

Executive Summary

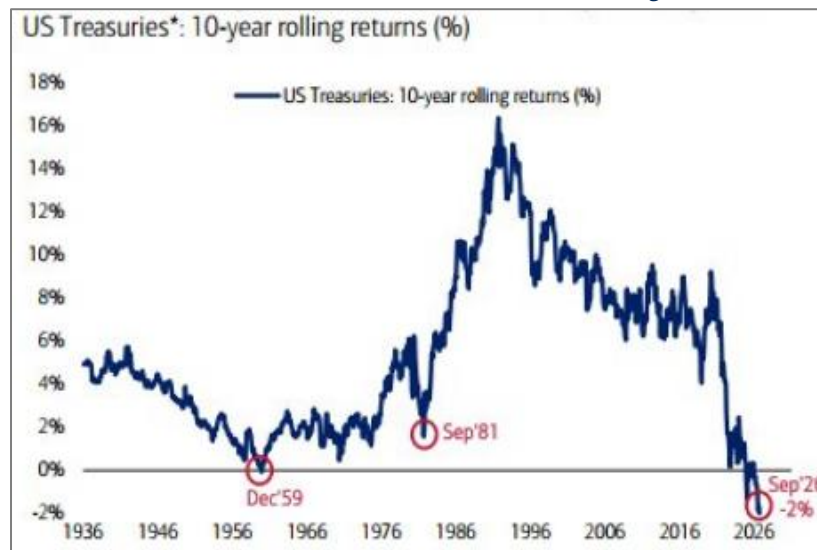
- ~ During the quarter, interest rates shot higher, leading to losses across most fixed income markets. The good news is bond yields are materially higher, and as a result, bonds are better equipped to handle potential future interest rate increases.
- ~ The move higher in interest rates appears largely attributable to higher real yields, but pinpointing exact drivers is difficult. Is it a structurally more hawkish Fed, persistent deficit worries, and/or the capital demands of the AI data-center buildout? Is it something else altogether?
- ~ We are skeptical that interest rates can be forecasted with any degree of accuracy. As a result, we favor a reactionary approach to fixed income markets. The central question that governs our process, where is the market paying us to take risk?
- ~ Our bond portfolios are conservatively positioned relative to the market, but the recent move in rates is creating new opportunities. We added Treasury Inflation Protected Securities (TIPS) to our portfolios. Municipal bonds look interesting, and we are tempted to take on more interest rate risk.

Introduction

This quarter's commentary focuses on fixed income, or more plainly, bonds, an asset class few are excited to discuss.

The harshest critics view bonds as ticking time bombs, one inflation or sovereign debt shock away from catastrophe. A larger cohort simply sees them as a waste of capital, an asset class doomed to deliver negligible real returns. And then there are the investors who own them, not for their love of fixed income, but as a necessary evil. When you canvass the market, it is hard to find anyone who simply likes bonds, much less loves them.

Worst Ten-Year Run in Over a Century



BofA Global Investment Strategy, GFD Finaeon, Bloomberg

The disdain is understandable. Bonds lost money this year, and performance over the last decade is the worst on record. But falling bond prices also mean higher bond yields. At quarter end, the 10-year Treasury yielded 5.3%, its highest level since 2002. An investor today earns more income for each dollar invested, and that income provides more cushion against future rate increases. That is the great thing about bonds, you can run the math, and today the math is the best it's been in decades.

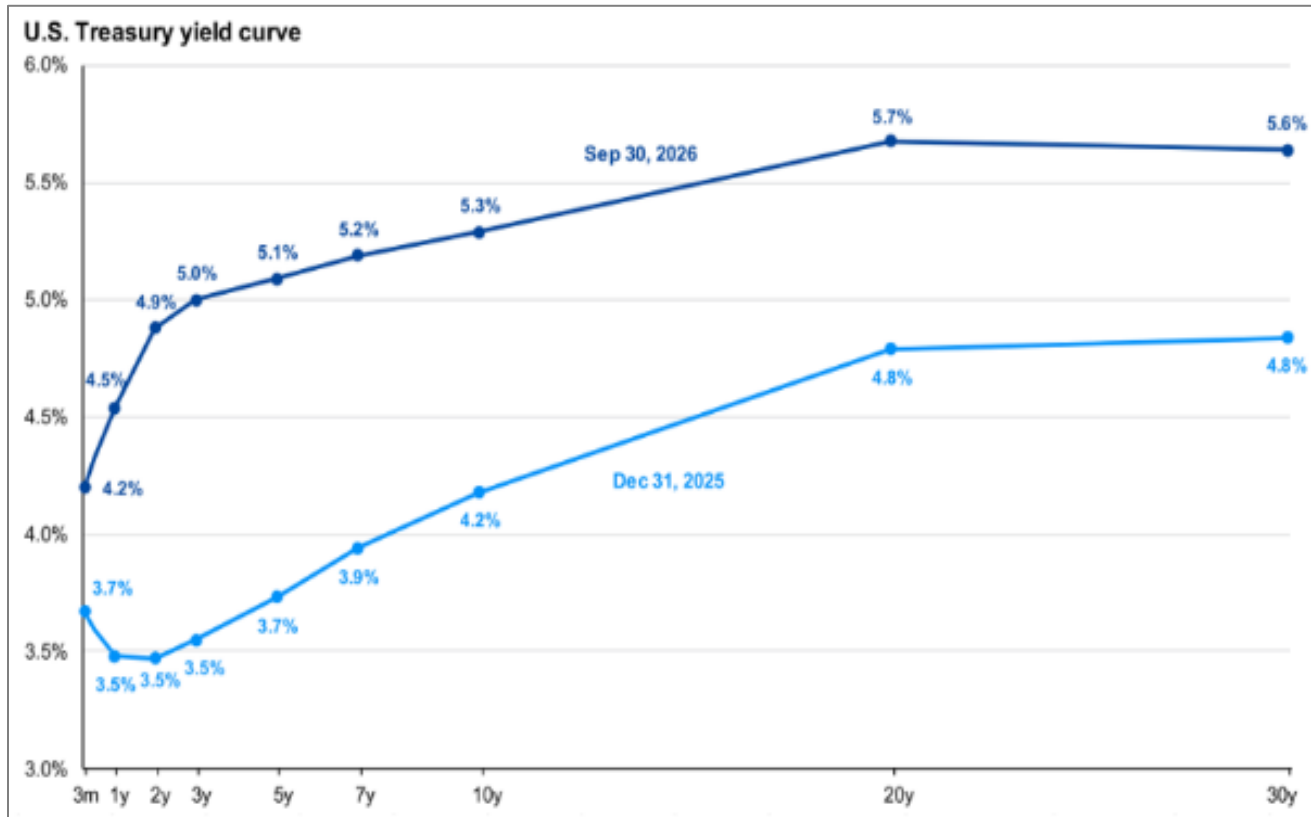
This quarter, we have traded our usual narrative for a set of questions, the ones we hear most often and a few we are asking. The first half covers what happened with interest rates and why. The second half covers investment implications, and more specifically, Annandale's positioning.

Why are we writing about interest rates? What happened?

The short answer is interest rates (bond yields) spiked during the third quarter. For instance, the 10-year Treasury jumped 0.85%. We combed through the last fifty years of data, and quarterly moves of that magnitude are rare, only five other instances, mostly clustered in the 1980s when the absolute level of interest rates were considerably higher.

And it wasn't just a move in 10-year rates. Treasury rates, across the curve, climbed pushing municipal, corporate, and mortgage borrowing higher. Year-to-date, 2-year Treasuries have climbed 1.4%, 10-year rates 1.1%, and 20-year rates 0.9%. Investment-grade corporate bond yields are 1.2% higher. Thirty-year fixed-rate mortgages are up 0.9%. Even global debt yields have jumped. The majority of those moves occurred during the third quarter.

U.S. Treasury Yield Curve: Year-End 2025 vs. Q3 2026



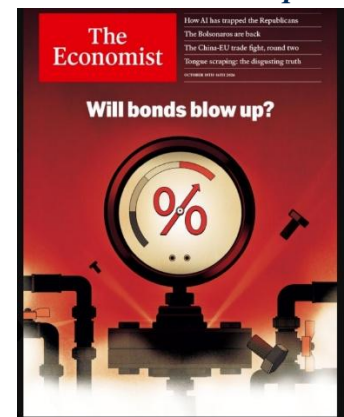
JP Morgan

The recent spike in rates is notable for another arbitrary reason. 10-year yields surpassed 5.0%, a level we haven't witnessed in almost two decades. No one knows exactly where, but we may be close to crossing a line in the sand, where borrowing costs are at or above economic growth. Most long-run estimates of nominal growth sit near 4.0%. Again, there is nothing magical about the number 5.0%, but it raises questions. Can our government afford +5.0% rates? What happens to the economy when rates get this high? What happens to the datacenter buildout, which is becoming more reliant on debt capital markets? We hit on some of these topics in the questions that follow.

1. How have bonds performed in 2026?

Obviously, it has been a tough year for bonds, of all varieties. Bond prices fall when interest rates rise. Across most of the bond market, price declines have outpaced the income that bonds offer, leading to losses. The actual returns vary by instrument, but the greater the bond's duration the worse the return. 2-year Treasuries eked out a small gain, while thirty-year Treasuries lost 8.1%. If you adjust for inflation, the picture gets even worse. Consumer prices rose 3.2% through September, leaving the broader bond market (US Aggregate) down 6% in real terms.

