

Whitepaper

Liquidity Reboot **EURO STOXX 50®** **Options &** **End-of-Day Options:** **An Update One Year Later**

September 2026

This document is meant for distribution
to Qualified Institutional Buyers only.

September 2026

Including updates from both EURO STOXX 50® Index Options (OESX) and EURO STOXX 50® End-of-Day Index Options (OEXP)

July 1, 2026, brought the one-year anniversary of the implementation of the new EURO STOXX 50® Index Options (OESX) liquidity provider framework. The primary goal of the program was to provide traders with an unprecedented view into price formation in EURO STOXX 50® Index Options across an uninterrupted quoted curve of options. Structurally, the program was designed to appropriately incentivize liquidity providers that quote a large number of strikes continuously and consistently across volatility regimes. Spread and size quality are measured relatively, depending on volatility, and are time-weighted. Incentives are dynamic, based on actual quote performance. Furthermore, this program promotes competition among liquidity providers by rewarding passive volume traded (maker side), encouraging participants to be at the top of the book.

Following overwhelmingly positive feedback from market participants regarding the enhanced order book quality and market maker coverage in OESX, a similar framework was rolled out to EURO STOXX 50® End-of-Day Index Options (OEXP) in January 2026. Building on this success, Eurex plans to implement a similar framework across its extensive single-stock-options ecosystem in the fall of 2026, with additional equity index options rollouts scheduled for 2027. This paper focuses on the resulting improvements in market quality in OESX, leveraging a complete twelve-month data set to assess the real-world impact.

To summarize the high-level findings:

1. The number of strikes quoted has increased by 50% over the last year, with 4,200 strikes quoted on both sides of the spread daily across a continuous surface of options.
2. There has been zero downtime of order book quotation throughout the 12 months, including through the March 2026 volatility episode.
3. Best bid-offer median spreads have been 25% to 35% tighter across the board, with spread volatility dropping by as much as 65% compared to the old framework.
4. Spread improvements were most pronounced on the most volatile trading days, with the top quartile of days ranked by the VSTOXX® close exhibiting a 50% reduction in ATM quoted spreads.
5. Best bid-offer quoted size remained stable across moneyness levels, with around 250 contracts quoted ATM, sufficient to absorb the 90th percentile outright trade size.
6. OESX ended the first half of 2026 with 2.3% YoY volume growth (132 million contracts traded), and OEXP with 47% YoY volume growth (6.2 million contracts traded).
7. Agency-cleared volumes over the same period were up 26% across all options on the EURO STOXX 50® Index (OESX + OEXP), demonstrating strong end-client interest in the ecosystem.
8. March 2026 marked the highest traded-volume month in OESX in six years, with 31.5 million contracts traded, and the best month since launch for OEXP, with 1.7 million contracts traded.

In the following sections, we'll briefly look at a full year of data from three perspectives: Strike Coverage, Quote Quality, and overall Trading Statistics.

As a reminder, the following products fall under the broader EURO STOXX 50® Index derivatives complex, with some basic introductory data points around them.

Product	Product ID	Description	Contract Multiplier	Tick Size	Contract ADV	Notional ADV (in Euros)
EURO STOXX 50® Index Futures	FESX	Europe's equity index future benchmark; quarterly listing	EUR 10	1 point	726,384	43.5 billion
Micro-EURO STOXX 50® Index Futures	FSXE	1/10th the contract size of FESX	EUR 1	0.5 points	2,081	12 million
EURO STOXX 50® Index Total Return Futures	TESX	Exchange-listed solution for implicit equity repo trading, quoted in basis points	EUR 10	0.5 basis points	19,338	1.3 billion
EURO STOXX 50® Index Options	OESX	The most liquid index option in Europe; cash settled; European exercise; mid-day settlement	EUR 10	0.1 points	964,419	54.6 billion
EURO STOXX 50® End-of-Day Index Options	OEXP	Daily expiring options with first 2 weeks listed and a year's worth of end of month contracts. Cash Settled, European exercise, end-of-day settlement	EUR 10	Premium Dependant 0.1 points up to EUR 10, 0.25 points up to 25 EUR and 0.5 points above	43,692	2.6 billion
Eurex MOC Futures on EURO STOXX 50® Index Futures	FES1	Exchange listed solution for trading the FESX basis; clears into standard EURO STOXX 50® Index Futures	EUR 10	0.1 points	300	18 million

Strike Coverage

One of the common complaints historically from end clients trading EURO STOXX 50® Index Options (OESX) was a poorly quoted surface of options.

