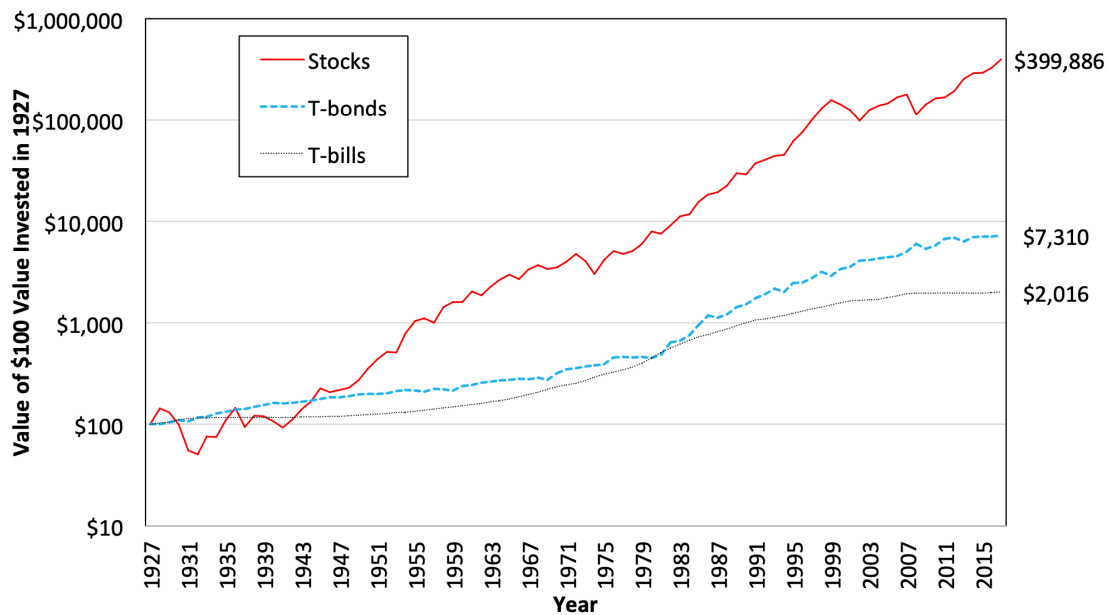


The Story of Investment Horizon



Stock is a good investment if you have long investment horizon

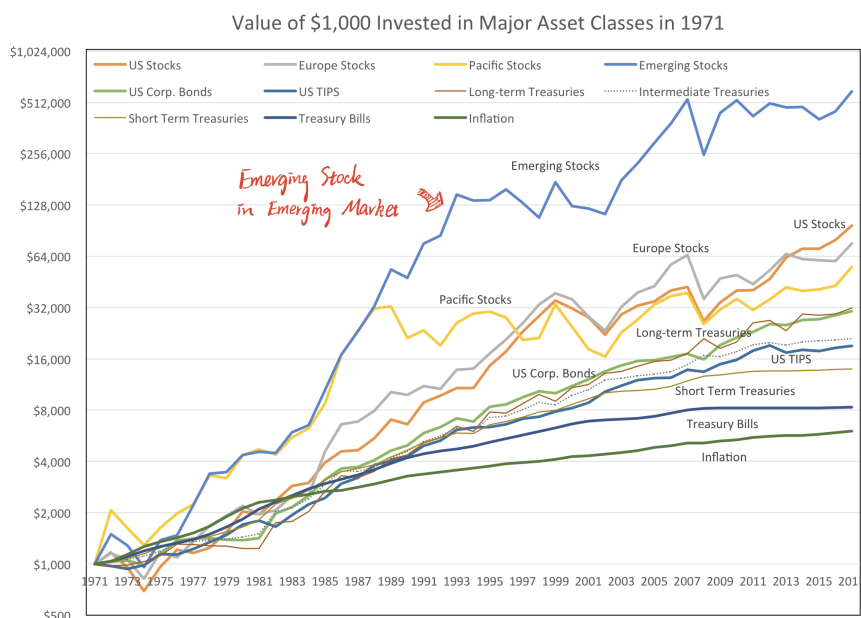
- As we can tell from the graph, stock have significantly greater return compared to bonds and bills.
- But bear in mind that this is true when you have a long investment horizon
- Put stock market at a micro-scope level, we will experience great fluctuation everyday

