# A Random Walk Down Wall Street

DISCLAIMER: I'm not a finance major. These are just my takeaways from the book and added perspective. I may have gotten everything wrong.

If you'd like to correct my mistakes (if there are any), reach out to me:
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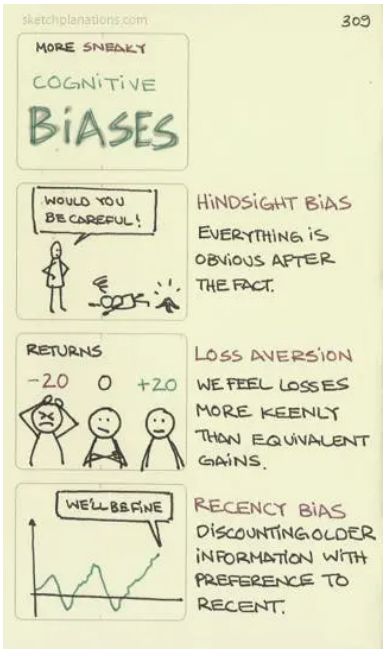
You can also just jump to the "Where does this leave us?" chapter, as that is the conclusion.

## Takeaways

- It is hard to resist the emotional pull of a possible windfall.
    - 

- Ultimately, the market finds roughly the true value.
- In the long term, a stock can't be worth more than the cash it brings to investors.
- Most so-called market anomalies aren't valid.
    - Many of these "anomalies" (like the January effect) are either statistically insignificant, outdated, or <u>disappear once discovered.</u>
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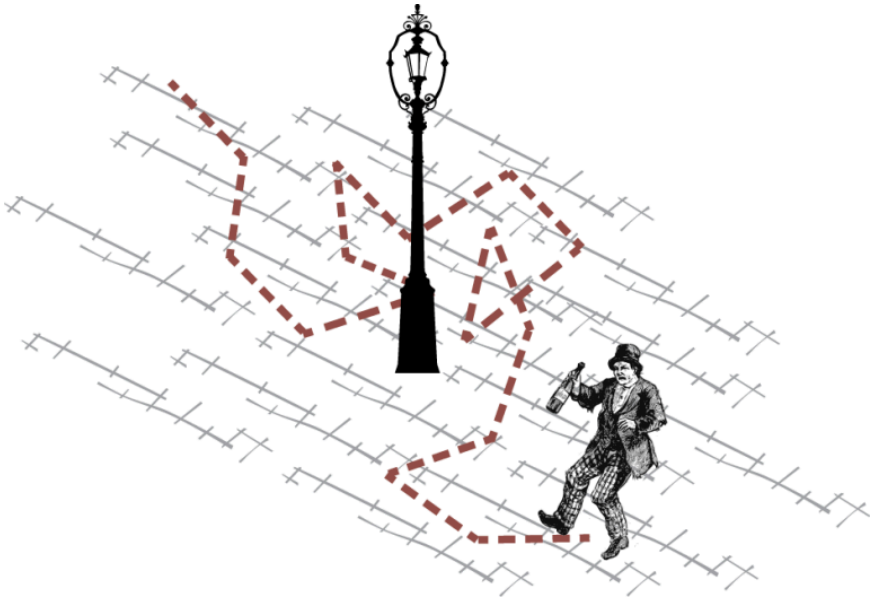
- Never pay more for a stock than what it's worth.
    - Focus on the intrinsic value of it, based on factors like earning potential, cash flows, and growth prospects.
    - There's a chance that certain speculations and news about a stock overestimate the growth prospect.
- Investors do better than speculators over the long haul.
    - While short-term market movements are largely random and driven by unpredictable factors (e.g., news, sentiment, economic data), long-term investors who hold diversified portfolios tend to perform better than speculators, who try to time the market or trade frequently for quick profits.
- Investors should take advantage of tax-favored savings and investment plans.
    - Many governments offer tax-advantaged accounts or plans (e.g., 401(k) and IRAs in the U.S., ISAs in the UK) that allow you to invest while enjoying tax benefits, such as tax-deferred growth or tax-free withdrawals in retirement.
- If you want to win, Diversify and take risks!

