Appalachian Highlands Economic Update

SPECIAL FEATURE: THE FISCAL DEFICIT | MACROECONOMICS | LABOR & EMPLOYMENT | HOUSING | FINANCIAL MARKETS

Even as inflation converges back to the Federal Reserve's 2% target, Treasury bond yields remain elevated. Some economists have tied higher yields to excessive spending by Congress which tends to be inflationary. For our Q3 Update, Dr. Richard Gregory argues that the fiscal deficit will have little effect on borrowing costs compared to the effects of major, sudden policy changes on immigration and trade. Dr. Joseph Newhard argues that federal spending is on an unsustainable path.

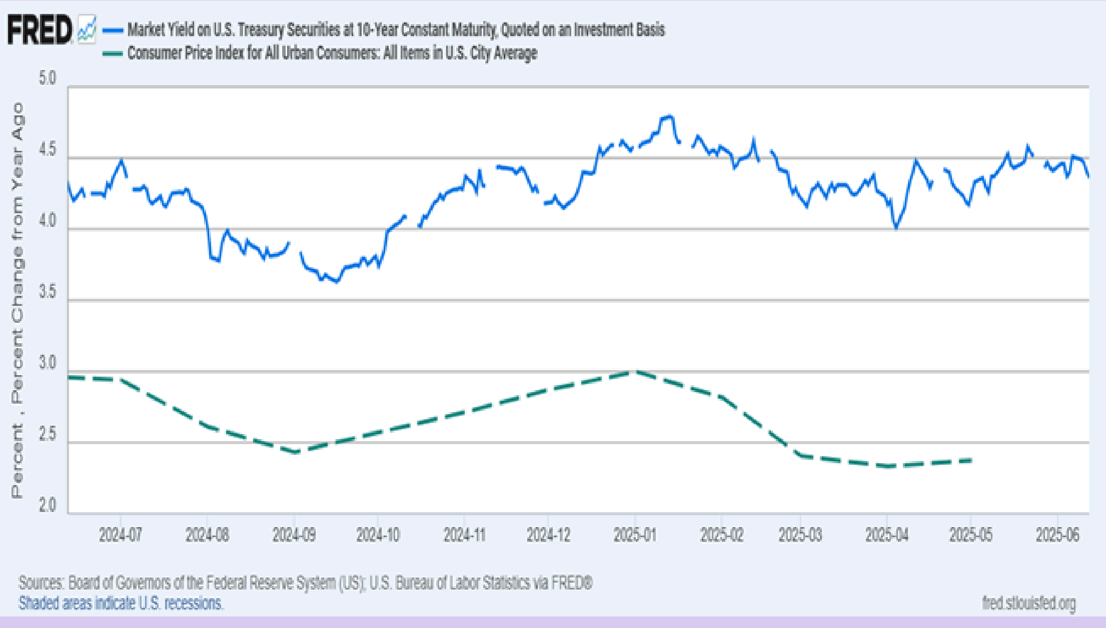
"Inflation has a devastating effect on purchasing power and savings. Never forget that inflation is not a natural phenomenon. It is a tax caused by government spending supported by money printing."

Knox County Mayor Glenn Jacobs

The Treasury Market is Stable

Richard P. Gregory, Ph.D. • Professor of Finance

You know, when people ask me what do I think the market is going to do, I don't listen to what the market is saying, I look at how the market is trading. So with all the discussion about fiscal deficits and interest rates, how are traders trading the US 10-Year Government Bond yield?



As you can see, little change, with the Ten-year Treasury yield following the changes in the Consumer Price Index pretty closely. Some slight widening in the gap between the two series since President Trump announced his first round of tariffs.

For a Government, the economic impact of a fiscal deficit on the cost of borrowing isn't as simple as a credit card being over-spent, because some governments have the power to set the terms of the debt contract and the bankruptcy conditions if any.

And for countries with nuclear weapons, as the Russian Federation demonstrated in 1998, a whole different set of rules applies, as the Russian Federation unilaterally re-set it's debt terms to its own satisfaction. True, interest rates on Russian government bonds in secondary markets (markets after government auction) sky-rocketed to the 100% annual rate range, but they collapsed back to normal within a year. And the world went on its merry way.

The United States is nowhere near the state of financial collapse that the Russian Federation was in. Unlike the Russian Federation situation, all of the US Government's debt is denominated in US dollars, so it doesn't have to worry about the short-term effect of devaluation due to the coming inflation (from our change in immigration, tariff and other policies) on the costs of borrowing. It will have to worry in the long-run about fewer foreign bidders in the secondary market for US Government bonds driving up yields and putting pressure on the Treasury to offer higher rates.

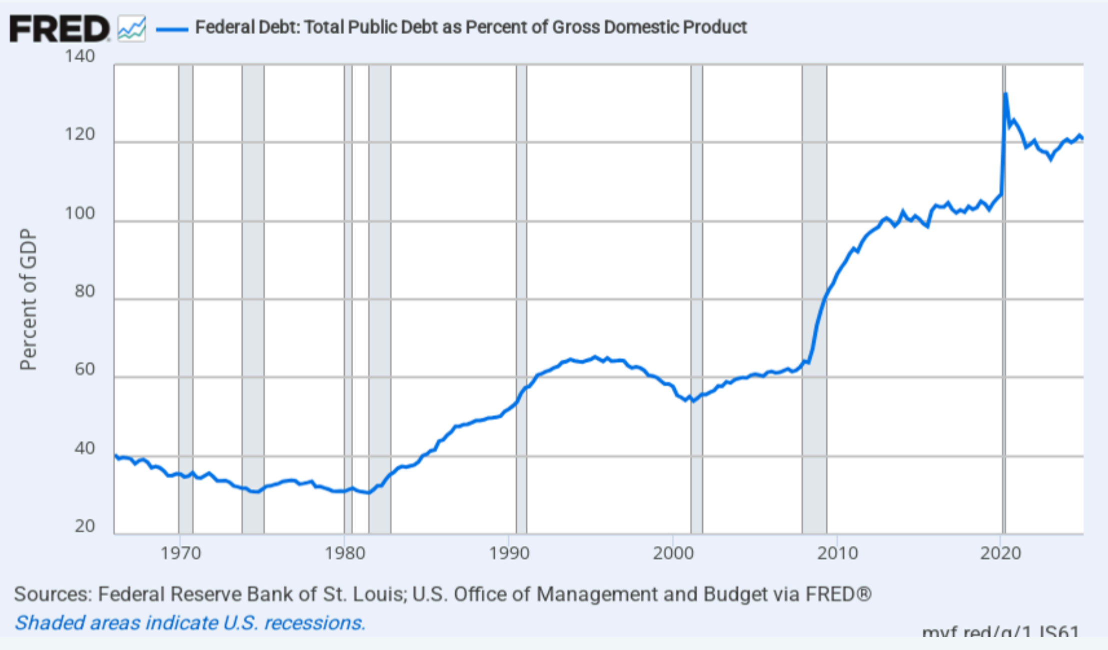
The biggest threat to borrowing costs from the fiscal deficit is likely to be a domestic crowding out effect, where higher inflation will drive away foreign investors, leading to a "cash-crunch" in the US lending markets and the US Treasury having to compete in a shrinking domestic lending market as US investors seek returns elsewhere, unless they are impeded by taxes, etc.

The bottom line is the US is more likely to see higher borrowing costs in the near future due to inflation and too many policy changes in too short a time rather than the effects of the fiscal deficit. However, the fiscal deficit will start playing a small part in coming years.

