

# HORNED FROGNOSTICATIONS

## Economic analyses and forecasts

researched and authored by TCU Economics majors



### Fort Worth's Economic Pulse: Unraveling the Dynamics of Growth and Sustainability

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Over the last 10 years, Fort Worth has become one of the top 5 fastest growing cities in the nation, increasing in population from 796,000 to 962,000. This has been driven by employment opportunities, the growing tech industry, the overall quality of life, and infrastructure improvements. Whether or not these are sustainable, however, is an open question.

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### Amazon's Impact on E-commerce

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In the wake of the 2019 coronavirus pandemic, e-commerce has emerged as the fastest-growing sector in retail, with Amazon leading this transformative charge since its inception in 1995. This has given rise to the "[Amazon Effect](#)," a reference to the challenges many companies face when trying to directly compete with their extensive stock range, fast shipping, hassle-free returns, competitive pricing, and Prime subscription service.

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### Are People Happier in Fort Worth?

by Sydney Levey  
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Since 2000, the city of Fort Worth, Texas has exploded in population growth, nearly doubling from 540,391 in 2000 to 961,885 in 2023. According to the [US Census Bureau](#), Cowtown has claimed the top prize for the fastest growing among the thirty most populous cities in the United States in terms of population size, amassing [an additional 53 people per day](#) (19,170 in the last year) since 2020. But...has this outstanding spike in residence made Fort Worth happier since the twenty-first century's earliest days? My analysis of the key metrics suggests "yes," though not everyone may be convinced.

#### MEASURING HAPPINESS

Much of the relevant academic literature (including, for the example, the prominent and widely accredited [World Happiness Report](#)) has concluded that population growth and happiness are inversely related: when the population of an area increases, "well-being" falls. Such studies tend to be survey-based, wherein individuals in various geographic regions are asked about their distinct level of "happiness" (often defined as a combination of overall life satisfaction and general mood). Also included are factors such as the crime rate, designation as rural or urban, and, aptly, their population size. The answers of those in various cities, counties, states, regions, or countries are compared and conclusions are drawn.

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### Can America Navigate Through Inflation Without a Crash?

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Two years after the COVID-recession, the US economy has rebounded from a 13% peak in unemployment to around 4%. Challenges nevertheless remain. Inflation, worsened by the pandemic and the Ukraine conflict, raises questions about the Federal Reserve's ability to balance growth and prices. Can they both ease the current inflation rate and maintain the gains in the labor market, creating what economists call a "soft landing?" This article argues that they may have a difficult time doing so. By analyzing historical monetary policy trends, I'll underscore the challenge the Federal Reserve faces in trying to stabilize the economy without sparking a recession.

#### POST-PANDEMIC RECOVERY

What happened following the Covid-19 pandemic was a domino effect of economic upheavals. Business closures due to the pandemic led to a record [13% unemployment](#) rate in the second quarter of 2020. In response, the [government injected \\$5 trillion](#) in stimulus checks to boost consumer spending and provide financial relief, which--together with the constrained supply of goods--fueled inflationary pressure to the level that has not been seen since the 1980s.

As prices soared, the Federal Reserve implemented a series of interest rate hikes starting from March 2022 to ease this inflationary pressure.

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## Fort Worth's Economic Pulse

by Grace Hughes  
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To answer that question, I examine the relative roles of each in Fort Worth's recent economic evolution. In doing so, it will become evident that there is no reason to believe that these four factors cannot persist--so long as the city addresses the increasing congestion that has accompanied the growth.

### THE EMPLOYMENT SITUATION

One factor contributing to Fort Worth's population growth has been the employment situation. From January 2013 to September 2023, [nearly 300,000 people became employed in the city](#). In addition, the city's unemployment rate saw a decrease from 6.9% to 3.8% (the latter being equal to the national unemployment rate). In 2013, Forbes Magazine ranked Fort Worth 6th on its list of "Fastest Growing Cities Since the Recession."

Fast forward 9 years, and perhaps it is not surprising that Fort Worth had the highest numeric increase in population between 2021 and 2022 of any metro area, adding 19,170 people--[approximately 53 people per day](#). Jobs attract people, and between 2022 and 2023, the total number of nonfarm jobs increased by almost 4%. Fort Worth has been one of the fastest growing cities in America, and we can expect that this statistic won't be changing anytime soon.

### THE TECH INDUSTRY

In conjunction with the employment situation, the tech industry has played a large role in the growth of population. It rose nearly 4.5% from 2015 to 2019, making Fort Worth one of the fastest rising tech capitals in the United States.

