3 percent per year, on average, mainly as a result of COLAs. By 2029, without changes to current law, projected outlays for SSI reach $70 billion, or $76 billion if the effects of timing shifts are excluded.

*Unemployment Compensation.* The federal-state unemployment compensation program provides benefits to people who lose their jobs through no fault of their own, are actively seeking work, and meet other criteria established by the laws in their states. Outlays for unemployment compensation depend on several factors, such as the unemployment rate, labor force participation, and wages and salaries. CBO expects outlays for the program to decline by 3 percent, or $1 billion, to $28 billion in 2019 as a result of lower unemployment. Projected outlays rise by 4 percent in 2020, however, even as the unemployment rate remains steady at an average of 3.6 percent, because the total number of people unemployed and their average weekly benefit amount are anticipated to increase.

The unemployment rate is projected to climb by 0.5 percentage points in fiscal year 2021 and again in fiscal year 2022 before remaining roughly constant through 2029. In CBO’s projections, outlays for unemployment compensation generally follow the changes in the unemployment rate, increasing by 31 percent and 20 percent in 2021 and 2022, respectively, and then moderating (at an average annual increase of nearly 4 percent per year) through 2029. Projected outlays reach $59 billion in 2029—more than double the amount estimated for the current year.

*Family Support, Foster Care, and Child Nutrition Programs.* Outlays for other programs that support children and families, such as the Temporary Assistance for Needy Families (TANF) program and school lunch programs, grow in CBO’s baseline by about 2 percent per year, on average. Funding is capped for some programs.

1. **US Safety Net Expenditures**

As noted, collectively, these expenditures make up just 7% of the budget. But which of the various programs really cost very much? Each of the 5 most expensive programs cost between $30 and $75 billion in 2015. The other programs, school food programs, WIC, and head start, each cost around $10 billion.

For all of the discussion around welfare programs, they are really a rather small proportion of the budget. Conversations around their expense are outsized relative to reality.

1. **Income Security Spending Over Time**
2. **Mandatory spending: Interest (8%)**

<https://www.cbo.gov/publication/53766>

<https://www.cbo.gov/system/files?file=115th-congress-2017-2018/reports/53651-outlook.pdf>

The Federal Government has amassed a debt today that is the equivalent of 78% of annual GDP. We will talk more later about how it has grown. For now it’s enough to acknowledge its existence. When the government borrows, it promises to pay interest on the money that it has borrowed. This interest is now a significant part of the overall budget – 8%.

Not only is it sizable, but it is likely to increase to around 22% of the budget, or 3% of GDP.

Again, we will talk more about issues of the debt and its accompanying interest payments.

At the same time, I want to introduce the notion that this is an incredibly important part of the budget. Given that it is going to grow to 22% and that we don’t get anything in particular for it, it is a source of concern. At 22% of the budget it puts many other policy priorities at risk. With so much going to interest, there simply isn’t as much left over as there otherwise might be.

1. **Mandatory Spending: Other (7%)**

(directly lifted from: <https://www.cbo.gov/system/files?file=2019-01/54918-Outlook.pdf>)

**Other Mandatory Programs.** The remainder of mandatory spending encompasses outlays for a number of other activities, including agricultural programs, deposit insurance, health care benefits for retirees of the uniformed services and their dependents and surviving spouses, cash transfers to and from Fannie Mae and Freddie Mac, and loans and other programs related to higher education. Together, those outlays totaled $87 billion last year and are estimated to increase to $102 billion in 2019.

That increase has three significant components. First, outlays for higher education are estimated to be $8 billion higher this year, driven by last year’s revisions to the estimated subsidy costs of outstanding loans recorded by the Department of Education.10 In 2018, such revisions reduced outlays by $9 billion; no such revision has

yet been recorded in 2019, and CBO has no basis for determining what revision, if any, might be made this year. Second, CBO estimates that net outlays related to deposit insurance will rise by $8 billion (or about 50 percent) in 2019, primarily because CBO expects that surcharges levied on certain large insured depository institutions that occurred in 2018 (which had the effect of reducing outlays) will not be imposed in 2019. Third, outlays by the Department of Agriculture are estimated to be $7 billion (or 50 percent) more than in 2018, largely because of payments made by the Commodity Credit Corporation to farmers who have lost foreign sales because of U.S. trade disputes with other nations. Over the 2020–2029 period, total outlays for the category of other mandatory programs are projected to increase by about $15 billion, or roughly 17 percent.