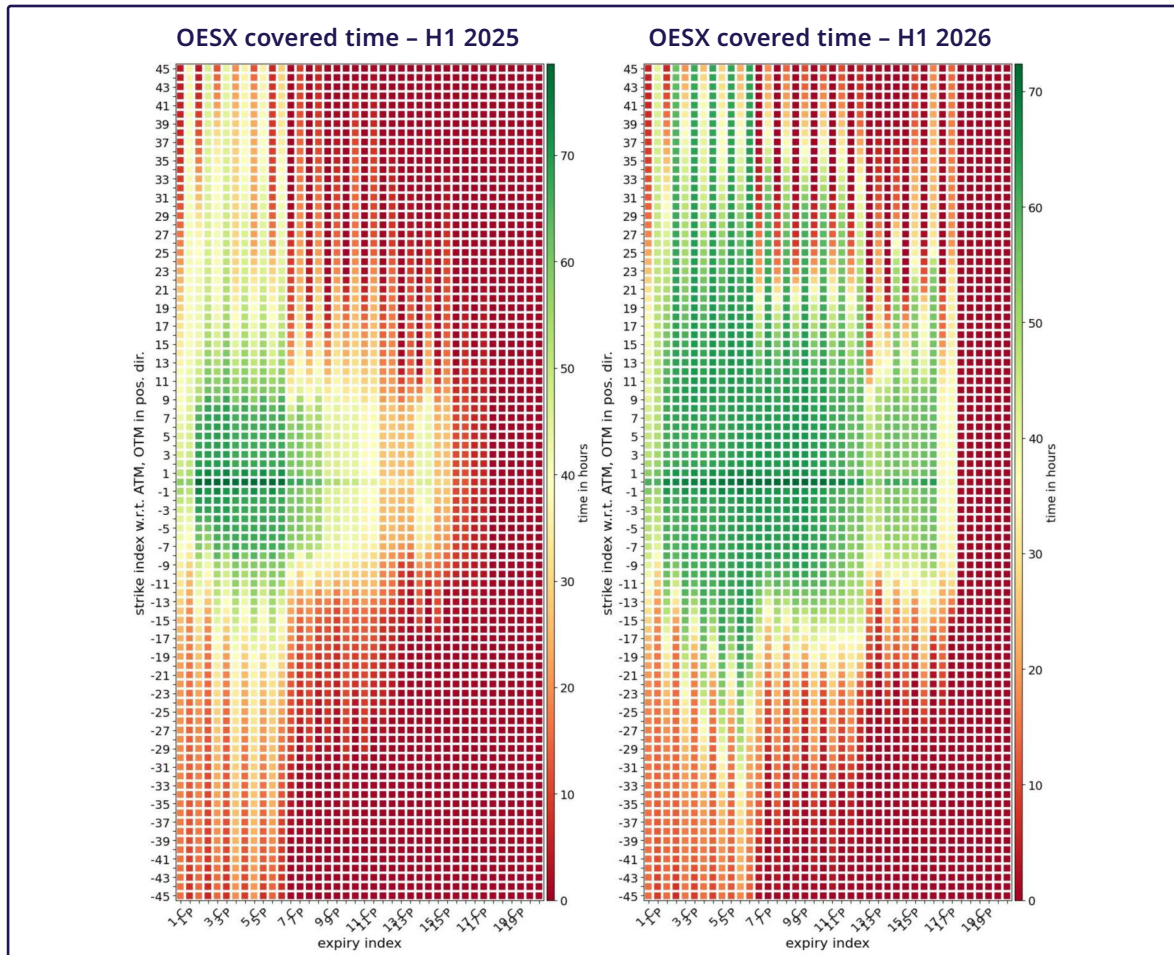
As illustrated in **Figure 1**, the heat maps depict market maker average daily quoting coverage (measured in hours) across the option surface. The x-axis represents the expiry cycle, while the y-axis shows relative moneyness, with increasingly positive index values corresponding to deeper out-of-the-money options for both calls and puts. A value of zero denotes at-the-money contracts.

The left panel presents coverage under the legacy quoting framework, characterized by gaps across certain expiry buckets and a fully symmetric quoting pattern across moneyness levels (an asymmetric value proposition for trading). The right

panel shows coverage under the new framework, where expiry gaps have been eliminated and all maturities from 0DTE to two years are continuously quoted, with firm pricing by nine liquidity providers. The moneyness breadth is at least $5 \leq |\Delta| \leq 75$, with many expiries being quoted even far beyond that.

The expanded framework has significantly increased market coverage, adding approximately 1,500 newly quoted strikes, representing a 50% increase relative to the previous framework. Coverage has also become materially more consistent over time. In 2026, even the day with the lowest coverage recorded approximately 3,300 quoted strikes, while the highest quoted strike count was nearly 5,000. By contrast, in the first half of 2025 (before the framework change), the number of quoted strikes ranged

Figure 1



from a low of approximately 1,500 to a peak of 3,900, highlighting the substantial improvement in both the breadth and stability of market-making activity.

We are especially proud that all nine liquidity providers that started with this framework in July 2025 have managed to successfully scale their performance and are still participating in the program. To further illustrate this point, the sum of quoted hours provided by the cohort in H1 2025 was 2.2 million hours per month. The H1 2026 average was 4.3 million hours.

It is, in fact, the smallest liquidity providers that have scaled the most, with growth rates of five to ten times in quoted hours provided under the new model.

The market recognized the value of this liquidity, with an additional 700,000 contracts traded in these newly quoted areas of the curve YoY. Of course, quotes are ultimately data points that traders can use to identify trading opportunities and improve their execution decisions. Higher quote coverage should continue to allow participants to fine-tune their trading decisions.

Quote Quality

Improving spread quality across the quoted options universe is the central aim of most global liquidity provider programs. The top-of-book bid-offer spread is one of the most commonly used market quality indicators, both by the exchange and its clients. However, measuring spread quality in options markets is challenging, as no single metric is equally suitable across all contracts.