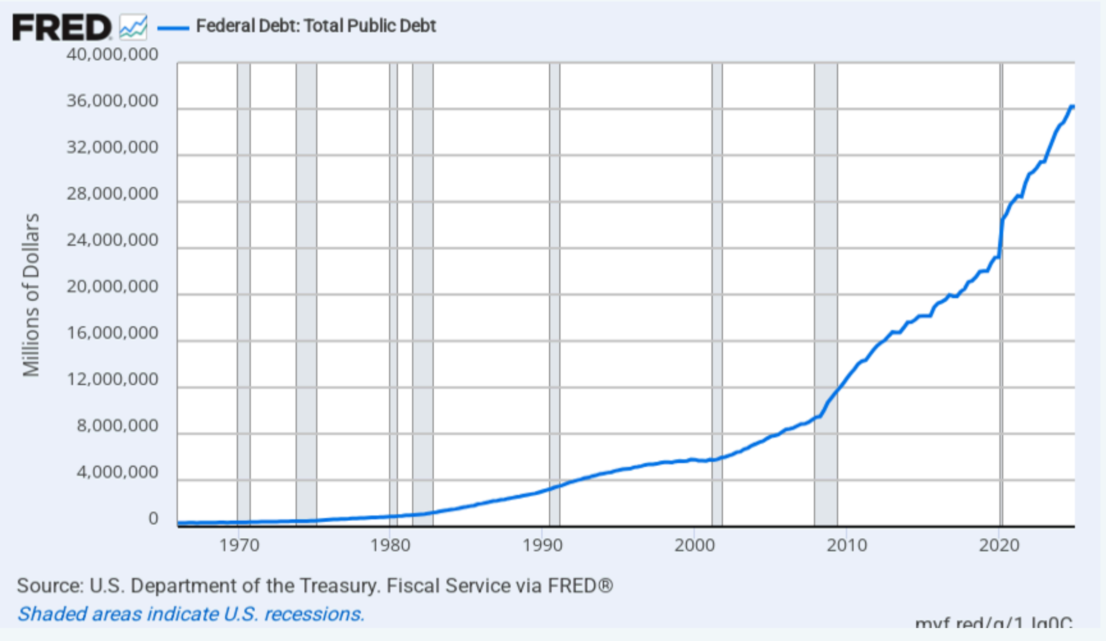
The Debt Spiral

Joseph Newhard, Ph.D. • Associate Professor of Economics

In May, Moody's downgraded the United States credit rating from Aaa—its highest rating—to Aa1. This follows equivalent downgrades by S&P in August 2011 and Fitch in August 2023. The 2011 downgrade was the first time in history that the United States lost its triple-A credit rating by a major rating agency. Though still considered high grade, the fall from prime grade reflects mounting concerns that the government is on an unsustainable spending frenzy as indicated by massive fiscal deficits and a national debt that is growing exponentially. Today the debt stands at $36.2 trillion. At 121% of GDP, the debt-to-GDP ratio is higher than at the end of World War II. Within ten years, the Congressional Budget Office conservatively forecasts that the debt will rise to $56 trillion.



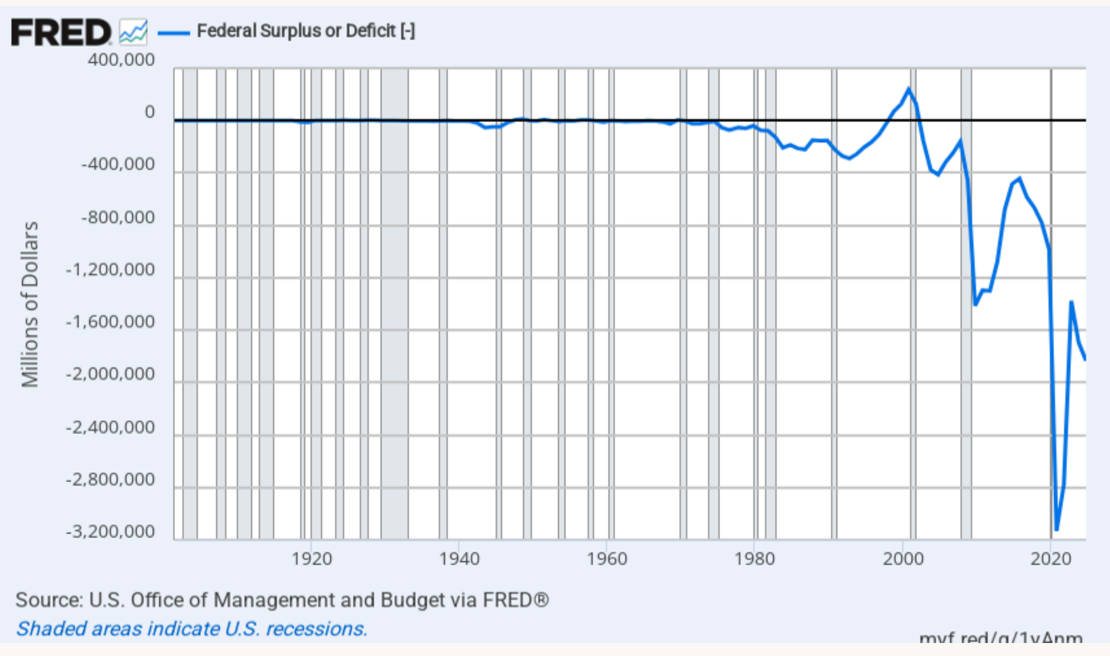
Since the debt has in fact been doubling every ten years, and interest now exceeds defense spending, the United States is on track to hit $100 trillion in the 2040s, and $1 quadrillion a couple decades later. If these numbers sound outlandish, consider that today's debt would have seemed impossible only a couple generations ago. The national debt first hit $1 trillion in 1981. By 2000, it had increased six-fold and another six-fold to 2025. Some of this is only a nominal increase, reflecting the sheer amount of money created out of thin air by the Federal Reserve and the banking system, but much of the growth in debt is real and it imposes tremendous costs on younger generations. At the prevailing growth rate, the national debt would rise to $7.8 quadrillion by the end of the 21st century. If in the next 100 years the debt grows by another 1,765x like it has since 1925, by 2125 it will hit $64 quadrillion.



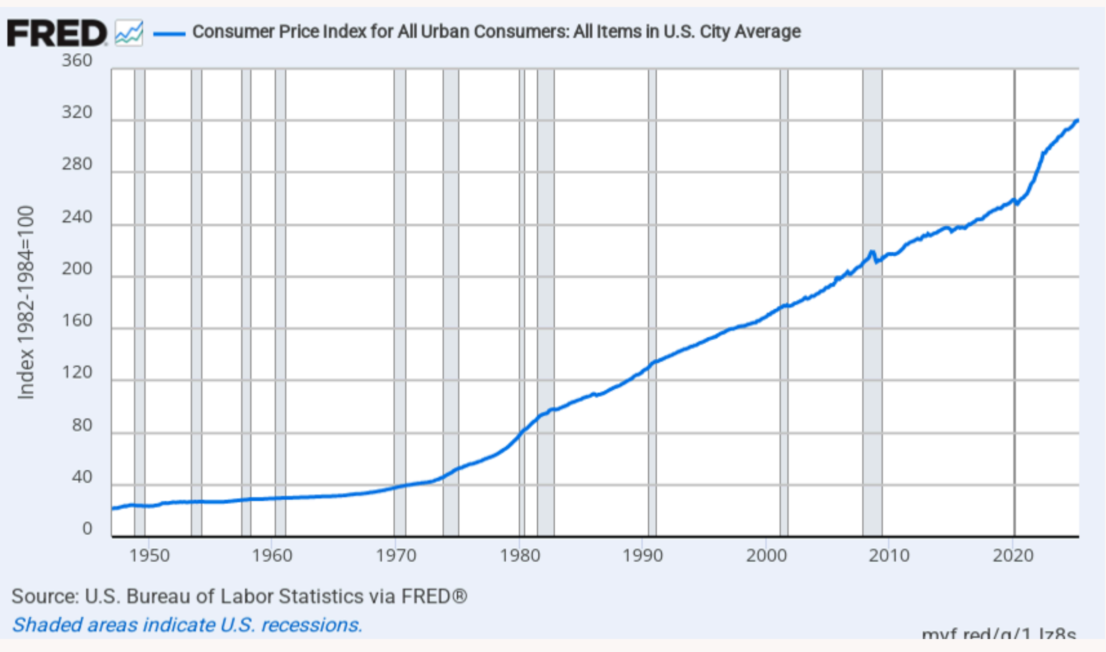
Confucious advises us: "Study the past if you would divine the future." We may recall the economic hardship and inflation experienced by the Roman Empire during the Crisis of the Third Century from 235 A.D. onward. It was fueled by civil war, plagues, famine, barbarian invasions, and disruptions to the trade network. Excessive military expenditures culminated in coin debasement by which more coins were minted from less valuable metals by reducing the silver content of the denarius. High inflation became a fact of life for Romans. In 301 A.D. Emperor Diocletian imposed wage and price controls in a failed attempt to control inflation, producing shortages and incentivizing black markets. History provides numerous similar examples including the Weimar Republic, Venezuela, and Zimbabwe.

The United States is not immune to the economic forces that produced hyperinflation elsewhere. Indeed, a hyperinflationary crisis would mark the third such episode in American history following the Revolutionary War and the Civil War, this time caused not by temporary war spending but by the sustained peacetime spending of a massive welfare state. The creation of the Federal Reserve System in 1913 unleashed the ability of the government to spend beyond its means by printing money to buy its own bonds. As deficits accumulated the United States reduced and then eliminated silver content in its coins. Its silver certificates became Federal Reserve Notes and its gold, confiscated from American citizens under President Roosevelt, sits idle in the vaults of Fort Knox. Since the Gold Reserve Act of 1934, the dollar has lost 96% of its value. In just the past 25 years, the price of gold has increased twelve-fold.

Milton Freidman taught that to learn the true tax burden we face, we should ignore revenue and look only at spending: every dollar is paid for either through direct taxes or inflation. As a hidden tax, inflation redistributes wealth and income to the state and its beneficiaries. Winners also include owners of land, real estate, gold, and stocks—assets that appreciate disproportionately when the money supply increases. Losers include wage earners and those who keep their wealth in cash or fixed-income assets like bonds. Whenever Congress cuts taxes for high income households without a corresponding cut in spending, the tax burden is shifted to the working class and poor in the form of an inflation tax, further driving the wealth gap as workers find homes and retirement increasingly unattainable.



