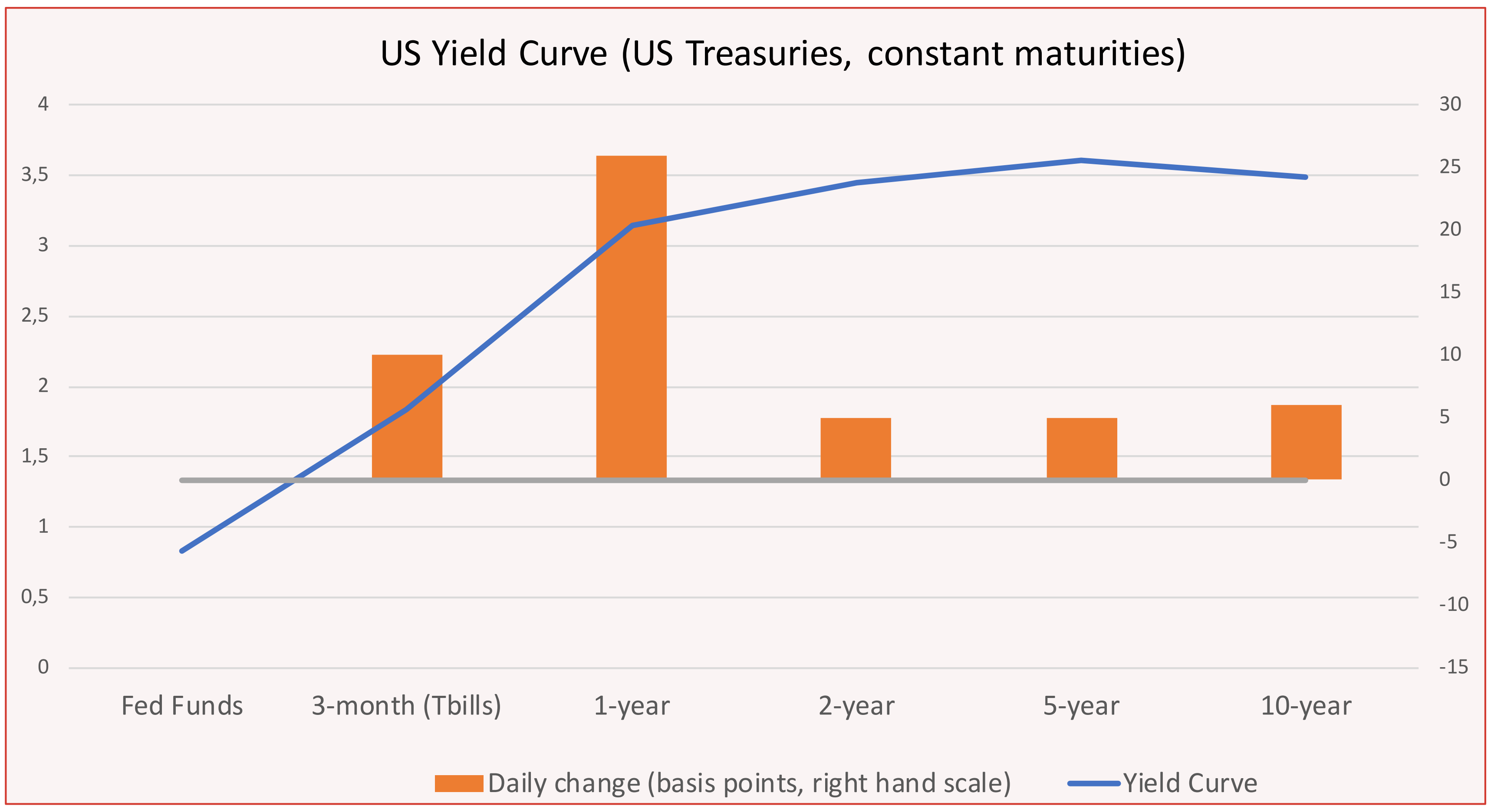
RISK PREMIUM INVEST

Daily analysis of the US Treasuries Market

14 June 2022

	Fed Funds	3-month (Tbills)	1-year	2-year	5-year	10-year
Rates	0,83	1,83	3,15	3,45	3,61	3,49
Daily changes (bp)	0	10	26	5	5	6



Source: Federal Reserve, H15.

Highlights:

- *At the end of a very volatile session, rates were a bit higher, with a jump at the short end of the curve.*
- *With expectations regarding Fed's monetary policy changing fast, traders struggled to price bonds of various maturities in a consistent way.*
- *It is thus difficult to extract the risk premia priced into the market, but it seems that they have increased again for 10-year rates and have reached a level relatively high by historical standards.*

PART I : Changes in expected Fed Funds.

