# Investor Home 

Historical Data

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Selected quotes on the study of history.

# "those who do not study history are doomed to repeat it." George Santayana 

"I know of no way of judging of the future but by the past." Patrick Henry

## "A page of history is worth a volume of logic."

 Oliver Wendell Holmes, Jr. in a 1921 decision"If history books were the key to riches, the Forbes 400 would consist of librarians."<br>Warren Buffett - Berkshire Hathaway Annual Report, 1990, 18.

"In the long run we are all dead."
John Maynard Keynes

How should investors interpret historical market data? Possibly the best advice comes from Nobel Laureate and Stanford Professor William Sharpe who wrote

- "Although it is always perilous to assume that the future will be like the past, it is at least instructive to find out what the past was like."
- "While results vary from asset class to asset class and from time period to time period, experience suggests that for predicting future values, historic data appear to be quite useful with respect to standard deviations, reasonably useful for correlations, and virtually useless for expected returns. For the latter, at least, other approaches are a must."
- "... there is a well known tendency for future risks and correlations to be more like those of the recent past than like those of the distant past."

Source: Managing Investment Portfolios: A Dynamic Process, Second Edition 1990, William F. Sharpe, Chapter 7.

The earliest equity market actually dates back to the middle ages in France where shares of a water mill traded around the 1100s. The shares traded until 1946 when the French government nationalized the mill (Source: Global Investing by Roger G. Ibbotson and Gary P. Brinson). Historically, the most frequently quoted data on investments is from lbbotson Associates which published its Stocks, Bonds, Bills, and Inflation yearbook on an annual basis. More recently Professor Jeremy Siegel's best seller Stocks for the Long Run is a favorite reference and many academics use data from the Center for Research in Security Prices (CRSP). Some have
questioned some of the older data, for instance see Does Stock-Market Data Really Go Back 200 Years? by Jason Zweig (7/11/09) in the WSJ and Professor Siegel's response Yes, Stock Data Do Go Back 200 Years (8/5/09) (or here) in which he cites a 2001 article titled A New Historical Database for the NYSE 1815 to 1925: Performance and Predictability (or here).

Some other links and sources of historical data on the web.

- History of Economics and The Science of Investing from DFA.
- Global Stock Markets in the Twentieth Century (earlier version) in the Journal of Finance (June 1999) from William Goetzmann and Philippe Jorion is a great reference for historical global equity returns.
- Professor Robert J. Shiller's long term stock, bond, interest rate and consumption data 1871-present.
- Why Many Investors Keep Fooling Themselves in the WSJ $1 / 16 / 2010$ from Jason Zweig
- Chapter 1 of William Goetzmann's "An Introduction to Investment Theory" has a table of Ibbotson data (near the bottom of the page).
- You can get historical quotes by date and symbol from BigCharts.
- Real Estate Investment Trust (REIT) returns are at NAREIT's web site.
- World Stock Markets (list and links)
- Financial Data Finder from Ohio State University's Department of Finance.
- See also related discussions on The Zeroes, and the Wilshire 5000.

Investors should note that many experts recommend making adjustments to some long term historical returns for a better comparison to current and projected returns. Some recommended adjustments include replacing the average historical bill/bond return with the current yield on the appropriate treasury security and adjusting the historical interest rates upward to account for interest rates being pegged at artificially low levels in the 1940's and early 50's. An alternative method of analyzing returns is to start with the treasury security return (the risk free rate) and add risk premiums for other investments. From this perspective, changes in interest rates affect returns on all other investments. Another problem with the long term numbers is that there are no comparable figures for some asset classes (international, venture capital, real estate) for the entire period.

While the historical data makes for a very persuasive argument for investing in stocks (small stocks in particular), it can also be used to show the volatility and risks inherent in short term investing. There have been many periods when returns have been inconsistent with long term figures. Here are some examples.

- Bonds outperformed stocks in the 1980s (and 2000-2009) although the reverse is true for longer time frames.
- Venture Capital from 81 to 91 had negative returns despite being one of the best long term investments.
- Japanese stocks have done extremely well since world war II, but since peaking in 1989 returns have been negative.
- If you look at the Ibbotson long-term graph of stocks and small stocks, you'll see that despite the fact that small stocks outperformed for the entire time frame, from 1926 until the mid 1960s, large stocks and small stocks had similar returns. See also the The Size Effect (or myth?).

A good summary of historical returns from 1926 to 1996 appeared in the Wall Street Journal on 9/30/96 that listed lbbotson and Ned Davis Research as sources. More data on asset classes can be found on the respective Investor Home pages. The second summary below is from this pdf
citing lbbotson. See also Stocks, Bonds, Bills and Inflation (graphic through 2006) from Morningstar.
1926-1996 Average annual rates of return

| Small Stocks | $12.5 \%$ |
| :--- | ---: |
| Real Estate | $11.1 \%$ |
| DJI | $10.0 \%$ |
| Bonds | $5.2 \%$ |
| T-Bills | $3.7 \%$ |
| Inflation | $3.1 \%$ |

1925-2004 Average annual rates of return
Small Stocks 12.7\%
Large Stocks 10.4\%
Bonds 5.4\%
T-Bills 3.7\%
Inflation 3.0\%

## "Get your facts first, and then you can distort them as much as you please." Mark Twain

## See also Benchmarks and Do past winners repeat?

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