The debt spiral invites comparisons to the Roman Empire under Augustus when Livy wrote, "we can neither endure our vices nor face the remedies needed to cure them." Preventing a currency collapse would require a generation of Americans who vote to raise taxes on themselves while cutting benefits even as they service a massive debt burden inherited from their forebears. The public invariably finds it attractive to vote for large government and pass the costs onto their children. The Treasury market does not expect a new era of fiscal self-restraint to emerge, so bond yields remain high even as inflation temporarily subsides. It is said that nations grow great when old men plant trees under whose shade they will never sit in. We also know what fate befalls democracies when, having run out of money to confiscate from each other, the voters turn to confiscating from the young and unborn.

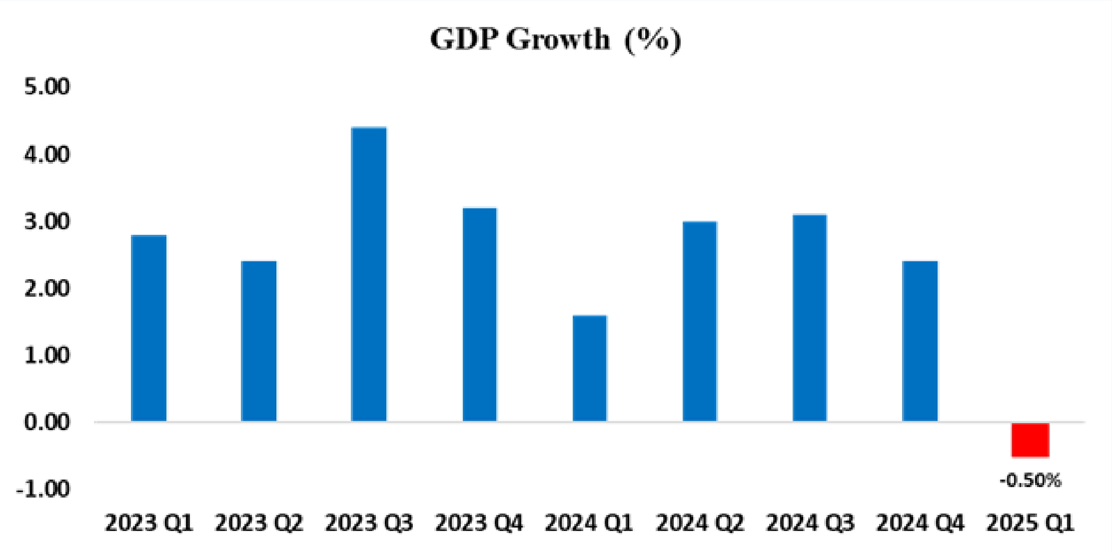


Appalachian Highlands Economic Update

SPECIAL FEATURE: THE FISCAL DEFICIT | **MACROECONOMICS** | LABOR & EMPLOYMENT | HOUSING | FINANCIAL MARKETS

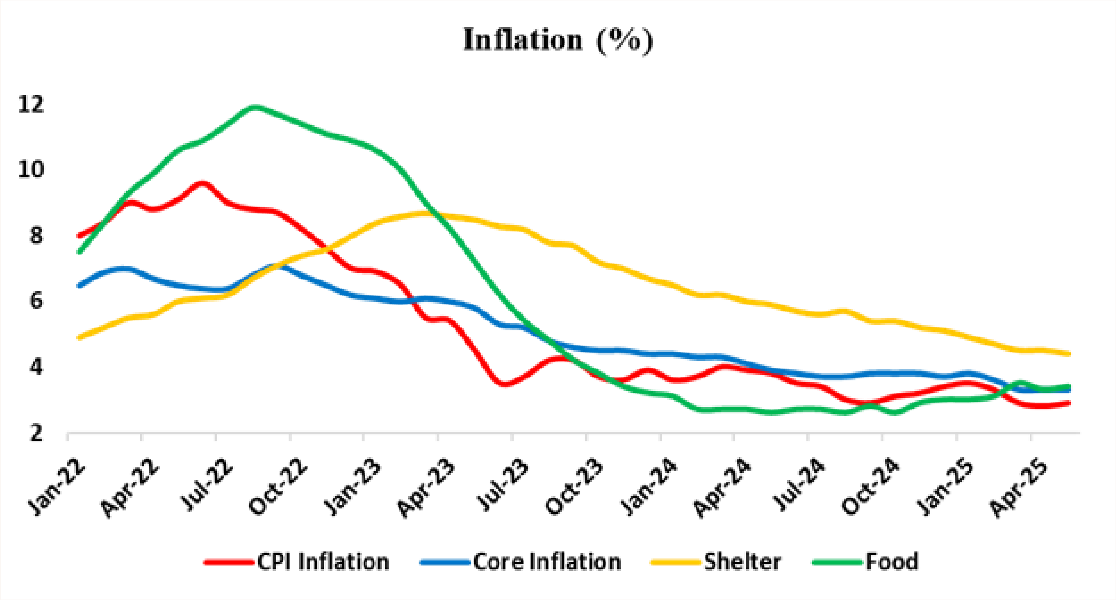
Macroeconomic Overview

Dr. Aryaman Bhatnagar, Ph.D. Assistant Professor of Economics



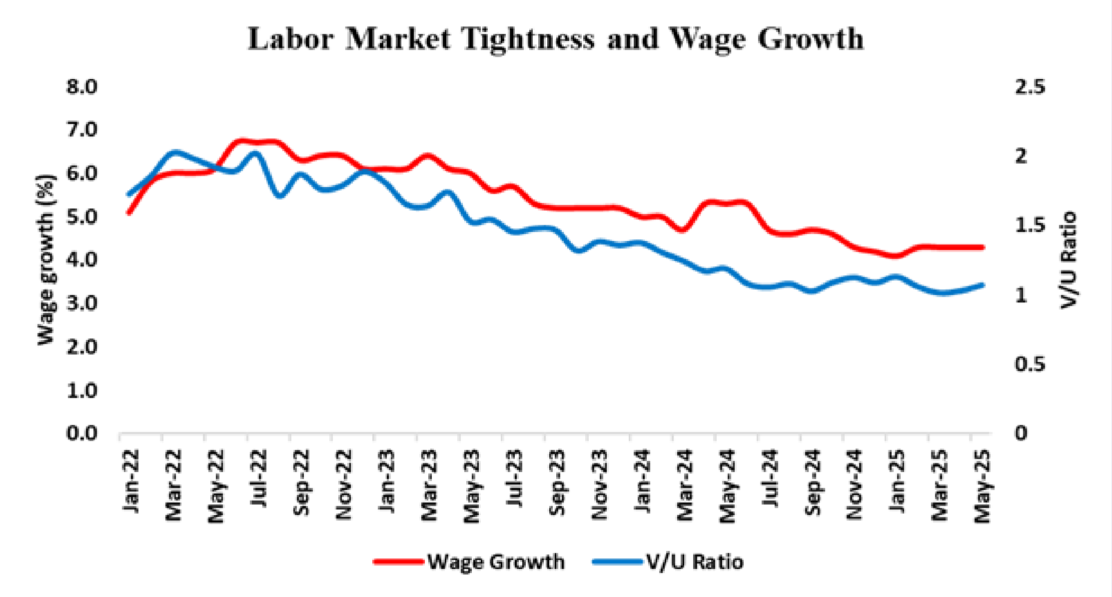
Growth Slows Down

As was widely expected, the US economy shrank by 0.5% in the first quarter of 2025. This was primarily due to a significant spike in imports as companies and consumers tried to get ahead of tariffs. Imports in Q1 surged by 38%, the highest since the pandemic began in 2020. This increase in imports paired with a sharp decline in private domestic consumption (the lowest since 2020) reflected consumers shifting away from domestic to foreign goods. In addition to the twin blows of high imports and low private consumption, GDP growth was also pulled down by a fall in government spending, which was negative for the first time since 2022 Q2.



