MODULE 7

Diversification & Risk

As an investor, it's important to never put all of your eggs in one basket. That's where diversification comes into play! Imagine if you had invested all of your money into restaurants before the Covid pandemic - or banks before the 2008 Financial Crisis... Not pretty.

When done correctly, diversification can reduce the risk portfolio faces and help capture returns from the broader market. Risk is unavoidable when you investing, but it declines over time; and that's where the real money can be made!

POWERED BY

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Key Takeaways From This Module

Guiding Questions

- What are the different types of risk?
- How can risk be mitigated through time and/or diversification?
- What does diversification mean when it comes to investing?
- What does the acronym FETCH stand for?
- What does dollar-averaging mean?
- What other investments are there other than the stock market?
- How should you allocate your investments?

Enduring Understandings

- Everyone has a different risk profile that they are comfortable with and it is important to figure out how much risk you personally are comfortable with before investing.
- Investing in different companies and asset classes can reduce a lot of risks but never eliminate all of them.
- The five industries that are needed despite the current economic climate.
- Deciding on an investment strategy before starting investing for real can save you a lot of trouble in the future.

At The End Of The Day, It's All About Risk

And There's No Avoiding It!

All actions & investments have risk because no outcome has perfect certainty. However, you can control how much risk you are willing to take on for an anticipated return.

Some people approach finance (and life) as **risk averse**(reluctant to take risks) while others are more **risk-seeking** (willing to accept greater uncertainty in exchange for the potential of higher returns.)

Unsystematic Risk

Risk that only affects a certain firm or specific class of assets and can be eliminated through diversification.
Eg: Operating strategy of one company

Systematic Risk

Risk that affects the entire market and thus, cannot be diversified away. Often outside of companies' control.
Eg: taxation policies, inflation, interest rates

Everyone's Risk Tolerance Is Different!

Just like every investor has a different investment strategy, spending habits, and desire to save - every investor also has a different risk tolerance!

Risk tolerance refers to how much an investor can handle in terms of fluctuations in the market and potential losses that could occur with any given investment. Investors who are more risk tolerant are typically willing to invest in high-risk assets such as stocks, while those less risk tolerant are more likely to invest in safer assets like bonds or ETFs

Common factors that can influence a person's risk tolerance include age, financial knowledge, income, and life stage.

Generally speaking, younger investors tend to be more willing to take on greater risks due to their longer time horizon for investment returns. Furthermore, those with higher incomes are often able to take on more risk since they have more disposable income.

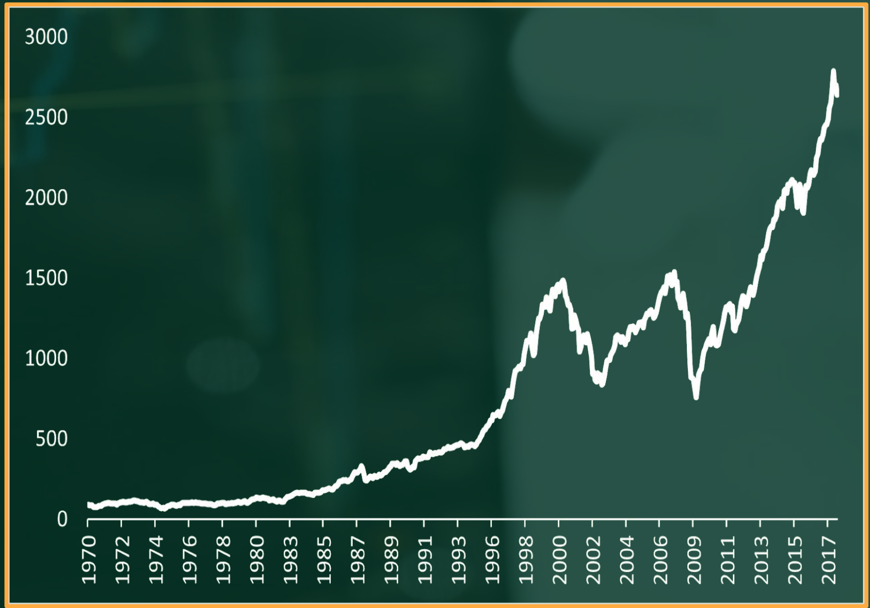
However, Risk Always Declines, Long-Term

Probability of losing money (risk) **declines** as the time horizon increases. The growth of financial markets over time supports this theory. So, it is better to have **“time in the market”**.