# Takeawalk

Wall Street is full of professionals with supposed superior knowledge of what the market is about to do.

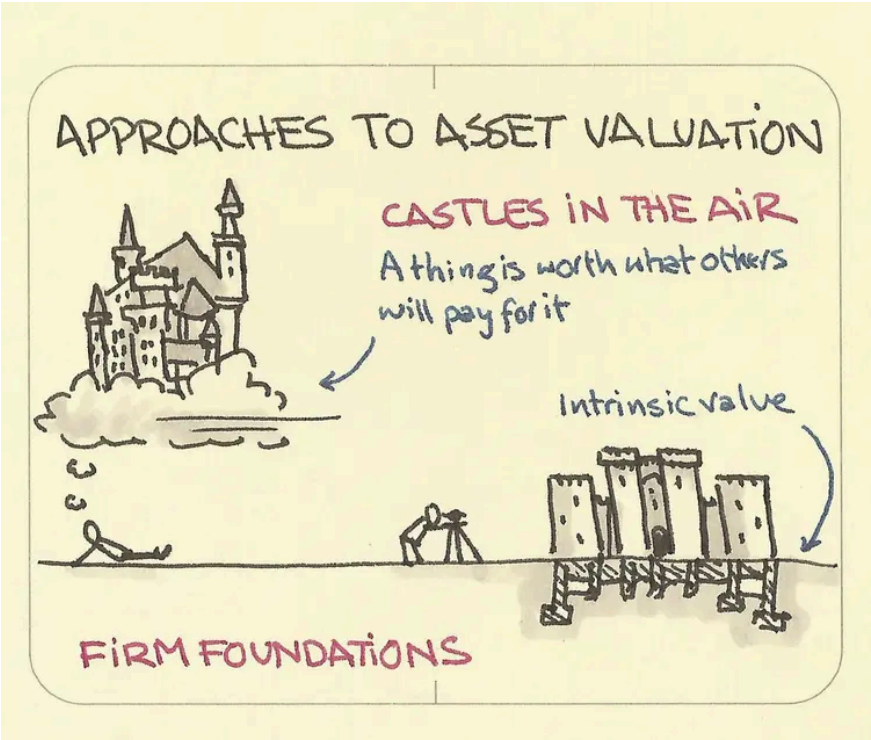
Yet, often forgotten is history. Investors who don't try to profit purely by predicting market moves on average do better than speculators who attempt to exploit with short-term predictions.



Investors vs speculators. Investment theories don't make much more economic sense than this. Consider 2 of the most popular theories:

**Firm-foundation theory** – suggests that stocks have an "intrinsic value" that can be determined by calculating the present value of their expected future dividends. This means you can figure out how much a stock is worth by looking at the cash it will generate over time. Notable supporters of this theory include economist Irving Fisher and investor Warren Buffett.

**Castle-in-the-air theory** – often referred to as the greater fool theory, argues that successful investing depends on understanding the emotions and behavior of the crowd. According to this view, the value of an investment is whatever buyers are willing to pay for it, even if that price isn't based on any rational assessment of its worth. Essentially, it highlights that market prices can be driven by sentiment rather than fundamentals.




History demonstrates that predicting these irrational market behaviors is hard, and cashing in on them is even harder.

Below are some of history's most famous market manias.

## Tulip Mania

In the early 17th century, Holland was swept up in **Tulip Mania**, where the prices of tulip bulbs skyrocketed to such an extent that people mortgaged their homes to purchase them. This speculative frenzy ultimately crashed in 1637.

## The Roaring Twenties

The **Roaring Twenties** marked one of America's most frenzied speculative periods, beginning around 1923 and culminating in the **Stock Market Crash of 1929**, which heralded the onset of the Great Depression.

## The Soaring Sixties

During the **1960s**, the first major tech stock bubble emerged as investors eagerly flocked to any company with "electronic" in its name. This era also saw rampant speculation in conglomerates and "concept stocks" that had intriguing narratives.

