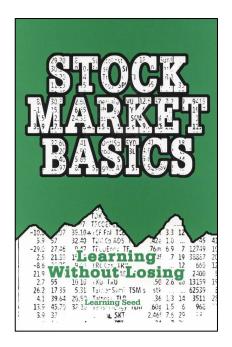
# **Stock Market Basics**



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#### Learning Seed Catalog and ISBN Numbers

 DVD
 LS-1278-04-DVD
 ISBN 0-917159-58-6

 VHS
 LS-1278-04-VHS
 ISBN 0-917159-88-8

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Stock Market Basics

#### Summary

*Stock Market Basics* really is about the basics. This is not a program about puts and calls, options, short selling and P/E ratios.

Instead, the program explains:

- What is a stock?
- What's the difference between a stock and a bond?
- Why do companies issue stock?
- Do companies have to pay dividends?
- What is a portfolio?
- What is a mutual fund?
- Do shareholders really "own" the company?
- What is a ticker tape and how can you read it?
- When you buy a stock, where does the money go?
- What is a stock split?
- How is the stock market like a beauty contest?
- Is the stock market a game to be "played"?
- Understanding risk and volatility.
- What is the "efficient market theory" that won a Nobel Prize for its creator?
- Is it true that a blindfolded monkey throwing darts could make money in stocks?



### Key Ideas

An auction has a lot in common with the stock market. Buying stocks means buying what someone else already owns, the price is set by a kind of bidding, prices change by the moment and depend on demand.

The price for a stock is determined using an auction system. The price, unlike that of most consumer purchases, changes by the minute depending on the value investors place on the stock. If the price of a pair of jeans is too high it is reduced ("goes on sale") until it is bought. If still not purchased, the jeans are destroyed. With stocks, the price continues to fall until someone buys.

Just as a rancher uses stock to grow a herd, or as a nursery owner uses stock to grow bushes and trees, a corporation uses stock to grow itself.

The word "stock" is also used this way by cooks who use stock to make soup.

Corporations sell stock to raise money and grow the business. When a company sells stock for the first time it is called "going public." Most major corporations are publicly owned. Companies offer shares of ownership called stock.

As of this writing, exceptions include Mars, J. Crew, Levi Strauss, Bordens, L.L. Bean, and Hallmark.

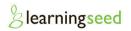
Companies also raise money by selling bonds. If you buy a \$5,000 bond from a company it agrees to pay you back when the bond matures at some point in the future, in the meantime it pays you interest. Bonds are more like loans. They too are traded on stock exchanges. Bonds and stocks are often grouped together and called securities. Bonds obligate a company to pay the money back. But when companies raise money by selling common stock they don't pay the money back. That's a BIG difference.

Instead of promising your money back, companies give a share of ownership. If you own stock in McDonald's or Coca-Cola, you own a share of the company. If there are a million shares and you own 1000, you own .001 of the company.

As owners, the holders of common stock are entitled to elect the directors of the corporation and vote on major issues. These votes typically take place at the corporation's annual meeting, which shareholders are invited to attend. Most share owners vote by proxy, meaning that they authorize someone else (usually management) to vote their shares.

You could say the stock exchange sells both "new" and "used" products. Stocks that are "new" called Initial Public Offerings, (IPO), and "previously owned" stocks traded on the secondary market. By far, most trading takes place on the secondary market.

When you buy shares on the secondary market, your money goes to the previous owner (minus a commission to a broker). But when you buy an IPO, the money goes to the company issuing the stock. Corporations raise billions of dollars yearly through IPOs.



#### **Buying Individual Stocks vs. Mutual Funds**

The program shows a young couple deciding how to invest for their future. They compare using a full service broker, a mutual fund, or a discount broker. The point here is not to identify which method is best. It is to teach that investment decisions should be made with careful thought and research. There is no single correct answer.

Why do share prices go up or down? The number of shares is limited. So if a stock has more buyers than sellers, its price is bid up. But if the opposite is true – big supply and very little demand – the price drops. It's a classic example of the law of supply and demand.

When you buy a stock, you buy an opinion about the future of the company.

