

## FINANCIAL LITERACY GUIDE *The Madoff Affair*

[www.pbs.org/frontline/madoff](http://www.pbs.org/frontline/madoff)

### ABOUT THE FILM

*The Madoff Affair* unravels the story behind the world's first truly global Ponzi scheme. Who saw the warning signs? Why were they ignored for so long? Billions of dollars were channeled to Madoff's investment firm, and his feeders became fabulously wealthy. The competition wondered how the man could produce such steady returns in good times and bad. There were allegations that Madoff was "front-running" or operating a Ponzi scheme, which the Securities and Exchange Commission (SEC) investigated several times over the last two decades. But Madoff remained untouched until Dec. 11, 2008, when he admitted it was all "one big lie." Through exclusive television interviews with those closest to Madoff's operation, veteran FRONTLINE correspondent Martin Smith unearths the details of a deception that lasted longer, reached wider and cut deeper than any other business scandal in history.

### WATCHING THE FILM

Teachers can either assign the film for viewing as homework or show the film in class. Suggested discussion questions are provided. The lessons and activities in this guide are focused on excerpts from the film and can be viewed on DVD in class or online.

### NOTE TO TEACHERS

This guide is intended for classes in social studies, civics and government, economics, business studies, mathematics, current events and history; grade levels 9-12. The lesson on individual investing begins with an introductory budgeting activity that helps students understand the difficult choices people face with their money and the need to create savings in order to invest. The lesson includes two activities that are useful for students to begin to understand how to be able to analyze investments themselves and start to build diverse investment portfolios.

### DISCUSSION QUESTIONS

This guide includes a list of questions for students to discuss after viewing *The Madoff Affair*.

### INTRODUCTORY ACTIVITY

Students learn how to budget their money and save by practicing a "pay-yourself-first" approach

### FEATURED LESSON PLAN "Introduction to Investing"

#### LESSON OBJECTIVES

Students will explore:

- What is meant by diversifying a portfolio and asset allocation
- How to look at financial information for characteristics that make for good investments
- How to be confident in their own abilities rather than looking to "financial gurus" who might not have the investors' best interests in mind

### PURCHASING THE FILM

*The Madoff Affair* can be purchased from Shop PBS for Teachers <http://www.shoppbs.org/product/index.jsp?productId=3563608&cp=&kw=madoff&origkw=madoff&sr=1>. Also, teachers and students can watch the film streamed on FRONTLINE's Web site, [www.pbs.org/frontline/madoff](http://www.pbs.org/frontline/madoff).

### CREDITS

This lesson was developed by Simone Bloom Nathan of Media Education Consultants, Inc. It was written by Kevin Murley of Montgomery Blair High School, Silver Spring, Md. Advisers were Debra Plafker Gutt of Stuyvesant High School, New York; Greg Timmons, curriculum writer and educational consultant; and Joshua Weiner of Benson Polytechnic High School, Portland, Ore.

## DISCUSSION QUESTIONS for *The Madoff Affair*

*Note to Teachers:* You may wish to give these questions to students prior to watching the film and invite them to supply answers as they watch, stopping the tape as needed.

- 1 What is a Ponzi scheme?
- 2 What is a feeder fund?
- 3 How did Fairfield Greenwich make its money?
  - Is it customary for a feeder fund to be able to keep all client fees?
  - What effect did this fee arrangement with Madoff Securities have on other fund managers around the world?
- 4 How did the Fairfield Greenwich fund “take Madoff global”?
- 5 What was the condition Mr. Madoff imposed on people marketing his investments? Why do you think he did this?
- 6 When investors received their statements, what responsibility did they have to review and understand them? What signs could they have picked up on to alert them to potential problems?
- 7 What kind of “due diligence” did the feeder funds, such as Fairfield Greenwich, do? What didn’t they do? Why are they being sued by their clients?
- 8 Starting in 2001, whistleblower Harry Markopolos alerted the SEC three times to the likelihood that Bernard Madoff was running a Ponzi scheme. Why do you think the SEC didn’t act on this information until 2006?
- 9 After the SEC cleared Bernard Madoff in its 2006 investigation, Harry Markopolos took his evidence to *The Wall Street Journal*, which did not publish it. What reasons can you think of as to why?
- 10 To what extent do you think the SEC did or did not do its job?
- 11 What was the final straw that uncovered the Madoff Ponzi scheme?
- 12 Ultimately, who do you think was responsible for the losses incurred by investors?
- 13 Do you think the U.S. government should offset the losses incurred by investors with Madoff? Explain.
- 14 What actions should the U.S. government take to minimize chances of other Ponzi schemes taking place?

