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Gwartney - Stroup
Sobel - Macpherson

The Stock Market: *Its Function, Performance, and Potential as an Investment Opportunity*

Full Length Text — Part: 6 Chapter: 4
Micro Only Text — Part: 4 Chapter: 4
Macro Only Text — Part: 5 Chapter: 4

To Accompany “Economics: Private and Public Choice 12th ed.”
James Gwartney, Richard Stroup, Russell Sobel, & David Macpherson
Slides authored and animated by:
James Gwartney, David Macpherson, & Charles Skipton


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The Economic Functions of the Stock Market

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The Economic Functions of the Stock Market

- The stock market provides investors, including those who are not interested in participating directly in the operation of the firm, with an opportunity to own a fractional share of the firm’s future profits.
- New stock issues are often an excellent way for firms to obtain funds for growth and product development.
- Stock prices provide information about the quality of business decisions.

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Stock Market Performance: The Historical Record

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The Economics of the Stock Market

- The stock market allows investors to participate in the risks and opportunities of corporate America. Real returns for the past two centuries have averaged 7 percent per year.
- During the last 56 years, the broad S&P 500 stock index indicates that stock investors earned an 11.4 percent average annual rate of return.
- Double-digit returns were earned during 35 of the 56 years, while the returns were negative during only 13 of the years.

Annual S&P 500 returns

— mean

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The Interest Rate, the Value of Future Income, and Stock Prices

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Stock Prices

- Underlying the price of a firm’s stock is the **present value** of the firm’s expected future net earnings, or profit.
- The value of a share depends on:
 - the expected size of future net earnings,
 - when these earnings will be achieved, and,
 - the interest rate by which the investor discounts the future income.

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Stock Prices

- The **present value of a future income stream** is dependent upon:
 - D – dividends (and gains from higher stock prices) earned during various future years (indicated by the subscripts).
 - i – the discount or interest rate
- It is calculated as:

$$\frac{D_1}{(1+i)} + \frac{D_2}{(1+i)^2} + \dots + \frac{D_n}{(1+i)^n}$$

- Higher interest rates reduce the present value of future returns.

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The Price to Earnings Ratio

Price-to-earnings ratio

- The price-earnings ratio for the S&P 500 index has averaged 16 over the past 50 years.
- Since 1982, the price-earnings ratio has risen. It reached 31 in 2001 before receding to 17 in 2006.

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The Random Walk Theory of the Stock Market

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Random Walk Theory

- When considering the future of stock prices, many economists stress the implications of the *random walk theory*. According to this theory:
 - current stock prices already reflect information that is known
 - the future changes in stock prices are determined by surprise occurrences
 - therefore, no one can forecast future stock prices with any degree of precision

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How the Ordinary Investor Can Beat the Experts

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How the Ordinary Investor Can Beat the Experts

- Savers invest in the stock market as a strategy to build wealth.
- Investors that buy a diverse portfolio of shares and hold them over long periods of time, substantially reduce their risks.
- Small investors can purchase stock in an equity mutual fund, a corporation that buys and holds shares of stock in many firms.
- Equity mutual funds have reduced the risk of stock ownership and attracted large amounts of funds into the market.

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The Value of Equity Mutual Funds

Value of Stocks Owned Through Equity Mutual Funds (billions of dollars)

Year	Value (billions of dollars)
1980	44
1982	83
1984	117
1986	162
1988	195
1990	246
1992	523
1994	867
1996	1,751
1998	2,978
1999	4,042
2000	3,963
2001	3,418
2002	2,663
2003	3,685
2004	4,384
2005	4,940
2006	5,912

- The money that people put into U.S. equity *mutual funds* in order to hold shares in the ownership of stocks, rose dramatically in the 1990s.
- Purchasing shares in a mutual fund is a simple way for an individual to buy and hold interest in a large variety of stocks.

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Stocks are Less Risky When Held for a Lengthy Time Period

Highest and Lowest Period Annualized Total Real Return (%) S&P 500 Index

Holding Period	Highest Return (%)	Lowest Return (%)
1-year periods	47%	-36%
5-year periods	30%	-17%
20-year periods	14%	-1%
35-year periods	10%	3%

- This graphic highlights the best and worst annualized performance for each holding period from 1871 – 2006.
- There is *less risk* of a low or negative return when a portfolio of S&P 500 stocks is *held for a longer period of time*.

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The Advantages of Indexed Mutual Funds

- A *managed equity mutual fund* is one with a portfolio manager who tries to pick stocks that will maximize the fund’s rate of return.
- An *indexed equity mutual fund* holds a portfolio of stocks that matches their share in a broad stock index like the S&P 500.
 - Indexed mutual funds have substantially lower operating costs than managed funds as they engage in less trading and have no need for either a market expert or research staff.
- Historically, indexed funds have outperformed managed funds.

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Should You Invest in a Fund Because of its Past Performance?

- No, past performance is not a reliable indicator of future performance.
 - Why?
 - Some of the mutual funds with above-average returns during a period were merely lucky.
 - A strategy that works well in one environment (inflationary conditions, for example) is often disastrous when conditions change.

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Questions for Thought:

1. A friend who just inherited \$50,000 asks for your advice about how to invest it in the stock market for her retirement (in 30 years). Is the stock market a good place for her funds? What do you think is the best plan for her to attain a high rate of return at a relatively low risk? Explain.
2. What is the random walk theory of stock prices? What does it imply about the ability of the “experts” to select stocks that will increase in price and avoid those that will decline in price.

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Questions for Thought:

3. "Stock prices are way too high. The stock market must fall."
-- Analyze this view.
4. Many personal finance magazines such as *Money* and *Smart Money* routinely give advice as to which stocks to buy.
-- Should you take their advice?

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**End
Special Topic 4**

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