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Equity S&P 500®

AS OF DECEMBER 30, 2022

Description

The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities. According to our Annual Survey of Assets, an estimated USD 15.6 trillion is indexed or benchmarked to the index, with indexed assets comprising approximately USD 7.1 trillion of this total (as of Dec. 31, 2021). The index includes 500 leading companies and covers approximately 80% of available market capitalization.

Index Attributes

Created in 1957, the S&P 500 was the first U.S. market-cap-weighted stock market index. Today, it's the basis of many listed and over-the-counter investment instruments. This world-renowned index includes 500 of the top companies in leading industries of the U.S. economy.

The S&P 500 is part of a series of S&P Dow Jones U.S. equity indices that can be used as mutually exclusive building blocks; the index does not overlap holdings with the S&P MidCap 400® or S&P SmallCap 600®. Together, they constitute the S&P Composite 1500[®].

Methodology Construction

The following methodology summary is provided for convenience purposes only. For complete details, please view the methodology document at https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-us-indices.pdf.

Universe. All constituents must be U.S. companies.

Eligibility Market Cap. To be included, companies must have an unadjusted market cap of USD 14.6 billion or greater, and must have a float-adjusted market cap that is at least 50% of the unadjusted minimum market cap threshold.

Public Float. Companies must have an investable weight factor (IWF) of at least 0.10.

Financial Viability. Companies must have positive as-reported earnings over the most recent quarter, as well as over the most recent four quarters (summed together).

Adequate Liquidity and Reasonable Price. Using composite pricing and volume, the ratio of annual dollar value traded (defined as average closing price over the period multiplied by historical volume) to float-adjusted market capitalization should be at least 1.00, and the stock should trade a minimum of 250,000 shares in each of the six months leading up to the evaluation date. Sector Representation. Sector balance, as measured by a comparison of each GICS® sector's weight in an index with its weight in the S&P Total Market Index, in the relevant market capitalization range, is also considered in the selection of companies for the indices.

Company Type. All eligible U.S. common equities listed on eligible U.S. exchanges can be included. REITs are also eligible for inclusion. Closed-end funds, ETFs, ADRs, ADS, and certain other types of securities are ineligible for inclusion.

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Quick Facts

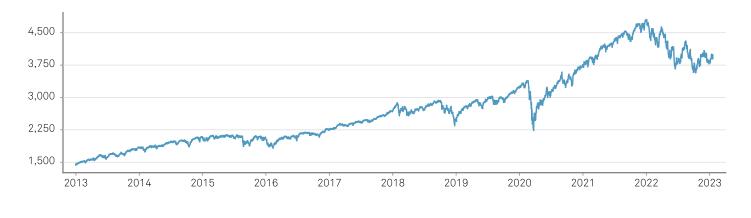
WEIGHTING METHOD	Float adjusted market can weighted
WEIGHTING WETHOD	Float-adjusted market cap weighted
REBALANCING FREQUENCY	Quarterly in March, June, September, and December
CALCULATION FREQUENCY	Real time
CALCULATION CURRENCIES	USD, AUD, BRL, CAD, CHF, EUR, GBP, HKD, JPY, MXN, SGD
LAUNCH DATE	March 4, 1957
FIRST VALUE DATE	January 3, 1928
REGULATORY AUTHORIZATION	European Union

 $For more information, view the methodology document at \ https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-us-indices.pdf.$

All information for an index prior to its Launch Date is hypothetical back-tested, not actual performance, based on the index methodology in effect on the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. This back-tested data may have been created using a "Backward Data Assumption". For more information on "Backward Data Assumption" and back-testing in general, please see the Performance Disclosure at the end of this material.

Historical Performance

Depending on index launch date, all charts below may include back-tested data.