Option premiums vary significantly across maturities and moneyness levels, causing spread measures to appear different depending on the contract under consideration. For example, a EURO STOXX 50® Index Option quoted with a bid of 0.4 index points and an offer of 0.6 index points has a spread of 0.2 index points, equivalent to 50 percent of the bid price. While this may appear wide on a relative basis, it represents only two ticks given the minimum tick size of 0.1 index point, suggesting a relatively tight market for a low-premium option. The opposite is often true for deep-in-the-money options. These contracts can display spreads that are dozens, if not hundreds, of ticks wide, yet still represent only a small percentage of the option value. Consequently, absolute measures are generally more informative for low-premium options, while relative measures are often more meaningful for higher-premium contracts. The highest-premium contracts should again be observed using absolute measures, as there is an implicit ceiling on the spread.

Implied volatility levels can furthermore blur the distinction between what is perceived as tight or wide in a particular market regime.

To capture this nuance, Eurex has developed a relative metric called “Spread Quality.” This measures the actual, time-weighted spread of each liquidity provider, expressed as a percentage improvement over a fixed threshold stipulated by Eurex as an absolute or relative metric, depending on the expiration and moneyness profile of the instrument.

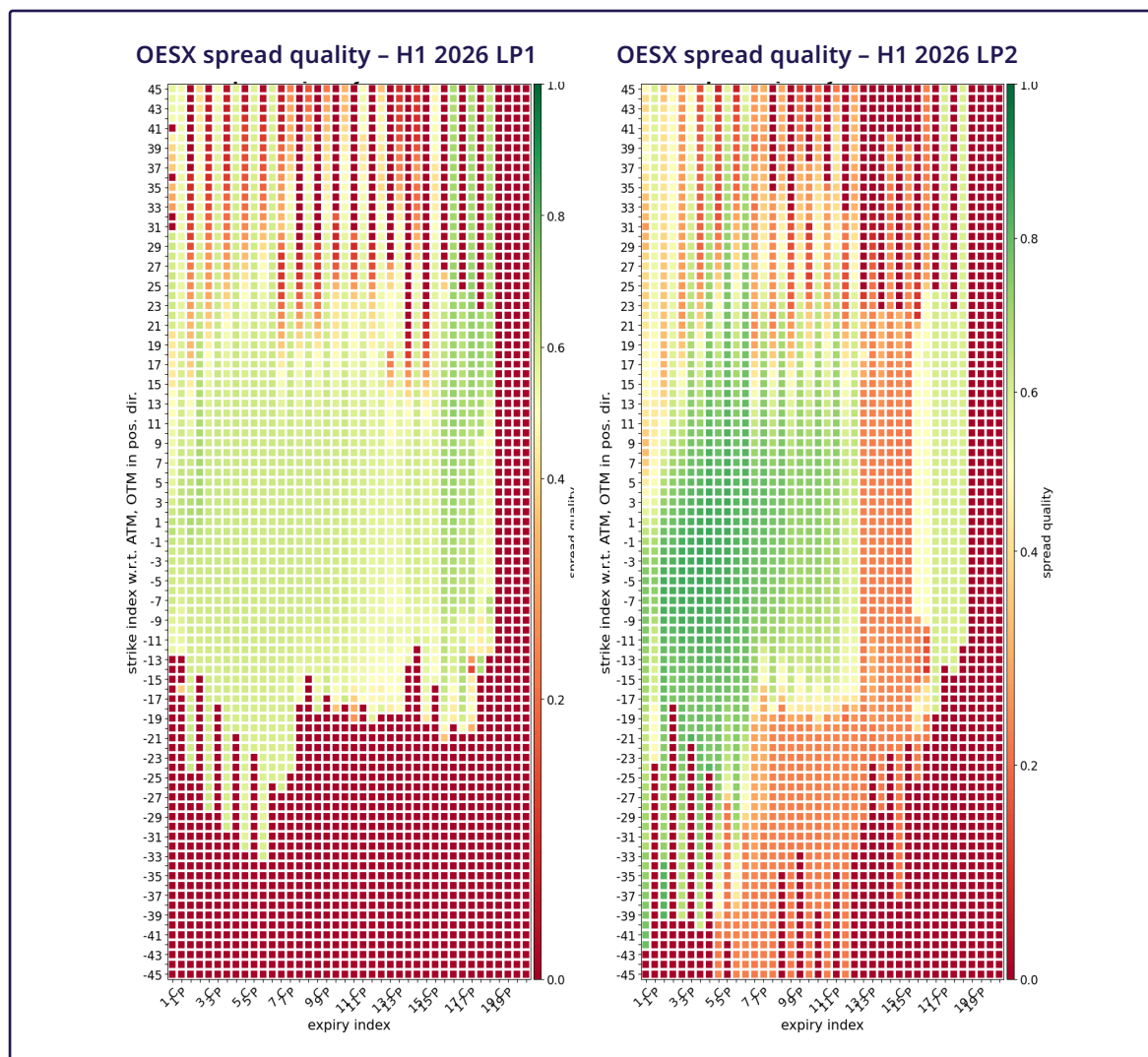
Mathematically, the ratio

$$\text{SpreadQuality} = 1 - \frac{\text{QuotedSpread} - \text{TickSize}}{\text{MaxSpread} - \text{TickSize}}$$

is time-weighted across all quote intervals for each market maker. MaxSpread is defined by the exchange across multiple buckets and volatility regimes. Each liquidity provider is only required to maximize quality for a subset of all quoted strikes, allowing LPs to specialize according to their respective competitive advantages.

