

## TEACHER EDITION Middle School Version

*Page One Economics®* is an informative accessible essay on timely economic issues. The Teacher Edition provides the essay; student questions with answers; and additional lesson ideas for classroom, extra credit, or make-up assignments.

National Common Core State Standards (see page 11)



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### Financing Businesses and Public Projects with Stocks and Bonds

**Barbara Flowers**, Coordinator, Economic Education



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## Financing Businesses and Public Projects with Stocks and Bonds

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### GLOSSARY

**Bond:** A certificate of indebtedness issued by a government or corporation.

**Commercial bank:** A business that accepts deposits and makes loans.

**Entrepreneurs:** Individuals who are willing to take risks in order to develop new products and start new businesses. They recognize opportunities, enjoy working for themselves, and accept challenges.

**Financial asset:** A contract that states the conditions under which one party (a person or institution) promises to pay another party cash at some point in the future.

**Initial public offering (IPO):** A company's first sale of stock to the public.

**Investment banker:** Someone who works with a business to examine how much money should be raised to accomplish the goals of the business and the price and number of shares that should be sold to reach that financial goal.

**Investors:** People or institutions who provide money or other assets to a company in return for possible financial gain in the future.

**Mutual fund:** A company that pools investor's money and then issues shares to its investors.

**Primary market:** The market in which new stocks and bonds, in the form of initial public offerings (IPOs), are issued

**Retained earnings:** A portion of a company's profit used as savings, to pay off debt, or to reinvest in the company.

**Revenue:** Money received; income.

**Secondary market:** The market in which investors buy and sell securities among each other.

**Stock:** A share of ownership in a company. Stocks are often traded publicly.

**Stock exchange:** A market in which stocks are bought and sold.

"There really isn't anything regionally for our city residents or the surrounding community members to utilize," said Mayor Kevin Richey, adding that the Airway Heights City Council showed unanimous support for this project. "We're trying to bring a facility for our community."

—Kevin Richey, Airway Heights, Washington, July 17, 2016<sup>1</sup>

- 1 A new fashion clothing company just got its first big order. The company can fill the order, but the management knows a few more orders of this size would be impossible to fill without much more available cash. A city wants to build a new recreation center for its residents, but it has only half the money to build it. It looks like the clothing company might have to turn down the order. And the city residents might have to take several laps around the block rather than work out at a new rec center. Or, just maybe, there is another way. Maybe they can consider stocks and bonds.
- 2 Stocks and bonds are referred to as **financial assets**. A financial asset is a contract that states the conditions under which one party (a person or institution) promises to pay another party cash at some point in the future. Stocks are valuable because people who have stock in a company are part owners of that company; **stocks** are a share of ownership. Imagine a friend wants to buy a large amount of pens to sell to friends, but he doesn't have all of the money he needs. You and other friends give him the money he needs to buy the pens, and he gives each of you a certificate saying that you own a part of his company and will get a part of the profits from the sale of the pens. Bonds are also valuable because they are proof that a company owes money to the person with the bond. Imagine a friend borrows money from you and gives you a note, maybe an IOU, stating how much he owes you. A bond is like the IOU. Businesses borrow money and give the lender a bond—an IOU. Stocks and bonds can gain or lose value, but people consider them important ways of saving money to use in the future. They also play an important role in growing businesses and funding important public projects.

### 3 How Businesses Can Use Stocks

**Entrepreneurs** are individuals who are willing to take risks in order to develop new products and start new businesses. They recognize opportunities, enjoy working for themselves, and accept challenges. Start-up businesses usually must rely on the entrepreneur's own money or money the entrepreneur can raise from friends, family, or people who believe in the business idea. As new businesses become successful, it is often hard for them to grow because it is difficult to find enough money.

Here are some ways a business might raise money to grow:

- It can save money from its **revenue**—the money it receives or income it earns. This is called **retained earnings**—a portion of a company's profit used as savings, to pay off debt, or to invest in the company.
- It can borrow money from a bank, which can be difficult because a bank may not want to lend money to a new business.
- It can borrow money from the public by issuing bonds.
- It can find private investors. **Investors** are people or institutions who provide money or other assets to a company in return for possible financial gain in the future. Those who invest get partial ownership of the company. Many companies start this way. Some continue to operate this way indefinitely. However, this option can be difficult. The entrepreneur must have some very wealthy friends and family members or be funded by a private investor to make this work.
- It can find public investors. This means allowing strangers to own part of the business, but it also allows the business to raise a lot of money quickly.
- It can borrow money from the public by issuing bonds.

So when a business wants to make a giant leap forward in production, one option is to sell stock, which takes place in the primary market.

### 4 Primary Market

The **primary market** is the market in which new stocks, in the form of initial public offerings (**IPOs**), are issued. This is where new stocks are born. An investment banker will help the company raise money through the IPO. An **investment banker** is someone who works with a business to determine how much money should be raised to accomplish the goals of the business and the price and number of shares that should be sold to reach those goals. An IPO is the company's first sale of stock to the public.<sup>2</sup> If the company wants to raise money in the future, it can offer a secondary public offering in the primary market.