PART II : Risk premia contributions.

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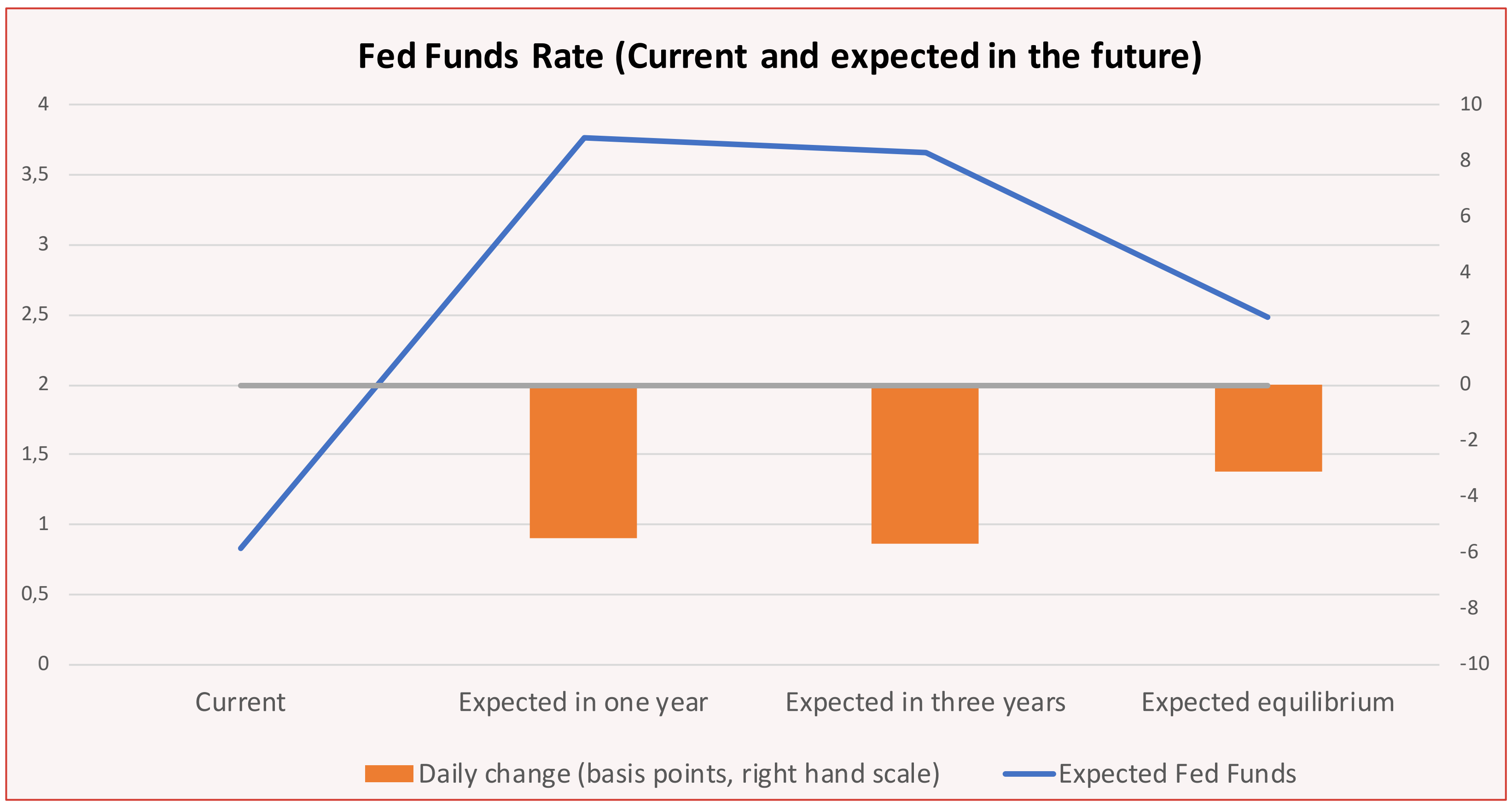
PART III : Methodological annex.

