

Issue 7, Oct. 3, 2025

NC Cash | NC ABLE

#### In this issue:

- •Bottom Line with Brad
- Demystifying: Learning the Lingo
- Investing vs Gambling
- Tips for Teens
- Building Wealth
- •The Role of Experts
- •Responsible Gaming
- •Recommended Reading
- Test Your Knowledge

#### **Finance Fridays**

is a publication of the N.C. Treasurer Brad Briner is focused on sustaining the state's pension and healthcare plans. Briner was most recently the Co-Chief Investment Officer for Willett Advisors and has held positions at Morgan Creek Capital, the UNC Management Company, ArcLight Capital and Goldman Sachs.













A lot of us wait all year for football season to begin. It means fall weather, tailgating and cheering on your team. Every year, I hope my Tar Heels rise to the top. While they have not gotten all the W's I'd hoped for so far, I go into every game "knowing" they will come away with a victory. But the truth is, I can't know that for sure - nor can any other sports fan out there. Which leads to the question whether sports betting is a risk you should take. And this is coming from someone who has built their career "betting" on the stock market.

We have covered a lot of ground in the last six months in this newsletter, hitting on some of the most important basics in financial literacy. This month, I wanted to dedicate this newsletter to a small distinction in finance, which is, in actuality, an enormous difference.



"...it is really important you don't step into the investing world with a gambler's mindset."

While I must admit there are some similarities between investing and gambling – the role of chance being the central one – making this comparison is like saying that competitive eating and competitive swimming are the same thing. True, they are both competitions, and you could potentially win fame and riches doing them. But I think we'd all agree that the long-term implications for your health are quite different!

It is the same with investing and gambling, and it is really important you don't step into the investing world with a gambler's mindset. The central difference between the two is felt in the long term. If you can be an average investor over long periods of time (remember – passive, or index, investing requires little skill, and is an above-average strategy over time), you end up better off. If you are an average gambler over time, you end up no better off, and if there is a casino or other intermediary involved, you end up broke. In both investing and gambling, of course, skill matters – but in gambling you are fighting a headwind, while in investing you have a tailwind, and that difference is crucial.

To illustrate the point, let's dissect how you build wealth through owning common stocks. If you buy a share of a company, you are buying a share of all the profits that company makes in the future. That means there are three ways you can win:

- 1. Your share of earnings: Each year, the profits of the company will be divided up, and the company will either send them to you as a payment (a dividend), increase your share of ownership in the company (this is what a stock buyback is it reduces the number of shares of the company outstanding, so you own more!), or re-invest those profits to increase next year's profits even faster.
- 2. Growth of the company's earnings: Almost every company has plans to increase its profitability next year you benefit from these efforts as earnings grow over time.
- 3. Changes in valuation of the company: While this is the most unreliable way to win, we do see a long-term uptrend in the valuation of common stocks. This is independent of the earnings growth mentioned above the market over time

has consistently paid more for every dollar of earnings, which has provided a tailwind for a long time for investors. It is possible that this trend could reverse of course, but that's a much longer topic for discussion.



In gambling, there is only one way to win. And that is for your opponent to lose. While investing is what is called a positive-sum activity over time, gambling is zero-sum. Someone has to lose for you to win, and casinos set up the games so that they aren't the loser... there's a reason for the saying "The House Always Wins!"

There's much more in this month's edition about investing. It is an important part of building a personal financial success story, so I bet you are going to enjoy learning more about it ... and that's no gamble.



The world of investing can seem very complex and intimidating. One challenge to get comfortable with it is to understand the terminology and differences in some of the investment alternatives available to investors. A fundamental thing we must always keep in mind as we navigate our options is that everything has a risk/return trade-off component. Having a sense of that trade-off is important for making investment decisions.

