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A sudden drop in risk appetite

■ The eruption of US equity market volatility, with global spillover effects, is a delayed reaction to a rather significant increase in bond yields since the second part of August ■ Market-implied inflation expectations didn't move that much so the rise in long term rates reflects an increase in real yields which in turn is related to strong growth numbers ■ Historically the relationship between weekly changes in yields and stock market performance is weak ■ This implies that one should focus on drivers of investor risk appetite and in particular signs of slower growth

Research shows that the surprise component of economic data releases, i.e. the difference from the consensus forecast, is incorporated in financial asset prices within minutes. However, the relevance of new data goes well beyond this timespan because they allow investors to finetune their assessment of the economic environment. It implies that a significant cumulative change can end up impacting market sentiment even though the short term reaction to news had been negligible. This week saw an example of such a delayed reaction. Since the second half of August, 10 year US treasury yields have risen 32 bp (chart 1). This corresponds to the increase in the inflation-protected treasury yield (TIPS) because market-implied inflation expectations have been stable. Considering the strong data in recent weeks, we can assume that the rise in real yields reflects an increase in expectations for real GDP growth. Everything else being the same, the rise in yields should have been accompanied by a decline in equity prices. In reality the equity market increased on the back of a more upbeat assessment of the earnings outlook and/or a decline in the required risk premium. This week's market rout would then reflect a sudden drop in investor risk appetite. Possible explanations could be: a change in the attractiveness of an expensive equity market versus treasury bonds which start to offer increasingly appealing inflation-adjusted yields; concern about the trade war (the IMF's new World Economic Outlook was quite vocal on the risks this entails); an increasing conviction that the Fed would hike more than expected lately. It could also be, quite simply, a delayed reaction to the rise in bond yields.

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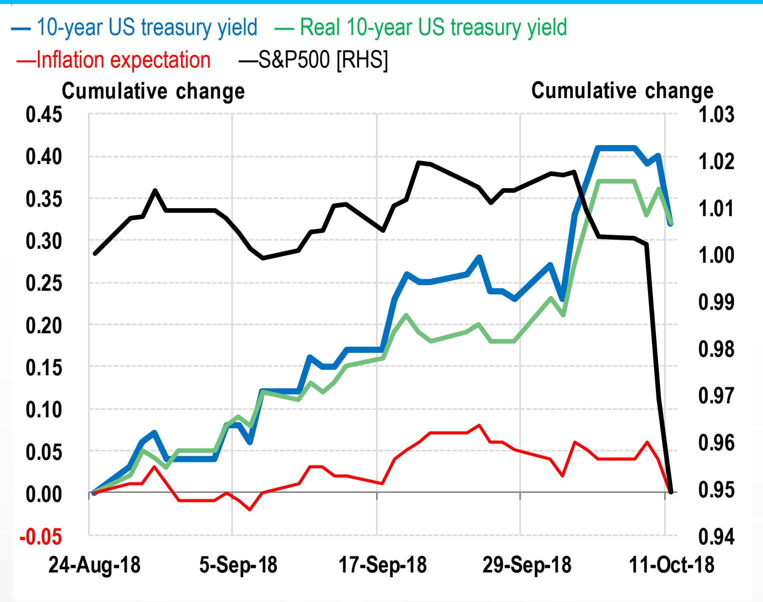
CUMULATIVE CHANGE OF US TREASURY YIELDS AND S&P500



Source: Thomson Reuters, BNP Paribas.