PART I : CHANGES IN EXPECTED FED FUNDS

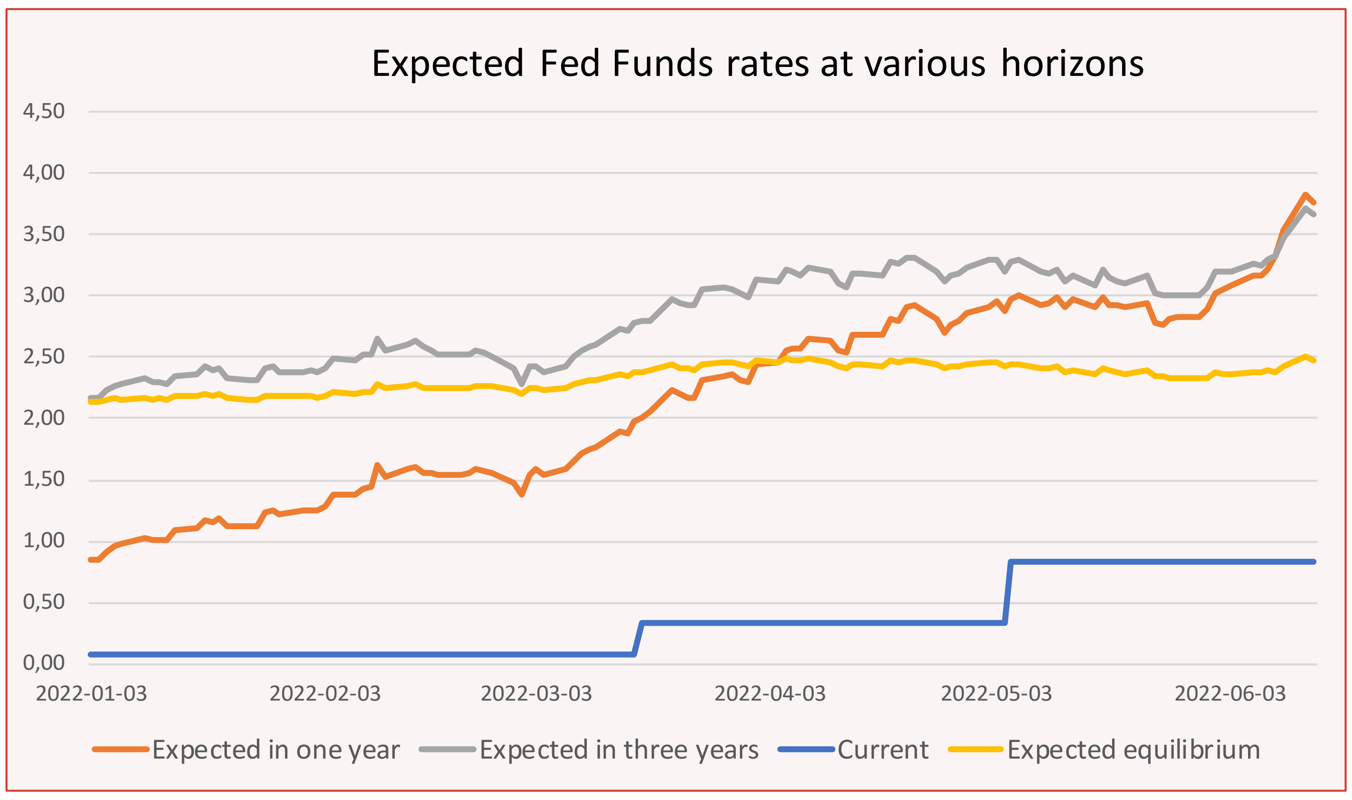
The Fed Funds rates expected by investors are estimated by our proprietary model using both various surveys (the monthly “Consensus Economics” survey and the quarterly “Survey of Professional Forecasters”) and the rich information contained in the yield curve (see the methodological annex). The estimates are changed when more recent surveys are available (on May 12, the May “Consensus Forecast” and SPF were introduced).

Investors continued to adapt their expectations regarding future Fed funds rates after an article in the Wall Street Journal on Monday suggested that the Fed was preparing for a 75 bp rate hike as soon as Wednesday. One-year rate jumped again, but the movement was much smaller for longer maturities rates. Our model suggests that investors revised higher their expectations for Fed funds rates in the coming months but cut them at longer horizons as the fear of a forthcoming recession grew.

	Current	Expected in one year	Expected in three years	Expected equilibrium
Fed Funds	0,83	3,77	3,66	2,48
Daily changes (bp)	0	-5	-6	-3



The profile has changed, but investors still expect an impressive tightening of monetary policy in 2022-2023 (Fed Funds rate at 3,77% in one year and 3,66 in three years). But they still believe that the equilibrium long term rate (or “neutral” rate) will be rather low (2,48%). Their confidence is probably based on two key assumptions. On the one hand, the Fed will succeed in its fight against inflation and bring back price increases in the long term around 2% per annum. On the other hand, for structural reasons, the equilibrium “risk-free” real rate is considered rather low. This optimistic view about the real “risk-free” rate may be challenged in the future given the lack of control over fiscal policies in many parts of the world.