The two plots below compare the spread quality of two liquidity providers in EURO STOXX 50® Index Options.

Figure 2

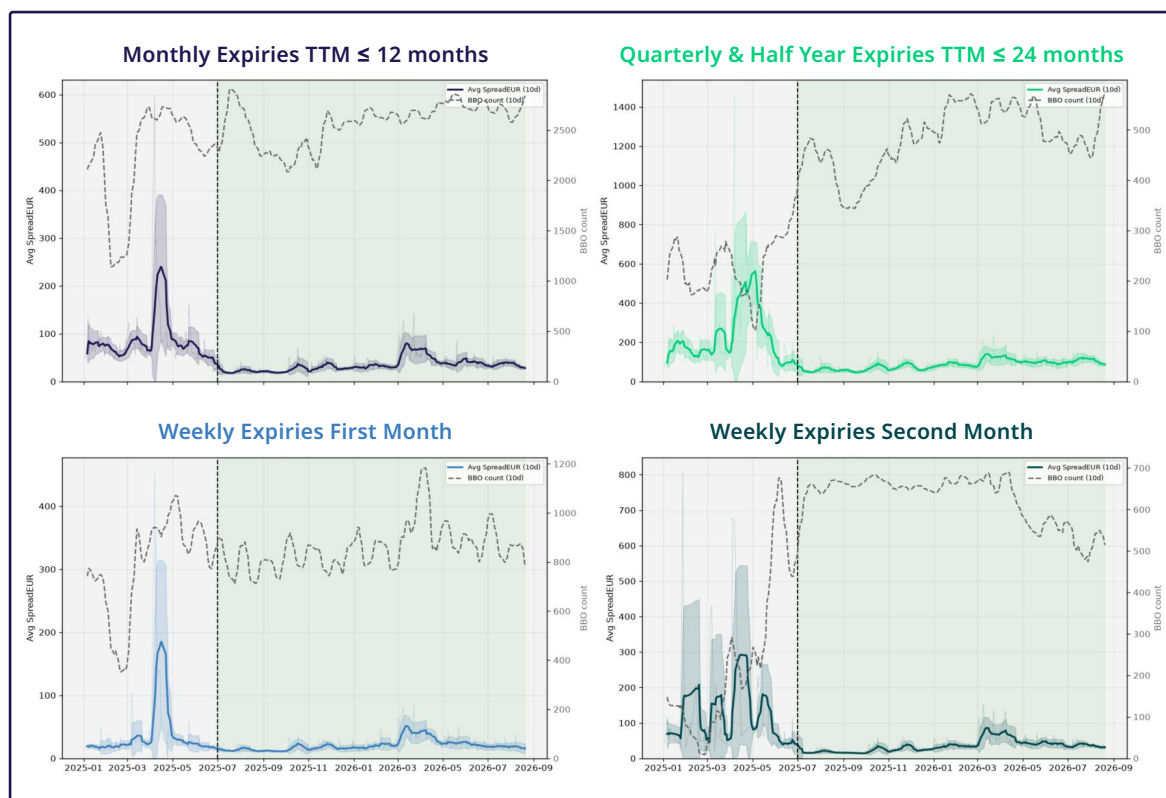


One liquidity provider is more competitive further down the expiry cycle, while the other quotes better spread quality in the front-year expiries, especially in the 15 to 20 strikes around at-the-money. Both are contributing meaningfully to the health of the market, with an average spread quality of around 50 percent, while maintaining distinct advantages across different strike profiles.

This was the desired outcome of this new liquidity provider framework. Ultimately, by allowing LPs to focus on where they're competitive and by providing fair incentives based on actual, time-weighted quotation capabilities and execution against their quotes, Eurex has increased spread quality across the curve.

Figure 3 shows the development of the best bid-offer at-the-money spread across different maturity profiles between January 2025 and August 2026, as well as the number of strikes with a two-sided book quoted within each expiry bucket. Two percent of outliers have been removed across the whole period before and after the July 2025 framework change.