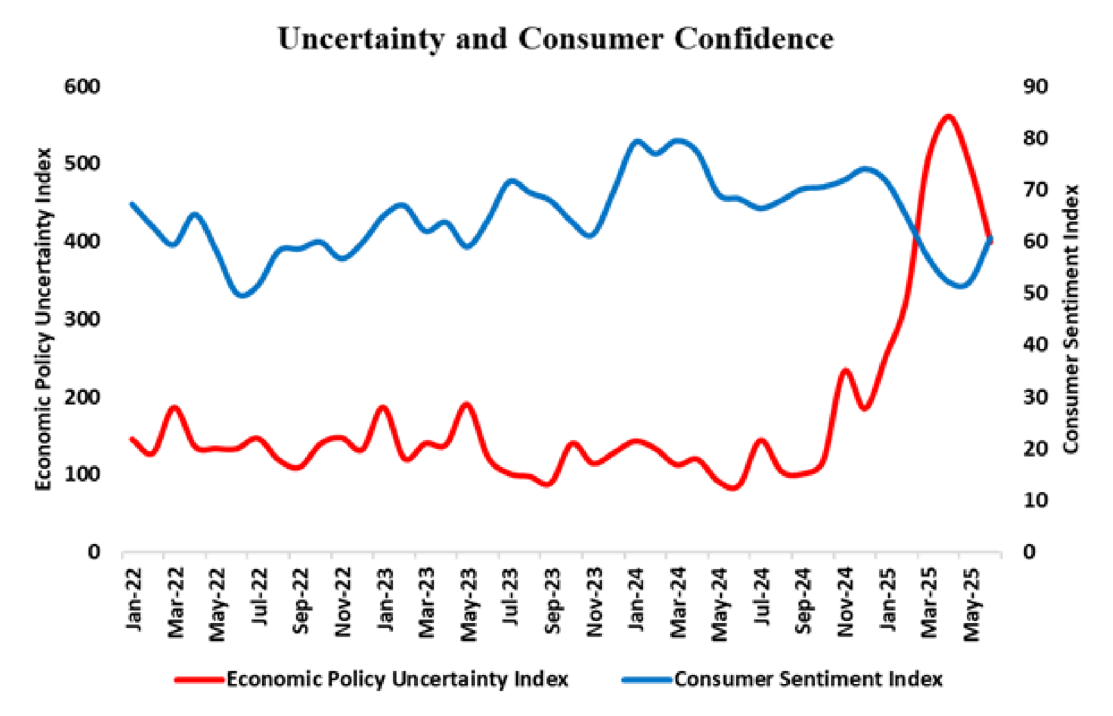
Inflation Remains Steady

CPI Inflation ticked up slightly, increasing from 2.3% in April to 2.4% in May 2025. The increase was driven by higher than usual food inflation, which inched up to 2.9%. On the other hand, energy prices continued to decrease for the fourth month in a row, falling by 3.5% in May. Gasoline prices in particular fell by a whopping 12%. Core inflation, which excludes food and energy prices, remained steady at 2.8% for the third month in a row. Shelter inflation, which was a big concern for the Fed over the last year, continued to decline and finally dipped below 4% for the first time since November 2021.



Labor Market in Good Shape

The Labor market continued to remain stable and robust over the first quarter of 2025. Unemployment rate dipped slightly from 4.2% in May to 4.1% in June 2025. The vacancy to unemployed ratio (V/U ratio), a measure of labor market tightness, continued to remain above 1. This means that the economy has more job openings than unemployed workers. The V/U ratio was recorded at 1.07 for the month of May. Wage growth, which is highly correlated with labor market tightness, also continued to be strong. In May 2025, wages grew by 4.3%, higher than the historical average of 4%.



Uncertainty Dips, Confidence Rebounds

After reaching a record high in March 2025, uncertainty, as measured by the Economic Policy Uncertainty (EPU) index, inched down slightly over the last three months. The EPU index value in May was recorded at 399 as opposed to 560 in March, which is still far higher than the historical average. As one would expect, this has coincided with a corresponding rise in consumer confidence. The consumer sentiment index increased to 60.7 after staying below 60 for the last three months.

Outlook

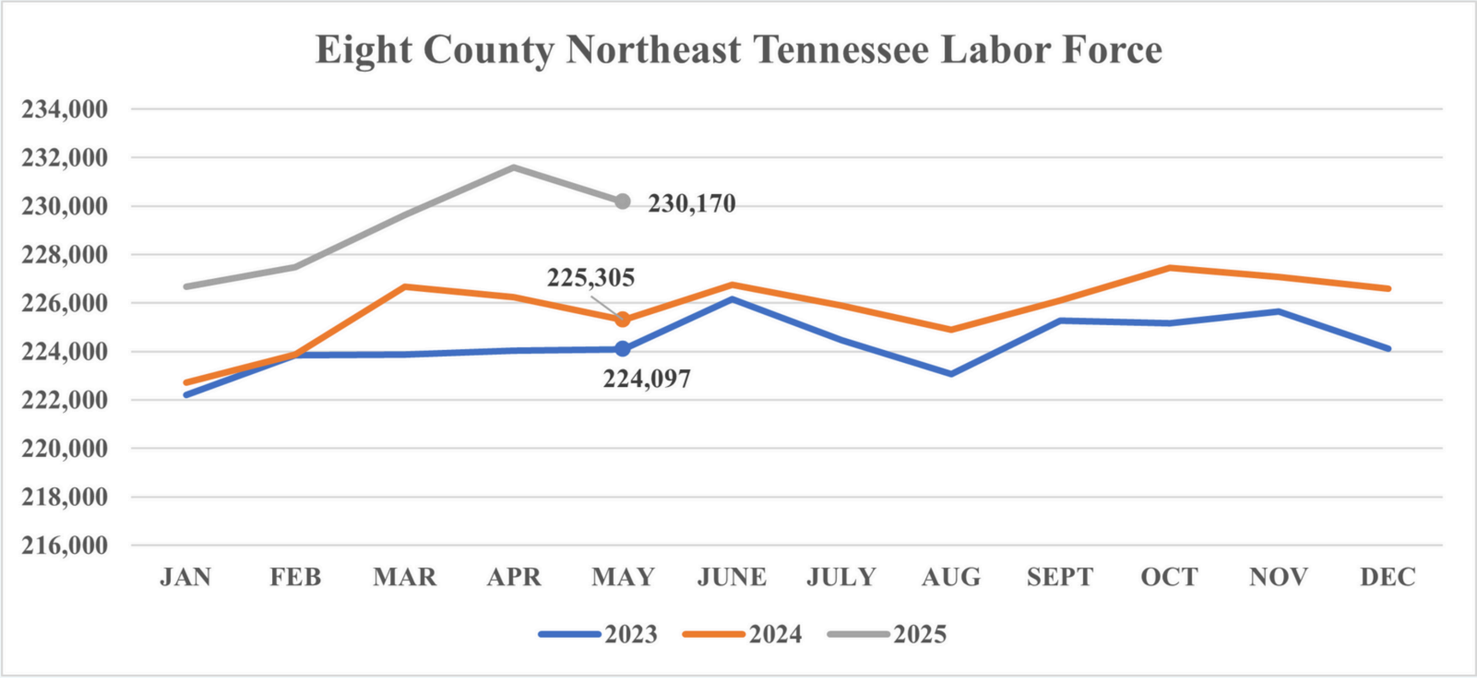
At the beginning of the year, the US economy was put to the test by a tariff policy shock that led to increased levels of economic uncertainty. The policy shock manifested itself in the growth slowdown seen in the first quarter of 2025. However, there are clear indications that the economy may have absorbed most of the shock and is all set to rebound in the second quarter and beyond. At the moment, inflation seems to be inching closer towards the Fed target and labor markets appear to be extremely robust. In addition to this, recent evidence suggests that fiscal policy is expected to be looser in the future. While that will almost certainly have long term implications (especially in terms of debt sustainability), it could well be a significant tailwind for the economy in the short run. Overall, in the absence of any further policy uncertainty, the US economy appears to be getting back on track after a brief slump in the first quarter of the year.

