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## Reading Essentials and Study Guide

## Chapter 14: Taxes and Government Spending

## Lesson 1 Taxes

## ESSENTIAL QUESTION <br> How does the government collect revenue, and on what is that revenue spent?

## Reading HELPDESK

## Academic Vocabulary

validity justification
evolved developed gradually
concept general idea
controversial disputed

## Content Vocabulary

sin tax a relatively high tax designed to raise revenue while reducing consumption of a socially undesirable product
distribution of income the way in which income is allocated among families, individuals, or other groups
incidence of a tax the final burden of the tax
tax loopholes exceptions or oversights in the tax law allowing taxpayer to avoid taxes
individual income tax tax levied on the wages, salaries, and other income of individuals Internal Revenue Service (IRS) branch of the U.S. Treasury Department that collects taxes sales tax general state or city tax levied on a product at the time of sale
tax return annual report filed with local, state, or federal government detailing income earned and taxes owed
ability-to-pay principle of taxation based on belief that taxes should be paid according to level of income regardless of benefits received
proportional tax tax in which percentage of income paid in tax is the same regardless of the level of income
average tax rate total taxes paid divided by the total taxable income
Medicare a federal health-care program for senior citizens, regardless of income progressive tax tax where percentage of income paid in tax rises as level of income rises marginal tax rate tax rate that applies to the next dollar of taxable income regressive tax tax where percentage of income paid in tax goes down as income rises flat tax proportional tax on individual income after a specified threshold has been reached value-added tax (VAT) tax on the value added at every stage of the production process alternative minimum tax personal income tax rate that applies to cases where taxes would otherwise fall below a certain level
capital gains profits from the sale of an asset held for 12 months or longer
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Lesson 1 Taxes, Continued

## TAKING NOTES: Key Ideas and Details

As you read the section, complete a graphic organizer like the one below by listing the economic impact of taxes.


## Economic Impact of Taxes

Guiding Question How do taxes affect the decisions you make?
Taxes and other government revenues have a big impact on an economy. Taxes affect everything, from how we use our resources to what a country produces. Sometimes taxes on one group affect others because taxes cause higher prices.

## Resource Allocation

Whenever there is a tax on a good or service, it raises the product's price for the consumer. It is not surprising that people react to higher prices in the same way-they buy less. When sales fall, some firms cut their production. Some of the unused resources such as land, capital, and labor go to other industries. So something as simple as a tax can easily affect the allocation of resources in an economy.

## Behavior Adjustment

Sometimes a government uses taxes to encourage or discourage certain activities. For example, homeowners can use interest payments on mortgages to lower their taxes. This encourages home ownership. Interest payments on other debt, such as credit cards, do not lower taxes, which discourages credit card usage.

Another example of how a tax can change behavior is a $\sin \operatorname{tax}$. A sin tax is a relatively high tax on "bad" products such as alcohol or tobacco. A sin tax raises revenue while it reduces how much alcohol or tobacco people consume. But the tax must be consistent across cities and states to be effective. Otherwise, consumers could go somewhere where there is no tax to buy alcohol or tobacco.

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## Income Redistribution

The government collects taxes because it needs to pay for its spending. Taxes always affect the distribution of income. The distribution of income is the way that income is spread out among families, individuals, or other groups. You may think that your income goes down if you pay a lot of taxes, but it may go up if you receive a lot of transfer payments.

In a perfect world, government spending would affect only what it pays for. For example, taxes would simply pay for highways, schools, national defense, and a system of laws and courts. Unfortunately, the world is not perfect, and taxes also affect the incomes that people have. This is one reason why we should try to understand taxes and the impacts they have on our society.

## Productivity and Growth

Taxes can affect productivity and economic growth by changing the incentives to save, invest, and work. For example, some people think that taxes are already too high. They ask why they should work to earn more income only to pay more taxes.

While these arguments have validity, it is hard to tell if taxes are too high. We do not have exact answers to these questions, but we do know that there must be some level of taxes that is too high. This would be when productivity and growth suffer.

