



To: MEMBERS AND MEMBER ORGANIZATIONS

Subject: TRADING PURSUANT TO UNLISTED TRADING PRIVILEGES OF INVESTMENT COMPANY UNITS

Members and member organizations are informed that shares ("Shares") of the exchange-traded funds identified on Appendix A hereto (each, a "Fund") will commence trading pursuant to unlisted trading privileges on the NYSE American LLC ("NYSE American" or the "Exchange") on July 24, 2017. Shares of the Funds will be traded pursuant to NYSE American Rule 5.2E(j)(3) (Investment Company Units). Please forward this Regulatory Bulletin to other interested persons within your organization.

Background on the Securities

Each Fund is registered under the Investment Company Act of 1940 ("1940 Act") as an open-end management investment company. Each Fund seeks investment results that correspond (before fees and expenses) generally to the price and yield performance of its underlying index and employs a "passive management" – or indexing – investment approach designed to track the performance of the applicable index. The index underlying each Fund is identified on Appendix A.

Each Fund's trust issues and redeems Shares at net asset value ("NAV") only in a large specified number of Shares called a "Creation Unit," or multiples thereof (typically 20,000 to 100,000 Shares). Creation Unit transactions are typically conducted in exchange for the deposit or delivery of in-kind securities in the underlying index and/or cash.

Risk Factor Information

Interested persons are referred to each Fund's prospectus for a description of risks associated with an investment in such Fund. These may include, but are not limited to, equity investing risk, asset class risk, concentration risk, industry/sector risk, issuer risk, liquidity risk, index risk, market risk, asset class risk, interest rate risk, tax risk and valuation risk. In addition, the market prices of the Shares will fluctuate in accordance with changes in NAV as well as the supply and demand for the Shares. As a result, the Shares may trade at market prices that may differ from their NAV. The NAV of the Shares of each Fund will fluctuate with changes in the market value of a Fund's holdings.

Other Information About the Funds

The Depository Trust Company (“DTC”) will serve as securities depository for the Shares of each Fund, which may be held only in book-entry form; stock certificates will not be issued. DTC, or its nominee, is the record or registered owner of all outstanding Shares.

The NAV per share of each Fund will be determined as of the close of trading (normally, 4:00 p.m. Eastern Time (“ET”)) on each day that the New York Stock Exchange (“NYSE”) and NYSE American are open for business. The NAV will be available from the applicable distributor for a Fund and is also available to National Securities Clearing Corporation (“NSCC”) participants through data made available from NSCC. A major market data vendor will disseminate the Intraday Indicative Value (IIV) for the applicable Shares of a Fund throughout regular Exchange trading hours.

With respect to each Fund, the following information is included in Appendix A: Fund name, underlying index name, trading symbol, IIV symbol, NAV symbol and Fund website.

Each Fund’s Registration Statement describes the various fees and expenses for each Fund’s Shares. For a more complete description of each Fund, and its underlying index, see the applicable Fund’s website.

Exchange Rules Applicable to Trading in the Shares

The Shares of each Fund are considered equity securities, thus rendering trading in the Shares subject to the Exchange's existing rules governing the trading of equity securities.

Trading Hours

The value of each underlying index will be disseminated to data vendors every 15 seconds or 60 seconds, as applicable, from 9:30 a.m. ET until 4:00 p.m. ET. The Shares will trade on NYSE American from 7:00 a.m. ET until 8:00 p.m. ET on every business day in accordance with NYSE American Rule 7.34E.

Extended Hours Trading

Members and member organizations are reminded of NYSE American Rule 7.34E(e) regarding Customer Disclosure and that trading in a Fund’s Shares during the Exchange’s Early and Late Trading Sessions may result in additional trading risks which include: (1) that the current applicable underlying Index value may not be updated during the Early and Late Trading Sessions, (2) the intraday indicative value may not be updated during the Early and Late Trading Sessions, (3) lower liquidity in the Early or Late Trading Sessions may impact pricing, (4) higher volatility in the Early or Late Trading Sessions may impact pricing, (5) wider spreads may occur in the Early or Late Trading Sessions, and (6) since the intraday indicative value is not calculated or widely disseminated during the Early and Late Trading

Sessions, an investor who is unable to calculate an implied value for Shares of a Fund in those sessions may be at a disadvantage to market professionals.

Suitability

Trading in the Shares of a Fund on the Exchange will be subject to the provisions of NYSE American Rule 2111 - Equities and other applicable suitability rules. Members and member organizations recommending transactions in the Shares of a Fund to customers should make a determination that the recommendation is suitable for the customer.

Trading Halts

The Exchange will halt trading in the Shares for a regulatory halt similar to a halt based on NYSE American Rule 7.18E and/or a halt because dissemination of the intraday indicative value of the Shares and/or the underlying value of the index has ceased. Further, the Exchange will halt trading in the Shares in accordance with NYSE American Rule 7.12E ("Trading Halts Due to Extraordinary Market Volatility"). The Shares will be traded following a trading halt in accordance with NYSE American Rule 7.35E ("Auctions").

Delivery of a Prospectus

Consistent with the requirements of the Securities Act of 1933 and the rules thereunder, investors purchasing Shares in the initial public offering and anyone purchasing Shares directly from a Fund (by delivery of the designated securities) must receive a prospectus. In addition, members and member organizations are required to deliver a prospectus to all purchasers of newly-issued Shares (i.e., during the initial public offering). Members and member organizations purchasing shares from a Fund for resale to investors will deliver a prospectus to such investors.

Prospectuses may be obtained through a Fund's website. The Prospectus does not contain all of the information set forth in a Fund's registration statement (including the exhibits to the registration statement), parts of which have been omitted in accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission").

In the event that a Fund relies upon an order by the Commission exempting the Shares from certain prospectus delivery requirements under Section 24(d) of the 1940 Act and makes available a written product description, NYSE American Rule 5.2E(j)(3) requires that members and member organizations provide to all purchasers of Shares a written description of the terms and characteristics of such securities, in a form prepared by a Fund's trust, no later than the time a confirmation of the first transaction in the Shares, is delivered to such purchaser. In addition, member organizations shall include such a written description with any sales material relating to the Shares that is provided to customers or the public. Any other written materials provided by a member organization to customers or the public making specific reference to the Shares as an investment vehicle must include a statement in substantially the following form: "A circular describing the terms and

characteristics of Shares of the Fund has been prepared by the Fund's trust and is available from your broker. It is recommended that you obtain and review such circular before purchasing Shares of the Fund. In addition, upon request you may obtain from your broker a prospectus for Shares of the Fund."

Members and member organizations carrying an omnibus account for a non-member is required to inform such non-member that execution of an order to purchase Shares for such omnibus account will be deemed to constitute agreement by the non-member to make such written description available to its customers on the same terms as are directly applicable to members under this rule.

Upon request of a customer, members shall also provide a copy of the applicable prospectus.

Exemptive, Interpretive and No-Action Relief Under Federal Securities Regulations

The Commission has issued letters granting exemptive, interpretive and no-action relief from certain provisions of rules under the Securities Exchange Act of 1934 ("Act") for exchange-traded securities listed and traded on a registered national securities exchange that meet certain criteria.

AS WHAT FOLLOWS IS ONLY A SUMMARY OF THE RELIEF OUTLINED IN THE NO-ACTION LETTERS REFERENCED ABOVE, THE EXCHANGE ADVISES INTERESTED PARTIES TO CONSULT THE NO-ACTION LETTERS FOR MORE COMPLETE INFORMATION REGARDING THE MATTERS COVERED THEREIN AND THE APPLICABILITY OF THE RELIEF GRANTED IN RESPECT OF TRADING IN SECURITIES. INTERESTED PARTIES SHOULD ALSO CONSULT THEIR PROFESSIONAL ADVISORS.

Regulation M Exemptions

Generally, Rules 101 and 102 of Regulation M prohibit any "distribution participant" and its "affiliated purchasers" from bidding for, purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of a distribution until after the applicable restricted period, except as specifically permitted in Regulation M. The provisions of these rules apply to underwriters, prospective underwriters, brokers, dealers, and other persons who have agreed to participate or are participating in a distribution of securities. The Commission has granted an exemption from Rule 101 under Regulation M to permit persons participating in a distribution of shares of a fund meeting the criteria in the No-Action Letters to engage in secondary market transactions in such shares during their participation in such a distribution. In addition, the Commission has granted relief under Regulation M to permit persons who may be deemed to be participating in the distribution of shares of a fund meeting the criteria in the No-Action Letters (i) to purchase securities for the purpose of purchasing Creation Unit Aggregations of fund shares and (ii) to tender securities for redemption in Creation Unit Aggregations. Further, the SEC has clarified that

the tender of shares of a fund meeting the criteria in the No-Action Letters for redemption does not constitute a bid for or purchase of any of the fund's securities during the restricted period of Rule 101. The SEC has also granted an exemption pursuant to paragraph (e) of Rule 102 under Regulation M to allow the redemption of fund shares in Creation Unit Aggregations during the continuous offering of shares.

Customer Confirmations for Creation or Redemption of Fund Shares (SEC Rule 10b-10)

Broker-dealers who handle purchases or redemptions of Fund shares in Creation Units for customers will be permitted to provide such customers with a statement of the number of Creation Unit Aggregations created or redeemed without providing a statement of the identity, number and price of shares of the individual securities tendered to the Fund for purposes of purchasing Creation Unit Aggregations ("Deposit Securities") or the identity, number and price of shares to be delivered by the Trust to the redeeming holder ("Redemption Securities"). The composition of the securities required to be tendered to a Fund for creation purposes and of the securities to be delivered on redemption will be disseminated each business day and will be applicable to requests for creations or redemption, as the case may be, on that day. This exemptive relief under Rule 10b-10 with respect to creations and redemptions is subject to the following conditions:

- (1) Confirmations to customers engaging in creations or redemptions must state that all information required by Rule 10b-10 will be provided upon request;
- (2) Any such request by a customer for information required by Rule 10b-10 will be filed in a timely manner, in accordance with Rule 10b-10(c);
- (3) Except for the identity, number and price of shares of the component securities of the Deposit Securities and Redemption Securities, as described above, confirmations to customers must disclose all other information required by 10b-10(a).

SEC Rule 14e-5

The Commission has permitted any person acting as a dealer-manager of a tender offer for a component security of the Fund (i) to redeem Fund shares in Creation Unit Aggregations from the issuer that may include a security subject to such tender offer and (ii) to purchase Fund shares during such tender offer. In addition, a No-Action Letter issued under Rule 14e-5 states that if a broker-dealer acting as a dealer-manager of a tender offer for a security of a Fund purchases or arranges to purchase such securities in the secondary market for the purpose of tendering such securities to purchase one or more Creation Unit Aggregations of shares, it must be made in conformance with the following:

- (1) Such bids or purchases are effected in the ordinary course of business, in connection with a basket of 20 or more securities in which any security that is the subject of a distribution, or any reference security, does not comprise more than 5% of the value of the basket purchased; or
- (2) Purchases are effected as adjustments to such basket in the ordinary course of business as a result of a change in the composition of the underlying index; and
- (3) Such bids or purchases are not effected for the purpose of facilitating such tender offer.

Section 11(d)(1); SEC Rules 11d1-1 and 11d1-2

Section 11(d)(1) of the Act generally prohibits a person who is both a broker and a dealer from effecting any transaction in which the broker-dealer extends credit to a customer on any security which was part of a new issue in the distribution of which he participated as a member of a selling syndicate or group within thirty days prior to such transaction. The SEC has clarified that Section 11(d)(1) does not apply to broker-dealers that are not Authorized Participants (and, therefore, do not create Creation Unit Aggregations) that engage in both proprietary and customer transactions in Shares of a fund in the secondary market, and for broker-dealer Authorized Participants that engage in creations of Creation Unit Aggregations. This relief is subject to specific conditions, including the condition that such broker-dealer (whether or not an Authorized Participant) does not, directly or indirectly, receive from the fund complex any payment, compensation or other economic incentive to promote or sell the shares of a fund to persons outside the fund complex, other than non-cash compensation permitted under NASD Rule 2830(l)(5)(A), (B) or (C). (See letter from Catherine McGuire, Chief Counsel, SEC Division of Market Regulation, to Securities Industry Association, Derivative Products Committee, dated November 21, 2005.) The SEC also has taken a no-action position under Section 11(d)(1) of the Act that broker-dealers may treat shares of a fund, for purposes of Rule 11d1-2, as "securities issued by a registered open-end investment company as defined in the Investment Company Act" and thereby extend credit or maintain or arrange for the extension or maintenance of credit on shares that have been owned by the persons to whom credit is provided for more than 30 days, in reliance on the exemption contained in the rule.

SEC Rule 15c1-5 and 15c1-6

The SEC has taken a no-action position with respect to Rule 15c1-5 and Rule 15c1-6 as to the required disclosure of control by a broker or dealer with respect to creations and redemptions of fund shares and secondary market transactions therein. (See letter from Catherine McGuire, Chief Counsel, SEC Division of Market Regulation, to Securities Industry Association, Derivative Products Committee, dated November 21, 2005.)

This Information Bulletin is not a statutory prospectus. Members and member organizations should consult each applicable trust's registration statement, Statement of Additional Information, prospectus and each Fund's website for relevant information.

Appendix A

Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Alerian Energy Infrastructure ETF	Alerian Energy Infrastructure Index	ENFR	ENFRIV	ENFRNV	www.alpsfunds.com
Alerian MLP ETF	Alerian MLP Infrastructure Index	AMLPL	AMLPIV	AMLPNV	www.alpsfunds.com
Alpha Architect Value Momentum Trend ETF	Alpha Architect Value Momentum Trend ETF	VMOT	VMOTIV	VMOTNV	www.alphaarchitect.com
AlphaClone Alternative Alpha ETF	AlphaClone Hedge Fund Downside Hedged Index	ALFA	ALFAIV	ALFANV	www.exchangetradedconcepts.com
AlphaClone International ETF	AlphaClone International Downside Hedged Index	ALFI	ALFIIV	ALFINV	www.exchangetradedconcepts.com
ALPS Emerging Sector Dividend Dogs ETF	S-Network Emerging Sector Dividend Dogs Index	EDOG	EDOGIV	EDOGNV	www.alpsfunds.com
ALPS Equal Sector Weight ETF	Bank of America Securities - Merrill Lynch Equal Sector Weight Index	EQL	EQLIV	EQLNV	www.alpsfunds.com
ALPS International Sector Dividend Dogs ETF	S-Network International Sector Dividend Dogs Index	IDOG	IDOGIV	IDOGNV	www.alpsfunds.com
ALPS Medical Breakthroughs ETF	Poliwogg Medical Breakthroughs Index	SBIO	SBIOIV	SBIONV	www.alpsfunds.com
ALPS Sector Dividend Dogs ETF	S-Network Sector Dividend Dogs Index	SDOG	SDOGIV	SDOGNV	www.alpsfunds.com
ALPS/Dorsey Wright Sector Momentum ETF	Dorsey Wright US Sector Momentum Index	SWIN	SWINIV	SWINNV	www.alpsfunds.com
American Customer Satisfaction Core Alpha ETF	American Customer Satisfaction Investable Index	ACSI	ACSIIV	ACSINV	www.exchangetradedconcepts.com
Amplify Online Retail ETF	EQM Online Retail Index	IBUY	IBUYIV	IBUYNV	www.amplifyetfs.com
Amplify YieldShares Prime 5 Dividend ETF	Prime 5 US Dividend ETF Index	PFV	PFVIV	PFVNV	www.amplifyetfs.com
Aptus Behavioral Momentum ETF	Aptus Behavioral Momentum Index	BEMO	BEMOIV	BEMONV	www.exchangetradedconcepts.com

