What is a Stock?

Suggested Grade

Grades 9-12

Suggested Time

50 minutes

Teacher Background

When you buy stock, you become part owner of a public company—no matter how many shares you own. If the stock price exceeds what you paid for it, your investment increases in value. If the stock price goes lower than what you paid for it, your investment decreases in value. You risk only the money you invest.

Not all companies are public. Private companies are composed of an individual/family or a small group of investors that have private sources for funding growth; their shares are not for sale to the general public. Mars Corp, the snack food giant, is privately held. Google, the search engine company, was privately held until 2005, when it went public, offering its stock for sale.

If a company's product or service is in great demand, demand may outstrip the ability of banks and venture capitalists (who privately supply funding) to provide money for the company's expansion to meet that demand. At that point company leaders may decide to "go public."

Company management goes to investment bankers to negotiate an agreement to underwrite a stock offering known as an IPO (Initial Public Offering). The investment bankers buy all the shares that will be offered to the public at a set price (primary market). In other words, they underwrite the IPO. The investment bankers then sell the stock to the general public (secondary market) in the hopes of making a profit.

In addition to finding underwriters, company management must register its stock with the Securities and Exchange Commission (SEC) before "going public." Generally, companies can offer two types of stock, common and preferred. Common stock entitles the owners (called stockholders or shareholders) to collect dividends, if the company declares them. It also entitles the owners to vote in company elections and decisions. Stockholders who purchase common stock share in most of a company's profits and losses.

Stockholders who purchase preferred stock are usually guaranteed a dividend payment. This payment is made before any payments to common stockholders. If a company fails, preferred stockholders are repaid before common stockholders.

Preferred stockholders do not share in most of a company's profits or losses. Preferred stockholders also do not have any voting rights.

An important difference between common stock and preferred stock is that the price of the preferred stock tends to be more stable, changing little over time, than that of common stock.

Stocks are bought and sold on exchanges. The Stock Market Game program is an electronic platform in which students buy and sell simulated shares on the major U.S. stock exchanges: the New York Stock Exchange (NYSE) and the NASDAQ.

It is important for students to understand the functions and properties, advantages and disadvantages of stock in preparation for learning about risk and reward and prior to making their Stock Market Game investments. Young investors as well as old will always be faced with the question: How much risk do I want to assume when buying stock in a company?

Vocabulary

Common Stock: Shares of a company that do not guarantee a dividend and have more risk and volatility than preferred shares. Common stock holders have the benefit of providing shareholders with the right to vote for the board of directors as well as on issues that come before the board at the annual meeting of shareholders.

Corporation: A business that is owned by stockholders and has right and responsibilities as if it were a person.

Dividend: Part of a company's profits (earnings) that it pays as money to stockholders.

Earnings: The amount of money that remains after subtracting the company's expenses from its revenue.

Investor: Someone who risks funds by purchasing financial products with the hope the investments will increase in value over time.

IPO: Initial Public Offering; the initial sale of stock to the public by investment bankers.

Preferred Stock: Shares of ownership of a company in which the share holder is guaranteed a dividend if one is declared and whose shares are usually not as volatile as common stock. Preferred stock holders do not have voting rights in company elections and decisions.

Private Company: A company that is owned by a person, family, or small group of investors that does not sell shares of stock in the company to the public.

Public Company: A company that is owned by investors who buy shares of stock, partial ownership of the assets of a business, in the corporation usually through one of the stock exchanges.

Risk: The chance of losing all or part of an investment.

Stock: A type of security that signifies ownership in a corporation and represents a claim to a part of the company's profits or losses. Companies usually issue stock to raise money for a variety of reasons, including expanding or modernizing their operations.

Tombstone Ad: An announcement appearing in financial publications such as the *Wall Street Journal* announcing a company's Initial Public Offering (IPO.)

Underwriter: Typically an investment banker, buys an entire new securities issue from the company or government offering it, and resells the issue as individual stocks or bonds to the public.

Volatility: Indicates how much and how quickly the value of an investment, market, or market sector changes.

