

## What is happening in the US Treasuries market?

### Risk Premium Invest

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Since the end of June, the yield on the 10-year US Treasury has risen by more than 100 bps to reach levels not seen since the summer of 2007 (4.90% on October 18).

10-year US Treasury rate



10-year US Treasury rate since early 2023



This note attempts to explain this impressive increase, using the original tools we developed. A good understanding of what is happening can help predict the (very uncertain!) future.

### Why rates have increased so much?

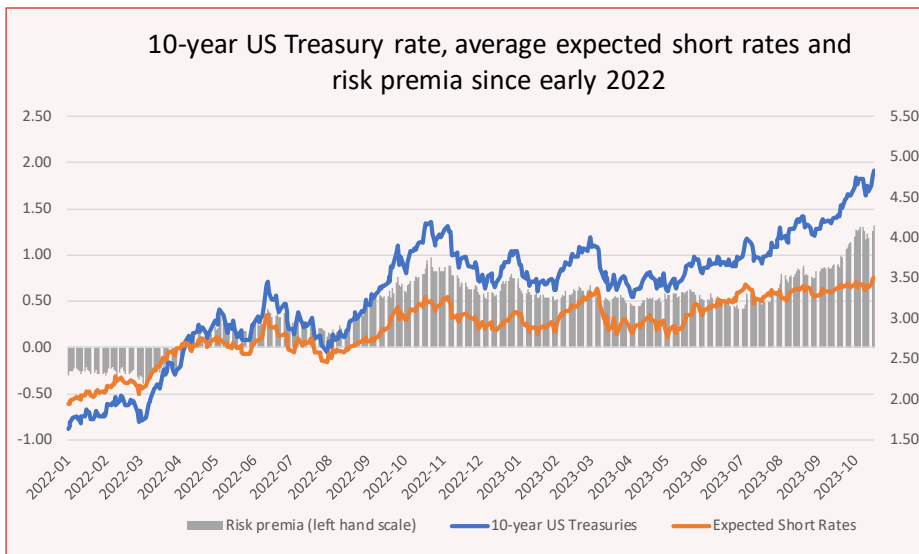
It is well known that the observed yield curves can be explained by two key factors. On the one hand, long-term rates strongly depend on expectations regarding future monetary policy. Investors have the choice between buying a long-term bond or rolling over a position in money markets instruments until the bond matures. Thus, in a world without risk premia, due to this type of sustained arbitrage, long-term rates would simply be an average of the short-term rates expected in the future. But on the other hand, there are risk premia and long-term rates can be higher – if bonds are considered risky - or lower – if bonds are seen as a sort of safe haven security - than the expected return of a money market fund held until the bond matures.

Thus, to understand the observed yields, the first step is to separate in the observed rates what is directly linked to monetary policy expectations and what is explained by risk premia embedded in rates (positive or negative). We call these risk premia “buy-and-hold” risk premia because they are assumed to be collected by investors holding bonds to maturity (the academic literature generally prefers to use the less explicit expression “term premium”).

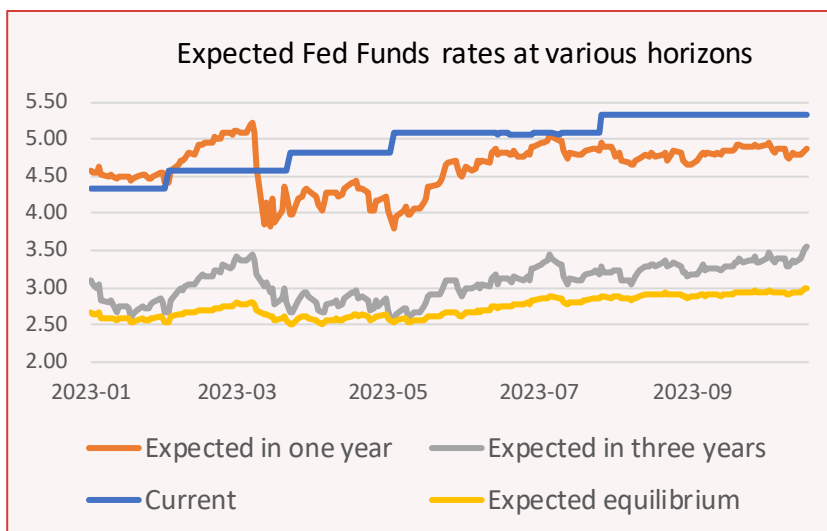
Risk Premium Invest provides daily estimates of these “buy-and-hold” risk premia on its website that are more realistic than those provided by other studies<sup>1</sup>.