There are two main reasons: tech talent in the area and startup growth. With respect to the former, the existence of three prestigious universities in the area--University of Texas at Dallas, Southern Methodist University, and Texas Christian University--has both attracted and trained a steady stream of tech talent. Over 7,000 millennials joined the tech industry in the DFW area in just the last three years. In terms of startups, DFW is ranked 5th among metroplex areas. This then creates a

positive-feedback loop as those new businesses (such as IntergerHealth, ECI Software Solutions, and Foot Print), spark an interest in IT or BIS among incoming undergraduate students. Nearly \$2 billion was invested in startup companies, giving them life and a chance to succeed in an ever-growing industry.

The fact that it's safe to say that the world in which we live will stay tech-oriented and particularly in combination with the other factors making Fort Worth an attractive place to live, it is unlikely that this industry will slow down anytime soon.

### QUALITY OF LIFE

There are many reasons why someone might choose to move to Fort Worth or if they're already here why they might want to stick around! The cost of living in Fort Worth in 2023 is [5% lower than the national average](#), [grocery prices are 7% lower](#), and the state does not have an income tax. The majority of the residents in Tarrant County are educated and there are 60+ private schools and a plethora of public schools for families to choose from with some of the best teachers in the state. Higher education is no different. One of the top institutions in the country, Texas Christian University, is located just outside of downtown Fort Worth, along with numerous other universities and colleges.

The majority of the residents in Tarrant County are educated. There is 60+ private schools and a plethora of public schools for families to choose from with some of the best teachers in the state. Higher education is no different. One of the top institutions in the country, Texas Christian University, is located just outside of downtown Fort Worth, along with numerous other universities and colleges.

In addition, there is never a weekend without something to do whether you choose to venture into the Historic District in the Stockyards, go on an upscale shopping spree in Clearfork, or walk around Sundance Square downtown and get a full Fort Worth experience. DFW ranks as one of the top 15 happiest places to live in America, and these facts speak to that!

### INFRASTRUCTURE PART ONE

In 2013, Fort Worth completed several major infrastructure projects such as the new West 7th

Bridge that connects the Cultural District and Downtown Fort Worth. Chisholm Trail Parkway was also opened to traffic, which got people from the Downtown business district all the way south to Cleburne.

### INFRASTRUCTURE PART TWO

However, a problem has been created due to the increase in population. A study conducted by the Texas A&M Transportation Institute Mobility Division found that [Fort Worth is ranked with the 6th most congested roadways in the state](#). Interstate 35W alone causes over 800,000 annual hours of delay per mile and this has an impact on manufacturing companies and their need for roadways to transport raw materials. These manufacturing companies lose nearly \$70 million per year because of roadway congestion.

In a city like Fort Worth where 9.5% of all jobs within county lines are manufacturing, this causes a massive problem. Highway congestion not only impacts these companies, but the residents and other businesses of the entire state. Annually, residents and businesses in the state of Texas lose billions of dollars due to congestion.

However, the Fort Worth Chamber has started conversations centered around [the need for transportation and infrastructure enhancements](#). Improvements to the I-30 and I-35W corridors, I-820, and the interchange at SH 121 to Randol Mill Road have all been proposed. The reconstruction and expansion of SH 114 and SH 121 would also help. The Fort Worth Chamber hopes to implement these projects but, if not, Fort Worth could face a net drag on growth.

### CONCLUSION

Fort Worth's population explosion has been a function of rising job opportunities, significant growth in the tech industry, and the overall quality of life, with infrastructure issues both serving as a complement and a challenge. Assuming the last does not derail what has been an incredible journey, it appears that the rest of the country needs to keep a close eye on Fort Worth because this city isn't done yet.

## Amazon's Impact on E-commerce

by Evie Turle  
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These attributes serve to create [high customer expectations for any retailer aiming to remain competitive](#). The repercussions of this shift on the retail market are profound, impacting the retail market by diminishing competition, compromising overall economic health, and fostering an environment conducive to monopolistic practices. Subsequent sections will delve into each of these aspects in greater detail.

### COMPETITION

E-commerce retail sales, measuring the purchase of retail goods online, experienced a significant upswing during the pandemic due to restrictions on in-person shopping. According to the 2020 Annual Retail Trade Survey, [such sales surged by 43%, from \\$571.2 billion in 2019 to \\$815.4 billion in 2020](#). Amazon played a pivotal role, becoming the go-to platform for pandemic-related products and evolving into a one-stop-shop for various needs. As of today, [Amazon commands a dominant 37.6% share of the US e-commerce market](#), with its closest competitor, Walmart, trailing at a mere 6.4%.