Main market moving news: 14 June 2022

Macroeconomics
PPI for May at +10.8% YoY (Expected 10.9%; Prior 11% revised at 10.9%).
PPI (ex food/energy) for May at +8.3% YoY (Expected 8.6%; Prior 8.8% revised at 8.6%).

Others

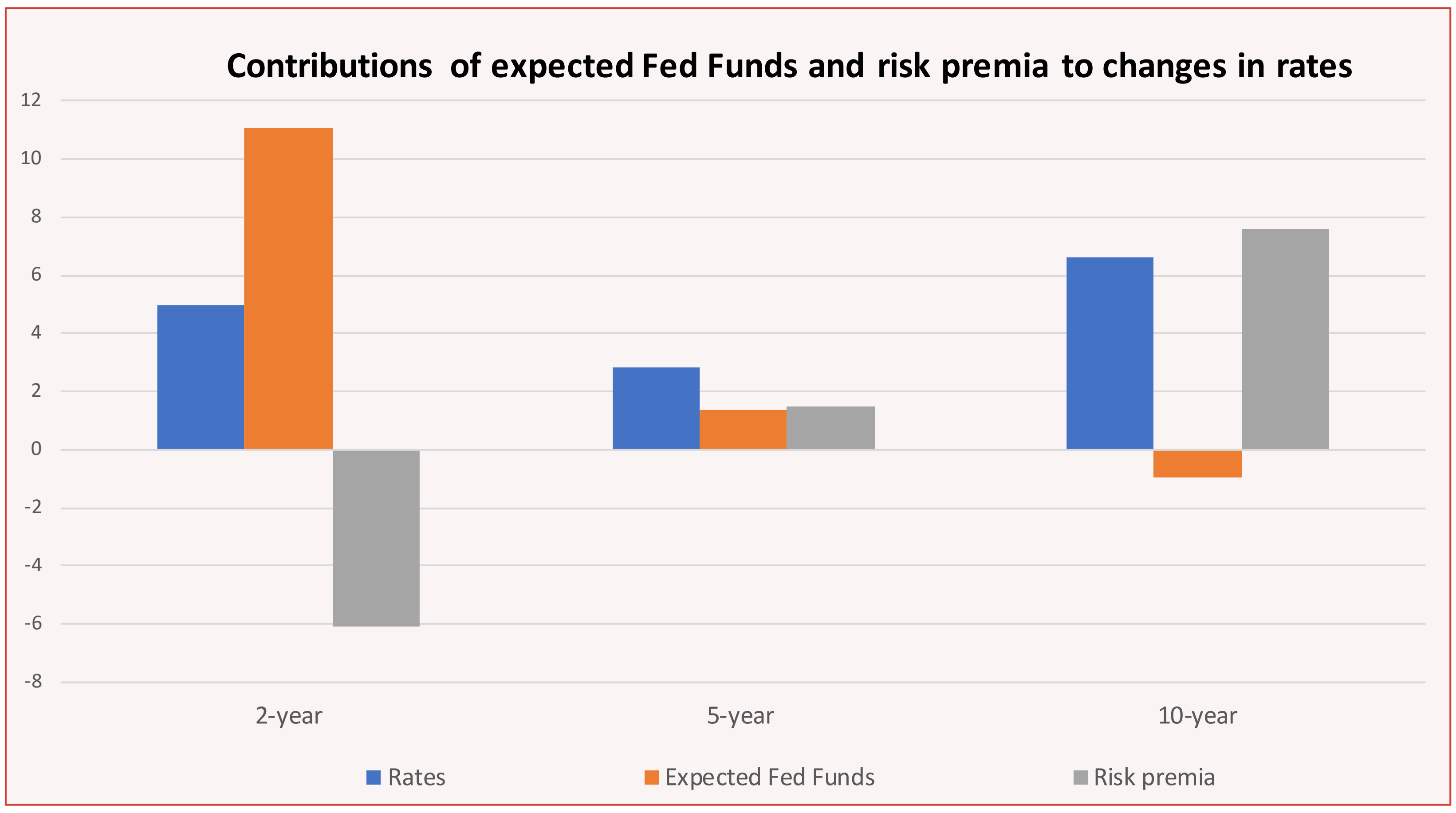
PART II : RISK PREMIA ANALYSIS

For US Treasuries, as for all financial assets, there are two key different types of risk premia:

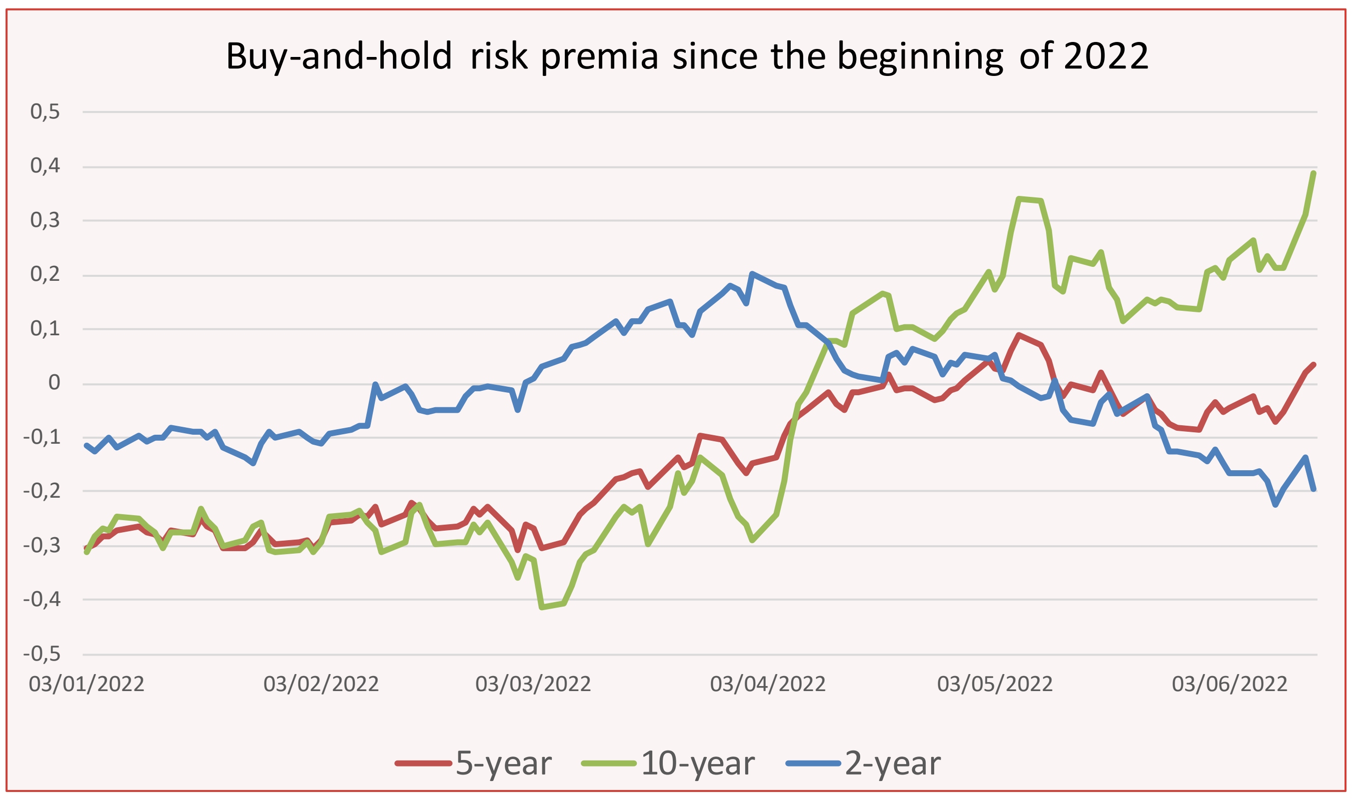
- The short-term **tactical risk premia**: How much excess returns investors require to hold various risky assets at their tactical horizon (which depends on investors, but is often around 3 months)? The tactical positions taken by investors relative to their benchmarks ("neutral", "short', "long") depend on these tactical risk premia.
- The **"buy-and-hold" or "embedded" risk premia**. How much excess return **long-term investors** expect if they hold risky assets over an extended horizon? In the case of US Treasuries, the buy-and-hold risk premia are the differences between the zero-coupon rates of various maturities and the (annualized) expected return on a fund invested in Fed Funds over the same period.