Let's do some comparisons:

#### Stocks vs. Bonds

Stock (equity) is a fractional ownership of a company. Companies initially issue shares of stock to raise money for things like buying equipment, expanding their business and making acquisitions. When you buy a stock, you have an





ownership stake. But keep in mind, companies typically have millions, if not billions, of shares of outstanding stock. Amazon, for instance, has more than 11 billion shares. These shares trade on the open market where buyers and sellers interact based on their thoughts about their future value. The price can rise and fall, and the company's market value is the number of shares outstanding multiplied by the stock price.

Bonds (fixed income) are debt. Bonds are created when a company decides to borrow money from the public and issues (sells) bonds. Bonds have a contractual obligation between the company and the investor, just like a loan from a bank. There is an interest payment component – the compensation investors get for taking risk on issuing the bonds – and the company's promise to repay the amount borrowed at an agreed-upon future date.

#### Risk/Return of Stocks vs. Bonds

Stocks are riskier than bonds, in part because the contractual element of bonds provides protection for the investor. As a result, expected (desired) returns of stock are typically higher than bonds. These risks and returns vary by company, by industry and are dependent on macro-economic factors.

# Exchange Traded Funds (ETFs) vs. Mutual Funds

Both are a combination of individual investments that are collectively called a "portfolio" and can be made up of a combination (usually hundreds) of stocks, bonds or other types of investment securities. These funds pool money from other investors, and the basic benefit of these funds (portfolios) is that owning shares of a fund diversifies the investment, and risk is spread across multiple investments. Both are excellent ways for investors to participate in the market and have a comfortable risk/return profile.





Some comparisons of typical differences:

	MUTUAL FUNDS	ETFS
TYPE OF MANAGEMENT	Active: professional money manager making buy/sell decisions of individual securities	Passive: usually mirrors an existing index (like S&P500), there is no human decision-making in the individual securities
COST	Higher fees	Lower fees
TRADING	Can only be traded (transacted) at the end of the day	Traded throughout the day, like individual stocks and bonds

An investor's appetite/tolerance for risk will likely be different based on what they are investing /saving for, time frame for that investment, and stage of life they are in.

For instance, a 25-year-old saving for retirement has a long time frame and can take a reasonable amount of risk because they won't need the money for many years, and it's easier to live with the rise and fall of investments over time. However, a 30-year-old planning to buy their first house in five years and saving/investing for a down payment might be more risk averse and likely will invest more conservatively.

# **INVESTING PS GAMBLING**





By Ronald Funderburk, CFA Investment Director, N.C. Department of State Treasurer

Investing and gambling are distinct activities that thoughtful investors never confuse with one another, and neither should you! I, personally, have excelled at investing and experienced success as a poker player, which helps me to draw the clear line that distinguishes the differences: Purpose, Corporate Alignment and Systematic Return on Investment ("ROI").

#### **Purpose**

The purpose of gambling for many is a source of entertainment and stress relief that comes with the "thrill of chance," whereas the primary purpose of investing is "capital growth" to meet future needs. When forgotten, this distinction has been a source of heartbreak for many. Investor Warren Buffett has two rules of investing that help contrast these principles. The first rule of investing is "to not lose money." The second rule is "not to forget the first rule." Although clever and humorous, his "rules" underscore the importance of thoroughly evaluating an opportunity prior to making an investment. Buffett's advice is the antitheses of gambling or chasing the latest "MEME stock" that often ends in financial ruin. (Quick side note: a meme stock is just what it sounds like - a share of a company experiencing viral popularity - likely on a social media platform.) Poor due diligence combined with a high chance of capital loss is not investing, it's gambling. It boils down to this: if you are making an investment and have not carefully reviewed the fundamental return drivers, you might as well be gambling.



Corporate alignment offers a second key distinction. This is the coordination of resources, staff, and procedures towards one common goal. The entire experience at a casino is designed to *extract* money from its customers. Each game (i.e. roulette, blackjack, craps) provides the "house" an edge or statistical advantage. Professional poker players scout rooms

known to attract tourists so that they can use their skill against novice poker players. Dealers are trained to shuffle quickly and manage the rate at which people play. Increasing the pace at which one loses helps the casino. The layout of the casino floor is meant to increase player engagement. These activities work together for one common goal and that is to separate the gambler from his or her money.

