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Stock Market Strategies: Are You an Active or Passive Investor?

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GLOSSARY

Bonds: Certificates of indebtedness issued by a government or a publicly held corporation, promising to repay borrowed money to the lenders at a fixed rate of interest and at a specified time.

Capital gains: A profit from the sale of financial investments.

Diversification: Investment in various financial instruments in order to reduce risk.

Dividend: A share of a company's net profits paid to stockholders.

Efficient market hypothesis (EMH): The theory that the current price of a stock in a corporation reflects all relevant information about the stock's current and future earnings prospects.

Index fund: A mutual fund with the objective to match the composite investment performance of a large group of stocks or bonds such as those represented by the Standard and Poor's 500 index.

Portfolio: A list or collection of financial assets that an individual or company holds.

Stock market index: A collection of stocks chosen to represent a particular part of the market.

Stock mutual fund: A mutual fund that buys stocks in order to make profits for the investors.

Transaction costs: The costs associated with buying or selling a good, service, or financial asset.

Volatile: Likely to change in a sudden or extreme way.

"October. This is one of the peculiarly dangerous months to speculate in stocks. The others are July, January, September, April, November, May, March, June, December, August, and February."

—Mark Twain, *Pudd'nhead Wilson*

If you ever ask an economist which stocks to buy, chances are you won't get a specific answer. Instead, you might hear about the "efficiencies" of markets.¹ In fact, there's an old economics joke about market efficiency: Two economists walk down a sidewalk—one is older and wiser and the other is younger and less experienced. The younger economist says, "Look a \$20 bill" and bends down to snatch it. The older economist says, "Don't bother! It can't be real or someone would have already picked it up."

The joke is meant to exaggerate the belief held by many economists that markets quickly adjust to new information. Financial markets are said to be "efficient" if they leave no "money on the table" for very long. If there's an opportunity to make a profit, buyers and sellers will swoop in and take it. Hence the joke—a \$20 bill left on the street for any length of time might not be a real \$20 bill at all.

Making Money in the Stock Market

Savers have many investment options to choose from. Investing in stocks has risks, but over time, the stock market tends to have higher average returns than other popular investment options (see the boxed insert "Stock Market Returns Over Time"). Investors earn money on their stock purchases through dividends and capital gains. **Dividends** are shares of a company's net profits paid to stockholders. Dividends are often paid quarterly and are commonly associated with established, profitable companies. **Capital gains** are the profit from the sale of a financial investment—for example, when a stock is sold for more than the original purchase price.

Every investor hopes to earn high returns—dividends plus capital gains—while minimizing risk. An effective way to minimize the risk of investing in stocks (a relatively risky financial asset) is to diversify. **Diversification** means to invest in various financial instruments—not just a specific one.

Stock Market Returns Over Time

Historically, average returns for stocks (as indicated by the S&P 500) have been higher than for other investment options, such as government **bonds** (e.g., 3-month Treasury bills [T-Bills] and 10-year Treasury bonds [T-Bonds]).

	Years	S&P 500	3-Month T-bills	10-Year T-bonds
Since 1928	1928-2015	9.50%	3.45%	4.96%
Last 50 years	1966-2015	9.61%	4.92%	6.71%
Last 10 years	2006-2015	7.25%	1.14%	4.71%

NOTE: Data are geometric averages.

SOURCE: Damodaran, Aswath. "Annual Returns on Stock, T.Bonds, and T.Bills: 1928–Current." New York University Stern School of Business, January 5, 2016; http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html. FRED® (Federal Reserve Economic Data), Federal Reserve Bank of St. Louis.

So a diversified stock **portfolio** could include stock purchases across industries, company size, and even geography. Diversification reduces risk because it is unlikely that all the stocks in a portfolio will react the same way to market events. For example, if you invest all of your money in the stock of a single company that owns several beach resorts along the Gulf of Mexico, a severe hurricane could devastate your portfolio. In other words, don't put all your eggs in one basket.

One financial instrument designed to provide investors with diversification is a mutual fund. A **stock mutual fund** is an investment product that pools the money of many investors to purchase a variety of stocks to make a profit for the investors. Most investors simply don't have the time or money to create and manage such a fund on their own, so mutual funds offer a cost-effective way to diversify. A variety of stock mutual funds are available based on different investment strategies (e.g., growth funds or value funds—see the boxed insert "Stock Fund Investment Strategies") and management strategies (active or passive).

Investment Management Strategies: Active and Passive

The active management investment strategy relies on a staff of highly paid analysts to build a portfolio of stocks. The goal is to earn high returns that "beat" (outperform) the stock market.² Such analysts use research, forecasts, and judgment to recommend whether to buy, hold, or

Stock Fund Investment Strategies

Growth fund managers focus on investing in companies expected to have faster-than-average growth—and higher-than-average returns. These companies tend to be riskier than average.