■ S&P 500

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Performance

INDEX LEVEL	RETURNS			ANNUALIZED RETURNS			
	1 MO	3 MOS	YTD	1 YR	3 YRS	5 YRS	10 YRS
Total Return							
8,178.02	-5.76%	7.56%	-18.11%	-18.11%	7.66%	9.42%	12.56%
Price Return							
3,839.5	-5.9%	7.08%	-19.44%	-19.44%	5.92%	7.51%	10.41%
Net Total Return							
7,138.77	-5.8%	7.42%	-18.51%	-18.51%	7.14%	8.85%	11.91%

Calendar Year Performance

2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Return									
-18.11%	28.71%	18.4%	31.49%	-4.38%	21.83%	11.96%	1.38%	13.69%	32.39%
Price Return									
-19.44%	26.89%	16.26%	28.88%	-6.24%	19.42%	9.54%	-0.73%	11.39%	29.6%
Net Total Retur	n								
-18.51%	28.16%	17.75%	30.7%	-4.94%	21.1%	11.23%	0.75%	12.99%	31.55%

Risk

ANNUALIZED RISK			ANNUALIZED RISK-ADJUSTED RETURNS		
5 YRS	10 YRS	3 YRS	5 YRS	10 YRS	
18.69%	14.77%	0.36	0.5	0.85	
18.68%	14.76%	0.28	0.4	0.71	
18.69%	14.77%	0.34	0.47	0.81	
	5 YRS 18.69% 18.68%	18.69% 14.77% 18.68% 14.76%	5 YRS 10 YRS 3 YRS 18.69% 14.77% 0.36 18.68% 14.76% 0.28	5 YRS 10 YRS 3 YRS 5 YRS 18.69% 14.77% 0.36 0.5 18.68% 14.76% 0.28 0.4	

Risk is defined as standard deviation calculated based on total returns using monthly values.

Fundamentals

P/E (TRAILING)	P/E (PROJECTED)	P/B	INDICATED DIV YIELD	P/SALES	P/CASH FLOW
19.17	17.57	3.66	1.77%	2.09	24.1

P/E (Projected) and Dividend Yield are as of December 30, 2022; P/E (Trailing), P/B, P/Sales, and P/Cash Flow are as of September 30, 2022. Fundamentals are updated on approximately the fifth business day of each month.

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Index Characteristics

NUMBER OF CONSTITUENTS	503
CONSTITUENT MARKET [USD MILLION]	
MEAN TOTAL MARKET CAP	67,159.8
LARGEST TOTAL MARKET CAP	2,066,941.77
SMALLEST TOTAL MARKET CAP	3,564.01
MEDIAN TOTAL MARKET CAP	29,391.14
WEIGHT LARGEST CONSTITUENT [%]	6.1
WEIGHT TOP 10 CONSTITUENTS [%]	24.4

ESG Carbon Characteristics

CARBON TO VALUE INVESTED (METRIC TONS CO ₂ e/\$1M INVESTED)*	54.58
CARBON TO REVENUE (METRIC TONS CO ₂ e/\$1M REVENUES)*	182.72
WEIGHTED AVERAGE CARBON INTENSITY (METRIC TONS CO ₂ e/\$1M REVENUES)*	216.63
FOSSIL FUEL RESERVE EMISSIONS (METRIC TONS CO ₂ /\$1M INVESTED)	511.8

^{*}Operational and first-tier supply chain greenhouse gas emissions. For more information, please visit: www.spglobal.com/spdji/en/esg-metrics.

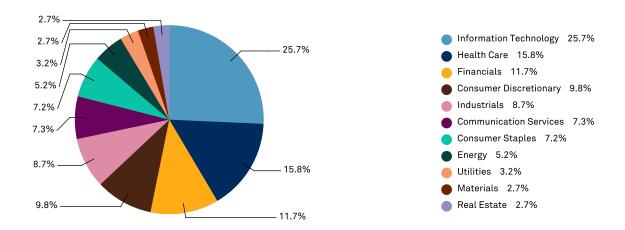
Top 10 Constituents By Index Weight

CONSTITUENT	SYMBOL	SECTOR*
Apple Inc.	AAPL	Information Technology
Microsoft Corp	MSFT	Information Technology
Amazon.com Inc	AMZN	Consumer Discretionary
Berkshire Hathaway B	BRK.B	Financials
Alphabet Inc A	GOOGL	Communication Services
Unitedhealth Group Inc	UNH	Health Care
Alphabet Inc C	GOOG	Communication Services
Johnson & Johnson	JNJ	Health Care
Exxon Mobil Corp	XOM	Energy
JP Morgan Chase & Co	JPM	Financials

^{*}Based on GICS® sectors

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Sector* Breakdown



^{*}Based on GICS® sectors

The weightings for each sector of the index are rounded to the nearest tenth of a percent; therefore, the aggregate weights for the index may not equal 100%.