## INTRODUCTORY ACTIVITY “Budgeting Creates Savings for Investment”

### LESSON OBJECTIVES

Students will:

- Learn how to budget their money
- Understand how to save by practicing a pay-yourself-first approach

### MATERIALS NEEDED

Student handout:

- *Pay-Yourself-First Budgeting*

### TIME NEEDED

One class period

### INSTRUCTIONS

- 1 Explain to students that they will be learning about personal budgeting and how to save as a first step toward investing.
- 2 Distribute the *Pay-Yourself-First Budgeting* handout to students.
- 3 Review the following information with students. (*Note:* This information is included in the students’ handout.)
  - You can’t create a healthy financial situation unless you have more income than expenses. Understanding how to allocate your income and expenses is called setting a budget.
  - When creating a budget, you need to prioritize what you spend your money on and decide which expenses are essential and which are luxuries.
  - Many financial planners suggest that when creating a budget, you should pay yourself first. This means setting aside money to save before you pay the bills and buy things for yourself. This encourages you to build good financial habits and to be in a position to take advantage of investment opportunities.
  - After you have saved money, you can learn how to invest your money responsibly to help you reach your future goals.
- 4 Prior to working on the handouts, ask students to identify the items they spend their money on each month and how much they spend for each category. This provides for a good jumping-off point for students to do the handout.
- 5 Divide students into groups of three or four to work together to allocate Ethan’s budget.
- 6 As a whole class, discuss student responses to the handout.

## STUDENT HANDOUT “Pay-Yourself-First Budgeting”

*Note to Students:* Review the following information, then answer the questions in your group.

- You can’t create a healthy financial life unless you have more income than expenses. Understanding and setting goals for your income and expenses is called the process of setting a budget.
- An effective budget requires you to prioritize what you spend your money on and which expenses are necessary and which are luxuries.
- Many financial planners say that the thing you should start with in a budget is paying yourself first. This simply means setting aside money for saving before you pay the bills and buy things for yourself. This encourages you to build good financial habits and to be in a position to take advantage of opportunities that may arise.
- Once you have done this, you can begin the process of learning how to invest your money in a responsible manner that will help you reach your future goals.

Many financial planners suggest you start creating a budget by making sure you spend money according to the recommendations below. It is especially important to allocate pay-yourself-first savings of at least 10 percent of your monthly income so that you can afford to invest your money to grow in the future.

Your mission is to provide Ethan with some guidance about how to adjust his budget. He earns \$2,500 after taxes each month. Column A is what Ethan spent his money on in the past month. For column B, identify what the maximum should be for that category, based on the recommendations below. For example, you should not be spending more than 33 percent of your after-tax income on rent or a house payment. Multiply 33 percent (0.33) by \$2,500 to get \$825. Ethan should spend no more than \$825 on rent.

For column C, identify what your group recommends he spend on that item and provide your rationale. Use the recommendations below to determine column B — what percentage of his monthly income he should allocate toward:

■ Housing	33%
■ Utilities	7%
■ Food	10%
■ Health	5%
■ Transportation	15%
■ Entertainment	5%
■ Clothes	5%
■ Miscellaneous (personal items, gifts, etc.)	10%
■ Pay-Yourself-First Savings	10%

**INCOME FOR THE MONTH: \$2,500**

EXPENSES	WHAT HE SPENT	DON'T GO OVER	RECOMMENDATION
House Payment	700		
Phone	175		
Groceries	150		
Dining Out	350		
Health Insurance	0		
Car Payment	250		
Car Insurance	150		
Gas and Tolls	150		
Speeding Tickets	75		
Movies and Video Games	175		
Clothes	175		
Gifts	250		
Credit Card Bill	300		
Charity	100		
Savings and Investments	0		
TOTAL SPENDING	\$3,000		

- 1 In which areas was Ethan spending more than the recommended percentages?
- 2 In which areas was Ethan spending less than the recommended percentages?
- 3 Other than following the budget recommendations, what criteria did you use to make your recommendations?

## FEATURED LESSON “Introduction to Investing”

### LESSON OBJECTIVES

Students will explore:

- What is meant by diversifying a portfolio and asset allocation
- How to look at financial information for characteristics that make for good investments
- How to be confident in their own abilities rather than looking to “financial gurus” who might not have the investors’ best interests in mind

### MATERIALS NEEDED

- *The Madoff Affair* DVD or Internet access to watch video online
- *Using Mutual Funds to Build a Diversified Portfolio* handout
- *Analyzing Companies and Picking Your Own Stocks* handout

### TIME NEEDED

The lesson overview of how to build financial literacy should take about 20 minutes. Watching the video clip and the discussion questions takes about an hour. Add another hour if you use the entire film. The subsequent student activities should take a class period to complete. Participation in a stock simulation is a long-term project that can be used over an entire unit.

