

# Comparing stock investments

Students learn how calculating capital gains and capital losses can help them evaluate stock investments.

## Learning goals

### Big idea

To measure a stock's past performance, you'll need to calculate that investment's gains and losses.

### Essential questions

- How do you calculate a capital gain or capital loss?
- How can you use percentages to evaluate a stock's past performance?

### Objectives

- Calculate capital gains and capital losses for stock transactions in terms of dollars and percentages
- Understand how these calculations can help evaluate a stock's past performance

### NOTE

Please remember to consider your students' accommodations and special needs to ensure that all students are able to participate in a meaningful way.

### KEY INFORMATION

**Building block:**

 Financial knowledge and decision-making skills

**Grade level:** High school (9-12)

**Age range:** 13-19

**Topic:** Save and invest (Investing)

**School subject:** CTE (Career and technical education), Math, Science

**Teaching strategy:** Cooperative learning, Simulation

**Bloom's Taxonomy level:** Apply

**Activity duration:** 45-60 minutes

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### National Standards for Personal Financial Education, 2021

Investing: 8-1, 8-4, 8-6, 12-3, 12-5, 12-13

These standards are cumulative, and topics are not repeated in each grade level. This activity may include information students need to understand before exploring this topic in more detail.

## What students will do

- Calculate capital gains and capital losses in terms of dollars and percentages for specific stock transactions.
- Determine which stock transaction had the greatest capital gain in terms of dollars.
- Determine which stock transaction had the greatest capital gain in terms of percentages.

## Preparing for this activity

- While it's not necessary, completing the "Investigating investing" activity first may make this one more meaningful.
- Print copies of all student materials, or prepare for students to access them electronically.
- Make sure students have access to calculators.

### What you'll need

#### THIS TEACHER GUIDE

- Comparing stock investments (guide)  
[cfpb\\_building\\_block\\_activities\\_comparing-stock-investments\\_guide.pdf](#)

#### STUDENT MATERIALS

- Comparing stock investments (worksheet)  
[cfpb\\_building\\_block\\_activities\\_comparing-stock-investments\\_worksheet.pdf](#)
- Calculators

## Exploring key financial concepts

Stocks are a type of investment that gives people a share of ownership in a company. According to the U.S. Securities and Exchange Commission, stocks offer investors the greatest potential for growth (capital appreciation) over the long haul. Investors willing to stick with stocks over long periods of time, say 15 years, generally have been rewarded with strong, positive returns. But stock prices move down as well as up. There's no

#### TIP

Because financial products, terms, and laws change, students should be encouraged to always look for the most up-to-date information.

guarantee that the company whose stock you hold will grow and do well, so you can lose the money you invest in stocks.

When you sell a stock for more than you paid for it, that's called a capital gain. When you sell a stock for less than you paid for it, that's a capital loss. You can calculate your gains or losses in terms of dollar amounts, but it also helps to calculate them as percentages. A \$10 stock sold for \$15 will have a lower capital gain in terms of dollars than a \$100 stock sold for \$150 – \$5 versus \$50. But when compared as percentages, both stocks had a capital gain of 50 percent.

Calculating capital gains or losses can help you track your stock's performance and can be an important tool for managing investments.

It's important to know there may be situations when a capital loss can be useful. In some cases, a capital loss can be a tax deduction that lowers an investor's tax bill.

## NOTE

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It's important to emphasize that all investments, even savings products, have some level of risk. These risks include how readily investors can get their money when they need it; how fast their money will grow; whether they can lose some, all, or in some cases, more than their initial investment; and how inflation, taxes, market conditions, and other external factors may affect the value of their investment.