Here's that idea again — the price of a stock reflects the opinion of investors. Whether their opinion is correct or wrong has no bearing on the current price of the stock.

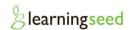
Picking stocks is a bit like a beauty contest in which you win if you can determine which contestant the judges will crown as the winner. It doesn't matter who you think is most beautiful. What counts is if you can "read the judges mind." That's how you win with stocks. By picking stocks lots of people will want to buy in the future.

Economist John Maynard Keyes was particularly fond of this metaphor. The long running TV game show, "Family Feud" is another example of this win-by-picking-what-others-will-select situation.

The second way shareholders earn money is through dividends. For example, your \$10 stock pays a twenty cent dividend four times a year, each year you own it. A dividend is a share of the profits paid to current shareholders.

Some companies pay regular dividends year after year. These stocks are best for investors who need regular income... But other companies rarely pay dividends. Companies like Microsoft, Intel, Amazon plow profits entirely into expanding the business; and that can be good for investors as well. Companies are not required to pay dividends. Stocks are not short term investments, but they do quite well over the long term. Since 1925 stocks have gained on average 9% a year.

If you could have invested \$15 a week in a typical basket of stocks at almost any time in the past century starting at age 15, you would be a millionaire by age 55. *This assumes a 9% return.* 



#### **STOCK MARKET SINCE 1800**

Yearly Return		Inflation	Real Return	
1802-1870	7.1%	0.1	7.0%	
1871-1925	7.2%	0.6	6.6%	
1926-1997	10.6%	3.1	7.2%	
1802-1997	8.4%	1.3	7.0%	
1982-1997	16.7%	3.4	12.8%	

The longer the time span – say ten years, and the wider the selection of stocks the more likely an investment will be profitable.

Risk means an investment can go down a lot in value – or up a lot. If you reduce risk, you also reduce the potential reward. So, if someone promises you a high return with little or no risk, the correct question to ask is not "what kind of investment is it," but "what kind of con game are you playing?"

Let's compare two mutual funds or stocks – we'll call one TURTLE and the other RABBIT.

Fund	Investment	Year 2	Year 4	Year 6	Year 8
Turtle	\$10,000	\$13,000	\$15,000	\$17,000	\$20,000
Rabbit	\$10,000	\$7,000	\$30,000	\$9,000	\$20,000

In both the Turtle and Rabbit funds you start with \$10,000 and end with \$20,000 after eight years, but the rides are different. With the rabbit fund, if you cashed out after year four you would have been richer than today. But if you needed to invest \$10,000 in a new business after year 2, only the Turtle fund would have served your needs. Or at year six only the Turtle Fund could give you a down payment for that great new house you saw.

The rabbit fund is more volatile – that means it changes more and faster. The turtle fund achieved the same results but with less volatility. Burton Malkiel wrote a book about this "Random Walk Theory" which says, that a "a blindfolded monkey throwing darts at a newspaper's financial pages could select a portfolio that would do just as well as one carefully selected by experts." It's not that stock PRICES are random, only their price CHANGES.



Even if the "random walk" theory is correct, it does not mean that no patterns or relationships exist among stock prices. Market experts constantly seek to discover these "patterns." The Wall Street Journal ran a contest to test the theory. Each month four experts each selected one stock and the Journal selected four stocks at random by throwing darts.

The contest started in 1988. Stock prices were checked six months later and the two best-performing experts were called back for another contest. Some feel the "game" was rigged in favor of the experts since their picks were published in the paper and may have helped drive up the price as readers acted on their "free" advice.

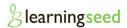
Six months later they determined if the pros or the dart throwers made better stock picks. The result? After fourteen years the pros beat the dart throwers only 61% of the time. But when the stock prices were compared one and two years later instead of just six months (and dividends considered) the pros and the darts each had about the same results.

For more information on this analysis see The Great Mutual Fund Trap by Gregory Baer and Gary Gensler, chapter 10 including footnotes. At a two year time span, the darts held a 6% advantage.