Figure 3 – BBO ATM Spread Development per Expiry Bucket

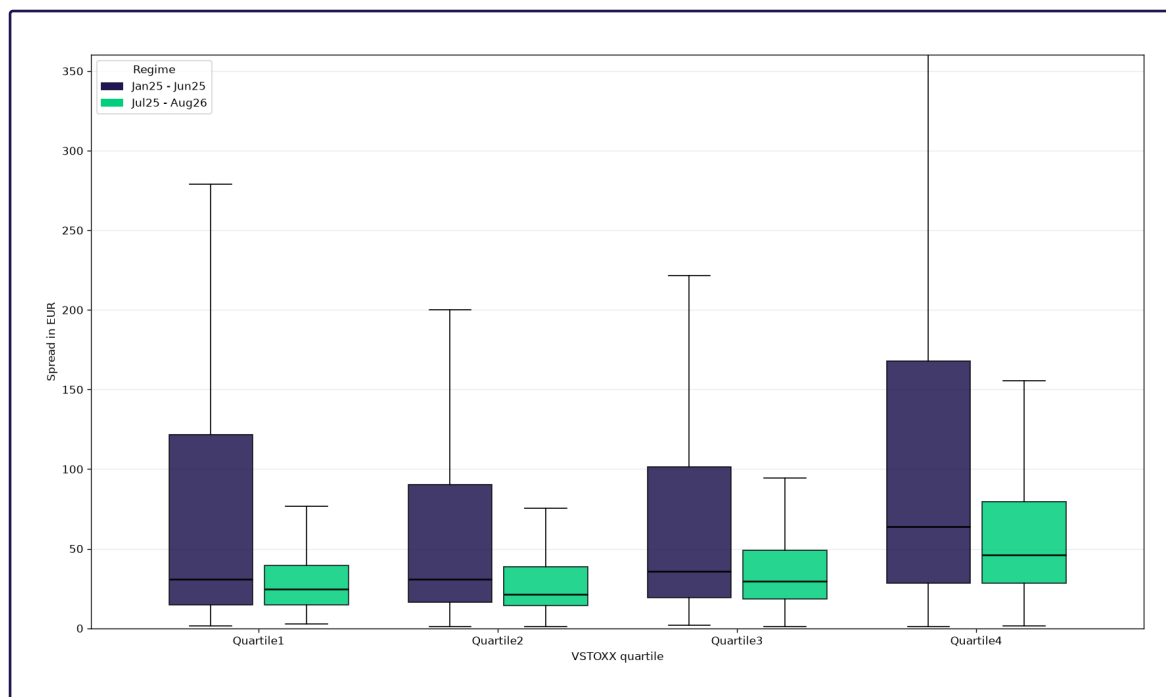


Improvements are obvious across all expiry buckets. The ATM time-weighted median spread has gone down from EUR 30 to EUR 22 in the front 12 monthly expiries (an improvement of roughly 25%). At the same time, front-month weekly median spreads have tightened from EUR 20 to EUR 16 (an improvement of 20%). This is even more pronounced when looking at averages due to the impact of very wide, volatile days in the old regime. The average spread in the monthly expiry bucket went down by 59%, from EUR 82 to EUR 34.

The most consistent and striking effect, however, was on spread volatility. The standard deviation of daily quoted spreads collapsed by roughly 65–72% in every bucket, showing that the new regime delivered not just tighter but far more stable and predictable pricing. This is especially impressive considering that the number of strikes with a two-sided BBO has more than doubled over the same period.

Quoted spreads should also be analyzed across volatility regimes. **Figure 4** divides all trading days based on VSTOXX® closing prices into quartiles. Quoted spreads are then sampled across the first 12 expiries (weeklies and monthlies).

Figure 4 – ATM Spread Development per VSTOXX Quartile Old/New Regime

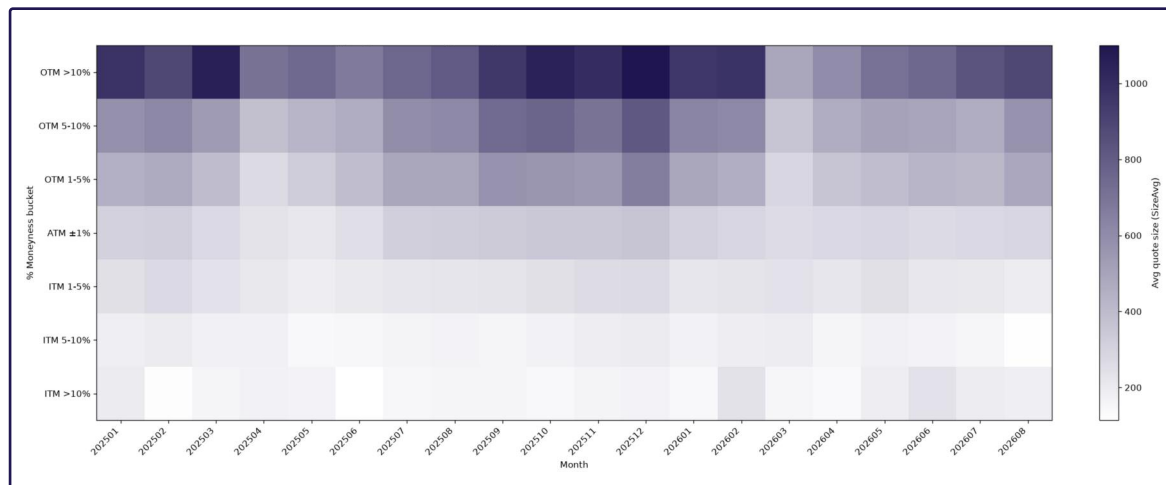


The ATM spread improvement between the old regime (Jan 2025 – Jun 2025) and the new one (Jul 2025 – Aug 2026) is clear and consistent across every VSTOXX® quartile. Median spreads fell from 31 to 25 EUR in Quartile 1 (–20%), from 31 to 22 EUR in Quartile 2 (–30%), from 36 to 30 EUR in Quartile 3 (–17%), and from 64 to 46 EUR in Quartile 4 (–28%). Quartile 4 is the highest-volatility bucket; Quartile 1 is the lowest.

Because the old regime carried a pronounced upper tail, the mean compressed even more sharply in Quartile 4, declining from 146 to 60 EUR (–59%). Even on the calmest days, spreads tightened, while the largest EUR savings occurred during stressed periods, showing that the liquidity gains hold precisely when they matter most and confirming the positive effects on spread volatility achieved with the new regime.