### HEALTH OF THE ECONOMY

Concerns about Amazon's impact on consumer choice and the overall economy are central to ongoing debates. Studies reveal potential imbalances in job creation and economic circulation when comparing online giants like Amazon to local businesses. The Institute for Local Self-Reliance notes that, for every \$10 million spent, [Amazon creates 14 jobs, while brick-and-mortar stores generate 57](#). Additionally, Civic Economics data from 2019 indicates that [every dollar spent at an independent retailer contributes three times more](#) to the local economy compared to a dollar spent at Amazon. These findings provoke important questions about the lasting economic viability of relying heavily on online retail giants like Amazon, prompting a reconsideration of our consumer choices for the well-being of local economies.

### CONSEQUENCES OF MONOPOLY

Amazon's dominance in e-commerce is raising concerns about monopolistic practices,

potentially stifling competition, limiting innovation, and reducing consumer choices. Amazon's significant market share poses challenges for smaller businesses trying to compete independently. Amazon's financial strength, [evident in its \\$386 billion net sales in 2020](#), grants it negotiating power and logistical advantages, creating an uneven playing field. This unequal competition can disadvantage smaller retailers, limiting options for consumers and concentrating economic power among a few major players.

### POLICY RESPONSE

The question arises: should policies be implemented to protect consumers from monopolistic prices? Such interventions, however, involve government interference in the largely free market. While Amazon is known for low prices, concerns arise if its controls the market and forces smaller businesses to close. This could lead to the conglomerate having full control over future prices, potentially creating additional barriers for new businesses entering the market. Historical examples, such as Uber driving out smaller taxi companies with low prices before increasing them highlight the potential pitfalls of unchecked market dominance.

### THE FUTURE

The "Amazon Effect" prompts questions into the future landscape of our markets and the desirability of one company wielding such immense power. The shift to online shopping, while convenient, has implications on consumer choice, local economies, and the broader retail landscape. So, whilst we all know recognize the convenience of Amazon for rapid product deliveries, it is becoming more imperative to shift our focus toward envisioning the larger picture and contemplating the kind of shopping future we aspire to create.



## Are People Happier in Fort Worth?

by Sydney Levey  
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Because these studies ultimately find many locations with high population counts have low happiness levels, they often conclude that population upsurges make these areas significantly less happy.

On the other hand, [a very recent study](#), published on November 3 by Rutgers University's Department of Public Policy and Administration, concluded the opposite: population growth leads to more happiness (while shrinkage results in less). What made their approach distinct was the fact that, rather than simply examining happiness surveys, they supplemented these with key characteristics of various locations to determine their relative average happiness levels. The researchers then conducted a regression analysis predicting Subjective Well-Being (SWB) from a variety of inputs.

Some of these inputs were "person-level variables", as the corresponding data were directly related to factors like age, education level, and the dependent variable SWB itself. However, the majority of the most important were "county-level," not a function of individual experiences but aggregate levels (the unemployment rate and housing stress, for example).

This research ultimately concluded that there does indeed appear to be a direct correlation between population growth and city-wide happiness: population spikes correspond with higher SWB. Furthermore, it was determined that the correlation between SWB and population growth was stronger than that of SWB and other included inputs like median income or crime rate.

### THE FORT WORTH EXPERIENCE

Operating on the assumption that the Rutgers study offered a more sound basis for analysis, I simply utilized many of the same inputs in my assessment of Fort Worth's 23-year population growth. To see if it has made its residents happier, I made direct comparisons of the key data between 2000 and 2023. Data availability meant that I was



limited to the following in my study (\* = variable included in the study's model as a person-level variable, changed to a city-wide population variable in this analysis):

- ▶ Median household income\*
- ▶ Per capita income
- ▶ Unemployment\*
- ▶ Persistent poverty
- ▶ Crime rate index
- ▶ Education level\*
- ▶ Low education level
- ▶ Population
- ▶ Population percent change
- ▶ Population density per square mile

Only three county-level variables were omitted due to a lack of data availability for 2021-2023, 2000, or both. The county-wide suicide rate, a supplemental variable which was not incorporated in Rutgers's initial model, was included in this analysis to act as a replacement for the most crucial person-level variables.