Harry Markowitz, an economist, won the Nobel Prize for Economics in 1990 for his "modern portfolio theory". A "portfolio" is a careful collection of stocks. A thousand shares of one company is a position in the stock, a hundred shares of ten companies is a portfolio. His key idea is that a team's ability is greater than the sum of each individual player's talent.

Some mutual funds called INDEX funds simply buy all the stocks that make up a market indicator – like all the stocks in the S&P 500. They don't try to select stocks to "beat the market" — they buy the market. Every investor thinks he or she can "beat the market." But they can't. Why not? Because they ARE the market. It's like living in a world were everyone believes they are above average.

You might hear a news commentator sayi, "the market was down 30 points today on fears of inflation." But price changes are caused by millions of people making tens of millions of decisions. Price changes rarely have simple explanations. Tomorrow's market might go up even though the same "fears" exist.



#### So You Think You Understand Stocks? Quiz

- 1. Companies like their stocks to go up in value because:
  - (A) They make more money when the stock is at a higher price.
  - (B) Part of their profits comes from the value of their stock.
  - (C) The higher the price of their shares, the more likely they are to make higher profits that year.
  - (D) All of the above
  - (E) None of the above.
- 2. If you own a share of stock, you:
  - (A) Own part of the company that issued the stock
  - (B) Have the right to vote if another company wants to buy the company whose stock you own.
  - (C) Might receive a check every year that represents your share in the company's profits.
  - (D) All of the above
  - (E) None of the above.
- 3. A stock is to a mutual fund as:
  - (A) A blind squirrel is to an acorn.
  - (B) One egg is to a dozen.
  - (C) A tree is to a forest.
  - (D) The pitcher is to a baseball team.

4. You are an enterprising high school student. You inherit \$10,000 and want to use it to pay for your college education starting in a little over two years. You can't afford to lose money, but you need more for college. Should you:

- (A) Invest in the safest blue chip stocks since they will probably be worth a lot more in two years.
- (B) Avoid the stock market since two years is too long of a time to invest.
- (C) Avoid the stock market since two years is too short of a time to invest.
- (D) Find a broker so good he promises to increase your investment by 50% in time for college.

5. You discover your great-great--grandfather named you in his will. The good news is that he left you stock in Coca-Cola. The bad news is that it is only one share he bought in 1919 (ten years before the Great Depression) for \$40. How much is that share worth now?

- (A) Nearly 1.8 million dollars.
- (B) Barely enough to buy a year's worth of Diet Cherry Coke.
- (C) Nearly 7 million dollars.
- (D) It has increased a hundredfold and is now worth \$4,000.

6. Which of these has the most effect on the price of a stock:

- (A) The opinion of investors about the future chances for the company.
- (B) The general state of the economy.
- (C) The performance of the stock market in general.
- (D) How much the company earns in profits



7. You read that the Dow Jones Industrial average has gone down 500 points in the last two weeks. What does this mean to you as an investor:

- (A) It's time to sell since prices are headed the wrong direction.
- (B) Nothing, since you did not invest in Dow Jones.
- (C) Stocks that are part of the average are now cheaper to buy.
- (D) Such a major fall in the index indicates serious problems for the economy.
- 8. The efficient market theory states that:

(A) You can make money in stocks, but are unlikely to "beat the market."

(B) The market is so efficient that only professional stock traders and brokers can make money over the long term.

(C) Information about companies is available to everyone so that it is now nearly impossible to actually "make money" in the stock market.

(D) You can make money in stocks but most of that is taken away by broker fees, commissions, and sales charges.

- 9. If a company listed on the New York Stock Exchange makes a profit it:
  - (A) Must declare a dividend payable to its shareholders during that year.
  - (B) Can pay a dividend with the profits or plow the money back into the company to make more profits.
  - (C) Must pay dividends unless it receives shareholder approval to use the profit for other purposes.
  - (D) Increases the value of the stock by the amount of the dividend.
  - (E) Insures that the price of its stock does not drop in value.
- 10. When you buy a share of stock, the money you pay for it is:

(A) Divided among the stock market, the broker, and the company who issued the stock.

(B) Sent directly to the company in which you invested (after subtracting brokerage fees) for whatever business use it sees fit.