Finally, we look at BBO size metrics across moneyness levels, calculated using underlying strike levels.

Figure 5 – Average Quote Size by Moneyness Bucket over Time (Front 12 Combines Expiries)



As can be seen, the spread improvements did not come with any meaningful deterioration in quoted size. Quote size is most strongly concentrated out of the money, where liquidity providers are often passive and more competitive regarding the size at which they are present

in the book. Considering that the average outright trade is around 25 contracts and that the 90th percentile is under 100, sufficient size was quoted for even the most aggressive customers trading against the lit BBO across moneyness levels.

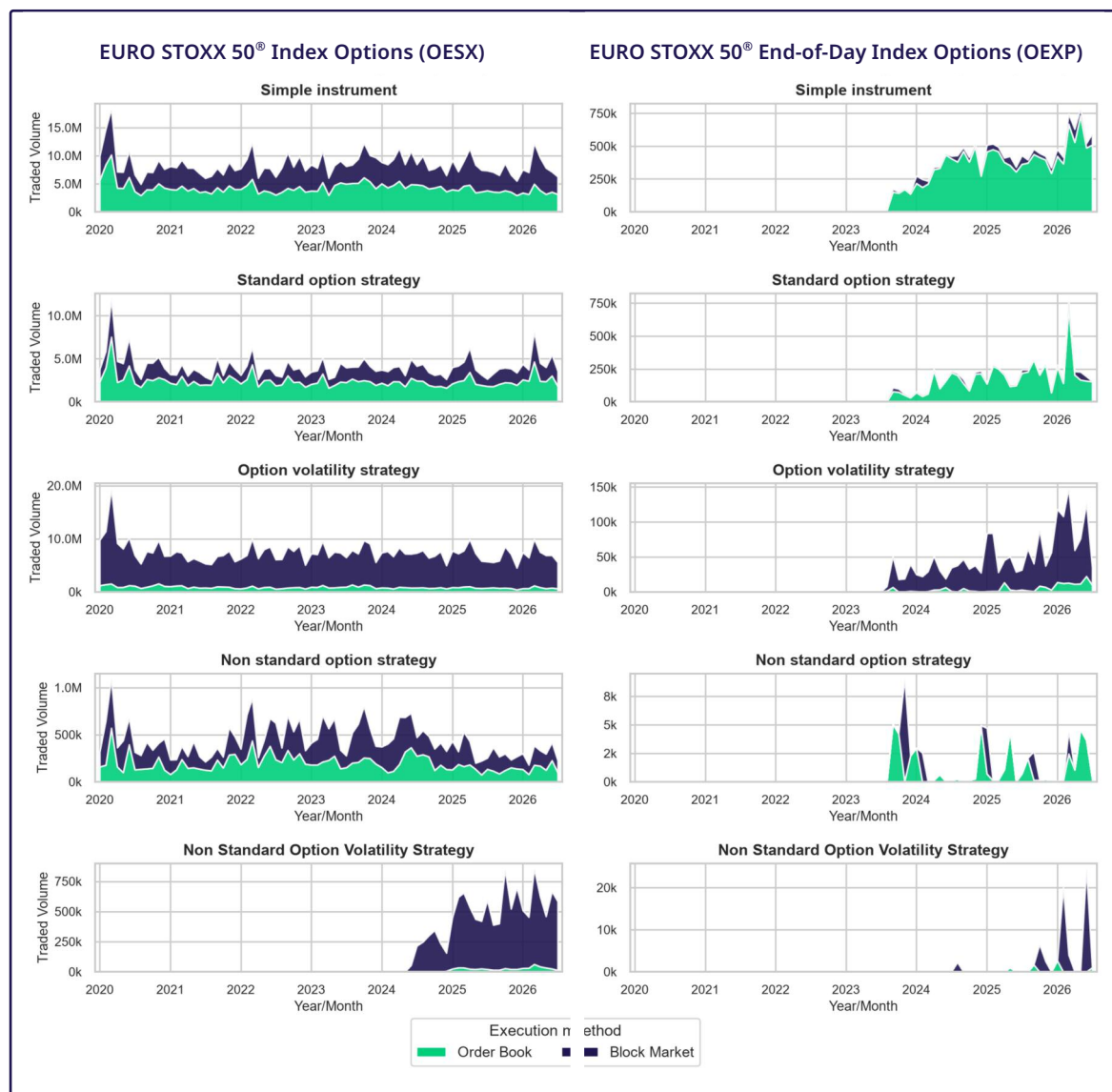
Trading and Clearing Statistics

In this section, we will cover the main volume developments across the entire complex of EURO STOXX 50® Index Options. This includes the flagship midday-settled EURO STOXX 50® Index Options (OESX) as well as the end-of-day, daily expiring EURO STOXX 50® End-of-Day Index Options (OEXP) contract. OEXP recently celebrated its third anniversary since being listed in late August.

Figure 6 shows traded volume developments in both contracts by strategy type. Simple Instruments are outright trades in individual

Eurex-listed strikes. Standard Option Strategies are template-based multi-legged instruments that allow trading at a net price (vertical and horizontal spreads). Option Volatility Strategies include a delta hedge upon execution, facilitated via the corresponding futures amount needed to establish delta neutrality. Non-Standard variants do not follow a Eurex-defined template but allow more freedom in the specification of leg ratios, the number of legs, and other trading parameters.