Country/Region Breakdown

COUNTRY/REGION	NUMBER OF CONSTITUENTS	TOTAL MARKET CAP [USD MILLION]	INDEX WEIGHT [%]
United States	503	33,781,377.66	100

Based on index constituents' country of domicile.

Tickers

	BLOOMBERG TICKER	REUTERS
Price Return	SPX	.SPX
Total Return	SPXT	.SPXT
Net Total Return	SPTR500N	.SPXNTR

AS OF DECEMBER 30, 2022

Related Products

This list includes investable products traded on certain exchanges currently linked to this selection of indices. While we have tried to include all such products, we do not guarantee the completeness or accuracy of such lists. Please refer to the disclaimers at the end of this document or here for more information about S&P Dow Jones Indices' relationship to such third party product offerings.

PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
1nvest S&P500 Feeder ETF	ETF	JOHANNESBURG STOCK EXCHANGE	ETF500
ACE S&P500	ETF	KOREA EXCHANGE (STOCK MARKET)	360200
AllianzIM US Large Cap Buffer10 Apr ETF	ETF	NYSE ARCA	AZAA
AllianzIM US Large Cap Buffer10 Jan ETF	ETF	NYSE Arca	AZAJ
AllianzIM US Large Cap Buffer10 Jul ETF	ETF	NYSE ARCA	AZAL
AllianzIM US Large Cap Buffer10 Oct ETF	ETF	NYSE ARCA	AZAO
AllianzIM US Large Cap Buffer20 Apr ETF	ETF	NYSE ARCA	AZBA
AllianzIM US Large Cap Buffer20 Jan ETF	ETF	NYSE Arca	AZBJ
AllianzIM US Large Cap Buffer20 Jul ETF	ETF	NYSE ARCA	AZBL
AllianzIM US Large Cap Buffer20 Oct ETF	ETF	NYSE ARCA	AZB0
Amundi ETF PEA S&P 500 Daily Hedged EUR	ETF	EURONEXT - EURONEXT PARIS	P500H
Amundi ETF PEA S&P 500 EUR	ETF	EURONEXT - EURONEXT PARIS	PE500
Amundi ETF S&P 500 EUR C/D USD	ETF	London Stock Exchange	500D
Amundi IS S&P 500 ETF C EUR	ETF	EURONEXT - EURONEXT PARIS	500
Amundi IS S&P 500 ETF C EUR Hdg	ETF	EURONEXT - EURONEXT PARIS	500H
Amundi IS S&P 500 ETF C USD	ETF	EURONEXT - EURONEXT PARIS	500U
ARIRANG S&P 500	ETF	XFMQUnlisted Fund Manager Quote	429760
ARIRANG S&P500	ETF	KOREA EXCHANGE (STOCK MARKET)	269540
BetaPro S&P 500® -2x Daily Bear ETF	ETF	TORONTO STOCK EXCHANGE	HSD
BetaPro S&P 500® 2x Daily Bull ETF	ETF	TORONTO STOCK EXCHANGE	HSU
BetaPro S&P 500® Daily Inverse ETF	ETF	TORONTO STOCK EXCHANGE	HIU
BetaShares Geared US Eq Ccy Hdg ETF	ETF	ASX - ALL MARKETS	GGUS
BetaShares S&P 500 Yield Maximiser ETF	ETF	ASX - ALL MARKETS	UMAX
BetaShares US Eqs Strong Bear H CcyH ETF	ETF	ASX - ALL MARKETS	BBUS
BMO S&P 500 ETF (CAD)	ETF	TORONTO STOCK EXCHANGE	ZSP
BMO S&P 500 ETF (USD)	ETF	TORONTO STOCK EXCHANGE	ZSP.U
BMO S&P 500 Hedged to CAD ETF	ETF	TORONTO STOCK EXCHANGE	ZUE
BNPP Easy S&P 500 ETF EUR C	ETF	EURONEXT - EURONEXT PARIS	ESE
BNPP Easy S&P 500 ETF EUR H	ETF	EURONEXT - EURONEXT PARIS	ESEH
BNPP Easy S&P 500 ETF USD C	ETF	EURONEXT - EURONEXT PARIS	ESD
BNPP Easy S&P 500 ETF USD C/D	ETF	EURONEXT - EURONEXT PARIS	ESDD

