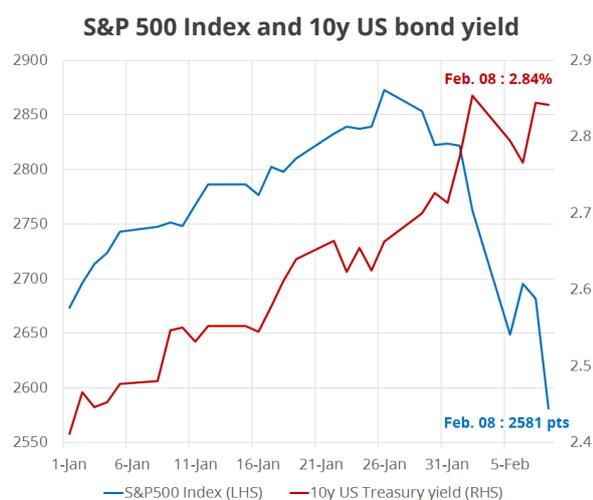


Hot Topic - Mature Economies

February 09, 2018

Is it a crash or a mere warning shot? A quantitative reading of the recent falls in financial markets



Sources: Datastream, TAC ECONOMICS

The trigger of falls in world equity markets can be attributed to last Friday's US job figures, which pointed to higher-than-expected growth in wages and therefore raising the probabilities of higher inflation, itself suggesting either a steeper yield curve or a more aggressive Fed's tightening.

Considering our repeated diagnostic about markets' excessive valuations, the recent declines in both stock and bond markets does not come as a major surprise. In terms of immediate timing, our "pure-quant" Quantitative Market Alert (QMA) did rise a "major contraction signal" on February.

The key question now is whether this market adjustment is the long-awaited signal of broader bear markets and its associated consequence on cyclical dynamics, or if it is merely a warning-shot, indicating the entry in a much higher-volatility period not yet associated with a broad and sustained deterioration in financial markets.

Our tools and analyses are so far clearly pointing to the second answer: the broad and sustained reversal is not yet here, and should occur later in 2018Q4 or

2019H1, though financial volatility between now and then will be much higher than the (abnormally) low levels seen since November 2015.

Three technical or quantitative tools pointing to a temporary equity market reversal

Among the many models used by TAC ECONOMICS, three do provide today important messages converging in suggesting a temporary warning shot:

1. A quantitative macro-framework (*PWIT model*) relating fiscal policies to income growth, changes in corporate costs (including financial costs related to changes in interest rates) and net after-tax corporate profits. It shows that the cuts in US corporate taxes associated to a higher US economic growth would far more than compensate for the past increases in bond yields and wages, leading to around 5-10% y/y increases in aggregate corporate after-tax profits. The monetary policy tightening and continuous increase in bond yields would indeed progressively erode the positive impact of the current fiscal reforms on corporate profits, but a turn to profit *contraction* would occur only when 10yUST yields go beyond 3.4%. Our econometric equations on US yields suggest that this would occur in about one year from now. Before that, the continuous growth in net corporate earnings should remain a supportive factor preventing further continuous declines in equity markets, with positive feed from sustained economic growth.
2. Our quantitative signaling tool on major markets' movements (QMA), which have so far proved extremely correct, still indicates that the Directional Trend Outlook at 3- and 6-month horizons are still positive, meaning that these

tools expect a level for the S&P at or above 2820 by the end of April. A sustained bear market for US and worldwide equities is not yet forecasted, at least before August 2018 (the maximum horizon of our QMA). However, these models, based on powerful combinations of non-linear models and *deep-learning* techniques, highlight a much higher volatility over the whole next 6-month period.

3. A time-sequence statistical analysis on changes in different types of assets and credit prices has shown that a sustained reversal in equity prices is almost always preceded by a widening in high-yield US corporate spreads: in other words, we would first need to see a negative impact of tighter financial conditions vs growth and profits' expectations on corporate spreads before a broader and more sustained reversal.

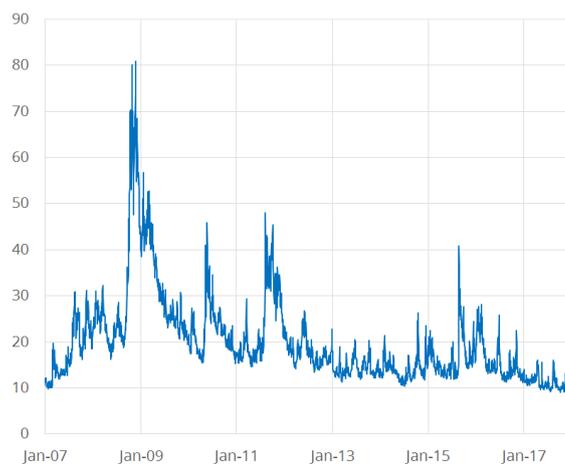
Four factors to monitor carefully

Though we're sticking our neck out in expecting a stabilization / recovery in equity markets with stronger economic growth for the next few quarters, we keep a very watchful eye on four critical points:

1. At the current stage of the US cycle, the effects of a lasting market decline on consumer confidence could nullify the expected impact of the US fiscal plan on economic growth. With low saving rates, a sharp drop in household confidence would bring forward the time for US cyclical reversal and therefore validate ex post the past market adjustment.
2. The combination of a massive increase in financial volatility index during the past few days and our QMA highlighting a likely persistence of such volatile environment may have larger-than-expected consequences.

As this jump in volatility comes with a sharper-than-expected deterioration in bond markets, the negative impact on investors' portfolio may be larger than usual, possibly creating liquidity tensions within some non-bank financial institutions (NBFI), themselves creating conditions for "distress sales" and sharper markets' declines.

VIX Index



Sources: Datastream, TAC ECONOMICS

3. We assume that the suddenness of changes in financial markets is not creating systemic tensions in the banking sectors. Indeed, the indicators of stress in interbank markets, though on the rise, are still far from levels that would suggest a contagion from markets to banks and aggregate liquidity. Overall, a massive difference with 2008 is the very large level of excess liquidity reserves held by banks at their respective central banks (Fed and ECB). If we are wrong on banking strength or on an unforeseen transmission from NBFIs to banks, negative pressures on credit and economic growth would rise massively.
4. We also assume that the "more fragile" combination of sustained growth and nervous financial markets is not affected by an exogenous shock (China, geopolitics...) or a serious mistake in monetary policy communication

Our models are still pointing to the 2018Q4-2019H1 time-window as the most likely candidate for the expected sequence of widening corporate spreads - sustained equity reversal - cyclical reversal in the US.