**Offsetting Receipts.** Offsetting receipts are funds collected by federal agencies from other govern-  
ment accounts or from the public in businesslike or market-oriented transactions that are recorded as negative budget authority and outlays (that is, as reductions in direct spending). Such receipts include Medicare beneficiaries’ premiums, intragovernmental payments made by federal agencies for their employees’ retirement benefits, royalties and other charges for the production of oil and natural gas on federal lands, proceeds from sales of timber harvested and minerals extracted from federal lands, payments by Fannie Mae and Freddie Mac (for 2018 and 2019 only), and various fees paid by users of public property and services.11

CBO estimates that offsetting receipts will increase by $24 billion this year, rising from $259 billion in 2018 to $283 billion in 2019. Nearly half of that increase stems from larger payments to the Treasury from Fannie Mae and Freddie Mac, which CBO estimates will be $11 billion higher than last year’s payments. (In 2018, Fannie Mae and Freddie Mac reduced the value of

their tax-deferred assets in response to provisions of the 2017 tax act; in addition, the Federal Housing Finance Agency and the Treasury Department directed the entities to increase their capital reserves, which lessened the payments they made to the Treasury.) Offsetting receipts from all other programs are estimated to be about $13 billion larger in 2019 than in 2018, driven by an increase of just over $13 billion in receipts of Medicare beneficiaries’ premiums, slightly offset by a small reduction, on net, in receipts from other programs.

After 2019, offsetting receipts are projected to grow by an average of about 4 percent per year, from $274 billion in 2020 to $436 billion in 2029. Growth in receipts from Medicare premiums, which is projected to average almost 8 percent per year, accounts for nearly 90 percent of that increase.

1. **What is Discretionary Spending?**

Discretionary spending is the part of the budget that can be changed without altering formal policy programs that are in place. The amounts spent on each is set through an annual budgeting process. Mandatory spending is spending that results from a program that is put in place. The only way to change the spending level of a category of mandatory spending is to change the program that is in place – a much more difficult thing that changing categories of discretionary spending.

Important to note is that discretionary spending – categories that are available to try and offset a budget deficit – make up just 30% of the entire budget. 70% is off limits.

Discretionary spending is also split roughly between defense spending and everything else. And each of the every thing else categories is pretty small.

In particular, one category that gets a lot of attention is Foreign Affairs, more often called Foreign Aid. Foreign Aid it turns out amounts to just 1.26% of the annual budget. Much smaller than all of the conversation might suggest. Though it should be pointed out that when many in the general public think of foreign aid as being much larger than it actually is, they are including a chunk of the military budget. Whether or not this is appropriate is another matter. Some of the military’s activities are labeled as foreign aid, but this may well be more marketing than actual aid.

1. **Discretionary Spending: Non-Defense (15%)**

These are categories that are surprisingly small as a share of the budget. EPA is just 0.11%.

|  |  |  |  |
| --- | --- | --- | --- |
| Commerce and housing credit | -8,781 | -0.73% | -0.22% |
| Nondefense: |  | 0.00% | 0.00% |
| Energy | 4,412 | 0.37% | 0.11% |
| Agriculture | 5,800 | 0.48% | 0.15% |
| Medicare | 5,906 | 0.49% | 0.15% |
| General government | 17,403 | 1.45% | 0.44% |
| Total general science, space and technology | 30,289 | 2.52% | 0.76% |
| Natural resources and environment | 36,766 | 3.06% | 0.92% |
| Housing assistance | 45,711 | 3.81% | 1.15% |
| Health | 60,326 | 5.03% | 1.52% |
| Total income security | 67,465 | 5.62% | 1.69% |

1. **Mandatory Spending Dominates Forecasts**

So far, I’ve given you a peak at current spending shares. Forecasts of spending patterns for the next 30 years suggest that the shares are likely to change significantly. These forecasts are based on current policies and current demographics. Demographics play an enormous role in both social security and health care costs. Our aging population leads for forecasts for both categories that are higher than they would otherwise be. It is not increasing program generosity that is leading to their increase it is external forces – aging and for health car the inexorable increase in health care costs.

Another category that is growing, as we have previously mentioned, is interest payments. These are increasing in part because of aging and increasing health care costs, but primarily because of the annual deficits that are currently projected to exist far into the future. Continuing deficits increase the debt, which increases our debt service obligations.

