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ECON 201—Montgomery College

LECTURE 08: THE GOVERNMENT BUDGET

I. Context
   a. To prepare us for different parts of the course, it's helpful to do an overview of the government budget. This material will focus on the U.S. federal government budget, but many concepts are applicable to other countries as well as state and local budgets.

II. Types of taxes
   a. There are three types of taxes: progressive, flat, and regressive. These differ based on the tax rate, or the percent of income that's paid in taxes.
   b. *Progressive taxes* have a higher tax rate on people with higher incomes.
      i. Tax rates here are always *marginal* tax rates. If you make more money and you move into a higher tax bracket, you don't pay a higher tax rate on *all* the income you earned—you pay that higher rate on just part of the income that you earned, the part that's over certain thresholds.
      ii. For example, consider the 2021-2022 tax schedule for single filers:

Tax rate	Taxable income bracket	Tax owed
10%	$0 to $9,950	10% of taxable income
12%	$9,951 to $40,525	$995 plus 12% of the amount over $9,950
22%	$40,526 to $86,375	$4,664 plus 22% of the amount over $40,525
24%	$86,376 to $164,925	$14,751 plus 24% of the amount over $86,375
32%	$164,926 to $209,425	$33,603 plus 32% of the amount over $164,925
35%	$209,426 to $523,600	$47,843 plus 35% of the amount over $209,425
37%	$523,601 or more	$157,804.25 plus 37% of the amount over $523,600

      iii. Imagine the government has seven buckets, one for each tax bracket, and labeled 10%, 12%, etc. The first bucket holds $9,950. The second bucket holds $30,575 ($40,525-$9,950), etc. The last bucket holds an infinite amount of cash.
      iv. Imagine each person puts their taxable income (income minus deductions) into the first bucket until it's full, then the second, the third, and so on. Each person is then taxed 10% on whatever money is in the first bucket, 12% on whatever money is in the

second bucket, and so on and all those values are added together. That's the tax bill.

v. Why is it done this way? Incentives! It would be a terrible incentive structure if being in a higher tax bracket resulted in *all* your income was taxed at a higher rate. In that case, a raise could mean *less* money after taxes.

vi. Incentives also explain why high-income people tend to itemize deductions—the savings from a lower taxable income are much larger when the income is taken from a higher tax bracket. "Tax avoidance" is legal ways people avoid paying taxes; during the 1950s, when the top tax rate was over 90%, tax avoidance was very common. Few people actually paid that 90% tax rate.

c. *Flat taxes* have a constant tax rate—everyone pays the same portion of income.

   i. Flat taxes are simpler than progressive taxes and don't come with the asymmetric incentives about deductions, but they obviously shift some tax burden away from the richest to other groups.

d. *Regressive taxes* have a lower tax rate on people with higher incomes.

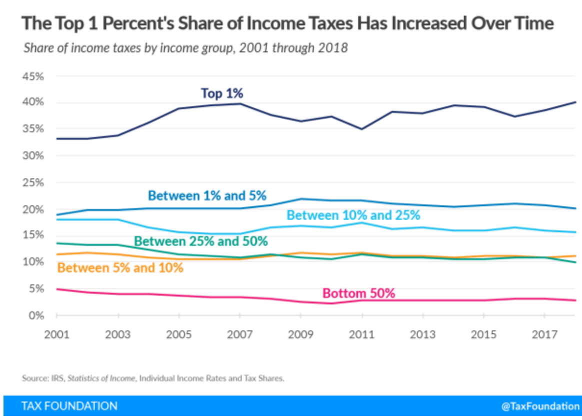
   i. These are rare but they happen whenever there's a fixed amount you have to pay. Fines, while not technically taxes, are regressive. A $300 parking ticket is a much smaller share of a high income compared to a low income. One can link fines to income, as Finland does, and avoid this problem.