Performance Objectives

Students will be able to:

- Define and give examples of common stock, investor, risk, public corporation, private company, preferred stock, earnings and dividends.
- Explain why there is risk involved in stock ownership.
- Make decisions as a group on the benefits of investing in stocks verses costs/ and or loss of use of capital.
- Calculate gain and loss from sample stock sales.
- Explain the differences between common stock and preferred stock.
- Explain how a company will "go public" by issuing an IPO.

Materials

- Activity Sheet 1: What is a Stock?
- Activity Sheet 2: Stock Market Calculations
- Activity Sheet 3: A Tale of two Chocolate Companies
- Fact Sheet: 2019 IPO Scorecard

Springboard Activity

Ask your students:

1. Which is the best sneaker on the market? Why?
2. How do you know it is the best?

3. If it is the best, would you want to own all or part of that company?

If your students do not have an opinion on sneakers, change it to another consumer item that they care about: candy, chocolates, phones, cars, etc.

Procedure

Explain that today the class will learn how they can own parts of public companies by purchasing shares of their stock.

Have students speculate why the founders of companies like Nike, Apple, and Sony—that manufacture popular products like Air Jordans, the Ipod, and Playstation —gave up a portion of their ownership to sell shares to the public.

Distribute Activity Sheet 1: What is a Stock?

Ask the students to use the reading to define common stock preferred stock and stock exchange.

Ask them to explain how a stock "goes public." After a discussion of the responses discuss the advantages and risks of purchasing stock.

Novice Level

Explain to the students that they already have one of several important tools needed when purchasing stock: knowledge of products people like.

Have the students, in their Stock Market Game teams; select five products with which they are familiar.

Have them research: Which companies make the products? Which companies are publicly traded and which are privately held? What other products do the companies make?

Each student on the team should choose a company that produces one of these five products and create a profile of that company. Examples of company profiles are available on many financial news and stock price quote sites including Yahoo! Finance and NASDAQ.

Apprentice & Master Levels

The article "2019 IPO Scorecard" reviews the performance of some of the companies that listed on the New York Stock Exchange or the NASDAQ and sold stock to the public.
Ask your students to review the lists.

- Are there any companies you recognize?
- How did they perform (Best or Worst)?

In their SMG teams have students select a company from either list and research:

- What products and/or services does the company provide?
- Why do you think the companies choose to go public?
- What has happened to the stock price since the decision to go public?
- Would you invest in this company?

Grand Master Level

In their SMG teams have the students visit the IPOs in the Past Year list in the Stock Research section of Yahoo! Finance (http://finance.yahoo.com) or the NASDAQ (https://www.nasdaq.com/).

Have the team select two companies from the same industry and research:

- What products and/or services do the companies provide?
- Why do you think the company went public?
- Compare the results since their IPO. In which company would you invest? Why or why not?

Assessment

Mars Candy Company, producer of Milky Way and other candy, is privately owned. Have students write a letter to the president of Mars Candy Company explaining:

- The reasons for and benefits of going public.
- How a company offers its initial stock.

Application

Novice Level

Using *Activity Sheet 2: Stock Market Calculations* have students, complete problems 1 and 2 to practice calculating the profit, or loss from sample stock sales.

Apprentice & Master Level

Have a student from each group play the role of a financial advisor and convince the class that the newly public company their team has researched is worth the class' investment.

Grand Master Level

Mars is a privately held company that individual investors cannot own. However, Mars and Hershey are not the only candy makers out there.

Have your SMG teams compare Hershey (Symbol: HSY) with Tootsie Roll (Symbol: TR).

- What products/services do both offer?
- What are the last trade (closing) prices for both companies?
- Which would your team include in its SMG portfolio? Why?

Enrichment Activities

Have students read Activity Sheet 3: A Tale of Two Companies or share this story:

Steve wants to invest $10,000 in PepsiCo (stock symbol PEP)—the company that makes snack foods, and beverages, including Pepsi Cola, and Fritos. He must decide whether to buy common shares or preferred shares in PepsiCo.

When Steve looked at the stock, its common stock shares were selling for $57.38 per share and preferred shares were selling for $71.60. Common stock shareholders are paid a dividend of $1.80 per share, while preferred stockholders earn $2.30 per share of stock.