Labor & Unemployment

Dr. Jon L. Smith, Ph.D. • Director, Bureau for Business & Economic Research

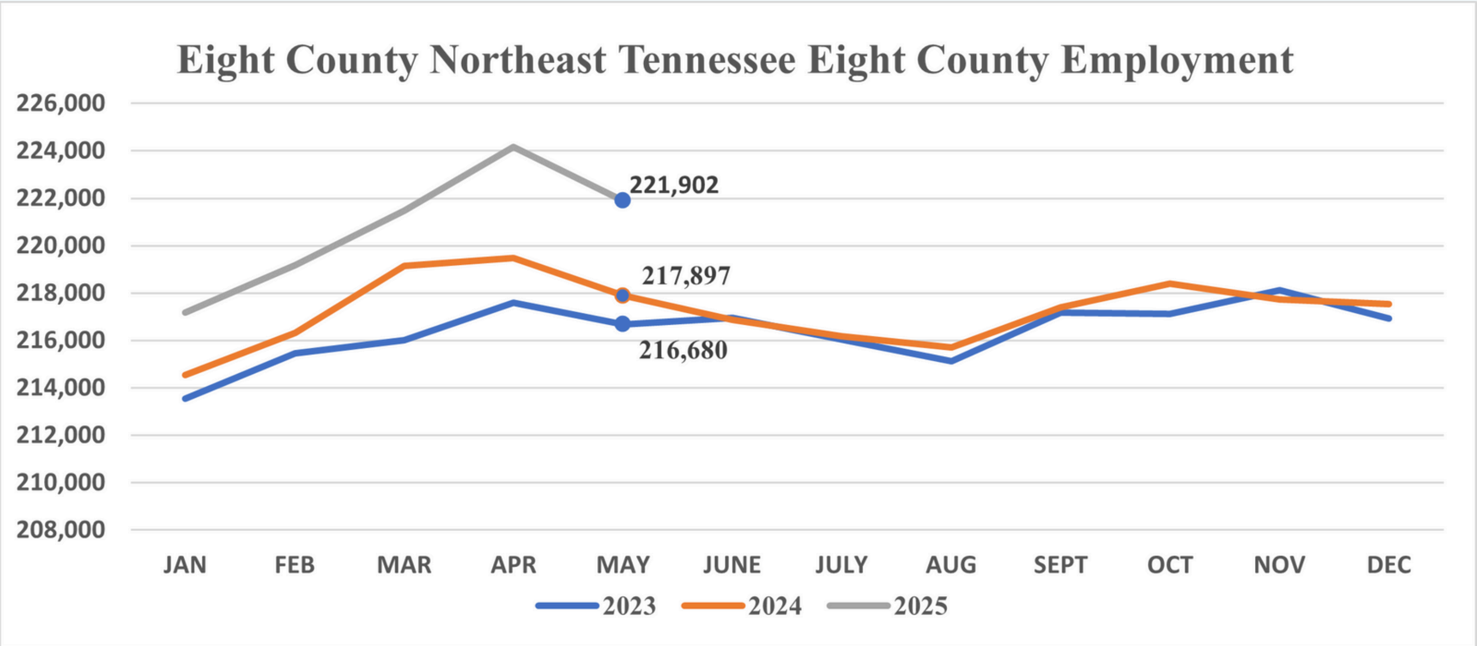
Employment & Labor Force

Over the past three years, the eight counties of Northeast Tennessee have experienced slow, positive growth in both the regions labor force and employment. Year over year, May 2025 labor force showed a 2.16% increase over 2024.

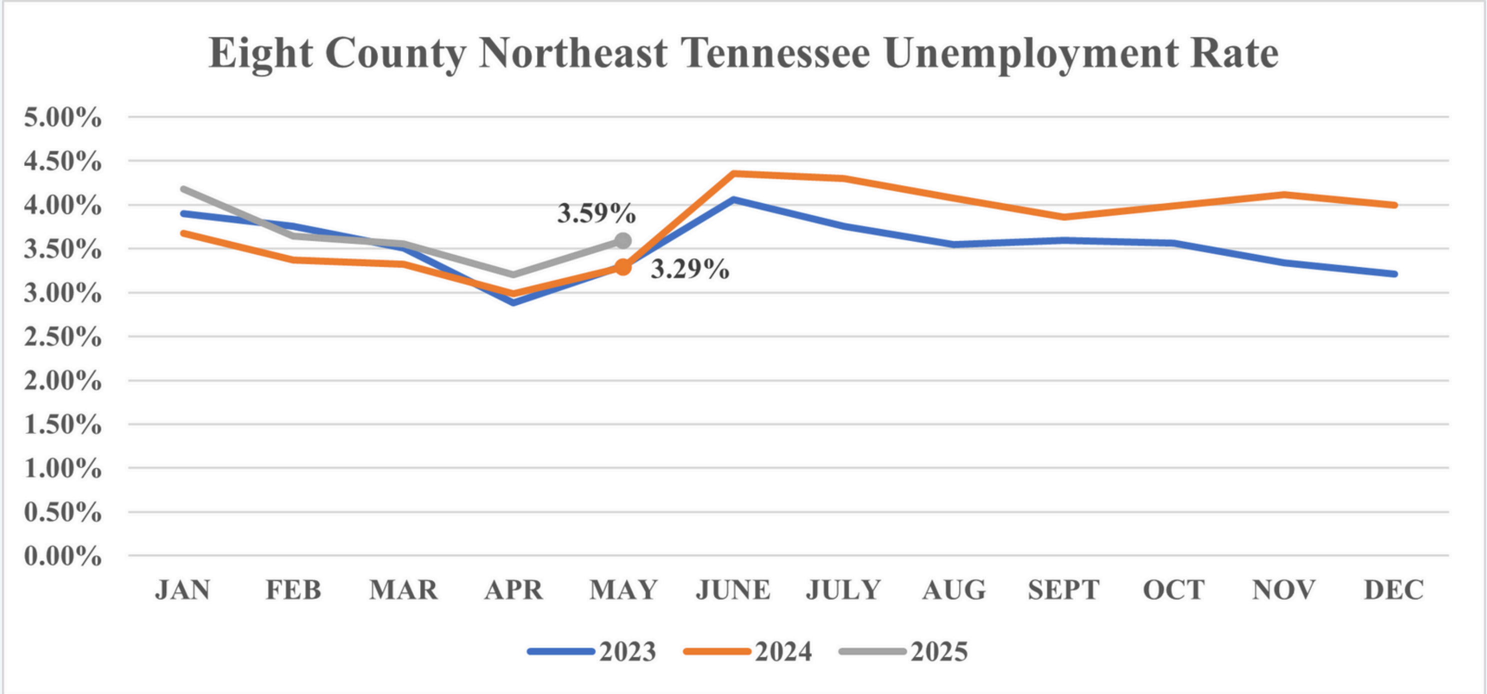


Source: U.S. Bureau of Labor Statistics: Local Area Unemployment Statistics Unadjusted Data

Regional employment has also shown an increase although somewhat smaller than the increase in the region's labor force. May, 2025 year over year employment was 1.83% higher than in May of 2024 while the regional unemployment drifted up slightly from 3.29% to 3.59%



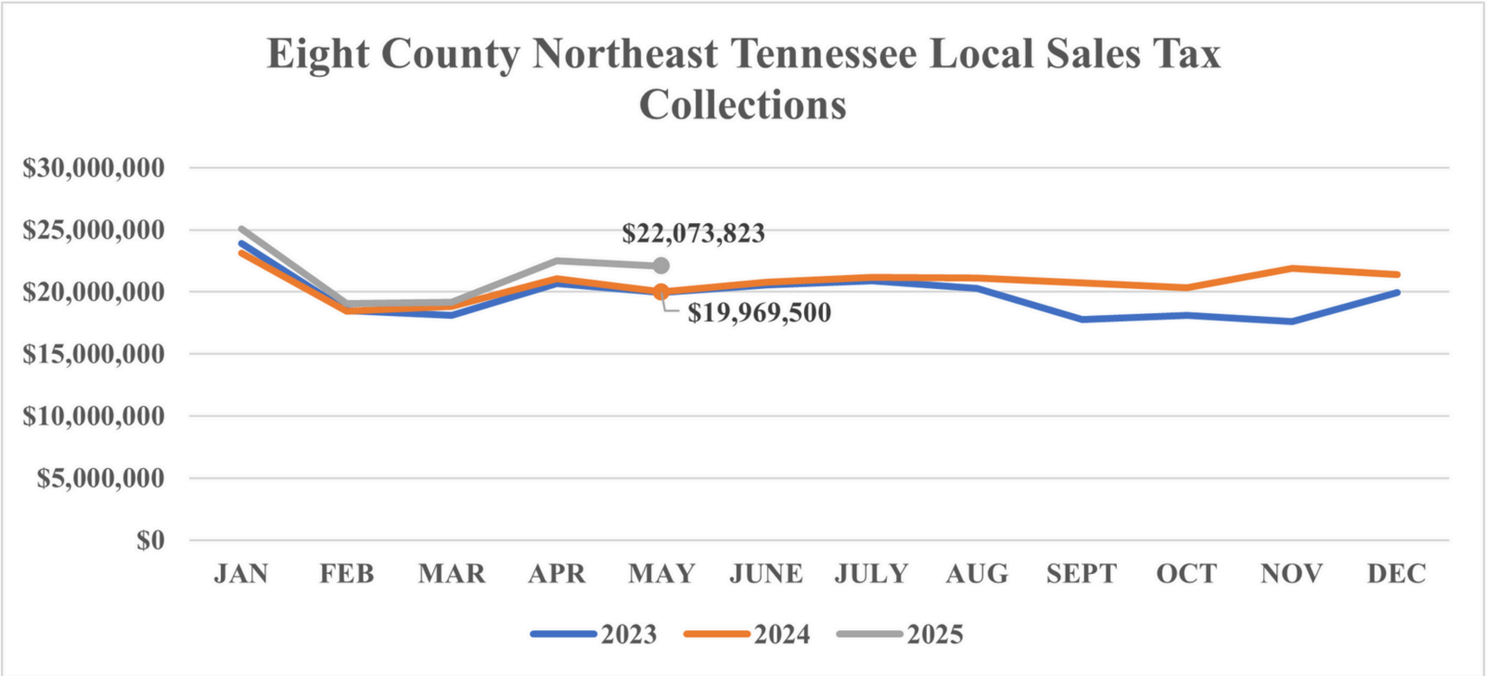
Source: U.S. Bureau of Labor Statistics: Local Area Unemployment Statistics Unadjusted Data



Source: U.S. Bureau of Labor Statistics: Local Area Unemployment Statistics Unadjusted Data

Sales Tax

Eight county local sales tax collections have been relatively stable over the long-run, with modest monthly year over year increases beginning in August, 2023. In the first quarter of calendar year 2025 however, monthly year over year showed almost no variation. The second quarter did show year over improvements for 2025 vs. 2024 with May 2025 showing eight county local sales tax collections increasing by 10.5%.