Figure 6 – Volume Development per Instrument Type and Method of Execution

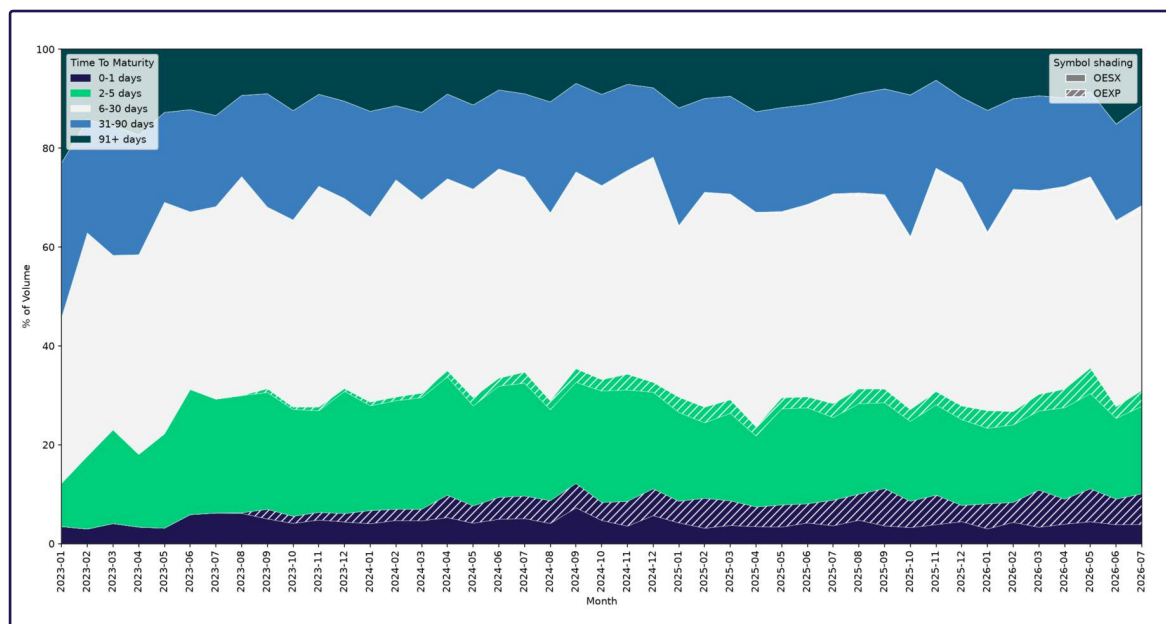


As can be seen from the graphs, the method of execution (order book vs. blocks) depends heavily on the product and instrument variant. As End-of-Day Index Options are generally shorter-dated (85% of traded volume is in the 0- to 2-day-to-expiry contract), order book trading accounts for 90% of traded volume. This is particularly relevant for outright trades and Standard Option Strategies. By contrast, EURO STOXX 50® Index Options (OESX) are more institutionally driven, where large block trades in longer-dated options are common. The order book facilitates around 50% of outright trading, with time to maturity and size being the two main factors dictating the method of execution.

Option Volatility Strategies in both products are traded predominantly in the block market, with around 90% of traded volume executed there, largely due to the difficulties in building a liquid order book in this space and the institutional character of users of this functionality. Usage of Non-Standard Strategy Templates is on the rise; however, it remains small in absolute terms.

Figure 7 breaks down order book traded volume across the two product variants based on the time to maturity of the traded instrument. The chart compares trading activity between the two contract variants of EURO STOXX 50® Index Options.