Have students give advice (oral or written) to Steve including:

- Which kind of stock do they think Steve should buy?
- Should Steve should take the risk of buying common shares or play it safe and purchase preferred shares? Justify your answer and be sure to explain the difference between common stock and preferred stock.
- How much Steve would earn in dividends if he invested the $10,000 in common shares and held them for at least a year? How much dividend income would he earn if he invested in preferred shares?

Answer Key

Activity Sheet 1

Team Questions: Decide whether each of the following statements is true or false. Earn bonus points by writing a reason or example to prove a true answer or by correcting a false statement.

1. ___*F*__ Stockholders can only make money by collecting dividends.

2. ___*F*__ People who invest in the stock market will automatically make money.

3. __*T*_ You can only buy stock in publicly held companies.

4. __*F*___ Preferred stock means the company is preferred over other companies in a particular industry.

5. ___*T*__ A dividend is a portion of the company's profits paid to its shareholders.

6. ___*F*__ Profits represent ownership of shares of a company.

7. __*F*___ Risk is only associated with the purchase of common stocks.

8. ___*T*__ A person who is 25 should not be willing to take the same amount of risk when investing as someone who is 55.

9. ___*F*__ It is possible for stockholders to lose money in addition to the amount they invested, if a company fails.

10. __*F*___ A tombstone ad is prepared for companies that are facing bankruptcy and financial failure.

11. __*F*___ Investment bankers buy shares of stock on the same type of market that the general public does.

12. ___*F*__ The general public buys new issues of stock on the primary market.

Activity Sheet 3

Explain what you think it means that Mars is a privately held company and Hershey is a publicly held company.

Mars is only owned by the family whereas Hershey is owned by a group of stockholders and is run by a Board of Directors. You can buy stock in Hershey, but you can't buy stock in the Mars Company.

If the Mars Corporation wanted to raise money to expand its business, how could they do it?

The Mars Corporation would have to go to banks or private investors to get funds to raise money to expand the business.

How can the Hershey Corporation raise funds to expand its business?

The Hershey Corporation can sell more shares of stock since it is a publicly traded company.

2019 IPO Scorecard

David Borun

After several years in which investors saw many up-and-coming firms avoid offering shares in public markets, 2019 is shaping up to be one of the biggest years ever for initial public offerings. With billions available in the private equity markets, many companies chose to avoid the regulatory burden and public scrutiny of listing on major exchanges and reman private until their public valuations exceeded $1B each.

The results have been a mixed bag, with some new offerings soaring after the IPO and some languishing below the offering price. Let's take a look at the biggest IPOs so far this year and the status of the other firms we expect to see listed in the equity markets soon.

Even after a recent pullback, **Beyond Meat (BYND)** remains one of the most successful IPOs of 2019. After selling shares at $25 in early May, BYND rallied strongly after announcing deals with several national fast foods chains that would substitute the company's vegetable-based meat products for traditional beef chicken and pork in new versions of popular menu items.

BYND traded as high as $240/share in late July, but has since declined to around $146/share and a market cap just shy of $9B – still a nearly 500% return in just three months.

Two of the most highly anticipated IPOs of 2019 came from ride-sharing services **Uber (UBER)** and **Lyft (LYFT)**. The technology-based businesses have become household names and changed the landscape of personal transportation in the US and abroad. Both had already attracted billions of dollars in private investments from high-profile investors like Japan's Softbank and the Saudi Arabia public investment fund - as well as wealthy individuals like Amazon's Jeff Bezos, Napster's Shawn Fanning and celebrity actor and tech-investor Ashton Kutcher.

Unfortunately, both companies now trade significantly below their IPO prices, Uber by 22% and Lyft by 26%. Uber is still posting eye-popping losses and Lyft – while apparently on a more predictable path to profitability – saw its shares sink recently on the announcement of an accelerated schedule for the expiration of the lockup, after which company insiders and early investors can sell their shares in public markets.

While IPOs have traditionally been a way for growing companies to raise capital to funds operations and/or expansion by selling shares to investors who were willing to take a risk on relatively immature businesses in hopes of securing outsized profits, the lackluster performance of Uber and Lyft demonstrate the pitfalls of investing in companies that have already been extensively funded privately. It appears that most of the "easy money" had already been made prior to the IPOs.