Table 1 shows the result of these calculations. With the exception of unemployment, which has increased only marginally, each of the above variables has changed in the direction that suggests increased happiness. And along with this, both population and population density have increased so that, at least in the case of Fort Worth, it appears that they are positively correlated.

### CONCLUSION

While many studies suggest that happiness is inversely related to population growth, and though the approach presented above is undoubtedly limited, the results certainly suggest that the home base of the TCU Horned Frogs has defied this expectation. The more appears to be the merrier in Cowtown.

### Can America Navigate Inflation?

by Khánh Huỳnh Bào Phạm

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This move was the Fed's strategic effort to cool down an overheated economy, operating under the belief that inflation surge was primarily driven by excessive demand: raising the interest rate will eventually reduce consumers' spending and borrowing, helping to bring the demand back in line with supply.

This strategy, however, is not without its risks as lowering demand can both lower prices and lower the overall level of economic activity, thus raising unemployment. And so now, the key concern becomes whether the Federal Reserve can successfully increase interest rates to tackle inflation without inadvertently triggering a recession.

### HISTORICAL SOFT LANDING ATTEMPTS

Achieving a "soft landing" is a rare success for economists and policymakers, with the U.S. managing it only three times post-WWII. In 1966, two years after the Federal Reserve adjusted monetary policy to tackle inflation, the interest rate rose from 3.4% to approximately 6%. Fortunately, at the same time the [unemployment rate fell from 5.1% to 3.6%](#). The same situation occurred in 1984, with the central bank increasing the interest rate from 9.6% to 11.6 %, but [unemployment falling from 8% to around 7.5%](#). In our last soft landing in 1995, the Federal Reserve Bank successfully [doubled the interest rate to 6%](#) without forcing the economy into a recession.

However, these successes are overshadowed by several "hard landings." Notably, in the early 1980s, the Fed raised interest rates dramatically to combat soaring inflation. This was eventually the root cause of the 1981-1982 recession, with the unemployment rate peaking at [nearly 11%](#). Furthermore, the Fed's increase of the interest rate in 1999 and 2000, aiming at cooling off the dot-com bubble, contributed to the 2001 recession. The most recent example of a hard landing in the U.S was in 2007, when the central bank's decision to raise interest rates from 1% to 5.25% to cool the real estate market resulted in the deepest and longest economic

**Table 1: Changes in happiness determinants (green indicates positive change, red negative)**

Variable	2000	2023 or latest	Change
Inflation-adjusted median household income	\$37,074	\$68,235 (2021)	+45.7
Inflation-adjusted per capita income	\$18,800	\$34,106 (2021)	+44.9
Unemployment	3.9%	4.2%	+0.3%
Persistent poverty (1 if > 20%, 0 otherwise)	0	0	0
Crime per 100,000	38,143	30,227 (2022)	-20.8%
Education level (bachelor's or higher)	15.0%	31.8%	+16.8%
Low education level (25-64 with no high school)	14.7%	8.1%	-6.6%
Tarrant County suicide rate per 100,000	17	12.1 (2020)	-28.9%
Population	545,759	961,885	+76.2%
Population density per square mile	1,827	2,600	+94.7%



recession since the Great Depression, with an unemployment rate [exceeding 9%](#).

#### TODAY'S SCENARIO

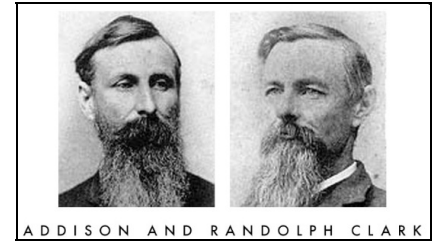
Although the history is mixed, optimism is growing among economists and policymakers regarding the Fed's ability to avoid triggering a recession this time. With the US GDP projected to rise by [approximately 2% in 2024](#), Goldman Sachs economists now see just a [15% chance of a U.S recession](#) within the next year. Bank of America's CEO, Brian Moynihan shared this positive outlook "Our research team is the best in the business and they have [moved to the soft landing category](#)." Furthermore, the Fed Chairman Jerome Powell recently said "I've always thought the soft landing was a plausible outlook". The reasons for this optimism include ongoing economic growth despite the rate interest rate, with unemployment rate settling back to the 3-4% range, expected GDP growth of 2%, a forecasted 3% growth in real disposable income 1.75% growth in business investment, and [a 0.5% increase in government spending next year](#).