1. **Forecast Spending**

The primary drivers of growing government spending as a share of GDP are aging (social security) and health care costs (Medicaid and Medicare). The debt is also a significant contributor through increased interest payments.

1. **Aging and Health Care Costs**

Despite the growth of various categories displayed in the previous graph, no category of spending is currently slated to grow by more than 1.5 percent of GDP. Combined, Social Security, medical programs, and interest are slated to increase by a combined 3.7% of GDP.

Although not trivial, these are hardly forecasts of programs in crisis.

1. **Another Category of Spending: Tax Expenditures**

Another category of spending is called: Tax Expenditures. These are expenditures that come about because of policies that prevent tax revenue from being collected in the first place.

Now, you could ask – are these really expenditures if they are just letting people keep their money?

They are expenditures in the sense that they are equivalent to a policy that collected the revenues and then sent checks to people that were equal in size to the tax break that they are currently receiving.

From an accounting or economic perspective, there is no difference. From a political perspective, there is an enormous difference.

This goes back to what I mentioned previously. These programs do not involve writing checks to individuals in the same way that many income security programs do. Hence, they are not a visible part of the budget and they are generally off the radar in terms of making cuts to balance the budget.

Being ON the budget and hence highly visible, income security programs receive much more attention. It is important to note, and I’ll discuss this further, that income security programs serve to make the burden of government activities more progressive – the rich pay a higher proportion of their share – while these tax expenditures tend to make the burden less progressive. The tax expenditures are, it turns out, quite regressive, with a disproportionate share going to higher income individuals and households.

You might ask just how big a part of the budget are they?

1. **Tax Breaks are greater than all discretionary spending**

It turns out that in 2015, they were roughly equivalent to all on-budget discretionary spending.

EDIT: Would be really great to have a chart of the magnitude of each.

1. **Tax Expenditures Tend to be Regressive**

As I mentioned previously, these tax expenditures tend to be highly regressive. It turns out that a study of these policies – and they are policies – in 2007 revealed that these policies increased after tax income of the poorest - bottom 20% - households by 7%. Whereas the richest 20% received almost a 13% increase in after tax income.

Not only is this a higher proportionate increase, but the amount of money involved is vastly different as well. These numbers are in terms of percent increase in income and the incomes of the top 20% are much greater than they are for the bottom 20%. In fact, they are about 17 times higher. Accordingly, huge proportion of these expenditures go to the highest income households.

1. **Important Things that People get from Government**

It is worth pausing a minute to just think about some of the important things that the government does for us. You have seen all of the expenditure categories, but here are some of the important services that the government provides.

1. **US Government Revenues**

At this point, we have a reasonable sense of government expenditures, but just where does the government get the $4.4 trillion to spend?

1. **Federal Government Revenues in 2017**

In 2017, the federal government raised $3.3 trillion in revenues. Of this, $1.6 trillion was from individual income taxes – the largest category of receipts. This amount, #3.3 billion is approximately 17% of GDP.

1. **International comparisons of tax receipts**

The figure in this chart provides an indication of how heavily the US taxes its citizenry relative to other developed countries. The figure for the US is greater than the 17% figure on the previous slide because this figure includes all state and local taxes. It is important to include state and local taxes to make a true comparison.

Including state and local taxes makes the share of GDP that is paid in income taxes over 25%.

Although this may seem and feel like a burdensome level of taxation, it is clear form the figure that taxes in the United States are low relative to other developed countries. These are generally considered to be our peer countries.

Tax rates vary across developed countries from a high in Denmark of more than 45% to a low in Mexico of just under 17%. The OECD average is approximately 33%, well above the rate in the United States.

By this metric, the United States is not a high tax country.

1. **Where do Government Revenues Come From?**

There are three categories of receipts that provide the bulk of government revenues. These are:

1. individual income taxes 49%
   1. from wage and salary
   2. from self employment
   3. from capital gains
2. Payroll Taxes 35%
3. Corporate income taxes 7%

Corporate taxes are currently at historically low levels. Going back through 1934, corporate taxes have average 16.6% as a share of government receipts. This ranges from a high of nearly 40% to a low of 6.2%. Corporate tax receipts are currently at their lowest level since 1983 when it was 6.2%.