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Arrow Dow Jones Global Yield ETF	Dow Jones Global Composite Yield Index	GYLD	GYLDIV	GYLDNV	www.arrowshares.com
Arrow QVM Equity Factor ETF	AI Quality Value Momentum Index	QVM	QVMIV	QVMNV	www.arrowfunds.com
Barron's 400 ETF	Barron's 400 Index	BFOR	BFORIV	BFORNV	www.alpsfunds.com
BioShares Biotechnology Clinical Trials Fund	LifeSci Biotechnology Clinical Trials Index	BBC	BBCIV	BBCNV	www.virtusetfs.com
BioShares Biotechnology Products Fund	LifeSci Biotechnology Products Index	BBP	BBPIV	BBPNV	www.virtusetfs.com
BLDRS Asia 50 ADR Index Fund	BNY Mellon Asia 50 ADR Index	ADRA	ADRAI	ADRANV	www.invesco.com
BLDRS Developed Markets 100 ADR INDEX FUND	BNY Mellon Developed Markets 100 ADR Index	ADRD	ADRDIV	ADRDNV	www.invesco.com
BLDRS Emerging Markets 50 ADR INDEX FUND	BNY Mellon Emerging Markets 50 ADR Index	ADRE	ADREI	ADRENV	www.invesco.com
BLDRS Europe 100 ADR Index Fund	BNY Mellon Europe Select ADR Index	ADRU	ADRUI	ADRUNV	www.invesco.com
Brand Value ETF	BrandTransact 50	BVAL	BVALIV	BVALNV	www.exchangetradedconcepts.com
Buzz US Sentiment Leaders ETF	Buzz Social Media Insights Index	BUZ	BUZIV	BUZNV	www.alpsfunds.com
Cambria Emerging Shareholder Yield ETF	Cambria Emerging Shareholder Yield Index	EYLD	EYLDIV	EYLDNV	www.cambriafunds.com
Cambria Foreign Shareholder Yield ETF	Cambria Foreign Shareholder Yield Index	FYLD	FYLDIV	FYLDNV	www.cambriafunds.com
Cambria Global Asset Allocation ETF	Cambria Global Asset Allocation Index	GAA	GAAIV	GAANV	www.cambriafunds.com
Cambria Global Value ETF	Cambria Global Value Index	GVAL	GVALIV	GVALNV	www.cambriafunds.com
Cohen & Steers Global Realty Majors ETF	Cohen & Steers Global Realty Majors Index	GRI	GRIIV	GRINV	www.alpsfunds.com
Columbia Beyond BRICs ETF	FTSE Beyond BRICs Index	BBRC	BBRCIV	BBRCNV	www.columbiathreadneedleetf.com

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Columbia EM Core ex-China ETF	Beta Thematic Emerging Markets ex-China Index	XCEM	XCEMIV	XCEMNV	www.columbiathreadneedleetf.com
Columbia EM Quality Dividend ETF	Beta Advantage Emerging Markets Quality Dividend Index	HILO	HILOIV	HILONV	www.columbiathreadneedleetf.com
Columbia EM Strategic Opportunities ETF	S&P Emerging Markets Strategic Opportunities Index	EMDD	EMDDIV	EMDDNV	www.columbiathreadneedleetf.com
Columbia Emerging Markets Consumer ETF	Dow Jones Emerging Markets Consumer Titans 30 Index	ECON	ECONIV	ECONNV	www.columbiathreadneedleetf.com
Columbia Emerging Markets Core ETF	S&P Emerging Markets Core Index	EMCR	EMCRIV	EMCRNV	www.columbiathreadneedleetf.com
Columbia India Consumer ETF	INDXX India Consumer Index	INCO	INCOIV	INCONV	www.columbiathreadneedleetf.com
Columbia India Infrastructure ETF	INDXX India Infrastructure Index	INXX	INXXIV	INXXNV	www.columbiathreadneedleetf.com
Columbia India Small Cap ETF	INDXX India Small Cap Index	SCIN	SCINIV	SCINNV	www.columbiathreadneedleetf.com
Columbia Sustainable Global Equity Income ETF	Beta Advantage Sustainable Global Equity Income 200 Index	ESGW	ESGWIV	ESGWNV	www.columbiathreadneedleetf.com
Columbia Sustainable International Equity Income ETF	Beta Advantage Sustainable International Equity Income 100 Index	ESGN	ESGNIV	ESGNNV	www.columbiathreadneedleetf.com
Columbia Sustainable U.S. Equity Income ETF	Beta Advantage Sustainable U.S. Equity Income 100 Index	ESGS	ESGSIV	ESGSNV	www.columbiathreadneedleetf.com
CSOP China CSI 300 A-H Dynamic ETF	CSI 300 Smart Index	HAHA	HAHAIV	HAHANV	www.csopasset.us
CSOP FTSE China A50 ETF	FTSE China A50 Net Total Return Index	AFTY	AFTYIV	AFTYNV	www.csopasset.us
CSOP MSCI China A International Hedged ETF	MSCI China A International with CNH 100% hedged to USD Index	CNHX	CNHXIV	CNHXNV	www.csopasset.us

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Deep Value ETF	TWM Deep Value Index	DVP	DVPIV	DVPNV	www.exchangetradedconcepts.com
Deutsche X-trackers Barclays International Corporate Bond Hedged ETF	Barclays Global Aggregate Corporate Ex USD Bond Index (USD Hedged)	IFIX	IFIXIV	IFIXNV	www.etfus.deutscheam.com
Deutsche X-trackers Barclays International Treasury Bond Hedged ETF	Barclays Global Aggregate Treasury Ex USD Issuer Diversified Bond Index (USD Hedged)	IGVT	IGVTIV	IGVTNV	www.etfus.deutscheam.com
Deutsche X-trackers CSI 300 China A-Shares Hedged Equity ETF	CSI 300 USD Hedged Index	ASHX	ASHXIV	ASHXNV	www.etfus.deutscheam.com
Deutsche X-trackers Emerging Markets Bond - Interest Rate Hedged ETF	Solactive Emerging Markets Bond - Interest Rate Hedged Index	EMIH	EMIHIV	EMIHNV	www.etfus.deutscheam.com
Deutsche X-trackers FTSE Developed ex US Comprehensive Factor ETF	FTSE Developed ex US Comprehensive Factor Index	DEEF	DEEFIV	DEEFNV	www.etfus.deutscheam.com
Deutsche X-trackers FTSE Emerging Comprehensive Factor ETF	FTSE Emerging Comprehensive Factor Index	DEMG	DEMGIV	DEMGNV	www.etfus.deutscheam.com
Deutsche X-trackers Harvest CSI 300 China A-Shares ETF	CSI 300 Index	ASHR	ASHRIV	ASHRNV	www.etfus.deutscheam.com
Deutsche X-trackers Harvest CSI 500 China A-Shares Small Cap ETF	CSI 500 Index	ASHS	ASHSIV	ASHSNV	www.etfus.deutscheam.com
Deutsche X-trackers High Yield Corporate Bond - Interest Rate Hedged ETF	Solactive High Yield Corporate Bond - Interest Rate Hedged Index	HYIH	HYIHIV	HYIHNV	www.etfus.deutscheam.com
Deutsche X-trackers Investment Grade Bond - Interest Rate Hedged ETF	Solactive Investment Grade Corporate Bond - Interest Rate Hedged Index	IGIH	IGIHIV	IGIHNV	www.etfus.deutscheam.com

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Deutsche X-trackers Japan JPX-Nikkei 400 Equity ETF	JPX-Nikkei 400 Index	JPN	JPNIV	JPNNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI All China Equity ETF	MSCI China All Shares Index	CN	CNIV	CNNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI All World ex US Hedged Equity ETF	MSCI ACWI ex-USA US Dollar Hedged Index	DBAW	DBAWIV	DBAWNIV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI All World ex US High Dividend Yield Hedged Equity ETF	MSCI ACWI ex-USA High Dividend Yield U.S. Dollar Hedged Index	HDAW	HDAWIV	HDAWNIV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Asia Pacific ex Japan Hedged Equity ETF	MSCI AC Asia Pacific ex Japan USD Hedged Index	DBAP	DBAPIV	DBAPNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Brazil Hedged Equity ETF	MSCI Brazil US Dollar Hedged Index	DBBR	DBBRIV	DBBRNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI EAFE Hedged Equity ETF	MSCI EAFE US Dollar Hedged Index	DBEF	DBEFIV	DBEFNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI EAFE High Dividend Yield Hedged Equity ETF	MSCI EAFE High Dividend Yield US Dollar Hedged Index	HDEF	HDEFIV	HDEFNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI EAFE Small Cap Hedged Equity ETF	MSCI EAFE Small Cap 100% Hedged to USD Index	DBES	DBESIV	DBESNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Emerging Markets Hedged Equity ETF	MSCI EM US Dollar Hedged Index	DBEM	DBEMIV	DBEMNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Emerging Markets High Dividend Yield Hedged Equity ETF	MSCI Emerging Markets High Dividend Yield US Dollar Hedged Index	HDEE	HDEEIV	HDEENV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Europe Hedged Equity ETF	MSCI Europe US Dollar Hedged Index	DBEU	DBEUIV	DBEUNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Eurozone Hedged Equity ETF	MSCI EMU IMI US Dollar Hedged Index	DBEZ	DBEZIV	DBEZNV	www.etfus.deutscheam.com

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Deutsche X-trackers MSCI Eurozone High Dividend Yield Hedged Equity ETF	MSCI EMU High Dividend Yield US Dollar Hedged Index	HDEZ	HDEZIV	HDEZNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Germany Hedged Equity ETF	MSCI Germany US Dollar Hedged Index	DBGR	DBGRIV	DBGRNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Italy Hedged Equity ETF	MSCI Italy 25/50 100% Hedged to USD Index	DBIT	DBITIV	DBITNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Japan Hedged Equity ETF	MSCI Japan US Dollar Hedged Index	DBJP	DBJPVIV	DBJPNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Mexico Hedged Equity ETF	MSCI Mexico IMI 25/50 US Dollar Hedged Index	DBMX	DBMXIV	DBMXNV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI South Korea Hedged Equity ETF	MSCI Korea 25/50 US Dollar Hedged Index	DBKO	DBKOIV	DBKONV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI Southern Europe Hedged Equity ETF	MSCI Southern Europe US Dollar Hedged Index	DBSE	DBSEIV	DBSENV	www.etfus.deutscheam.com
Deutsche X-trackers MSCI United Kingdom Hedged Equity ETF	MSCI United Kingdom US Dollar Hedged Index	DBUK	DBUKIV	DBUKNV	www.etfus.deutscheam.com
Deutsche X-trackers Municipal Infrastructure Revenue Bond ETF	Solactive Municipal Infrastructure Revenue Bond Index	RVNU	RVNUIV	RVNUNV	www.etfus.deutscheam.com
Deutsche X-trackers Russell 1000 Comprehensive Factor ETF	Russell 1000 Comprehensive Factor Index	DEUS	DEUSIV	DEUSNV	www.etfus.deutscheam.com
Deutsche X-trackers Russell 2000 Comprehensive Factor ETF	Russell 2000 Comprehensive Factor Index	DESC	DESCIV	DESCNV	www.etfus.deutscheam.com
Deutsche X-trackers USD High Yield Corporate Bond ETF	Solactive USD High Yield Corporates Total Market Index	HYLB	HYLBIV	HYLBNV	www.etfus.deutscheam.com
Diamond Hill Valuation-Weighted 500 ETF	Diamond Hill Valuation-Weighted 500 Index	DHVV	DHVVIV	DHVNV	www.exchangetradedconcepts.com