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PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
Bosera S&P 500 QDII Fd	ETF	SHANGHAI STOCK EXCHANGE	513500
BTG Pactual S&P 500 Fundo de Índice	ETF	Bm&Fbovespa S.A Bolsa De Valores, Mercadorias E Futuros	SPXB11
ChinaAMC S&P 500 ETF (QDII)	ETF	Shenzhen Stock Exchange	N/A
CoreShares S&P 500 ETF	ETF	JOHANNESBURG STOCK EXCHANGE	CSP500
Direxion Daily S&P 500® Bear 1X ETF	ETF	NYSE Arca	SPDN
Direxion Daily S&P 500® Bear 3X ETF	ETF	NYSE ARCA	SPXS
Direxion Daily S&P 500® Bull 2X ETF	ETF	NYSE ARCA	SPUU
Direxion Daily S&P500® Bull 3X ETF	ETF	NYSE ARCA	SPXL
FT Cboe Vest US Equity Buffer ETF Apr	ETF	BATS Z-Exchange	FAPR
FT Cboe Vest US Equity Buffer ETF Aug	ETF	BATS Z-EXCHANGE	FAUG
FT Cboe Vest US Equity Buffer ETF Dec	ETF	BATS Z-Exchange	FDEC
FT Cboe Vest US Equity Buffer ETF Feb	ETF	BATS Z-EXCHANGE	FFEB
FT Cboe Vest US Equity Buffer ETF Jan	ETF	BATS Z-Exchange	FJAN
FT Cboe Vest US Equity Buffer ETF Jul	ETF	BATS Z-EXCHANGE	FJUL
FT Cboe Vest US Equity Buffer ETF Jun	ETF	BATS Z-EXCHANGE	FJUN
FT Cboe Vest US Equity Buffer ETF Mar	ETF	BATS Z-Exchange	FMAR
FT Cboe Vest US Equity Buffer ETF May	ETF	BATS Z-EXCHANGE	FMAY
FT Cboe Vest US Equity Buffer ETF Nov	ETF	BATS Z-EXCHANGE	FNOV
FT Cboe Vest US Equity Buffer ETF Oct	ETF	BATS Z-Exchange	FOCT
FT Choe Vest US Equity Buffer ETF Sep	ETF	BATS Z-EXCHANGE	FSEP
FT Cboe Vest US Equity Deep Bffr ETF Feb	ETF	BATS Z-EXCHANGE	DFEB
FT Cboe Vest US Equity Deep Bffr ETF Jul	ETF	BATS Z-EXCHANGE	DJUL
FT Cboe Vest US Equity Deep Bffr ETF Mar	ETF	BATS Z-Exchange	DMAR
FT Cboe Vest US Equity Deep Bffr ETF May	ETF	BATS Z-EXCHANGE	DMAY
FT Cboe Vest US Equity Deep Bffr ETF Nov	ETF	BATS Z-EXCHANGE	DNOV
FT Choe Vest US Equity Deep Bffr ETF Oct	ETF	BATS Z-Exchange	DOCT
FT Choe Vest US Equity Deep Bfr ETF Aug	ETF	BATS Z-EXCHANGE	DAUG
FT Cboe Vest US Equity Deep Bfr ETF Jun	ETF	BATS Z-EXCHANGE	DJUN
FT Cboe Vest US Equity Dp Bffr ETF Apr	ETF	BATS Z-Exchange	DAPR
FT Cboe Vest US Equity Dp Bffr ETF Jan	ETF	BATS Z-Exchange	DJAN
FT Choe Vest US Equity Dp Bffr ETF Sep	ETF	BATS Z-EXCHANGE	DSEP
FT Choe Vest US Equity Dp Bfr ETF Dec	ETF	BATS Z-Exchange	DDEC
Global X S&P 500 Daily (-1x) Inverse	ETF	XFMQUnlisted Fund Manager Quote	N/A
Guotai S&P 500 ETF (QDII)	ETF	Shenzhen Stock Exchange	159612
HANARO US S&P500	ETF	Korea Exchange (Stock Market)	432840
Harel Sal S&P 500	ETF		HRLF25
Harel Sal S&P 500 Currency Hedged	ETF		HRLF50
Horizons S&P 500 CAD Hedged ETF	ETF	TORONTO STOCK EXCHANGE	HSH
Horizons S&P 500 ETF	ETF	TORONTO STOCK EXCHANGE	HXS

