CASE STUDY

SAXO BANK

Hanweck Delivers Global Real-Time Implied Volatilities and Greeks

BACKGROUND

Saxo Bank A/S is a leading trading, investment and technology company, serving private and institutional clients from more than 180 countries. Established in 1992, Saxo was one of the first financial institutions to develop an online trading platform that provided private investors with the same tools and market access as professional traders, large institutions and fund managers.

Through the SaxoTrader and SaxoTraderGO platforms, customers can source liquidity from 85 exchanges globally and access a full range of tradable instruments across asset classes including options, futures, FX, CFDs, ETFs, stocks, bonds, and other derivatives.

As a leading technology company, Saxo has unified its robust and intuitive trading platforms, incorporating everything from personalized watch lists to tailored charts, news filters and risk management tools. Saxo's vision to democratize investment and trading has fueled its growth to become a leader in online investing with over 38.4 million trades executed in 2016.

> "One major challenge for Saxo Bank A/S has been to simplify option trading for our growing options community. In addition to offering a robust trading platform, investors need tools to identify and evaluate opportunities in the market.
>
> Being able to analyze potential risks and rewards, test and look at the dynamics of a complex option order before executing, this capability is in the forefront of successful trading. Hanweck truly delivered real-time analytics in this respect."
>
> **GEORGIO STOEV**
> Product Manager Futures and Options
> Saxo Bank A/S

OPPORTUNITY

To advance its vision of providing private investors with professional-level tools, Saxo identified an opportunity to deliver real-time options analytics (implied volatilities and Greeks) to its retail options and futures customer base to better inform their trading decisions and risk management. In order to serve customers with a comprehensive offering, Saxo identified numerous exchanges across US, Europe and Asia Pacific markets to include in its analytics suite.

HANWECK SOLUTION

In mid-2015, Saxo selected Hanweck as the industry's proven leading provider of premiere, real-time implied volatilities and Greeks. To meet Saxo's requirements for coverage of multiple markets globally, Hanweck developed a hybrid delivery solution for the analytic content, combining both hosted and deployed instances. Hanweck delivers real-time options analytics on US markets from their own datacenters via cross-connect at LD4. For EMEA and APAC markets, Hanweck deployed its Volera® compute engine at Saxo to run analytics on their existing market data feeds.

SOLUTION BENEFITS

- Proven and well established options analytic quality and 24/7 support from Hanweck
- Full integration with existing Saxo data publishing protocols
- Ability to use robust data both internally for risk management, clearing, and operations as well as to provide real-time professional data directly to Saxo customers
- Distribution of data to Saxo "white label" clients for use in their white labelled trading platforms
- Ability to distribute snap shots of analytic data to customers in end-of-day files, position statements and other customer documents

ONGOING SUCCESS

Hanweck and Saxo have successfully collaborated for almost two years. With Hanweck Options Analytics in place, Saxo is able to better serve its direct customer base and extend the reach of its white labeled trading platform. Based on the strength of this collaboration, Saxo and Hanweck are now in discussions on future initiatives involving Hanweck's real-time risk analytic capabilities.

LEARN MORE

Additional Applications of Hanweck's Real-Time Implied Volatilities and Greeks

Hanweck Options Analytics have broad applicability across the retail options and futures trading and investing community. Saxo is an excellent example of how this data can be incorporated into a variety of internal and external uses across the firm. Other potential uses for Hanweck analytic data include:

- Provide unified professional-level implied volatilities and Greeks to the retail community across desktop, mobile and tablet applications
- Add value to top client accounts through access to sophisticated analytic tools such as pre-trade "what if" margin impact analysis
- Perform intraday margin calculations for internal risk monitoring

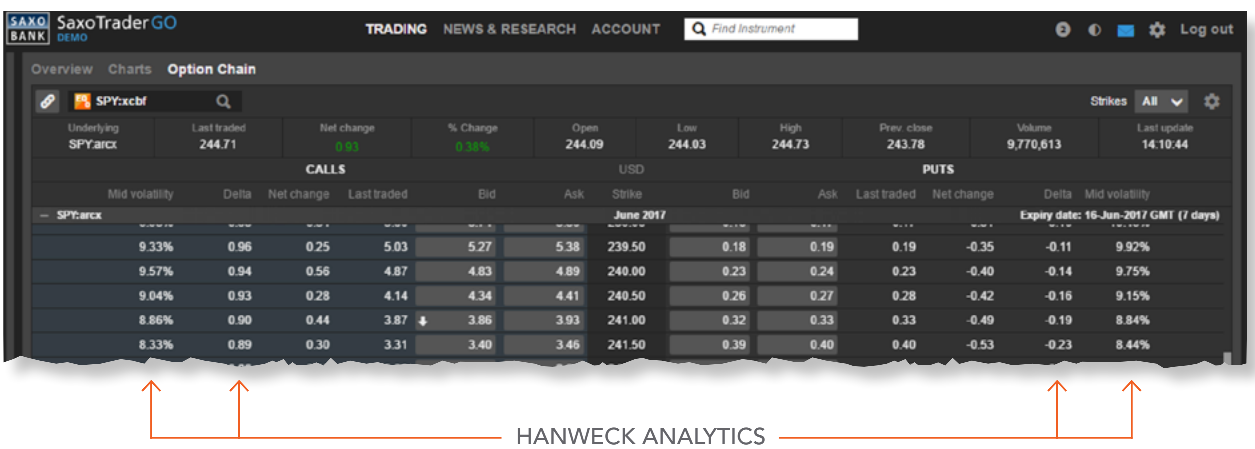
MARKETS COVERED FOR SAXO

The breadth of markets covered demonstrates Saxo's comprehensive product offering as well as the depth of Hanweck's real-time computational abilities.

EXCHANGE / VENUE	INSTRUMENTS
APAC	
Australian Securities Exchange	Futures / Index + Options | Underlying Equities
Hong Kong	Futures / Index + Options | Underlying Equities
Osaka Stock Exchange	Futures / Index + Options
EMEA	
Borsa Italiana	Futures / Index + Options | Underlying Equities
Eurex	Futures / Index + Options
Xetra	Underlying Equities
Eurex Swiss	Equities + Equity Options
Euronext Amsterdam	Futures / Index + Options Underlying Equities
Euronext Paris	Futures / Index + Options | Underlying Equities
ICE LIFFE (EU)	Futures / Index + Options
London Stock Exchange	Underlying Equities
MEFF Spanish Exchange	Underlying Equities + Equity Options
Nasdaq OMX Stockholm	Futures / Index + Options
Oslo Børs	Futures / Index + Options
NORTH AMERICA	
OPRA	Index & Equity Options
CME	Futures / Index + Options
ICE (US)	Futures / Index + Options
TMX	Futures / Index + Options

SAXOTRADER GO

Screen displaying Hanweck analytic data.



Hanweck is the leading provider of real-time risk analytics on global derivatives markets focusing on the large-scale risk problems of banks, broker/dealers, hedge funds, central counterparties and exchanges—where the number of instruments and positions number in the millions. Hanweck delivers risk analytics as a real-time service in flexible ways, from feeds to APIs, that dramatically simplify integration with customers' risk architecture.

Hanweck™
Real-time risk analytics

Visit us online at Hanweck.com or email sales@hanweck.com