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Direxion All Cap Insider Sentiment Shares	Sabrient Multi-Cap Insider/Analyst Quant-Weighted Index	KNOW	KNOWIV	KNOWNV	www.direxioninvestments.com
Direxion Daily 10-Year Treasury Bear 3X Shares	ICE U.S. Treasury 7-10 Year Bond Index	TYO	TYOIV	TYONV	www.direxioninvestments.com
Direxion Daily 10-Year Treasury Bull 3X Shares	ICE U.S. Treasury 7-10 Year Bond Index	TYD	TYDIV	TYDNV	www.direxioninvestments.com
Direxion Daily 20+ Year Treasury Bear 1X Shares	ICE U.S. Treasury 20+ Year Bond Index	TYBS	TYBSIV	TYBSNV	www.direxioninvestments.com
Direxion Daily 20+Year Treasury Bull 3X Shares	ICE U.S. Treasury 20+ Year Bond Index	TMF	TMFIV	TMFNV	www.direxioninvestments.com
Direxion Daily 30-Year Treasury Bear 3X Shares	ICE U.S. Treasury 20+ Year Bond Index	TMV	TMVIV	TMVNV	www.direxioninvestments.com
Direxion Daily 7-10 Year Treasury Bear 1X Shares	ICE U.S. Treasury 7-10 Year Bond Index	TYNS	TYNSIV	TYNSNV	www.direxioninvestments.com
Direxion Daily Aerospace & Defense Bull 3X Shares	Dow Jones U.S. Select Aerospace & Defense Index	DFEN	DFENIV	DFENNV	www.direxioninvestments.com
Direxion Daily Brazil Bull 3X Shares	MSCI Brazil 25/50 Index	BRZU	BRZUIV	BRZUNV	www.direxioninvestments.com
Direxion Daily Consumer Staples Bear 1X	Consumer Staples Select Sector Index	SPLZ	SPLZIV	SPLZNV	www.direxioninvestments.com
Direxion Daily CSI 300 China A Share Bear 1X Shares	CSI 300 Index	CHAD	CHADIV	CHADNV	www.direxioninvestments.com
Direxion Daily CSI 300 China A Share Bull 2X Shares	CSI 300 Index	CHAU	CHAUIV	CHAUNV	www.direxioninvestments.com
Direxion Daily CSI China Internet Index Bull 2X Shares	CSI Overseas China Internet Index	CWEB	CWEBIV	CWEBNV	www.direxioninvestments.com
Direxion Daily Cyber Security & IT Bull 2X Shares	ISE Cyber Security Index	HAKK	HAKKIV	HAKKNV	www.direxioninvestments.com
Direxion Daily Developed Markets Bear 3X Shares	MSCI EAFE Index	DPK	DPKIV	DPKNV	www.direxioninvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Direxion Daily Developed Markets Bull 3X Shares	MSCI EAFE Index	DZK	DZKIV	DZKNV	www.direxioninvestments.com
Direxion Daily Emerging Markets Bear 3X Shares	MSCI Emerging Markets Index	EDZ	EDZIV	EDZNV	www.direxioninvestments.com
Direxion Daily Emerging Markets Bull 3X Shares	MSCI Emerging Markets Index	EDC	EDCIV	EDCNV	www.direxioninvestments.com
Direxion Daily Energy Bear 1X Shares	Energy Select Sector Index	ERY	ERYIV	ERYNV	www.direxioninvestments.com
Direxion Daily Energy Bear 3X Shares	Energy Select Sector Index	ERY	ERYIV	ERYNV	www.direxioninvestments.com
Direxion Daily Energy Bull 3X Shares	Energy Select Sector Index	ERX	ERXIV	ERXNV	www.direxioninvestments.com
Direxion Daily EURO STOXX 50 Bull 3X Shares	EURO STOXX 50 Net Return Index (USD)	EUXL	EUXL.IV	EUXL.NV	<u>www.direxioninvestments.com</u>
Direxion Daily European Financials Bear 1X Shares	MSCI Europe/Financials Price Return USD Index	EUFS	EUFSIV	EUFSNV	www.direxioninvestments.com
Direxion Daily European Financials Bull 2X Shares	MSCI Europe/Financials Price Return USD Index	EUFL	EUFLIV	EUFLNV	www.direxioninvestments.com
Direxion Daily Financial Bear 1X Shares	Financial Select Sector Index	FAZZ	FAZZIV	FAZZNV	www.direxioninvestments.com
Direxion Daily Financial Bear 3X Shares	Russell 1000 Financial Services Index	FAZ	FAZIV	FAZNV	www.direxioninvestments.com
Direxion Daily Financial Bull 3X Shares	Russell 1000 Financial Services Index	FAS	FASIV	FASNV	www.direxioninvestments.com
Direxion Daily FTSE China Bear 3X Shares	FTSE China 50 Index	YANG	YANGIV	YANGNV	www.direxioninvestments.com
Direxion Daily FTSE China Bull 3X Shares	FTSE China 50 Index	YINN	YINNIV	YINNNV	www.direxioninvestments.com
Direxion Daily FTSE Europe Bull 3x Shares	FTSE Developed Europe Index	EURL	EURLIV	EURLNV	www.direxioninvestments.com
Direxion Daily Gold Miners Index Bear 1X Shares	NYSE Arca Gold Miners Index	MELT	MELTIV	MELTNV	www.direxioninvestments.com
Direxion Daily Gold Miners Index Bear 3X Shares	NYSE Arca Gold Miners Index	DUST	DUSTIV	DUSTNV	www.direxioninvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Direxion Daily Gold Miners Index Bull 3X Shares	NYSE Arca Gold Miners Index	NUGT	NUGTIV	NUGTNV	www.direxioninvestments.com
Direxion Daily Healthcare Bear 3X Shares	Health Care Select Sector Index	SICK	SICKIV	SICKNV	www.direxioninvestments.com
Direxion Daily Healthcare Bull 3X Shares	Health Care Select Sector Index	CURE	CUREIV	CURENV	www.direxioninvestments.com
Direxion Daily High Yield Bear 2X Shares	Bloomberg Barclays High Yield Very Liquid Index	HYDD	HYDDIV	HYDDNV	www.direxioninvestments.com
Direxion Daily Homebuilders & Supplies Bear 3X Shares	Dow Jones U.S. Select Home Construction Index	CLAW	CLAWIV	CLAWNV	www.direxioninvestments.com
Direxion Daily Homebuilders & Supplies Bull 3X Shares	Dow Jones U.S. Select Home Construction Index	NAIL	NAILIV	NAILNV	www.direxioninvestments.com
Direxion Daily Industrials Bull 3X Shares	Industrial Select Sector Index	DUSL	DUSLIV	DUSLNV	www.direxioninvestments.com
Direxion Daily Japan Bull 3X Shares	MSCI Japan Index	JPNL	JPNLIV	JPNLNV	www.direxioninvestments.com
Direxion Daily Junior Gold Miners Index Bear 3X Shares	MVIS Global Junior Gold Miners Index	JDST	JDSTIV	JDSTNV	www.direxioninvestments.com
Direxion Daily Junior Gold Miners Index Bull 3X Shares	MVIS Global Junior Gold Miners Index	JNUG	JNUGIV	JNUGNV	www.direxioninvestments.com
Direxion Daily Latin America Bull 3X Shares	S&P Latin America 40 Index	LBJ	LBJIV	LBJNV	www.direxioninvestments.com
Direxion Daily Mid Cap Bear 3X Shares	S&P MidCap 400 Index	MIDZ	MIDZIV	MIDZNV	www.direxioninvestments.com
Direxion Daily Mid Cap Bull 3X Shares,	S&P MidCap 400 Index	MIDU	MIDUIV	MIDUNV	www.direxioninvestments.com
Direxion Daily MSCI India Bull 3X Shares	MSCI India Total Return Index	INDL	INDLIV	INDLNV	www.direxioninvestments.com
Direxion Daily MSCI Mexico Bull 3X Shares	MSCI Mexico IMI 25/50 US Dollar Hedged Index	MEXX	MEXXIV	MEXXNV	www.direxioninvestments.com
Direxion Daily Natural Gas Related Bear 3X	ISE-Revere Natural Gas Index	GASX	GASXIV	GASXNV	www.direxioninvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Shares					
Direxion Daily Natural Gas Related Bull 3X Shares	ISE-Revere Natural Gas Index	GASL	GASLIV	GASLNV	www.direxioninvestments.com
Direxion Daily Real Estate Bear 3X Shares	MSCI US REIT Index	DRV	DRVIV	DRVNV	www.direxioninvestments.com
Direxion Daily Real Estate Bull 3X Shares	MSCI US REIT Index	DRN	DRNIV	DRNNV	www.direxioninvestments.com
Direxion Daily Regional Banks Bear 3X Shares	S&P Regional Banks Select Industry Index	WDRW	WDRWIV	WDRWNV	www.direxioninvestments.com
Direxion Daily Regional Banks Bull 3X Shares	S&P Regional Banks Select Industry Index	DPST	DPSTIV	DPSTNV	www.direxioninvestments.com
Direxion Daily Retail Bull 3X Shares	S&P Retail Select Industry Index	RETL	RETLIV	RETLNV	www.direxioninvestments.com
Direxion Daily Russia Bear 3X Shares	MVIS Russia Index	RUSS	RUSSIV	RUSSNV	www.direxioninvestments.com
Direxion Daily Russia Bull 3X Shares	MVIS Russia Index	RUSL	RUSLIV	RUSLNV	www.direxioninvestments.com
Direxion Daily S&P 500 Bear 1X Index	S&P 500 Index	SPDN	SPDNIV	SPDNNV	www.direxioninvestments.com
Direxion Daily S&P 500 Bear 3X Shares	S&P 500 Index	SPXS	SPXSIV	SPXSNV	www.direxioninvestments.com
Direxion Daily S&P 500 Bull 1.25X Shares	S&P 500 Index	LLSP	LLSPIV	LLSPNV	www.direxioninvestments.com
Direxion Daily S&P 500 Bull 2X Shares	S&P 500 Index	SPUU	SPUUIV	SPUUNV	www.direxioninvestments.com
Direxion Daily S&P 500 Bull 3X Shares	S&P 500 Index	SPXL	SPXLIV	SPXLNV	www.direxioninvestments.com
Direxion Daily S&P Biotech Bear 1X Shares	S&P Biotechnology Select Industry Index	LABS	LABSIV	LABSNV	www.direxioninvestments.com
Direxion Daily S&P Biotech Bear 3X Shares	S&P Biotechnology Select Industry Index	LABD	LABDIV	LABDNV	www.direxioninvestments.com
Direxion Daily S&P Biotech Bull 3X Shares	S&P Biotechnology Select Industry Index	LABU	LABUIV	LABUNV	www.direxioninvestments.com
Direxion Daily S&P Oil & Gas Exp. & Prod. Bear 3X Shares	S&P Oil & Gas Exploration & Production Select Industry Index	DRIP	DRIPIV	DRIPNV	www.direxioninvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Direxion Daily S&P Oil & Gas Exp. & Prod. Bull 3X Shares	S&P Oil & Gas Exploration & Production Select Industry Index	GUSH	GUSHIV	GUSHNV	www.direxioninvestments.com
Direxion Daily Semiconductor Bear 3X Shares	PHLX Semiconductor Sector Index	SOXS	SOXSIV	SOXSNV	www.direxioninvestments.com
Direxion Daily Semiconductor Bull 3X Shares	PHLX Semiconductor Sector Index	SOXL	SOXLIV	SOXLNV	www.direxioninvestments.com
Direxion Daily Silver Miners Index Bear 2X Shares	Solactive Global Silver Miners Index	DULL	DULLIV	DULLNV	www.direxioninvestments.com
Direxion Daily Silver Miners Index Bull 2X Shares	Solactive Global Silver Miners Index	SHNY	SHNYIV	SHNYNV	www.direxioninvestments.com
Direxion Daily Small Cap Bear 3X Shares	Russell 2000 Index	TZA	TZAIV	TZANV	www.direxioninvestments.com
Direxion Daily Small Cap Bull 1.25X Shares	Russell 2000 Index	LLSC	LLSCIV	LLSCNV	www.direxioninvestments.com
Direxion Daily Small Cap Bull 2X Shares	Russell 2000 Index	SMLL	SMLLIV	SMLLNv	www.direxioninvestments.com
Direxion Daily Small Cap Bull 3X Shares	Russell 2000 Index	TNA	TNAIV	TNANV	www.direxioninvestments.com
Direxion Daily South Korea Bull 3X Shares	MSCI Korea 25/50 Index	KORU	KORUIV	KORUNV	www.direxioninvestments.com
Direxion Daily Technology Bear 1X Shares	Technology Select Sector Index	TECZ	TECZIV	TECZNV	www.direxioninvestments.com
Direxion Daily Technology Bear 3X Shares	Technology Select Sector Index	TECS	TECSIV	TECSNV	www.direxioninvestments.com
Direxion Daily Technology Bull 3X Shares	Technology Select Sector Index	TECL	TECLIV	TECLNV	www.direxioninvestments.com
Direxion Daily Total Bond Market Bear 1X Shares	Bloomberg Barclays U.S. Aggregate Bond Index	SAGG	SAGGIV	SAGGNV	www.direxioninvestments.com
Direxion Daily Transportation Bull 3X Shares	Dow Jones Transportation Average	TPOR	TPORIV	TPORNV	www.direxioninvestments.com
Direxion Daily Utilities Bear 1X	Utilities Select Sector Index	UTLZ	UTLZIV	UTLZNV	www.direxioninvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Direxion Daily Utilities Bull 3X Shares	Utilities Select Sector Index	UTSL	UTSLIV	UTSLNV	www.direxioninvestments.com
Direxion iBillionaire Index ETF	iBillionaire Index	IBLN	IBLNIV	IBLNNV	www.direxioninvestments.com
Direxion Nasdaq-100 Equal Weighted Index Shares	Nasdaq-100 Equal Weighted Index	QQQE	QQQEIV	QQQENV	www.direxioninvestments.com
Direxion Zacks MLP High Income Index Shares	Zacks MLP High Income Index	ZMLP	ZMLPIV	ZMLPNV	www.direxioninvestments.com
Elkhorn Lunt Low Vol/High Beta Tactical ETF	Lunt Capital U.S. Large Cap Equity Rotation Index	LVHB	LVHBIV	LVHBNV	www.elkhorn.com
Elkhorn S&P High Quality Preferred ETF	S&P U.S. High Quality Preferred Stock Index	EPRF	EPRFIV	EPRFNV	www.elkhorn.com
Elkhorn S&P MidCap Consumer Discretionary Portfolio	S&P MidCap 400 Capped Consumer Discretionary Index	XD	XDIV	XDNV	www.elkhorn.com
Elkhorn S&P MidCap Consumer Staples Portfolio	S&P MidCap 400 Capped Consumer Staples Index	XS	XSIV	XSNV	www.elkhorn.com
Elkhorn S&P MidCap Energy Portfolio	S&P MidCap 400 Capped Energy Index	XE	XEIV	XENV	www.elkhorn.com
Elkhorn S&P MidCap Financials Portfolio	S&P MidCap 400 Capped Financials Index	XF	XFIV	XFNV	www.elkhorn.com
Elkhorn S&P MidCap Health Care Portfolio	S&P MidCap 400 Capped Health Care Index	XH	XHIV	XHNV	www.elkhorn.com
Elkhorn S&P MidCap Industrials Portfolio	S&P MidCap 400 Capped Industrials Index	XI	XIIV	XINV	www.elkhorn.com
Elkhorn S&P MidCap Information Technology Portfolio	S&P MidCap 400 Capped Information Technology Index	XK	XKIV	XKNV	www.elkhorn.com
Elkhorn S&P MidCap Materials Portfolio	S&P MidCap 400 Capped Materials Index	XM	XMIV	XMNV	www.elkhorn.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Elkhorn S&P MidCap Utilities Portfolio	S&P MidCap 400 Capped Utilities & Telecom Services Index	XU	XUIV	XUNV	www.elkhorn.com
EMQQ The Emerging Markets Internet & Ecommerce ETF	EMQQ The Emerging Markets Internet & Ecommerce Index	EMQQ	EMQQIV	EMQQNV	www.exchangetradedconcepts.com
ETF Industry Exposure & Financial Services ETF	Toroso ETF Industry Index	TETF	TETFIV	TETFNV	www.exchangetradedconcepts.com
ETF Managers Trust BlueStar TA-BIGITech Israel Technology ETF	TASE-BlueStar Israel Global Technology Index	ITEQ	ITEQIV	ITEQNV	www.etfmg.com
Etho Climate Leadership U.S. ETF	Etho Climate Leadership Index - US	ETHO	ETHOIV	ETHONV	www.etfmg.com
Exchange Traded Concepts Trust ROBO Global Robotics and Automation Index ETF	Robo Global Robotics and Automation Index	ROBO	ROBOIV	ROBONV	www.exchangetradedconcepts.com
Exchange Traded Concepts Trust WeatherStorm Forensic Accounting Long Short ETF	WeatherStorm Forensic Accounting Long-Short Index	FLAG	FLAGIV	FLAGNV	www.exchangetradedconcepts.com
Fidelity Core Dividend ETF	Fidelity Core Dividend Index	FDVV	FDVVIV	FDVVNV	www.fidelity.com/etfs
Fidelity Dividend ETF for Rising Rates	Fidelity Dividend Index for Rising Rates	FDRR	FDRRIV	FDRRNV	www.fidelity.com/etfs
Fidelity Low Volatility Factor ETF	Fidelity U.S. Low Volatility Factor Index	FDLO	FDLOIV	FDLONV	www.fidelity.com/etfs
Fidelity Momentum Factor ETF	Fidelity U.S. Momentum Factor Index	FDMO	FDMOIV	FDMONV	www.fidelity.com/etfs
Fidelity MSCI Consumer Discretionary Index ETF	MSCI USA IMI Consumer Discretionary Index	FDIS	FDISIV	FDISNV	www.fidelity.com/etfs
Fidelity MSCI Consumer Staples Index ETF	MSCI USA IMI Consumer Staples Index	FSTA	FSTAIV	FSTANV	www.fidelity.com/etfs