Value fund managers focus on investing in companies with stock prices that suggest they are undervalued. These companies tend to be mature companies that pay dividends and are less **volatile** than companies selected for growth funds.

sell the given stocks. Analysts are always on the lookout for the best values or companies with strong growth prospects. Active investing relies on differentiating between a stock's value and the market price. Warren Buffett—often called the most successful investor in the world—says, "price is what you pay; value is what you get." A stock's value is based on projected future earnings and growth prospects for the company. If a stock is determined to be undervalued—that is, believed to have a greater value than indicated by its market price—managers will buy it for their mutual fund. When the stock price rises above its value, they will sell it and earn capital gains for investors. Fund managers might also sell stocks in the portfolio that are predicted to underperform the market. This buying and selling accrues **transaction costs** (which reduce net gains). The most successful mutual funds are those that consistently outperform average stock market returns.

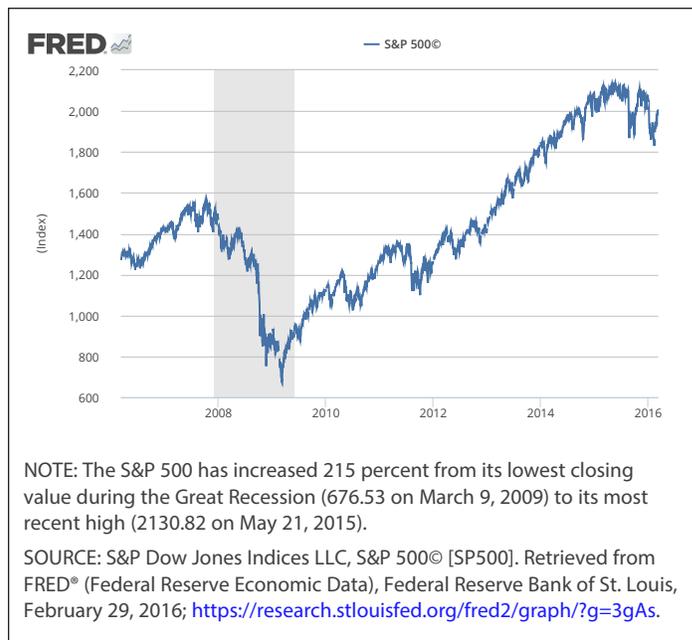
The passive management investment strategy is based on the **efficient market hypothesis (EMH)**, which states that a stock's current price reflects all relevant information about its current and future earnings. How is this possible? Stock prices change when information about the company (or the economy) changes. Imagine you hear the reporter on your favorite stock market news channel announce Chatport Technologies³ has just received a patent on a revolutionary new product. You consider buying Chatport stock because you predict the new product will reap huge profits for the company and its shareholders. Just as the reporter says the words "received a patent," the graph on the screen shows the stock price has increased 10 percent. As it turns out, you were not the only investor who, upon hearing the news about Chatport, decided the stock was undervalued and is willing to pay a higher price for the company's stock.

When news indicates a stock is undervalued, market participants respond by buying the stock, bidding its price up to its fair value. When new information indicates a stock is overvalued, investors quickly sell, putting downward pressure on the stock price, moving it back to its fair value. The EMH says that new information about a stock is "priced in" almost instantly—raising or lowering its price. For this reason, the EMH says the market price is the best reflection of a stock's value based on current, available information. And, if prices reflect all available information, EMH suggests that the best strategy is to buy and hold a diversified portfolio and to minimize investment costs.

The passive strategy holds that the stock market is so efficient that active managers will not consistently beat the market because they will not be able to consistently pick undervalued stocks. And the extra research and transaction costs involved with actively managed mutual funds (which are passed on to investors) will offset gains. Although some actively managed mutual funds do outperform the market, data consistently show that a majority of them fail to outperform market averages reported by various indexes (such as the Dow Jones Industrial Average, Standard and Poor's (S&P) 500, and Wilshire 5000).⁴

Application of EMH: Index Funds

One type of mutual fund that follows a passive management strategy is an **index fund**. The goal of an index



fund is to "replicate the market," by simply buying the stocks included in a **stock market index**, such as the S&P 500 index. For example, for a given index fund, if Chatport Technologies were to represent 1 percent of the value of the S&P 500 index, the index fund manager would invest 1 percent of the mutual fund's assets in Chatport stock.⁵ The S&P 500 index includes 500 of the largest publicly held companies in the United States, which means that mutual funds that replicate the S&P 500 index hold a diversified blend of large company stocks. An advantage of index funds is generally lower investment costs: Rather than paying the research and transaction costs of active management, index fund managers simply buy and hold the stocks on a given index. Some research estimates that passive investment strategies save U.S. investors around \$100 billion annually⁶—one of the reasons economists tend to favor index funds over picking individual stocks.⁷

Conclusion

Investors who choose to invest in stocks through a mutual fund have a decision to make. Do they prefer an active or passive management strategy? Mutual funds that use an active management strategy rely on the research skills of analysts to differentiate between a stock's value and its market price. Index funds, which use a passive management strategy, rely on the efficiency of the stock

market to price stocks at fair value. Both types of mutual funds provide investors with diversified portfolios of stocks. In the end, the choice is up to individual investors: Do they believe analysts can outperform average stock market returns by finding value others have missed or that the stock market is efficient and leaves no money on the table? ■

Notes

¹ Mankiw, N. Gregory. "What Stocks to Buy? Hey, Mom, Don't Ask Me." *New York Times*, May 18, 2013; http://www.nytimes.com/2013/05/19/business/for-stock-picking-advice-dont-ask-an-economist.html?_r=0.