Will Bonds Blow Up?



The Economist

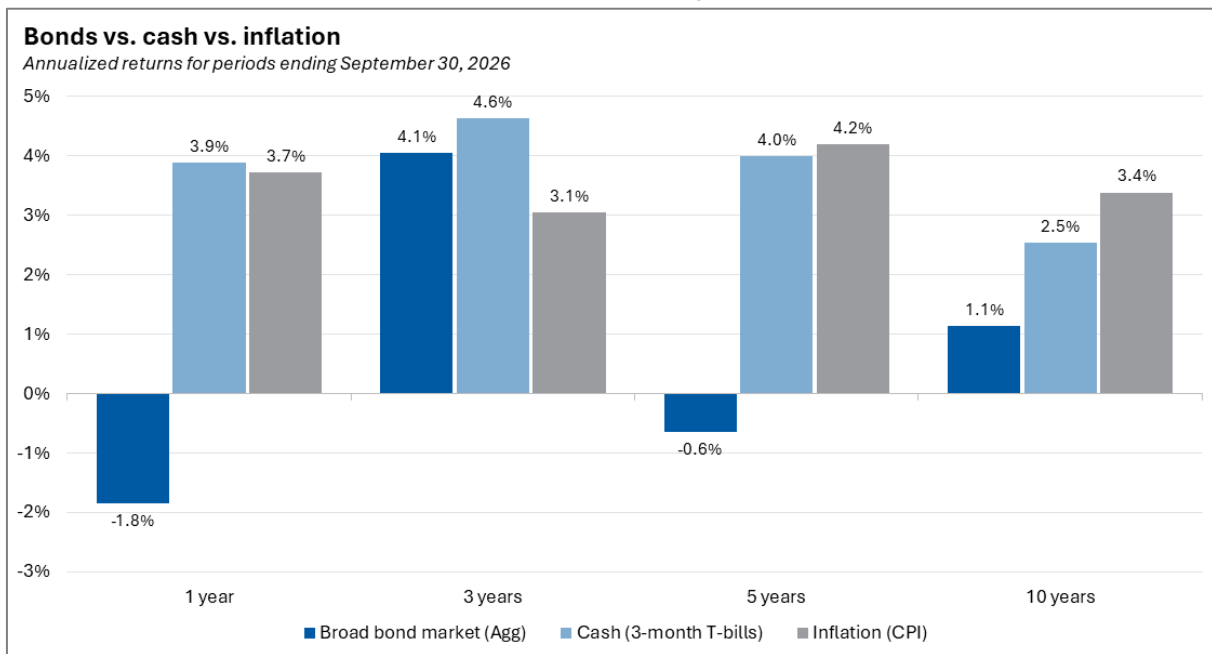
Yields and 2026 Total Returns by Sector

Sector	Yield 12/31/2025	Yield 9/30/2026	2026 total return (through 9/30)
2-year Treasury	3.47%	4.88%	+0.3%
5-year Treasury	3.73%	5.09%	-2.9%
10-year Treasury	4.18%	5.29%	-5.3%
30-year Treasury	4.84%	5.64%	-8.1%
TIPS (real yield)	1.69%	2.82%	-2.1%
Broad bond market (U.S. Aggregate)	4.32%	5.56%	-2.9%
Agency mortgage-backed	4.63%	5.95%	-3.3%
Investment grade corporates	4.81%	6.04%	-3.1%
Municipal bonds	3.60%	4.78%	-4.2%
Asset-backed securities	4.69%	5.88%	+1.7%
High yield corporates	6.53%	8.35%	+0.1%
Leveraged loans	8.10%	8.95%	+3.5%

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2. What does longer-term bond market performance look like?

The objective answer is bad, but your measurement window explains most of it.

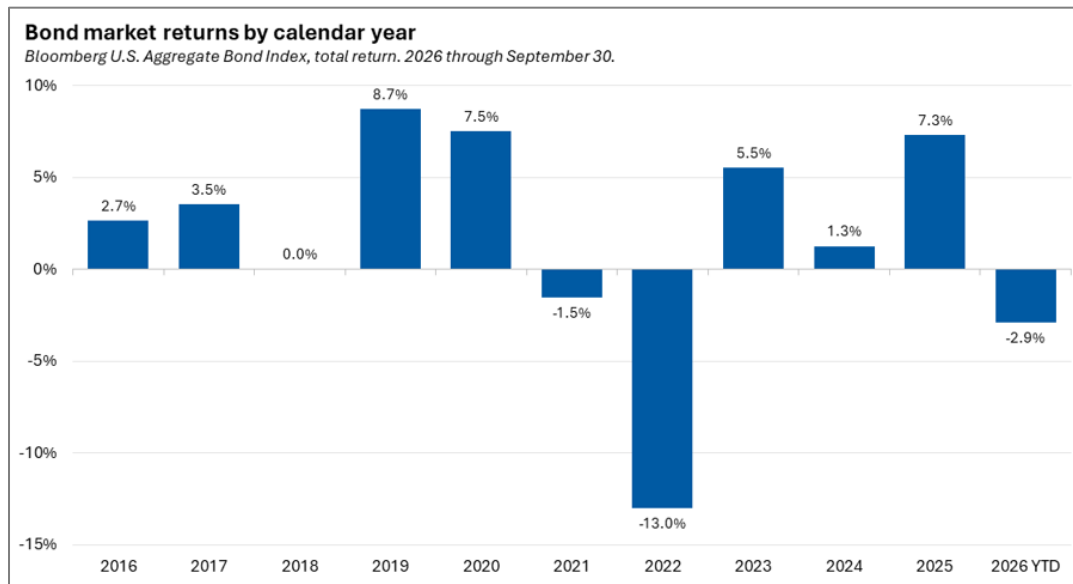
Bonds vs. Cash vs. Inflation

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Any trailing return measure, 1-year, 3-year, 5-year, 10-year, or 20-year is biased by recent returns, which in the case of bond markets have mostly been poor. 2026 and 2021 were bad years for bond markets, 2024 was an anemic year, and 2022 was a terrible year. Because the starting point of your trailing measure is today, you are going to catch some or all of this cluster in your performance measurement. The risk is you conclude bonds are terrible investments, because performance looks weak across most trailing windows, when you are really just counting the same cluster of bad performance multiple ways over. In reality, the 2022 bond bear market heavily obscures trailing bond-returns, but starting yields in 2022 were very different than they are today.

We will address this topic later, but trailing returns shouldn't inform your opinion about the opportunity set going forward. If anything, it's the opposite, poor prior performance is most often a welcome sign for current bond investors.

Bond Market Returns by Calendar Year



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3. Why do US Treasury markets matter?

“I used to think that if there was reincarnation, I wanted to come back as the president or the pope or a .400 baseball hitter. But now I would like to come back as the bond market. You can intimidate everybody.” – James Carville

Debt markets are massive.

International Monetary Fund (IMF) estimates place the value of global debt outstanding at \$251 trillion or roughly 1.6x the total capitalization of all stocks. The US accounts for a substantial share. We have over \$22 trillion in outstanding mortgage debt, \$16 trillion in non-financial corporate debt, and of course, \$40 trillion in outstanding US Treasury obligations. This debt enables households to buy homes, helps business grow, and our government to finance public services and investment.

Within the global debt market, the US Treasury enjoys a privileged position. We are deemed the most reliable borrower in the world’s reserve currency, the US Dollar. From a solvency perspective, US government obligations are largely considered to be “risk free,” and as a result, much of the global bond market prices off US Treasury yields.

Debt is seldom priced to yield less than an equivalent duration Treasury, because it makes little sense to accept less compensation for more risk. Just scan the markets. The investment grade corporate bond index yields 6.0%. A 60-month auto-loan averages 7.5%. A newly issued thirty-year mortgage carries a 7.7% effective rate. Even stocks are priced at a spread to Treasuries, just less visibly.

When US Treasury yields climb, borrowing costs throughout the economy tend to follow, potentially impacting the speed and trajectory of economic growth.

4. Does the Fed set interest rates?

The quick answer some, but not all.

There is a pervasive misconception that the Fed sets interest rates across the economy, or worse, that the Fed Chair sets them himself. There is some truth in the first view, but both views overstate the Fed’s power.

Let’s tackle the more egregious misconception first. The Fed Chair, Kevin Warsh, does not set monetary policy by himself. The FOMC makes the key policy decisions, with twelve voting members: seven governors, including the Chair, and five regional Fed presidents. Governors are nominated by the President and confirmed by the Senate, but their fourteen-year terms are staggered, with one scheduled expiration every two years. The structure is designed to insulate policy from

election cycles and limit the power of any one individual. Warsh has considerable sway, but he is only one vote out of twelve.

The second misconception is that the Fed sets interest rates across our economy. Their influence weighs heavily on overnight rates but fades as you push further into time.

The Fed's primary tool for influencing short-term rates is straightforward. The FOMC sets a target range for the federal funds rate, an overnight borrowing rate. To keep overnight rates in that range, the Fed's Board of Governors then sets the interest rate paid to banks who maintain reserve balances at the Fed.

