What Causes Stock Prices to Change?

Suggested Grade

Grades 9-12

Suggested Time

50 minutes

Teacher Background

A stock's price is an indication of what investors believe a company is worth. The price of a stock not only reflects a company's current value but it also reflects the investor's expectations of future growth and earnings.

This lesson discusses events and situations that influence stock prices. A number of factors contribute to the minute-to-minute changes in a stock's price. For example, market forces such as supply and demand impact share prices. If more people want to buy a stock (demand) than sell it (supply), then the price goes up. Conversely, if more people wanted to sell a stock than buy it, supply exceeds demand and the price falls.

News events working in conjunction with public opinion also play a role in creating rises and dips in stock prices. Reports on internal corporate activity, industry trends, and national/international events (e.g. political, social and scientific news) are interpreted as either "good" or "bad" news by the public, who in turn determine whether a company is a good investment or not.

Fundamental data such as P/E ratios and projected earnings help investors place a value on a stock. Public companies must report their earnings four times a year (once each quarter). "Wall Street" carefully watches earnings results. Financial analysts base their opinions about future value of a company on its earnings projections. If a company's results are better than analysts expected, the stock price rises. If a company's results are worse than expected the stock price falls.

The financial analysts have developed literally hundreds of variables, ratios and indicators to predict stock price changes. The main forms of stock analysis are fundamental, technical and quantitative. Each approach involves following various market indicators to decide whether to buy, sell, or hold.

This lesson will touch on the analysis of external influences on a company's stock price. It is a broader and more basic approach to understanding influences on the market.

Vocabulary:

Earnings: Whatever profits or net income remains after subtracting the company's expenses from its revenue (also called a company's profit).

Market Capitalization: A measure of the value of a company, calculated by multiplying the number of outstanding shares by the current price per share. For example, a company with 100 million shares of stock outstanding and a current market value of $25 a share has a market capitalization of $2.5 billion.

P/E Ratio: A company's closing price divided by its latest annual earnings per share. The Price / Earnings is the relationship between a company's earnings and its share price. It is calculated by dividing the current price per share by the earnings per share.

Performance Objectives

Students will be able to:

- Analyze and interpret market indices, which influence changes of the overall stock market.
- Discuss the various ways stock prices are influenced
- Evaluate the ways investors can be affected by the change in market prices when choosing to buy, sell or hold.
- To interpret charts and graphs to better understand the growth and change in stock prices.

Materials

Fact Sheet 1: "Climate Change Poses Major Risks to Financial Markets, Regulator Warns" by Coral Davenport
Activity Sheet 1: The Ripple Effect
Activity Sheet 2: Influences on the Market

Springboard Activity

Share this statement with your students: "Climate Change Poses Major Risks to Financial Markets, Regulator Warns"

Ask your students:

1. Does this statement affect the portfolio your team is managing in The Stock Market Game? Explain why you feel this way.
2. What changes based on this news, if any, would you recommend your team make to the investments you have chosen? Why?
3. Does this news make you want to investigate industries or companies you hadn't considered investing in before? Why?

Explain that the statement is from the headline of a June 2019 newspaper article. Distribute Fact Sheet 1: "Climate Change Poses Major Risks to Financial Markets, Regulator Warns."

After students have read the article ask them if it has changed how they would respond to the questions you asked earlier:

1. Has the article changed their earlier responses to the questions asked? Why?
2. What changes based on article, if any, would you recommend your team make to the investments you have chosen? Why?
3. What are some of the natural disasters and weather events that have impacted the stock market? How?

Explain that stocks are influenced by many current events and today we will discuss the impact of outside events on an investment portfolio.

Procedure

Explain that in 2006, after producing almost 200,000,000 Walkman, a portable cassette tape player, Sony decided to stop producing the product after more than twenty years of production because of Apple's iPod.

Ask your students:

1. Do they or know anyone who owns a Sony Walkman? An Apple iPod?
2. How do you think this situation has impacted both companies and prices of the shares of stock in their companies? Why?
3. Share prices fluctuate for many different reasons. In addition to technological advances, what are some other reasons that you can think of for demand for a company's stock to rise or fall?