## Incidence of a Tax

Finally, we need to know who actually pays the tax. Economists call this the incidence of a tax, or the final burden of the tax. For example, an indirect tax is a tax that can be shifted to others to pay. Indirect taxes include business property taxes or sales tax. Suppose that a city wants to tax a local electric utility to raise revenue. If the utility can raise its rates, consumers will bear some of the burden of the tax when they pay higher utility bills. The utility shifted the incidence of the tax to consumers. A direct tax is different. It cannot be shifted to others. An example of a direct tax is the personal income tax or a driver's license fee.

Supply and demand analysis can help us study the incidence of a tax. Figure 14.1 shows an elastic demand curve in Panel A and an inelastic demand curve in Panel B. Both panels have identical supply curves labeled $\mathbf{S}$. Now, suppose that a government levies a $\$ 1$ tax on a producer. This shifts the supply curve up by the amount of a tax.

In Panel A, the product's market price goes up by 60 cents. This means that the producer must have absorbed the other 40 cents of the tax. But in Panel B, the same tax on that producer results in a 90 cent increase in price, which means that the producer absorbed only 10 cents of the tax. The figure shows that it is much easier for a producer to shift the incidence of tax to a consumer if a consumer's demand curve is relatively inelastic.

## Reading Progress Check

Summarizing How do taxes affect businesses and consumers?

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## Chapter 14: Taxes and Government Spending

Lesson 1 Taxes, Continued

## Characteristics and Types of Taxes

## Guiding Question What makes a tax effective?

The U.S. Constitution says that "The Congress shall have the Power to lay and collect Taxes. Duties, imposts, and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States . . ." in Article I, Section 8. Like it or not, some amount of taxation is needed to pay the nation's bills, so we want to make them as fair and as effective as possible. To do this, taxes must meet three standards: equity, simplicity, and efficiency.

## Criteria for Effective Taxes

People usually set three measures of effective taxes-equity, simplicity, and efficiency. No single tax has all three characteristics, as you will see below.

- Equity, or fairness, means that taxes should be impartial and just. But there are problems when we ask what is fair? For example, you might believe that everyone should pay the same amount, but someone else may think that richer people should pay more than others.

Unfortunately, there is no overruling guide to make taxes completely fair and equal. But it does make sense to avoid tax loopholes. Tax loopholes are exceptions or mistakes in the tax law that allow some people or businesses to avoid paying taxes. Most people are against loopholes because they are not fair.

- Simplicity means that tax laws should be written so that both tax payers and tax collectors can understand them. People seem more willing to accept taxes when they understand them.

The individual income tax is a federal tax on people's earnings, and it is a good example of a complex tax. The entire federal code is thousands of pages long. Even the simplified instructions from the Internal Revenue Service (IRS) are long and difficult to understand. (The IRS is the branch of the U.S. Treasury Department in charge of collecting taxes.) Because it is so long and complicated, many people do not like the individual income tax code. Sales tax is much simpler. Sales tax is a general tax put on most consumer purchases. The merchant calculates the tax, and the consumer pays it at the time of purchase. Some goods such as food and medicine may be exempt, but if there is a tax on a product, then everyone who buys that product pays tax.

- Efficiency means that a tax should be relatively easy to manage and produce revenue.

The individual income tax is efficient when employers collect income taxes. An employer can use a computerized payroll program to easily withhold part of an employee's pay and send it to the IRS. At the end of the year, the company tells each employee how much income tax it sent to the IRS. Then the employee can settle any under- or overpayment with the IRS.

This system is much less efficient when a taxpayer files a tax return each year by April 15. A tax return is an annual report to the IRS about a person's total income, deductions, and taxes withheld. Taxpayers must figure out if they owe any money beyond what they have already paid. This usually takes an enormous amount of time and effort.

Other taxes are much less efficient, such as taxes collected at toll booths on state highways. A state has to spend millions of dollars constructing booths just to collect a dollar or two from every vehicle. On top of the toll cost, consumers lose time and suffer wear and tear on their automobiles as they brake for toll booths along the road.
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## Two Principles of Taxation

Taxes in the United States follow two principles that have evolved over the years. These principles are the benefit principle and the ability-to-pay principle.

- Benefit principle This principle of taxation says that people who benefit from government goods and services should pay according to how much they receive.