### PROCEDURE

- 1 Review the following summary of the processes involved with building investing literacy:
  - Develop pay-yourself-first budgeting practices that enable you to save money that you can invest.
  - Diversifying your investments is important to reduce risk. This was learned by some employees of Enron who had their life savings in retirement accounts that were invested only in the stock of that single company.
  - It is also important to be diversified in terms of the different asset classes. An asset class is a group of investments that are very similar, such as cash, large-company stock, small-company stock, bonds, real estate, commodities such as gold, and even collectibles such as art.
  - A study in *AAll Journal*, published by the American Association of Individual Investors, shows that a properly diversified stock portfolio is one that holds shares of 400 companies, which is why most investors prefer to have money in different mutual funds. A mutual fund brings together money from many people and invests it on their behalf according to the strategy the fund follows. The investor does not own shares of the asset; rather, he or she owns shares in the fund that owns the asset.  
For more information, click on: <http://www.sec.gov/investor/tools/mfcc/mutual-fund-help.htm>
  - Another form of diversification is not trusting the same investment adviser to control all of your investments on your behalf, as many did with Bernie Madoff.
- 2 Ask the class: “Why would people take the chance on investing a large part if not all of their money with a single financial firm or in a single investment?” (*Possible answers:* hear about incredible “market-beating” returns; not sure how to do it themselves or read their financial statements, so they trust others before they trust themselves)

- 3 As a class, if time permits, watch the entire video of *The Madoff Affair*. If time does not permit, watch the first three and a half minutes and use the Discussion Questions to guide a classroom conversation. Explain to students that because of what happened to those who invested with Madoff, it is especially important to understand how investments work.
- 4 Start a discussion by having each student name a company and writing the name on the board in order to connect students to what they already know.
- 5 Review the directions and distribute the *Using Mutual Funds to Build a Diversified Portfolio* handout to students.
- 6 It is also recommended that students participate in an in-class stock competition as a continuation of this lesson. There are many sources that support this activity. One Web site that is easy to use is [www.investopedia.com](http://www.investopedia.com).

The teacher can click the link for simulator, register on the site and create a game. A name and password can be created for the game and can be distributed to students so they can join the group. Students should be urged to invest in at least five to 10 companies of different sizes and from different industries. Industries include health care, energy, food, retail and technology. You can find a list of industries and top-performing companies within the industries by following this link: <http://biz.yahoo.com/fc/>.

Students should also determine how much money to invest in each stock. For example, if you start the game with \$100,000 for each student and they invest in 10 companies, they should buy \$10,000 worth of shares for each investment. Many will start by just buying one or two shares. It is recommended that the students be required to invest at least 70 percent of the cash in their account.

- 7 In order to provide students with some background on reading basic financial information as a basis for selecting stocks, it is recommended that the teacher distribute and review the *Analyzing Companies and Picking Your Own Stocks* handout. It is important to review the overview lesson on the front of this handout with the students for understanding.

### ADDITIONAL RESOURCES

It is important to understand who you are investing your money with.

For online reviews of brokerages, you can visit the following Web sites:

- <http://www.smartmoney.com/investing/economy/smartmoneys-annual-broker-survey-23119/>
- <http://onlinebrokerreview.blogspot.com/>

### METHOD OF ASSESSMENT

- Class participation
- Completion of investment assignments
- Creation of online simulated stock portfolio

## STUDENT HANDOUT “Using Mutual Funds To Build A Diversified Portfolio”

Building a diversified portfolio of investments means making sure you have companies from different industries, companies with different growth characteristics and companies of different sizes. First, let’s understand a few terms.

**Mutual Fund** A study in the journal of the American Association of Individual Investors, AAIJ Journal, shows that a properly diversified stock portfolio is one that holds shares of 400 companies, which is why most investors prefer to have money in different mutual funds. A mutual fund brings together money from many people and invests it on their behalf according to the strategy the fund follows. When you invest in a mutual fund, you are getting a small share of the many industries and stocks in which the fund has invested. An investor might be diversified by having money divided into a small-cap value fund, a small-cap growth fund, a mid-cap value fund, a mid-cap growth fund, a large-cap value fund and a large-cap growth fund.

**Value Stock** These stocks tend to have lower prices when compared to the profits the company makes and may offer a good dividend.

**Growth Stock** These stocks have higher revenue growth than the general economy. Growth companies tend to re-invest their profits rather than pay a dividend.

**Market Capitalization (Market Cap)** Indicates the size or worth of a company. A small-cap company is worth less than \$1 billion. A mid-cap company is worth between \$1 and \$6 billion, and a large-cap company, \$6 billion and higher. Small-cap companies tend to be more risky, but can offer great gains.