² To "beat" the market means the portfolio earns a higher return than the market average or another appropriate measure of stock market performance. For example, a mutual fund focused on large U.S. companies will measure their success by their ability to outperform the S&P 500 index.

³ Chatport Technologies is a fictitious company.

⁴ Soe, Aye M. "SPIVA® U.S. Scorecard." S&P Dow Jones Indices, McGraw Hill Financial, Year-End 2014; <http://www.spindices.com/documents/spiva/spiva-us-year-end-2014.pdf>.

⁵ Index fund managers use different methods to replicate the returns of a particular market index. With the replication method, they buy all the stocks in a particular index in the proportions they exist in that index (as described in the text). With the sampling method, they buy a representative sample of stocks in a particular index that attempts to reflect that index.

⁶ Lusardi, Annamaria and Mitchell, Olivia S. "The Economic Importance of Financial Literacy: Theory and Evidence." *Journal of Economic Literature*, 2014, 52(1), pp. 5-44; <http://test.financialbuildingblocks.com/assets/The%20Economic%20Importance%20of%20Financial%20Literacy.pdf>.

⁷ Chicago Booth, IGM Forum. "Diversification." November 20, 2013; http://www.igmchicago.org/igm-economic-experts-panel/poll-results?SurveyID=SV_6QNgG8yRbliiY0t.

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Name _____ Period _____

Federal Reserve Bank of St. Louis *Page One Economics*®:**“Stock Market Strategies: Are You an Active or Passive Investor?”****After reading the article, answer the following questions:**

1. What are the two ways people may make money by investing in stocks? Define each one.
2. How can diversification help reduce investment risk?
3. What is the difference between a stock's price and its value?
4. Describe the efficient market hypothesis.
5. Why might passive managers say that the much lower transaction costs for their funds are a key advantage of index funds?
6. Describe how mutual fund companies pick the stocks in an index fund.

Teacher's Guide

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

“Stock Market Strategies: Are You an Active or Passive Investor?”

After reading the article, answer the following questions:

1. What are the two ways people may make money by investing in stocks? Define each one.

Investors may either receive dividends or earn capital gains. Dividends are shares of a company's net profits paid to stockholders. Capital gains are the profit from the sale of a financial investment.

2. How can diversification help reduce investment risk?

Diversification can help reduce risk because money is invested in various financial instruments and not just one. It is unlikely that all the stocks in a portfolio will react the same way to market events. That is, with diversification, you don't have all your eggs in one basket.

3. What is the difference between a stock's price and its value?

A stock's price is what investors pay to buy a stock. The value of the stock is based on projected future earnings and growth prospects for the company.

4. Describe the efficient market hypothesis.

The efficient market hypothesis (EMH) states that a stock's current price reflects all relevant information about its current and future earnings.

5. Why might passive managers say that the much lower transaction costs for their funds are a key advantage of index funds?

Actively managed mutual funds attempt to beat the market by buying/selling stocks that will outperform/underperform market averages. However, after research and transaction costs are deducted, a majority of actively managed funds fail to outperform the market. Index fund managers buy and hold the stocks on a given index. Thus, by simply replicating the index, they outperform a majority of actively managed funds.

6. Describe how mutual fund companies pick the stocks in an index fund.

First, they pick a stock index they would like to replicate, such as the S&P 500 or Wilshire 5000. Then they attempt to replicate the market by either (i) buying all the stocks in a particular index in the proportions they exist in that index or (ii) building a representative sample of the stocks in that index.

For Further Discussion

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>.

Here are some lessons and other classroom resources to help teach about diversification, stocks, and mutual funds:

Lesson: Diversification and Risk

Students are given a portfolio of investments, and they assess the relative risk associated with the products in their portfolios. They later determine which savings and investment instruments might be most suitable for clients of different ages and economic status.

<https://www.stlouisfed.org/education/diversification-and-risk>

Video: No-Frills Money Skills: Episode 3—Get Into Stocks (8:58)

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>

Video: No-Frills Money Skills: Episode 5—Mutual Benefit (9:16)

Students learn what investment companies are, how mutual funds work, the difference between savings and investments, and the importance of understanding risk versus reward.

<https://www.stlouisfed.org/education/no-frills-money-skills-video-series/episode-5-mutual-benefit>

To learn more about using EconLowdown Online Learning, visit <https://www.stlouisfed.org/education/econ-lowdown-online-learning>.

National Common Core State Standards

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

- **Key Ideas and Details**

RH.11-12.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

RH.11-12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- **Craft and Structure**

RH.11-12.4: Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).

National Standards for Financial Literacy

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.

- **Benchmarks: Grade 12**

3. Expenses of buying, selling, and holding financial assets decrease the rate of return from an investment.
7. Diversification by investing in different types of financial assets can lower investment risk.
8. Financial markets adjust to new financial news. Prices in those markets reflect what is known about those financial assets.