<sup>1</sup> For two reasons. First, in this extraction process, we not only use the yield curve, but we also use reliable surveys. Second, our model is much more flexible than the traditional three-factor model based on the level, slope and curvature of the yield curve. In our model we have 8 well-defined factors with a very clear economic interpretation. We are thus able to describe more varied configurations of Fed funds rate expectations and risk premia. See [www.riskpremium.com](http://www.riskpremium.com) for more details.

In our estimates, the 106 bps rise in 10-year rates since the end of June is only 16 bps due to a more pessimistic view of future monetary policy and 90 bps due to higher risk premia.

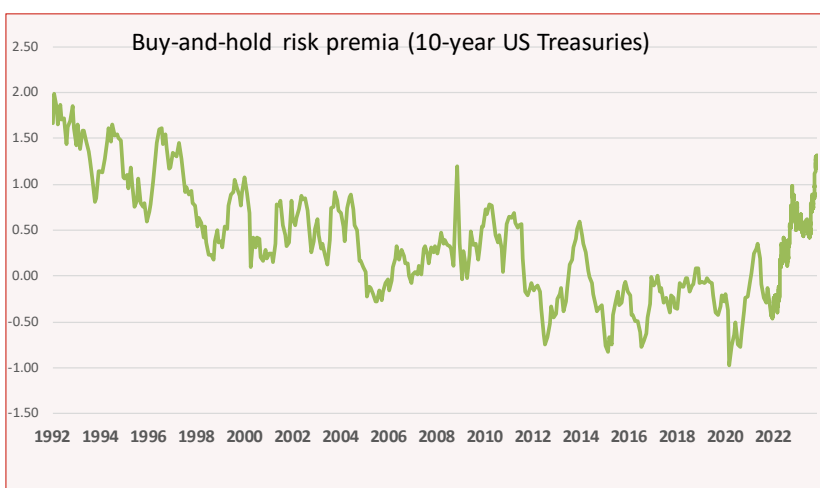


An interesting point is that since the end of June almost all upward revisions to expected future Fed funds rates – on average 16 bps over the next ten years – have been focused on the medium and long term horizons.



The Fed only raised its target rate once during this period (at the July FOMC meeting), and investors did not significantly change their views on the short-term trajectory of the Fed funds rates. However, in the face of a resilient economy, they have gradually increased what they consider to be the economy's long-term “neutral rate”.

But most of the recent action has taken place elsewhere: since the end of June, “buy-and-hold” risk premia have increased a lot and, according to our estimates, have reached a level not seen since the late 1990s.



## **Why have risk premia increased so much, reaching historically very high levels?**

For all asset classes, when analyzing market behavior, explaining the changes in risk premia is the challenging part! Expectations about future monetary policy or profits are generally closely tied to the macroeconomic news flow (and the communication from central bankers and companies). This is not the case with risk premia, and academic literature has been notably lacking in explaining why risk premia embedded in prices fluctuate without a clear informational catalyst.

It is important to understand that markets can operate in two distinct regimes. In “healthy” markets, prices are primarily set by fundamentalist analysts who evaluate future pay-offs, monetary policies, and the risk premia demanded by investors. However, at times, as observed for example during the late 90s equity market bubble, fundamentalists lose their grip on markets, and prices are driven by non-fundamentalist technical professional investors or, even worse, by irrational amateurish investors<sup>2</sup>.

When markets are “unhealthy”, it obviously becomes very challenging, if not impossible, to make sense of the observed prices. Fortunately, the US Treasuries market is seldom in such a compromised state. However, even in markets predominantly guided by fundamentalist investors, it is often difficult to explain shifts in embedded risk premia.

The reason lies in the fact that these embedded risk premia are the result of complex investors’ expectations that are not directly observable. Consider for example the effects of Quantitative Tightening on risk premia. When central banks announce that they will sell a portion of their bond holdings, embedded risk premia and rates rise. Yet, this announcement has a minimal immediate impact on the short-term required risk premia, i.e. the excess return investors seek over the upcoming weeks and months to purchase long-term bonds instead of remaining invested in “risk-free” monetary instruments. The supply of bonds does not change immediately, and the short-term risk characteristics of these securities (like volatility or correlation with other asset classes) undergo minor changes. However, investors rationally project that with a larger supply, future investors will gradually demand higher risk premia to acquire these bonds. And obviously, this increase in expected future risk premia has an immediate impact on the buy-and-hold risk premia embedded in current prices.