Investing is quite different. Many resources are aligned to *create* value for investors. Platforms like Schwab, Fidelity and Vanguard are aligned to help make investing easy. They provide investors with research, tools and index products meant to maintain or grow purchasing power over the long run. Large publicly traded companies exist to meet customer needs and deliver profits to shareholders. For example, Amazon's resources and staff are organized to create profits for its shareholders and repay its lenders. Overall, the investor ecosystem (i.e., regulatory bodies, public companies, brokerage firms) is aligned to generate value for investors.

#### **Systematic Return on Investment**

The final piece of this puzzle, and potentially the most important, is the systematic ROI. This is the return you would expect after diversifying away randomness and luck. Ever heard of "beginner's luck?" How often can one repeat that lucky midcourt shot or beat Vegas in Blackjack? Probably never again, unless you are Stephen Curry or counting cards. You achieve systematic outcomes at the casino by playing a large



sample size of hands. In investing, though, a diversified portfolio and having a long-term time horizon creates systematic ROI. When you look to differentiate investing and gambling remember this: The expected systematic ROI for the average casino game is negative, but it is meaningfully positive if you were to invest in the S&P 500 or an Investment Grade Bond Index. Perfect Blackjack strategy has a house advantage of 0.5% or a Systematic ROI of negative 0.5%. For this article, our team reviewed the historical monthly returns for both the S&P 500 Equity Index and a U.S. Corporate Investment Grade Bond Index going back 30 years. We selected this time frame because it includes the Dot Com Bubble, Great Financial Crisis ("GFC") and Covid-19. If one were to have a three-year time horizon and randomly invest at any point during the past 30 years, they would expect to have a positive result 80% of the time for the S&P 500 with an annualized ROI of ~8% and a positive result 90% of the time for the U.S. Corporate Investment Grade Index with an annualized ROI of ~5%.

#### **Takeaways**

Always do your homework before making an investment or you might as well be gambling. If it wasn't obvious before reading this article, never walk into a casino or

use an online sportsbook expecting to win and never gamble with money you can't afford to lose. Also, never be afraid to invest for the long term as thoughtful investing pays off in the long run!



THE MAGIC OF COMPOUNDING:
BUILDING WEALTH THROUGH





By Katie Koch, President and CEO of TCW

Investing might seem complicated at first, especially with all the jargon that surrounds it. But here's the truth: building wealth doesn't require fancy strategies or constant

trading. In fact, the most powerful approach is surprisingly simple. Start early, invest consistently, keep costs low and most importantly stay calm when markets get rocky.

I have been investing for more than 20 years, and I am passionate about empowering everybody with financial knowledge, including my four kids who are under the age of 12. In fact, we celebrated my daughter's 11th birthday by inviting her fifth-grade friends and their moms to learn the basics of investing. Why? Because investing is fun and the earlier you start, the more powerful the results!

#### **Making Your Money Work**

Compounding is one of the most powerful ways to make your money work for you. In its simplest form, it occurs when the returns on an investment are reinvested and added to the principal. Albert Einstein famously called compounding the "eighth wonder of the world."

Here's how it works: let's say you invest \$10,000 with a 7% annual return. In the first year, that investment grows by \$700 to \$10,700. In the second year, you earn 7% again on that bigger pot, resulting in \$749 of new earnings for a total of \$11,449.

Over time, the effect snowballs. By year 30 your \$10,000 could grow to more than \$76,122 without you adding another dollar. That's the exponential power of compounding. Even smaller amounts invested consistently can lead to meaningful results. The earlier you begin, the more time your money has to grow—not just on your contributions, but on the gains those contributions generate year after year. (Figure 1.)

## The Importance of Saving Early

TCW

The value of an initial \$1,000 investment at age 65 based on starting age and the level of annual compound returns. For illustrative purposes only.