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PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
HSBC S&P 500 ETF	ETF	LONDON STOCK EXCHANGE	HSPD
HSBC S&P 500 ETF USD (Acc)	ETF	XFMQUnlisted Fund Manager Quote	HSPALN
Invesco S&P 500 ETF	ETF	LONDON STOCK EXCHANGE	SPXS
Invesco S&P 500 ETF (Dist)	ETF	SIX SWISS EXCHANGE	SPXD
Invesco S&P 500 ETF (EUR Hdg)	ETF	XETRA	E500
Invesco S&P 500 ETF (GBP Hdg)	ETF	LONDON STOCK EXCHANGE	G500
iShares Core S&P 500 ETF	ETF	NYSE ARCA	IVV
iShares Core S&P 500 ETF	ETF	TORONTO STOCK EXCHANGE	XUS
iShares Core S&P 500 ETF (CAD-Hedged)	ETF	TORONTO STOCK EXCHANGE	XSP
iShares Core S&P 500 ETF GBPH Dist	ETF	LONDON STOCK EXCHANGE	GSPX
iShares Core S&P 500 ETF MXNH Acc	ETF	BATS CHI-X EUROPE -CXE ORDER BOOKS	CSPXX
iShares Core S&P 500 ETF USD Acc	ETF	SIX SWISS EXCHANGE	CSSPX
iShares Core S&P 500 ETF USD Dist	ETF	LONDON STOCK EXCHANGE	IDUS
iShares S&P 500 AUD Hedged ETF	ETF	ASX - ALL MARKETS	IHVV
iShares S&P 500 CHF Hedged ETF Acc	ETF	SIX SWISS EXCHANGE	IUSC
iShares S&P 500 ETF	ETF	TOKYO STOCK EXCHANGE	1655
iShares S&P 500 ETF	ETF	ASX - ALL MARKETS	IVV
iShares S&P 500 EUR Hedged ETF Acc	ETF	LONDON STOCK EXCHANGE BM&FBOVESPA S.A.	IUSE
iShares S&P 500 FIC FI IE	ETF	- BOLSA DE VALORES, MERCADORIAS E FUTUROS	IVVB11
iShares S&P 500 GBP Hedged ETF Acc	ETF	LONDON STOCK EXCHANGE	IGUS
iShares S&P 500 JPY Hedged ETF	ETF	TOKYO STOCK EXCHANGE	2563
iShares S&P 500 Peso Hedged TRAC	ETF	BOLSA MEXICANA DE VALORES (MEXICAN STOCK EXCHANGE)	IVVPESO
iShares S&P 500 Swap ETF USD Acc	ETF	EURONEXT - EURONEXT AMSTERDAM	1500
iShares S&P 500 Swap ETF USD Dis	ETF	Euronext - Euronext Amsterdam	I50D
It Now S&P500® TRN Fund ETF	ETF	BM&FBOVESPA S.A BOLSA DE VALORES, MERCADORIAS E FUTUROS	SPXI11
KBSTAR S&P500	ETF	Korea Exchange (Stock Market)	379780
KODEX S&P500 Total Return	ETF	Korea Exchange (Stock Market)	379800