Elicit various reasons including current events and list those reasons on the board.

Ask your students to get into their SMG groups and search a financial news site like Bloomberg, CNN, CNBC, Forbes, or Yahoo! Finance for three articles about events they believe will impact their Stock Market Game portfolios. After reading the articles, the teams should determine which publicly traded stock companies will be affected by this event and how and why they will be affected.

Distribute
Activity Sheet 1: The Ripple Effect and have students' answer the questions using the articles selected. All answers should be placed under the article.

Each group will present their headlines and determination of the events' impact on stock price.

Assessment

Distribute *Activity Sheet 2: Influences on the Market.* Ask SMG teams to complete. Discuss responses

Novice and Apprentice Levels:

Stocks are easily influenced by world events. Select a stock in your portfolio that is most likely to be influenced by the news. Explain how current events may increase or decrease the value of that stock.

Master and Grand Master Levels:

Download a recent quarterly report from the most successful stock in your portfolio. Use the report together with current events to create a presentation that convinces your team members to either sell or purchase more of the stock.

Application

Novice and Apprentice Levels:

SMG Teams review their portfolio holdings, choose one company for follow-up research and track the possible influences on the price changes within the last two weeks. Students write a one-page report or PowerPoint presentation with their assessment of the investment and recommendations as to whether the investment should be changed for any reason.

Master and Grand Master Levels:

Ask students to visit the "Investor Relations" website for one of the companies in their portfolio and download an annual report. Students will use the report to create a slideshow reviewing the reasons the company's shares were up or down over the past year. Students write a prediction as to the possible future of the company. Presentations can be made in class and discussed.

Enrichment Activities

Create a quarterly report on a stock that the SMG group has chosen and present it to the class. They may use a downloaded version of a quarterly report as a model for their own report. Students can find quarterly financial reports in the "Investor Relations" section of company websites. Students can present their reports as slideshow presentations or a written report with charts and graphs. The students should be graded on their creativity in disseminating the information.

Answer Key

Activity Sheet 2

1. The largest toy company in the United States, Toys for Everyone, produces the most famous toys in America. They have stores in nearly every country. Toys for Everyone is truly known to everyone. The company grew fast from its inception fifty years ago. In the fall of 2004, the CEO of Toys for Everyone was accused of embezzling twenty-five million dollars from the company. The company is now under investigation:

A. How will this affect the earnings of the company?

This will cut into the earnings of the company because they will have to pay for legal fees to cover the investigation and representation in court.

B. How will the event affect the future of the company?

Any product which is connected with children is supposed to be seen a "pure and good". This will make parents buy products from another company, which does not have a scandal attached to its name.

C. How do you think the event will affect the price of the company's stock?

Eventually as sales decrease and/or the scandal widens, the price of the stock will go down.

D. If the CEO is convicted of these charges, how do you think this will influence the stock?

This will make bad headlines for the company and the stock price will go down.

E. If the CEO is cleared of the charges, how do you think this will influence the stock?

The stock might still stay low for a while because the company has been associated in peoples' minds with a criminal activity.

F. Presently, while the company is under investigation, how will this affect the company's stock?

I would expect the stock to drop, but not as much as it would if the company CEO was found guilty.

G. Would you invest in this company? Explain.

If I was a risk-taker, I might buy the stock after it dropped, hoping that the CEO would be cleared and that the stock would eventually go back up. This would be more likely if this were a well-established company. However, if I were not a risk-taker, I would sell the stock right away.

2. The Good Health Pharmaceuticals Company has been around for 20 years. The company developed a drug that can cure lung cancer. It is ready to be distributed to the public. Good Health Pharmaceuticals has requested the FDA to endorse and release the drug. The FDA has reviewed the request and denied the release. The Federal Drug Administration has requested more tests be done to verify the safety of the drug. This could take up to ten years!

A. How will this affect the earnings of the company?

The company's earnings will go down to pay for further tests and because they may not be able to sell the drug for ten years.