#### NO GUARANTEES

Although economic data shows a good sign of our economy leaning toward a soft landing, no one can guarantee this sweet spot. First, despite a significant drop in the inflation rate compared to last year, the CPI remains higher compared to the desired 2%. Yet, it is unclear whether the Fed will continue raising the interest rate in the next few months, and if the interest rate gets too high then history may repeat. Second, the data that we have seen might be a statistical head fake. The data we have currently seen will be reviewed after a few months and adjusted for changes that were not observed at the time of publication. This may take away some of the good news. Finally, monetary policy often has lag consequences, meaning that we will not know its full effects after months or even years. The policy to raise the interest rate starting from March 2021 may have not shown its full effect.

The coming months will be crucial in determining whether the central bank can navigate these challenges successfully and achieve this sweet spot.

#### History and Vision of TCU and AddRan [\(from AddRan website\)](#)



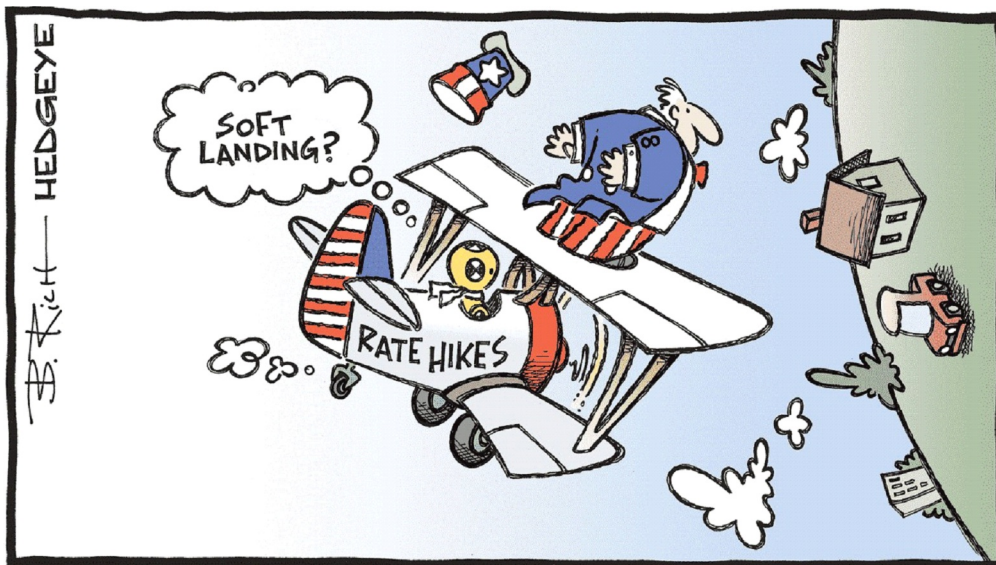
<http://bretstout1.com/amazing-untold-history-of-fort-worth.htm>

The mission of Texas Christian University, a private comprehensive university, is to educate individuals to think and act as ethical leaders and responsible citizens in the global community through research and creative activities, scholarship, service, and programs of teaching and learning offered through the doctoral level. This ideal is the continuation of a quest that began in 1869, when brothers Addison and Randolph Clark dreamed of creating a college where men and women could acquire a classical education and develop character.

The Clarks were both Fort Worth-based minister-teachers. To distance their endeavor from the distractions of "Hell's Half Acre"—where the cattle industry and the pending new railroad had stirred a boisterous culture—the brothers headed for the open prairie of nearby Thorp Spring. With just 13 students, they opened the doors of AddRan Male and Female College, one of the first co-ed institutions west of the Mississippi.

Within five years, enrollment swelled to 450 students and the Clarks and their spouses sold everything they owned to invest in a larger building. But for the college to continue, an endowment would be needed.

The Clarks forged an affiliation with the Christian Church (Disciples of Christ) to "adopt" their school, giving it a new name and ensuring its future. The 1873 charter stated that AddRan Christian University would fulfill its mission to "promote literary and scientific education." The relationship with the Disciples would continue to be one of heritage and values.





## How Brexit impacted America's economy

by Evie Turlle  
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The 2016 choice made by the British voters to leave the European Union led to a decline in the value of the pound and created considerable uncertainty regarding economic prospects in the UK. This impact also extended beyond national borders. In this article, I will explore the effects of Brexit on the United States and delve into its broader implications. Despite initial expectations of significant economic turmoil, the anticipated upheaval has not materialized. However, it is worth noting that the full consequence may yet unfold, especially now that the COVID-19 pandemic is no longer overshadowing potential effects.