There are a variety of other sources of revenue, that make up about 8% of all revenues in 2018. These come from:

1. excise taxes
2. federal reserve remittances – largely from holdings of securities
3. customs duties
4. estate taxes
5. **Where do Government Revenues Come From?**
6. **Individual Income Taxes**

The structure of individual income taxes is quite complicated. Not all income is taxed the same. In particular, income derived from labor is taxed separately from income derived from investments.

Our income tax system is progressive when it comes to taxing income derived from labor. This means that higher levels of income are taxed at higher rates. We have a system of marginal tax rates that describes the rate at which the next dollar of income is taxed. More about this in a minute.

It is also the case that not all income is taxed. It is generally only the income that is derived from the provision of labor, from a job, or from self employment, that is subject to the individual income tax.

There are also a variety of deductions. There are some activities and expenditures that are exempt from taxation. For instance, having children gets you a deduction, just as do charitable deductions. There is also a personal exemption that results in the first XX thousand in income being exempt from taxation.

We will discuss all three of these items in turn.

1. **Marginal Tax Rates**

As mentioned, our individual tax system is such that not all income is taxed at the same rate.

I also mentioned that not all income is taxed, but this is a separate issue.

Suppose for a moment that there are no deductions. That all income related to working is subject to the individual income tax. The system of marginal taxes indicates how much each dollar of income is taxed – a hint, it increases as incomes rise.

It is important to note that all households are taxed in the same way. That is to say that whether total income is $20,000 or $10 million dollars, the taxes paid on the first $1,000 of income are the same – again, we are assuming that there are no deductions. The first $1,000 is taxed at a rate of 10%.

This is true of the first $19,400 for a married couple filing jointly. It is all taxed at 10%, regardless of the total income earned.

This is also true of the next nearly $60,000. It is all taxed at a higher rate of 12%, and so on. Now, over $20,000, the table on the slide indicates how incomes over $20,000 are taxed.

It is also worth noting that the top two tax rates only apply to the top 1% of households and the top tax rate is only relevant to households in the top 0.5% of households.

In fact, the bottom 95% of households face a top marginal tax rate of just 24%.

|  |  |
| --- | --- |
|  | Income Threshold  w/o Cap Gains |
| Top 10% | $126,280 |
| Top 5% | $181,350 |
| Top 1% | $422,810 |
| Top .5% | $626,210 |
| Source: Piketty and Saez, 2017 tables | |

1. **Marginal and Average Tax Rates**

The person making $750,000 pays a lot more in taxes than does the person making $20,000 and also pays a higher AVERAGE tax rate. The average tax rate is derived from the different tax brackets that apply to incomes. For the person making $750,000, the top tax bracket comes into play, whereas it does not for the person with just $20,000, so the average incorporates this high rate and is hence, overall higher.

In a progressive tax system, such as ours, people with higher incomes tend to pay a higher share of their incomes in taxes.

Married couples making less than $19,400, pay an average tax rate of 10%, because each dollar is taxed at 10%. Couples making more than that pay an average greater than 10% because all income above that level is taxed at a rate greater than 10%.

By the time income reaches $750,000, the average tax rate is 29.1%. As incomes increase, of course, the average comes closer and closer to the top rate: 37%.

It is important to note that this does not take into account of exemptions and deductions. The average tax rates in this figure are overestimates and do not reflect ACTUAL average tax rates paid.

1. **Top Income Tax Rates – over time**

*References on optimal tax rates: Diamond and Saez put the optimal rate at 73 percent, Romer at over 80 percent*

The highest income tax bracket is currently 37%. It has not always been 37%. Indeed, going back in time, it is clear that 37% is low by historical standards. Following WWII, the top rate has averaged 58.6%, more than 20 percentage points greater than it currently is.

Between 1960 and 1990, the top rate fell from 90% to less than 30%. For most of the period since, it has been in the high 30s.

The actual rate only contains part of the information to understand whether the system has become more or less progressive over the years. It would be more informative to look at the tax rate above $612,000 over time. This data is tough to come by, so we will look at the income level to which the top rate applies over time.

1. **Income level of the top rate**

This graph compares the top rate at which income is taxed with the REAL, inflation adjusted income level at which this rate kicks in. Both have been declining rapidly since about 1960.

The top tax rate only provides so much information about what is happening to the progressivity of taxes. If the rate comes down and the income cutoff also comes down, the progressivity may well be maintained.

