High Frequency Trading: Irene Aldridge

chapter 1 <Introduction>

- HFT: high frequency and low-latency trading
  - ➔ high turnover of capital in rapid computer -driven responses to changing market conditions.: a higher number of trades and a lower average gain per trade
  - ➔ few positions carried overnight
    1. 24 hour cycles -> vecome particularly risky
    2. Full transparency of account holdings and eliminate the need for capital lock-ups
    3. Prevent to pay a margin at the interest rate referred to as an overnight carry risk
  - ➔ Little or no correlation with traditional long-term buy and hold strategies
  - ➔ the performance of many high-frequency strategies can be statistically ascertained within a month.
- Successful high-frequency trading run on foreign exchange, equities, futures and derivatives
  - ➔ **It means hft can be applied to any sufficient liquid financial instrument.**
  - ➔ the book was written in 2000s, crypto and forex in ECN also good asset to hft
- Classification of HFT
  1. Automated liquidity provision (LP): market making (< 1m)
  2. Market microstructure trading: identifying trading party order flow (<10m)
  3. Event Driven: short-term trading on macro events (< 1h)
  4. Derivations arbitrage: Statistical Arbitrage of deviations from equilibrium (< 1d)
- A set of challenges of HFT
  1. dealing with large volumes of intra-day data
  2. precision of signals
  3. Speed of execution: advanced skills in software development
  4. particular comfort level with computer-driven executions

5. ongoing maintenance and upgrades to keep up with the ‘arms race’.

➔ profitable endeavor that can generate stable profits under various market conditions.