(C) Is sent to the company but how it is used is carefully regulated by the Securities and Exchange Commission.

(D) Goes (after subtracting brokerage fees) to some other person who wants to sell the stock.

#### So You Think You Understand Stocks? Quiz Answer Key

1. E — None of the above. The price of a stock is what the last person who bought it paid. If the next person to buy a stock pays more, the price goes up. This movement is NOT tied to profits. Companies who earn no profits can see their stock rise while others with profits see their stock price decline. The price of a stock is an opinion about its future.

2. D—All of the above. Companies that sell stock are owned by the shareholders. Shareholders have a right to vote and will receive dividends. Companies do NOT have an obligation to pay dividends.

3. C—A stock is to a mutual fund as a tree is to a forest. B is incorrect because all the eggs are the same while all the shares in the portfolio of a mutual fund are not the same. Plus, if you take one egg away you no longer have a dozen. D is not correct because you cannot have a baseball game without a pitcher, you can have a mutual fund without a given stock. C is correct since removing a tree still leaves a forest. In fact, a diversity of stocks makes for a healthy fund portfolio just as a diversity of trees makes for a forest more likely to survive.

4. C—Avoid the stock market since two years is too short of a time to invest what must be used in two years to pay for something important. Stock market investing is for long term goals. After two years even a well-planned investment might be worth less.

5. C—Nearly seven million dollars. This question is designed to illustrate the tremendous potential of stocks as a wealth builder. That single share would have split many times and today be 100,000+ shares.

6. A—The opinion of investors about the future chances for the company. The other choices certainly influence stocks, but the value of any given stock is the opinion of investors about its future. The economy can be dreadful, and the company earning no profits at all yet see its stock soar in value.

7. C—Stocks that are part of the average are now cheaper to buy. The Dow Jones average uses a handful of stocks — it is NOT the entire stock market.

8. A—You can make money in stocks, but are unlikely to "beat the market." C is close, but many long term investors do "make money" in stocks.

9. B—Can pay a dividend with the profits or plow the money back into the company to make more profits. "Growth stocks" take the latter approach while typically older, "blue chip" stocks take the former. Such a clear distinction is no longer true, but note that although any dividends must be paid to shareholders, there is no obligation to declare dividends.

10. C—Money paid for a stock goes (less broke fees) to a person who agrees to sell the stock. Note that stocks are bought from people who already own them. The only exception is the first offering (Initial Public Offering) used to raise money.

Companies do like to see the value of their stock increase, but not because they "make money" on sales at higher prices. Companies make money selling goods or services, not by selling stocks.



#### Resources

**TeenVe\$tor: The Practical Investment Guide For Teens and Their Parents (Penquin Putnam, NY, 2002)** by Emmanuel Modu and Andrea Walker. This book is written for teens and teaches the basics of reading balance sheets, understanding the market, and key financial concepts. Also try Modu and Walker's website www.TeenVestor.com.

Wow the Dow: The Complete Guide to Teaching Your Kids How to Invest in the Stock Market (Simon and Schuster, NY, 2000) by Pat Smith and Lynn Roney. This is a family oriented guide to help parents start their kids investing and thinking intelligently about money.

A Random Walk Down Wall Street: The Time Tested Strategy For Successful Investing (W.W. Norton & Company, NY, revised edition 2003) by Burton G. Malkiel. This classic, originally written over thirty years ago, is mentioned in the video and has been nicely updated in 2003. Malkiel presents strong arguments in favor of indexing.

**Common Sense on Mutual Funds (John Wiley, NY, 1999)** by John Bogle. Bogle is the founder of The Vanguard Group, the world's largest no-load mutual fund group, so you can be sure he does understand mutual funds

**The Great Mutual Fund Trap: An Investment Recovery Plan (Broadway Books, NY, 2002)** by Gregory Baer and Gary Gensler. This book points out the pitfalls of "active investing" in both individual stocks AND mutual funds.

**The Stock Market Game** is a website sponsored by the Securities Industry Foundation for Economic Education to teach students about economics, finance, and the American economic system. For more information go to www.smgww.org