Gasoline taxes are a good example of this principle. People who drive more than others pay more gas taxes because the price of gasoline includes the gas tax. They also pay for more of the construction and upkeep of our nation's highways. Taxes on truck tires are similar. Heavy vehicles like trucks put the most wear and tear on roads, so the tire tax links the cost of highway upkeep to the user.

Even though the benefit principle makes a lot of sense, it has two limits. First, those who receive government benefits may also be the least able to pay for them. An example of this is subsidized housing. The government may require people living in subsidized housing to pay a certain amount based on their income. But they cannot pay in proportion to the benefits they receive.

The second limit is that benefits are often hard to measure. After all, people who buy gas are not the only ones who benefit from the roads built with gas taxes. Owners of property, hotels, and restaurants also benefit from the roads.

- Ability-to-pay This principle says that the government should tax people according to their ability to pay, regardless of the benefits they receive. An example is the individual income tax, which requires people with higher incomes to pay more than those with lower incomes.

This principle assumes that people with higher incomes don't suffer as much from paying taxes than people with lower incomes. For example, a family of four with an annual taxable income of $\$ 20,000$ needs every cent to pay for their needs. This family pays $\$ 2,599$ at an average tax rate of about 13 percent. This is a huge amount for them. But a family of four with taxable income of $\$ 100,000$ can afford to pay a higher average tax rate more easily.

## Three Types of Taxes

There are three general types of taxes in the United States today. These are proportional, progressive, and regressive. The government classifies each type of tax according to how the tax burden changes as income changes. You can see this in Figure 14.2. To calculate the tax burden, we divide the amount that someone pays in taxes by his or her taxable income.

- A proportional tax places the same percentage rate of taxation on everyone, regardless of income. If the income tax rate is 20 percent, a person with $\$ 10,000$ in taxable income pays $\$ 2,000$ in taxes. A person with $\$ 100,000$ in taxable income pays the same rate, which equals \$20,000.

If the percentage tax rate is constant, the average tax rate is also constant, regardless of income. The average tax rate is the total tax paid divided by the total taxable income. If a person's income goes up, the percentage of total income paid in taxes does not change.
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Medicare is a federal health-care program for all senior citizens, regardless of income. The tax that funds Medicare is a proportional tax at 1.45 percent of income. Besides Medicare, there are few proportional taxes in the United States.

- A progressive tax is a tax that charges a higher percentage rate of taxes on higher incomes than on lower ones. This tax uses an increasingly higher marginal tax rate, which is the tax rate that applies to the next dollar of taxable income.

For example, suppose the law required everyone to pay a rate of 10 percent on all taxable income up to $\$ 8,900$, and then a rate of 15 percent on all income after that. If someone had taxable income of $\$ 7,000$, or even $\$ 7,499$, this person would continue to pay 10 percent on the very next dollar earned. However, if the same person had taxable income of $\$ 8,901$, the marginal tax rate would be 15 percent on the next, or $\$ 8,901$ st, dollar earned. In either case, the marginal tax is always the tax that is paid on the very next dollar of taxable income.

- A regressive tax is a tax that charges a percentage rate that is higher on low incomes than on high incomes. For example, suppose a person lives in a state with a 4 percent sales tax. Let's say the person has an annual income of $\$ 10,000$ and spends $\$ 5,000$ on food and clothing. On the $\$ 5,000$ spent, the person would pay sales taxes of $\$ 200$ (. 04 times $\$ 5,000$ ). But a person with an annual income of $\$ 100,000$ may spend $\$ 20,000$ on food and clothing. This person would pay state sales taxes of $\$ 800$ (. 04 times $\$ 20,000$ ).

The person with the lower income pays 2 percent of income in sales tax ( $\$ 200$ divided by $\$ 10,000$ ). The person with the higher income pays less, only 0.8 percent ( $\$ 800$ divided by $\$ 100,000$ ). As a result, the 4 percent sales tax is regressive because the person with the higher income pays a smaller percentage of income in sales tax than the person with the lower income. Most states use sales tax as a way to make a lot of state income. The sales tax is the most regressive tax in the country today.

## Reading Progress Check

Synthesizing Is the income tax progressive, proportional or regressive? Explain.

## Alternative Tax Approaches

Guiding Question Why do lawmakers consider alternative taxes?
People try to think of different tax plans because the country needs new tax revenues. People also want to change the tax burden. We hear a lot about two plans: the flat tax and the value-added tax.