Source: Source: Tennessee Department of Revenue: Monthly Statistics and Collection Reports

Summary: An Uncertain Economic Future

The data for the first five months of 2025 generally show positive results. However, if you ask an economist what characteristic would define the ideal state of nature, they might very well say "certainty", knowing what's going to happen. This would allow them to confidently make forecasts regarding regional employment and economic growth. Unfortunately, that's not the way the world works. Sadly, economists are doomed to toil in a world of uncertainty.

In an effort to combat the evil specter of uncertainty, the economics profession has devoted years of study and research in the development of the field of econometrics in an effort to reduce forecasting uncertainty to a "manageable" level. Although even the best mathematical models can fail to predict rare shocks or "black swan" events, current models generally work fairly well. This tends to generate a modest degree of self-satisfaction among economists and engender among the public (at least among some people) a tendency to listen to economist's sage economic forecasts. Things tend to go fairly smoothly, unless uncertainty becomes a feature of the nation's economic policies in particular if this uncertainty is associated with something like trade and tariff policies that tend to have lagged but important influences on regional economies.

But is it really possible that the country would opt for a policy of uncertainty? Well, let's look at the Wall Street Journal's frontpage article of Tuesday, July 8 titled, "Wall Street Feels New Tariff Tension'. The article states that President Trump announced Monday afternoon that the U.S. would impose 25% tariffs on goods from Japan and that other southeastern Asian countries would face even higher levies.

Except ... the President also said that their tariff rates could move lower or higher depending upon how these countries adjusted their trade practices.

The President has threatened to raise tariffs for EU imports to 50%.

Unless .... the EU reaches an agreement in principle to change their trade practices.

The President has threatened to charge any nation that aligns with the trade policies of the BRIC group (Brazil, Russia, India, China and South Africa) an additional 10% tariff.

Unless ... He decides not to.

I believe that we can reasonably conclude that this reflects an intentional effort to introduce a policy of uncertainty in trade policy. Is this a good thing or a bad thing? Will the economy boom or shrink? If you ask your local economist this question, you might possibly get a blank look or some incoherent babbling. You see most economic forecasts begin with "if this course of action is adopted, then we can expect this predicted outcome." If economists are uncertain about what policy decision is going to be adopted, they will often assume that it will be the worst policy option.

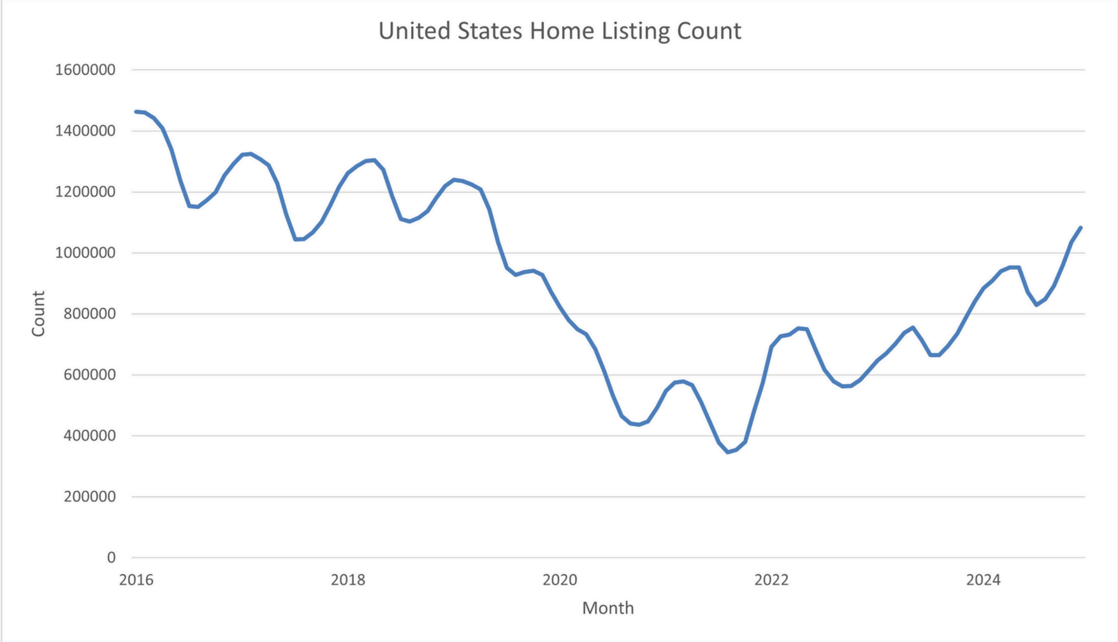
This leads to gloomy forecasts. For example, the Wall Street Journal's April poll of 57 respected economic forecasters indicated that 50 predicted that the probability of an economic recession within the next 12 months was between 40% and 60%. Only 3 predicted a probability of less than 40% and 4 a probability of greater than 60%.

Yet, even though first quarter's GDP reportedly fell by .0.5%, current inflation and national unemployment rates are low. For the eight- county region, labor force and employment levels are higher year over year and local sales tax collections are up; hardly portents of poor future outcomes. So, if you ask me what my recession probability forecast is........... well, I'm uncertain.

