



# ANATOMY OF A TAX

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# Outline

- ▶ Base
- ▶ Rate
- ▶ Liability

# Anatomy of a Tax

$$\text{Tax Base (x) Tax Rate} = \text{Tax Liability}$$

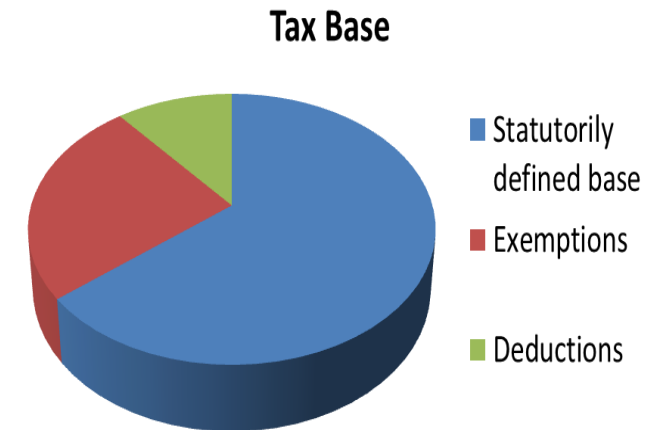
- Each part of the structure can be modified to reach different policy goals.
- The bigger the base, the lower the rate can be.
  - A smaller base requires a higher rate to generate the same amount of revenue.

# Tax Base

$$\text{Tax Base} \times \text{Tax Rate} = \text{Tax Liability}$$

A **tax base** is defined by statutory language, minus any **exemptions** and **deductions**.

- An **exemption** is an exclusion from taxation and is usually limited to a particular group of taxpayers or item. **Exemptions** can be full or partial, temporary or permanent.
- A **deduction** is an amount subtracted from the **tax base**.



# Tax Base

- Full exemptions cost more to the State and are simpler, while partial exemptions are more complex and require more compliance work by taxpayers and to administer.
  - Example: Federally taxable Social Security income is fully exempted from Vermont personal income tax for some taxpayers but only partially, or not at all for other taxpayers, depending on their income.
- Deductions tend to cost less to the State than other modifiers, but are also less valuable to taxpayers.
  - Example: Vermont's personal income tax allows a state-level standard deduction depending on tax filing status to reduce a taxpayer's tax base.

# Tax Rate

$$\text{Tax Base [x] Tax Rate} = \text{Tax Liability}$$

- A **tax rate** can be fixed or tiered.
  - Vermont's 6% sales tax is an example of a fixed rate.
  - Vermont's income taxes are examples of tiered rates.
    - Tiered rates are typically structured as a series of brackets.
    - Most tiered rates are structured to be progressive, which means the liability increases smoothly from bracket to bracket. The taxpayer only pays the assigned rate for each dollar within that bracket.

# Tax Rate

## Hypothetical progressive brackets

Taxable income \$	Rate %
0-\$10,000	5%
\$10,001-100,000	10%
\$100,001-\$1,000,000	15%
\$1,000,001+	20%

Taxpayer with \$10,000 in taxable income would pay \$500 in taxes because all income would be in the first bracket, or  $\$10,000 \times 5\% = \$500$ .

# Tax Rate

## Hypothetical progressive brackets

Taxable income \$	Rate %
0-\$10,000	5%
\$10,001-100,000	10%
\$100,001-\$1,000,000	15%
\$1,000,001+	20%

- Taxpayer with \$20,000 in taxable income would pay \$500 in taxes on the first \$10,000 (first bracket) and another \$1,000 in taxes on the next \$10,000 (second bracket), or \$10,000 x 10%.
- Total taxes owed would be \$1,500 or \$500 (first bracket) plus \$1,000 (second bracket).



# Tax Rate

## Progressive tax rate terminology

- “**Marginal tax rate**”: rate paid on the last dollar in base.
  - Example: taxpayer with \$20,000 of income would have a **marginal tax rate** of 10%, because they pay 10% on the last earned dollar.
- “**Effective tax rate**”: actual rate of tax for entire liability.
  - Example: taxpayer with \$20,000 of income would have an **effective tax rate** of 7.5%, or \$1,500 (liability) divided by \$20,000 (base).

# Tax Liability

Tax Base [x] Tax Rate = **Tax Liability (minus credits)**

- A **credit** can reduce the initial tax liability (multiplying tax base by tax rate).
  - A **credit** is an amount that reduces a taxpayer's tax liability (tax owed). It does not reduce the base or the rate.
  - The final tax liability is the dollar amount that the taxpayer owes after subtracting the dollar amount of the tax credit.

# Tax Liability

## Tax Credits

- Credits can be either refundable or nonrefundable.
  - A **refundable** credit means the taxpayer receives a payment if the credit reduces their liability below zero.
    - Example: \$100 tax liability, but \$150 refundable credit = zero liability + \$50
  - A **nonrefundable** credit can reduce a liability to zero, but no further.
    - Example: \$100 tax liability, but a \$150 nonrefundable credit = zero liability or
    - Some nonrefundable credits allow a taxpayer to “carry forward” the credit so that it may reduce a future year’s tax liability.

# Conclusion

Tax Base (x) Tax Rate = Tax Liability

- Each part of the structure can be modified to reach different policy goals.

Conclusion

**Questions?**