## Teaching this activity

### Whole-class introduction

- Ask students to name some things people invest in.
  - Answers may include stocks, real estate, or classic cars.
- Read the "Exploring key financial concepts" section to students.
- Ask students to share their thoughts on why someone would want to calculate their capital gains or capital losses in terms of dollars and percentages.
  - Be sure students recognize that using only the dollar amount doesn't always give a clear comparison between stocks of different value.
- Be sure students understand key vocabulary:
  - **Annual return:** The profit or loss on an investment over a one-year period.
  - **Capital gain:** The profit that comes from selling an investment for more than you paid for it.
  - **Capital loss:** The loss that comes from selling an investment for less than you paid for it.
  - **Inflation:** Inflation occurs when the prices of goods and services increase over time.

- **Invest:** To commit money to earn a financial return; the strategic purchase or sale of assets to produce income or capital gains.
- **Investment:** Something you spend your money on that you expect will earn a financial return.
- **Risk:** Exposure to danger, harm, or loss.
- **Share:** A unit of ownership, often in a company's stock or in a mutual fund.
- **Stock:** A type of investment that gives people a share of ownership in a company.
- **Taxes:** Required payments of money to governments, which use the funds to provide public goods and services for the benefit of the community as a whole.

## TIP

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Visit CFPB's financial education glossary at [consumerfinance.gov/financial-education-glossary/](https://consumerfinance.gov/financial-education-glossary/).

## Individual or group work

- Tell students they'll practice calculating capital gains and capital losses in dollar amounts and percentages.
- Students can work individually or in pairs on this activity.
- Distribute the "Comparing stock investments" worksheet to the students.
- In Part 1 of the worksheet, students will calculate capital gains or losses in dollar amounts for the four friends in the scenario.
  - They'll determine which friend had the biggest capital gain in terms of dollar amounts.
- In Part 2, they'll use the formula in the worksheet to calculate each friend's capital gain or loss in percentages.
  - Students will determine which friend had the biggest capital gain in terms of percentages.
- Students will then answer the reflection question.

## Wrap-up

- Bring students together and ask for volunteers to share their answers.
- If time allows, ask volunteers to share their answers to the reflection question.

## Suggested next steps

Consider searching for other CFPB activities that address the topic of investing. Suggested activities include "Calculating rate of return" and "Playing an investment game".

## Measuring student learning

Students' answers on their worksheets and during discussion can give you a sense of their understanding.

This answer guide provides possible answers for the "Comparing stock investments" worksheet. **Keep in mind that students' answers may vary.** The important thing is for students to have reasonable justification for their answers.

### Answer guide

#### Part 1. Capital gains and losses in dollar amounts

	Total purchase price	Total sale price	Capital gain or capital loss?	How much?
Taylor bought 10 shares of <i>Computer Maker Inc.</i> stock for \$36.91 each. They sold them for \$69.69 each.	\$369.10	\$696.90	Capital gain	\$327.80
Jon bought five shares of <i>Chemical Producer Co.</i> stock for \$79.81 each. He sold them for \$101.29 each.	\$399.05	\$506.45	Capital gain	\$107.40
Celise bought two shares of <i>Pharmaceuticals Corp.</i> stock for \$188.10 each. She sold them for \$352.00 each.	\$376.20	\$704.00	Capital gain	\$327.80
Abbi bought eight shares of <i>Biotechnology Co.</i> stock for \$45.51 each. She sold them for \$43.33 each.	\$364.08	\$346.64	Capital loss	-\$17.44

**Taylor and Celise had the biggest gain in terms of dollar amount, both with a capital gain of \$327.80.**

## Part 2. Capital gains and losses in percentages

	Calculation	Percentage gain or loss
Taylor	$(696.90 - 369.10) \div 369.10 = .888$ .888 X 100 = 88.8	88.8% gain
Jon	$(506.45 - 399.05) \div 399.05 = .269$ .269 X 100 = 26.9	26.9% gain
Celise	$(704.00 - 376.20) \div 376.20 = .871$ .871 X 100 = 87.1	87.1% gain
Abbi	$(346.64 - 364.08) \div 364.08 = -.047$ -.047 X 100 = 4.7	4.7% loss

**Taylor had the biggest gain in terms of percentage.**

Reflection question

Answers will vary.