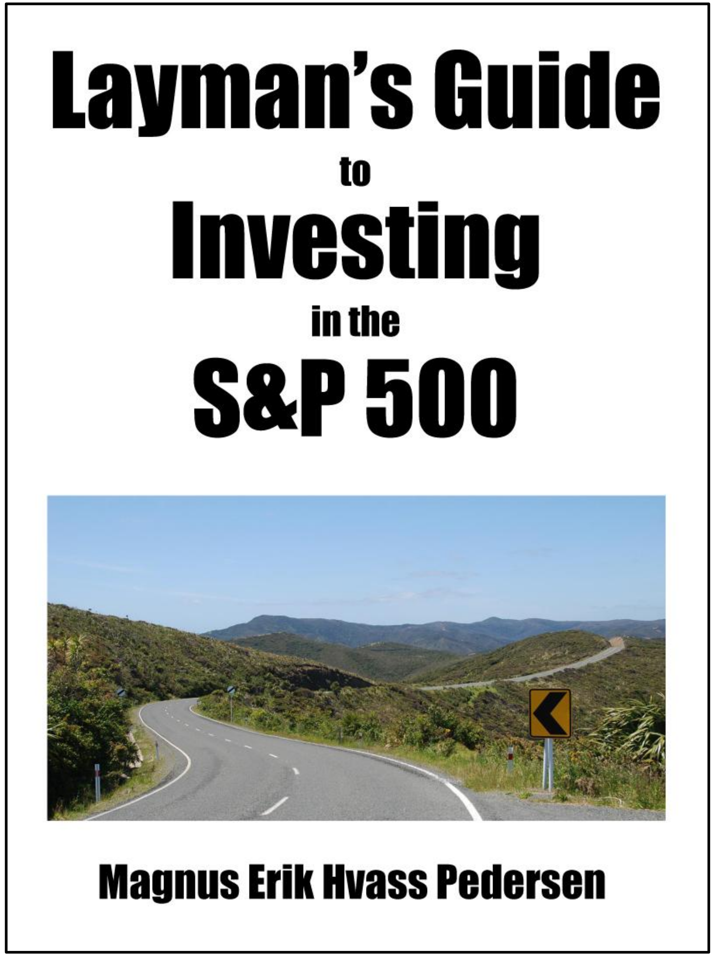

What is the S&P 500

By

Magnus Erik Hvass Pedersen

Overview

- The S&P 500 consists of the stocks of 500 large companies in USA.
- It covers about 80% of the entire US stock-market in terms of size.
- It started in 1957 and is the oldest broadly diversified stock index.
- You can invest in index funds that closely track the S&P 500.
- This allows you to get a very broad diversification at a low cost.
- This should give you good returns over time, but the S&P 500 may be volatile in the short-term.

Companies in the S&P 500 (April 2015)

- The companies in the S&P 500 are weighted by their market-capitalization, which is the market value of all the company's shares.
- Apple is largest with $740b market-cap, which is 4% of S&P 500.
- Exxon Mobil is 2nd largest with $356b market-cap, 2% of S&P 500.
- Microsoft is 3rd largest with $341b market-cap, 1.9% of S&P 500.
- Pfizer is 10th largest with $211b market-cap, 1.1% of S&P 500.
- Diamond Offshore Drilling is the smallest company with $4b market-cap which is about 0.02% of the S&P 500.

Safety of Diversification

- The S&P 500 gives you very broad diversification which protects you from problems with individual companies or industries.
- If you invest $10,000 in the S&P 500 and the smallest company goes bankrupt and their stock goes to zero, then you only lose $2.
- If the largest company, Apple, goes bankrupt then you lose $400.
- But if a single stock performs really well then you only gain little.
- For example, if the stock-price of the smallest company increases 10-fold, then you only make $18 on your $10,000 investment.

Historical Returns

- Between 1962 and 2013 the S&P 500 returned 9.7% per year on average, assuming dividends were reinvested tax-free.
- Adjusting for inflation the return was 5.4% per year on average.
- This means the inflation-adjusted value doubled every 13 years.
- But the S&P 500 is highly volatile and lost half its value in one year and gained 70% in another year.
- The longest recovery time after a crash was the so-called Dot-Com bubble in year 2000. It took more than 6 years to recover.

Causes of Growth

- S&P 500 returned 9.7% per year on average between 1962 and 2013.
- Some of the return was due to reinvestment of dividends.
- The price grew 6.40% per year and earnings grew 6.45% per year.
- US GDP (Gross Domestic Product) grew 6.7% per year on average.
- Inflation accounted for 4.0% growth per year.
- US population growth was 1.06% per year.
- Productivity of each US worker increased 2% per year.
- Key question: Will productivity improvement continue in the future?

<u>How to Invest in the S&P 500</u>

- Investing in the S&P 500 can be done in different ways.
- You can invest in mutual funds from companies such as Vanguard. These may require you to initially invest a certain amount.
- Exchange Traded Funds (ETF) can be traded like normal stocks.
- Examples of ETFs for the S&P 500: VOO, SPY, IVV.
- Fees and expense ratios are <u>**VERY**</u> important. See my other talk!
- You should select the fund with lowest fees and expense ratios.

Conclusion

- The S&P 500 consists of 500 large US stocks.
- It is volatile in the short-term but the broad diversification gives good returns over time.
- Invest in the fund with lowest expenses!
- Keep some of your money invested in short-term US government bonds for emergencies.

The book gives more details.