However, if the top rate comes down and the cutoff goes up, as has happened in the last couple of years, progressivity likely declines.

1. **Average Tax Rates Across Income Categories**

The top average tax rate and the income threshold have both been declining significantly since 1960. This has implications for the progressivity of the tax structure, or the average rate of taxation at different income levels.

In 1970, the average tax rate for households at the top of the bottom 20% of households (20th percentile) was a little over 20%. At the same time, the average tax rate for the top 5% (95th percentile) was in excess of 50%.

In the mid 1970s, tax rates at lower levels of income declined significantly, which is most pronounced in changes in tax rates at the 20th percentile. The next episode of significant tax reductions occurred in the early and mid 1980s. Between 1980 and 1989, the ratio of the average tax for the 95th percentile to the average tax of the 20th percentile had declined from 2.8 to just 1.7. This represents a very significant reduction in the progressive nature of the tax code.

Although the average rate paid by those at the top (95th percentile) have continued to fall, the ratio of the top to the bottom is now a little over 2: 22.4 vs 11.1. The progressivity of the tax code has not declined, but average tax rates at all levels have.

As will be discussed in a few slides, progressivity in the federal income tax is in part a desirable feature because of the regressive nature of many other taxes: excise taxes, customs duties, and state and local taxes.

Maintaining an overall progressive tax structure is a reasonable source of disagreement, but it seems untenable to argue for a regressive tax system. Declining progressivity of federal income taxes is driving the overall tax system towards regressivity. Whether or not that barrier has been crossed is currently unknown.

1. **Bottom Tax Rates**

As with the top tax rate, it is also true that the bottom tax rate has fallen over time. The declines have not been nearly as significant, starting out at near 20% in the post war era. During the period following WWII, the bottom tax rate has averaged 14%, whereas it is currently 10%.

Understanding whether or not this rate has really fallen depends on the level of income at which the rate increases and the availability if deductions, or essentially, where this rate kicks in.

It is important to recognize that with deductions and exemptions, the level of income at which the lowest rate kicks in, will be vary across households. Households with more children will have more deductions and households that own their own home will also have more income that is exemption from taxation.

More on deductions and exemptions in just a little bit.

1. **Tax Rates Over Time**

Over the post WWII era, there has been a significant compression of tax rates. The difference between the top rate and the bottom rate has fallen from 60-70 percentage points to just 27 percentage points.

1. **Tax Deductions**

The tax rates presented above are approximations and overstate the average tax burden. There are several reasons why this burden is overstated by applying the statutory tax rates. These are:

1. Exemptions and deductions
   1. Standard deduction:
      1. In 2019: $12,200 for indiv, 18,350 for head, 24,400 for married
   2. Personal exemption
      1. Eliminated in the 2017 tax law
2. EITC – Earned Income Tax Credit
3. Tax expenditures

All of the will cause the average tax burden of households at all levels to be lower than the tax schedule suggests. Exemptions and deductions likely make the system more progressive, while the tax expenditures likely make it less progressive.

1. **Why do we have a progressive tax system?**

A progressive tax structure is generally put in place out of a sense of fairness. Taking a dollar from a low income individual or family is more burdensome than taking the same dollar from a high income individual or family.

The other options, of course, are a flat tax structure, which taxes families and individuals at a constant rate, regardless of overall income. Or a regressive tax structure, where average tax rates decline as incomes increase.

Although seldom applied to income, some taxes are in fact regressive. The regressivity comes about because of consumption patterns, as we will see, rather than out of intent.

1. **Capital Gains Taxes (2018)**

Income derived from investments is treated differently from income derived from working, or the provision of labor services.

Sources:

<https://www.taxpolicycenter.org/briefing-book/how-are-capital-gains-taxed>

1. **Capital Gains vs Income Taxes: Maximum Rates**

Historically, capital gains have been taxed at lower rates than ordinary income (individual income tax). Only for a brief period was the maximum rate on capital gains taxes the same as for ordinary income.

Capital gains are generally taxed at a lower rate to encourage investment in the economy. Recent evidence, however, suggests that perhaps the benefits of taxing investment at a lower rate may not be as strong as once believed.

Danny Yagan, “Capital Tax Reform and the Real Economy: The Effects of the 2003 Dividend Tax Cut”, American Economic Review 2015, 105(12): 3531–3563 <http://dx.doi.org/10.1257/aer.20130098>

From the abstract “I estimate that the tax cut caused zero change in corporate investment and employee compensation.”