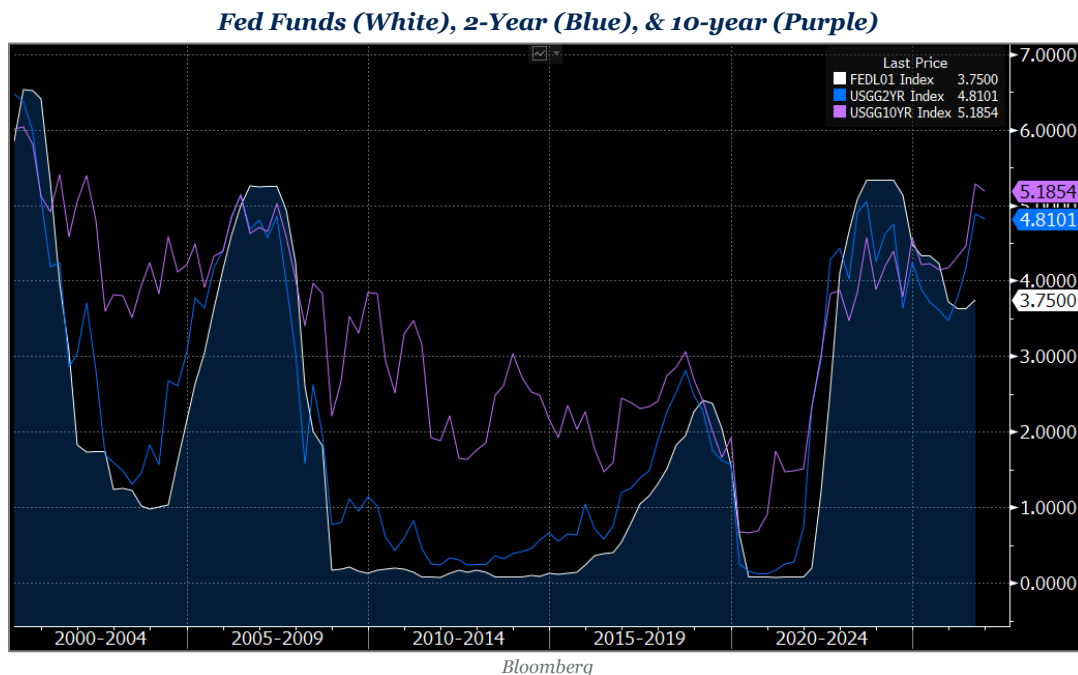
The intuition is simple. When the Fed raises interest paid on reserves, it raises the return banks can earn without taking credit risk. Other lending and investment opportunities must compete with that higher return, taking their risks into account. Conversely, lowering the interest paid on reserves makes those alternatives more attractive. The actual mechanics are more nuanced, but that is it in a nutshell.

What the Fed cannot do is dictate exact yields across the Treasury market. Short-term Treasury yields are closely tied to the expected path of Fed policy, while longer-term yields are largely dictated by the market. For longer-term bonds, real rates, inflation expectations, and risk premiums are what matter.

It's worth adding that the bond market's reaction function to Fed Policy is in a constant state of flux. There are periods when Fed Policy carries great sway over all maturities, and periods when Fed policy may have little effect, even over shorter maturities. Furthermore, if the Fed were to ever lose credibility, the effectiveness of their policy tools would also diminish.

The market's response to Fed policy also depends on what investors have already priced in. A widely anticipated Fed Rate hike may barely move Treasury yields. In fact, sometimes Treasury yields, across the curve, fall when the Fed raises its target rate.

You can easily see our discussion points in the graph below, which is a simple plot of the Federal Funds rate, 2-year Treasury yields, and 10-year Treasury yields. Two observations. First, the 10-year yield is far less correlated to the Fed Funds rate than 2-year yields. Second, the market generally leads Fed policy. Both 2 and 10-year yields tend to climb before Fed hiking cycles and fall before Fed easing cycles. In short, Fed policy matters a lot, but it pales in comparison to broad market forces.



5. What drives interest rates? *An Economist's Answer*

A quick word of caution. Economics is a social science, often masquerading as a hard science. The economic relationships described by equations can give the illusion of precision, but they are often better thought of as mental models that foster our understanding.

The Modern Fisher Equation serves as the cornerstone for how we think about nominal interest rates. You can see it below in its approximate form.

$$\text{nominal rate} = \text{real rate} + \text{expected inflation} + \text{inflation risk premium}$$

The logic behind the Fisher Equation is that lenders care about their return after accounting for the effects of future inflation. So, nominal interest rates can be thought of as a real interest rate plus compensation for anticipated inflation. There is also the fact that future inflation is unknown, so lenders may demand additional compensation for the risk that inflation exceeds their expectations, hence the inflation risk premium.

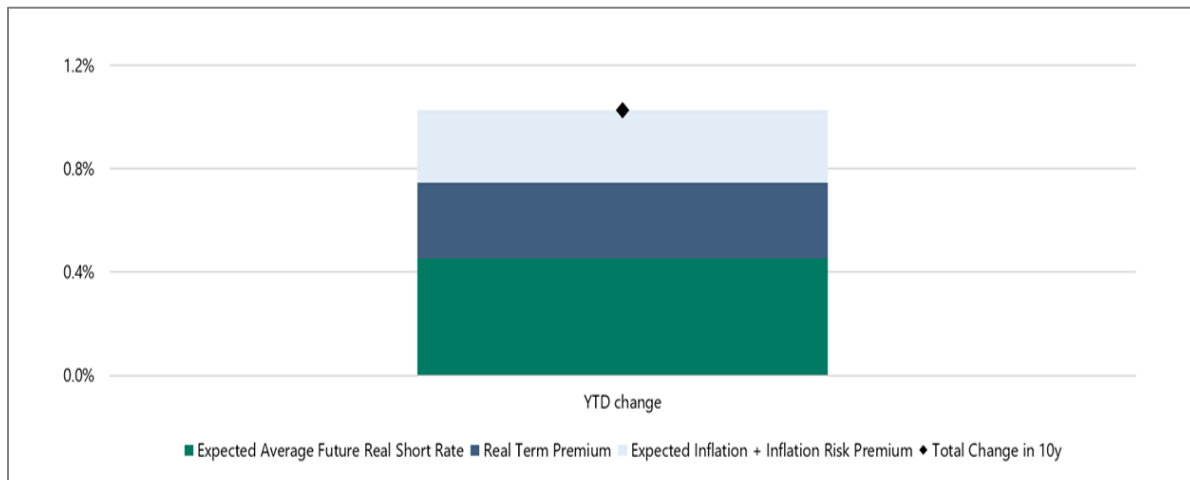
And what are real interest rates? Real interest rates are the true cost of borrowing after accounting for inflation. Standard economic theory argues the real interest rate balances the supply of savings with the demand for capital. Think of it this way, at any given time, there is a supply of savings in our economy. Savers need an incentive to part ways with their savings, i.e. lend them out. There is also demand for capital, but borrowers will only borrow at a rate they deem worthwhile for their endeavor. The equilibrium rate is the interest rate that brings the supply of savings and demand for capital into balance. Actual real interest rates can move above or below that equilibrium, influenced by factors such as Fed policy.

But there is an additional wrinkle. Multi-year loans carry a different risk profile than overnight loans. The real yield on a long-term bond therefore reflects the average expected short-term real rate over its life, plus a real term premium. That premium reflects uncertainty about future real interest rates, separate from the inflation risk previously discussed. Below is an updated equation.

$$\text{nominal rate} = (\text{average real short rate} + \text{real term premium}) + \text{expected inflation} + \text{inflation risk premium}$$

Apollo recently published a decomposition of the change in 10-year rates that puts standard economic theory into practice (see below). Year-to-date, yields have climbed from 4.2% to 5.3%, a 1.1% move. Their model attributes the largest share of the move, roughly 45%, to higher expected real, short-term rates. Roughly 30% is attributable to a higher, real-term premium, with the remainder attributable to increased inflation expectations and inflation risk.

Decomposition of the Change in 10-Year Yields



Apollo

Again, we would caution against reading too much into the exact numbers. Apollo's chart draws on the DKW model, developed by economists at the Fed, but the results could look different under another model. The broader takeaway is that most of the move, three quarters per Apollo, reflects the market demanding higher real yields, driven by both higher expected real short-term rates and higher real term premiums. Inflation worries, according to their math, are not the principal driver.

We will hit on each of these components in more detail throughout this Q&A.

6. Are inflation fears pushing interest rates higher? *The Easy Answer*

The quick answer is, not directly, consistent with our prior discussion.

We can easily measure market-based expectations of inflation by looking at inflation swaps and/or Treasury-Inflation Protected Securities (TIPS).