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Fidelity MSCI Energy Index ETF	MSCI USA IMI Energy Index	FENY	FENYIV	FENYNV	www.fidelity.com/etfs
Fidelity MSCI Financials Index ETF	MSCI USA IMI Financials Index	FNCL	FNCLIV	FNCLNV	www.fidelity.com/etfs
Fidelity MSCI Health Care Index ETF	MSCI USA IMI Health Care Index	FHLC	FHLCIV	FHLCNV	www.fidelity.com/etfs
Fidelity MSCI Industrials Index ETF	MSCI USA IMI Industrials Index	FIDU	FIDUIV	FIDUNV	www.fidelity.com/etfs
Fidelity MSCI Information Technology Index ETF	MSCI USA IMI Information Technology Index	FTEC	FTECIV	FTECNV	www.fidelity.com/etfs
Fidelity MSCI Materials Index ETF	MSCI USA IMI Materials Index	FMAT	FMATIV	FMATNV	www.fidelity.com/etfs
Fidelity MSCI Real Estate Index ETF	MSCI USA IMI Real Estate Index	FREL	FRELIV	FRELVN	www.fidelity.com/etfs
Fidelity MSCI Telecommunication Services Index ETF	MSCI USA IMI Telecommunication Services 25/50 Index	FCOM	FCOMIV	FCOMNV	www.fidelity.com/etfs
Fidelity MSCI Utilities Index ETF	MSCI USA IMI Utilities Index	FUTY	FUTYIV	FUTYNV	www.fidelity.com/etfs
Fidelity NASDAQ Composite Index Fund ETF-Tracking NASDAQ Composite Index	NASDAQ Composite Index	ONEQ	ONEQI	ONEQNV	www.fidelity.com/etfs
Fidelity Quality Factor ETF	Fidelity U.S. Quality Factor Index	FQAL	FQALIV	FQALNV	www.fidelity.com/etfs
Fidelity Value Factor ETF	Fidelity U.S. Value Factor Index	FVAL	FVALIV	FVALNV	www.fidelity.com/etfs
First Trust Asia Pacific ex-Japan AlphaDEX Fund	NASDAQ AlphaDEX Asia Pacific Ex-Japan Index	FPA	FPAIV	FPANV	www.ftportfolios.com
First Trust Australia AlphaDEX Fund	NASDAQ AlphaDEX Australia Index	FAUS	FAUSIV	FAUSNV	www.ftportfolios.com
First Trust BICK Index Fund	ISE BICK Index	BICK	BICKIV	BICKNV	www.ftportfolios.com
First Trust Brazil AlphaDEX Fund	NASDAQ AlphaDEX Brazil Index	FBZ	FBZIV	FBZNV	www.ftportfolios.com
First Trust Canada AlphaDEX Fund	NASDAQ AlphaDEX Canada Index	FCAN	FCANIV	FCANNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
First Trust Capital Strength ETF	The NASDAQ Capital Strength Index	FTCS	FTCSIV	FTCSNV	www.ftportfolios.com
First Trust CBOE S&P 500 Tail Hedge Fund	CBOE VIX Tail Hedge Index	VIXH	VIXHIV	VIXHNV	www.ftportfolios.com
First Trust China AlphaDEX Fund	NASDAQ AlphaDEX China Index	FCA	FCAIV	FCANV	www.ftportfolios.com
First Trust Chindia ETF	ISE ChIndia Index	FNI	FNIIV	FNINV	www.ftportfolios.com
First Trust Cloud Computing ETF	ISE Cloud Computing Index	SKYY	SKYYIV	SKYYNV	www.ftportfolios.com
First Trust Consumer Discretionary AlphaDEX Fund	StrataQuant Consumer Discretionary Index	FXD	FXDIV	FXDNV	www.ftportfolios.com
First Trust Consumer Staples AlphaDEX Fund	StrataQuant Consumer Staples Index	FXG	FXGIV	FXGNV	www.ftportfolios.com
First Trust Developed International Equity Select ETF	Nasdaq Riskalyze Developed International Equity Select Index	RNDM	RNDMIV	RNDMNV	www.ftportfolios.com
First Trust Developed Markets ex-US AlphaDEX Fund	NASDAQ AlphaDEX Developed Markets Ex-US Index	FDT	FDTIV	FDTNV	www.ftportfolios.com
First Trust Developed Markets ex-US Small Cap AlphaDEX Fund	NASDAQ AlphaDEX Developed Markets Ex-US Small Cap Index	FDTs	FDTsIV	FDTsNV	www.ftportfolios.com
First Trust Dorsey Wright Dynamic Focus 5 ETF	Dorsey Wright Dynamic Focus Five Index	FVC	FVCIV	FVCNV	www.ftportfolios.com
First Trust Dorsey Wright Focus 5 ETF	Dorsey Wright Focus Five Index	FV	FVIV	FVNV	www.ftportfolios.com
First Trust Dorsey Wright International Focus 5 ETF	Dorsey Wright International Focus Five Index	IFV	IFVIV	IFVNV	www.ftportfolios.com
First Trust Dow Jones Global Select Dividend Index Fund	Dow Jones Global Select Dividend Index	FGD	FGDIV	FGDNV	www.ftportfolios.com
First Trust Dow Jones Internet Index Fund	Dow Jones Internet Composite Index	FDN	FDNIV	FDNNV	www.ftportfolios.com
First Trust Dow Jones Select MicroCap Index Fund	Dow Jones Select MicroCap Index	FDM	FDMIV	FDMNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
First Trust Dow Jones STOXX European Select Dividend Fund	STOXX Europe Select Dividend 30 Index	FDD	FDDIV	FDDNV	www.ftportfolios.com
First Trust Emerging Markets AlphaDEX Fund	NASDAQ AlphaDEX Emerging Markets Index	FEM	FEMIV	FEMNV	www.ftportfolios.com
First Trust Emerging Markets Equity Select ETF	Nasdaq Riskalyze Emerging Markets Equity Select Index	RNEM	RNEMIV	RNEMNV	www.ftportfolios.com
First Trust Emerging Markets Small Cap AlphaDEX Fund	NASDAQ AlphaDEX Emerging Markets Small Cap Index	FEMS	FEMSIV	FEMSNV	www.ftportfolios.com
First Trust Energy AlphaDEX Fund	StrataQuant Energy Index	FXN	FXNIV	FXNNV	www.ftportfolios.com
First Trust Europe AlphaDEX Fund	NASDAQ AlphaDEX Europe Index	FEP	FEPIV	FEPNV	www.ftportfolios.com
First Trust Eurozone AlphaDEX	NASDAQ AlphaDEX Eurozone Index	FEUZ	FEUZIV	FEUZNV	www.ftportfolios.com
First Trust Exchange-Traded Fund II First Trust Indxx Global Agriculture ETF	Indxx Global Agriculture Index	FTAG	FTAGIV	FTAGNV	www.ftportfolios.com
First Trust Exchange-Traded Fund II First Trust Indxx Global Natural Resources Income ETF	Indxx Global Natural Resources Income Index	FTRI	FTRIIV	FTRINV	www.ftportfolios.com
First Trust Exchange-Traded Fund II First Trust NASDAQ Cybersecurity ETF	NASDAQ CTA Cybersecurity Index	CIBR	CIBRIV	CIBRNV	www.ftportfolios.com
First Trust Exchange-Traded Fund VI First Trust NASDAQ Technology Dividend Index Fund	NASDAQ Technology Dividend Index	TDIV	TDIVIV	TDIVNV	www.ftportfolios.com
First Trust Exchange-Traded Fund VI Multi-Asset Diversified Income Index Fund	NASDAQ Multi-Asset Diversified Income Index	MDIV	MDIVIV	MDIVNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
First Trust Financials AlphaDEX Fund	StrataQuant Financials Index	FXO	FXOIV	FXONV	www.ftportfolios.com
First Trust FTSE EPRA/NAREIT Developed Markets Real Estate Index Fund	FTSE EPRA/NAREIT Developed Index	FFR	FFRIV	FFRNV	www.ftportfolios.com
First Trust Germany AlphaDEX Fund	NASDAQ AlphaDEX Germany Index	FGM	FGMIV	FGMNV	www.ftportfolios.com
First Trust Global Engineering and Construction ETF	ISE Global Engineering and Construction Index	FLM	FLMIV	FLMNV	www.ftportfolios.com
First Trust Global Wind Energy ETF	ISE Clean Edge Global Wind Energy Index	FAN	FANIV	FANNV	www.ftportfolios.com
First Trust Health Care AlphaDEX Fund	StrataQuant Health Care Index	FXH	FXHIV	FXHNV	www.ftportfolios.com
First Trust Hong Kong AlphaDEX Fund	NASDAQ AlphaDEX Hong Kong Index	FHK	FHKIV	FHKNV	www.ftportfolios.com
First Trust Industrials/Producer Durables AlphaDEX Fund	StrataQuant Industrials Index	FXR	FXRIV	FXRNV	www.ftportfolios.com
First Trust International IPO ETF	IPOX International Index	FPXI	FPXIIV	FPXINV	www.ftportfolios.com
First Trust International Multi-Asset Diversified Income Index Fund	NASDAQ International Multi-Asset Diversified Income Index	YDIV	YDIVIV	YDIVNV	www.ftportfolios.com
First Trust Japan AlphaDEX Fund	NASDAQ AlphaDEX Japan Index	FJP	FJPIV	FJPNV	www.ftportfolios.com
First Trust Large Cap Core AlphaDEX Fund	NASDAQ AlphaDEX Large Cap Core Index	FEX	FEXIV	FEXNV	www.ftportfolios.com
First Trust Large Cap Growth AlphaDEX Fund (based on the Defined Large Cap Growth Index--symbol DEFILGOI)	NASDAQ AlphaDEX Large Cap Growth Index	FTC	FTCIV	FTCNV	www.ftportfolios.com
First Trust Large Cap US Equity Select ETF	Nasdaq Riskalyze Large Cap US Equity Select Index	RNLC	RNLCIV	RNLCNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
First Trust Large Cap Value AlphaDEX Fund (based on the Defined Large Cap Value Index-symbol DEFILVOI)	NASDAQ AlphaDEX Large Cap Value Index	FTA	FTAIV	FTANV	www.ftportfolios.com
First Trust Latin America AlphaDEX Fund	NASDAQ AlphaDEX Latin America Index	FLN	FLNIV	FLNNV	www.ftportfolios.com
First Trust Materials AlphaDEX Fund	StrataQuant Materials Index	FXZ	FXZIV	FXZNV	www.ftportfolios.com
First Trust Mega Cap AlphaDEX Fund	NASDAQ AlphaDEX Mega Cap Index	FMK	FMKIV	FMKNV	www.ftportfolios.com
First Trust Mid Cap Core AlphaDEX Fund	NASDAQ AlphaDEX Mid Cap Core Index	FNX	FNXIV	FNXNV	www.ftportfolios.com
First Trust Mid Cap Growth AlphaDEX Fund	NASDAQ AlphaDEX Mid Cap Growth Index	FNY	FNYIV	FNYNV	www.ftportfolios.com
First Trust Mid Cap US Equity Select ETF	Nasdaq Riskalyze US Mid Cap Index	RNMC	RNMCIV	RNMCNV	www.ftportfolios.com
First Trust Mid Cap Value AlphaDEX Fund	NASDAQ AlphaDEX Mid Cap Value Index	FNK	FNKIV	FNKNV	www.ftportfolios.com
First Trust Morningstar Dividend Leaders Index Fund	Morningstar Dividend Leaders Index	FDL	FDLIV	FDLNV	www.ftportfolios.com
First Trust Multi Cap Growth AlphaDEX Fund	NASDAQ AlphaDEX Multi Cap Growth Index	FAD	FADIV	FADNV	www.ftportfolios.com
First Trust Multi Cap Value AlphaDEX Fund	NASDAQ AlphaDEX Multi Cap Value Index	FAB	FABIV	FABNV	www.ftportfolios.com
First Trust NASDAQ - 100 Ex-Technology Sector Index Fund	NASDAQ-100 Ex-Tech Sector Index	QQXT	QQXTIV	QQXTNV	www.ftportfolios.com
First Trust NASDAQ ABA Community Bank Index Fund	NASDAQ OMX ABA Community Bank Index	QABA	QABAIV	QABANV	www.ftportfolios.com
First Trust Nasdaq Bank ETF	Nasdaq US Smart Banks Index	FTXO	FTXOIV	FTXONV	www.ftportfolios.com
First Trust NASDAQ Clean Edge Green Energy Index Fund	NASDAQ Clean Edge Green Energy Index	QCLN	QCLNIV	QCLNNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
First Trust NASDAQ Clean Edge Smart Grid Infrastructure Index Fund	NASDAQ OMX Clean Edge Smart Grid Infrastructure Index	GRID	GRIDIV	GRIDNV	www.ftportfolios.com
First Trust Nasdaq Food & Beverage ETF	Nasdaq US Smart Food & Beverage Index	FTXG	FTXGIV	FTXGNV	www.ftportfolios.com
First Trust NASDAQ Global Auto Index Fund	NASDAQ OMX Global Auto Index	CARZ	CARZIV	CARZNV	www.ftportfolios.com
First Trust Nasdaq Oil & Gas ETF	Nasdaq US Smart Oil & Gas Index	FTXN	FTXNIV	FTXNNV	www.ftportfolios.com
First Trust Nasdaq Pharmaceuticals ETF	Nasdaq US Smart Pharmaceuticals Index	FTXH	FTXHIV	FTXHNV	www.ftportfolios.com
First Trust Nasdaq Retail ETF	Nasdaq US Smart Retail Index	FTXD	FTXDIV	FTXDNV	www.ftportfolios.com
First Trust Nasdaq Semiconductor ETF	Nasdaq US Smart Semiconductor Index	FTXL	FTXLIV	FTXLNV	www.ftportfolios.com
First Trust NASDAQ Smartphone Index Fund	NASDAQ CTA Smartphone Index	FONE	FONEIV	FONENV	www.ftportfolios.com
First Trust Nasdaq Transportation ETF	Nasdaq US Smart Transportation Index	FTXR	FTXRIV	FTXRNV	www.ftportfolios.com
First Trust NASDAQ-100 Equal Weighted Index Fund	NASDAQ-100 Equal Weighted Index	QQEW	QQEWIV	QQEWNV	www.ftportfolios.com
First Trust NASDAQ-100 Technology Index Fund	NASDAQ-100 Technology Index	QTEC	QTECIV	QTECNV	www.ftportfolios.com
First Trust Natural Gas ETF	ISE-Revere Natural Gas Index	FCG	FCGIV	FCGNV	www.ftportfolios.com
First Trust NYSE Arca Biotechnology Index Fund	NYSE Arca Biotechnology Index	FBT	FBTIV	FBTNV	www.ftportfolios.com
First Trust RBA American Industrial Renaissance ETF	Richard Bernstein Advisors American Industrial Renaissance Index	AIRR	AIRRIV	AIRRNV	www.ftportfolios.com
First Trust RBA Quality Income ETF	Richard Bernstein Advisors Quality Income Index	QINC	QINCIV	QINCNV	www.ftportfolios.com
First Trust Rising Dividend Achievers ETF	NASDAQ US Rising Dividend Achievers Index	RDVY	RDVYIV	RDVYNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
First Trust S&P REIT Index Fund	S&P United States REIT Index	FRI	FRIIV	FRINV	www.ftportfolios.com
First Trust Small Cap Core AlphaDEX Fund	NASDAQ AlphaDEX Small Cap Core Index	FYX	FYXIV	FYXNV	www.ftportfolios.com
First Trust Small Cap Growth AlphaDEX Fund	NASDAQ AlphaDEX Small Cap Growth Index	FYC	FYCIV	FYCNV	www.ftportfolios.com
First Trust Small Cap US Equity Select ETF	Nasdaq Riskalyze US Small Cap Index	RNSC	RNSCIV	RNSCNV	www.ftportfolios.com
First Trust Small Cap Value AlphaDEX Fund	NASDAQ AlphaDEX Small Cap Value Index	FYT	FYTIV	FYTNV	www.ftportfolios.com
First Trust South Korea AlphaDEX Fund	NASDAQ AlphaDEX South Korea Index	FKO	FKOIV	FKONV	www.ftportfolios.com
First Trust Switzerland AlphaDEX Fund	NASDAQ AlphaDEX Switzerland Index	FSZ	FSZIV	FSZNV	www.ftportfolios.com
First Trust Taiwan AlphaDEX Fund	NASDAQ AlphaDEX Taiwan Index	FTW	FTWIV	FTWNV	www.ftportfolios.com
First Trust Technology AlphaDEX Fund	StrataQuant Technology Index	FXL	FXLIV	FXLNV	www.ftportfolios.com
First Trust Total US Market AlphaDEX ETF	NASDAQ AlphaDEX Total US Market	TUSA	TUSAIV	TUSANV	www.ftportfolios.com
First Trust United Kingdom AlphaDEX Fund	NASDAQ AlphaDEX United Kingdom Index	FKU	FKUIV	FKUNV	www.ftportfolios.com
First Trust US Equity Dividend Select ETF	Nasdaq Riskalyze US Equity Dividend Select Index	RNDV	RNDVIV	RNDVNV	www.ftportfolios.com
First Trust US Equity Opportunities ETF	IPOX-100 U.S. Index	FPX	FPXIV	FPXNV	www.ftportfolios.com
First Trust Utilities AlphaDEX Fund	StrataQuant Utilities Index	FXU	FXUIV	FXUNV	www.ftportfolios.com
First Trust Value Line 100 Exchange-Traded Fund	Value Line 100 Index	FVL	FVLIV	FVLNV	www.ftportfolios.com
First Trust Value Line Dividend Index Fund	Value Line Dividend Index	FVD	FVDIV	FVDNV	www.ftportfolios.com
First Trust Water ETF	ISE Clean Edge Water Index	FIW	FIWIV	FIWNV	www.ftportfolios.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
FlexShares Credit-Scored US Corporate Bond Index Fund	Northern Trust Credit-Scored US Corporate Bond Index	SKOR	SKORIV	SKORNV	www.flexshares.com
FlexShares Credit-Scored US Long Corporate Bond Index Fund	Northern Trust Credit-Scored U.S. Long Corporate Bond Index	LKOR	LKORIV	LKORNV	www.flexshares.com
FlexShares Currency Hedged Morningstar DM ex-US Factor Tilt Index Fund	Morningstar Developed Markets ex-US Factor Tilt Hedged Index	TLDH	TLDHIV	TLDHNV	www.flexshares.com
FlexShares Currency Hedged Morningstar EM Factor Tilt Index Fund	Morningstar Emerging Markets Factor Tilt Hedged Index	TLEH	TLEHIV	TLEHNV	www.flexshares.com
FlexShares Disciplined Duration MBS Index Fund	BofA Merrill Lynch Constrained Duration US Mortgage Backed Securities Index	MBSD	MBSDIV	MBSDNV	www.flexshares.com
FlexShares Global Quality Real Estate Index Fund	Northern Trust Global Quality Real Estate Index	GQRE	GQREIV	GQRENV	www.flexshares.com
FlexShares iBoxx 3-Year Target Duration TIPS Index Fund	iBoxx 3-year Target Duration TIPS Index	TDTT	TDTTIV	TDTTNV	www.flexshares.com
FlexShares iBoxx 5-Year Target Duration TIPS Index Fund	iBoxx 5-Year Target Duration TIPS Index	TDTF	TDTFIV	TDTFNV	www.flexshares.com
FlexShares International Quality Dividend Defensive Index Fund	Northern Trust International Quality Dividend Defensive Index	IQDE	IQDEIV	IQDENV	www.flexshares.com
FlexShares International Quality Dividend Dynamic Index Fund	Northern Trust International Quality Dividend Dynamic Index	IQDY	IQDYIV	IQDYNV	www.flexshares.com
FlexShares International Quality Dividend Index Fund	Northern Trust International Quality Dividend Index	IQDF	IQDFIV	IQDFNV	www.flexshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
FlexShares Morningstar Developed Markets ex-US Factor Tilt Index Fund	Morningstar Developed Markets ex-US Factor Tilt Index	TLTD	TLTDIV	TLTDNV	www.flexshares.com
FlexShares Morningstar Emerging Markets Factor Tilt Index Fund	Morningstar Emerging Markets Factor Tilt Index	TLTE	TLTEIV	TLTENV	www.flexshares.com
FlexShares Morningstar Global Upstream Natural Resources Index Fund	Morningstar Global Upstream Natural Resources Index	GUNR	GUNRIV	GUNRNV	www.flexshares.com
FlexShares Morningstar US Market Factor Tilt Index Fund	Morningstar US Market Factor Tilt Index	TILT	TILTIV	TILTNV	www.flexshares.com
FlexShares Quality Dividend Defensive Index Fund	Northern Trust Quality Dividend Defensive Index	QDEF	QDEFIV	QDEFNV	www.flexshares.com
FlexShares Quality Dividend Dynamic Index Fund	Northern Trust Quality Dividend Dynamic Index	QDYN	QDYNIV	QDYNNV	www.flexshares.com
FlexShares Quality Dividend Index Fund	Northern Trust Quality Dividend Index	QDF	QDFIV	QDFNV	www.flexshares.com
FlexShares Real Assets Allocation Index Fund	Northern Trust Real Assets Allocation Index	ASET	ASETIV	ASETNV	www.flexshares.com
FlexShares STOXX Global Broad Infrastructure Index Fund	STOXX Global Broad Infrastructure Index	NFRA	NFRAIV	NFRANV	www.flexshares.com
FlexShares STOXX Global ESG Impact Index Fund	STOXX Global ESG Impact Index	ESGG	ESGGIV	ESGGNV	www.flexshares.com
FlexShares STOXX US ESG Impact Index Fund	STOXX USA ESG Impact Index	ESG	ESGIV	ESGNV	www.flexshares.com
FlexShares US Quality Large Cap Index Fund	Northern Trust Quality Large Cap Index	QLC	QLCIV	QLCNV	www.flexshares.com
Franklin LibertyQ Emerging Markets ETF	LibertyQ Emerging Markets Index	FLQE	FLQEIV	FLQENV	www.libertyshares.com
Franklin LibertyQ Global Dividend ETF	LibertyQ Global Dividend Index	FLQD	FLQDIV	FLQDNV	www.libertyshares.com
Franklin LibertyQ Global Equity ETF	LibertyQ Global Equity Index	FLQG	FLQGIV	FLQGNV	www.libertyshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Franklin LibertyQ International Equity Hedged ETF	LibertyQ International Equity Hedged Index	FLQH	FLQHIV	FLQHNV	www.libertyshares.com
Franklin LibertyQ U.S. Equity ETF	LibertyQ US Large Cap Equity Total Return Index	FLQL	FLQLIV	FLQLNV	www.libertyshares.com
Franklin LibertyQ U.S. Mid Cap Equity ETF	LibertyQ US Mid Cap Equity Index Total Return	FLQM	FLQMIV	FLQMNV	www.libertyshares.com
Franklin LibertyQ U.S. Small Cap Equity ETF	LibertyQ US Small Cap Equity Index Total Return	FLQS	FLQSIV	FLQSNV	www.libertyshares.com
Global X Brazil Consumer ETF	Solactive Brazil Consumer Index	BRAQ	BRAQIV	BRAQNV	www.globalxfunds.com
Global X Brazil Mid Cap ETF	Solactive Brazil Mid Cap Index	BRAZ	BRAZIV	BRAZNV	www.globalxfunds.com
Global X China Consumer ETF	Solactive China Consumer Total Return Index	CHIQ	CHIQIV	CHIQNV	www.globalxfunds.com
Global X China Energy ETF	Solactive China Energy Total Return Index	CHIE	CHIEIV	CHIENV	www.globalxfunds.com
Global X China Financials ETF	Solactive China Financials Total Return Index	CHIX	CHIXIV	CHIXNV	www.globalxfunds.com
Global X China Industrials ETF	Solactive China Industrials Total Return Index	CHII	CHIIIV	CHIIINV	www.globalxfunds.com
Global X China Materials ETF	Solactive China Materials index	CHIM	CHIMIV	CHIMNV	www.globalxfunds.com
Global X Conscious Companies ETF	Concinnity Conscious Companies Index	KRMA	KRMAIV	KRMANV	www.globalxfunds.com
Global X Copper Miners ETF	Solactive Global Copper Miners Index	COPX	COPXIV	COPXNV	www.globalxfunds.com
