

Cboe Interest Rate Swap Volatility Index (SRVIXSM)

Frequently Asked Questions

What is SRVIX?

SRVIXSM is designed to reflect a constant forward 1-year implied volatility of the 10-year swap rate. The index differs from at-themoney (ATM) implied volatilities as it incorporates additional information contained in the entire skew of out-of-the-money (OTM) swaption prices, serving as the swap rate counterpart to the Cboe Volatility Index (VIX®) for equity volatility.

How is SRVIX calculated?

The index is calculated in real-time based on prices of 1-year swaptions on 10-year USD interest rate swaps aggregated from multiple top interdealer brokers using a mathematically rigorous adaptation of Cboe's VIX Methodology to swaptions, and produces a unique implied volatility number. The index was launched in June 2012.

Calculation details can be found in the SRVIX Methodology White Paper.

What is the significance of the SRVIX methodology?

Interest rate swaps and swaptions constitute an important market for corporations and financial institutions to hedge interest rate exposures and for investors and traders to express views on monetary policy and other macroeconomic risk factors. ATM and OTM swaptions convey different information about the future of interest rate swaps, and the SRVIX methodology extracts information from all available strikes and distills it down to one number that represents the consensus view on medium-term interest rate swap volatility.

How is SRVIX different from ATM implied volatility?

The SRVIX methodology produces a unique implied volatility number that does not depend on any particular options pricing model or strike. SRVIX levels can be interpreted as the fair market price of volatility in the sense that it is the square root of the strike of a variance swap on forward swap rates. ATM implied volatility, on the other hand, is a strike-dependent parameter tied to a specific model with no such intuitive interpretation. While the two often track each other closely, insightful deviations result when OTM options convey important incremental information not contained in ATM options.

Why is SRVIX quoted in terms of basis point rate volatility instead of percentage price volatility?

Swaptions reference the underlying swap rate as opposed to a price. Unlike price-based securities such as stocks and bonds, P&L on an interest rate swap is calculated as the basis point change in yield multiplied by the price value of a basis point, hence market participants commonly think of volatility in terms of absolute basis point changes, and the SRVIX methodology follows this market convention.

How does SRVIX differ from VIX?

VIX and SRVIX are conceptually analogous indices that reflect the level of uncertainty in US equity and interest rate swap markets, respectively. Volatility in the two markets are driven by both common and distinct risk factors, and therefore the two indices have historically experienced periods of co-movement as well as significant divergence. Monitoring both indices affords investors a broad view of perceived uncertainty in two important markets.

What are the potential drivers of SRVIX?

Generally speaking, volatility spikes coincide with the arrival of information that has yet to be "priced in." For the case of interest rate swaps, such news may include unexpected changes in monetary policy (e.g. QE), surprise in macroeconomic numbers (e.g. non-farm payroll), technical supply/demand shocks (e.g. large foreign buying or selling), adverse risk events (e.g. Lehman bankruptcy), or some confluence of behavioral forces that suddenly trigger a jump in investor risk aversion.

How should one interpret the levels of SRVIX

SRVIX has a median value of 85 bps in a range of 66bps to 112bps and an annualized volatility of 14% between June 2012 - December 2017.

For a more detailed empirical profile of SRVIX, please refer to the empirical primer at Cboe.com/FIVIX.







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Why is it useful to monitor SRVIX?

SRVIX provides an easy way for market participants who are not knee-deep in interest rate derivatives trading to track the level of uncertainty in interest rate swaps, which has wide-reaching impact for many investors. The conceptual uniformity within the VIX family also allows investors to make apples-to-apples comparisons between SRVIX, VIX, and other indexes in the VIX family to monitor trends in relative levels of uncertainty between equities, bonds, and other interest rate-sensitive assets such as mortgages.

How can I trade SRVIX?

While SRVIX cannot be traded directly, interest rate derivatives dealers may offer over-the-counter exposures to structured trades referencing SRVIX, such as total return swaps.

How can I access data for SRVIX?

Real-time and historical index data on SRVIX can be accessed via various data vendors. Also, historical index data is available at Cboe.com/FIVIX.

How often is SRVIX updated?

SRVIX is updated regularly every 15 seconds between 8:30am and 3:15pm Central time and is disseminated to data vendors under the ticker SRVIX.

How much history is available for SRVIX?

Daily historical values for SRVIX go back to June of 2012 and are available for download from Cboe.com/FIVIX.

Where can I learn more about SRVIX?

Go to the FI VIX product page for:

- > Methodology white paper
 - > Empirical primer
- > Historical data
- > Applied research papers

Where can I learn more about the VIX index family?

Details all of the indexes that make up the VIX family can be found at Cboe.com/Products/VIX-Index-Volatility.

Fixed Income VIX Family

- ➤ Cboe/CBOT 10-year U.S. Treasury Note Volatility IndexSM
- > Cboe Interest Rate Swap Volatility Index (USD)
- > Cboe/IHS Markit CDX North American Investment Grade Volatility Index
- > Cboe/IHS Markit CDX North American High Yield Volatility Index
- > Cboe/IHS Markit iTraxx Europe Main Volatility Index
- > Cboe/IHS Markit iTraxx Europe Crossover Volatility Index
- > S&P/JPX Japanese Government Bond Volatility Index®

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