If we think about it logically, this makes sense.

Over the long-term, the economy grows as the world's population increases and companies continue to innovate. This means that financial markets will trend upwards overtime, provided an investor waits long enough.

S&P 500 Historical Performance
(a proxy for a fully diversified portfolio)



What Is Diversification?

Diversification involves investing across an array of asset classes and investment vehicles to mitigate unsystematic risk. As some industries are inversely related, when one asset in a portfolio performs negatively there are other assets generating positive returns.

Diversification Involves...

- Spreading money **across asset classes**. This may include stocks, bonds, real estate, ETFs, commodities, cash & short-term equivalents.
- Spreading money **with an asset class**. This could look like investing in the stocks of different industries or different market caps.

Diversification Does Not Involve...

- Investing in different companies in the same industry. This strategy exposes you to the **same unsystematic risk**.
- Trying to completely eliminate investment risk. **This is impossible** since market risk (systematic risk) is undiversifiable

The Most Basic Form of Diversification: FETCH

Financial Services are the primary driver of an economy as they provides liquidity and fee-flowing capital to individuals and businesses alike

Energy relates to companies that produce and supply energy. It represents all aspects of oil, gas, coal, renewables and other consumable energy that power our daily lives and businesses

Technology encompasses businesses that sell goods and services in electronics, software, artificial intelligence which have revolutionized every industry

Communications represents companies that make communication possible on global scale through the phone or internet, wireless. It is critical to connectivity

Healthcare provide goods and medical services to treat patients, and develop drugs to eradicate diseases

Why FETCH Works

These 5 industries are essential to the market. They will be a stabilizing force in your portfolio even if the other industries are down

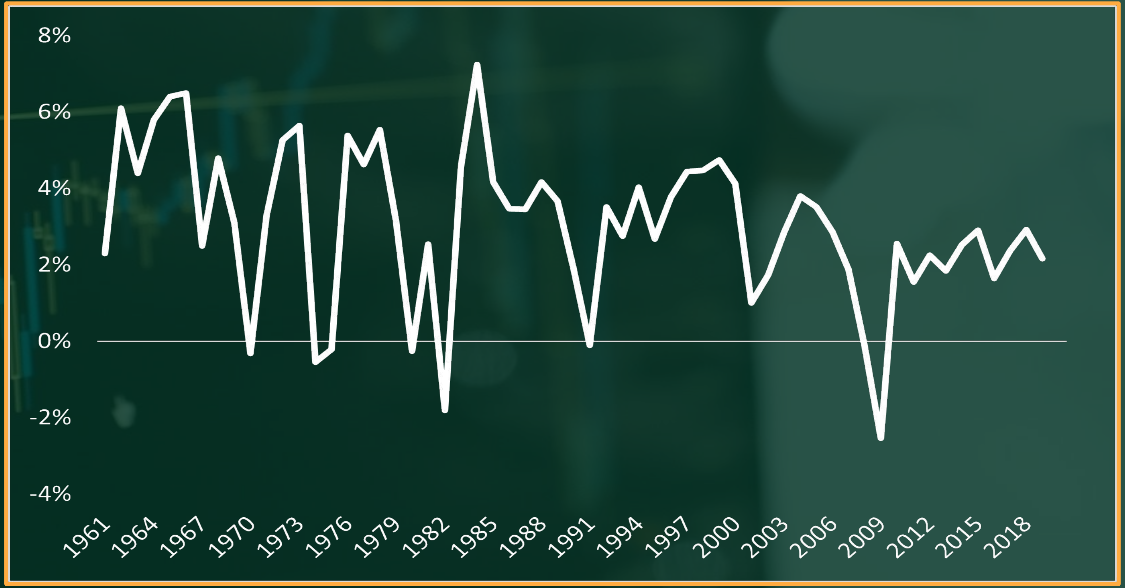
Diversifying By Owning The Whole Economy

Index investing is a common strategy where investors purchase a reflective benchmark such as the S&P 500 index allowing for diversification across companies in the index,

We can see there is **consistent productivity growth** in the economy since there are very few years with negative growth. You can tap into this consistent growth by **"owning the market"** through an index.