Global X Fertilizers/Potash ETF	Solactive Global Fertilizers/Potash Index	SOIL	SOILIV	SOILNV	www.globalxfunds.com
Global X Founder-Run Companies ETF	Solactive U.S. Founder-Run Companies Index	BOSS	BOSSIV	BOSSNV	www.globalxfunds.com
Global X FTSE Andean 40 ETF	FTSE Andean 40 Index	AND	ANDIV	ANDNV	www.globalxfunds.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Global X FTSE Nordic Region ETF	FTSE Nordic 30 Index	GXF	GXFIV	GXFNV	www.globalxfunds.com
Global X FTSE Southeast Asia ETF	FTSE Asean 40 Index	ASEA	ASEAIV	ASEANV	www.globalxfunds.com
Global X Funds Global X FinTech ETF	INDXX Global Fintech Thematic Index	FINX	FINXIV	FINXNV	www.globalxfunds.com
Global X Funds Global X Internet of Things ETF	INDXX Global Internet of Things Thematic Index	SNSR	SNSRIV	SNSRNV	www.globalxfunds.com
Global X Funds Global X Robotics & Artificial Intelligence ETF	Indxx Global Robotics & Artificial Intelligence Thematic Index	BOTZ	BOTZIV	BOTZNV	www.globalxfunds.com
Global X Funds Global X Social Media ETF	Solactive Social Media Index	SOCL	SOCLIV	SOCLNV	www.globalxfunds.com
Global X Gold Explorers ETF	Solactive Global Gold Explorers & Developers Total Return Index	GOEX	GOEXIV	GOEXNV	www.globalxfunds.com
Global X Guru Activist ETF	Solactive Guru Activist Index	ACTX	ACTXIV	ACTXNV	www.globalxfunds.com
Global X Guru Index ETF	Solactive Guru Index	GURU	GURUIV	GURUNV	www.globalxfunds.com
Global X Guru International Index ETF	Solactive Guru International Index	GURI	GURIV	GURINV	www.globalxfunds.com
Global X Health & Wellness Thematic ETF	Indxx Global Health & Wellness Thematic Index	BFIT	BFITIV	BFITNV	www.globalxfunds.com
Global X JPMorgan Efficiente Index ETF	JPMorgan ETF Efficiente 10 TR Series X Index	EFFE	EFFEIV	EFFENV	www.globalxfunds.com
Global X JPMorgan US Sector Rotator Index ETF	JPMorgan U.S. Sector Rotator TR Series X Index	SCTO	SCTOIV	SCTONV	www.globalxfunds.com
Global X Junior MLP ETF	Solactive Junior MLP Composite Index	MLPJ	MLPJIV	MLPJNV	www.globalxfunds.com
Global X Lithium & Battery Tech ETF	Solactive Global Lithium Index	LIT	LITIV	LITNV	www.globalxfunds.com
Global X Longevity Thematic ETF	Indxx Global Longevity Thematic Index	LNGR	LNGRIV	LNGRNV	www.globalxfunds.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Global X Millennials Thematic ETF	Indxx Millennials Thematic Index	MILN	MILNIV	MILNNV	www.globalxfunds.com
Global X MLP & Energy Infrastructure ETF	Solactive MLP & Energy Infrastructure Index	MLPX	MLPXIV	MLPXNV	www.globalxfunds.com
Global X MLP ETF	Solactive MLP Infrastructure Index	MLPA	MLPAIV	MLPANV	www.globalxfunds.com
Global X MSCI Argentina ETF	MSCI All Argentina 25/50 Index	ARGT	ARGTIV	ARGTNV	www.globalxfunds.com
Global X MSCI Colombia ETF	MSCI All Colombia Select 25/50 Index	GXG	GXGIV	GXGNV	www.globalxfunds.com
Global X MSCI Greece ETF	MSCI All Greece Select 25/50 Index	GREK	GREKIV	GREKNV	www.globalxfunds.com
Global X MSCI Nigeria ETF	MSCI All Nigeria Select 25/50 Index	NGE	NGEIV	NGENV	www.globalxfunds.com
Global X MSCI Norway ETF	MSCI Norway IMI 25/50 Index	NORW	NORWIV	NORWNV	www.globalxfunds.com
Global X MSCI Pakistan ETF	MSCI All Pakistan Select 25/50 Index	PAK	PAKIV	PAKNV	www.globalxfunds.com
Global X MSCI Portugal ETF	MSCI ALL Portugal Plus 25/50 Index	PGAL	PGALIV	PGALNV	www.globalxfunds.com
Global X MSCI SuperDividend EAFE ETF	MSCI EAFE Top 50 Dividend Index	EFAS	EFASIV	EFASNV	www.globalxfunds.com
Global X MSCI SuperDividend Emerging Markets ETF	MSCI Emerging Markets Top 50 Dividend Index	SDEM	SDEMIV	SDEMNV	www.globalxfunds.com
Global X NASDAQ China Technology ETF	NASDAQ OMX China Technology Index	QQQC	QQQCIV	QQQCNV	www.globalxfunds.com
Global X Next Emerging & Frontier ETF	Solactive Next Emerging & Frontier Index	EMFM	EMFMIV	EMFMNV	www.globalxfunds.com
Global X Permanent ETF	Solactive Permanent Index	PERM	PERMIV	PERMNV	www.globalxfunds.com
Global X S&P 500 Catholic Values ETF	S&P 500 Catholic Values Index	CATH	CATHIV	CATHNV	www.globalxfunds.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Global X Scientific Beta Asia ex-Japan ETF	Scientific Beta Developed Asia-Pacific ex-Japan Multi-Beta Multi-Strategy Equal Risk Contribution Index	SCIX	SCIXIV	SCIXNV	www.globalxfunds.com
Global X Scientific Beta Europe ETF	Scientific Beta Extended Europe Multi-Beta Multi-Strategy Equal Risk Contribution Index	SCID	SCIDIV	SCIDNV	www.globalxfunds.com
Global X Scientific Beta Japan ETF	Scientific Beta Japan Multi-Beta Multi-Strategy Equal Risk Contribution Index	SCIJ	SCIJIV	SCIJNV	www.globalxfunds.com
Global X Scientific Beta US ETF	Scientific Beta United States Multi-Beta Multi-Strategy Equal Risk Contribution Index	SCIU	SCIUIV	SCIUNV	www.globalxfunds.com
Global X Silver Miners ETF	Solactive Global Silver Miners Index	SIL	SILIV	SILNV	www.globalxfunds.com
Global X SuperDividend Alternatives ETF	Indxx SuperDividend Alternatives Index	ALTY	ALTYIV	ALTYNV	www.globalxfunds.com
Global X SuperDividend ETF	Solactive Global SuperDividend Index	SDIV	SDIVIV	SDIVNV	www.globalxfunds.com
Global X SuperDividend REIT ETF	Solactive Global Superdividend REIT Index	SRET	SRETIV	SRETNV	www.globalxfunds.com
Global X SuperDividend U.S. ETF	Indxx SuperDividend U.S. Low Volatility Index	DIV	DIVIV	DIVNV	www.globalxfunds.com
Global X SuperIncome Preferred ETF	S&P Enhanced Yield North American Preferred Stock Index	SPFF	SPFFIV	SPFFNV	www.globalxfunds.com
Global X U.S. Infrastructure Development ETF	Indxx US Infrastructure Development Index	PAVE	PAVEIV	PAVENV	www.globalxfunds.com
Global X Uranium ETF	Solactive Global Uranium Index	URA	URAIIV	URANV	www.globalxfunds.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Global X Yieldco Index ETF	Indxx Global YieldCo Index	YLCO	YLCOIV	YLCONV	www.globalxfunds.com
Goldman Sachs Access Investment Grade Corporate Bond ETF	Citi Goldman Sachs Investment Grade Corporate Bond Index	GIGB	GIGBIV	GIGBNV	www.goldmansachs.com
Goldman Sachs ActiveBeta Emerging Markets Equity ETF	Goldman Sachs ActiveBeta Emerging Markets Equity Index	GEM	GEMIV	GEMNV	www.goldmansachs.com
Goldman Sachs ActiveBeta Europe Equity ETF	Goldman Sachs ActiveBeta Europe Equity Index	GSEU	GSEUIV	GSEUNV	www.goldmansachs.com
Goldman Sachs ActiveBeta International Equity ETF	Goldman Sachs ActiveBeta International Equity Index	GSIE	GSIEIV	GSIENV	www.goldmansachs.com
Goldman Sachs ActiveBeta Japan Equity ETF	Goldman Sachs ActiveBeta Japan Equity Index	GSJY	GSJYIV	GSJYNV	www.goldmansachs.com
Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF	Goldman Sachs ActiveBeta U.S. Large Cap Equity Index	GSLC	GSLCIV	GSLCNV	www.goldmansachs.com
Goldman Sachs ActiveBeta U.S. Small Cap Equity ETF	Goldman Sachs ActiveBeta U.S. Small Cap Equity Index	GSSC	GSSCIV	GSSCNV	www.goldmansachs.com
Goldman Sachs Hedge Industry VIP ETF	Goldman Sachs Hedge Fund VIP Index	GVIP	GVIPIV	GVIPNV	www.goldmansachs.com
Goldman Sachs TreasuryAccess 0-1 Year ETF	Citi US Treasury 0-1 Year Composite Select Index	GBIL	GBILIV	GBILNV	www.goldmansachs.com
Guggenheim BRIC ETF	BNY Mellon BRIC Select DR Index	EEB	EED	EEDNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2017 Corporate Bond ETF	Nasdaq BulletShares USD 2017 Corporate Bond Index	BSCH	BSCHIV	BSCHNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2017 High Yield Corporation Bond ETF	Nasdaq BulletShares USD High Yield Corporate Bond 2017 Index	BSJH	BSJHIV	BSJHNV	www.guggenheiminvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Guggenheim BulletShares 2018 Corporate Bond ETF	Nasdaq BulletShares USD Corporate Bond 2018 Index	BSCI	BSCIIV	BSCINV	www.guggenheiminvestments.com
Guggenheim BulletShares 2018 High Yield Corporate Bond ETF	Nasdaq BulletShares USD High Yield Corporate Bond 2018 Index	BSJI	BSJIIV	BSJINV	www.guggenheiminvestments.com
Guggenheim BulletShares 2019 Corporate Bond ETF	Nasdaq BulletShares USD Corporate Bond 2019 Index	BSCJ	BSCJIV	BSCJNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2019 High Yield Corporate Bond ETF	Nasdaq BulletShares USD High Yield Corporate Bond 2019 Index	BSJJ	BSJJIV	BSJJNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2020 Corporate Bond ETF	Nasdaq BulletShares USD Corporate Bond 2020 Index	BCK	BCKIV	BCKNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2020 High Yield Corporate Bond ETF	Nasdaq BulletShares USD High Yield Corporate Bond 2020 Index	BSJK	BSJKIV	BSJKNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2021 Corporate Bond ETF	Nasdaq BulletShares USD Corporate Bond 2021 Index	BCL	BCLIV	BCLNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2021 High Yield Corporate Bond ETF	NASDAQ BulletShares USD High Yield Corporate Bond 2021 Index	BSJL	BSJLIV	BSJLNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2022 Corporate Bond ETF	Nasdaq BulletShares USD Corporate Bond 2022 Index	BSCM	BSCMIV	BSCMNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2022 High Yield Corporate Bond ETF	NASDAQ BulletShares USD High Yield Corporate Bond 2022 Index	BSJM	BSJMIV	BSJMN	www.guggenheiminvestments.com
Guggenheim BulletShares 2023 Corporate Bond ETF	NASDAQ BulletShares USD Corporate Bond 2023 Index	BSCN	BSCNIV	BSCNNV	www.guggenheiminvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Guggenheim BulletShares 2023 High Yield Corporate Bond ETF	NASDAQ BulletShares USD High Yield Corporate Bond 2023 Index	BSJN	BSJNIV	BSJNNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2024 Corporate Bond ETF	NASDAQ BulletShares USD Corporate Bond 2024 Index	BSCO	BSCOIV	BSCONV	www.guggenheiminvestments.com
Guggenheim BulletShares 2024 High Yield Corporate Bond ETF	NASDAQ BulletShares USD High Yield Corporate Bond 2024 Index	BSJO	BSJOIV	BSJONV	www.guggenheiminvestments.com
Guggenheim BulletShares 2025 Corporate Bond ETF	NASDAQ BulletShares USD Corporate Bond 2025 Index	BSCP	BSCPIV	BSCPNV	www.guggenheiminvestments.com
Guggenheim BulletShares 2026 Corporate Bond ETF	NASDAQ BulletShares USD Corporate Bond 2026 Index	BSCQ	BSCQIV	BSCQNV	www.guggenheiminvestments.com
Guggenheim Canadian Energy Income ETF	S&P/TSX Canadian High Income Energy Index	ENY	ENYIV	ENYNV	www.guggenheiminvestments.com
Guggenheim China All-Cap ETF	AlphaShares China All Cap Index	YAO	YAOIV	YAONV	www.guggenheiminvestments.com
Guggenheim China Real Estate ETF	AlphaShares China Real Estate Index	TAO	TAOIV	TAONV	www.guggenheiminvestments.com
Guggenheim China Small Cap ETF	AlphaShares China Small Cap Index	HAO	HAOIV	HAONV	www.guggenheiminvestments.com
Guggenheim China Technology ETF	AlphaShares China Technology Index	CQQQ	CQQQIV	CQQQNV	www.guggenheiminvestments.com
Guggenheim Defensive Equity ETF	Guggenheim Defensive Equity Index	DEF	DEFIV	DEFNV	www.guggenheiminvestments.com
Guggenheim Dow Jones Industrial Average Dividend ETF	Dow Jones Industrial Average Yield Weighted Index	DJD	DJDIV	DJDNV	www.guggenheiminvestments.com
Guggenheim Frontier Markets ETF	BNY Mellon New Frontier Index	FRN	FRNIV	FRNNV	www.guggenheiminvestments.com
Guggenheim Insider Sentiment ETF	Nasdaq US Insider Sentiment Index	NFO	NFAIV	NFANV	www.guggenheiminvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Guggenheim International Multi-Asset Income Index ETF	Zacks International Multi-Asset Income Index	HGI	HGIIV	HGINV	www.guggenheiminvestments.com
Guggenheim Large Cap Optimized Diversification ETF	Wilshire Large-Cap Optimized Diversification Index	OPD	OPDIV	OPDNV	www.guggenheiminvestments.com
Guggenheim Mid-Cap Core ETF	Zacks Mid-Cap Core Index	CZA	CZAIV	CZANV	www.guggenheiminvestments.com
Guggenheim MSCI Emerging Markets Equal Country Weight ETF	MSCI Emerging Markets Equal Country Weighted Index	EWEM	EWEMIV	EWEMNV	www.guggenheiminvestments.com
Guggenheim MSCI Global Timber ETF	MSCI ACWI IMI Timber Select Capped Index	CUT	CUTIV	CUTNV	www.guggenheiminvestments.com
Guggenheim Multi-Asset Income Index ETF	Zacks Multi-Asset Income Index	CVY	CYM	CVYNV	www.guggenheiminvestments.com
Guggenheim Multi-Factor Large Cap ETF	Guggenheim Multi-Factor Large Cap Index	GMFL	GMFLIV	GMFLNV	www.guggenheiminvestments.com
Guggenheim Raymond James SB-1 Equity ETF	Raymond James SB-1 Equity Index	RYJ	RYJIV	RYJNV	www.guggenheiminvestments.com
Guggenheim S&P 100 Equal Weight ETF	S&P 100 Equal Weight Index	OEW	OEWIV	OEWNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Consumer Discretionary ETF	S&P 500 Equal Weight Consumer Discretionary Index	RCD	RCDIV	RCDNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Consumer Staples ETF	S&P 500 Equal Weight Index Consumer Staples	RHS	RHSIV	RHSNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Energy ETF	S&P 500 Equal Weight Energy Index	RYE	RYEIV	RYENV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight ETF	S&P 500 Equal Weight Index	RSP	RSPIV	RSPNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Financial ETF	S&P 500 Equal Weight Financials Index	RYF	RYFIV	RYFNV	www.guggenheiminvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Guggenheim S&P 500 Equal Weight Health Care ETF	S&P 500 Equal Weight Health Care Index	RYH	RYHIV	RYHNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Industrials ETF	S&P 500 Equal Weight Industrials Index	RGI	RGIIV	RGINV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Materials ETF	S&P 500 Equal Weight Materials Index	RTM	RTMIV	RTMNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Real Estate ETF	S&P 500 Equal Weight Real Estate Index	EWRE	EWREIV	EWRENV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Technology ETF	S&P 500 Equal Weight Technology Index	RYT	RYTIV	RYTNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Equal Weight Utilities ETF	S&P 500 Equal Weight Utilities Index	RYU	RYUIV	RYUNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Pure Growth ETF	S&P 500 Pure Growth	RPG	RPGIV	RPGNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Pure Value ETF	S&P 500 Pure Value	RPV	RPVIV	RPVNV	www.guggenheiminvestments.com
Guggenheim S&P 500 Top 50 ETF	S&P 500 Top 50 Index	XLG	XLGIV	XLGNV	www.guggenheiminvestments.com
Guggenheim S&P Global Dividend Opportunities Index ETF	S&P Global Dividend Opportunities Index	LVL	LVLIV	LVLNV	www.guggenheiminvestments.com
Guggenheim S&P Global Water Index ETF	S&P Global Water Index	CGW	CGWIV	CGWNV	www.guggenheiminvestments.com
Guggenheim S&P High Income Infrastructure ETF	S&P High Income Infrastructure Index	GHII	GHIIIV	GHIINV	www.guggenheiminvestments.com
Guggenheim S&P MidCap 400 Equal Weight ETF	S&P MidCap 400 Equal Weight Index	EWMC	EWMCIV	EWMCNV	www.guggenheiminvestments.com
Guggenheim S&P Midcap 400 Pure Growth ETF	S&P MidCap 400/Citigroup Pure Growth Index	RFG	RFGIV	RFGNV	www.guggenheiminvestments.com
Guggenheim S&P Midcap 400 Pure Value ETF	S&P MidCap 400/Citigroup Pure Value Index	RFV	RFVIV	RFVNV	www.guggenheiminvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Guggenheim S&P SmallCap 600 Equal Weight ETF	S&P SmallCap 600 Equal Weight Index	EWSC	EWSCIV	EWSCNV	www.guggenheiminvestments.com
Guggenheim S&P Smallcap 600 Pure Growth ETF	S&P SmallCap 600 Pure Growth	RZG	RZGIV	RZGNV	www.guggenheiminvestments.com
Guggenheim S&P Smallcap 600 Pure Value ETF	S&P SmallCap 600 Pure Value	RZV	RZVIV	RZVNV	www.guggenheiminvestments.com
Guggenheim S&P Spin-Off ETF	S&P U.S. Spin-Off Index	CSD	CSDIV	CSDNV	www.guggenheiminvestments.com
Guggenheim Shipping ETF	Dow Jones Global Shipping Index	SEA	SEAIIV	SEANV	www.guggenheiminvestments.com
Guggenheim Solar ETF	MAC Global Solar Energy Index	TAN	TANIV	TANNV	www.guggenheiminvestments.com
Guggenheim U.S. Large Cap Optimized Volatility ETF	Guggenheim U.S. Large Cap Optimized Volatility Index	OVLC	OVLCIV	OVLCNV	www.guggenheiminvestments.com
Hartford Multifactor Developed Markets (ex-US) ETF	Hartford Risk-Optimized Multifactor Developed Markets (ex-US) Index	RODM	RODMIV	RODMNV	www.hartfordfunds.com
Hartford Multifactor Emerging Markets ETF	Hartford Risk-Optimized Multifactor Emerging Markets Index	ROAM	ROAMIV	ROAMNV	www.hartfordfunds.com
Hartford Multifactor Global Small Cap ETF	Hartford Risk-Optimized Multifactor Global Small Cap Index	ROGS	ROGSIV	ROGSNV	www.hartfordfunds.com
Hartford Multifactor Low Volatility International Equity ETF	Hartford Multifactor Low Volatility International Equity TR Index	LVIN	LVINIV	LVINNV	www.hartfordfunds.com
Hartford Multifactor Low Volatility US Equity ETF	Hartford Multifactor Low Volatility US Equity TR Index	LVUS	LVUSIV	LVUSNV	www.hartfordfunds.com
Hartford Multifactor REIT ETF	Hartford Risk-Optimized Multifactor REIT Index	RORE	ROREIV	RORENV	www.hartfordfunds.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Hartford Multifactor US Equity ETF	Hartford Risk-Optimized Multifactor US Equity Index	ROUS	ROUSIV	ROUSNV	www.hartfordfunds.com
Highland/iBoxx Senior Loan ETF	Markit iBoxx USD Liquid Leveraged Loan Index	SNLN	SNLNIV	SNLNNV	www.highlandfunds.com
Horizons ETF Trust I BullMark LatAm Select Leaders ETF	BullMark LatAm Select Leaders Index	BMLA	BMLAIV	BMLANV	www.horizonsetfs.com
Horizons ETF Trust I Horizons DAX Germany ETF	DAX Index	DAX	DAXIV	DAXNV	www.horizonsetfs.com
Horizons ETF Trust I Horizons NASDAQ-100 Covered Call ETF	CBOE NASDAQ-100 BuyWrite Index	QYLD	QYLDIV	QYLDNV	www.horizonsetfs.com
Horizons S&P 500 Covered Call ETF	S&P 500 Index Stock Covered Call Index	HSPX	HSPXIV	HSPXNV	www.exchangetradedconcepts.com
Horizons USA Managed Risk ETF	STOXX USA 900 Minimum Variance Unconstrained	USMR	USMRIV	USMRNV	www.horizonsetfs.com
InfraCap REIT Preferred ETF	Indxx REIT Preferred Index	PFFR	PFFRIV	PFFRNV	www.virtusetfs.com
Inspire Corporate Bond Impact ETF	Inspire Corporate Bond Impact Index	IBD	IBD.IV	IBD.NV	www.inspireinvesting.com
Inspire Global Hope ETF	Inspire Global Hope Large Cap Equal Weight Index	BLES	BLESIV	BLESNV	www.inspireinvesting.com
Inspire Small/Mid Cap Impact ETF	Inspire Small/Mid Cap Impact Equal Weight Index	ISMD	ISMDIV	ISMDNV	www.inspireinvesting.com
IQ 50 Percent Hedged FTSE Europe ETF	FTSE Developed Europe 50% Hedged to USD Index	HFXE	HFXEIV	HFXENV	www.nylinvestments.com/IQetfs
IQ 50 Percent Hedged FTSE International ETF	FTSE Developed ex North America 50% Hedged to USD Index	HFXI	HFXIIV	HFXINV	www.nylinvestments.com/IQetfs
IQ 50 Percent Hedged FTSE Japan ETF	FTSE Japan 50% Hedged to USD Index	HFXJ	HFXJIV	HFXJNV	www.nylinvestments.com/IQetfs