This example illustrates a key point: the “buy-and-hold” risk premia are not (and should not be) the result of hypothetical current long-term arbitrages between bonds and monetary instruments. Their determinants are much more complex than that and it is why they are so volatile. “Buy and hold” risk premia across all asset classes are primarily determined, even in “healthy” markets, by investors’ expectations regarding the future riskiness of the securities. More precisely, they are based (and should be based) on a long-term average of the likely future short-term risk premia that investors will require.

Fortunately, to understand the yield curve, we have the tools to extract those expected future risk premia that determine changes in the current buy-and-hold risk premia. In this regard, surveys are an essential complement to the full yield curve to assess the current level of short-term/tactical risk premia and how they are expected to evolve in the future.

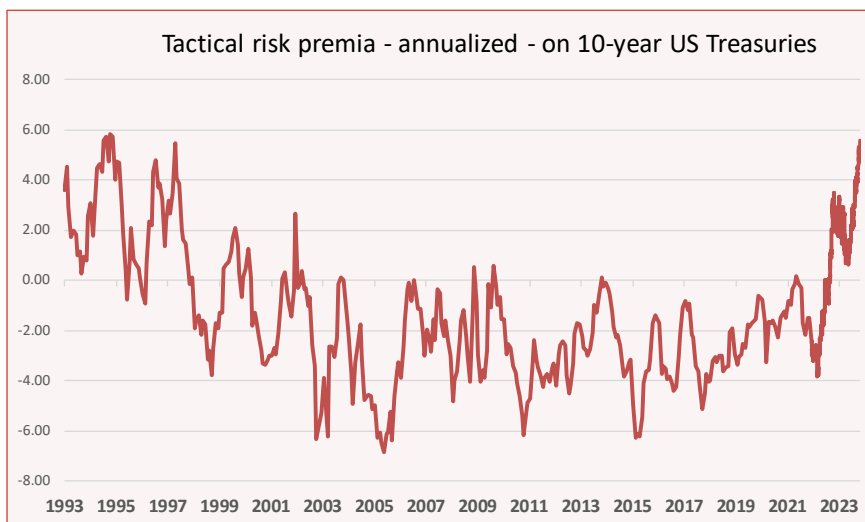
So why did “buy and hold” risk premia rose so sharply this summer?

There are two reasons.

First, the current short-term risk premia have apparently reached an extreme level recently (see the following graph where short-term tactical risk premia are annualized). To hold US Treasuries in the coming few months, most investors currently appear to be demanding some very attractive returns (recent surveys show that on average they still expect long-term rates to fall in the coming months, possibly producing some high – expected! – capital gains).

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<sup>2</sup> See several papers on [www.riskpremium.com](http://www.riskpremium.com) on why fundamentalist investors can lose the control of the markets.



Why are these short-term risk premia so high? In other words, why aren't people attracted by this high expected return buying more Treasuries, thereby pushing rates and risk premia lower? There are some obvious explanations, but the order of magnitude of the tactical risk premia increase seems a bit difficult to understand.

Among the main reasons is the high new supply of US Treasuries. Indeed, in early August, the Treasury's Quarterly Refunding press conference was a shock to many investors who learned of the upcoming "deluge" of Treasuries new supply. Indeed, many large auctions of Treasuries did not go particularly well recently and pushed up the required risk premia.