## The Nifty Fifty

The **Nifty Fifty** represented a group of 50 growth stocks, including giants like IBM, Xerox, and Avon. Wall Street became enamored with these stocks, driving their price-to-earnings ratios into the high double digits before the inevitable decline.

## The Roaring Eighties

In 1983, the **Roaring Eighties** witnessed a surge in new stock issues, making the earlier speculative markets appear subdued. The excitement surrounding leveraged buyouts and the biotech boom eventually led to the **market crash of 1987**.

## The Japan Bubble

In 1989, the real estate beneath the Imperial Palace in Tokyo was valued at more than all the land in California combined, while the Japanese stock market constituted 45% of the world's total market capitalization. This extraordinary bubble burst in 1990.

## The Internet Bubble

The late 1990s saw the **Internet Bubble**, during which the NASDAQ Index—dominated by high-tech companies—tripled before experiencing a significant downturn.

## The 2008 Financial Crisis

The **2008 financial crisis** was driven by excessive speculation in the housing market and the proliferation of risky financial products. It led to a severe global recession, exposing the fragility of financial systems and the dangers of unchecked speculation.

## The AI Craze??

Currently, there is growing excitement around artificial intelligence, with many investors pouring money into AI-related companies. However, this enthusiasm raises concerns about a potential bubble, as the anticipated linear growth of AI technology may not align with its actual capabilities and limitations. Just like previous bubbles, this fervor could result in inflated valuations that may not be sustainable in the long term.

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A market bubble is like a Ponzi scheme: It prospers as long as new speculators are willing to plow in cash, but it fails when new money stops flowing.

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The internet boom of the 90s was special though, experiencing an unprecedented abandonment of rudimentary investment rationality and uncovering a fair share of corruption and conflict of interest especially by analysts.

Wall Street previously maintained "Chinese Walls" to separate analysts from brokers and investment bankers, but these barriers weakened during the Internet bubble. Analysts often felt pressured to issue overly positive recommendations for shaky stocks because their jobs depended on it. This was driven by the financial gains brokers and investment bankers could achieve by working with these companies, which favored firms that promoted their stocks.

Many Internet companies had no established track record or profits, making them poor investment choices based on traditional criteria. In response, analysts created new metrics, such as measuring “eyeballs” to count web page views instead of sales. Meanwhile, the media glamorized dot-com newcomers, turning them into overnight sensations and fueling rampant speculation.

This all goes to show that investing by the greater fool theory has its risks. You could buy stock to sell it to a greater fool at a higher price, but be careful to not end up being the greatest fool :)

# The Magic 8 Ball

While stock prices are fundamentally unpredictable, “chartists” try to categorize stock price movements by analyzing past data. I am not saying these do not have any applicabilities, but these technicians often fall into the trap of thinking that market patterns are somewhat repetitive and can be almost certainly anticipated. However, just like flipping a coin 100 times can create a chart that resembles stock price movements, the randomness of market fluctuations can also produce long sequences of gains or losses that look like perfect trends.

**Beware of the following tactics and so-called “telltales” of stock price movements:**

- Relative Strength
- Chart Patterns
- Filters
- The Dogs of the Dow
- The Dow Theory
- Price-Volume Analysis
- The Odd-Lot Theory
- The January Effect
- The Weekend Effect
- Momentum Investing

## Where Does This Leave Us?

Despite critiquing technical analysis, I don't believe fundamental analysis is the complete answer either. Unexpected events can lead to misjudgments; analysts at major hedge funds might miscalculate intrinsic values, causing market fluctuations. Additionally, the data they rely on can be fraudulent. So, neither technical nor fundamental analysis is complete bullshit or the sole factor in market movement.

"The mystical perfect risk measure is still beyond our grasp."

**So, how do some people manage to get rich by trading stocks?** They take risks. High returns typically come with high risks. Common stocks have been shown to be the asset class with the highest potential returns, but they also carry the highest risk.