- 5 Large investors, such as commercial banks and mutual funds, will buy the new stock, and the business will get the money. **Commercial banks** are businesses that accept deposits and make loans. A **mutual fund** is a company that pools investors' money and then issues shares to its investors. When these large investors sell the stock, they will do so in the secondary market.

### 6 Secondary Market

Investors who want to buy and sell stock to other buyers and sellers make these trades in the **secondary market**. Of course, you are familiar with Disney products. Walt Disney Company stock is traded on the New York Stock Exchange, which is part of the secondary market. A stock exchange is a market in which stocks are bought and sold. Many people think that when they buy Walt Disney Company stock, the company gets the money to then spend on making movies or running its theme parks. This is not the case. Disney gets only the money from its IPO. After that, the owners of the Walt Disney Company stock sell the stock in the secondary market. The money paid by the buyer for the stock goes to the person selling the stock—not the Walt Disney Company.

### 7 Bonds

Businesses can also use bonds to raise money. A bond is like an IOU. When a business issues a bond, it is simply asking someone to lend the business money. The buyer of a bond is called a bondholder.

The business will use the money to grow, and the bond will explain how and when the bondholder will be repaid.

## 8 Public Projects

Bonds are also used to raise money to build public projects, such as libraries, stadiums, or bridges. Let's say that a city wants a new recreation center with a pool, tennis courts, and fitness room. The city could fund the center using money it has saved, it could increase taxes and wait a while, or it could issue a bond. The city would receive the money it needs to build the rec center and it would repay the money to the bondholders, with interest, over a period of time.

## 9 A Bond Example

Many cities, school districts, and fire districts issue bonds. Bonds can be issued for a specific reason. For a school district, the money raised from the sale of bonds may be used to build a new school building. For a fire district, the bond money may be used to buy a new fire engine. After the bond is issued in the primary market, it can be traded in a secondary market. Using the example of the rec center, the city issues a bond and gets the money for the project. After it gets that money, bondholders may hold the bonds or sell the bonds in the secondary bond market. But this time the city gets no additional money. The bonds just get traded between individuals, with the bond buyer paying for the bond and the bond seller getting the money for the bond.

## 10 Write a Conclusion

Write a conclusion based on your reading of the essay.

## Notes

<sup>1</sup> Glover, Jonathan. "Liberty Lake, Airway Heights Asking for Bonds to Build Recreation Centers." *Spokesman-Review* (Spokane, WA), July 17, 2016; <http://www.spokesman.com/stories/2016/jul/17/two-spokane-cities-asking-for-25-million-for-swimm/>.

<sup>2</sup> "IPO Basics: Getting In on an IPO." Investopedia; <http://www.investopedia.com/university/ipo/ipo1.asp>.

Name \_\_\_\_\_ Period \_\_\_\_\_

Federal Reserve Bank of St. Louis *Page One Economics*®:  
**“Financing Businesses and Public Projects with Stocks and Bonds”**

After reading the article, complete the following:

1. Match the summary with the correct paragraph number.

Paragraph Number	Summary
	Bonds can be issued for specific projects. A bondholder can keep the bond or can sell it in the secondary market.
	Bonds are loans to businesses.
	People can use stocks and bonds to save money for the future, and stocks and bonds can be used to help businesses grow or fund public projects.
	Businesses can grow using retained earnings, borrowing from a bank, seeking private investors, and/or selling stock publicly.
	After an IPO is issued, the stock is traded in stock exchanges in the secondary market
	IPOs are the first sale of stock to the public. This sale takes place in the primary market.
	Bonds can also be loans to cities to build public projects.
	New stock issues are purchased by large investors.
	Sometimes businesses do not have enough money to grow and cities do not have enough money for public projects.

2. Write a summary of your conclusion.

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3. Create a Q&A

Choose five summaries and create five questions to quiz a partner. Be sure to include the answers.

Questions	Answers
Example: Can stocks be used to get money for public projects?	No. Stocks are only used for businesses.

**4. Primary Market or Secondary Market?****Indicate where the following transactions would take place. Circle the correct market.**

- ID Protectors, Inc. wants to expand into other cities but will need a large amount of cash. Management is working with an investment banker to issue stock.

Primary market                      Secondary market

- Fire Recovery Systems recently issued an IPO. Its stock is trading on the NASDAQ.

Primary market                      Secondary market

- The City of Juniper is planning a new library. It will ask its voters to pass a bond issue. If successful, the city will issue new bonds.

Primary market                      Secondary market

- Mr. Peale just purchased 100 shares of Simon Manufacturing through a stock exchange.

Primary market                      Secondary market

- DevelAPPers, Inc. wants to double its staff by hiring 100 app developers. It is working with an investment banker to issue bonds.