B. How will it affect the future of the company?

It will certainly hurt the company in the short term but if the drug is finally approved, it could help the company in the long term.

C. How do you think it will affect the price of the company's stock?

The price of the stock will drop and stay low until the drug is approved or another drug is approved which they can sell.

D. How will the denial of the release of the drug affect the company's stock?

The price of the stock will stay low until the company can get another drug approved by the FDA for an illness, which is widespread.

E. If the drug had received FDA approval and been released, how would that event have affected the price of the company's stock?

This will increase the price of the stock as long as the drug becomes popular and not bad side effects turn up over time.

F. Would you invest in this company? Explain.

Because of the high risk and long time for the possible approval of this drug, I would not buy stock in this company.

3. The Good House Builders Company located in Mississippi has been in existence for 14 years. It has had steady work for the past few years. In September of 2005 a horrible hurricane hit the shores of Mississippi and wiped out major towns and cities throughout the entire southern part of the state. Every home and business was destroyed and people were left homeless and jobless. As people now return after the disaster, it is time to rebuild. The only construction company in the area is the Good House Builders.

A. How will the events of Fall 2005 affect the cost of materials that go into producing new homes? Explain why.

The price will go up because it will cost more to bring them into the region with the roads and ports damaged. Also there will be a huge demand and the same or less supply of materials so the prices will be high.

B. How will the event affect the manufacturing of homes?

This will put pressure on the company to manufacture as many homes as quickly as possible. They will need to increase their production by maybe building new factories and supply stores.

C. How will the event affect the consumers' interest in buying homes from this manufacturer?

This will cause a huge demand for new homes and so they will have to hire more workers and buy more equipment.

D. How will this event most likely affect the earnings of the company?

This company will make a lot more money but will have greater expenses for supplies and to get more workers and machinery.

E. How will the event most likely affect the future of the company?

The company will become bigger and more profitable.

F. How do you think the event will affect the price of the company's stock?

The price of the stock will go up as investors see the potential for profits.

G. If the hurricane did not hit, what other ways do you think the stock would have been affected?

Because of population increases in the Couth, more houses are needed so the stock price should still be going up, but not at such a fast rate.

H. Would you invest in this company? Explain.

Yes, they will be making a lot of money and have a monopoly on building for now!

4. Let us say that in the summer of 2010, inflation is at an all time high. In response, the Federal Reserve decides to raise interest rates. At the same time, Ford Motor Company decides to have a major sale on their cars and trucks. Most people buy the cars on credit. The car manufacturer worries that the interest rates may have an effect on their business.

A. How will the event affect the consumers' interest in buying cars and trucks?

The high interest rates will make the cars more expensive to finance so the demand for Ford cars will decrease.

B. How will this affect the earnings of the company?

As sales decrease, so will the earnings of the company.

C. How will it affect the future of the company?

The company may have to come up with a program to finance the purchase of the cars at a lower interest rate or lower the price of the cars. It could also try to sell more vehicles overseas where interest rates or costs are lower. Overall it will be a challenge for the company to increase its earnings. They will have to hope that inflation cools off in the near future.

D. How do you think it will affect the price of the company's stock?

People will tend to sell their shares of Ford if they see sales and profits decline so the price of the stock will go down.

E. How will the interest rate affect the company?

The higher interest rate will not only hurt sales but it will also make it more expensive for the company to borrow money to finance the development of new cars or open new showrooms.

F. Does the company have reason to worry about its business?

Ford will need to worry about their business because it will decline unless they can find a way to keep their expenses down or develop some "creative financing" to attract buyers, or new markets.

G. How do you think the company can avoid any trouble with its business?

The company could stop production on its least profitable models, close some plants, renegotiate the contract with its workers, or provide lower interest loans to consumers to buy their cars. They also could try to sell more vehicles abroad where costs are lower.

H. Would you invest in Ford? Explain.
I would not invest in Ford because they are facing great challenges to increase their profits.

The New York Times

Climate Change Poses Major Risks to Financial Markets, Regulator Warns

By Coral Davenport

June 11, 2019

WASHINGTON — A top financial regulator is opening a public effort to highlight the risk that climate change poses to the nation's financial markets, setting up a clash with a president who has mocked global warming and whose administration has sought to suppress climate science.