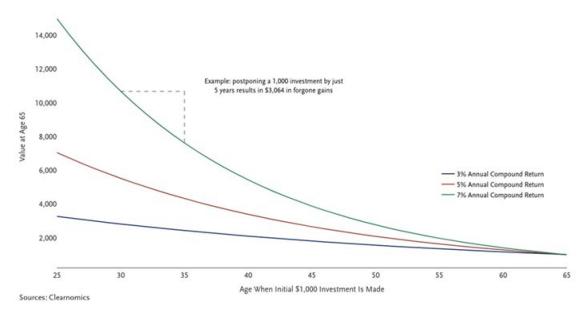


Figure 1.

## **Patience and Discipline**

Early in my career, I learned that successful investing isn't about chasing quick wins or trying to outsmart the market. It's about patience, discipline and letting time work in your favor. That's why I prefer "time in the market" over "timing the market."

Consider this: Over the past 30 years, the S&P 500 delivered a cumulative total return of 2,550%, with an annualized return of 10.6%. That means if you invested \$1,000 in 1993 and simply stayed the course, you would have had more than \$26,000 by mid-2025. That's compounding at work—no fancy tricks, just consistency and time.

But staying invested isn't always easy. When markets fall, it's tempting to panic and sell. When they rise, it's tempting to chase returns. Yet missing just a few of the market's best days can dramatically reduce your long-term gains. Over the past 20 years, missing the 10 best days would have cut your annualized return from 10.7% to 6.3%. Miss 50, and you would have lost money. (Figure 2.)

Some of the market's strongest rebounds come right after periods of volatility like during the Global Financial Crisis and the COVID-19 pandemic. Trying to time those moves often means missing them. And frequent trading adds costs, taxes and missed opportunities that quietly erode your returns.

## Staying Invested: Missing the Best Days

The impact of missing the best market days over the past 25 years Based on an initial \$1,000 investment using S&P 500 returns before transaction costs

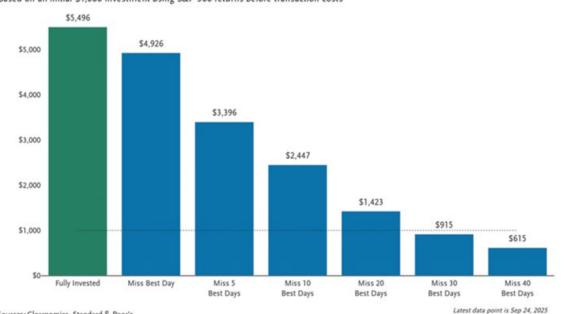


Figure 2.

#### The Bottom Line

Sources: Clearnomics, Standard & Poor's

Investing is a discipline. It's about setting a plan, choosing the right manager and strategy, and giving it time to work. In today's world of instant gratification, it's easy to lose sight of the long view. But investing isn't about quick thrills, it's about steadily building something lasting. History shows that those who remain patient and committed are the ones rewarded.

So, the next time the market dips or the headlines get scary, take a deep breath, and remember, the smartest move is often to do nothing at all. Let compounding work for you. Stay the course. Your future self will thank you.



There is a skill set required for being a successful investor versus a successful gambler. Since stock market investing involves skill (e.g., in forecasting a firm's future cash flows and performance) it is not simply a game of chance. However, people who view stock markets as primarily a gamble may lack <u>trust in stock markets</u> and this leads to completely avoiding them. In turn, this adversely affects their financial security in retirement since equities have outperformed other asset classes in the long run. Therefore, it would be useful to understand the role of financial experts in the investing world by evaluating advantages and limitations of skill in investment, especially in the context of mutual funds and evolving financial markets.



