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Understanding the Cboe SKEW Index & Its Prediction Value

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What Is the Cboe SKEW Index?

The Cboe SKEW index (SKEW) measures potential risk in financial markets. Much like the VIX index, the SKEW index from the Chicago Board Options Exchange (Cboe) can be a proxy for investor sentiment and volatility. The SKEW measures perceived tail-risk in the S&P 500. Tail-risk is a change in the price of the S&P 500 or a stock that would place it on either of the tail ends, or the far edges of the normal distribution curve. These price changes typically have a low probability.

KEY TAKEAWAYS

- The Cboe SKEW Index (SKEW) measures perceived tail-risk in the distributions of S&P 500 investment returns over a 30-day horizon.
- A SKEW rating of 100 means the perceived distribution of S&P 500 returns is normal, and the probability of an outlier return is small.
- In practice, the SKEW index has been a poor indicator of stock market volatility, failing to accurately predict black swan events.

Understanding the SKEW Index

The SKEW index is calculated using S&P 500 options that measure tail risk—returns two or more standard deviations from the mean—in S&P 500 returns over the next 30 days. The primary difference between the VIX and the SKEW is that the VIX is based upon implied volatility round the at-the-money (ATM)

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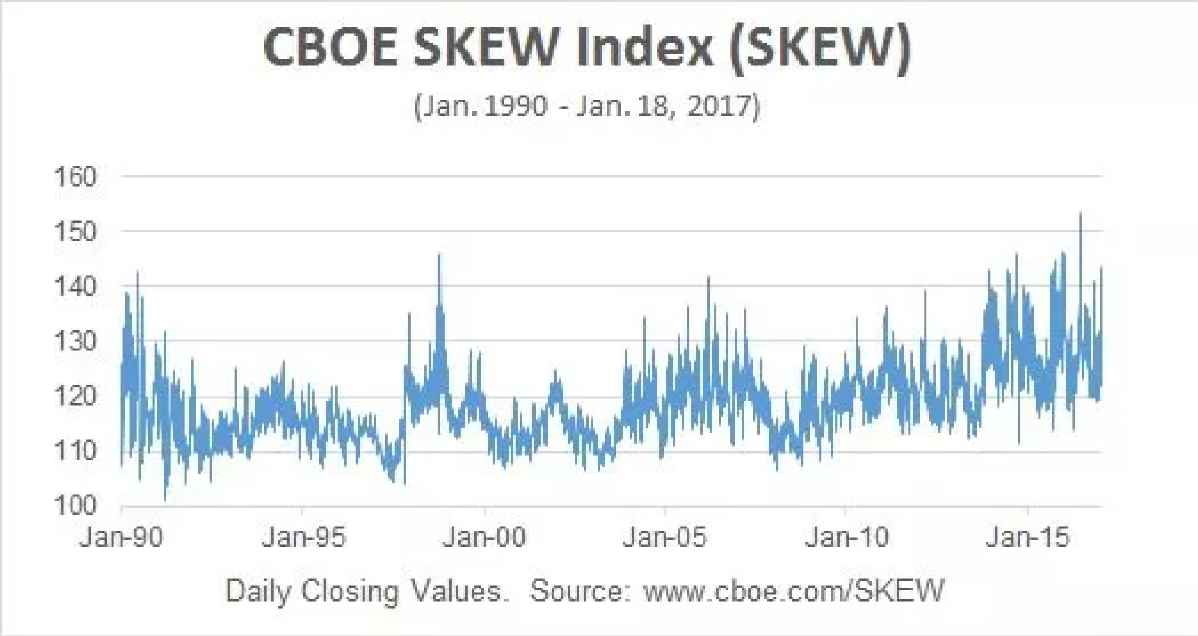
SKEW values generally range from 100 to 150 where the higher the rating, the higher the perceived tail risk and chance of a black swan event. A SKEW rating of 100 means the perceived distribution of S&P 500 returns is normal and, therefore, the probability of an outlier return is small.



Specifically, the index measures the slope of implied volatility, which can then be expressed as the probability of a two or even three standard deviation move by the S&P 500 over the next 30 days. Skew can thus be used to help determine risk.

To understand how the SKEW Index translates to risk, consider that each five-point move in the SKEW Index adds or subtracts around 1.3 or 1.4% points to the risk of a two-standard deviation move. Similarly, a five-point move in the index adds or subtracts approximately 0.3% points to a three-standard deviation move.

The index increases general market awareness among investors. As the slope of implied volatility moves higher, it raises the SKEW Index, which indicates that a Black Swan event is becoming more likely but not that it will actually occur.

In practice, the SKEW index has been a poor indicator of stock market volatility. Financial writer Charlie Bilello observed data from the biggest one-day falls in within the top 5% of historical values. So, when actual tail risk was present, SKEW did not predict it," Bilello said. [1]

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