1. **Revenues: Other (8%)**

Other revenues come from a variety of sources. These are:

1. Excise taxes
   1. EDIT: examples
2. Federal Reserve remittances
   1. EDIT: discuss
3. Miscellaneous fees and fines
   1. EDIT: discuss
4. Customs duties
   1. Customs duties result from international trade. They are taxes on this trade called tariffs. Tariffs yield income to the federal government. Tariffs were a very early source of revenue for the federal government, in place long before income taxes were imposed.
5. **Estate Taxes**
6. **Excise Taxes are Regressive**

Excise taxes don’t amount to an enormous share of income for any income group, but they do amount to a higher share of income for low income households than for high.

This is another reason for a progressive income tax system. Other taxes are regressive by their very nature and the progressive income tax system helps to offset the regressive nature of excise taxes, and import tariffs, and other taxes that are not income, but consumption based.

1. **Revenue Sources: Share of GDP Over Time**

There has been a remarkable consistency of revenue sources over time.

**Income taxes** have fluctuated around 8%, where they currently are. When the economy booms, as it did through the 90s and then again through the oughts, income taxes increase. They also decline during recessions – at the end of the 90s and at the end of the oughts, for instance.

A curious feature of the share of income taxes in total revenues is that there is a bump up in approximately 2027. This is not about the economy, but is a feature of the 2017 tax law. More about this on the next slide.

**Corporate taxes** have also fluctuated, in much the same way that income taxes have. The economy can grow them in times of prosperity and shrink them during a recession.

**Payroll taxes** have a much steadier trajectory. Between the late 1960s and the late 1990s, the baby boom cohort played a significant role in growing payroll taxes. They are less subject to the trends in the economy because of the cap in income subject to taxation. They are generally more susceptible to long term demographic changes.

As the baby boomers aged and grew in to prime earning years, their incomes grew as did payroll taxes. Beginning in 2000, they started to decline as boomers began to retire. This decline accelerated in the late 2000s as the recession hit. The recovery has been slow, but it has brought payroll tax receipts back up to previous levels. They are expected to remain relatively constant at 5.9% for the foreseeable future.

(Directly lifted from: <https://www.cbo.gov/publication/54918>)

**Revenues**. In CBO’s projections, federal revenues rise from 16.5 percent of GDP in 2019 to 17.4 percent in 2025 and then grow more rapidly, reaching 18.3 percent of GDP near the end of the decade. The projected growth in revenues after 2025 is largely attributable to the scheduled expiration of nearly all of the individual income tax provisions of the 2017 tax act.

1. **What’s with the Bump up in Income Taxes?**

As we can see, the increase in income taxes as a share of GDP is largely a result of tax cuts in the 2017 Tax Cuts and Jobs Act that expire in 2025.

1. **Revenue Source by Share of Total Revenues**

The previous graphs indicate revenues by source relative to GDP. It is also worth thinking about revenue sources as a share of total government revenues. This picture has changed quite a bit since the end of WWII.

Of the four categories, only the individual income tax share has remained nearly constant over this period. Its share has consistently been just between 40 and 48% of all government revenues.

By contrast, the corporate income tax has declined significantly over the period. In 1945, it was roughly 18% of all revenues. By 2017, it had fallen to just 8% of federal government revenues.

The payroll tax has grown substantially (from ~5% to nearly 35%, while other taxes (excise, estate, customs duties, etc.) have fallen to about 5%.

1. **Who Pays?**

There is a couple of common refrains in the media that suggest both that those with high incomes pay more than their share of taxes and that those with low incomes don’t pay any taxes.

Both of these observations are arguably true. The top 20% does pay a higher share of income taxes than the share of income that they receive. This is a feature of a progressive tax system that taxes higher incomes at a higher rate. Inevitably, those with higher incomes will pay a higher share of taxes.

On the lower end, because of the deductions, personal and child, that we discussed earlier, it is true that many with very low incomes do not pay any income taxes. It’s worthy of note that they also receive very little of the income in the first place. It is not strictly true that they pay no income taxes, just a very small share.

1. **The Bottom 40% Don’t Pay Income Taxes**

There is indeed a common narrative that complains about the bottom 40% and how they do not pay any income taxes. While this is strictly true, it is not true that the bottom 40% don’t pay ANY taxes.