Brexit initiated a transformative phase for the United Kingdom, leaving a lasting impact on its economic, political, and social fabric. Economically, the UK encountered disruptions in established trade relationships, changes to immigration policies, and adjustments to regulatory frameworks.

Businesses, especially those closely connected to European markets, grappled with challenges

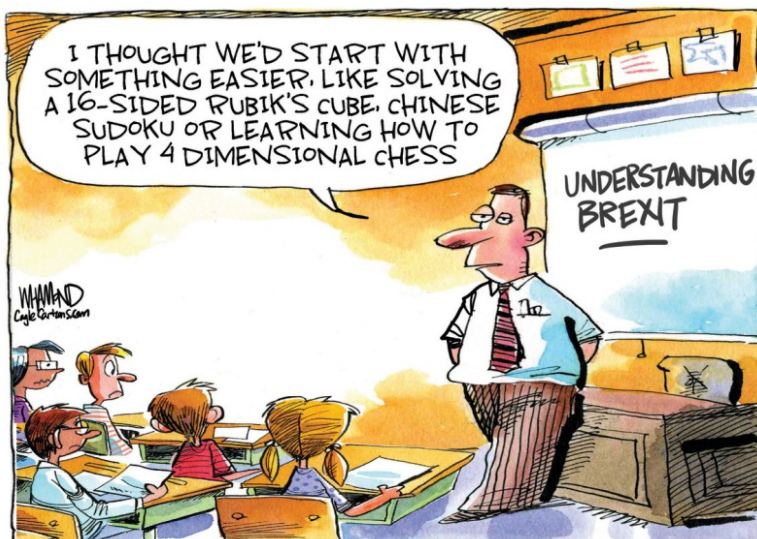
and adaptations in uncharted territories. Furthermore, the political landscape experienced significant shifts in leadership and public sentiment across the United Kingdom, underscoring the intricate ramifications of this decision.

The ramifications of Brexit have extended beyond the United Kingdom's borders. Serving as a pivotal economic and diplomatic ally, the United States stands out as the UK's largest single-country trading partner, with the estimated U.S. goods and services trade reaching [\\$295.6 billion in 2022](#). The depreciation of the British Pound, leading to a relatively stronger USD, raises the prospect of reduced customer demand for American goods and services within the UK, driven by escalating import prices. This likelihood increases if regional [consumer confidence falters amid the prevailing uncertainty](#). The potential impact, however, is contingent on American companies being heavily dependent on the British market and the price elasticity of the specific U.S. exports in question.

Additionally, as currency exchange rates vary, American investors in the UK might encounter diminished returns when converting profits from pounds to dollars. Similarly, U.S. companies deeply involved in UK business operations may witness reduced earnings when translating them into dollars. This, in turn, could prompt investors to adapt their portfolios in response to the currency fluctuations, potentially influencing the dynamics of the US financial markets.

The UK's formal departure from the European Union on January 31st, 2020, just months before the onset of the pandemic, significantly complicated economic relations between nations, especially regarding international capital flows. However, the immediate shocks following the June 23rd, 2016, referendum results offer a compelling insight into the challenges that were to unfold. On June 24th, 2016, global equity markets experienced an unprecedented loss of over 2 trillion dollars in value, marking the largest single-day decline in absolute value ever recorded in world markets. This substantial upheaval not only had implications for market dynamics but also contributed to driving global economic policy uncertainty to historic highs, as highlighted by [Davis \(2016\)](#). These events underscore the intricate interplay between Brexit, international capital, and the far-reaching effects on global economic landscapes.

Just seven years after the Brexit referendum, the repercussions of the UK's departure from the European Union have had a limited impact on the United States, particularly when juxtaposed with the subsequent challenges posed by the COVID-19 pandemic. Currently, the most observable outcome appears to be a heightened sense of uncertainty, particularly in the realm of deal making. Nevertheless, owing to the substantial size and influence of the US economy relative to the UK, the aftermath of the referendum has been relatively subdued. As the lingering effects of the pandemic gradually wane, it is anticipated that emerging trends from this juncture will come into sharper focus. Now, however, there are no discernible patterns, emphasizing the need for vigilant monitoring of the evolving economic landscape.



## The Three Ts of Investing as a College Student: Tips, Tricks, and Tactics for Building Financial Wisdom and Wealth

by Grace Hughes  
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College students today have already been a witness to the emerging effects of climate change, the breakdown of national and international stability and civility, and of course, COVID. These are all contributing factors to a much more uncertain future than our parents faced.