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PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
KODEX US Dividend Premium Active	ETF	Korea Exchange (Stock Market)	441640
KOSEF S&P500	ETF	Korea Exchange (Stock Market)	449770
KOSEF S&P500 (H)	ETF	Korea Exchange (Stock Market)	449780
KSM ETF Composite Gov Bond (55%) Corp Bond (30%) Equity (15%) Monthly Currency Hedged	ETF		KSMF141
KSM ETF Composite US Equity Monthly	ETF		KSMF150
KSM ETF Leveraged S&P 500 x3 Monthly	ETF		KSMF111
KSM ETF S&P 500	ETF		KSMF80
KSM ETF S&P 500 Currency Hedged	ETF		KSMF82
KSM ETF Short Leveraged S&P 500 x3 Monthly	ETF		KSMF114
Listed Index Fund US Eq S&P500 Ccy Hdg	ETF	TOKYO STOCK EXCHANGE	2521
Listed Index Fund US Equity (S&P500)	ETF	TOKYO STOCK EXCHANGE	1547
Lyxor PEA S&P 500 ETF Capi	ETF	EURONEXT - EURONEXT PARIS	PSP5
Lyxor PEA S&P 500 ETF Couverte en EUR C	ETF	EURONEXT - EURONEXT PARIS	PSPH
Lyxor S&P 500 ETF C EUR	ETF	EURONEXT - EURONEXT PARIS	SP5C
Lyxor S&P 500 ETF D EUR	ETF	XETRA	LYPS
Lyxor S&P 500 ETF D USD	ETF	LONDON STOCK EXCHANGE	LSPU
Lyxor S&P 500 ETF Daily Hdg to GBP Dist	ETF	LONDON STOCK EXCHANGE	SP5G
Lyxor S&P 500 ETF Daily Hedged C CHF	ETF	SIX SWISS EXCHANGE	LYSPH
Lyxor S&P 500 ETF Daily Hedged C EUR	ETF	XFMQUnlisted Fund Manager Quote	N/A
Lyxor S&P 500 ETF Daily Hedged D EUR	ETF	BORSA ITALIANA S.P.A.	SPXH
Lyxor S&P 500 ETF S USD	ETF		N/A
MAXIS S&P500 US Equity ETF	ETF	TOKYO STOCK EXCHANGE	2558
MAXIS S&P500 US Equity ETF (JPY Hedged)	ETF	Tokyo Stock Exchange	2630
More Sal S&P 500	ETF		MORES1
More Sal S&P 500 Currency Hedged	ETF		MORES2
MTF SAL(4A) S&P 500	ETF		MTFF23
MTF SAL(4A) S&P 500 - Hedged	ETF		MTFF52
NEXT FUNDS S&P 500 (Unhedged) ETF	ETF	Tokyo Stock Exchange	2633
Pacer Swan SOS Conservative (Jan) ETF	ETF	BATS Z-Exchange	PSCX
Pacer Swan SOS Flex (January) ETF	ETF	BATS Z-Exchange	PSFD
Pacer Swan SOS Fund of Funds ETF	ETF	BATS Z-Exchange	PSFF
Pacer Swan SOS Moderate (January) ETF	ETF	BATS Z-Exchange	PSMD
Principal US Large-Cap Adptv Mlt-Fac ETF	ETF	Cboe BZX U.S. Equities Exchange	PLRG
ProShares Short S&P500	ETF	NYSE ARCA	SH
ProShares Ultra S&P500	ETF	NYSE ARCA	SSO
ProShares UltraPro S&P500	ETF	NYSE ARCA	UPRO
ProShares UltraPro Short S&P500	ETF	NYSE ARCA	SPXU
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PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
ProShares UltraShort S&P500	ETF	NYSE ARCA	SDS
Psagot ETF (4A) S&P 500 Currency-Hedged	ETF		PSGF137
Psagot ETF (4D) S&P 500	ETF		PSGF65
Samsung KODEX S&P500 (H) ETF	ETF	XFMQUnlisted Fund Manager Quote	TBD
Satrix S&P 500 ETF	ETF	JOHANNESBURG STOCK EXCHANGE	STX500
Smartshares US 500	ETF	NEW ZEALAND EXCHANGE LTD	USF
SOL S&P500	ETF	Korea Exchange (Stock Market)	433330
SPDR S&P 500 ETF EUR Acc H	ETF	XETRA	SPPE
SPDR® Portfolio S&P 500 ETF	ETF	NYSE ARCA	SPLG
SPDR® S&P 500 ETF	ETF	ASX - ALL MARKETS	SPY
SPDR® S&P 500 ETF	ETF	LONDON STOCK EXCHANGE	SPY5
SPDR® S&P 500 ETF Trust	ETF	NYSE ARCA	SPY
Sygnia Itrix S&P 500 ETF	ETF	JOHANNESBURG STOCK EXCHANGE	SYG500
Tachlit Sal Composite Global Equity Currency-Hedged Monthly	ETF		TCHF105
Tachlit Sal Composite INT. Equity Currency-Hedged Monthly	ETF		TCHF40
Tachlit Sal Composite Large Cap Developed Currency-Hedged Monthly	ETF		TCHF48
Tachlit Sal Composite US Equity Monthly	ETF		TCHF134
Tachlit Sal S&P 500	ETF		TCHF76
Tachlit Sal S&P 500 Currency Hedged	ETF		TCHF11
Tachlit Sal Short S&P 500 (12219.792)	ETF		N/A
TIGER S&P500	ETF	KOREA EXCHANGE (STOCK MARKET)	360750
TIGER S&P500 Total Return (H)	ETF	XFMQUnlisted Fund Manager Quote	448290
TIGER US S&P500 Leverage (Synth H)	ETF	KOREA EXCHANGE (STOCK MARKET)	225040
TIMEFOLIO US S&P500 Active	ETF	Korea Exchange (Stock Market)	426020
UBS ETF S&P 500 A CHF H Acc	ETF	SIX SWISS EXCHANGE	SP500S
UBS ETF S&P 500 A EUR H Acc	ETF	SIX SWISS EXCHANGE	SP500E
UBS ETF S&P 500 A GBP H Inc	ETF	SIX SWISS EXCHANGE	SP500H
UBS ETF S&P 500 USD A dis	ETF	SIX SWISS EXCHANGE	SP5USY
UBS FS S&P 500 SF USD A acc ETF	ETF	SIX SWISS EXCHANGE	S5USAS
Vanguard S&P 500 ETF	ETF	TORONTO STOCK EXCHANGE	VFV
Vanguard S&P 500 ETF	ETF	NYSE ARCA	V00
Vanguard S&P 500 ETF CAD-H	ETF	TORONTO STOCK EXCHANGE	VSP
Vanguard S&P 500 ETF USD Acc	ETF	LONDON STOCK EXCHANGE	VUAA
Vanguard S&P 500 UCITS ETF	ETF	LONDON STOCK EXCHANGE	VUSD