This strategy relies upon the fact that risk declines over the long-term and is a passive investment strategy.

50 year GDP growth rate: averages 2-3% annually

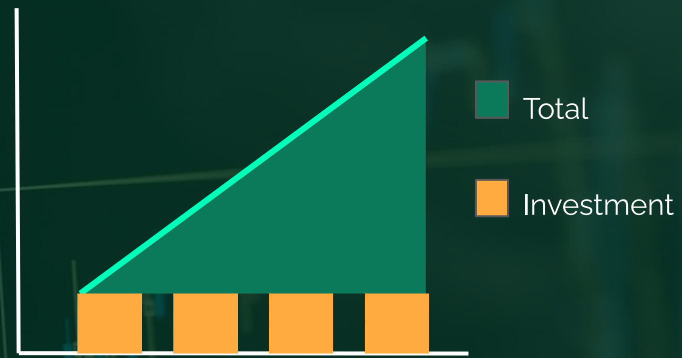


Diversify Your Cost With Dollar-Averaging

Dollar cost averaging is an investment strategy where an investor divides up the total amount to be invested across **periodic purchases** of a target asset in an effort to reduce the volatility of the entire purchase.

These purchases occur **regardless of asset's price** & at regular intervals.

Dollar Cost Averaging



Lump Sum Investing

Why Dollar Cost Averaging?

When we looked at the S&P 500, we saw that the market grows in the long run but there can be short run volatility. Dollar cost averaging takes advantage of this by working to build savings and wealth in the long term, while minimizing short term volatility of the market

What Is Hedging?

Hedging is an investment strategy that helps reduce and manage risk.

It's similar to taking out an insurance policy. If you own a home in an area prone to floods, you'd want to buy flood insurance to protect against this risk.

In financial markets, investors hedge one investment by making another. This involves making an investment that helps offset potential losses or gains from another investment.

Ideally, a hedge should completely eliminate the possibility of a future loss. In reality, however, **not all hedges are perfect, and the reduction in risk comes at a cost.**

THINK ABOUT IT

- Can you provide another example of a situation where you might want to hedge a risk?
- Why might an investor choose to accept some risk, rather than hedging it completely?

How Does Hedging Impact Risk & Reward?

Hedging can help reduce the risk of an investment, but it typically comes at the cost of potential profits.

- The purpose of hedging is not to make money but rather to provide insurance.
- When you hedge, you are trading some of the upside of an investment in return for limiting the potential downside.
- Successful hedging aligns your investment position with your risk tolerance and investment goals.
- A poorly constructed hedge could actually increase risk and reduce returns.

THINK ABOUT IT

- What types of risks would airlines hedge?
- Can you think of other industries that may want to hedge different risks?
- Why might a company choose not to hedge a particular risk?

Example Of A Long-Short Hedge

Let's assume you own Tesla stock (TSLA). To hedge against general market movements, you decide to short Rivian Motors (RIVEN) stock, one of Tesla's competitors.

This is a type of ***long-short equity strategy***, aimed at taking advantage of the expected performance difference between two companies.

If the entire market drops, you might lose money on your Tesla investment, but gain on the Rivian short sell, potentially offsetting your losses.

If the market rises, the gain in Tesla stock is expected to outweigh the losses incurred by shorting Rivian stock.

Buy $1,000 of TESLA at a share price of **$240.55**

Short $1,000 of RIVN at a share price of **$31.80**.

JULY 28, 2023

Share Price of Tesla:	**$266.44**
Percentage Change:	**+10.62**
Value Of Tesla Position:	**$1,160.20**
Share Price of Rivian:	**$26.94**
Percentage Change:	**-15.40%**
Value of Rivian Position:	**$846.00**

TOTAL 1-YEAR PROFIT

+$260.20

Building Long Short Positions

Check out the Long-Short Equities Activity to figure out how you can implement different strategies to reduce the risk in your portfolio.

Asset Allocation

So with all of these possible investments, how should one invest all of their money in time?