Levi's (LEVI) was the first successful IPO of 2019, going public in March at an initial price of $17/share. The formerly beleaguered yet iconic American apparel manufacturer had been roaring back to life and investors bought the shares all the way up to around $23 – a 35% gain. A disappointing earnings report ate into those gains however, and Levi's now trades right near the offering price.

Could computing- based teleconferencing firm **Zoom Video (ZM)** debuted on the public markets in June at $65/share and caught fire, rising to a high of $107/share before settling back a bit. ZM shares currently trade around $95/share – a 45% gain since the offering.

Debuting the same day as Zoom Video, social media platform **Pinterest (PINS)** sold 75 million shares at $19 each. After an initial rally, PINS shares have bounced around quite a bit, though never below the offering price. A recent rally has the company trading at $32.50/share with a market cap of over $17B.

Formerly owned by private equity investor the Blackstone group, electronic trading platform **Tradeweb (TW)** raised both the offering price and the number of shares sold in the period leading up to the offering and has still performed quite well. The shares which were initially offered at $27 now trade at roughly $45/share – a 67% runup.

More IPOs to Come

Several more tech companies have filed S-1s with the Securities and Exchange Commission, including **The We Company** (also known as "WeWork") which will likely seek a valuation north of $45B, lodging disruptor **Airbnb**, exercise equipment manufacturer **Peloton**, food delivery service **Postmates** and low-cost investment firm **Robinhood**.

Also, it may not happen in 2019, but **Aramco** – the Saudi government owned oil company – intends to go public at some point and figures to be not only the biggest IPO in history, but also to leap straight into the top spot as the world's most valuable enterprise with a potential market cap of close to $2 trillion dollars.

Finally, there's one more very interesting potential IPO in 2019. Cliintel Capital is rumored to be preparing an IPO on a major US exchange for a vertically integrated cannabis production and distribution enterprise that operates in the US. Thus far, the NYSE and NASDAQ have prohibited listings from companies who were involved in the cannabis business in the US – even in states where cannabis is fully legal for adult use – because they were technically in violation of federal law.

All of the current listings are either companies who operate only outside US borders (mostly in Canada) or companies that sell ancillary goods and services in the US, but don't deal directly with cannabis plants other than low-THC hemp.

Through a unique and innovative ownership structure, the Cliintel offering would be the first company that operates in the US to obtain a listing on a major exchange - because the new entity won't actually "touch the plant." Though the size of the offering is likely to be fairly small compared to some of the others we're expecting, it would represent a significant milestone for US investors to be able to gain exposure to a domestic, exchange-listed company with a wide range of unique, branded and popular cannabis products.

Activity Sheet 1: What is a Stock?

Stocks represent a share of ownership in a publicly held company. Private companies do not issue stock. As a stockholder, the investor has a claim on the assets of the company in exchange for money paid for the stock. The stockholder also shares with the original owners in the company's wealth along with the risks. No matter how many shares of stock you own, you are a part owner of the company.

Most people buy stock to make money by: earning dividends (cash paid to investors from the company's profits) or selling the stock at a higher price. Shareholders have limited liability: they can only lose the money they invested in the company should the corporate fail.

Stockholders should make investment decisions based upon their "risk tolerance." A number of issues contribute to an investor's overall risk tolerance, including the investor's age, health, and their overall financial outlook. An investment with some risk but great potential for return might be a good investment for someone who is 28 and financially stable, but **not** for someone who is sixty and plan to retire in five years.

Before you can buy stock or invest in a company, it has to "go public." If a company's product or service is in great demand, that demand may outstrip the ability of banks and venture capitalists (investors who privately provide money) to fund company expansion required to keep pace with the rapidly growing demand for the company's product or service.

When this happens, the company's management may decide to "go public." First, they find an investment banker to underwrite their stock offering, known as an IPO (Initial Public Offering). The investment banker buys all the company's shares of stock at a set price (primary market), thus underwriting the offering. The investment banker then sells the stock to the general public (secondary market) to make a profit.

In addition to preparing a prospectus, underwriters also prepare what is known as a tombstone ad (an announcement) that appears in financial publications such as the Wall Street Journal. The underwriters may also organize meetings with people who buy large amounts of stock for institutions such as pension funds, mutual funds, banks, or insurance funds that they hope will buy shares in the company.