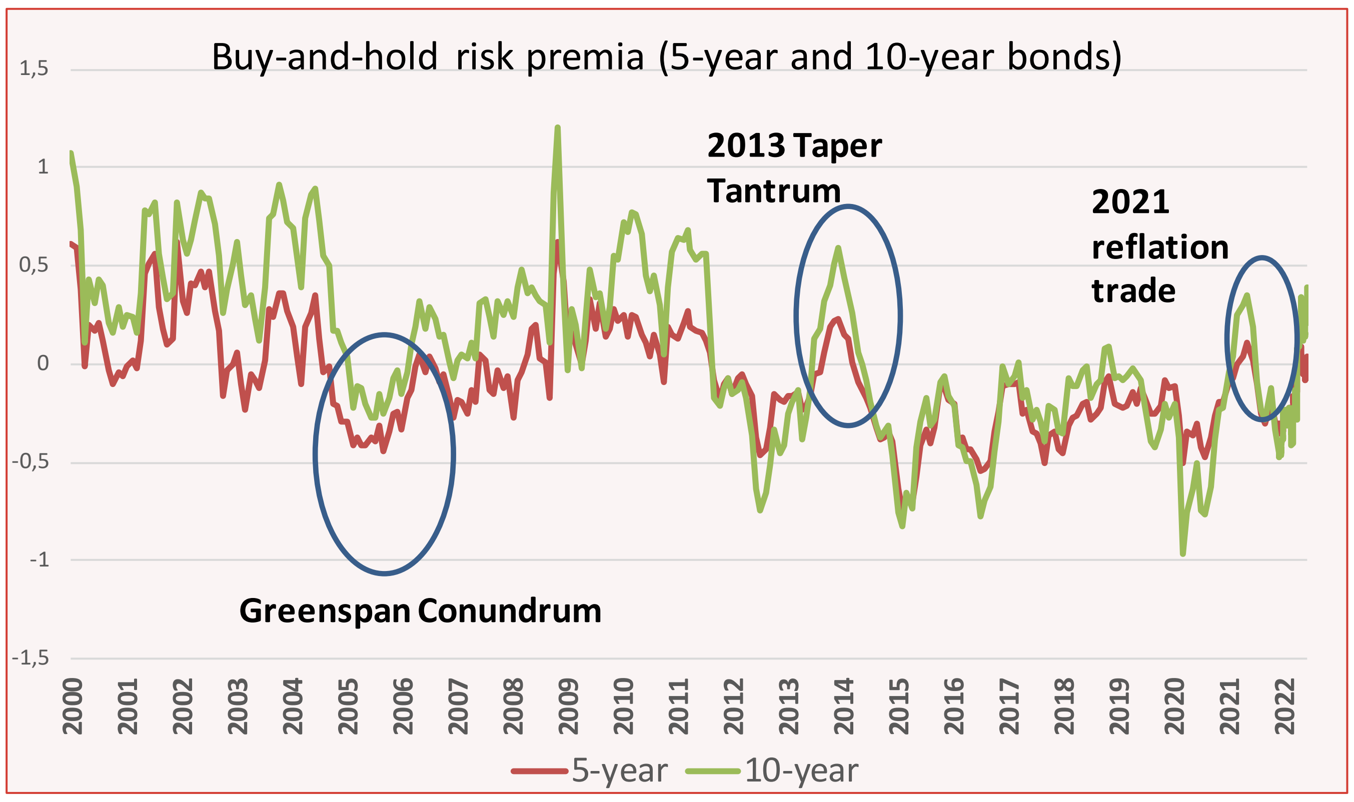
We estimate both types of risk premia (see the methodological annex) but we discuss here only the buy-and-hold risk premia.

The US Treasuries market on Tuesday was very volatile with traders struggling to price bonds of various maturities in a consistent way. At the end of the day, the 2-year rate that jumped sharply the day before increased less than expected taking into account the new big rise in the one-year rate. The model suggests that risk premia have declined a bit on 2-year rates, but this strange behavior of the yield curve may also be the result of a temporary mispricing. For longer maturities, risk premia increased slightly, and this is consistent with rising fears of inflation and, on Tuesday, a more stable equity market.



	2-year	5-year	10-year
Buy-and-hold risk premia	-0,20	0,04	0,39
Daily changes (bp)	-6	1	8