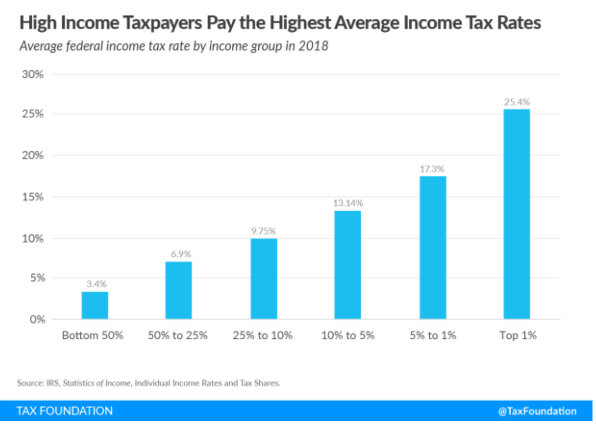
III. Tax revenue

a. The U.S. Federal government gets its revenue from three main sources: income tax, Social Security and Medicare taxes, corporate taxes. Let's look at each of these in detail.

b. *Income tax*—a tax on income, including capital gains and interest, paid directly by the individual. As mentioned, this is a progressive tax.

   i. Despite popular rhetoric to the contrary, the U.S. has a progressive tax system, even after deductions. For example, the vast majority of income tax collected by the IRS comes from high income households.





ii. Think about this chart whenever someone says "the rich should pay their fair share." What does "fair" mean? And share of what? Of their total income or of the total tax revenue?

c. *Social Security and Medicare taxes*—a tax on income, paid directly and indirectly by the individual. These taxes fund Social Security programs, under the Federal Insurance Contribution Act (FICA), as well as Medicare (which is also partly funded out of general funds).

i. Why do I say "directly and indirectly?"

ii. You pay it directly because some of it comes out of your paycheck explicitly (you can see it on your W-2).

iii. Your employer pays the rest—that's the indirect part. If your employer didn't have to pay that tax, you would get more income. How much more depends on the relative sensitivities to price (what economists call "elasticity," something covered in detail in introductory microeconomics).

d. Corporate taxes—a tax companies pay on profits.

i. This is a flat tax—21%—but was progressive (ranging from 15% to 39%) before the Tax Cuts and Jobs Act of 2017.

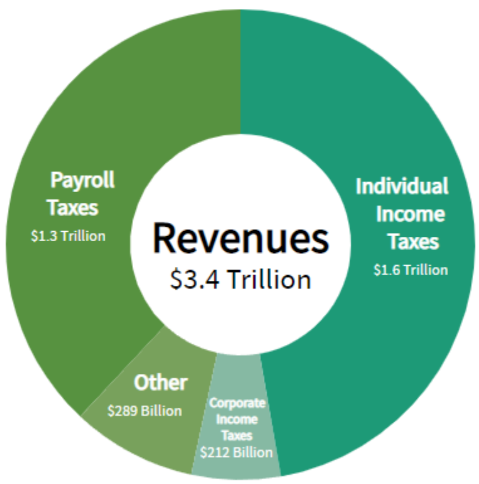
ii. Don't companies pay zero taxes? Yes and no. No, because there are the FICA taxes we discussed (while employees shoulder some of that, they don't shoulder all of it), and state and local taxes, plus there are many firms who do pay loads of corporate taxes (don't extrapolate from the most attention-grabbing headlines!). But companies can avoid some taxes, because (a) some revenue is held offshore and thus not taxed and (b) the government allows for deductions, much like personal income taxes.

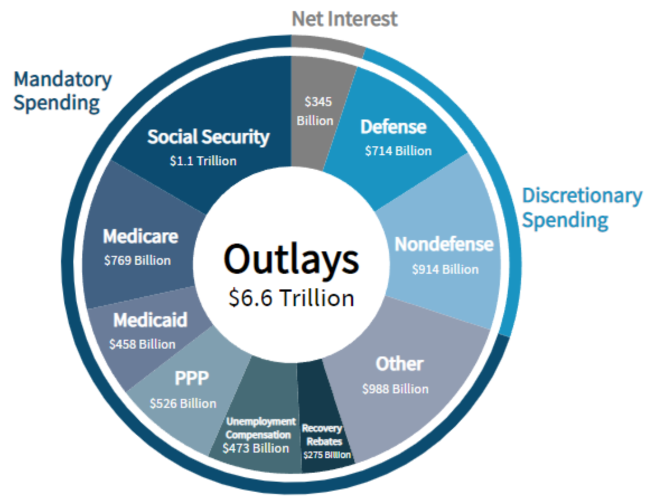
iii. For example, Amazon famously paid zero federal corporate taxes in 2017 and 2018. How is this possible? Because of the tax code. It allows Amazon to deduct investment and employee stock compensation from its taxable profits. The code does this to more strongly incentivize firms to invest their profits and spread ownership power to company employees. That Amazon pays no taxes is the *intended and natural result* of the tax code. If you still don't like this result, recognize it's not due to any sneaky trick Amazon is doing—they are just following the incentives of the tax code. Don't hate the player; hate the game.