Rostin Behnam, who sits on the federal government's five-member Commodity Futures Trading Commission, a powerful agency overseeing major financial markets including grain futures, oil trading and complex derivatives, said in an interview on Monday that the financial risks from climate change were comparable to those posed by the mortgage meltdown that triggered the 2008 financial crisis.

"If climate change causes more volatile frequent and extreme weather events, you're going to have a scenario where these large providers of financial products — mortgages, home insurance, pensions — cannot shift risk away from their portfolios," he said. "It's abundantly clear that climate change poses financial risk to the stability of the financial system."

Mr. Behnam was appointed by President Trump to a seat on the commission that, by law, must be filled by a Democrat. He said that unusual status gave him a measure of political protection that other appointees within the administration might not benefit from.

The commission is designed to operate more independently from the White House than many federal agencies, and legal experts said it would be difficult, though not impossible, for Mr. Behnam's boss to fire or demote him.

"I have a unique bully pulpit," Mr. Behnam said, sitting in his office in downtown Washington.

Experts in government affairs said Mr. Behnam's initiative was unusual. Historically, presidential appointees on panels like the trading commission, the Federal Election Commission or the Securities and Exchange Commission have sometimes quietly pushed back at the presidential policies with which they disagreed, but "rarely do you see a commissioner go rogue and public," James A. Thurber, director of the Center for Congressional and Presidential Studies at American University, said in an email.

On Wednesday, Mr. Behnam plans to detail the formation of a panel of experts at the trading commission assigned to produce a report on how global warming could affect the financial sector, potentially impacting food costs, insurance markets, the mortgage industry and other economic pillars.

Because the report, expected late this year or early next, would be a product of the federal government, it would most likely put Mr. Behnam in direct conflict with the policies of the Trump administration. The report, which Mr. Behnam said he expected would focus in particular on potential harm to the nation's agriculture sector, is likely to emerge at a moment when Mr. Trump will be making the case to farm states, which have already been hurt by his crop tariffs, to re-elect him in 2020.

His interest in the financial effects of climate change, he said, stems from six years working for Debbie Stabenow, a Michigan Democrat, on the Senate Agriculture Committee. He left the agriculture committee in 2017 to join the trading commission. Earlier, he had worked as a financial trader and a corporate lawyer in New York.

A White House spokesman, Judd Deere, declined to comment on Mr. Behnam's plans.

Mr. Behnam is not the first financial regulator to call attention to the market risks posed by climate change.

In 2010, the Securities and Exchange Commission began requiring publicly traded companies to disclose the risks to their bottom lines associated with climate change. Coca-Cola, for instance, has noted in its financial disclosures that water shortages driven by climate change pose a risk to its production chains and profitability, and several insurance companies have put out reports noting the risk to the industry from more frequent extreme weather.

In January, the California electricity provider Pacific Gas and Electric declared bankruptcy while facing billions of dollars in liability costs related to damages from two years of wildfires. Experts said that could be an early indicator of a wider economic toll from climate change, which is making wildfires more frequent and destructive. The same month, the Bank of England said it intended to include climate change in its "doomsday scenario" stress tests, which the bank runs to ensure it has enough capital to withstand major financial shocks.

In April, the financial firm BlackRock, the world's largest manager of financial assets, found that investors in electric utility stocks were quick to sell following extreme weather, setting up a pattern of market volatility.

A coalition of 39 central banks, representing about half the global economy and including the central banks of England, China, Canada Japan and the European Union (but not the United States), has convened a working group to study to study the effects of climate change on financial markets.

"We understand that climate change causes a big systemic risk," said Stefano Giglio, a professor of finance at Yale University who has published studies with the National Bureau of Economic Research on the financial consequences of warming. "But right now, we don't have enough information, and we don't have the right financial products to insure this risk. The CFTC can help give that information and help lay out a global marker for what we need to do."