There are two basic forms of stock: common and preferred. Common stock provides its holder with the right to vote on major company issues and on who will serve on the company's board of directors. Common stock is usually more prone to rapid changes in its value than preferred stock. Therefore, there is more risk associated with common stock than preferred.

Holders of preferred stock usually do not have voting rights and the stock usually does not grow or drop in value as much as common stock. It is usually more expensive than common stock. If the company issues dividends, preferred stockholders are always paid first—before holders of common stock—and they are guaranteed a portion of the profits if dividends are declared.

Each type of stock has benefits and drawbacks. Both common and preferred stocks are bought and sold in the same manner. A company may offer both common and preferred stocks. Both common and preferred stock signify ownership in the issuing company. Both common and preferred stock are traded on stock exchanges.

A stock exchange provides a platform (live, electronic, or both) for investors to buy and sell stock with each other. There are three major US stock exchanges: the American Stock Exchange, the NASDAQ Stock Market, and the New York Stock Exchange. Each exchange has its own listing standards, rules, and methods of operation. Companies and underwriters take great care in deciding which exchange to list or trade their stock on.

Team Questions: Decide whether each of the following statements is true or false. Earn bonus points by writing a reason or example to prove a true answer or by correcting a false statement.

1. _____ Stockholders can only make money by collecting dividends.

2. _____ People who invest in the stock market will automatically make money.

3. _____ You can only buy stock in publicly held companies.

4. _____ Preferred stock means the company is preferred over other companies in a particular industry.

5. _____ A dividend is a portion of the company's profits paid to its shareholders.

6. _____ Profits represent ownership of shares of a company.

7. _____ Risk is only associated with the purchase of common stocks.

8. _____ A person who is 25 should not be willing to take the same amount of risk when investing as someone who is 55.

9. _____ It is possible for stockholders to lose money in addition to the amount they invested, if a company fails.

10. _____ A tombstone ad is prepared for companies that are facing bankruptcy and financial failure.

11. _____ Investment bankers buy shares of stock on the same type of market that the general public does.

12. _____ The general public buys new issues of stock on the primary market.

Activity Sheet 2: Stock Market Calculations

Now that you know how to calculate the dividend payment on a stock and you can calculate profits and losses on sales of stock in your portfolio, you should be able to solve the following problems.

1. You purchase 723 shares of Nike at $47.75 per share and one year later you are ready to sell your 723 shares for the current market price of $62.25. Did you earn a profit or lose money from this stock sale? How much money did you make or lose? Explain how you calculated your answer.

2. During the year you own Nike stock you earn a dividend of $ 1.25 per share. You own 720 shares. How much did you earn in dividends? How did you arrive at your answer?

3. Starbucks Coffee was selling for $57.12 per share eighteen months ago and you purchased 250 shares. You sold your shares last week for $68.38 per share. How much profit did you make on the sale? Explain your answer.

4. You own 100 shares in each of three companies. Each company pays a dividend. Gillette pays $1.15 per share in dividends. General Electric pays $.79 per share in dividends. Hershey Foods pays $ .84 per share in dividends. How much do you collect in dividends from all three companies? Explain how you got your answer.

5. Using the information from questions #1 and #3, what was your total profit from the sale of both these companies? Using the information provided in questions #2 and #4, what were your total earnings from dividends?

Activity Sheet 2: Answer Key

Now that you know how to calculate the dividend payment on a stock and you can calculate profits and losses on sales of stock in your portfolio, you should be able to solve the following problems.

1. You purchase 723 shares of Nike at $47.75 per share and one year later you are ready to sell your 723 shares for the current market price of $62.25. Did you earn a profit or lose money from this stock sale? How much money did you make or lose? Explain how you calculated your answer.

The profit from the sale of each share of stock is calculated by subtracting the cost per share which was $47.75 for the sale price of $62.25, equaling $14.50. Then you multiply the profit times the 723 shares which is $10,483.50.

2. During the year you own Nike stock you earn a dividend of $ 1.25 per share. You own 720 shares. How much did you earn in dividends? How did you arrive at your answer?