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
IQ ARB Global Resources ETF	IQ Global Resources Index	GRES	GRESIV	GRESNV	www.nylinvestments.com/IQetfs
IQ ARB Merger Arbitrage ETF	IQ Merger Arbitrage Index	MNA	MNAIV	MNANV	www.nylinvestments.com/IQetfs
IQ Australia Small Cap ETF	IQ Australia Small Cap Index	KROO	KROOIV	KROONV	www.nylinvestments.com/IQetfs
IQ Canada Small Cap ETF	IQ Canada Small Cap Index	CNDA	CNDAIV	CNDANV	www.nylinvestments.com/IQetfs
IQ Chaikin U.S. Small Cap ETF	NASDAQ Chaikin Power US Small Cap TR	CSML	CSMLIV	CSMLNV	www.nylinvestments.com/IQetfs
IQ Enhanced Core Bond U.S. ETF	IQ Enhanced Core Bond U.S. Index	AGGE	AGGEIV	AGGENV	www.nylinvestments.com/IQetfs
IQ Enhanced Core Plus Bond U.S. ETF	IQ Enhanced Core Plus Bond U.S. Index	AGGP	AGGPV	AGGPNV	www.nylinvestments.com/IQetfs
IQ Global Agribusiness Small Cap ETF	IQ Global Agribusiness Small Cap Index	CROP	CROPIV	CROPNV	www.nylinvestments.com/IQetfs
IQ Global Oil Small Cap ETF	IQ Global Oil Small Cap Index	IOIL	IOILIV	IOILNV	www.nylinvestments.com/IQetfs
IQ Hedge Event-Driven Tracker ETF	IQ Hedge Event-Driven Index	QED	QEDIV	QEDNV	www.nylinvestments.com/IQetfs
IQ Hedge Long/Short Tracker ETF	IQ Hedge Long/Short Index	QLS	QLSIV	QLSNV	www.nylinvestments.com/IQetfs
IQ Hedge Macro Tracker ETF	IQ Hedge Macro Index	MCRO	MCROIV	MCRONV	www.nylinvestments.com/IQetfs
IQ Hedge Market Neutral Tracker ETF	IQ Hedge Market Neutral Index	QMN	QMNIV	QMNNV	www.nylinvestments.com/IQetfs
IQ Hedge Multi-Strategy Tracker ETF	IQ Hedge Multi-Strategy Index	QAI	QAIIV	QAINV	www.nylinvestments.com/IQetfs
IQ Leaders GTAA Tracker ETF	IQ Leaders GTAA Index	QGTA	QGTAIV	QGTANV	www.nylinvestments.com/IQetfs
IQ Real Return ETF	IQ Real Return Index	CPI	CPIIV	CPINV	www.nylinvestments.com/IQetfs
IQ S&P High Yield Low Volatility Bond ETF	S&P U.S. High Yield Low Volatility Corporate Bond Index	HYLV	HYLVIV	HYLVNV	www.nylinvestments.com/IQetfs
IQ U.S. Real Estate Small Cap ETF	IQ US Real Estate Small Cap Index	ROOF	ROOFIV	ROOFNV	www.nylinvestments.com/IQetfs