### FINDING MUTUAL FUNDS

- Click on [www.finance.yahoo.com/funds](http://www.finance.yahoo.com/funds).
- Click the link to the left titled “Fund Screener.”
- Next to “Category,” scroll down and click on “Large Growth.”
- Next to “Morningstar Ratings,” select three stars as a minimum.
- Scroll to the bottom and click “Find Funds.”

- 1 List a large-cap growth fund you found.

FUND TYPE	FUND NAME	SYMBOL	MORNINGSTAR RATING
Large Value			

- 2 Click on the ticker symbol for one of your funds. Now click the link to the left for “Performance.” What is the year-to-date return on investment?
- 3 Click the link to the left titled “Holdings.” Scroll down to “Top Holdings” to see what company stocks or bonds the fund has purchased. What are three company stocks the fund has purchased?
- 4 Scroll down again. What are the three industry sectors in which the fund has a higher percentage of investments?



## STUDENT HANDOUT “Analyzing Companies And Picking Your Own Stocks”

There are many things people examine in order to determine whether or not an investment may be good. When analyzing stocks, you might want to start by asking what companies you know that make good products that people want or need to use. It is also helpful to be able to understand some basic financial information. This lesson will give you a starting point for a few basics that will help you pick better stocks.

Along with your teacher, review the concept of P/E (price/earnings) to growth rate in order to gain some knowledge about what a stock investment in a company is worth. Once done, complete the exercise below. You can use your analysis to make investments in a simulated portfolio game.

### P/E vs. Growth

P stands for price, which means the amount of money you will spend to invest or buy a share of stock. The share price of a stock is not a way to tell whether a stock is expensive or inexpensive. This is because each company actually sells a different amount of shares. Therefore, you need to know how much money a company is earning in profit in order to assess the cost.

E stands for earnings. You might know this as profit. Every company produces a financial statement called an income statement. It shows how much money the company made during a certain time period. On the top line is revenue. That is all the money the company made during that specific period of time. Expenses such as the labor and materials it cost to produce the goods or services, the phone bill and taxes are subtracted. The bottom line shows the earnings, which is just revenues minus expenses. That is the profit. So the E really stands for how much profit each share of stock is earning. In finance, that is called earnings per share.

So, let's check that you know what you're talking about.

- Would you rather pay more or less for a share of stock? Of course, lower price (P) is better!
- Would you rather your investment make more profit or less? Of course, higher earnings (E) is better!

What is a better P/E ratio, 20 or 1?

Looks like you've got it. But wait: Do you always buy the cheaper product? A lower P/E number may indicate good value, but it is also nice to know if the revenues and earnings are growing. If a company has sales growth of 75 percent versus the previous year rather than a competitor only growing by 5 percent, it may be worth paying for a higher P/E. It's your call. Now let's try.

- Go to [www.yahoo.com](http://www.yahoo.com). Click on the link for Finance.
  - Using the box next to the button that says “Get Quotes,” enter the name of a company your class listed on the board that you are interested in researching until you find the ticker symbol for that company.
  - Click on the link for the company.
- 1 What are the ticker symbols for the companies? What is the price of one share of stock? (This is the number next to the heading “Last Trade.”) Also, on the same page, you can find the P/E ratio and what the dividend yield percentage is if your company pays dividends.

	COMPANY	TICKER SYMBOL	SHARE PRICE	P/E	DIVIDEND PERCENTAGE
<i>For example:</i>	Apple	AAPL			

*Note:* Some may have N/A for P/E. This means the company is not currently making a profit. These companies may be valuable if investors think they will make money in the future even though they are not doing so currently.

- 2 Let's compare your company to a competitor. Click on the link to the left titled "Competitors." You can find the P/E for your company and the quarterly revenue growth listed for both the company you know and a competitor.

NAME OF COMPANY:

P/E:

QUARTERLY REV GROWTH:

NAME OF COMPETITOR:

P/E:

QUARTERLY REV GROWTH:

- 3 Which company would make a better investment and why?  
Good reasons include its financial information as well as your knowledge about its products.
- 4 Click on the link to the left titled "Key Statistics." Scroll down until you find "Total Debt/Equity." A number less than 1 would be really good. N/A or zero is even better. When times are bad, the less debt you have, the safer the investment. Lower is better! What is the number for your company?

You now have some basic financial-analysis skills to begin investing on your own. Based on this information, you could begin trading in a simulated portfolio. You should invest in at least five to 10 companies of different sizes and from different industries when developing a simulated portfolio that has some diversity. Industries include health care, energy, food, retail and technology.

You can find a list of industries and top-performing companies within the industries by following this link: <http://biz.yahoo.com/ic/>.