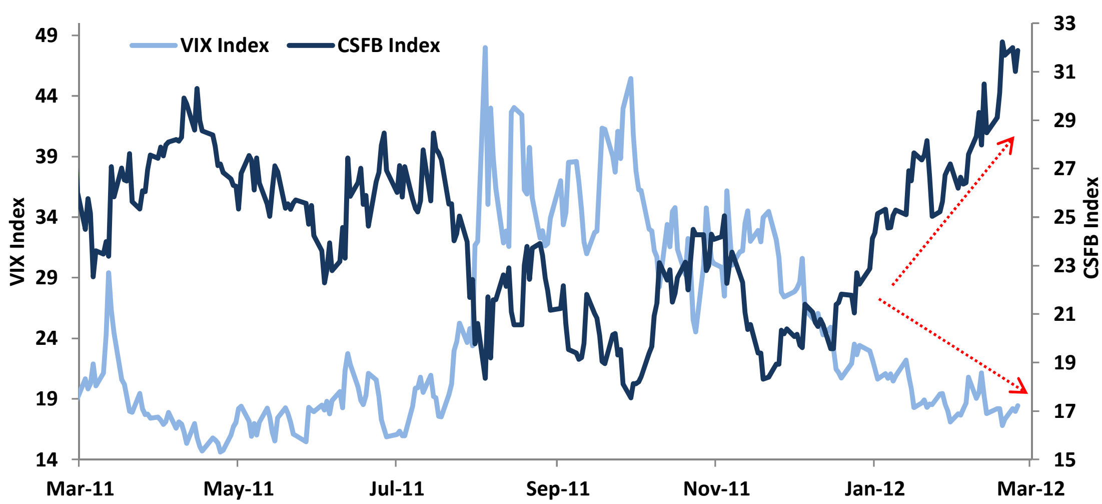
MARKET COMMENTARY
Wednesday, March 07, 2012

How Predictive is the CS Fear Barometer vs. the VIX?

CSFB vs. VIX Divergence

- In a recent note (Market Volatility Bulletin, Feb 27th) we highlighted the Credit Suisse Fear Barometer (CSFB), which had risen to an all-time high, signaling elevated levels of investor fear and heightened demand for downside protection.
- This stood in sharp contrast to the VIX, which had been falling steadily and was at the time trading at a low of 17. The VIX, which is often used by investors as a sentiment gauge, was signaling low levels of fear and a constructive investment outlook.
- Why was there such a divergence, and more importantly, which indicator is a better measure of investor risk sentiment?

Exhibit 1: CS Fear Barometer Diverges with the VIX – Is Fear High or Low?



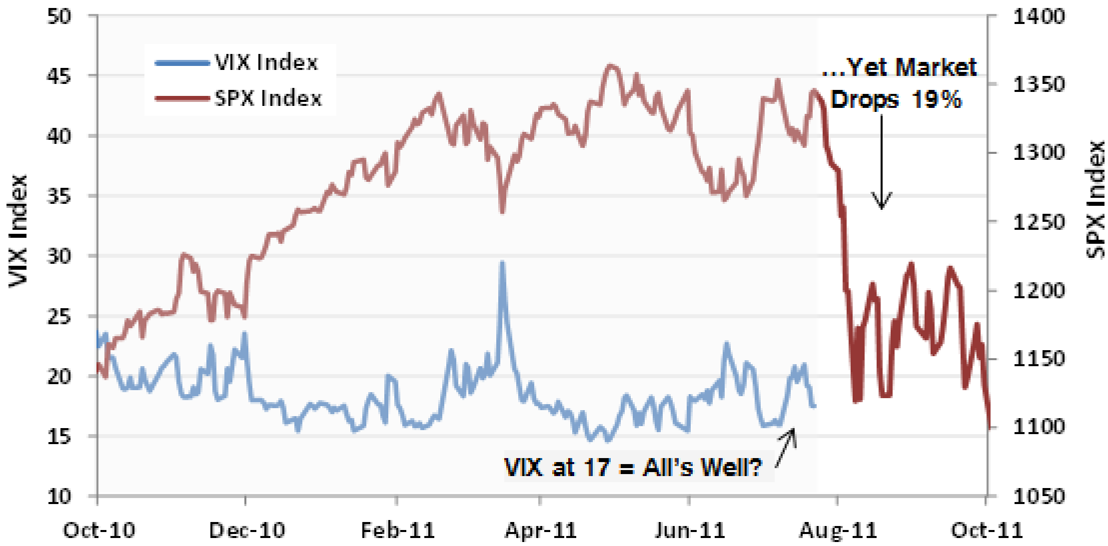
Source: Credit Suisse Derivatives Strategy

Is the VIX a Useful Fear Gauge?

- The VIX, which measures short-term (1M) market uncertainty, is often used by investors as a risk sentiment indicator. This is because the VIX typically rises when market falls (i.e. fear increases), and falls when the market rises (i.e. fear declines).
- While having a confirming indicator may be informative, what would be more useful is if the VIX also has predictive value – i.e. if a high VIX level typically precedes major market corrections.
- Has this been the case? Take a look at Exhibit 2, which shows a period where the market was rallying and

the VIX was trading in a stable 15-20 range – this would suggest a very constructive market outlook. Yet, as you can see, the market fell 19% in the weeks following. The VIX clearly did not anticipate the market correction.