# The evidence from mutual funds

Unfortunately for mutual fund managers, the numbers are not very good. Starting with the <u>seminal article</u> by Jensen in 1968, researchers have consistently shown over the years that the vast majority of active fund managers don't earn a positive benchmark-adjusted return.<sup>1</sup> A large literature has emerged that examines whether superior mutual

fund performance is more likely due to skill or due to luck (e.g., some fund managers luckily own some stocks that appreciate). In an <u>influential article</u>, Fama (Nobel laureate) and French conclude that before fund expenses are considered, only a small proportion (< 5%) of actively managed equity funds are able to beat their benchmarks. Once fund expenses are considered, the superior performance vanishes.

This evidence is consistent with the notion of market efficiency, first articulated by Fama in his Ph.D. dissertation in 1965 and further advanced in later research. Simply put, with low transaction costs, easily available information (via firms' financial reports and news releases, analysts' forecasts, etc.), and competition amongst investors to make a profit, stock prices are usually efficient in the sense that they reflect the available information. In this scenario, market prices are fair prices and opportunities for investors to consistently earn positive, risk-adjusted returns are limited.<sup>2</sup>

Perhaps unsurprisingly, this evidence has spurred the growth of passive equity mutual funds. Since the fund manager in a passive index fund is not actively working to identify and trade mispriced stocks, portfolio turnover and fund expenses are low,

resulting in higher returns to investors, after expenses. Passive funds are amongst the largest mutual funds today, managing several hundreds of billions of dollars of assets, and are a common staple of most retirement plans.

#### Other avenues for investment

There is some evidence that large hedge funds and private equity funds outperform. However, these funds usually do not publicly provide their performance details, so it is difficult to corroborate this claim independently. These funds typically have high initial investment requirements and more importantly, are not available to retail investors.



Many retail investors have turned to investing in individual stocks, especially favoring stocks with lottery-like features (low priced, volatile stocks whose returns are highly skewed). This trend has gained traction in recent years with the availability of platforms that provide investors with access to high frequency data. Unfortunately, the evidence shows that in many countries (e.g., USA, Germany, China, Taiwan, etc.), such investors tend to trade (or gamble) frequently. Barger and Odean ("Trading is hazardous to your wealth: The common stock investment performance of individual investors", Journal of Finance, 2000) examine the trading records of thousands of individuals and show that those that trade the most earn a return of 11.4%, whereas the market returned 17.9% and the average household earned 16.4%.

#### The bottom line

Faced with all this evidence, what might an investor do? Over long horizons spanning 20-30 years, equities have had higher returns than other assets such as bonds. Therefore, stocks may be suitable for building wealth via long-term investments, e.g., as part of a 401(k) plan or IRAs. Investing via mutual funds may be preferable to investing in individual stocks since (i) the former helps reduce some of the risks of investing due to diversification effects, and (ii) it is difficult for a retail investor to identify mispriced stocks. If it is difficult to find superior actively managed funds that have consistently outperformed the market, then investing via a passive index fund may be preferable.

As the old adage goes, slow and steady (often) wins the race.

- In an actively managed mutual fund, the fund manager will continuously evaluate stocks and identify underpriced (overpriced) stocks to buy (sell). In contrast, passive funds mimic a particular index (e.g., SP500 index), and these fund managers do not trade actively - they passively hold all the stocks that are part of the index.
- 2. A simple thought experiment would be helpful. Suppose that a stock currently trades at \$100 per share, but its true value is \$150, estimated based on e.g., publicly available information. Knowledgeable investors would rush to buy this undervalued stock at \$100, and this buying will push its price closer to true value and the profits get traded (or arbitraged) away. Hence, traders who are first to notice and trade on this mispricing will reap abovenormal returns and later traders will have missed this opportunity to make a profit. This competition among investors to trade quickly to earn a profit ensures that mispricing is likely to only persist for short periods, making the market more efficient and harder to beat.
- 3. See, for example, "Trading as gambling", Dorn, Dorn, and Sengmueller, Management Science, 2025; "Does good luck make people overconfident? Evidence from a natural experiment in the stock market", Gao, Shi, and Zhao, Journal of Corporate Finance, 2021; and "Do individual investors treat trading as a fun and exciting gambling

