Quant Investing Strategies

- Quant investing is just like any other investing strategy; the goal is to add value to the portfolio
- People who put together the complicated mathematical equations that make quant investment strategies are called quants
    - All quant strategies use technology and formulas to automate the investment process
- Quant strategies emphasize the fact that computers are behind the decisions that buy and sell securities, so emotion is removed
- They are sometimes called alpha generators
- A strategy is only as good as its design and for this reason, the success of quant strategies vary
    - Some strategies look for a tiny edge that can be exploited in a day, others scour global trends for investments that last for years
    - Once designed, the computer stays extremely disciplined to the investment strategy
    - The computers can react at lightning speeds and beat any human reactions to market changes
    - Computers will constantly run hundreds of scenarios to find market inefficiencies and act on them before others
- Types of Quant strategies:
    - Factor Investing:
        - Factors refer to characteristics of assets (volatility, profitability, etc.)
        - The quant builds a fund that automatically buys assets exhibiting that trait
        - It takes advantage of behavioral biases and mistakes that investors make
    - Risk Parity:
        - An asset-allocation strategy that aims to hold an equal amount of risk among investment classes which react differently to market changes
        - The less volatile an asset, the bigger weighting it gets in the portfolio
        - Aims to produce stable return with diversification

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- Systematic Global Macro:
  - Trades across asset classes and countries and relies on macroeconomic principles
  - Using data (inflation, unemployment, consumer spending, etc.)
  - Attempts to build a set of rules that govern the relationship between economic cycles and market movements
- Event-Driven Arbitrage:
  - Anticipating corporate actions and events
  - Exploits mispricings, share buybacks, bankruptcies, etc.
  - Short time horizon
- Statistical Arbitrage:
  - Seeks mispricing in the market by identifying relationships among securities, detecting anomalies, then betting on things returning to normal
  - Short time horizon
  - Takes advantage of the idea that the market overreacts, then adjusts
- CTA:
  - Commodity Trading Advisor
  - Takes a position in equity index futures, fixed-income futures, currency futures and commodity futures- only after a trend appears in the price data

- Quant funds often have lower fees than other funds since there is less management of the fund needed
- Quant fund managers may be responsible for up to 27% of all U.S stock trades
- Since quant funds don't follow the normal strategies and styles of traditional funds, they are considered alternative investments