The bottom 40% do pay taxes, just not necessarily income taxes. In particular, they pay significant amounts of payroll and excise taxes.

This begs the question of how much it matters what taxes the revenues come from?

It remains true that their share of all taxes paid is well below that of higher income groups. However, if we take income taxes out of the equation, it is roughly true that the 2nd quintile will pay a higher proportion of their income in taxes than does the top quintile.

The income tax, then, can be looked at as not only a source of revenue, but as a mechanism for increasing the progressivity of the overall tax system.

1. **The Bottom 40% Does Pay Other Taxes**

While it may be true that the bottom 40% pay very little or no income taxes, it is not true that they pay no taxes whatsoever. From this image, it is clear that they pay significant amounts of payroll taxes, in particular. Again, we have a progressive income tax system in part to offset the regressive aspects of other elements of the tax system: payroll, excise, and other taxes.

The payroll taxes stand out most significantly as being regressive. It is clear that the red part of the bar for the top quintile is smaller than for either of the two, perhaps three quintiles below it.

It is also important to note that those statutorily obligated to pay a tax are not necessarily those who pay it, or at least, not the entirety of the tax. This may be particularly true with regard to the corporate income tax.

It is a widely held view that not only shareholders bear the burden of the corporate income tax, but that the tax is shared by workers and consumers. Although appealing as a “tax on the rich”, a corporate income tax cut may well have positive implications for workers and consumers.

Source: <http://gregmankiw.blogspot.com/2006/05/corporate-tax-rates.html>

1. **Regressivity in Federal Taxes?**

Overall, federal taxes are progressive. However, not all components of the tax are. In particular, payroll taxes have an element of regressivity to them. Those in the top quintile pay less than do those at the bottom and significantly less than those in the middle. This regressivity is a result of the cap on social security taxes.

1. **State and Local Taxes are Regressive**

Although there is an element of regressivity in federal taxes, state and local taxes are unambiguously regressive. The top 1% pays just 7.9% of income in taxes while those in the bottom quintile pay 12.3%.

This is offset by the progressivity in federal taxes and then some, leaving overall taxes with significant progressivity.

1. **Overall, Taxes are (mostly) Progressive**

When combined, the overall taxes are mostly progressive. The progressivity ends at the top 1%, but otherwise the average tax rate increases as incomes increase.

Referring back to our earlier conversation about how the federal income tax is progressive in part to offset regressivity in other parts of the taxes collected at all levels of government and from all sources, it is clear from this graph that it is currently NOT sufficiently progressive to offset regressvity at high levels of income introduced by state and local taxes.

1. **What Does the U.S. Government Budget Look Like?**

To review where we started, with a better understanding of the categories. When all is said and done, the budget looks like this. Here are the major revenue and expenditure categories. There are a couple of things to really think about from this table:

1. How big is government? Expenditures = $4 trillion
2. Expenditures exceed revenues

What we did not discuss earlier is the fact that in 2017, there was a deficit of $666 billion.

1. **How has the size of government changed?**

The best way to think about the size of government over time is as a share of GDP. It seems logical or reasonable that the size of government might well grow with the size of the economy. Although many things do not necessarily grow with GDP, for instance, the size of the military, it may well because the political pressure for it to increase may result in its increase.

The size of government as a share of GDP has remained remarkably stable over the course of the last 50 years. There has been significant variability over that time, but it is currently at about its historical average in terms of both revenues and expenditures. Historically, expenditures have been a little over 20% of GDP and revenues are a little above 17%. Both were very close to those numbers in 2018.

That revenues are trending downward is disconcerting. In late 2017, a massive tax cut was implemented and in early 2018, a massive spending package was passed.

This suggests that the difference between revenues (going down) and expenditures (going up) is going to increase significantly going forward.

This brings us to deficits and the debt……in order to run a deficit, the government must borrow. How does this happen?

1. **How does the U.S. Government borrow money?**

Here’s where the Government is different from individual people and businesses. When the Government borrows money, it doesn’t go to the bank and apply for a loan. It "issues debt."

This means the Government sells Treasury marketable securities such as Treasury bills, notes, bonds and Treasury inflation-protected securities (TIPS) to other federal government agencies, individuals, businesses, state and local governments, as well as people, businesses and governments from other countries.

Savings bonds are sold to individuals, corporations, associations, public and private organizations, fiduciaries, and other entities.