Exhibit 2: Does the VIX Anticipate Market Corrections?



Source: Credit Suisse Derivatives Strategy

- In fact, as shown in Exhibit 3, in every large market correction over the past decade, the VIX was trading in a muted range between 17-20 in the week before those crises, and on average, the market sold off ~27% subsequently.
- Clearly, the VIX is more of a coincident indicator, rather than a leading indicator. That is, it seems that the VIX confirms what the market *is* doing but provides little information as to what the market *will* do.

Exhibit 3: A Low VIX Level Before Every Crisis Over Last Decade

Crisis	VIX Level 1-Week Prior	Subsequent SPX Decline
Recession Mar'02	19	-34%
Subprime Oct'07	17	-19%
Lehman Sep'08	20	-50%
Greece May'10	19	-15%
Debt Ceiling Aug'11	19	-19%

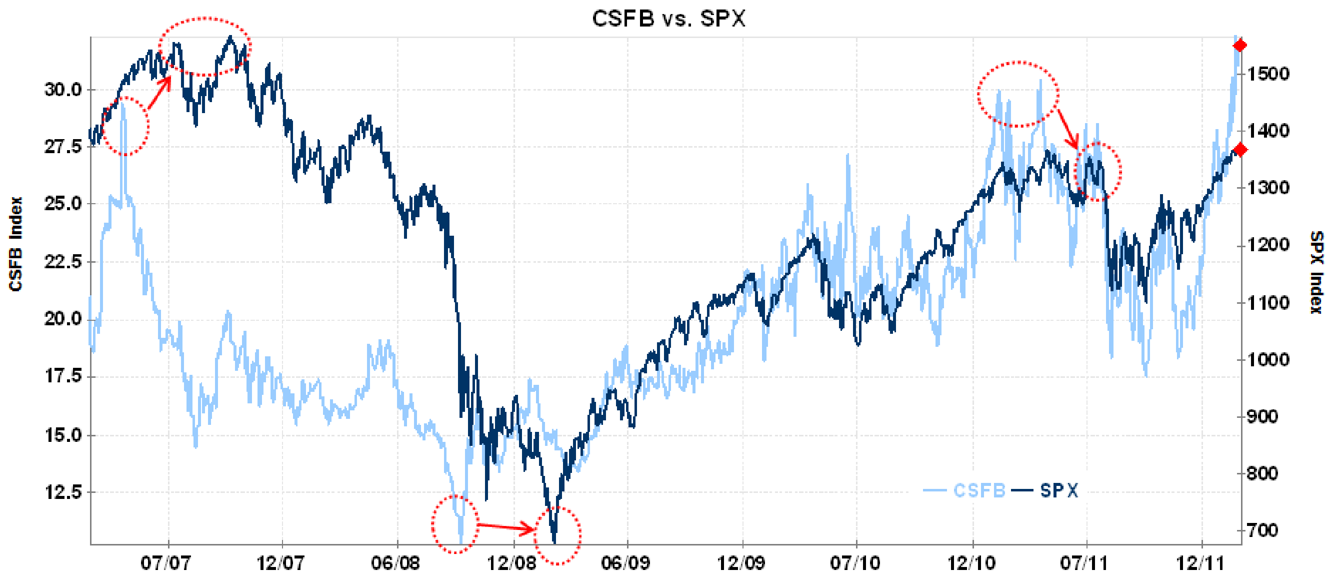
Source: Credit Suisse Derivatives Strategy

How is the CS Fear Barometer Different?

- By design, the Credit Suisse Fear Barometer measures not what investors are currently doing, but rather, how they are positioning their exposures going forward. It defines fear as the willingness of investors to forgo market upside in order to secure downside protection.
- Unlike the VIX, which is a measure of 1M implied volatility, the CSFB uses longer-dated 3-month options and is designed to price the opportunity cost of buying protection. We do so by selling a 10% out-of-the-money call on S&P and using the premium to purchase downside protection. The higher the CSFB level, the more expensive that protection is, and hence the higher the level of fear in the market.

- Is the CSFB predictive? We think that the CSFB does a good job of identifying periods of high market fragility, but whether it is predictive depends on whether the fear that has driven investors to buy downside protection ever materializes.
- As seen in the chart below, which shows the S&P and the CSFB over the past 5 years, we find that turns in the CSFB Index have anticipated inflection points in the market (Exhibit 4).

Exhibit 4: CS Fear Barometer Typically Leads Market Turns



Source: Credit Suisse Derivatives Strategy

- For example, as shown in Exhibit 4, the CSFB registered a high of 29 – signaling extreme levels of fear – in May 2007, about two months before the market peaked and the subprime mortgage crisis started. Similarly, the CSFB reached what was then an all-time high of 30 last April, three months before the July/August sell-off (see highlighted area in chart above).
- Conversely, when the CSFB reaches an extreme low, it can also signal a turn in investor sentiment. Most notably, the index reached a low of 10.3 four months before the market bottomed in 2009.

What is the CSFB Saying Right Now?

- Two weeks ago, the CS Fear Barometer reached an all-time high of 32. While it does not mean panic, the high level suggests that option investor positioning is actually on the defensive side. It shows that investors are more worried about downside risks, and much less concerned about missing any potential upside.
- Investors can track daily changes in the CS Fear Barometer on Bloomberg using the ticker: CSFB Index.

Contact

Mandy Xu
Equity Derivatives Strategy
212 325 9628