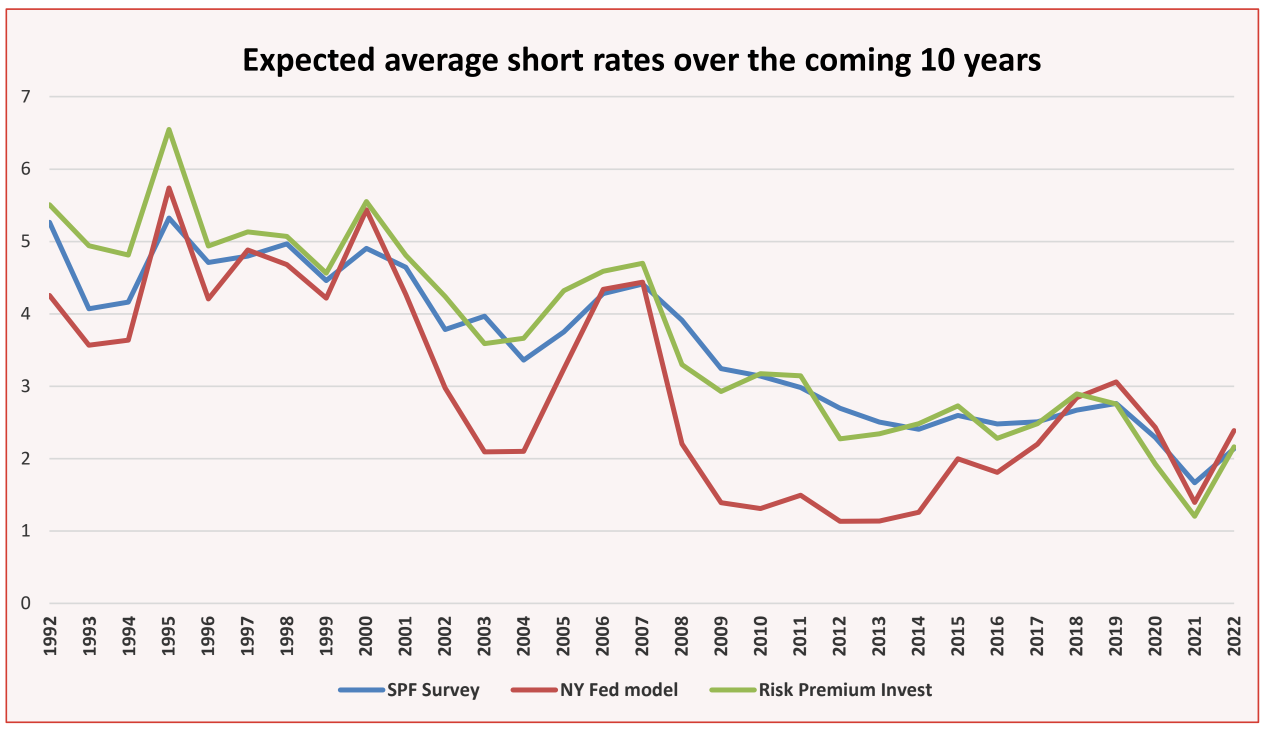
With a long-term perspective, it appears that the current buy-and-hold risk premia on long-term Treasuries are now relatively high (see the right-hand side graph). Since the beginning of Fed's Quantitative Easing in 2010, there has been only two episodes where the buy-and-hold risk premia on 10-year US Treasuries have been higher: the 2013 "taper tantrum" and the 2021 "reflation trade" episodes where investors introduced large short positions in Treasuries. Both time, these relatively high short positions and positive risk premia proved unsustainable and risk premia came back later on negative territory.

Looking forward, changing buy-and-hold risk premia should continue to introduce a lot of volatility in the US Treasuries markets. On the one hand, there is still an excess demand for long-term Treasuries and a tendency for risk premia to go back on negative territory. On the other hand, the market will have in the future to absorb a larger supply with the Fed starting to cut its holding of bonds ("Quantitative Tightening"). This may push many investors to introduce again large short positions in the belief that long-term rates are now on a structural upward trend.

PART III : METHODOLOGICAL ANNEX

There is an abundant academic literature trying to extract from the yield curve the monetary policy path expected by investors and the risk premia embedded in the observed US Treasuries rates.