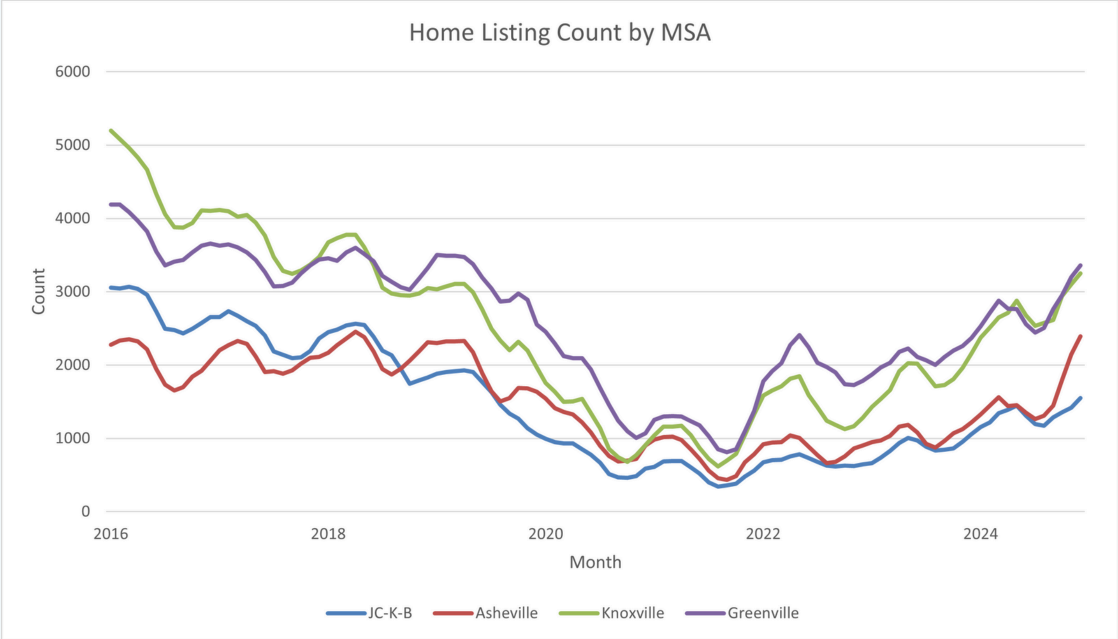
Housing Market

Joseph Newhard, Ph.D. • Associate Professor of Economics

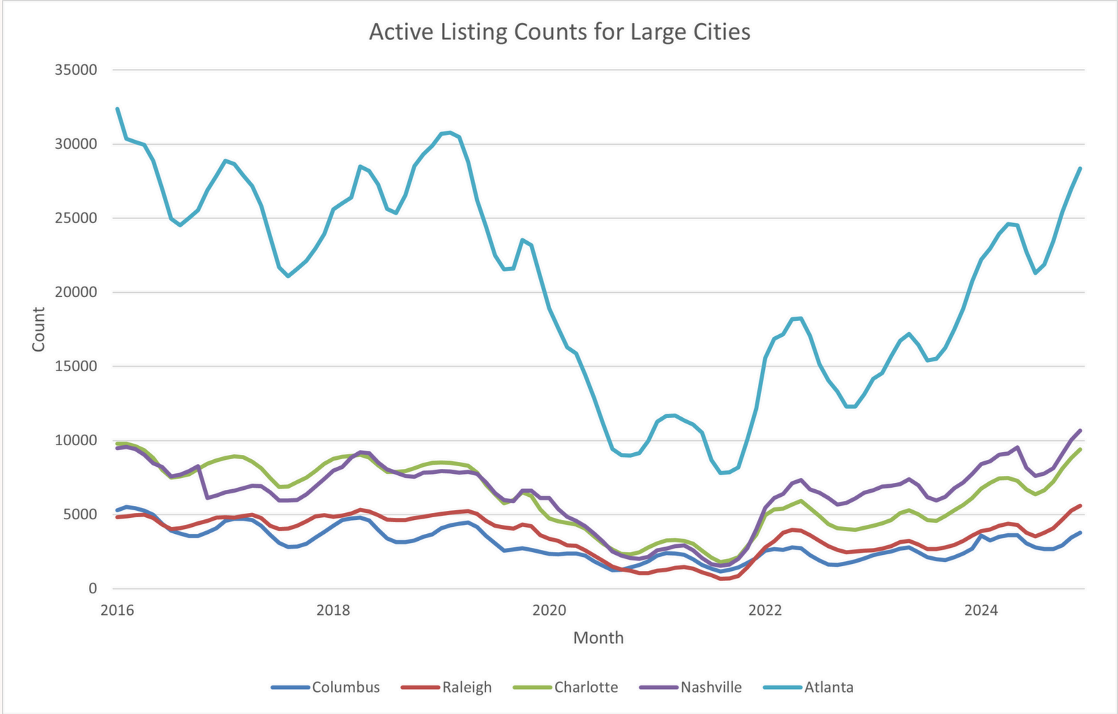
The nationwide home listing count reached 1.082 million in June. This is the highest level of inventory since 2019, and it is down only 11% versus June 2018. However, the housing market differs greatly across cities and regions. Inventory has not recovered in the Northeast or Midwest and prices continue to rise there, driving up the national average. By contrast, inventories have fully recovered statewide in Florida, Texas, Tennessee, and six other states. Austin has experienced a true crash with prices down 20% from the peak. Several large cities in Florida have seen declines of 10% so far. Nashville was one of several large cities that saw month-to-month price declines in May. Aggressive construction in the Sun Belt is making up for constrained existing home listings due to the low-rate lock-in effect and a surge in delistings by sellers who missed peak prices and now face anemic demand in some markets.



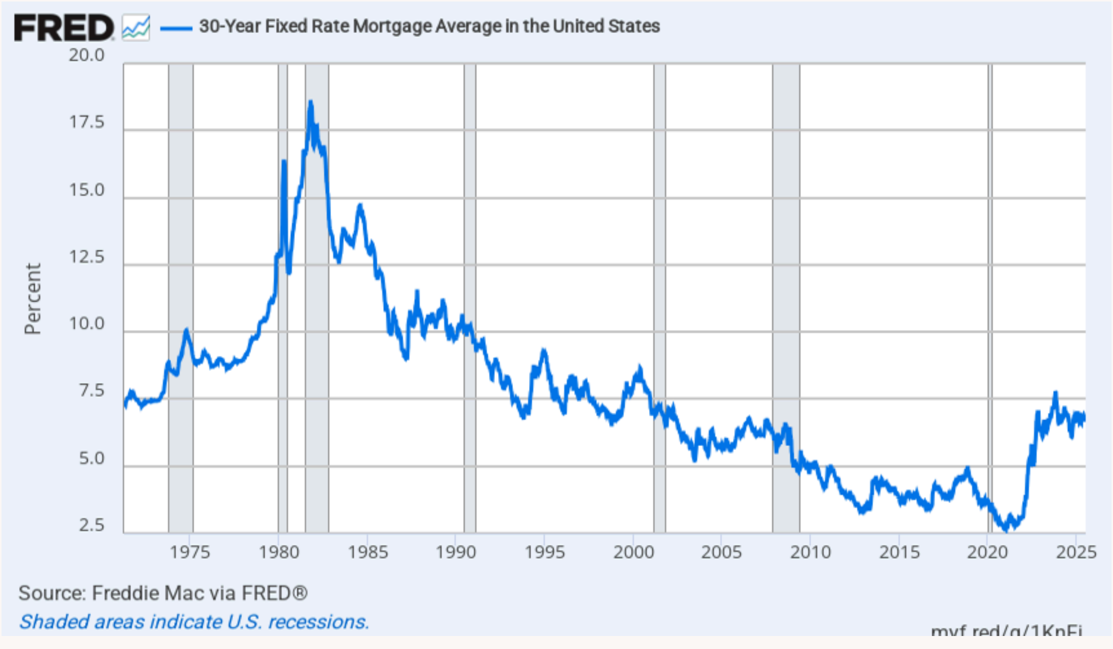
The combined metropolitan statistical areas of Johnson City and Kingsport-Bristol is also seeing improvement in the number of listings. At 1549 units, inventory is the highest since January 2020. Compared to June 2018, the last year considered a balanced market, listings are down 35%, but the trend is positive. It feels like a lifetime ago when inventory bottomed out at 342 in February 2022. Supply had already seen a significant decline in the years preceding Covid, but high prices have incentivized new construction of houses, townhomes, and apartments. Even though our local inventory is still below pre-pandemic levels, rising inventories and softening prices elsewhere could ease our population growth as other regions become relatively more attractive in price and inventory. For instance, both Knoxville and Asheville have the most units for sale since the end of 2018. By contrast, Boone and Cullowhee show almost no recovery.



Looking at the surrounding large cities, the Nashville MSA has its highest inventory in the data series which begins in 2016, as does Raleigh. The Charlotte MSA inventory has spiked back to where it was in September 2016. The Atlanta MSA inventory is at its highest since October 2019. Lastly, the inventory in Columbus, Ohio, a straight shot up US 23, is back to November 2019 although the state of Ohio overall has not fully recovered to 2019 levels. I expect that recovering inventories in the large cities will cascade to smaller cities like Johnson City within two years as buyers adjust to changes in relative prices and the availability of homes. I also believe that home prices will become more in line with incomes as supply rises. That is why I have focused my analysis on inventory instead of pricing. Realtor.com shows a median sold price of $300,000 in Johnson City in June compared to $372k in Jonesborough, $310k in Greenville, $249.5k in Elizabethton, $246.5k in Kingsport, and $267.5k in Bristol.



When the Fed began raising rates in 2022 to combat the inflation it created in 2021, it was widely hoped that inflation would quickly come under control and that the Fed would immediately lower interest rates to the levels Americans grew accustomed to in the preceding decade. The hope that mortgage rates would promptly go back down have since evaporated. Mortgage rates are closely tied to 10-year Treasury yields and mortgage lenders demand a 2 to 3-point premium over the risk-free rate. Treasury yields remain elevated due to sustained inflation concerns especially with respect to the government's fiscal deficit. With the debt on an exponential growth path, we should consider the possibility that mortgage rates are not coming back down and in fact could go higher. However, a recession could trigger a flight into the safety of Treasuries reducing yields. The Fed could also decide to put out the fire with gasoline, resuming its purchasing of Treasuries and mortgage-backed securities which would reduce rates but further increase prices.



Final Thoughts

Consider how much the dollar has been devalued by the banking system in just a quarter century as exhibited by gold and housing costs. In January 2000, an ounce of gold cost $285 and the median-priced home cost $163,500. If you had the cash or 574 one-ounce gold coins you could have bought a nice home. Today, the coins would buy four and a half median-priced homes, but the cash would only get you four-tenths of one home. The same 574 gold coins would cost $1,930,000 today.

Or consider someone entering into a labor contract in 2015 when gold was $1060 per ounce and facing a choice of locking in a compensation of $100,000 per year in U.S. dollars or 94 oz of gold. Ten years later, the real purchasing power of the gold has increased by 135% while that of the cash has fallen by 25%. The price of homes has increased, but only because we price them in government paper money which is subject to limitless expansion. Priced in gold, houses are near all-time lows.