It therefore forces us to think about securing our financial future at a much younger age than those immediately before us. College students should be thinking about investing now, not waiting until you are forty or older. The five investment opportunities that I discuss are an Individual Retirement Account, Exchange Traded Funds, Cryptocurrency, Money Market Funds, and the Stock Market. What I offer below are some tips, tricks, and tactics to get started in this process.

### INDIVIDUAL RETIREMENT ACCOUNT (IRA)

[Charles Schwab](#), one of America's multinational financial institutions, labels an IRA as a "personal retirement savings account that offers tax benefits and a range of investment options." An IRA is a long-term investment, which in this case means that you are not allowed to withdraw your money until you are 59 and a half years old and any time prior to that will leave with your IRA sum being heavily taxed. Not a bad way to start investing, but you have to be in it for the long haul.

- Tip: If an IRA speaks to the kind of investment that you want to pursue, start early. The earlier that you start investing in your IRA, the more time it will have to grow.
- Trick: Set up automated contributions to your IRA account. Doing this will allow you to

actively contribute to your retirement savings without having to actively go in and manage each transaction on your own.

- Tactic: Take advantage of the market dips! During a downturn, "buying on the dip" allows you to invest at, potentially, a lower cost.

### EXCHANGE TRADED FUNDS (ETFs)

An exchange traded fund is exactly as the name applies: funds that you can trade on exchanges while tracking a specific index. ETFs are similar to stocks in that you trade an ETF on stock exchanges. However, where they are different is that an ETF is typically a diversified portfolio of assets. This can include stocks, but also includes [bonds, commodities, or mixed classification assets](#). All of that sounds scary and overwhelming, but it just means that risk can be spread across multiple types of investments.

- Tip: Truly understand what an ETF is before investing. ETFs typically track an index, commodity, bonds, or a net of assets, so it is crucial to truly understand how an ETF works before investing in one. You should also understand the holding within the ETF. Some ETFs have a specific industry or group focus such as healthcare, technology, dividends, etc. so ensure that the ETF you are investing in aligns with your investment goals, morals, and risk tolerance.
- Trick: ETFs have different expense ratios. Compare the expense ratios among different ETFs. The fee represents the annual cost of owning an ETF and lower expense ratios tend to contribute to a higher return over time.
- Tactic: When choosing the buy or sell ETFs, consider using limit orders. Limit orders allow you to specify both the maximum and minimum price at which you are willing to buy or sell your ETF, overall controlling the execution price of each of your trades.

### CRYPTOCURRENCY

Cryptocurrency, a revolutionary aspect of the digital world, is one of the hottest and most modernized monetary systems in the financial world. Cryptocurrency is virtual currency with a source of purchasing power. There are numerous forms of virtual money that one can choose as an investment opportunity, even as a college student.

- Tip: The main tip anyone can give when suggesting that you should invest cryptocurrency is to do your research. Cryptocurrency investment comes with inherent risks, some of which are volatile. Make sure that you know the basics of blockchain technology, the specific cryptocurrency you are investing in, and the market overall.

- Trick: Start small! Cryptocurrency is unpredictable and the market can experience rapid fluctuations, so make sure you are investing in a cryptocurrency that you can afford to lose.

- Tactic: Implement robot security measures to protect your cryptocurrency investments. A hardware wallet or a secure software wallet that enables two-factor authentication will allow you to be cautious of scams and phishing attempts. Also, don't let the fear of missing out (FOMO) make your investment decisions! Make investments on careful analysis rather than short-term market movements.

### MONEY-MARKET FUNDS (MMF)

These low-risk mutual funds are an investment that is sponsored by an investment fund company, therefore, carrying no guarantee of principal. An MMF is a mutual fund which is invested in high-quality, short-term forms of financial monetary such as cash and cash equivalents. While the pay-off is not high, the sound of "low-risk" is music to a college students' ears.

- Tip: When choosing who to invest with, choose a company with a well-established, reputable, and trustworthy history with MMF. You want to choose a company who has a positive history with MMF where they manage funds efficiently and responsibly.
- Trick: Invest in all different types of MMF. With a low-risk cost, you can allocate your funds into multiple different MMFs to diversify your investment portfolio to better balance risk and potentially increase your returns.
- Tactic: Review historical yields on different forms of MMF. While the past performance doesn't guarantee positive future results,

reviewing the history can give you an idea of the fund's stability and/or its performance overtime. You should be looking for a consistent return in every MMF.