Figure 7 – Traded Volume per Expiry Index



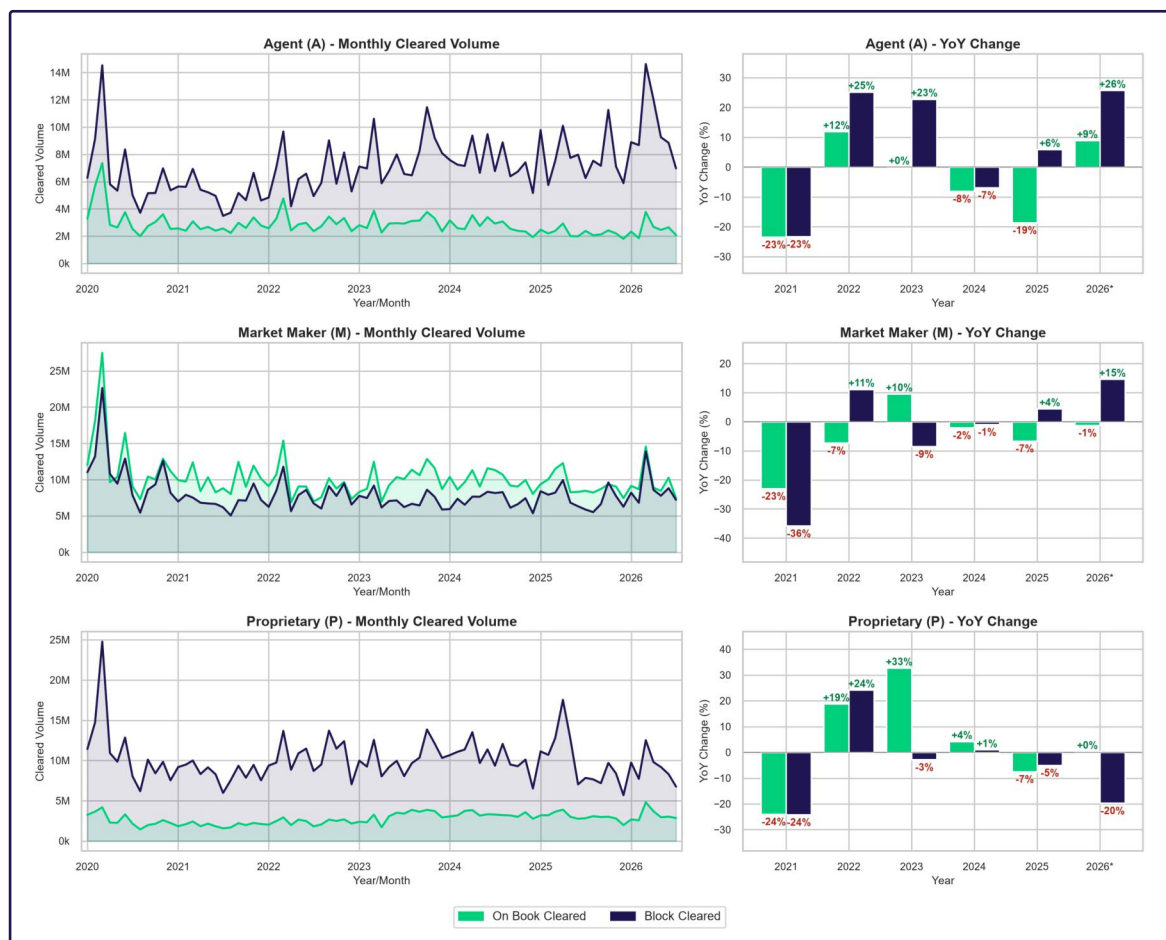
We can see that maturity buckets of fewer than 5 days have grown from less than 15% to close to 30% over the last 3 years, confirming the global trend toward shorter time-to-maturity trading. The 6-30-day bucket remains the most prevalent, and we see that more than one-third of all trading takes place in that bucket. It is worth noting that the OEXP maturity cycle was expanded in January 2026 with a second week of daily expiring options listed. Volume is growing in that area of the curve as well, with around 10% of volume already traded in the second week. While shorter time-to-maturity trading continues to grow, the order book is developing further out on the curve as well, with an additional 300,000 contracts traded YoY in expiries with a time to maturity of more than 18 months.

The story of EURO STOXX 50® End-of-Day Index Options (OEXP) has been one of great success and significant growth over the three years since listing, with more than 23 million contracts already traded and average daily trading volume standing

at just above 45,000 contracts as of July 2026. The growth rate of 47% YoY is a testament to the appeal of a contract with order book trading volumes generally concentrated at the shorter end of the expiry curve.

Finally, we will take a look at cleared volume developments per market participant. Eurex uses three core clearing account types: Agency, Proprietary, and Market Maker. We combine all EURO STOXX 50® Index Options (OESX + OEXP) and show year-over-year growth or decline per customer type for on-screen order book trading and block trading. The YoY effects are computed for the whole year, except for 2026 vs. 2025, for which January to July volumes were used. Cleared volume must be analyzed separately for the buy side and the sell side, as volumes are not necessarily equal between accounts.

Figure 8 – OESX + OEXP Cleared Volume per Account Development



The key data points to highlight are the 9 percent increase in Agency cleared volumes on screen year over year, representing the first year of growth after three years of stagnation, and the record Agency involvement in the block market across the ecosystem.

Market Maker account volumes are growing considerably in the block market as liquidity providers develop their direct counterparty franchises and capture market share from traditional players providing off-screen liquidity. Proprietary account volumes are stable on screen but have experienced a considerable dip in 2026 in the block market, with Market Makers accounting for a larger share of the cleared volume landscape.

Looking forward, while we will continue to update this paper if and when interesting data emerge, the next major framework tweak will take place in Eurex' single-stock equity options. Eurex' entire equity options complex will move to a framework similar to OESX/OEXP this fall, with testing commencing in September and the full program going

live in November. With more than 700 single-stock equity options listed, this will be a significant undertaking for both Eurex and the liquidity provider community.

Nonetheless, given the prominence of dispersion and similar strategies, we expect this migration to have second-order effects in the EURO STOXX index options ecosystem, both in terms of trading volumes and increased participation. In 2027, we will also turn our gaze to strategy trading books in EURO STOXX 50® Index Options (OESX), which we discussed in a separate white paper. With strategy trading accounting for 20 percent or more of traded volumes and offering significant execution advantages, the strategy books should be on the radar of every trader. With strong support from the liquidity provider community, we strive to increase strategy book quote and execution quality.

Publications

[Eurex Market Functionalities – Strategy Book](#)
[EURO STOXX 50 Index options box spreads](#)

Contact

SALES AMERICAS

matthew.koren@eurex.com

SALES EUROPE

sophie.granchi@eurex.com

dorte.carlsen@eurex.com

SALES ASIA

kris.hopkins@eurex.com

LIQUIDITY ANALYTICS

strahinja.trenkic@eurex.com

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Mergenthalerallee 61
65760 Eschborn
Germany

www.eurex.com

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