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PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
WOORI US S&P500	ETF	Korea Exchange (Stock Market)	444490
Xtrackers S&P 500 ETF 1C - EUR H	ETF	XETRA	XDPE
Xtrackers S&P 500 ETF 1D - EUR H	ETF	XETRA	XDPD
Xtrackers S&P 500 ETF 2C - GBP H	ETF	LONDON STOCK EXCHANGE	XDPG
Xtrackers S&P 500 ETF 3C - CHF H	ETF	SIX SWISS EXCHANGE	XDPC
Xtrackers S&P 500 ETF 4C - USD	ETF	London Stock Exchange	XDPU
Xtrackers S&P 500 SW 5C EUR H	ETF	XETRA	XS5E
Xtrackers S&P 500 SW 7C GBP H	ETF	XFMQUnlisted Fund Manager Quote	XS5G LN
Xtrackers S&P 500 Swap ETF 1C	ETF	LONDON STOCK EXCHANGE	XSPU
Xtrackers S&P 500 Swap ETF 1D	ETF	London Stock Exchange	XSXD
Yuanta S&P 500 ETF	ETF	TAIWAN STOCK EXCHANGE	00646

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PERFORMANCE DISCLOSURE

Source: S&P Dow Jones Indices LLC.

The launch date of the S&P 500 was March 4, 1957.

All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at www.spglobal.com/spdji/en/. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate S&P DJI's ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ https://www.spglobal.com/spdji/en/education/article/faq-esg-back-testing-backward-dataassumption-overview/. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

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