### STOCK MARKET

The last form of investment, arguably the one college students know the most about, is the stock market. The stock market is a great place for someone with \$25 extra dollars a week, or \$2,500 to begin investing. The stock market, also known as the equity market, is an investment place where buyers and sellers trade shares of different publicly listed companies. This crucial component for the financial system provides companies with access to capital and investors with opportunities to buy and sell ownership stakes.

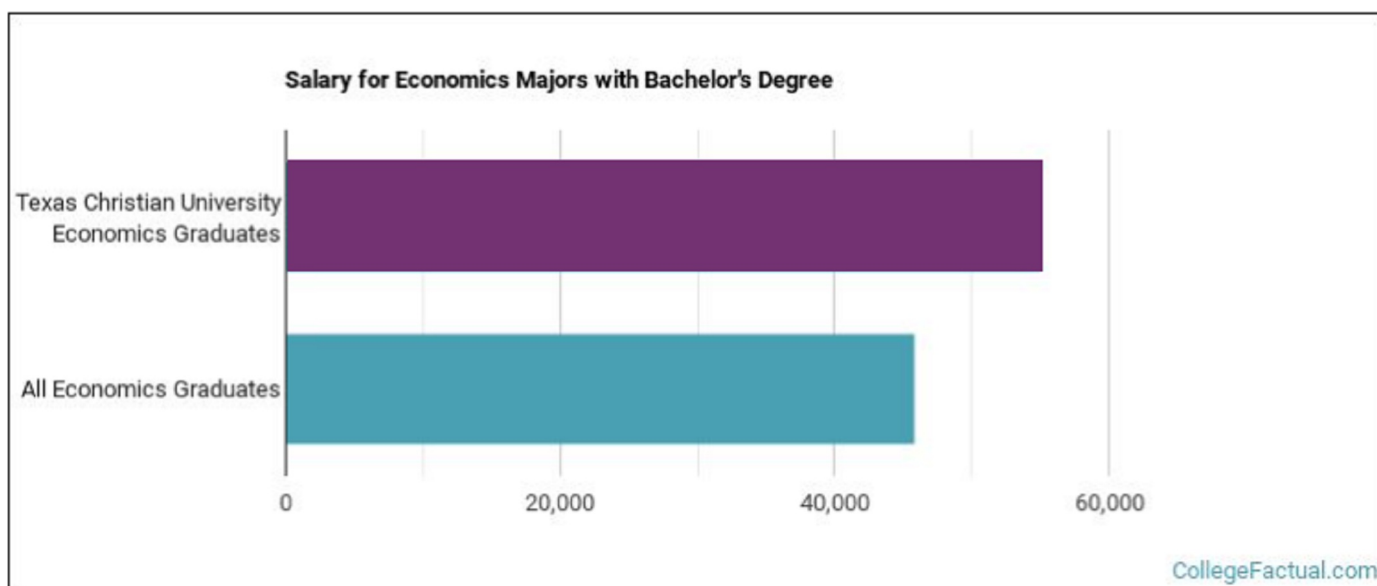
- Tip: Understand how to evaluate the valuation of a stock. The price-to-earnings ratio (P/E), or better known as earnings growth, provides insight into whether a stock is over or undervalued. This can guide your investing and offer positive feedback into the potential outcome of your choice of investment.
- Trick: Studying stock price charts and patterns using technical analysis is beneficial to have a desirable outcome in your investment. Technical analysts believe that price movements can provide futuristic insight to the price movements in the future.
- Tactic: Research the stock market prior to investing and identify companies with a history of stability, competitive advantages, and consistent earnings growth. Look for start up companies that have the research and possibilities to grow. Invest in these companies early because the buy-in won't cost an arm and a leg, and if the company fails, you won't have lost much money.

### CONCLUSIONS

While I have offered five different forms of investment, don't feel pressured to pursue all five. Pick one or two that sound the best and go on from there! The world of investing may seem scary and daunting at first, especially for college students with a slow or non-existent stream of income, but with the Three Ts of Investing you can embark on your path to financial wisdom and empowerment in no time. For an investment opportunity, understand the risk, the expense ratios, and what you are investing in. This world continues to change whether we are ready for it or not, so to ensure that you are on the track to being financially stable out of college, begin investing!

## Salary of Economics Graduates with a Bachelor's Degree

The median salary of economics students who receive their bachelor's degree at TCU is \$55,051. This is higher than \$45,868, which is the national median for all economics bachelor's degree recipients.



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