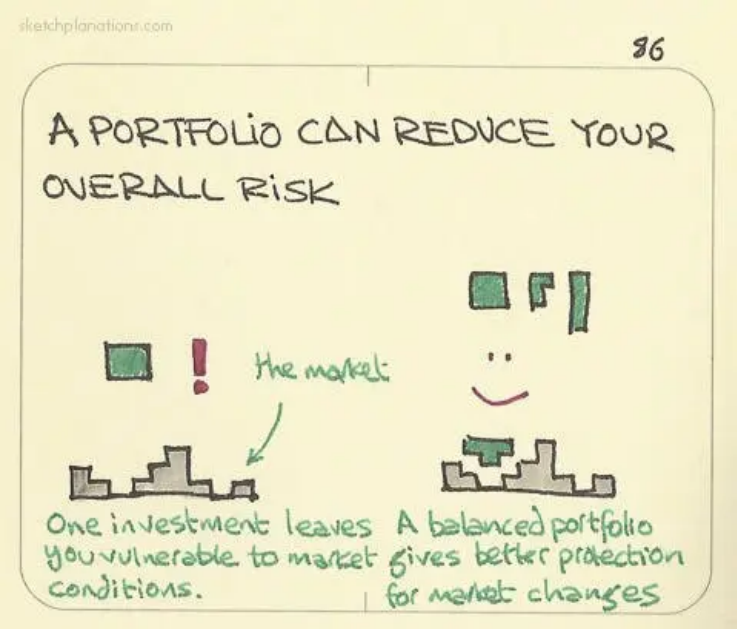
**Modern Portfolio Theory** suggests that you can diversify your investments across a range of risky assets to lower your overall portfolio risk while still achieving solid returns.

Put your eggs in as many baskets as possible.

An internationally diversified portfolio tends to be less risky than one focused solely on U.S. stocks. From 1970 to 2002, the optimal mix for the highest returns with the lowest risk was a portfolio consisting of 24% non-U.S. stocks and 76% U.S. stocks.

Although the benefits of international diversification are diminishing—since U.S. and developed non-U.S. markets are increasingly moving in sync—currency fluctuations and changes in emerging markets can still create opportunities for diversification.

Remember to diversify not just across different stocks, but also across various asset classes to enhance your overall investment strategy.

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# Glossaryck

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## Investment Funds:

Both ETFs (Exchange-Traded Funds) and Index Funds are popular types of investment funds, but they have some key differences.

Key Differences:

| Feature | ETF | Index Fund |
|---|---|---|
| Traded Like a Stock | Bought/Sold throughout the day on an exchange. | Bought/Sold at the end of the day at the fund's NAV. |
| Price Fluctuations | Price changes throughout the day. | Price is fixed per day, at market close. |
| Min Investment | Can be bought in small amounts. | May require a higher minimum initial investment. |
| Fees | Usually lower expense ratio; may have brokerage commissions or trading fees. | Typically slightly higher fees than ETFs, but no trading fees. |
| Tax Efficiency | Generally more tax-efficient because of the way ETFs are structured. | Less tax-efficient since index funds might need to sell securities more frequently, triggering taxable events. |

## What is NAV (Net Asset Value):

per-share value of a mutual fund, exchange-traded fund (ETF), or an index fund. It's essentially the total value of the fund's assets minus its liabilities, divided by the number of shares outstanding.

**The formula for NAV:**

$$NAV = (Assets - Liabilities) / Number\ of\ shares\ outstanding$$

## Expense Ratio:

Represents the annual fee that mutual funds, index funds, or ETFs charge investors to cover their operational costs. It is expressed as a percentage of your total investment in the fund.

- **Actively managed funds** (where managers actively select stocks) usually have higher expense ratios, while **index funds** and **ETFs** (which passively track an index) tend to have lower expense ratios.

## Brokerage Commission:

A brokerage commission (or trading fee) is a fee charged by a brokerage firm when you buy or sell stocks, ETFs, or other investments. These fees compensate the broker for executing your trades.

- Some brokerage firms now offer zero-commission trading, especially for ETFs and stocks, which makes it cheaper for investors to trade.