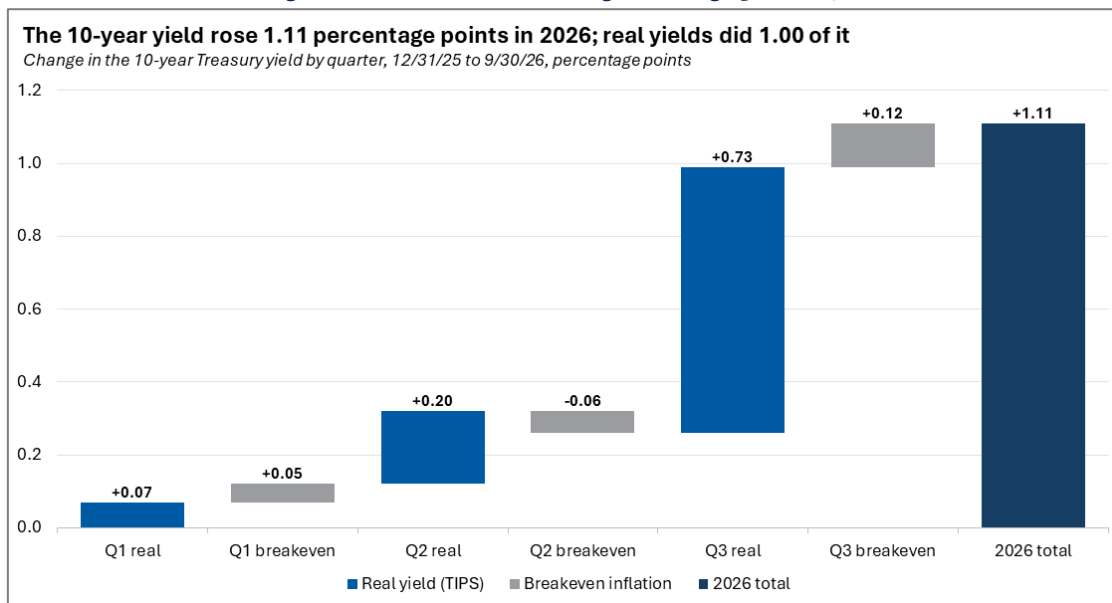
When we subtract the yield on a TIPS bond from the yield on a nominal Treasury of the same maturity, we get a breakeven inflation rate. Roughly speaking, this is the rate inflation, as measured by the Consumer Price Index, would need to average over the life of the bond for both bonds to deliver the same return. If inflation averages more than the breakeven rate, TIPS generally outperform; if it averages less; nominal Treasury bonds outperform.

The breakeven rate gives us a direct market-based gauge of inflation expectations and inflation risk, but it isn't perfect. The chart below shows 10-year Treasury breakeven rates. From March through mid-May, inflation expectations spiked, as war broke out with Iran and Brent Crude prices went to \$140 a barrel, but that shock quickly subsided. Year-to-date, breakeven rates have climbed from 2.25% to 2.37%, a mere 0.12% move. By this measure, market-based expectations of inflation and inflation risk appear to have increased only slightly, further suggesting the 2026 interest rate surge is being driven mostly by higher real rates. This finding is consistent with the decomposition in question 5.

10-Year Breakeven Rates



Change in the 10-Year Treasury Yield by Quarter, 2026



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7. Are inflation fears pushing interest rates higher? *The More Nuanced Answer*

The more nuanced answer is inflation may be playing a role, but indirectly.

The Fisher equation tells us that nominal bond yields (interest rates) approximately equal a real yield plus expected inflation. We have already established that market-based measures of expected inflation remain relatively low. 10-year breakeven rates have only climbed 0.12 percentage points, to about 2.37%. The second half of the Fisher equation, inflation expectations, isn't doing much work.

That said, it is possible for inflation fears to show up indirectly in the form of higher real yields. If investors believe inflation is running hot and simultaneously believe the Fed will take the necessary steps to tame it, then you may not see much of an increase in breakeven rates. Instead, you may see higher expected short-term real rates, reflecting the Fed's anticipated policy response, which can also push longer-term real yields higher.

8. So why are real yields climbing? A host of possible explanations.

It is impossible to know the exact answer, there are a host of explanations and they all matter to varying degrees. Below is a list of the most common arguments, all of which we sympathize with, and at their core, the arguments overlap. Undoubtedly, something very important has been left off the list.

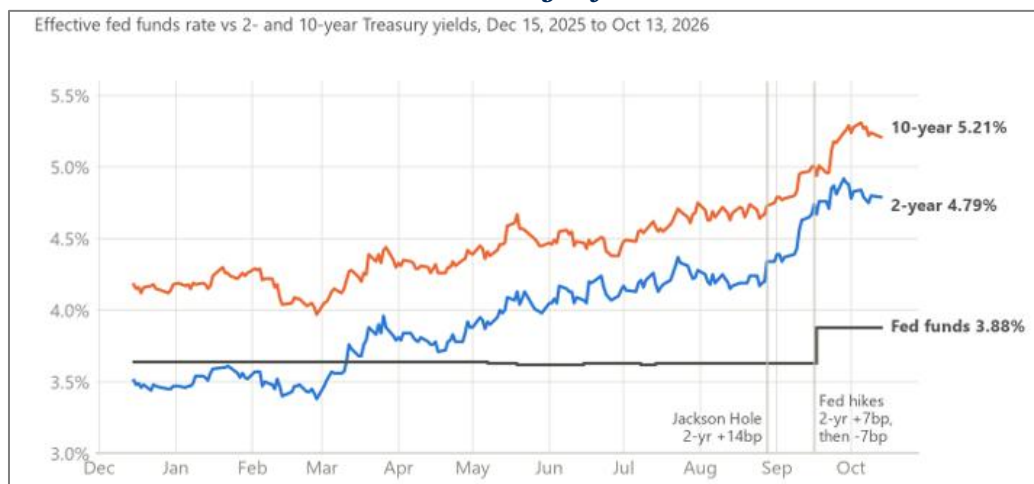
- ~ A more hawkish Fed
- ~ Government deficits and Treasury supply
- ~ Datacenter debt financing
- ~ Changing buyer base

9. Why are real yields climbing? Hawkish Fed

The Fed's inflation target is 2.0%, and PCE inflation, their primary measure, has been above that level since March of 2021, five and a half years. The latest PCE reading showed headline and core PCE running at 3.4% and 3.0%, respectively. Furthermore, the Fed's own projections called for 3.7% PCE inflation by year-end. Against this backdrop is a resilient US economy, operating at full employment with 8.5% nominal and 2.2% real second-quarter annualized growth, which gave the Fed room to hike policy rates a quarter of a point in September.

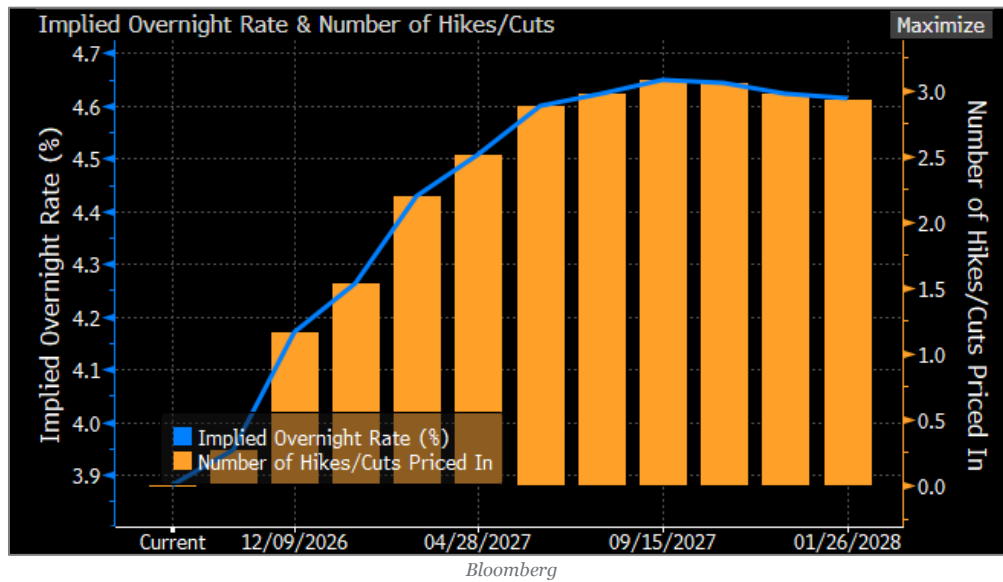
It's plausible that the market anticipated this policy response and priced it into real yields well before the Fed had to hike policy rates (see image below). Furthermore, the market is pricing in roughly three additional rate hikes before the end of 2027 (see next image). If investors believe the Fed will have to hold policy rates at these levels for a prolonged period of time, then it is reasonable to assume anticipated Fed policy is contributing to higher real yields. It is worth noting that the market is more hawkish than the Fed. In September, the median FOMC participant projected a 4.1% federal funds rate at the end of 2027; the market however, is pricing roughly 4.6% This is the indirect channel we referenced in question 7.