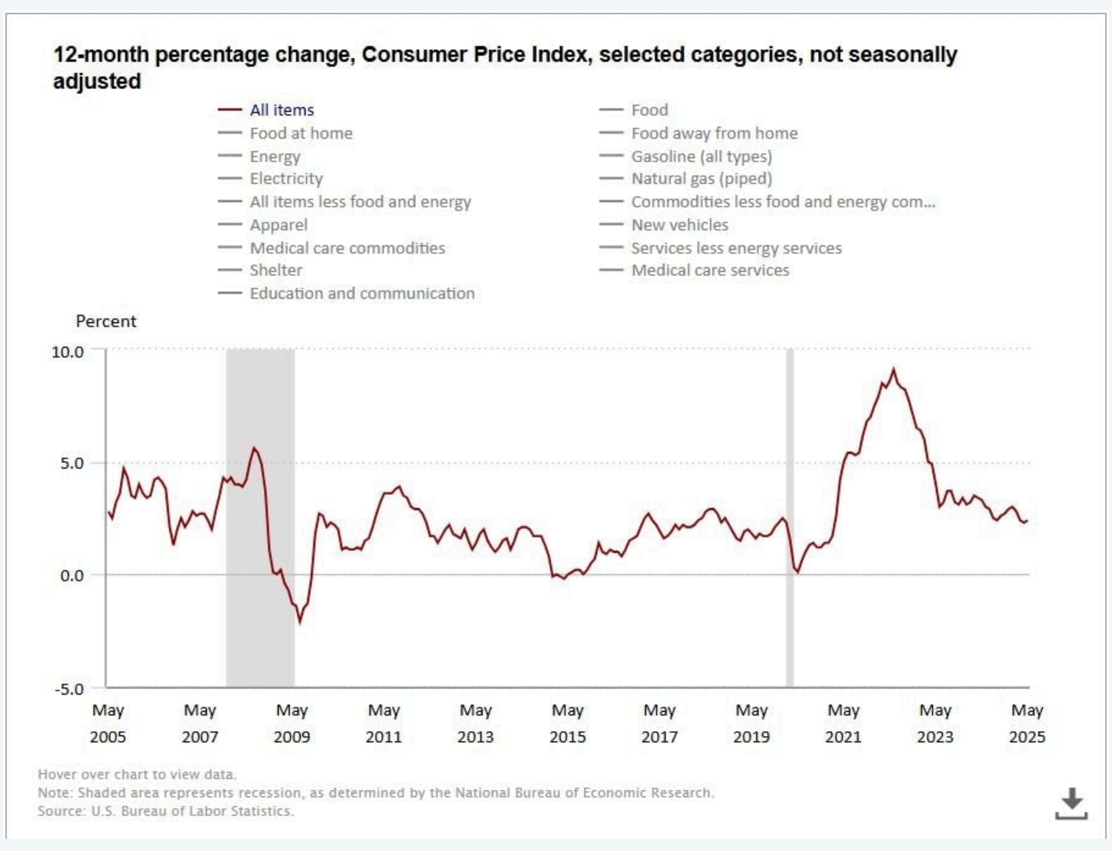
Fed Up (With the Inconsistency of the FOMC)

Kevin Kilgore • Professor of Practice and Associate Director
of the Center for the Study of Finance

Many months ago, when interest rates were rising, I sat in a coffee shop with some business people and academics. All of us had obtained mortgages in the 1980's or 90's. We decided to go around the group and reveal the rates on our respective, first, home mortgages. Mine was the lowest. In late 1993, a 20 year, fixed-rate, conventional mortgage was 6.5%. It was so relatively low, my wife and I felt as if we had stolen something. My friends each confessed to signing on to rates of above 8%. The point being, that there was a time in recent history when an 8% mortgage rate was considered normal.

So much of the issue with the current slowdown in housing sales has been blamed on mortgage rates. Mortgage rates and other debt (like borrowing for capital expenditures) are directly influenced by the yield curve, and thus a Federal Open Market Committee. This made me think about the mission of the Fed and if their actions reflect long range stability of thought and planning. Many analysts and journalists have similar questions.

Back in 2006 I had the opportunity to have lunch with Jeffrey Lacker, then the President of the Richmond Federal Reserve Bank. At the time, oil prices were high, and I viewed that as my opening to get an indication of his view on raising interest rates. He was adamant that inflation spiral was the biggest concern in the economy of the day. This simply means that he (and incidentally many other FOMC members) believed that high energy prices were causing inflation to move up rapidly, and that said inflation should be squashed. It became evident to many that the Fed viewed its mandate as smashing inflation, and that some were willing to do it to the exclusion of almost any other consideration.

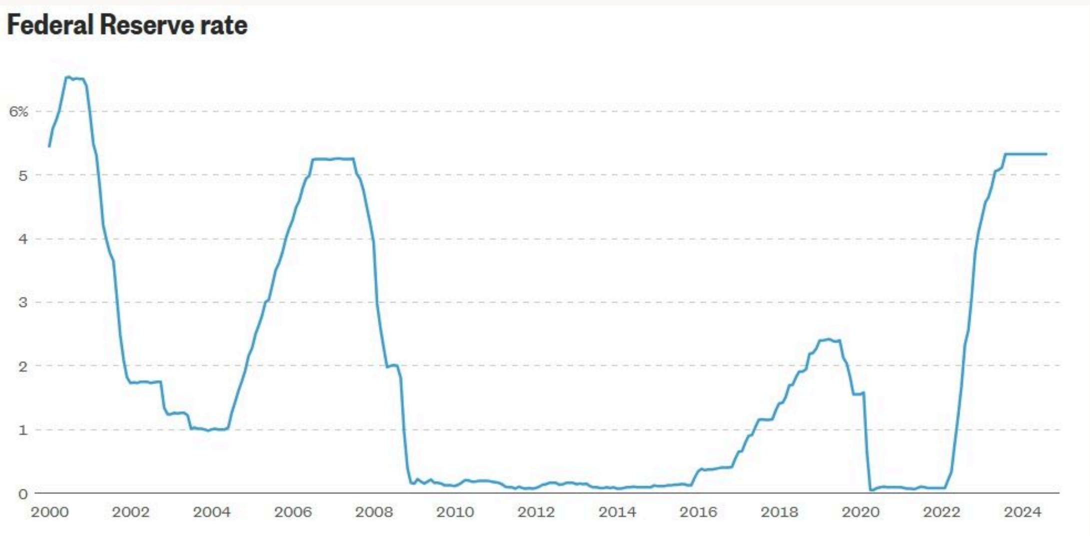


The Fed eventually pushed rates higher, and that fixed all of our economic woes. Just kidding - it did not. In fact, it was one of the factors that helped push the economy into a mortgage market collapse and capital crisis that nearly sent the world into an unrecoverable economic tailspin. (But thanks for the good faith effort, FOMC.) The ensuing financial crisis led to a multi-year stretch of near zero interest rates and, eventually, quantitative easing and debt monetization. Though there is a lot of blame to go around, many of my banker friends still hold the Fed at least equally liable.

Inflation is an extremely complex issue. We know many of the key levers that trigger inflation, but we do not know all of the unforeseen, aberrant or unique events that may also affect it. For example, there may be a pandemic. In a recent interview with the Wall Street Journal, Tom Barkin (current President of the Richmond Fed), being asked to comment on economic forecasting, said: "it's always hard." Okay, so "it's hard" is not exactly Voltaire, but it is true. He was being honest and straightforward. We have to respect his candor, and we have to acknowledge the truth of what he said. Given the obvious difficulty of the FOMC's task, I have decided to adopt a new direction – fairness.

The primary mission of the Federal Reserve is to ensure a safe and functioning monetary system, and the moving of money through financial intermediaries. They examine and govern the solvency of banks and make sure we have enough cash floating around to put some nice crisp 20s in your ATM. Their job is not to set interest rates, per se, and their mandate, regarding inflation and monetary policy, is vague in a way only Congress could make it.

From an historical standpoint, until 2022 we had been spoiled with years of very low interest rates. Let's briefly survey the timeline of events. In 2021 we had really high inflation, which was "transitory." Then it wasn't. In 2022 the Fed began to push the discount rate higher (quite rapidly) reaching a peak of 5.25% in July, 2023. In September 2024, the FOMC cut the rate by .50%, followed by .25% cuts in both November and December. Inflation had fallen to 2.4% for the month of September 2024. The average annual inflation rate for 2024 was 2.9%. The Fed had a rationale. We were introduced to the concept of the "soft landing" – by the group whose mission it is to take a sledgehammer to the economy, in the name of inflation mitigation. (Over in the English Department they call that irony.)



At present, FOMC Chairman Jerome Powell has come under pressure to lower rates. This year, inflation is at about 2.8% on an annualized basis, but the last reported rate (at the writing of this article) was 2.4%, for May. The Federal Reserve has set a target of 2% CPI; however, some FOMC members have made statements indicating that a higher target may be or should be acceptable. Chairman Powell has indicated that he is reticent to lower rates, due to the specter of inflation – perhaps caused by tariffs. I get it, but the FED has one really big problem - the debt. You see, since 2020 (and really, way before) Congress has been spending money like … well, like Congress. (There is no apt comparison.) When trillions of dollars in low-rate debt resets, it could have serious implications for both fiscal and monetary policy. The FED should at least acknowledge an understanding of this issue.

This brings me to the point of all this evidentiary information. With its seemingly contradictory (and some would argue destructive) behavior, many have questioned whether the Fed (the FOMC) is losing its relevance. Others question its need for or right to independence. In a speech to the group of 30, at the IMF, Kevin Warsh, a former member of the Fed Board of Governors (2006 – 2011), questioned whether the Fed had jeopardized its reputation, and ultimately its independence. Mr. Warsh said: "… the Fed's current wounds are largely self-inflicted. A strategic reset is necessary to mitigate the losses of credibility, damage to its standing and-most important – worse economic outcomes for our fellow citizens. "

Perhaps the Fed should publish some sort of formula or guideline for how it calculates inflation. Maybe the transparency would engender trust and define a more stable mandate for the FOMC members themselves. Should the Fed remain independent? Probably. Are they irrelevant? Well, we are talking about them an awful lot, are we not?

Professor Kilgore discusses the One Big Beautiful Bill Act with WJHL