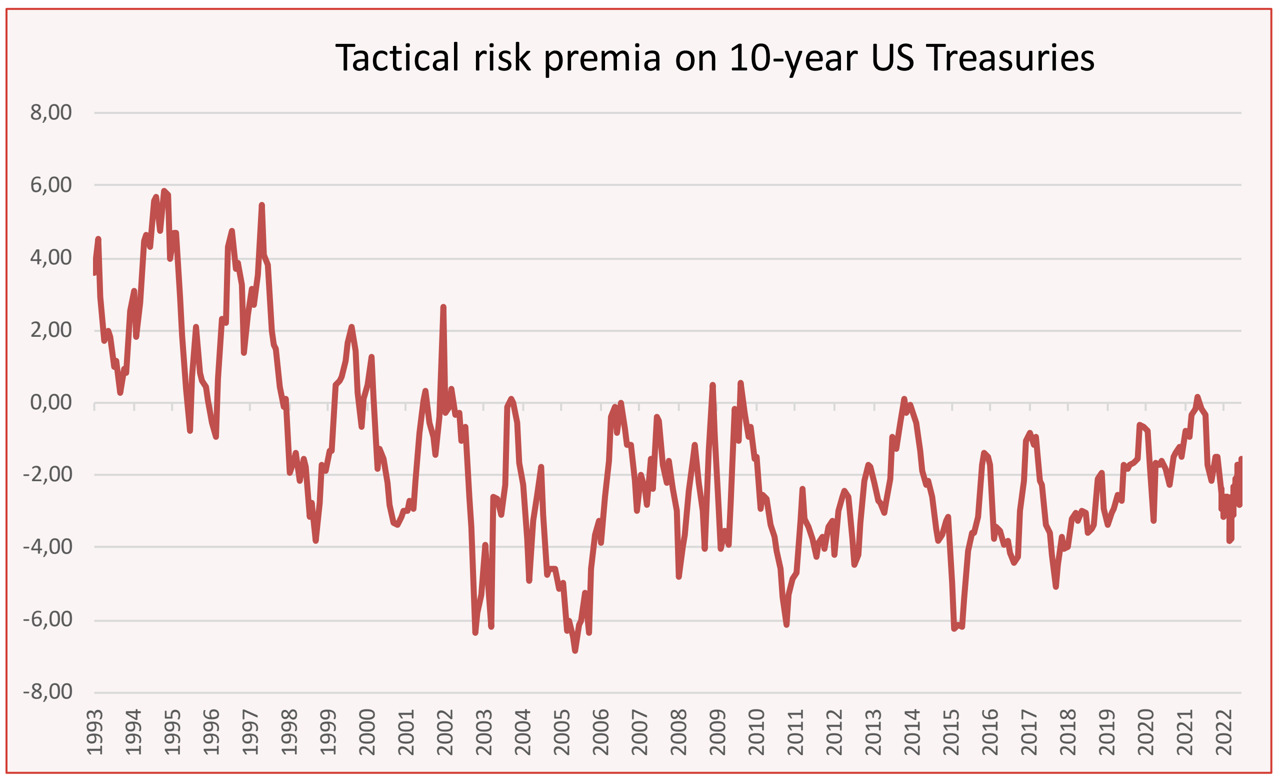
One of the best-known statistical models is the model developed by the Federal Reserve Bank of New-York. Their estimates are published daily on the NY Fed website (see www.newyorkfed.org/research/data_indicators/term-premia-tabs#/overview). Strangely enough, these estimates don't seem to be used by many markets practitioners when they discuss the shape of the yield curve and how it can be explained by short-rates expectations and risk premia. One of the reasons is that the results of the model are often quite unrealistic. To illustrate that observation, we can compare the average short rates expected by investors over the next 10 years according to this model with what professional forecasters expect (answers, once a year in January, to the well-regarded survey managed by the Federal Reserve Bank of Philadelphia. See www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters).



There are many reasons why the average investor's view priced into the market may differ somewhat from the answer given by professional forecasters, but the difference is often much too large to be realistic.

The truth is that the estimates published on the NY Fed website are rather imprecise. There is indeed a large academic literature stressing that the yield curve alone does not contain enough information to extract the investors' underlying views and that the results of surveys should be incorporated in the extraction process (see Kim, Don H., and Athanasios Orphanides, 2012, Term structure estimation with survey data on interest rate forecasts, Journal of Financial and Quantitative Analysis 47).

Our model belongs to this class of models that combine information coming from well-regarded surveys with the observed yield curve. But its key originality is elsewhere. Our model does not extract only the buy-and-hold risk premia, but it also extracts the important short-term tactical risk premia required by investors on bonds of various maturities. These tactical risk premia are very important to understand the shape of the yield curve. One very important result of our work is that these tactical risk premia have been on average negative since the end 90s (the following graph represents the annualized excess return expected by investors on 10-year Treasuries at the 3-month horizon).



That means that a long time before the Fed introduced QE there was already an insufficient supply of risk-free Treasuries: tactical positions are on average structurally short in this key market. To keep it simple, this rich information about tactical risk premia is not discussed in this daily comment, but an excel file with the full information is available on our website (see the link on the homepage of www.riskpremium.com)

To know more about our modelling of the yield curve, and the key insights it provides on how markets price risks:
For a non-academic guide, see https://riskpremium.com/wp-content/uploads/2022/02/USTreasuries-Guide.pdf
For a detailed academic paper, see https://riskpremium.com/wp-content/uploads/2021/11/OD-Treasuries-RiskPricing-oct21.pdf
For some general (non-technical!) considerations on risk pricing beyond the specificities of the US Treasuries market, see https://riskpremium.com/wp-content/uploads/2021/11/Treasuries-NonTechnical.pdf