OCTOBER 2010

VOLATILITY INDICES FORECAST MARKET RISKS

STOXX

INNOVATIVE. GLOBAL. INDICES.

VOLATILITY INDICES FORECAST MARKET RISKS

In phases of market uncertainty, the daily highs and lows on the global stock exchanges are like a temperature curve. However, instead of measuring the situation on the markets according to their respective market rates, experienced investors take the markets' volatility into account. In portfolio theory, volatility is considered a key figure for determining the risk of an investment. That's because it measures the rate's fluctuations around an average value and rises along with increasing uncertainty on the markets. Those who want to determine the risk of an investment or gain a feeling for market sentiment have to take a closer look at volatility – which is calculated by indices such as the VDAX-NEW, VSMI, VSTOXX or, available since the end of September, the EURO STOXX 50 Investable Volatility Index for the most important stock markets, for example the DAX, SMI and the leading European index EURO STOXX 50. If you want to use these indices for your investment decisions, however, you have to become familiar with the special characteristics of volatility.

Generally, we have to differentiate between a historical and a forecasted, or implied, volatility. Historical volatility is easy to calculate, based on real market fluctuations. Similar to the idea that past performance is not a decisive criterion for future yields, historical volatility provides little information about expected risk. In this case, implied volatility makes a much stronger statement. It draws on the Option Pricing Theory by Fischer Black and Myron Scholes. Because the model's other parameters, such as the price of the base value or the risk-free interest rate, are easy to ascertain, the market's volatility can be forecasted based on the option pricing for supply and demand shown on the Eurex derivatives exchange. Its high liquidity and the large number of market participants, especially in terms of papers for well-known indices, make option handling a reliable indicator for market forecasting. Additionally, implied volatility is characterized by strong, negative correlation to the respective stock markets. Thus, it immediately reacts to market events and, for example, increased dramatically in fall 2008 during the height of the financial crisis.

Indices mirror inflation forecasts

All volatility indices of the DAX, SMI or EURO STOXX 50 measure implied volatility. Because they are aligned to future development and based on transparent market prices, these indices are attractive for investors. The indices measure the volatility expectations over the course of different periods. The volatility indices on the DAX and the VSTOXX, for example, calculate volatility expectations beginning with the respective trading day over a constant period of 45 or 30 days respectively. However, the newly calculated EURO STOXX 50 Investable Volatility Index, which has been constructed with a special focus on a simple tracking of the index concept, determines volatility expectations for a period of three months, with a beginning value set in the future. This results in performance advantages, because the costs that ensue from tracking the index concept by way of the futures volatility index are significantly lower due to the favorable forward curve.

How can investors use the volatility indices to their advantage? On the one hand, the indices provide important information for investing in certificates on the underlying market indices. For instance, increasing volatility forecasts lead to higher option premiums, whereby the sideways yield of discount or bonus certificates rises. On the other hand, investors should check at the same time to what extent the risk buffer of the respective product mirrors the higher forecasted market fluctuations. Finally, direct investments in the new EURO STOXX 50 Investable Volatility Index is possible with the use of Exchange Traded Notes (ETNs), or in other words debt notes traded on the stock exchange. Thus, investors can safeguard themselves against market risks or directly rely on increasing market fluctuations. However, investors should be aware that volatility, theoretically speaking, has the tendency to always swing back to an average value over the long term.

Author: Konrad Sippel, Executive Director Product Development at STOXX Limited

About STOXX
STOXX Ltd. is a global index provider, currently calculating a global, comprehensive index family of over 3,700 strictly rules-based and transparent indices. Best known for the leading European equity indices EURO STOXX 50, STOXX Europe 50 and STOXX Europe 600, STOXX Ltd. maintains and calculates the STOXX Global Index family which consists of total market, broad and blue-chip indices for the regions Americas, Europe, Asia, and Pacific, the sub-regions Latin America and BRIC (Brazil, Russia, India and China), as well as global markets. STOXX indices are classified into four categories to provide market participants with optimal transparency: "STOXX", "STOXX+", "iSTOXX" and "STOXX Customized". STOXX's standard indices are branded "STOXX", all indices that replicate investment strategies and themes, but still follow STOXX's strict rules-based methodologies, are categorized as "STOXX+". The "iSTOXX" brand comprises less standardized index concepts that take into account individual customer and market requirements but are still completely rules-based. "STOXX Customized" covers indices that are specifically developed for clients and are not STOXX branded.

The STOXX indices are licensed to over 400 companies around the world as underlyings for Exchange Traded Funds (ETFs), Futures & Options, Structured Products and passively-managed investment funds. Three of the top Exchange Traded Funds (ETFs) in Europe and 30 percent of all assets under management are based on STOXX indices. STOXX Ltd. holds Europe's number one and the world's number three position in the derivatives segment. In addition, STOXX Ltd. is the marketing agent for the indices of Deutsche Boerse AG and SIX Group AG, amongst them the DAX and the SMI indices.