You need to multiply the dividend of $1.25 per share times the number of shares which is 720. The result is an earning of $900.

3. Starbucks Coffee was selling for $57.12 per share eighteen months ago and you purchased 250 shares. You sold your shares last week for $68.38 per share. How much profit did you make on the sale? Explain your answer.

You again subtract the cost which is $57.12 per share from the selling price which is $68.38 per share. You then take the resulting profit of $11.26 and multiply it times the number of shares which is 250. This means there is $2,815 in profit.

4. You own 100 shares in each of three companies. Each company pays a dividend. Gillette pays $1.15 per share in dividends. General Electric pays $.79 per share in dividends. Hershey Foods pays $ .84 per share in dividends. How much do you collect in dividends from all three companies? Explain how you got your answer.

You multiply each price times 100, which represents the number of shares. You then add up $115 + $79 + $84 which is $278 in dividends.

5. Using the information from questions #1 and #3, what was your total profit from the sale of both these companies? Using the information provided in questions #2 and #4, what were your total earnings from dividends?

You will need to add the sale of stock profit of $10,483.50 and $2815 to get $13,298.50. You will need to add the $900 + $278 to get $1,178 in dividend profit.

Activity Sheet 3: A Tale of Two Chocolate Companies

Mars, Inc.

It all began in 1911 in the kitchen of Frank and Ethel Mars in Tacoma, Washington, when they started off by making and selling a variety of butter-cream candies from their home. In 1920, after visiting a local drugstore with his son Forrest, Frank Mars thought it would be good to produce a version of chocolate, malted milk that could be enjoyed anywhere. The result was the MILKY WAY bar, later known in Europe as the MARS bar. It was an immediate success.

Together the Mars family created their own company that later produced many other, world famous brands like SNICKERS and M&M’s. These candies became the foundation of what was to become a global snack food business. Their business was further strengthened when, working in Europe during the '30s, Forrest Mars thought it would be a good idea to give chocolate a protective candy coat to stop it from melting. The idea heralded the creation of M&M'S candies; the success of these tiny portable snacks was ensured when they were adopted as a staple ration for US forces. Today, M&M'S are famous all over the world.

By the 1970s, the Mars Family Corporation was known for a variety of businesses classified into four distinct areas: snack food, food, pet care, and drinks vending and electronics. As a result, Mars has grown from a kitchen into a multi-billion dollar business. Over the years, Mars has created and marketed a group of products, from M&M'S, TWIX, MARS, and SNICKERS in snack food, to PEDIGREE, WHISKAS, CESAR and SHEBA in pet care, and UNCLE BEN'S in food.

Hershey Foods Corporation

Raised in rural central Pennsylvania, lacking a formal education and nearly bankrupt at age 30, Milton S. Hershey created the company we know today as Hershey Foods.

The company began as a small subsidiary of Milton Hershey's Lancaster Caramel Company. Using chocolate-making equipment purchased at the 1893 Columbian Exposition in Chicago, Milton’s company produced baking chocolate, cocoa and sweet chocolate coatings for its parent company's caramels. After building his own milk-processing plant and working day and night for three years, Milton Hershey became the first American to develop a formula for manufacturing milk chocolate. It was affordable, tasted good and remained fresh for a long time. It was an immediate sensation!

Hershey Foods, unlike the private Mars Company, is publicly traded. This means that members of the public can become part owners in the company by purchasing stock.

Hershey, from its humble beginnings in 1893 to today, has also become a multi-billion dollar business. Milton Hershey not only became one of America's wealthiest individuals, but a successful entrepreneur whose products are known all over the world. He was a visionary builder of the town which bears his name and, a philanthropist whose open-hearted generosity continues to touch the lives over thousands of people.

Through technology, modernization, and new product development, the Hershey Company has grown spectacularly. Today, the Hershey Company, like its counterpart the Mars Company, is a leading snack food company and the largest North American manufacturer of chocolate and non-chocolate confectionery products, as well as other related grocery products.

Based on the reading above answer the following questions:

Explain what you think it means that Mars is a privately held company and Hershey is a publicly held company.

If the Mars Corporation wanted to raise the money to expand its business, how could they do it?

How can the Hershey Corporation raise funds to expand its business?