## Contest for K-12 students in North Carolina

brought to you by the

**NC Financial Literacy Council and NCDPI** 



open to all NC students



one submission per student



awards and recognition across grades and categories

**ENTRIES ACCEPTED THROUGH DEC. 19** 

VISIT FLC.NC.GOV FOR MORE INFORMATION





Today, Americans have more options than ever to invest in the stock market, including

apps that offer easy access to customers with commission-free trading. As of March 2024, North Carolinians also have many options for wagering on sports through several state-regulated online sportsbooks, including FanDuel, DraftKings, BetMGM, bet365, Fanatics, and ESPN Bet. At first glance, both investing and sports betting seem like similar ways to grow your money. However, while both involve risk and money, there are essential differences that everyone should understand.

#### **Investing vs. Gambling: The Key Differences**

Investing refers to purchasing a financial asset, such as buying stocks, bonds or ETFs, with the expectation that it will appreciate in value over time. As many of the experts in this month's edition of Finance Friday have outlined, investing carries risk, but you can use proven strategies to help your money grow. With investing, you own a financial asset that fluctuates in value over time and carries varying degrees of risk based on the type of asset. Over the decades, the stock market, for example, has increased in value, despite experiencing highs and lows along the way.

Gambling and sports betting are different. While some experts on TV or your favorite sports podcast might suggest that there are "can't miss" picks or you can guarantee a win by studying your team closely enough, there is no reliable way to earn money on sports betting consistently. The odds are designed so that, over time, the house (or sportsbook) always comes out ahead in the long run. Even with significant research and expert guidance, sports betting remains largely a matter of chance, and if you lose the bet, your money is gone. This chance is what makes sports betting a source of entertainment for those who engage in it in a healthy way.



#### **Entertainment, Not Investment**

These distinctions are why sports betting should be viewed as entertainment, rather than a form of investment. If you choose to bet on sports, treat it the same way you'd treat spending money on movie tickets, concerts, or eating out. Only bet what you're comfortable losing, as that is the most likely outcome, even for the experts. Don't use money you need to invest, pay bills, or cover other essential expenses.

## **Set a Budget and Know Your Limits**

Setting realistic expectations around how much you're willing to wager and lose can lead to a more positive gaming experience. While it is helpful to set specific limits on how much you spend per wager or each month, it's also important to set limits on the amount of time you spend betting. Just as you might limit your time on social media, setting time boundaries can help ensure betting doesn't interfere with your other commitments.

#### You're Not on Your Own

Responsible gaming is a shared priority. While we know that many people prefer to set these limits and budgets informally, current sports betting apps integrate responsible gaming concepts into the app experience. All available regulated platforms provide you with the ability to set limits for time, wager, and deposit amounts. Many platforms, including DraftKings and FanDuel, also offer you personalized information and insights, like deposit, wager, time, and winning history, which can help you make more informed

decisions about your play.

My organization, the Responsible Online Gaming Association (ROGA), is focused on identifying new strategies to promote responsible gaming and providing the available resources. That is why we have launched Know Your Play, an educational resource specifically designed for college students that offers key learnings on responsible gaming and budgeting, alongside information on other financial literacy topics and mental health, to help college-aged students navigate their increased independence. If you are an interested student, parent, teacher, or mentor, you can find this free content at www.knowyourplay.org.

# When Investing Starts to Look Like Gambling

Recently, the line between investing and gambling has become increasingly blurred, partly due to the emergence of new financial products and trading platforms that encourage high-risk, short-term speculation. Apps for day trading, options trading, prediction markets, and cryptocurrency can sometimes resemble gambling more than traditional investing. These "gamblified" investment products frequently attract people by promising excitement or big, quick wins. Just as the "house always wins" in gambling, most who participate in these activities lose money over time.