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShare MSCI Eurozone ETF of ISHARES INC.	MSCI EMU Index	EZU	EZUIV	EZUNV	www.ishares.com
iShares 0-5 Year High Yield Corporate Bond ETF	Markit iBoxx USD Liquid High Yield 0-5 Index	SHYG	SHYGIV	SHYGNV	www.ishares.com
iShares 0-5 Year Investment Grade Corporate Bond ETF	Markit iBoxx USD Liquid Investment Grade 0-5 Index	SLQD	SLQDIV	SLQDNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares 0-5 Year TIPS Bond ETF	Bloomberg Barclays U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Years Index (Series-L)	STIP	STIPIV	STIPNV	www.ishares.com
iShares 10+ Year Credit Bond ETF	Bloomberg Barclays U.S. Long Credit Index	CLY	CLYIV	CLYNV	www.ishares.com
iShares 10-20 Year Treasury Bond ETF	ICE U.S. Treasury 10-20 Year Bond Index	TLH	TLHIV	TLHNV	www.ishares.com
iShares 1-3 Year Credit Bond ETF	Bloomberg Barclays U.S. 1-3 Year Credit Bond Index	CSJ	CSJIV	CSJNV	www.ishares.com
iShares 1-3 Year International Treasury Bond ETF	S&P/Citigroup International Treasury Bond Index Ex-US	IGOV	IGOVIV	IGOVNV	www.ishares.com
iShares 1-3 Year Treasury Bond ETF	ICE U.S. Treasury 1-3 Year Index	SHY	SHYIV	SHYNV	www.ishares.com
iShares 20+ Year Treasury Bond ETF	ICE U.S. Treasury 20+ Year Bond Index	TLT	TLTIV	TLTNV	www.ishares.com
iShares 3-7 Year Treasury Bond ETF	ICE U.S. Treasury 3-7 Year Bond Index	IEI	IEIIV	IEINV	www.ishares.com
iShares 7-10 Year Treasury Bond ETF	ICE U.S. Treasury 7-10 Year Bond Index	IEF	IEFIV	IEFNV	www.ishares.com
iShares Aaa - A Rated Corporate Bond ETF	Bloomberg Barclays U.S. Corporate Aaa - A Capped Index	QLTA	QLTAIV	QLTANV	www.ishares.com
iShares Adaptive Currency Hedged MSCI EAFE ETF	MSCI EAFE Adaptive Hedge to USD Index	DEFA	DEFAIV	DEFANV	www.ishares.com
iShares Adaptive Currency Hedged MSCI Eurozone ETF	MSCI EMU Adaptive Hedge to USD Index	DEZU	DEZUIV	DEZUNV	www.ishares.com
iShares Adaptive Currency Hedged MSCI Japan ETF	MSCI Japan Adaptive Hedge to USD Index	DEWJ	DEWJIV	DEWJNV	www.ishares.com
iShares Agency Bond ETF	Bloomberg Barclays U.S. Agency Bond Index	AGZ	AGZIV	AGZNV	www.ishares.com
iShares Asia 50 ETF	S&P Asia 50 Index	AIA	AIAIV	AIANV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares California Muni Bond ETF	S&P California AMT-Free Municipal Bond Index	CMF	CMFIV	CMFNV	www.ishares.com
iShares China Large-Cap ETF	FTSE China 50 Index HKD	FXI	FXIIV	FXINV	www.ishares.com
iShares CMBS Bond ETF	Bloomberg Barclays U.S. CMBS (ERISA Only) Index	CMBS	CMBSIV	CMBSNV	www.ishares.com
iShares Cohen & Steers REIT ETF	Cohen & Steers Realty Majors Index	ICF	ICFIV	ICFNV	www.ishares.com
iShares Convertible Bond ETF	Bloomberg Barclays U.S. Convertible Cash Pay Bond > \$250MM Index	ICVT	ICVTIV	ICVTNV	www.ishares.com
iShares Core 10+ Year USD Bond ETF	Bloomberg Barclays U.S. Universal 10+ Year Index	ILTB	ILTBIV	ILTBNV	www.ishares.com
iShares Core 1-5 Year USD Bond ETF	Bloomberg Barclays U.S. Universal 1-5 Year Index	ISTB	ISTBIV	ISTBNV	www.ishares.com
iShares Core 5-10 Year USD Bond ETF	Bloomberg Barclays US Universal 5-10 Years Index	IMTB	IMTBIV	IMTBNV	www.ishares.com
iShares Core Aggressive Allocation ETF	S&P Target Risk Aggressive Index	AOA	AOAIV	AOANV	www.ishares.com
iShares Core Conservative Allocation ETF	S&P Target Risk Conservative Index	AOK	AOKIV	AOKNV	www.ishares.com
iShares Core Dividend Growth ETF	Morningstar U.S. Dividend Growth Index	DGRO	DGROI V	DGRON V	www.ishares.com
iShares Core Growth Allocation ETF	S&P Target Risk Growth Index	AOR	AORIV	AORNV	www.ishares.com
iShares Core International Aggregate Bond Fund	Bloomberg Barclays Global Aggregate ex USD 10% Issuer Capped (Hedged) Index	IAGG	IAGGIV	IAGGNV	www.ishares.com
iShares Core Moderate Allocation ETF	S&P Target Risk Moderate Index	AOM	AOMIV	AOMNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Core MSCI EAFE ETF	MSCI EAFE Investable Market Index	IEFA	IEFAIV	IEFANV	www.ishares.com
iShares Core MSCI Emerging Markets ETF	MSCI Emerging Markets Investable Market Index	IEMG	IEMGIV	IEMGNV	www.ishares.com
iShares Core MSCI Europe ETF	MSCI Europe Investable Market Index	IEUR	IEURIV	IEURNV	www.ishares.com
iShares Core MSCI International Developed Markets ETF	MSCI World ex USA IMI	IDEV	IDEVIV	IDEVNV	www.ishares.com
iShares Core MSCI Pacific ETF	MSCI Pacific Investable Market Index	IPAC	IPACIV	IPACNV	www.ishares.com
iShares Core MSCI Total International Stock ETF	MSCI All Country World Ex-USA Investable Markets	IXUS	IXUSIV	IXUSNV	www.ishares.com
iShares Core S&P 500 ETF	S&P 500 Index	IVV	IVVIV	IVVNV	www.ishares.com
iShares Core S&P Mid-Cap ETF	S&P MidCap 400 Index	IJH	IJHIV	IJHNV	www.ishares.com
iShares Core S&P Small-Cap ETF	S&P SmallCap 600 Index	IJR	IJRIV	IJRNV	www.ishares.com
iShares Core S&P Total U.S. Stock Market ETF	S&P Total Market Index	ITOT	ITOTIV	ITOTNV	www.ishares.com
iShares Core S&P U.S. Growth ETF	S&P 900 Growth Index	IUSG	IUSGIV	IUSGNV	www.ishares.com
iShares Core S&P U.S. Value ETF	S&P 900 Value Index	IUSV	IUSVIV	IUSVNV	www.ishares.com
iShares Core Total USD Bond Market ETF	Bloomberg Barclays US Universal Index	IUSB	IUSBIV	IUSBNV	www.ishares.com
iShares Core U.S. Aggregate Bond ETF	Bloomberg Barclays U.S. Aggregate Bond Index	AGG	AGGIV	AGGNV	www.ishares.com
iShares Core U.S. REIT ETF	FTSE NAREIT Equity REITs Index	USRT	USRTIV	USRTNV	www.ishares.com
iShares Currency Hedged International High Yield Bond ETF	Markit iBoxx Global Developed Markets ex-US High Yield (USD Hedged) Index	HHYX	HHYXIV	HHYXNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Currency Hedged JPX-Nikkei 400 ETF	JPX-Nikkei 400 Net Total Return USD Hedged Index	HJPX	HJPXIV	HJPXNV	www.ishares.com
iShares Currency Hedged MSCI ACWI ETF	MSCI ACWI 100% Hedged to USD Index	HACW	HACWI V	HACWN V	www.ishares.com
iShares Currency Hedged MSCI ACWI ex U.S. ETF	MSCI ACWI ex-USA US Dollar Hedged Index	HAWX	HAWXI V	HAWXN V	www.ishares.com
iShares Currency Hedged MSCI Australia ETF	MSCI Australia US Dollar Hedged Index	HAUD	HAUDIV	HAUDNV	www.ishares.com
iShares Currency Hedged MSCI Canada ETF	MSCI Canada 100% Hedged to USD Index	HEWC	HEWCI V	HEWCN V	www.ishares.com
iShares Currency Hedged MSCI EAFE ETF	MSCI EAFE US Dollar Hedged Index	HEFA	HEFAIV	HEFANV	www.ishares.com
iShares Currency Hedged MSCI EAFE Small-Cap ETF	MSCI EAFE Small Cap US Dollar Hedged Index	HSCZ	HSCZIV	HSCZNV	www.ishares.com
iShares Currency Hedged MSCI Emerging Markets ETF	MSCI Emerging Markets 100% Hedged to USD Index	HEEM	HEEMIV	HEEMNV	www.ishares.com
iShares Currency Hedged MSCI Europe Small-Cap ETF	MSCI Europe Small Cap 100% Hedged to USD Index	HEUS	HEUSIV	HEUSNV	www.ishares.com
iShares Currency Hedged MSCI Eurozone ETF	MSCI EMU 100% Hedged to USD Index	HEZU	HEZUIV	HEZUNV	www.ishares.com
iShares Currency Hedged MSCI Germany ETF	MSCI Germany US Dollar Hedged Index	HEWG	HEWGI V	HEWGN V	www.ishares.com
iShares Currency Hedged MSCI Italy ETF	MSCI Italy 25/50 US Dollar Hedged Index	HEWI	HEWIIV	HEWINV	www.ishares.com
iShares Currency Hedged MSCI Japan ETF	MSCI Japan US Dollar Hedged Index	HEWJ	HEWJIV	HEWJNV	www.ishares.com
iShares Currency Hedged MSCI Mexico ETF	MSCI Mexico IMI 25/50 US Dollar Hedged Index	HEWW	HEWWI V	HEWWN V	www.ishares.com
iShares Currency Hedged MSCI South Korea ETF	MSCI Korea 25/50 US Dollar Hedged Index	HEWY	HEWYI V	HEWYN V	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Currency Hedged MSCI Spain ETF	MSCI Spain 25/50 US Dollar Hedged Index	HEWP	HEWPI V	HEWPN V	www.ishares.com
iShares Currency Hedged MSCI Switzerland ETF	MSCI Switzerland 25/50 100% Hedged to USD Index	HEWL	HEWLIV	HEWLVN	www.ishares.com
iShares Currency Hedged MSCI United Kingdom ETF	MSCI United Kingdom US Dollar Hedged Index	HEWU	HEWUI V	HEWUN V	www.ishares.com
iShares Dow Jones U.S. ETF	Dow Jones U.S. Index	IYY	IYYIV	IYYNV	www.ishares.com
iShares Edge High Yield Defensive Bond ETF	BlackRock High Yield Defensive Bond Index	HYDB	HYDB.I V	HYDB.N V	www.ishares.com
iShares Edge Investment Grade Enhanced Bond ETF	BlackRock Investment Grade Enhanced Bond Index	IGEB	IGEB.IV	IGEB.NV	www.ishares.com
iShares Edge MSCI Intl Momentum Factor ETF	MSCI World ex USA Momentum Index	IMTM	IMTMIV	IMTMNV	www.ishares.com
iShares Edge MSCI Intl Quality Factor ETF	MSCI World ex USA Sector Neutral Quality Index	IQLT	IQLTIV	IQLTNV	www.ishares.com
iShares Edge MSCI Intl Size Factor ETF	MSCI World ex USA Risk Weighted Index	ISZE	ISZEIV	ISZENV	www.ishares.com
iShares Edge MSCI Intl Value Factor ETF	MSCI World ex USA Enhanced Value Index	IVLU	IVLUIV	IVLUNV	www.ishares.com
iShares Edge MSCI Min Vol Asia ex Japan ETF	MSCI AC Asia ex Japan Minimum Volatility (USD) Index	AXJV	AXJVIV	AXJNVN	www.ishares.com
iShares Edge MSCI Min Vol EAFE Currency Hedged ETF	MSCI EAFE Minimum Volatility 100% Hedged to USD Index	HEFV	HEFVIV	HEFNVN	www.ishares.com
iShares Edge MSCI Min Vol EAFE ETF	MSCI EAFE Minimum Volatility Index	EFAV	EFAVIV	EFANVN	www.ishares.com
iShares Edge MSCI Min Vol EM Currency Hedged ETF	MSCI Emerging Markets Minimum Volatility (USD) 100% Hedged to USD Index	HEMV	HEMVIV	HEMVNV	www.ishares.com
iShares Edge MSCI Min Vol Emerging Markets ETF	MSCI Emerging Markets Minimum Volatility Index	EEMV	EEMVIV	EEMNVN	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Edge MSCI Min Vol Europe Currency Hedged ETF	MSCI Europe Minimum Volatility (USD) 100% Hedged to USD Index	HEUV	HEUVIV	HEUVNV	www.ishares.com
iShares Edge MSCI Min Vol Europe ETF	MSCI Europe Minimum Volatility (USD) Index	EUMV	EUMVIV	EUMVNV	www.ishares.com
iShares Edge MSCI Min Vol Global Currency Hedged ETF	MSCI ACWI Minimum Volatility 100% Hedged to USD Index	HACV	HACVIV	HACVNV	www.ishares.com
iShares Edge MSCI Min Vol Global ETF	MSCI ACWI Minimum Volatility Index	ACWV	ACWVI V	ACWVN V	www.ishares.com
iShares Edge MSCI Min Vol Japan ETF	MSCI Japan Minimum Volatility (USD) Index	JPMV	JPMVIV	JPMVNV	www.ishares.com
iShares Edge MSCI Min Vol USA ETF	MSCI USA Minimum Volatility Index	USMV	USMVIV	USMVNV	www.ishares.com
iShares Edge MSCI Min Vol USA Small-Cap ETF	MSCI USA Small Cap Minimum Volatility Index	SMMV	SMMVI V	SMMVN V	www.ishares.com
iShares Edge MSCI Multifactor Consumer Discretionary ETF	MSCI USA Consumer Discretionary Diversified Multiple-Factor Capped Index	CNDF	CNDFIV	CNDFNV	www.ishares.com
iShares Edge MSCI Multifactor Consumer Staples ETF	MSCI USA Consumer Staples Diversified Multiple-Factor Capped Index	CNSF	CNSFIV	CNSFNV	www.ishares.com
iShares Edge MSCI Multifactor Emerging Markets ETF	MSCI Emerging Markets Diversified Multiple-Factor Index	EMGF	EMGFIV	EMGFNV	www.ishares.com
iShares Edge MSCI Multifactor Energy ETF	MSCI USA Energy Diversified Multiple-Factor Capped Index	ERGF	ERGFIV	ERGFNV	www.ishares.com
iShares Edge MSCI Multifactor Financials ETF	MSCI USA Financials Diversified Multiple-Factor Capped Index	FNCF	FNCFIV	FNCFNV	www.ishares.com
iShares Edge MSCI Multifactor Global ETF	MSCI ACWI Diversified Multiple-Factor Index	ACWF	ACWFI V	ACWFN V	www.ishares.com
iShares Edge MSCI Multifactor Healthcare ETF	MSCI USA Health Care Diversified Multiple-Factor Capped Index	HCRF	HCRFIV	HCRFNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Edge MSCI Multifactor Industrials ETF	MSCI USA Industrials Diversified Multiple-Factor Capped Index	INDF	INDFIV	INDFNV	www.ishares.com
iShares Edge MSCI Multifactor Intl ETF	MSCI World ex USA Diversified Multiple-Factor Index	INTF	INTFIV	INTFNV	www.ishares.com
iShares Edge MSCI Multifactor Intl Small-Cap ETF	MSCI World ex USA Small Cap Diversified Multiple-Factor Index	ISCF	ISCFIV	ISCFNV	www.ishares.com
iShares Edge MSCI Multifactor Materials ETF	MSCI USA Materials Diversified Multiple-Factor Capped Index	MATF	MATFIV	MATFNV	www.ishares.com
iShares Edge MSCI Multifactor Technology ETF	MSCI USA Information Technology Diversified Multiple-Factor Capped Index	TCHF	TCHFIV	TCHFNV	www.ishares.com
iShares Edge MSCI Multifactor USA ETF	MSCI USA Diversified Multiple-Factor Index	LRGF	LRGFIV	LRGFNV	www.ishares.com