The Market Hiked Long Before the Fed Did



FRED

Implied Overnight Rate & Number of Hikes/Cuts Priced In



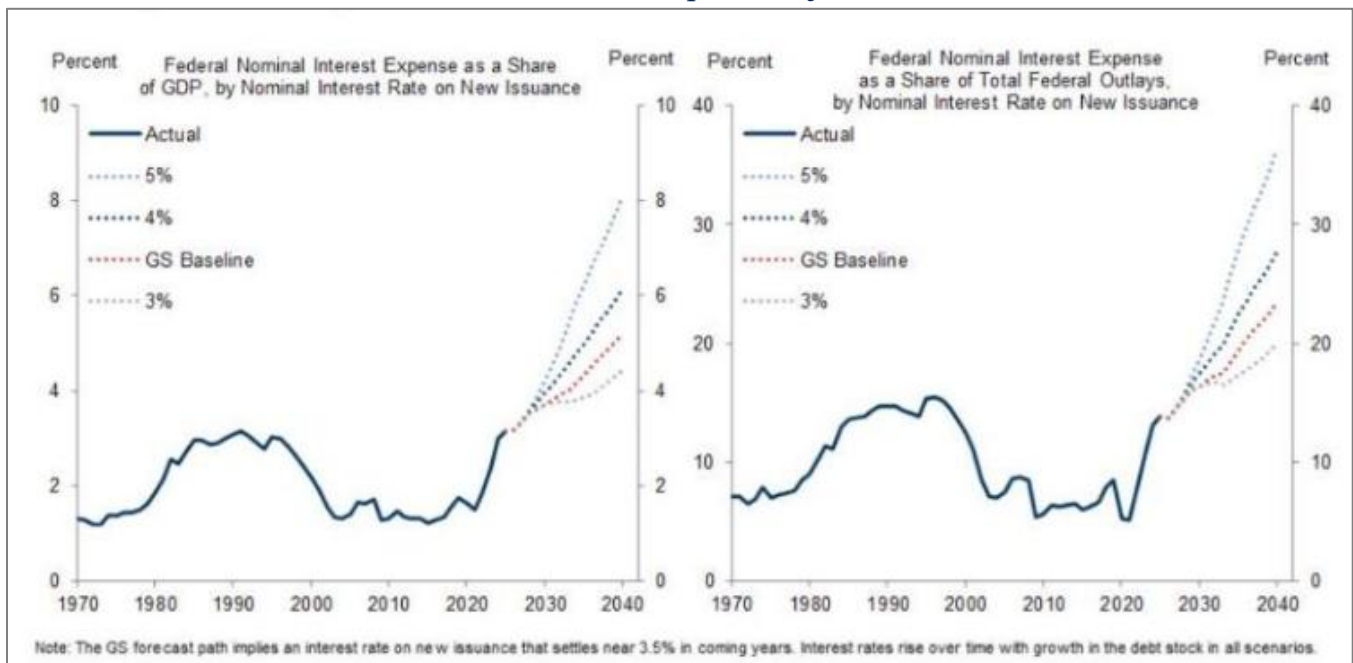
10. Why are real yields climbing? Treasury Debt & Deficits

Recall, standard economic theory argues real yields represent the cost of borrowing after accounting for inflation. The equilibrium real rate balances the supply of savings with the demand for capital. Borrowing demand comes from many sources, including our own government, which competes for capital alongside households and private businesses.

Our federal government has roughly \$40 trillion in outstanding debt. Excluding obligations held by government accounts, such as the Social Security trust funds, debt held by the public amounts to \$32 trillion or 100% of annual GDP. The debt burden is substantial, but its trajectory is particularly concerning. At present, our government spends \$2 trillion more than it collects, about 6% of GDP. Interest on our debt contributes over \$1 trillion to our annual deficit, the second-largest line item behind Social Security.

The market's potential concern is straightforward. To finance our deficit, the Treasury must keep selling bonds. If investors are unwilling to lend the US Treasury capital at prevailing rates, then interest rates must climb, which can create a nasty feedback loop. Higher interest costs blow out the deficit further, adding to the government's need to borrow capital.

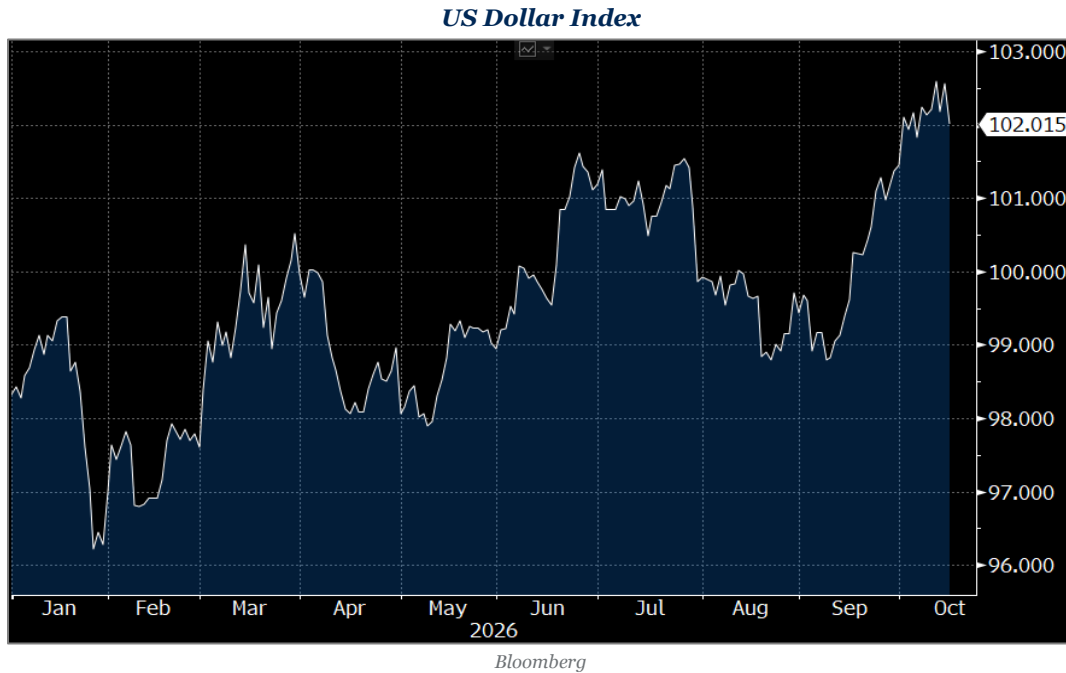
Federal Interest Expense Projections



Goldman Sachs Global Investment Research

Budget deficits, in and of themselves, are not a problem. The bond market can easily look past deficit spending if it views it as temporary, like during COVID. It is when the deficit is too large and perceived to be persistent and/or irreversible that you are likely to see investors demand higher real yields. And to be fair, there has been little evidence that policy-makers are interested in curtailing or even slowing expenditure growth.

To be clear, this isn't an argument about US solvency, but rather a question about persistent deficits. If our solvency was being called into question, you would likely see unanchored inflation expectations and/or a plummeting US dollar, neither of which are happening.



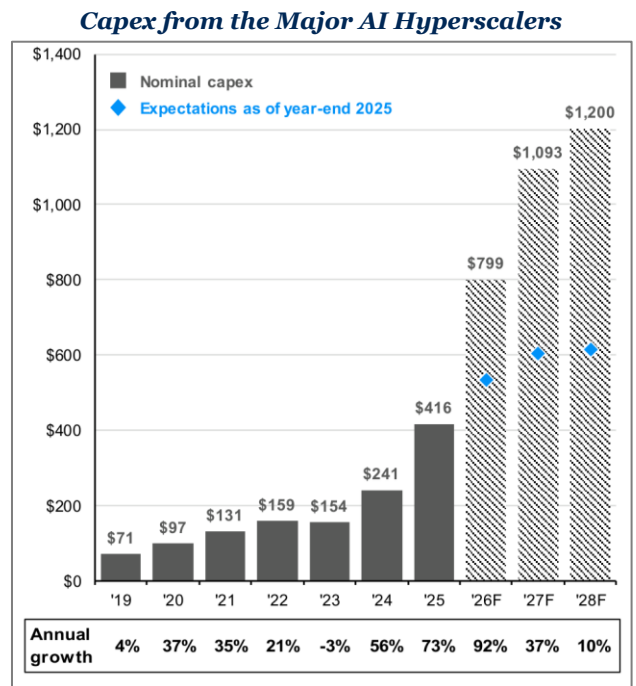
11. Why are real yields climbing? Datacenter debt financing

There is a second major source of borrowing demand that has recently entered the equation, and that is data center financing. We have talked about this ad nauseum in past commentaries, but we have never discussed its impact on debt markets.

In 2025, the big five hyperscalers (Alphabet, Amazon, Meta, Microsoft, and Oracle) spent \$416 billion on capital expenditures. This year their capital expenditures are set to double, and 2027 estimates sit north of a trillion. Keep in mind, estimates to date have understated actual spending, and this doesn't include data center capital expenditures from other players.

Historically, the buildout was covered by existing cash flows, but today that cushion is gone. As a result, hyperscalers and others are now dependent on debt financing to expand AI datacenter capacity. This year, hyperscalers have issued almost \$250 billion of investment-grade bonds, and AI-related borrowing accounted for 54% of all investment-grade issuance. Net investment-grade issuance totals \$618 billion, through August, compared to only \$413 billion in all of 2025. And keep in mind, these tallies do not include off-balance sheet financings. For example, Meta's Hyperion datacenter raised \$27 billion from the private credit markets. The point is simple, AI datacenter-related debt issuance is large and growing quickly.

But here is the key point, the debt issuance to date is small relative to the expectations for future debt issuance. Goldman

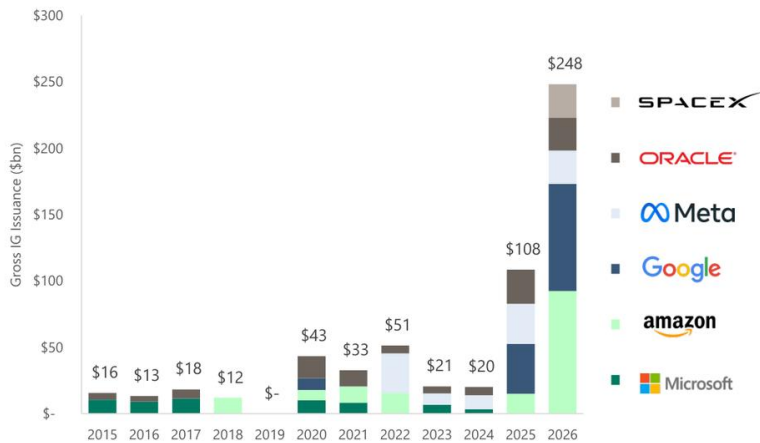


Sachs forecasts Hyperscaler debt issuance to increase by over 60% next year. Satori Insights argues the largest AI data-center developers may need to raise up to \$1.4 trillion of additional debt by 2028 (chart below). The market is looking forward. If investors expect a wave of corporate bond issuance, competing with a growing supply of Treasury issuance, it is rational to expect higher future interest rates.