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## The Flat Tax

A flat tax is a proportional tax on individual income after a person reaches a certain income level. The concept of a flat tax did not get much attention until Republican candidates talked about it in the 1996 presidential elections.

The main advantage of the flat tax is its simplicity for taxpayers. People would still have to fill out an income tax return every year. But they could skip many steps, such as detailing deductions. A second advantage is that a flat tax would close most tax loopholes by removing most deductions and exemptions. Finally, a flat tax reduces the need for tax professionals and even much of the IRS. Americans would no longer have to spend an estimated 7 billion hours every year completing tax forms.

But a flat tax also has disadvantages. It would remove many of the incentives built into the current tax code. For example, the tax code now allows homeowners to deduct interest payments on home mortgages. This lowers the cost of financing a home, and encourages people to buy homes. The tax code also allows charitable deductions which benefit many churches, museums, and welfare agencies. Other incentives that might be lost include deductions for education, training, and child care.

Another problem is that no one knows exactly what rate is needed to replace the present amount of revenue. In 1996, supporters of the flat tax argued that a 15 percent rate would work. Other estimates by the U.S. Treasury put the tax closer to 23 percent. This would place a bigger burden on low-income earners because their taxes would go up.

Finally, we don't know if a flat tax would encourage economic growth. American economic growth in the 1990s was the longest period of peacetime prosperity in our history, and it happened when progressive tax brackets were higher than they were any time since 1987.

## The Value-Added Tax

Another controversial idea is to follow something like a national sales tax by taxing consumption instead of income. This could be done with a value-added tax (VAT), which is a tax on the value that manufacturers add at each stage of production. The United States does not have a VAT now, although it is widely used in Europe.

To see how the VAT works, look at how the tax impacts the manufacturing and sale of wooden baseball bats in Figure 14.3. First, loggers cut the trees and sell the wood to lumber mills. The mills process the logs for sale to bat manufacturers. The manufacturers then shape the wood into baseball bats. After they paint or varnish the bats, they sell them to a wholesaler. The wholesaler sells them to retailers, who sell them to consumers. As the figure shows, there is a VAT tax at each stage of production.

The VAT has several advantages. First, it is hard to avoid because it is built into the price of the product being taxed.

Second, the tax incidence is spread out, which makes it harder for a single firm to shift the burden of the tax to another group.

Third, the VAT is easy to collect because firms pay their VAT directly to the government.
As a result, even a relatively small VAT can raise a large amount of revenue, especially when it is applied to a broad range of goods and services. Finally, some supporters claim that the VAT would encourage people to save more than they do now. After all, if none of your money is taxed until it is spent, you might think more carefully about purchases. You might decide to spend less and save more.
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The main disadvantage of the VAT is that it seems invisible. In the baseball bat example, consumers may notice that bat prices went from $\$ 10$ to $\$ 11$. But they might think this is because of a shortage of good wood, higher wages, or some other factors. In other words, it is difficult for taxpayers to watch out for higher taxes if they cannot see them.

## Reading Progress Check

Describing Explain how a value-added tax works.

## Tax Reform Highlights

Guiding Question Why is the tax code continually revised?
Tax reform has been in the news a lot lately. Since 1981, there have been more changes in the tax code than at any other time in our nation's history.

## Tax Reform in 1981

When Ronald Reagan became president in 1980, he believed that high taxes were the biggest block to economic growth. In 1981, he signed the Economic Recovery Tax Act, which greatly lowered taxes for individuals and businesses.

Before the Recovery Act, the individual tax code had 16 marginal tax brackets from 14 to 70 percent. The act lowered the marginal rates in all brackets. It put a limit on the highest marginal tax at 50 percent. In comparison, today's tax code has seven marginal brackets from 10 to 39.6 percent. You can see this in Figure 14.4.

## Tax Reform: 1986, 1993

By the mid-1980s, more and more people believed that the tax code favored the rich and powerful. In 1983, there were numerous calls for tax reform when people discovered that more than 3,000 millionaires paid no income taxes.

