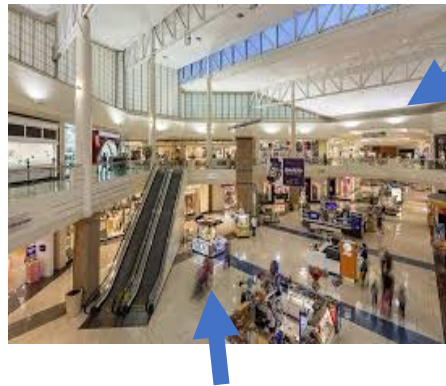


## Chapter 22: Taxes

**Taxes** refer to a percentage of money a person pays the government for public, or free, services. Taxes go toward highways, parks, and the salaries of teachers, police officers, and government workers. If the government cannot raise enough money through taxes, they issue bonds. (Think of how Venice funded their military for the Crusades.) As discussed in Chapter 7, a well-funded government allows us to enjoy high-performing marketplaces:

A shopping mall is a market that is made up of lots of smaller markets

The Bureau of Consumer Protection makes sure that your toasters, cars, and washing machines do NOT start fires, produce hazardous materials or harm you in other ways.



The Food and Drug Administration (FDA) makes sure that edible goods from businesses are safe for consumption.



The Department of Energy makes sure that companies cannot create too much pollution as they create and transport their goods and services.



The Bureau of Consumer Protection, the Department of Energy, the Food and Drug Administration and all other government agencies are funded through ordinary people and businesses paying taxes.

There are many different taxes and the table below explains only a few of them:

Tax	Why we have it
Payroll tax	If you are paid through an employer, both you and the employer pay extra taxes to fund Medicare (free healthcare for the old) and Medicaid (free healthcare for the poor)
Estate taxes	When someone dies and leaves many assets behind, those assets are taxed
Inheritance tax	Not only are the assets of a deceased person taxed but they are taxed again before someone can inherit them.
Business taxes	If you run a business, your business must pay taxes.

This chapter will only provide details about 2 types of taxes: the income tax and the capital gains tax.

## Income Tax

**Income** is any money a person owns, whether it is from a paying job or winning \$25,000 in a game show. **Income tax** is a percentage of a person's owned money that must be paid to the local government, state, and federal government. For example, I pay Philadelphia income tax, Pennsylvania state income tax, and federal income tax.

Income tax is a **progressive tax**, which means the more money earned, the higher the tax rate. While tax rates change if you are married, below is the current (2019) tax brackets. As the diagram illustrates: the greater the income, the higher the tax rate.

Tax rate	Income (assuming not married)
10%	\$0 - \$9,700
12%	\$9,7100 - \$39,475
22%	\$39,476 - \$84,200
24%	\$84,201 - \$160,725
32%	\$160,726 - \$204,100
35%	\$204,101 - \$510,300
37%	\$510,301+

## Capital Gains Tax

**Capital gains tax** is exactly what it sounds like—tax that is paid when an investment makes money and is liquidated. If a humble construction worker bought \$5,000 worth of the World Peace Fund and it grew to \$10,000, the construction worker must pay a capital gains tax when the \$10,000 is moved into his checking account. If an investment does NOT make money, then capital gains tax does NOT have to be paid.

The current capital gains tax is 0%, 15% or 20% depending on the worth of the investment.

Capital gains taxes can be avoided in two ways: (1) contributing to a roth IRA or (2) investing in index funds\*. Roth IRAs and index funds represent excellent investment vehicles for their stable returns, and the avoidance of a capital gains tax only sweetens the pot.

## Progressive versus Flat/Regressive Taxes

While both the income tax and the capital gains tax are progressive, there are taxes that are **flat**, meaning that every American pays the same percentage of taxes no matter their income or circumstance. Two examples of flat taxes are a sales tax and payroll taxes.

If a millionaire buys a \$2 shirt with 10% sales tax, that millionaire must provide the cashier with \$2.20 or else the police will arrive. This is the same for a homeless person. That homeless person must pay \$2.20 as well.

**Medicare** is free healthcare for anyone 65 years of age or older. **Medicaid** (in Pennsylvania) is free healthcare for anyone who is an adult and makes less than \$1,337 a month. Everyone pays 3.07% of their paycheck in payroll taxes to fund these programs, among other government programs. Since everyone pays the same rate of payroll taxes, it is considered a flat tax.

A **regressive tax** is a tax where you pay more the poorer you are. Some consider a flat tax to be a regressive tax. If a millionaire pays \$2.20 for a shirt, the \$0.20 in

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\* At least at Vanguard, an investment bank

sales tax comes out to 0.00002% of his net worth. If a homeless person only has \$5, the \$0.20 in sales tax came out to 4% of his net worth. The existence and reach of a regressive tax is a matter of opinion rather than a set fact.

## How to calculate taxes

The process of calculating taxes is nearly identical to simple interest. The only difference is that the tax rate is subtracted from 1 and an interest rate is added to 1. Why? Interest adds to the starting amount while taxes subtract from the starting amount.

### 3 Steps to Calculating Income after Taxes

- (1) Convert the tax percentage to a decimal by moving the decimal over two places to the left: 50% = .50, 25% = .25, 5% = .05, 54.8% = .548.
- (2) Subtract one from the number. Why? 1.0 = 100%. When paying taxes, you keep (100% or 1.0) of the starting money minus the amount you owe in taxes.
- (3) Multiply by the starting amount of money (only with lending do we call this "principal")

Look at the example question below:

Randall made \$100,000 this year with his new business: *Pork Chops at the Penguin Petting Zoo*. Assume he must pay 24% in income tax. How much does he have left over? Try to calculate this answer below before turning to the next page for the answer.

Steps	Example
Convert the interest percentage to a decimal by moving the decimal over two places to the left	24% as a decimal is ..... <b>0.24</b>
Subtract 1 from that number	<b>0.76</b>
Multiply income by this number.	Income X 0.76 \$100,00 X 0.76
ANSWER	\$76,000

Now, let's try a harder example where Randall must pay both income tax and a capital gains tax:

After Randall crushed it with his pork chop business, he sold his company and moved onto new things. This year, Randall purchased some solar energy ETFs and let them grow in value for a year. During this year, Randall started a new company called *Hot Sauce and Harpoons*. Randall is calculating his taxes. He liquidated his ETFs for \$50,000 and earned \$150,000 from his new company. How much does he have to pay in taxes? Assume a 20% capital gains tax and a 24% income tax.

Income Tax	
Steps	Example
Convert the interest percentage to a decimal by moving the decimal over two places to the left	24% as a decimal is ..... <b>0.24</b>
Subtract 1 from that number	<b>0.76</b>
Multiply income by this number.	Income X 0.76 \$150,00 X 0.76
ANSWER	<b>\$114,000</b>

Capital Gains Tax	
Steps	Example
Convert the interest percentage to a decimal by moving the decimal over two places to the left	20% as a decimal is <b>.20</b>
Subtract 1 from that number	<b>0.80</b>
Multiply income by this number.	Investment's value X .80 \$50,000 X .80
Answer	<b>40,000</b>

**\$114,000 + \$40,000 = \$154,000.** The final answer is \$154,000