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ECONOMIC RESEARCH DEPARTMENT

BNP PARIBAS

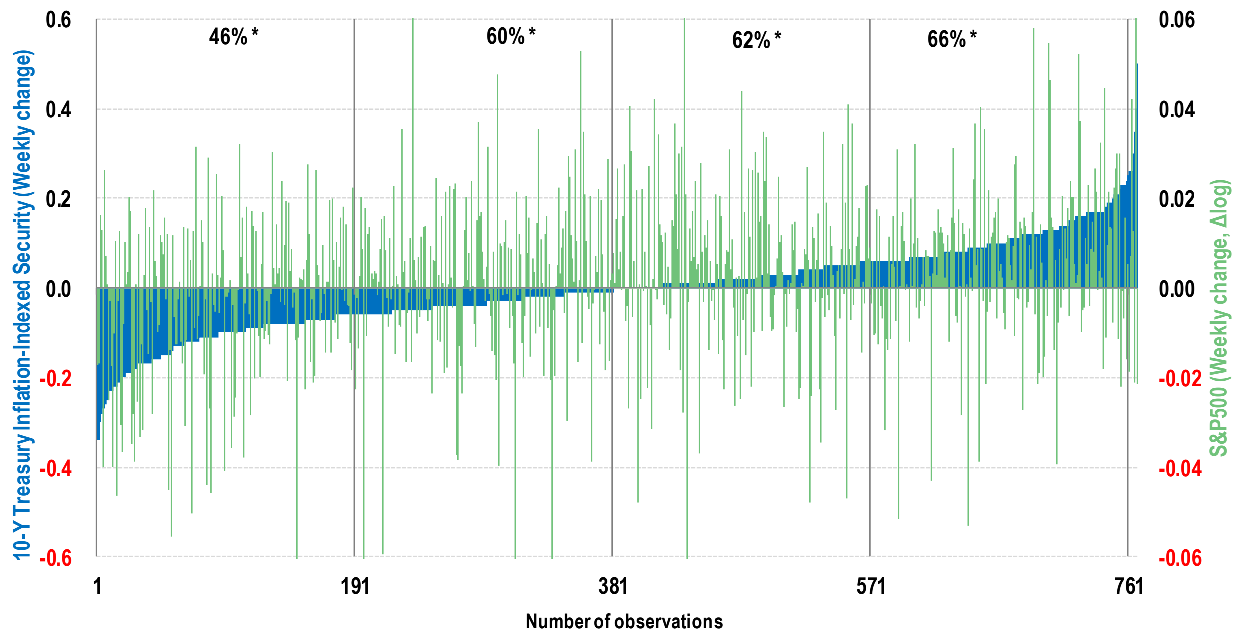
The bank for a changing world

Based on the developments in the past two weeks (jump in bond yields, equity market decline), it is tempting to make a strong link between bond yields and the equity market when assessing what the future may bring. To explore the historical record of such an approach, chart 2 shows the ranked weekly change in real bond yields and the associated change in the S&P500. The observations are split in four windows to allow for a non-linear correlation. Running regressions for each subsample shows that only in the case of significant declines in interest rates there is a statistically significant positive relationship between bond yields and the equity market: big declines in yields reflect a poor growth environment so equities suffer. For the other subsamples there is no such relationship. Moreover, in slightly more than 60% of the observations, the equity market has positive weekly returns, an illustration that in the long run the S&P500 tends to rise.

It also means of course that in about 40% of observations, weekly returns are negative. Statistically speaking this has little to do with the short-term behaviour of bond yields so one should look at other factors. One would be a threshold effect in bond yields: if the cumulative change is large enough, the mindset of investors changes, causing a drop in risk appetite. Such a drop can also be triggered by exogenous shocks obviously, fluctuations in uncertainty and doubts about economic growth. For the coming months, the last point is, perhaps counterintuitively given the recent concerns about too strong a rate of US growth, the more relevant one to focus on. After all, US household confidence has risen in tandem with the equity bull market so a lasting correction would hit confidence. Business optimism would also suffer. The rest of the world would also be impacted via international trade, declining commodity prices, equity market correlations, etc.

William De Vijlder

RANKED WEEKLY CHANGE OF US REAL YIELD AND ASSOCIATED CHANGE IN S&P500 **



* Percentage of positive observations of the SP500 ** period 2003-2018 excluding May 2008 - May 2009

Chart 2 Source: Thomson Reuters, BNP Paribas.