Mr. Trump has made it a signature priority to roll back climate change policies. He has announced that he intends to withdraw the United States from the Paris accord, an agreement among the nations to jointly address climate change, and he has set in motion legal efforts to weaken or undo major Obama-era regulations on planet-warming pollution from power plants and vehicle tailpipes.

In addition, a top White House official, William Happer, has sought to discredit the findings of the 2018 National Climate Assessment, a report produced by 13 federal agencies, which concluded that the effects of climate change could cause severe harm across the nation's physical and economic landscape. The United States Geological Survey has taken steps to limit the use of scientific work that projects the effects of climate change past 2040 — a move that scientists say downplays the long-term consequences of rising greenhouse emissions.

And this month, the White House tried to stop the State Department from including basic climate science in the congressional testimony of an intelligence analyst. On Tuesday, the House Intelligence Committee asked the State Department for documents related to the White House efforts to exclude the testimony.

Mr. Behnam said he had incidents like these in mind when he decided to commission the financial risk study. "When I see people being shut down and muzzled, it concerns me that we are not taking steps to protect the people of our country with the best facts, the best science, the best numbers," he said.

For more news on climate and the environment, follow @NYTClimate on Twitter.

Coral Davenport covers energy and environmental policy, with a focus on climate change, from the Washington bureau. She joined The Times in 2013 and previously worked at Congressional Quarterly, Politico and National Journal.
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A version of this article appears in print on June 12, 2019, Section B, Page 7 of the New York edition with the headline: Climate Change Poses Risks to Markets, Regulator Warns

Activity Sheet 1: The Ripple Effect

Directions: After reading each of the three news articles selected, answer the following questions and attach the answers to the article.

1. How will this event affect the earnings of the company?

2. How might the event affect the future of the company?

3. How do you think this event will affect the price of the company's stock?

4. How might this event impact other companies in the same industry?

5. How might the event impact the overall economy?

Activity Sheet 2: Influences on the Market

1. The largest toy company in the United States, Toys for Everyone, produces the most famous toys in America. They have stores in nearly every country. Toys for Everyone is truly known to everyone. The company grew fast from its inception fifty years ago. In the fall of 2004, the CEO of Toys for Everyone was accused of embezzling twenty-five million dollars from the company. The company is now under investigation:

A. How will this affect the earnings of the company?

B. How will the event affect the future of the company?

C. How do you think the event will affect the price of the company's stock?

D. If the CEO is convicted of these charges, how do you think this will influence the stock?

E. If the CEO is cleared of the charges, how do you think this will influence the stock?

F. Presently, while the company is under investigation, how will this affect the company's stock?

G. Would you invest in this company? Explain.

2. The Good Health Pharmaceuticals Company has been around for 20 years. The company developed a drug that can cure lung cancer. It is ready to be distributed to the public. Good Health Pharmaceuticals has requested the FDA to endorse and release the drug. The FDA has reviewed the request and denied the release. The Federal Drug Administration has requested more tests be done to verify the safety of the drug. This could take up to ten years!

A. How will this affect the earnings of the company?

B. How will it affect the future of the company?

C. How do you think it will affect the price of the company's stock?

D. How will the denial of the release of the drug affect the company's stock?

E. If the drug had received FDA approval and been released, how would that event have affected the price of the company's stock?

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A. How will the events of Fall 2005 affect the cost of materials that go into producing new homes? Explain why.

B. How will the event affect the manufacturing of homes?

C. How will the event affect the consumers' interest in buying homes from this manufacturer?

D. How will this event most likely affect the earnings of the company?

E. How will the event most likely affect the future of the company?

F. How do you think the event will affect the price of the company's stock?

G. If the hurricane did not hit, what other ways do you think the stock would have been affected?

H. Would you invest in this company? Explain.

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A. How will the event affect the consumers' interest in buying cars and trucks?

B. How will this affect the earnings of the company?

C. How will it affect the future of the company?

D. How do you think it will affect the price of the company's stock?

E. How will the interest rate affect the company?

F. Does the company have reason to worry about its business?

G. How do you think the company can avoid any trouble with its business?

H. Would you invest in Ford? Explain.