You can do better than stock, as long as you can take that risk

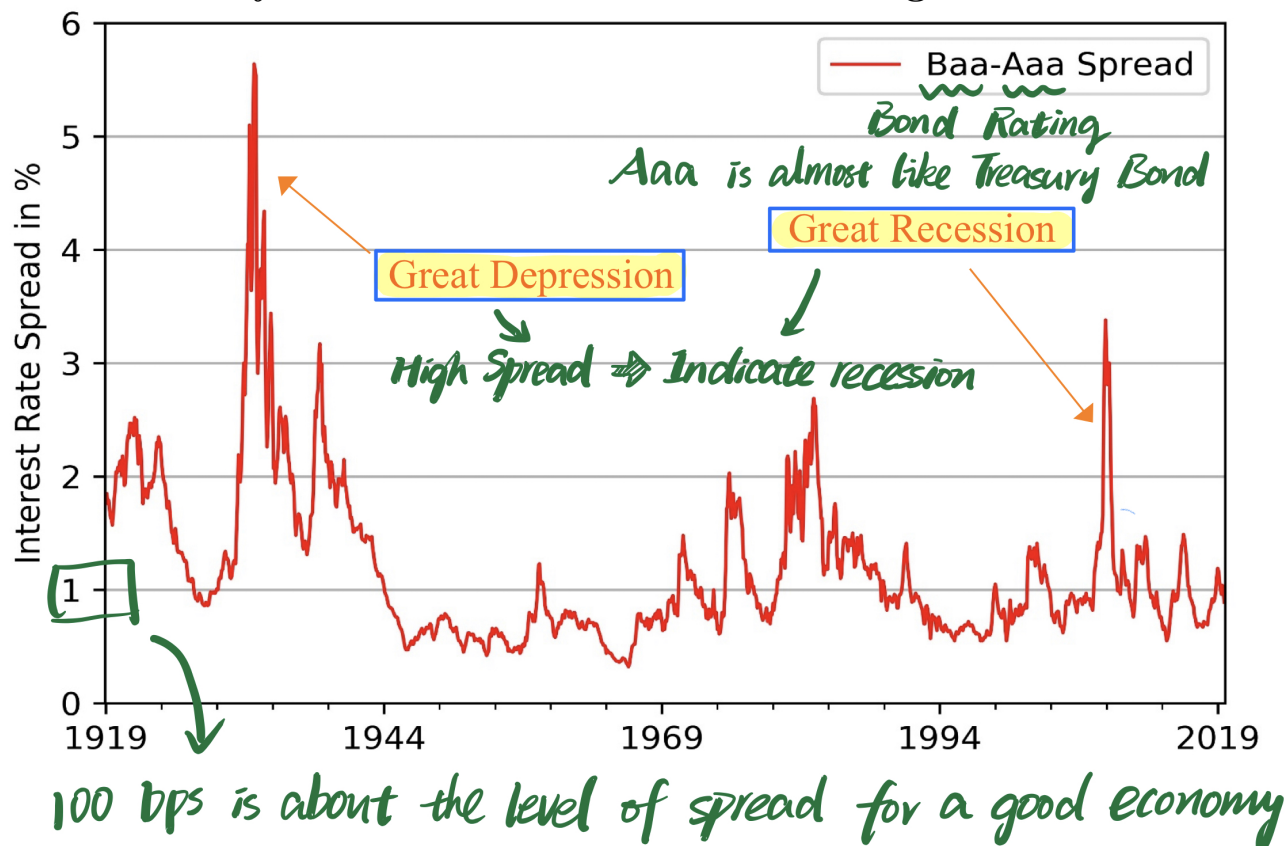
- For instance, derivatives, are also a high risk asset, but the potential return is higher
- During the 2008 Crisis, there is a man who lend Goldman Sachs millions of money to help the firm.
- In exchange he asked for options on the stock with a low strike price
- Eventually Goldman Sachs survived the crisis and the man gain billions of money
- However, if we look at stock price, firms like Deutsche Bank never get out of the trouble. This trade is risky.

Implication from my point of view

- Take a long-term investment horizon and invest in things with high potential value
- We need to identify firms that is with good condition that worth invest in, E.g: Goldman Sachs v.s. Deutshce Bank
- This require us to know the business, how much company is involved in, the probability of it strive again.



Why investment with machine learning is so hard



Interest rate spread is a good indicator for economic recession

- The higher the spread, meaning that people is asking for a higher payoff for the risk
- usually a good and healthy economic keeps a spread around 100 basis points

Interest rate spread as a good tool for adjusting economic behavior

- If the spread is low, the investor will have no choice but to go for high risk investment
- By controlling the spread, we can stimulate the economy or make the economic slow down

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Implication

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US Market in the recent years, related to DDM

The corona virus makes the market to drop

- it essentially drop the g , some guess is 0%, some guess is 4%
- some will say that the market has been crazy and the corona virus just bring it down
- before the crisis, the P/E is about 22, usually it is 17
-
-

The central banks / fed make adjustment to lower interest rate

- it essentially drop the k , from the CAPM model
- central bank wants to show support for the stock market
-
-

When the stock market goes in crazy, people's risk aversion goes up the ceiling

- $U_p = E(r_p) - \frac{1}{2}A\sigma_p^2$
- people goes in the 10 year treasury yields
-
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How to invest in light of different interest rate scenario

- If the rate is low: we need to take advantage of this low borrowing cost and invest in more risky thing
- If the rate is high: borrowing money cost is high in the market, we adjust our position for less risky

When talking return, we need to consider risk

- What we need to focus on, is the sharp ratio
- It makes no sense just bring up the return, because a portfolio that is 2 times return the market can also be 2 times or even more volatile than the market

How would presidential election influence the market

- If bernie sander get nominated and compete with Donald Trump, the market will swing a lot since they are representing 2 different sides of government policy. Sander means more regulation and Trump stands for a less regulated and thus more free market. In this case, market volatility rise more, market risk premium rise more.
- If Joe Biden got nominated, the market will swing less since Biden is a mild / liberal democrat, share more similarity with Trump in terms of the policy on market. In this case, market volatility rise less, market risk premium rise less.