## Securities:

Financial assets like stocks, bonds, mutual funds, and ETFs that represent ownership (equity) or debt (bonds), and can be traded in markets.

- Equities:
    - ownership in a company.
- Bonds:
    - Represent a loan made by an investor to a borrower (often a corporation or government). Bonds pay interest over time and return the principal at maturity.
- Derivatives:
    - a contract that derives its value from the performance of an underlying entity. This underlying entity can be an asset, index, or interest rate, and is often simply called the underlying.
- Mutual Funds and ETFs:
    - pools of various securities (stocks, bonds, etc.) that investors can buy into as a way to gain exposure to many different securities at once.

## Bond value fluctuation?

While bonds typically pay fixed interest, their market value can fluctuate based on a variety of factors, allowing bond prices to increase even if the interest (coupon payments) remains the same.

### Interest Rates and Bond Prices

The most important factor influencing the value of a bond is interest rates. Bonds are highly sensitive to changes in prevailing interest rates in the economy.

The Relationship Between Interest Rates and Bond Prices:

- When interest rates go **down**, bond prices go **up**.
- When interest rates go **up**, bond prices go **down**.

**Why This Happens:**

Suppose you buy a bond with a fixed interest rate (coupon) of 5%, and it pays $50 annually on a $1,000 bond. If interest rates in the market fall to 3%, new bonds will only pay $30 on a $1,000 bond.

Your 5% bond becomes more valuable because it offers a higher interest rate than newly issued bonds. Investors will be willing to pay more for your bond, driving up its market price if you choose to sell it before maturity.

On the other hand, if interest rates rise to 7%, new bonds will offer a higher yield, making your 5% bond less attractive, and its market value will decline.

### Changes in Credit Rating

The creditworthiness of the bond issuer can also affect bond prices. **Suppose a company or government that issued the bond becomes more financially stable or gets a credit rating upgrade**. In that case, the bond becomes safer, which makes it more attractive to investors, increasing its price.

Conversely, if the issuer's credit rating is downgraded (due to financial trouble, for example), the bond's value may decrease because investors will demand higher returns for taking on more risk.

### Supply/Demand

This whole dynamic is also impacted by supply/demand. If there's high demand for bonds (for example, in times of market uncertainty when investors seek safer assets), the price of bonds can rise as more investors are willing to pay a premium to hold them.

### Inflation and Bond Prices

When inflation is expected to be high, the real value of future bond payments declines, leading to a drop in bond prices. However, in periods of low or falling inflation, bond prices can rise, especially for bonds with longer maturities, as investors expect stable purchasing power from future payments.

## Premium Bond?

A bond trading above its face value or costs more than the face amount on the bond.

## How Zero-Coupon Bonds Work

- Zero-coupon bonds are issued at a **deep discount** to their face value (the amount they will pay at maturity).
- The bondholder does not receive **periodic interest payments** (coupon payments) like regular bonds. Instead, they receive the full **face value** at maturity.

The difference between the **purchase price** (the discounted amount) and the **face value** is essentially the bond's **interest** or return.

### Example

- **Purchase price**: $600 (what you pay today).
- **Face value**: $1,000 (what you'll get at maturity).
- **Maturity**: 10 years.

In this case, the bondholder receives **$1,000** at maturity and has earned **$400** ($1,000 – $600) in "interest" over 10 years.

This $400 difference represents the bond's **implied interest rate** or **yield to maturity** (YTM). This YTM is the return you will earn if you hold the bond to maturity.

For the example above, the YTM might be around **5.3%** per year (the exact calculation is slightly complex, but that's the idea). Given YTM, similar market fluctuation rationales (found in the previous chapter) apply.