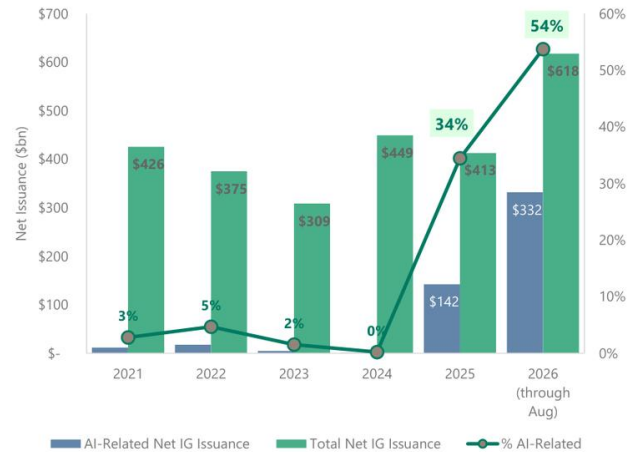
AI-Related Financing Volumes

To finance rising capex needs, the hyperscalers have issued nearly \$250bn in IG debt in 2026 so far, more than the cumulative total of the prior decade.

Hyperscaler IG Issuance in 2026 Has Surprised to the Upside



AI-Related Issuance Accounts for Over 50% of Net IG Issuance This Year



Apollo

The Scale of Projected AI Borrowing

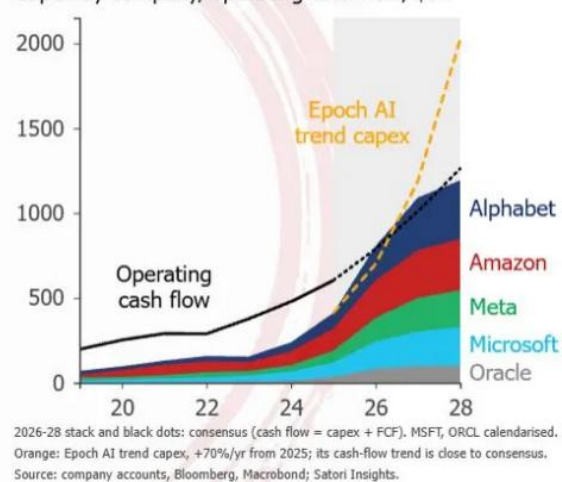
The borrowing has barely started

Gross debt outstanding, \$bn



Self-funding would need cash to double

Capex by company, operating cash flow, \$bn



Up to \$1.4tn more debt by 2028 – even with buybacks already cut

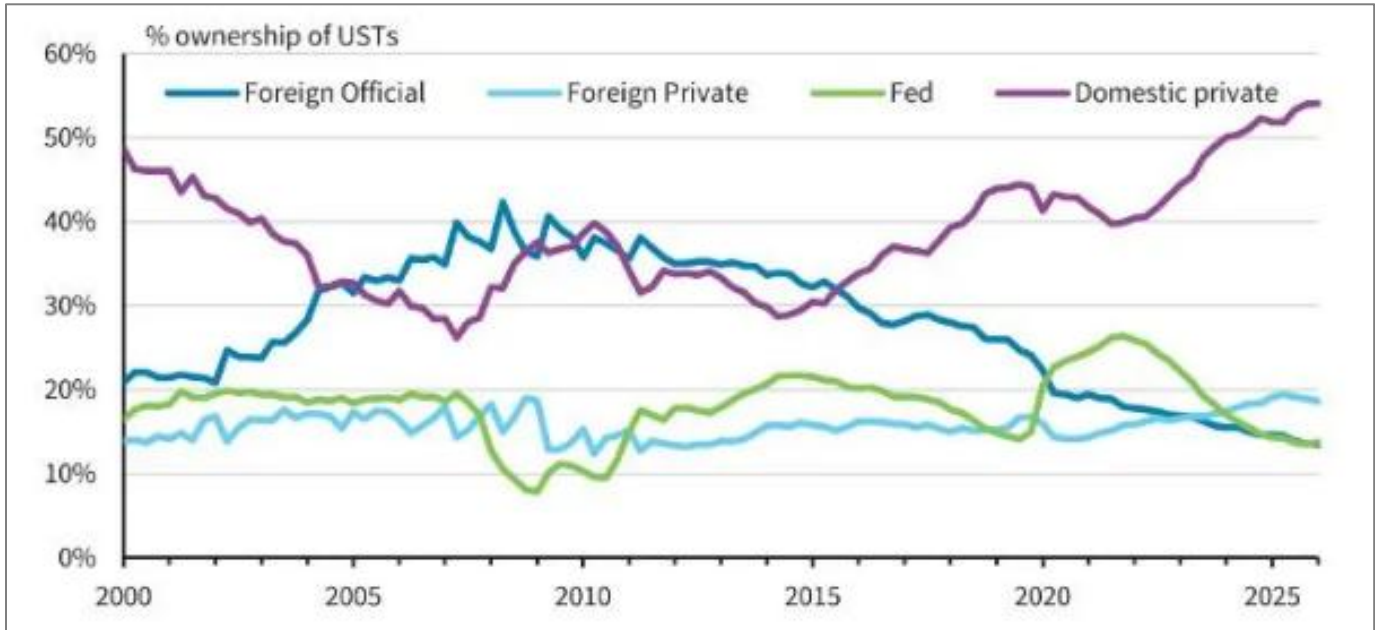
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12. Why are real yields climbing? Changing buyer base

Private Investors Now Dominate Treasury Ownership



Federal Reserve, Barclays Research

For decades, the primary holders of US Treasuries have been the Fed, foreign central banks, and US pension funds. Those buyers were largely interest rate insensitive. For example, foreign central banks accumulate Treasury reserves to manage their currency and/or recycle trade surplus dollars. The Fed has accumulated Treasuries with the explicit goal of managing interest rates. Today, private investors (individuals and investment firms) are the predominant buyers, and rates matter more to this buyer base.

13. How do you manage bond portfolios? What's your philosophy?

Our approach to investing, in general, is one of humility. We believe outforecasting the market is tough, even though our job requires us to make educated guesses about the future. Our preference, whenever possible, is to react rather than predict. We are constantly asking one question, how much is the market paying us to take on risk? Our goal is to find investments that offer the best return relative to the risk we take.

Within the bond market, this is an easier question to answer. Bond investors face two primary risks. The first is credit risk, the risk that the borrower doesn't pay you back. The second is interest rate risk, the risk that interest rates rise and the value of your bond falls.

Now imagine a scenario where you can earn 5.0% in a 10-year bond with little to no credit risk and 5.2% in a random corporate bond. In this instance, we will default to the lower return, because an extra 0.2% isn't adequate compensation for the added risk. Conversely, if a risky bond carries a large spread over the risk-free alternative, we will actively consider investing. The ultimate decision is more nuanced, but that is it in a nutshell. The same logic holds true for interest rate risk. If yields are high and the curve is steep, implying long-term bonds pay a lot more than short-term bonds, we will gladly take on interest rate risk. If yields are low and the curve is flat, we are likely to avoid interest rate risk.

14. Why do you not forecast interest rates?

It's just too hard.

Candidly, our team frequently has opinions on where rates are heading. Our views may even be in unison, but we try to limit the role these views play in our investment process, because we know how difficult the game is. Last November, Fed fund futures were pricing in almost four rate cuts, and now we are looking at a hiking cycle. Research consistently finds that professional forecasters rarely beat a naïve forecast that rates simply stay put. If Fed economists can't predict rates, why do we, a step removed, think we can?

Again, rather than predict, we react. Every bond price already embeds the market's expectations (or forecast) for the future. Our job is to simply ask; are we being paid enough in case the market's forecast turns out to be wrong?