Primary market                      Secondary market

- Anthony Smith wants to sell his AJACKS Corp. bond.

Primary market                      Secondary market

## Teacher's Guide

Federal Reserve Bank of St. Louis *Page One Economics*®:

### “Financing Businesses and Public Projects with Stocks and Bonds”

After reading the article, complete the following:

1. Match the summary with the correct paragraph number.

Paragraph Number	Summary
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7	Bonds are loans to businesses.
2	People can use stocks and bonds to save money for the future, and stocks and bonds can be used to help businesses grow or fund public projects.
3	Businesses can grow using retained earnings, borrowing from a bank, seeking private investors, and/or selling stock publicly.
6	After an IPO is issued, the stock is traded in stock exchanges in the secondary market
4	IPOs are the first sale of stock to the public. This sale takes place in the primary market.
8	Bonds can also be loans to cities to build public projects.
5	New stock issues are purchased by large investors.
1	Sometimes businesses do not have enough money to grow and cities do not have enough money for public projects.

2. Write a summary of your conclusion.

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Primary market

Secondary market

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- Anthony Smith wants to sell his AJACKS Corp. bond.

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Secondary market

## For Further Discussion

Econ Lowdown® of the Federal Reserve Bank of St. Louis provides numerous economic education resources for teachers to use with their students. These include lesson plans, videos, online modules, interactive whiteboard lessons, and podcasts. These free resources are available at <https://www.stlouisfed.org/education>.

The resources listed below from Econ Lowdown can be integrated with the content contained in this article.

**Teachers:** To register your students for one or more of our online courses, on the Econ Lowdown website (linked above), click the “TEACHERS” button to create or access your account and visit the Instructor Management Panel.

### Capital Markets Online Course for Teachers and Students

Capital markets include the stock and bond markets, and this is where businesses turn for funding when they need investors. In this course, students will learn how capital markets keep the economy moving and how they provide opportunities for businesses, entrepreneurs, and investors to achieve their goals.

<https://www.stlouisfed.org/education/capital-markets-online-course-for-teachers-and-students>

### Understanding Capital Markets

This video defines stocks and bonds and provides an explanation of what capital markets are and how they work.

<https://www.stlouisfed.org/education/tools-for-enhancing-the-stock-market-game-invest-it-forward/episode-1-understanding-capital-markets>

### Wealth Creation for All

This video suggests investing in capital markets to meet financial goals. It explains the concept of risk versus return, what capital markets are, and how we all can participate in them.

<https://www.stlouisfed.org/education/tools-for-enhancing-the-stock-market-game-invest-it-forward/episode-2-wealth-creation-for-all>

### Get Into Stocks—No-Frills Money Skills Video Series, Episode 3

Through the story of a local ice-cream cart owner trying to expand her business, students learn about the process by which companies become publicly owned and traded by issuing stock. Students learn key terms, such as capital gains and dividends, and discover how the prices of stocks are affected by how successful a company is in its respective industry.

<https://www.stlouisfed.org/education/no-frills-money-skills-video-series/episode-3-get-into-stocks>

### Understanding Bonds—No-Frills Money Skills Video Series, Episode 4

The video host employs high-tech tools to foil Miss Information in her attempts to misguide investors. The video provides viewers with information about government bonds, corporate bonds, coupon and non-coupon bonds, and the potential risk and return of investments.

<https://www.stlouisfed.org/education/no-frills-money-skills-video-series/episode-4-understanding-bonds>

### Stock Market Strategies: Are You an Active or Passive Investor? (Page One Economics Classroom Edition)

Stock market mutual funds offer investors diversified stock market portfolios, but there are several types. Actively managed funds attempt to “beat” the market by using research, forecasts, and judgment to pick stocks with the best growth prospects. Passively managed funds attempt to replicate the market by buying a representative sample of the stocks on a specific stock market index. Which to choose? This issue of *Page One Economics* explains the efficient market hypothesis and how it might influence your investment decisions.

<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/stock-market-strategies-are-you-an-active-or-passive-investor>

## Common Core State Standards

### Grades 6-12 Literacy in History/Social Studies, Science, and Technical Subjects

- **Key Ideas and Details**

RH.6-8.1: Cite specific textual evidence to support analysis of primary and secondary sources.

RH.6-8.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

- **Craft and Structure**

RH.6-8.4: Determine the meaning of words and phrases as they are used in the text, including vocabulary specific to domains related to history/social studies.

## National Standards for Financial Literacy

### Content Standard 5: Financial Investing

Financial investment is the purchase of financial assets to increase income or wealth in the future. Investors must choose among investments that have different risks and expected rates of return. Investments with higher expected rates of return tend to have greater risk. Diversification of investment among a number of choices can lower investment risk.

- **Benchmark: Grade 8**

Financial assets include a wide variety of financial instruments including bank deposits, stocks, bonds, and mutual funds. Real estate and commodities are also often viewed as financial assets.