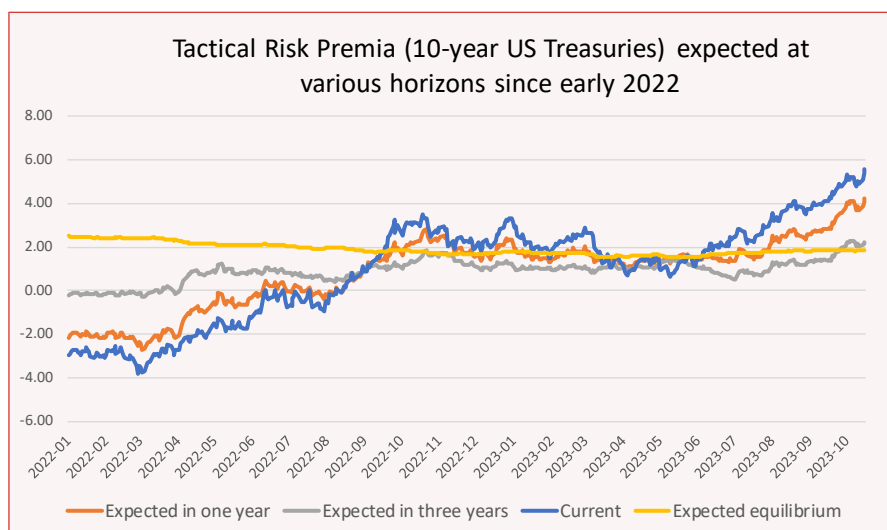
Another factor is that US Treasuries do not appear to be playing well their traditional safe haven role. Since the end of the 90s, with little risk of inflation (and sometimes the risk of deflation) and multiple financial crisis, it has been very attractive to hold a significant part of one's portfolio in government bonds. In general, bonds, particularly US Treasuries, had negative beta during this period: bond prices rose when stock prices fell. This "safe haven" quality has led to a very high demand for US Treasuries and to tactical risk premia on average negative since the late 90s. But recently, long-term US Treasuries have offered no protection to investors: more often than not, stock and bond prices fall together.

Last but not least, higher long-term rates tend to produce a vicious circle. Many investors don't like to fight a seemingly strong trend (or "catch a falling knife..."). So when rates have recently risen, they may need abnormal short-term expected returns to buy bonds.

All these factors have clearly played a role in the recent sharp increase in short-term risk premia, but we must confess to have been surprised by the extent of this rise in estimated short-term risk premia.

The second reason for the sharp increase in "buy-and-hold" risk premia over the past months is that the "higher for longer" mantra didn't just apply to Fed funds rates expectations.

Investors also thought that risk premia will need to remain high in the future, particularly to convince investors to buy the large supply of new Treasuries in the coming years. Thus the increase in current short-term risk premia was accompanied by a roughly parallel increase in the risk premia expected by investors in the coming few years (see the following graph).



The sharp increase in current short-term risk premia would have had a relatively small impact on buy-and-hold risk premia if investors had been convinced that it was a temporary blip. But this was not the case: worried by the rising US public debt and the prospect of restrictive monetary policy for a prolonged period, they have gradually become much more pessimistic about the risk premia US Treasuries will have to provide in the foreseeable future.

### What does this mean for the future?

Rates on long-term US Treasuries may remain very volatile due to the large uncertainty surrounding the key drivers of the market.

Expectations for future Fed funds rates will obviously continue to respond to new information on growth and inflation. There will be no “conundrum” here: weaker-than-expected growth and/or inflation will push expectations for future Fed funds rates down, and surprises that increase inflation fears will push them higher. Yields are data dependent in a mechanical and predictable way as far as expected Fed funds rates are concerned!

But changes in risk premia may continue to influence the market in less predictable ways.

- First, the recent surge in short-term risk premia seems a bit exaggerated. Any signs that the economy is slowing and that inflation risks continue to decline may reduce the short term risk premia demanded by investors. Additionally, current geopolitical uncertainties could increase the appeal of US Treasuries as safe haven securities. But, on the other hand, the new supply of US Treasuries will remain high for the foreseeable future and may keep these short-term risk premia on an upward trend.
- Second, expectations regarding future required risk premia could also remain volatile. If current short-term risk premia decline, it is likely that expectations about future risk premia will also adjust downward. But if current risk premia remain high due to inflationary fears and some difficulty absorbing the large new supply, it is likely that expectations for future risk premia, which are not yet particularly high, will continue to drift upward. It is even possible that investors opinion on long-term equilibrium risk premia, which has been so far very well anchored, will begin to increase (as investors opinion on the long-term neutral Fed funds rates has started to do).

In the “higher for longer” context, it is therefore difficult to have a firm view on the behavior of this key market in the months to come. At some point, we believe that the safe haven quality of US Treasuries will impose themselves, and long-term rates will fall (maybe sharply). But in the short-term, the trend towards higher short-term risk premia (both current and expected in the future) in the context of a loose fiscal policy seems well established. We therefore certainly cannot rule out a further significant rise in long-term rates, especially if future employment reports remain strong.