Forecasts vs. Actual 10-Year Treasury Yields



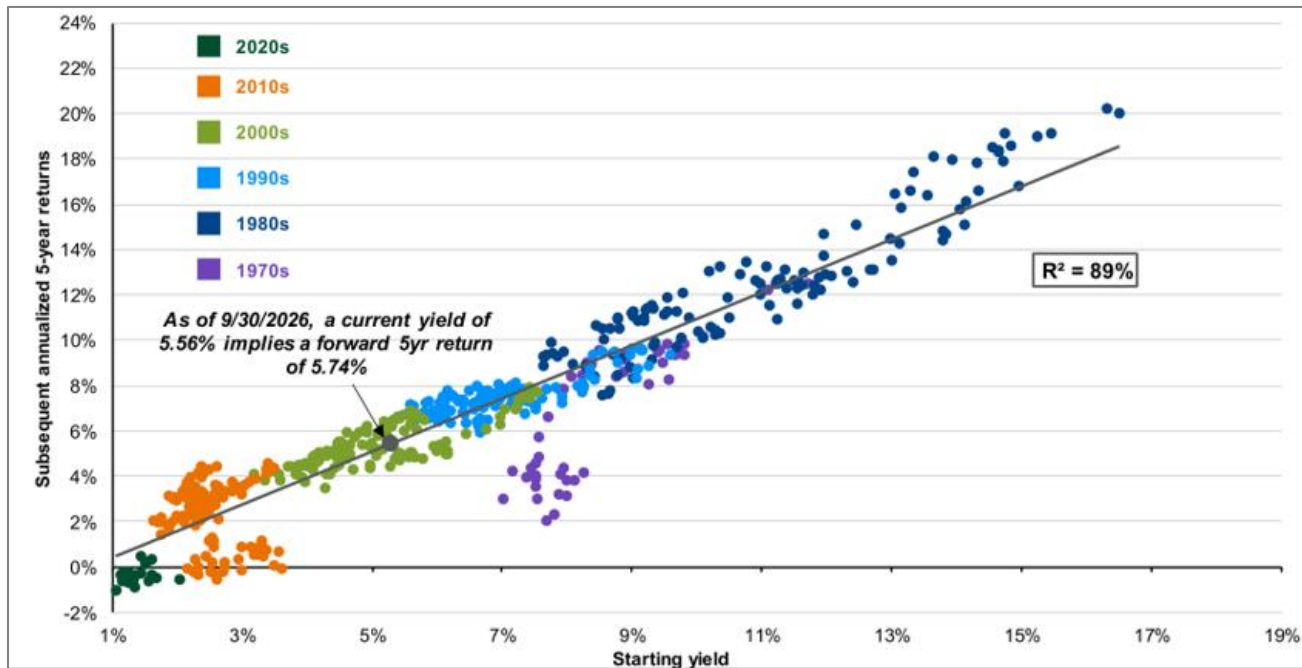
St. Louis FRED, Federal Reserve Bank of Philadelphia Survey of Professional Forecasters

15. Does the bond market's poor past performance portend poor future performance?

The answer is the opposite.

Poor past returns are likely to produce better future returns. When bond prices fall, bond yields rise, making them a more attractive investment. In fact, safe bonds are one of the few asset classes with predictable returns. The chart below compares the yield-to-worst of the aggregate bond index to its subsequent 5-year compound return. As expected, your starting yield effectively equals your return outside of extreme events, like a 1970's style inflation shock.

Yield-to-Worst and Subsequent 5-Year Returns (US Aggregate Index)



JP Morgan

If interest rates keep climbing, even into perpetuity, bonds eventually reach what we would call escape velocity. Their coupon payments would exceed the impact of price declines.

16. What is an example of escape velocity?

The answer depends on how much rates move. That said, there is a point where any probable interest rate move isn't large enough to erode total returns.

Here is a fun hypothetical. Imagine 5-year rates climb by one percent every single year into perpetuity. What is the return on the 5-year Treasury if you continuously roll it? Said differently, at the end of each year you sell the existing 5-year Treasury and buy a newly-issued, 5-year Treasury. The annual returns are illustrated on the table below. In this hypothetical, the investor never loses money despite continuously rising rates. Relative to a one percent rate increase, the 5-year Treasury has already hit escape velocity. Furthermore, the investor's return relative to the bond's yield improves each and every year, because the impact of higher rates matters less.

Hypothetical: 5-Year Treasury Returns if Rates Rise 1% Every Year

Year	5-year yield at start of year	Return for the year	Value of \$100
1	5.09%	+1.2%	\$101
2	6.09%	+2.3%	\$104
3	7.09%	+3.4%	\$107
4	8.09%	+4.6%	\$112
5	9.09%	+5.7%	\$118
6	10.09%	+6.8%	\$126
7	11.09%	+7.9%	\$136
8	12.09%	+9.0%	\$149
9	13.09%	+10.1%	\$164
10	14.09%	+11.2%	\$182

Annandale Capital calculations

Obviously, shorter-duration bonds, like Treasury bills, would have been a better investment in this world, but our broader point stands. The higher yields go, the safer low-credit risk bonds become.

17. How sensitive are bonds to interest rate shocks (up and down)?

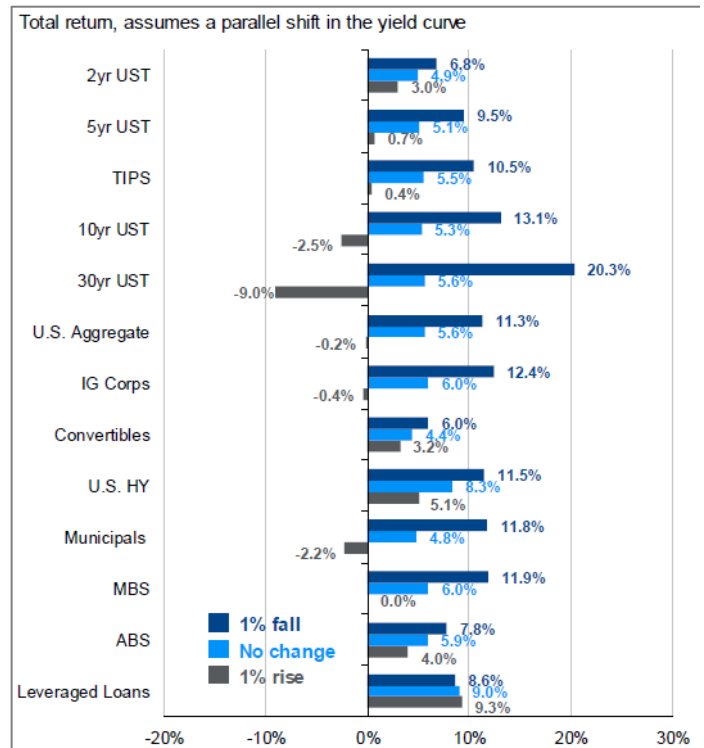
Bonds are better equipped to handle interest rate shocks than when they started the year. In fact, their income cushion is larger than at any point in the last fifteen years.

The broader bond market, as represented by the aggregate index, would be roughly flat if rates were to climb one percent over the course of a year. Shorter duration bonds, like a 2 or 5-year Treasury, would still deliver positive total returns, while longer duration bonds, like a 10 or 20-year Treasury, would experience losses. Conversely, if interest rates were to hold or fall, bonds of most varieties would deliver healthy nominal and inflation-adjusted returns.

The chart below from JP Morgan illustrates interest rate sensitivity well. We would caution against reading into the returns for credit-sensitive bonds, like high-yield bonds, because this is a rate sensitivity study. If rates fell due to a recession, credit sensitive bonds would likely experience losses.

JP Morgan's math differs slightly from ours, because they are using different assumptions. They are looking at the effect of bond roll and using the bond's duration to approximate price losses.

Fixed Income Returns in Different Rate Scenarios



J.P. Morgan

18. Why not just hold money markets?

We don't have an explicit problem parking cash in money markets, but there is a tradeoff.

Money market yields are never guaranteed to last. Yes, they are often the better investment if you know interest rates are set to rise, but you can't forecast the path of interest rates. Bonds, on the other hand, offer the ability to lock in yields. Furthermore, higher interest rates may already be priced into certain bonds.

Consider the opportunity set today. Money markets likely pay 3.75%, we are using 1-month Treasuries as a proxy. If money market rates jump by 0.25% each quarter, the money market will return 4.1%. With 1-year Treasuries, you can lock in a 4.6% return if held to maturity. The 1-year Treasury is already pricing in multiple rate hikes. Similarly, 2-year Treasuries yield 4.9%, and 5-year Treasuries 5.1%. Under most scenarios, short-term bonds are better than cash. Money markets only win if the Fed goes beyond the market's expectations.

Bonds also offer something cash can't, a cushion in case the economy slows and interest rates fall. In that scenario, bond investors, depending upon the duration of their investments, could witness high single-digit or even double-digit returns.

19. How is Annandale currently positioned?

For the past decade, our bond portfolio has been positioned more conservatively than the broader fixed income market, which is why our portfolio has fared better than the broad market. That conservative posture holds true today, but the move higher in rates is tempting us to take on more interest rate risk.

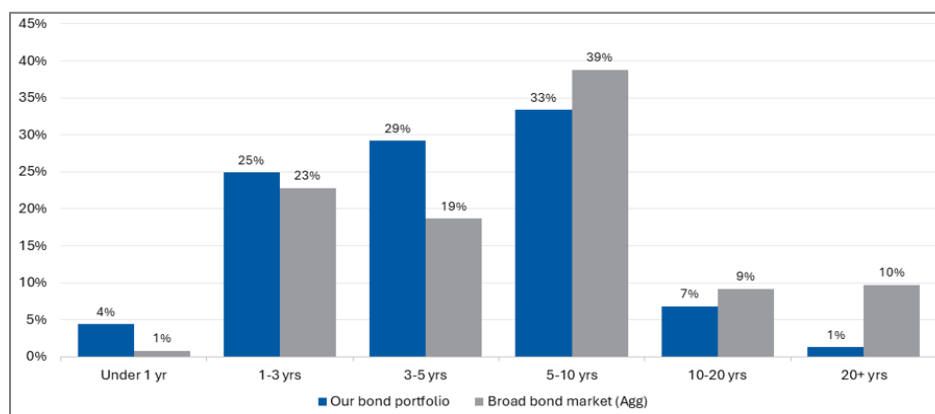
The table below shows statistics for our target bond portfolio next to the broader aggregate index. Actual client portfolios vary, but this table serves as a decent approximation. As you can see, our portfolio generates a yield in line with the benchmark but does so with less interest rate risk, as evidenced by our higher yield per unit of duration. We also favor higher-quality securitized bonds, mostly mortgage bonds, over corporate credit risk.