## 401(k)? Wtf is that?

- A **401(k)** is an employer-sponsored retirement savings plan in the U.S. that allows employees to save and invest a portion of their paycheck before taxes are taken out.
- **Tax Benefits**:
    - **Tax-Deferred Growth**: Contributions to a 401(k) are made **pre-tax**, meaning you don't pay income tax on that money until you withdraw it, usually in retirement. This allows your investments to grow without being taxed each year.
    - **Employer Matching**: Some employers match contributions to the 401(k) up to a certain percentage, which is essentially "free money" for your retirement savings.
- **Withdrawal Rules**: Withdrawals are taxed as regular income when you take them out, typically after reaching age 59½ to avoid penalties.

## IRAs? Individual Retirement Accounts?

- **What It Is**: An **IRA** is a personal retirement savings account that provides tax advantages for individuals saving for retirement. There are two main types: **Traditional IRA** and **Roth IRA**.
- **Traditional IRA**:
    - **Tax Benefits**: Contributions may be tax-deductible (depending on income and other factors), which allows for tax-deferred growth. You pay taxes when you withdraw funds in retirement.
- **Roth IRA**:
    - **Tax Benefits**: Contributions are made with **after-tax** dollars, meaning you pay taxes on the money before you contribute. However, withdrawals (including earnings) are tax-free in retirement if certain conditions are met.
    - You essentially don't pay taxes on any additional earnings generated from the investments made with the money deposited into the account.
- **Withdrawal Rules**: Similar to a 401(k), early withdrawals (before age 59½) from a Traditional IRA can incur penalties, but Roth IRAs have different rules regarding contributions and earnings.

## Market Mania:

A period of irrational exuberance and excessive speculation, often characterized by inflated asset prices and a disconnect between valuations and fundamentals.

## Ponzi Scheme:

An investment scam that pays early investors with money taken from later investors to create an illusion of big profits. It relies on word-of-mouth, as new investors hear about the big returns earned by early investors. Ultimately, Ponzi schemes are unsustainable and destined to collapse, much like a bubble that bursts when it can no longer support itself.

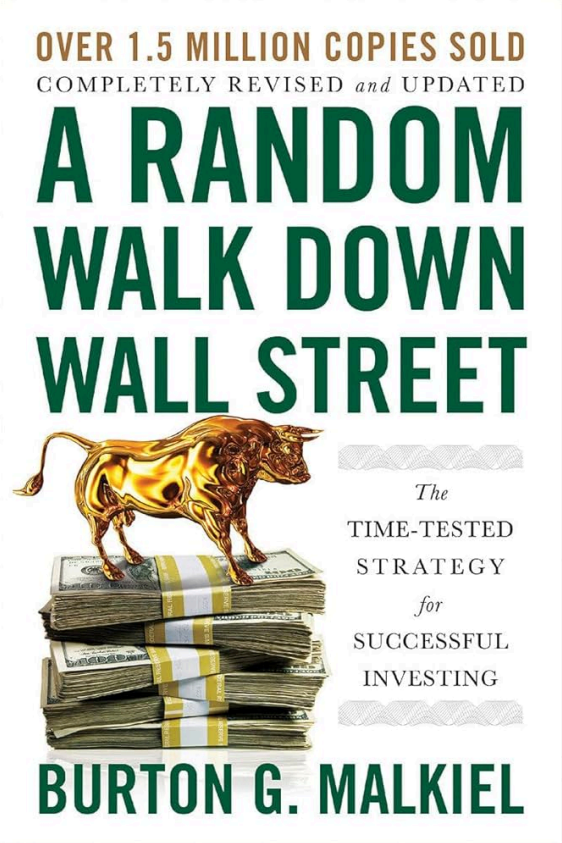
## Buy-and-hold Investing:

**Passive investing**, sometimes called buy-and-hold, is a popular investment approach where you invest in stocks and other securities with the intention of holding onto them for an extended period regardless of changes in the stock market.

## Technical vs Fundamental Analysis:

Fundamental analysis focuses on financial statements and economic indicators to assess an asset's intrinsic value, making it more suitable for long-term investment decisions. Alternatively, technical analysis examines share price and market movements and trends to identify investment prospects.

# Resources





Also, a bunch of other articles and blog posts I read to understand some terminology and see different perspectives.

- Sketchplanations for pretty illustrations.