

SPDR® S&P 500® ETF

Capital Markets

Perspective

SPY

Product Comparison
Core Equity

30th Anniversary

As the first US-listed exchange traded fund (ETF), the SPDR S&P 500 ETF (SPY) seeks to offer investors liquid, cost-effective, and transparent access to the S&P 500 in a single security that trades on an exchange. Thirty years after its launch, SPY's dominant position remains intact, as the most actively traded ETF in the world.¹ In times of volatility, SPY's liquidity benefits become even more pronounced, allowing investors to source liquidity when it's needed most.

Liquidity

SPY is the most actively traded ETF,² with a 12-month average daily notional trading volume that's greater than its competitors — approximately 15 times greater than the iShares Core S&P 500 ETF (IVV) and 17 times greater than the Vanguard S&P 500 ETF (VOO).³

SPY's depth of liquidity can offer a cost advantage for investors as greater market participation can translate to tighter and more consistent bid-ask spreads, and less market impact for large trades. Investors seeking to trade on the secondary market may benefit from lower transaction costs and broader flexibility in implementation.

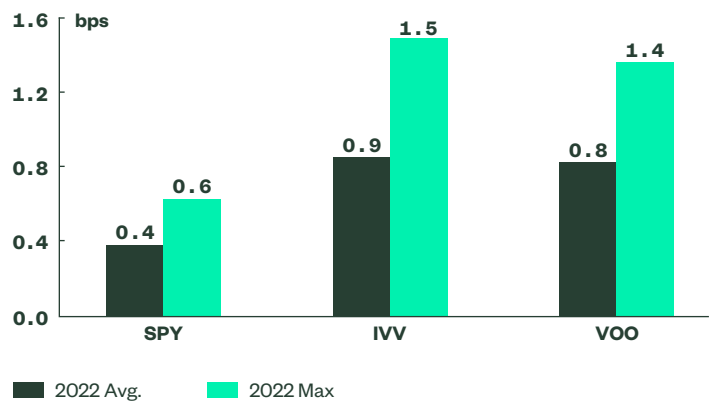
As volatility increases, SPY's bid-ask spread remains consistent in comparison to competitor S&P 500 ETFs' bid-ask spreads, which may be more impacted by underlying market conditions.

- 1 Bloomberg Finance L.P., as of December 31, 2022.
- 2 Bloomberg Finance L.P., as of December 31, 2022.
- 3 Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2022.

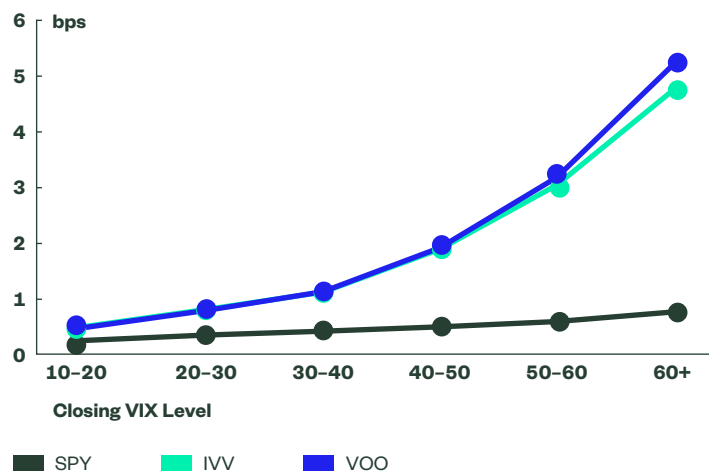
12-Month Average Daily Notional Trading Volume

	SPY	IVV	VOO
12-Month Average Daily Notional Trading Volume (\$)	38.8B	2.6B	2.2B
Secondary to Primary Volume Ratio	22.5	5.7	5.6

2022 Bid-Ask Spread Trends



Average Bid-Ask Spreads per Volatility Regimes (2020-2022)



Source: Bloomberg Finance L.P., SPDR Pre-Trade Tool Powered by Virtu Financial; as of December 31, 2022.

Securities Lending Revenue

Investors can generate revenue by lending SPY shares to help offset their costs. The average notional value of SPY shares on loan in 2022 was \$63.3B compared to \$1.9B for IVV and \$1.9B for VOO. Increased demand for SPY shares resulted in a higher return on lendable assets for SPY (7.5 bps) versus .4 bps for IVV and 1.1 bps for VOO.⁴ The securities lending revenue comes from loaning shares of SPY, not the lending of the underlying securities in the trust itself.

Options

SPY's derivative ecosystem creates additional sources of liquidity in the marketplace. For example, SPY's average options open interest of 19.6 million contracts represented over 99.3% of all S&P 500 ETF contracts. SPY's average daily options volume of 7.2 million contracts represented 99.9% of S&P 500 ETF options activity and 46% of total ETF options contracts traded in 2022.⁵

⁴ Markit, State Street Global Advisors, as of December 31, 2022.

⁵ Bloomberg Finance L.P., as of December 31, 2022.

Product Structure Comparison

	Investment Objective	SEC Registration	Portfolio Management	Dividend Reinvestment	Securities Lending Permitted	Use of Options/ Swaps/ Futures	Investment Advisor/ Trustee	Net Expense Ratio (%)	Gross Expense Ratio (%)
SPY Unit Investment Trust	SPY seeks to provide investment results that, before expenses, correspond generally to the price and yield performance of the S&P 500 Index.	Investment Company Act of 1940	Full replication	Cannot reinvest	No	No	Trustee	0.0945	0.0945
IVV Open End Fund	IVV seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P 500 Index.	Investment Company Act of 1940	May sample/optimize	May reinvest	Yes	Yes	Investment advisor	0.03	0.03
VOO Open End Fund	VOO invests in stocks in the S&P 500 Index with the goal to closely track the index's return, which is considered a gauge of overall US stock returns.	Investment Company Act of 1940	Full replication	May reinvest	Yes	May use derivatives	Investment advisor	0.03	0.03

Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2022. The gross expense ratio is the fund's total annual operating expenses ratio. It is gross of any fee waivers or expense reimbursements. It can be found in the fund's most recent prospectus.

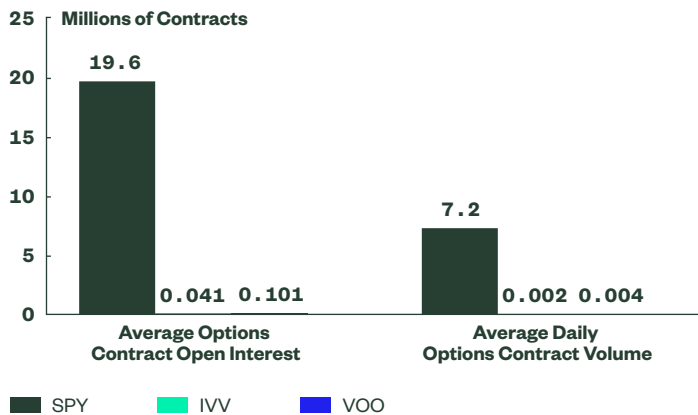
2022 S&P 500 ETF Short Interest

	SPY	IVV	VOO
Average Short Interest — Shares	155.6M	5.3M	5.0M
Average Short Interest — Notional (\$)	63.3B	1.9B	1.9B

Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2022.

The data included are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Average Short Interest are the bi-weekly averages for 2022.

2022 Listed ETF Options Comparison



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ID1625101-2023235.25.2.EMEA.INST 0623
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