In 1986, Congress passed broad laws to make it difficult for the very rich to avoid taxes. Congress also made the alternative minimum tax stronger. The alternative minimum tax is the personal income tax rate that applies whenever the amount of taxes paid falls below a certain level. This tax required people to pay a minimum tax of 20 percent, regardless of other conditions or loopholes.

In the 1990s, the impact of 10 years of tax cuts began to show. Government spending was growing faster than its revenue, and the government had to borrow more. The tax reform of 1993 was because the government needed to reduce the deficit. As a result, the government added two top marginal tax brackets of 35 and 39.6 percent.
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## Exploring Essential Question

How does the government collect revenue, and on what is that revenue spent?
Tax laws have been reformed many times and for a variety of reasons. Which of the following are possible goals of tax reform? Explain your answers.

- To address inequities in the tax code
- To reduce surplus revenue
- To boost economic growth


## Tax Reform in 1997

Tax reform happened because of economic and political reasons. First, the government had unexpectedly increased the tax revenues in 1997. This happened because most people paid more taxes than before because of the two new marginal tax brackets from 1993 and because many of the tax loopholes closed.

One of the political reasons was that the Republicans gained a majority in Congress. They wanted to fulfill a promise to their supporters. They reduced the tax on capital gains from 28 to 20 percent. Capital gains are profits from the sale of an asset held for 12 months or longer. The new law also lowered the inheritance taxes.

Some people thought that these tax cuts mostly helped the wealthy, and even the government agreed. The U.S. Treasury Department determined that almost half of the benefits went to the top 20 percent of wage and income earners. The lowest 20 percent received less than 1 percent of the tax reductions. After many changes, the 1997 federal tax law became the most complicated tax reform ever.

## Tax Reform in 2001

By 2001, politicians faced something new. The federal government was actually collecting more taxes than it was spending. Economists predicted that these surpluses would continue to the year 2010.

The government could have used the surpluses to repay some of the money the government had borrowed in the 1980s or to fund its new spending. But President Bush supported a huge $\$ 1.35$ billion tax cut to "give the money back to the people." The "temporary" 10-year tax cut was supposed to expire in 2011. The 2001 tax reform reduced the top four marginal tax brackets of 27, 30, 35, and 39.6 percent to $25,28,33$, and 35 percent by 2006. The law also introduced a 10 percent tax bracket and removed the estate tax on the wealthiest 2 percent of taxpayers by 2010.

## Tax Reform in 2003

The Bush administration and Congress sped up many of the 2001 tax reforms because of slow economic growth in 2002. They reduced the top four marginal tax brackets immediately rather than in 2006.
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For lower income taxpayers, they increased the top end of the 10 percent bracket a little. They also increased the child tax credit from $\$ 600$ to $\$ 1,000$. Finally, they reduced the 20 percent capital gains tax bracket to 15 percent.

The 2003 tax cuts put the federal government back in the same deficit spending situation as in 1993. A series of tax cuts reduced taxes in upper income brackets, and the government was spending more than it collected.

## The "Permanent" Tax Cuts of 2011

In 2002 and 2003, many Republicans in Congress were hoping to keep the tax cuts that had been made during the Bush administration. They talked about making them "permanent" even though the government had record budget deficits.

When Barack Obama became president in 2008, the Democrats also gained control of the Senate and the House of Representatives. This left the future of the Bush tax cuts in the hands of the newly elected Democrats.

Then the Great Recession of 2008-2009 reduced federal government tax revenues. The federal deficit grew quickly as the government increased its spending with the Obama administration stimulus efforts. The resulting record federal deficit for 2009 ended the hopes to keep the Bush tax cuts.

## Tax Reform in 2013

Over the next few years, the economy grew slowly in the shadow of the Great Recession. There were weak tax collections and slow growth of real GDP. Politicians argued over making the Bush tax cuts permanent, but the Democrats controlled the White House and the Senate, so they added two top tax brackets instead. You can see the two top tax brackets in Figure 14.4.

Tax reform is never done. Conservatives focused on the progressive income tax brackets again because they believed that more economic growth needs lower tax rates. No one knows for sure, of course, but higher economic growth of real GDP is something that all politicians support. More changes to the personal income tax code are sure to happen.

## Reading Progress Check

Inferring Why have tax reforms occurred so frequently in recent years?
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