These mobile trading platforms utilize features borrowed from gambling apps, such as push notifications and rewards, to encourage you to engage in more frequent trades and take on higher risks. This can make it confusing to distinguish between healthy investing and speculation that resembles betting.

#### What Does This Mean for You?

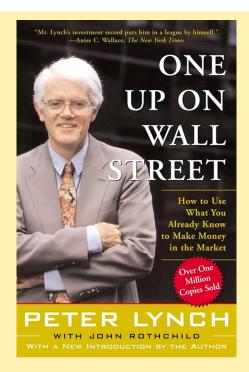
It's more important than ever to understand your spending. If you find yourself making frequent trades or chasing losses, you may be drifting into risky territory. Stick to proven, long-term investment strategies and be cautious of high-risk, high-frequency trading or speculative products.

#### A Final Word of Advice

For those interested in both sports betting and investing, it's essential to remember that the approach to each is very different. Investing is about growing your future wealth with patience and a plan. Sports betting is about having fun, with the understanding that losing is much more common than winning. Make sure you know the difference, use your money wisely, and reach out for help or more information if you need it.

# Recommended Reading: One Up On Wall Street

This month, Brad is suggesting "One Up On Wall Street" by Peter Lynch for your reading. This book walks you through investing by showing that there are opportunities everywhere. Lynch offers advice and guidelines on how to make your money work for you. You can purchase a copy <a href="here">here</a>. Or you could borrow a copy from a local library through a book finder like <a href="here">here</a>.





#### For Teens:

#### What is gambling?

- A. Betting money or valuables on an event with an uncertain outcome, primarily driven by chance.
   Hoping for a win based on luck rather than analysis or strategy.
- B. Doing research and playing the stock market.
- C. Rolling dice on a street corner and offering \$1 for the highest number rolled.



## Why do some people keep gambling even after losing a lot of money?

- A. They believe it's just money and will win it all back eventually.
- B. They believe they're due for a "lucky streak" after many losses and will win it all back.
- · C. It's fun.

#### Why would investing be confused with gambling?

- A. Both involve putting money at risk with no certain outcome.
- B. Both guarantee quick cash if you know what you're doing.
- C. Both can lead to winning or losing money, and the outcomes can feel uncertain.

#### For Adults:

#### What is investing?

- A. Putting money into assets with the expectation of generating future income or growth.
- B. Buying lottery tickets as a chance to increase wealth.
- C. Putting money into stocks to receive a profit.

#### What are the basic types of investments?

- A. Stocks, Bonds, Commodities, 401K, Collectibles, Credit.
- B. Stocks, Bitcoin, Bank Account, IRAs, Mortgage.
- C. Stocks, Bonds, Commodities, Real Estate, Mutual Funds and ETFs.

## Which of the following best describes the difference between investing and gambling?

- A. Investing guarantees profits over time, while gambling guarantees adrenaline rushes based off luck.
- B. Investing relies on research and strategy, while gambling relies on uncertain outcomes and chance.
- C. Investing focuses on hoping for a win based on strategy, while gambling focuses on expectation of generating a profit.

#### Click here for the answers.

#### Sources:

<u>Difference between Investing and Gambling - GeeksforGeeks</u>
<u>Going All-in: Investing vs. Gambling</u>
What Is Investing? How Can You Start Investing? – Forbes Advisor













North Carolina State Treasurer 3200 Atlantic Avenue Raleigh, N.C. 27604 (919) 814-4000

Contact us with questions about financial literacy or suggestions for topics.

Disclaimer: Any statement made in this Financial Literacy Newsletter ("Newsletter") is not intended as investment, financial, legal, accounting, or tax advice, and any person who subscribes to the Newsletter should consult a qualified professional to address their own specific financial situation. Any use of trade names or trademarks of third parties does not imply affiliation with, endorsement by, or association between them and NCDST. Articles submitted by guest authors for publication in the Newsletter may contain links or QR codes to provide additional references or information to the subscriber, and NCDST cannot guarantee the security or content of these links or QR codes.