IV. Outlays (spending)
  a. There are two major types of government spending: mandatory and discretionary.
  b. Mandatory is spending the government has to spend due to statutory criteria and do not have set limits. These are called entitlements—government benefits with guaranteed access assuming you meet the criteria.
    i. Social Security, Medicare, welfare, food stamps are all examples of entitlements.
  c. Discretionary spending is the spending the government decides on with explicit numbers attached. When Congress decides on a budget, this is what they're deciding on. It includes defense and nondefense spending and there are roughly equal shares of each.
    i. Nondefense spending includes funding for NASA, the National Institutes of Health, veterans' health care, transportation, etc.
  d. Both mandatory and discretionary spending include *transfers*—money the government spends on others but doesn't get anything in return. Medicare, farm subsidies, unemployment insurance are all transfers. Buying fighter jet, building a road, and doing medical research at NIH are not transfers.

V. Of debt and deficits
  a. The government spends more than it takes in from taxes. This is called a deficit (when spending for a year exceed revenue for a year).
  b. The government borrows money to make up the difference (these are government bonds) and this borrowed money makes up the total debt. How much the government owes in total.
  c. One final kind of spending to count: interest paid on the debt accumulated.

VI. On balance
  a. So what kind of numbers are we talking about? Here's the information for 2020, from the Congressional Budget Office.



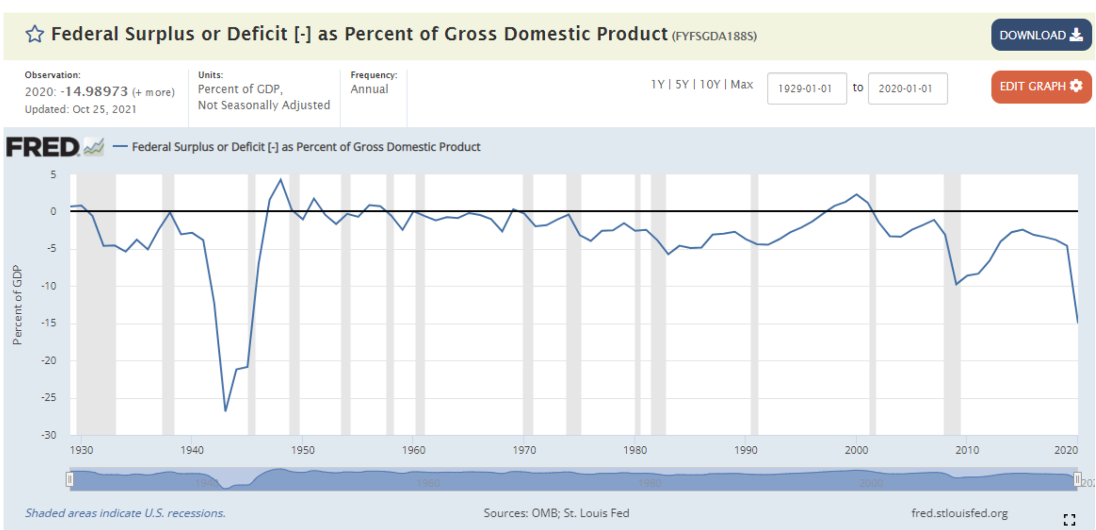


i. In 2020, mandatory spending was about 70% of the budget.

ii. Covid of course made 2020 an unusual year but under ordinary circumstances, mandatory spending is still most of the budget—[61% in 2019.]

b. In 2020, the U.S. federal budget deficit was about $3.2 trillion; almost *half* what the government spent had to be borrowed. How different is this from previous years?

c. [Here's a chart] showing the federal deficit as a percent of GDP (thus avoiding inflation issues). By that measure, the likes of the 2020 deficit hasn't been seen since World War 2.



d. Note how often the government runs a deficit. The government hasn't run a surplus since the late 1990s. Why is that?

i. This is an application of our public choice section. The reality is that people who benefit from this spending vote and the future generations who have to pay the costs are too young to vote or aren't even born yet. And the clock is ticking.

e. None of this, by the way, includes unfunded liabilities: especially future Social Security and Medicare payments (but also pensions and debt). Remember, these are entitlements and, by law, the government must pay them, even if it has to borrow yet more money.

f. One final note to leave on: total debt as a percent of GDP. Note that when the number's falling, it's largely due to GDP increasing, not the debt being paid off. Also, this data only goes back to 1966.