If you wouldn't invest all of your money in one stock, perhaps it doesn't make sense to invest all of your money in the stock market as a whole?

That's where asset allocation comes into play... And if you become good at it, you might become a portfolio manager at a hedge fund.

Stick With The 50-20-30 Rule

A popular rule to help with budgeting is the 50-20-30 rule. It divides your budget into 3 categories: **Needs**, **Wants**, and **Savings & Investing**.

Don't even get us started saying that's 4 things... We don't write the rules.

50%
NEEDS

This category includes things you absolutely need to survive. This includes rent/mortgage payments, car payments, groceries, Health care, insurance, minimum debt payments and utilities. This is the most important category to aim to satisfy.

20%
WANTS

This includes your subscriptions, ordering in, going out, buying new things that aren't needed, or any other spending on entertainment or hobbies.

30%
SAVE & INVEST

This should be allocated towards an emergency fund and paying down any debts. Invest any excess cash you have after satisfying loan repayments to prepare for the future & put your money to work.

The 100 Rule

As you grow older, **your investment priorities should change because you are no longer able to ride out dips for as long and don't have as much time to wait**. It should shift towards safer and less risky assets.

One easy way to allocate your assets based on age is **the Rule of 100**. The rule states that you should **subtract your age from 100 and that is the percentage of money you should allocate into stocks.** The rest should be harbored in fixed-income investments that are considered safe. For example: if you were 25, you would be expected to invest 75% of your capital into the stock market and the rest into safe securities.

As you grow older you invest in less risky assets because you cannot afford to lose your invested capital, however, at a younger age, you can afford more volatility because long-term investing capitalizes upon time.

How Your Portfolio Should Change Over Time

Diversifying your portfolio is a huge part of planning your investments. Typically it will be split into assets such as bonds, stocks, and treasuries, depending on the amount of risk you are trying to take.

When you are young typically your portfolio should be a bit riskier with a high portion being stocks. This is due to them being riskier but also more rewarding. Since you are young you are able to ride out market downturns also and mitigate your risk.

As you get older you'll want to shift more of your portfolio into safer assets like bonds & cash. This is because you have less time to ride out market downturns and are looking for a more reliable way to preserve wealth versus continue to grow your money. Bonds, treasuries, and cash offer safety & security, although you may miss opportunities.

25 Years Old		
84% STOCKS	**6%** BONDS	**10%** CASH

50 Years Old		
61% STOCKS	**16%** BONDS	**23%** CASH

Another Consideration: Taxes

Something to consider when investing is the **implication of taxes.** If you are trading stocks and are selling as fast as you are buying, you'll end up with a mess in taxes as each sale is accounted for in your income.

Short term capital gains taxes take effect for any asset that is held for less than a year. After an asset has been held for a year and is sold it is taxed as a long-term capital gain, which gets better tax treatment.

Sometimes you can defer taxes through various means including **carrying over any loss from a previous year to reduce your gain, investing in an annuity or investing in stocks with your IRA.** This either reduces the taxes you owe or makes them due at a later date.

> The key to staying in the market is that every time you trade a stock for a profit, you pay taxes on the gain. If you hold a stock for longer then you pay a lower tax rate called the capital gains tax. This is a critical reason why you should stay invested in the market long term.

Key Takeaways From This Module

CORE & FUNDAMENTALS

- The different types of risk in investment include market, credit, liquidity, operational & country risk.
- Risk can be reduced over time by holding long-term investments that have a historical tendency to grow, and through diversification.
- Diversification means allocating resources across different types of investments to reduce exposure.

APPLIED KNOWLEDGE

- Everyone has a different risk profile that they are comfortable with and it is important to figure out how much risk you personally are comfortable with before investing.
- Investing in different companies and asset classes can reduce a lot of risks but never eliminate all of them.
- The five industries that are needed despite the current economic climate can be described with FETCH.

RELEVANCE FOR YOU

- Risk declines over time with long term investments, but there is some risk that's unavoidable when participating in financial markets.
- The amount of risk you incur in your investment portfolio should change over time.
- Rapidly trading in and out of positions will result in a higher tax burden, which will reduce your overall investment returns.