Here is how Treasury securities - such as savings bonds - generally work. People lend money to the Government so it can pay its bills. Over time, the Government gives that money, plus a bit extra, back to those people as payment for using the borrowed money. That extra money is "interest."

This is how the U.S. system of debt works:

1. The U.S. Treasury issues or creates the debt.
2. The Bureau of the Fiscal Service manages the Government’s debt. That means it keeps records, takes care of selling the debt, and handles paying back people who loaned the Government money.
3. The U.S. Treasury and the Bureau of the Fiscal Service do not decide how the money is spent. The legislative branch of Government (Congress) decides how the money is spent.
4. There is a maximum amount of debt the Government can have. This is known as the “debt ceiling.” To raise that amount, the U.S. Treasury must get Congress to approve a new and higher limit.
5. **Debt vs Deficit**

This graph presents both the debt and the deficit from 1960 through 2017. The 2018 data are not yet available.

The bars represent the debt (in trillions), while the red line represents the deficit (in billions).

The debt has crept almost uniformly upward in the past 60 years. Other than a brief period at the end of the 1990s, the red line has been below the horizontal axis, reflecting deficits.

1. **Debt vs Deficit: Share of GDP**

It is worth contemplating both the debt and the deficit as a share of GDP. When this normalization is done, a couple of things stand out:

1. The current deficits are not nearly as large, or as out of step with history as they appear to be in dollar terms.
2. The debt does not necessarily rise uniformly over the period.
3. The debt is at its highest level in history.
4. The Great Recession was the source of an enormous increase in debt.
5. **A Future of Deficits**

(Directly lifted from: https://www.cbo.gov/publication/54918)

**Deficits**. In CBO’s projections, the federal budget deficit is about $900 billion in 2019 and exceeds $1 trillion each year beginning in 2022. Over the coming decade, deficits (after adjustments to exclude shifts in the timing of certain payments) fluctuate between 4.1 percent and 4.7 percent of gross domestic product (GDP), well above the average over the past 50 years. CBO’s projection of the deficit for 2019 is now $75 billion less—and its projection of the cumulative deficit over the 2019–2028 period, $1.2 trillion less—than it was in spring 2018. That reduction in projected deficits results primarily from legislative changes—most notably, a decrease in emergency spending.

1. **And Growing Levels of Debt**

(Directly lifted from: <https://www.cbo.gov/publication/54918>)

**Debt**. Because of persistently large deficits, federal debt held by the public is projected to grow steadily, reaching 93 percent of GDP in 2029 (its highest level since just after World War II) and about 150 percent of GDP in 2049—far higher than it has ever been. Moreover, if lawmakers amended current laws to maintain certain policies now in place, even larger increases in debt would ensue.

1. **Mandatory Spending Dominates Debt Growth**

(Directly lifted from: <https://www.cbo.gov/publication/54918>)

**Spending**. Federal outlays (adjusted to exclude shifts in the timing of certain payments) are projected to climb from 20.8 percent of GDP in 2019 to 23.0 percent in 2029. The aging of the population and the rising cost of health care contribute significantly to the growth in spending for major benefit programs, such as Social Security and Medicare. And rising debt and higher interest rates drive up the federal government’s net interest costs. Growth in outlays is curtailed by statutory limits on discretionary funding in place for the next few years.

1. Summary Slide 1
2. Summary Slide 2
3. Summary Slide: Tax Expenditures
4. Thank you!

1. <https://fred.stlouisfed.org/series/W823RC1A027NBEA> [↑](#footnote-ref-1)
2. <https://voxeu.org/article/who-really-pays-social-security-contributions-and-labour-taxes> [↑](#footnote-ref-2)
3. SSA Trustee Report <https://www.ssa.gov/oact/TRSUM/> and <https://www.cbpp.org/research/social-security/policy-basics-understanding-the-social-security-trust-funds> [↑](#footnote-ref-3)
4. <https://www.ncbi.nlm.nih.gov/books/NBK321304/> - life expectancy differs significantly by age. Is this change them adding to the regressivity of the system? [↑](#footnote-ref-4)
5. <https://www.nasi.org/learn/socialsecurity/balance-options> for the 3 percentage point claim. [↑](#footnote-ref-5)
6. <https://www.cbpp.org/research/health/medicare-is-not-bankrupt> [↑](#footnote-ref-6)