Our Bond Portfolio vs. the Broad Bond Market

	Our bond portfolio	Broad bond market (Bloomberg U.S. Agg)
Yield to maturity	5.6%	5.6%
Duration (years)	4.4	5.7
Yield per year of duration	1.27%	0.98%
Average maturity (years)	5.4	8.2
Treasuries and TIPS	39%	47%
Agency mortgages	23%	23%
Other securitized (ABS, CLOs, non-agency)	15%	2%
Corporate bonds	19%	25%
Rated AA or better (incl. Treasuries, agencies)	75%	77%
Below investment grade or unrated	4%	0%
Maturing or paying down within 5 years	59%	42%

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When Our Bonds Come Due



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20. Why is corporate bond exposure low?

Our goal has never been to reach for yield.

Yes, corporate bonds pay 0.8% more than equivalent maturity Treasury bonds, but you are being asked to accept credit risk in exchange. By historical standards, the incremental compensation is far too low. Current spread levels sit at the 5th percentile since 2000. Lastly, we can obtain similar excess yields in bond sectors that offer far less credit risk, namely agency mortgages.

21. Why is securitized bond exposure high?

Our mortgage and asset-backed bonds pay yields on par with corporate bonds but generally carry lower credit risk.

Securitized bonds are simply pools of loans, like mortgages, auto loans, and equipment leases packaged into a bond. As borrowers make payments, money flows to the bondholder. Our largest securitized exposure is agency mortgage-backed securities, which are guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae. At present, agency mortgage bonds yield the same as corporate bonds, but as mentioned, they carry a government backstop, making them far safer.

The principal risk with mortgage bonds is prepayment. When rates fall, homeowners can refinance their mortgages, and mortgage investors get paid off when they would prefer the bond to remain outstanding. Conversely, when rates rise, mortgage prepayments slow, causing mortgage bonds to act like longer-duration instruments. Normally this is a concerning risk, but today less so. Mortgage rates would need to fall considerably before prepayment make sense for most homeowners. Furthermore, most mortgage bonds trade at significant discounts to par, allowing them to benefit from prepayments.

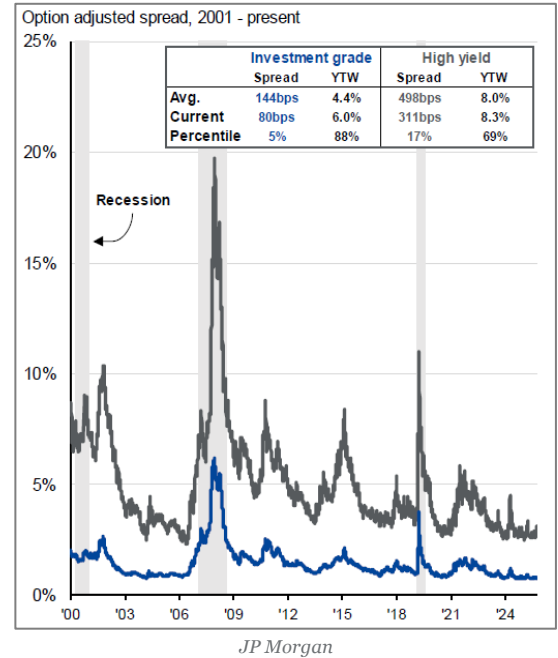
22. Why doesn't Annandale own municipal bonds?

We have no biases against municipal bonds.

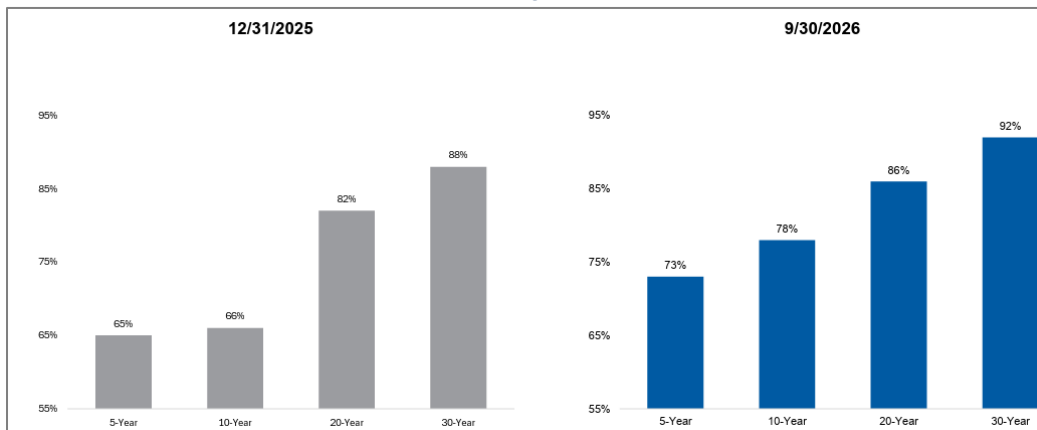
Our holdings are small, because the opportunity set has been absent for much of the recent past, but that is starting to change. Municipal bonds with low credit risk should be compared to similar investments on a tax-equivalent basis. For much of the past, longer-duration municipal bonds have been attractive on a tax-equivalent basis, but shorter-duration municipal bonds have not been.

Because we have been averse to interest rate risk, we haven't bothered to invest in longer-duration municipal bonds where the opportunity set existed. That said, the opportunity set for short-duration municipal bonds improved markedly during the quarter, and we may add exposure to taxable accounts.

Corporate Credit Spreads



Muni/Treasury Yield Ratios

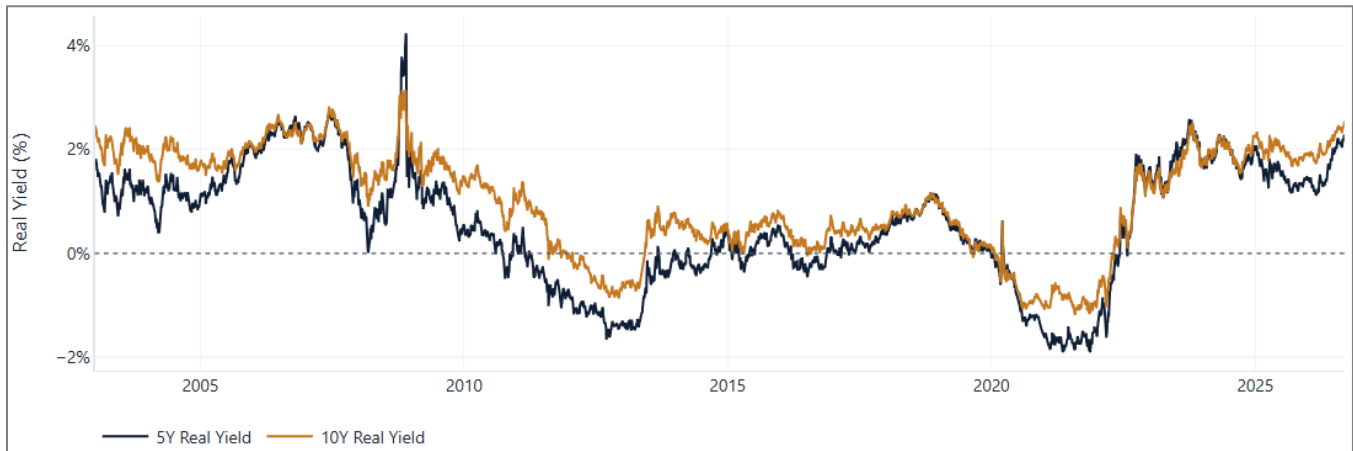


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23. What is the most recent change to your bond portfolio?

For the first time in Annandale's history, we have been acquiring a position in Treasury Inflation Protected Securities (TIPS). This isn't a bet that inflation is around the corner, but rather an opportunity to lock in the higher real yields offered by the bond market. It is another example of us reacting opposed to predicting.

5-Year and 10-Year Real Treasury Yields



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Conclusion

Let's put bonds aside for a second.

As a firm, our largest exposure is to public equity markets. Our portfolios hold companies across the capitalization spectrum, domestic and abroad. Despite our best efforts, achieving robust diversification is increasingly difficult. In the US, the ten largest companies account for 41% of the market, and most are directly involved in the datacenter buildout. Looking abroad doesn't necessarily solve the problem. For instance, Taiwan Semiconductor alone accounts for 16% of the emerging markets index. It's a different market, but the underlying risk is the same.

You can look beyond the obvious AI beneficiaries, but most businesses are cyclical, and the datacenter buildout touches wide swaths of our economy. Any slowdown in the datacenter buildout would pose risks to the broader economy, including to businesses with little direct exposure to AI.

This is where bonds become interesting. 5-year Treasuries yield 5.1%, and 10-year Treasuries yield 5.3%. Investors can earn those yields without needing datacenter spending or corporate earnings to keep climbing. Ironically, the borrowing required to finance the AI buildout may be partially responsible for the availability of those yields.

High credit quality bonds are one of the few asset classes that might benefit if AI spending disappoints. Who knows how things will play out, but it seems foolhardy, at today's rates, not to maintain some exposure to the one asset class that offers meaningful diversification benefits.

As always, thanks for the trust you have placed in us.

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