

Personal budgeting and opportunity cost

Individuals face constraints when deciding how to spend limited income. In the example, a student receives \$100 per month to spend on gas (\$2 per gallon) and DVDs (\$10 each). The combinations of these two goods that can be purchased are shown on a budget line, which represents all possible ways of spending the full income.

- On the budget line: if you spend all \$100 on gas and DVDs.
- Below the budget line: if you spend less than \$100, leaving money for savings or other items.
- Above the budget line: if combinations are unattainable with the current income.

Changes in income or prices shift the budget line:

- Higher income $\rightarrow$ shifts outwards (more goods affordable)
- Lower income or higher prices $\rightarrow$ shifts inward (fewer goods affordable).
- Lower price (with same income) $\rightarrow$ shifts outward (more goods affordable).

Opportunity cost is the value of the alternative you give up.

• At current prices, each DVD (\$10) costs the opportunity of 5 gallons of gas (\$2 each).

• Conversely, each gallon of gas costs one-fifth of a DVD.

• Opportunity cost depends on relative prices, not just money prices. Even if prices rise equally (e.g., DVDs \$20 and gas \$4), the trade-off remains the same (1 DVD = 5 gallons of gas).