iShares Edge MSCI Multifactor USA Small-Cap ETF	MSCI USA Small Cap Diversified Multiple-Factor Index	SMLF	SMLFIV	SMLFNV	www.ishares.com
iShares Edge MSCI Multifactor Utilities ETF	MSCI USA Utilities Diversified Multiple-Factor Capped Index	UTLF	UTLFIV	UTLFNV	www.ishares.com
iShares Edge MSCI USA Momentum Factor ETF	MSCI USA Momentum Index	MTUM	MTUMIV	MTUMNV	www.ishares.com
iShares Edge MSCI USA Quality Factor ETF	MSCI USA Sector Neutral Quality Index	QUAL	QUALIV	QUALNV	www.ishares.com
iShares Edge MSCI USA Size Factor ETF	MSCI USA Risk Weighted Index	SIZE	SIZEIV	SIZENV	www.ishares.com
iShares Edge MSCI USA Value Factor ETF	MSCI USA Enhanced Value Index	VLUE	VLUEIV	VLUENV	www.ishares.com
iShares Emerging Markets Dividend ETF	Dow Jones Emerging Markets Select Dividend Index	DVYE	DVYEIV	DVYENV	www.ishares.com
iShares Emerging Markets High Yield Bond ETF	Morningstar Emerging Markets High Yield Bond	EMHY	EMHYIV	EMHYNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Emerging Markets Infrastructure ETF	S&P Emerging Markets Infrastructure Index	EMIF	EMIFIV	EMIFNV	www.ishares.com
iShares Emerging Markets Local Currency Bond ETF	J.P. Morgan GBI-EM Global Diversified 15% Cap 4.5% Floor Index	LEMB	LEMBIV	LEMBNV	www.ishares.com
iShares ESG 1-5 Year USD Corporate Bond ETF	Bloomberg Barclays MSCI US Corporate 1-5 Year ESG Focus Index	SUSB	SUSB.I V	SUSB.N V	www.ishares.com
iShares ESG USD Corporate Bond ETF	Bloomberg Barclays MSCI US Corporate ESG Focus Index	SUSC	SUSC.I V	SUSC.N V	www.ishares.com
iShares Europe Developed Real Estate ETF	FTSE EPRA/NAREIT Developed Europe Index	IFEU	IFEUIV	IFEUNV	www.ishares.com
iShares Europe ETF	S&P Europe 350 Index	IEV	IEVIV	IEVNV	www.ishares.com
iShares Exponential Technologies ETF	Morningstar Exponential Technologies Index	XT	XTIV	XTNV	www.ishares.com
iShares Fallen Angels USD Bond ETF	Bloomberg Barclays US High Yield Fallen Angel 3% Capped Index	FALN	FALNIV	FALNNV	www.ishares.com
iShares Floating Rate Bond ETF	Bloomberg Barclays US Floating Rate Note < 5 Years Index	FLOT	FLOTIV	FLOTNV	www.ishares.com
iShares FTSE KLD 400 Social Index Fund	MSCI KLD 400 Social Index	DSI	DSIIV	DSINV	www.ishares.com
iShares Global 100 ETF	S&P Global 100 Index	IOO	IOOIV	IOONV	www.ishares.com
iShares Global Clean Energy ETF	S&P Global Clean Energy Index	ICLN	ICLNIV	ICLNNV	www.ishares.com
iShares Global Consumer Discretionary ETF	S&P Global 1200 Consumer Discretionary Sector Index	RXI	RXIIV	RXINV	www.ishares.com
iShares Global Consumer Staples ETF	S&P Global 1200 Consumer Staples Sector Index	KXI	KXIIV	KXINV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Global Energy ETF	S&P Global 1200 Energy Sector Index	IXC	IXCIV	IXCNV	www.ishares.com
iShares Global ex USD High Yield Corporate Bond ETF	Markit iBoxx Global Developed Markets ex-US High Yield Index	HYXU	HYXUIV	HYXUNV	www.ishares.com
iShares Global Financials ETF	S&P Global 1200 Financials Sector Index	IXG	IXGIV	IXGNV	www.ishares.com
iShares Global Healthcare ETF	S&P Global 1200 Healthcare Sector Index	IXJ	IXJIV	IXJNV	www.ishares.com
iShares Global High Yield Corporate Bond ETF	Markit iBoxx Global Developed Markets High Yield Index	GHYG	GHYGI V	GHYGN V	www.ishares.com
iShares Global Industrials ETF	S&P Global 1200 Industrials Sector Index	EXI	EXIIV	EXINV	www.ishares.com
iShares Global Infrastructure ETF	S&P Global Infrastructure Index	IGF	IGFIV	IGFNV	www.ishares.com
iShares Global Materials ETF	S&P Global 1200 Materials Sector Index	MXI	MXIIV	MXINV	www.ishares.com
iShares Global REIT ETF	FTSE EPRA/NAREIT Global REIT Index	REET	REETIV	REETNV	www.ishares.com
iShares Global Tech ETF	S&P Global 1200 Information Technology Sector Index	IXN	IXNIV	IXNNV	www.ishares.com
iShares Global Telecom ETF	S&P Global 1200 Telecommunications Services Index	IXP	IXPIV	IXPNV	www.ishares.com
iShares Global Timber & Forestry ETF	S&P Global Timber & Forestry Index	WOOD	WOODI V	WOODN V	www.ishares.com
iShares Global Utilities ETF	S&P Global 1200 Utilities Sector Index	JXI	JXIIV	JXINV	www.ishares.com
iShares GNMA Bond ETF	Bloomberg Barclays U.S. GNMA Bond Index	GNMA	GNMAI V	GNMAN V	www.ishares.com
iShares Government/Credit Bond ETF	Bloomberg Barclays U.S. Government/Credit Bond Index	GBF	GBFIV	GBFNV	www.ishares.com
iShares High Dividend ETF	Morningstar Dividend Yield Focus Index	HDV	HDVIV	HDVNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares iBonds Dec 2017 Term Corporate ETF	Bloomberg Barclays December 2017 Maturity Corporate Index	IBDJ	IBDJIV	IBDJNV	www.ishares.com
iShares iBonds Dec 2018 Term Corporate ETF	Bloomberg Barclays December 2018 Maturity Corporate Index	IBDH	IBDHIV	IBDHNV	www.ishares.com
iShares iBonds Dec 2019 Term Corporate ETF	Bloomberg Barclays December 2019 Maturity Corporate Index	IBDK	IBDKIV	IBDKNV	www.ishares.com
iShares iBonds Dec 2020 Term Corporate ETF	Bloomberg Barclays 2020 Maturity Corporate Index	IBDL	IBDLIV	IBDLNV	www.ishares.com
iShares iBonds Dec 2021 Term Corporate ETF	Bloomberg Barclays December 2021 Maturity Corporate Index	IBDM	IBDMIV	IBDMNV	www.ishares.com
iShares iBonds Dec 2021 Term Muni Bond ETF	S&P AMT-Free Municipal Series Dec 2021 Index	IBMJ	IBMJIV	IBMJNV	www.ishares.com
iShares iBonds Dec 2022 Term Corporate ETF	Bloomberg Barclays December 2022 Maturity Corporate Index	IBDN	IBDNIV	IBDNV	www.ishares.com
iShares iBonds Dec 2022 Term Muni Bond ETF	S&P AMT-Free Municipal Series Dec 2022 Index	IBMK	IBMKIV	IBMKNV	www.ishares.com
iShares iBonds Dec 2023 Term Corporate ETF	Bloomberg Barclays December 2023 Maturity Corporate Index	IBDO	IBDOIV	IBDONV	www.ishares.com
iShares iBonds Dec 2023 Term Muni Bond ETF	S&P AMT-Free Municipal Series Dec 2023 Total Return Index	IBML	IBMLIV	IBMLNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares iBonds Dec 2024 Term Corporate ETF	Bloomberg Barclays December 2024 Maturity Corporate Index	IBDP	IBDPiV	IBDPNV	www.ishares.com
iShares iBonds Dec 2025 Term Corporate ETF	Bloomberg Barclays December 2025 Maturity Corporate Index	IBDQ	IBDQiV	IBDQNV	www.ishares.com
iShares iBonds Dec 2026 Term Corporate ETF	Bloomberg Barclays December 2026 Maturity Corporate Index	IBDR	IBDRiV	IBDRNV	www.ishares.com
iShares iBonds Mar 2018 Term Corporate ETF	Bloomberg Barclays 2018 Maturity Corporate Index	IBDB	IBDBiV	IBDBNV	www.ishares.com
iShares iBonds Mar 2018 Term Corporate ex-Financials ETF	Bloomberg Barclays 2018 Maturity High Quality Corporate Index	IBCC	IBCCiV	IBCCNV	www.ishares.com
iShares iBonds Mar 2020 Term Corporate ETF	Bloomberg Barclays 2020 Maturity Corporate Index	IBDC	IBDCiV	IBDCNV	www.ishares.com
iShares iBonds Mar 2020 Term Corporate ex-Financials ETF	Bloomberg Barclays 2020 Maturity High Quality Corporate Index	IBCD	IBCDiV	IBCDNV	www.ishares.com
iShares iBonds Mar 2023 Term Corporate ETF	Bloomberg Barclays 2023 Maturity Corporate Index	IBDD	IBDDiV	IBDDNV	www.ishares.com
iShares iBonds Mar 2023 Term Corporate ex-Financials ETF	Bloomberg Barclays 2023 Maturity High Quality Corporate Index	IBCE	IBCEiV	IBCENV	www.ishares.com
iShares iBonds Sep 2017 Term Muni Bond ETF	S&P AMT-Free Municipal Series 2017 Index	IBMF	IBMFiV	IBMFNV	www.ishares.com
iShares iBonds Sep 2018 Term Muni Bond ETF	S&P AMT-Free Municipal Series 2018 Index	IBMG	IBMGiV	IBMGNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares iBonds Sep 2019 Term Muni Bond ETF	S&P AMT-Free Municipal Series 2019 Index	IBMH	IBMHIV	IBMHN	www.ishares.com
iShares iBonds Sep 2020 Term Muni Bond ETF	S&P AMT-Free Municipal Series 2020 Index	IBMI	IBMIIV	IBMIN	www.ishares.com
iShares iBoxx \$ High Yield Corporate Bond ETF	Markit iBoxx \$ Liquid High Yield Index	HYG	HYGIV	HYGIV	www.ishares.com
iShares iBoxx \$ High Yield ex Oil & Gas Corporate Bond ETF	Markit iBoxx USD Liquid High Yield ex-Oil & Gas Index	HYXE	HYXEIV	HYXENV	www.ishares.com
iShares iBoxx \$ Investment Grade Corporate Bond ETF	Markit iBoxx \$ Liquid Investment Grade Index	LQD	LQDIV	LQDNV	www.ishares.com
iShares Intermediate Credit Bond ETF	Bloomberg Barclays U.S. Intermediate Credit Bond Index	CIU	CIUIV	CIUNV	www.ishares.com
iShares Intermediate Government/Credit Bond ETF	Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index	GVI	GVIIV	GVINV	www.ishares.com
iShares International Developed Property ETF	S&P Developed Ex-U.S. Property Index	WPS	WPSIV	WPSNV	www.ishares.com
iShares International Developed Real Estate ETF	FTSE EPRA/NAREIT Developed Real Estate ex-U.S. Index	IFGL	IFGLIV	IFGLNV	www.ishares.com
iShares International Dividend Growth ETF	Morningstar Global ex-US Dividend Growth Index	IGRO	IGROIV	IGRONV	www.ishares.com
iShares International Preferred Stock ETF	S&P International Preferred Stock Index	IPFF	IPFFIV	IPFFNV	www.ishares.com
iShares International Select Dividend ETF	Dow Jones EPAC Select Dividend Index	IDV	IDVIV	IDVNV	www.ishares.com
iShares International Treasury Bond ETF	S&P/Citigroup International Treasury Bond Index Ex-US 1-3 Year	ISHG	ISHGIV	ISHGNV	www.ishares.com
iShares J.P. Morgan EM Corporate Bond ETF	Morningstar Emerging Markets Corporate Bond Index	CEMB	CEMBIV	CEMBNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares J.P. Morgan EM Local Currency Bond ETF	Dow Jones Asia/Pacific Select Dividend 30 Index	DVYA	DVYAIV	DVYANV	www.ishares.com
iShares J.P. Morgan USD Emerging Markets Bond ETF	JPMorgan EMBI Global Core Index	EMB	EMBIV	EMBNV	www.ishares.com
iShares JPX-Nikkei 400 ETF	JPX-Nikkei 400 Index	JPXN	JPXNIV	JPXNNV	www.ishares.com
iShares Latin America 40 ETF	S&P Latin America 40 Index	ILF	ILFIV	ILFNV	www.ishares.com
iShares MBS ETF	Bloomberg Barclays U.S. MBS Index	MBB	MBBIV	MBBNV	www.ishares.com
iShares Micro-Cap ETF	Russell Microcap Index	IWC	IWCIV	IWCNV	www.ishares.com
iShares Morningstar Large-Cap ETF	Morningstar Large Core Index	JKD	JKDIV	JKDNV	www.ishares.com
iShares Morningstar Large-Cap Growth ETF	Morningstar Large Growth Index	JKE	JKEIV	JKENV	www.ishares.com
iShares Morningstar Large-Cap Value ETF	Morningstar Large Value Index	JKF	JKFIV	JKFNV	www.ishares.com
iShares Morningstar Mid-Cap ETF	Morningstar Mid Core Index	JKG	JKGIV	JKGNV	www.ishares.com
iShares Morningstar Mid-Cap Growth ETF	Morningstar Mid Growth Index	JKH	JKHIV	JKHNV	www.ishares.com
iShares Morningstar Mid-Cap Value ETF	Morningstar Mid Value Index	JKI	JKIIV	JKINV	www.ishares.com
iShares Morningstar Multi-Asset Income ETF	Morningstar Multi-Asset High Income Index	IYLD	IYLDIV	IYLDNV	www.ishares.com
iShares Morningstar Small-Cap ETF	Morningstar Small Core Index	JKJ	JKJIV	JKJNV	www.ishares.com
iShares Morningstar Small-Cap Growth ETF	Morningstar Small Growth Index	JKK	JKKIV	JKKNV	www.ishares.com
iShares Morningstar Small-Cap Value ETF	Morningstar Small Value Index	JKL	JKLIV	JKLNV	www.ishares.com
iShares Mortgage Real Estate Capped ETF	FTSE NAREIT All Mortgage Capped Index	REM	REMIV	REMNV	www.ishares.com
iShares MSCI ACWI ETF	MSCI All Country World Index	ACWI	ACWIIV	ACWINV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares MSCI ACWI ex US ETF	MSCI All Country World Index ex USA Index	ACWX	ACWXI V	ACWXN V	www.ishares.com
iShares MSCI ACWI Low Carbon Target ETF	MSCI ACWI Low Carbon Target Index	CRBN	CRBNIV	CRBNNV	www.ishares.com
iShares MSCI All Country Asia ex Japan ETF	MSCI All Country Asia ex Japan Index	AAXJ	AAXJIV	AAXJNV	www.ishares.com
iShares MSCI All Peru Capped ETF	MSCI All Peru Capped Index	EPU	EPUIV	EPUNV	www.ishares.com
iShares MSCI Argentina and Global Exposure ETF	MSCI AI Argentina25-50Nt Index	AGT	AGTIV	AGTNV	www.ishares.com
iShares MSCI Australia ETF	MSCI Australia Index	EWA	EWAIV	EWANV	www.ishares.com
iShares MSCI Austria Capped ETF	MSCI Austria IMI 25/50 Index	EWO	EWOIV	EWONV	www.ishares.com
iShares MSCI Belgium Capped ETF	MSCI Belgium IMI 25/50 Index	EWK	EWKIV	EWKNV	www.ishares.com
iShares MSCI Brazil Capped ETF	MSCI Brazil 25/50 Index	EWZ	EWZIV	EWZNV	www.ishares.com
iShares MSCI Brazil Small-Cap ETF	MSCI Brazil Small Cap Index	EWZS	EWZSIV	EWZSNV	www.ishares.com
iShares MSCI BRIC ETF	MSCI BRIC Index	BKF	BKFIV	BKFNV	www.ishares.com
iShares MSCI Canada ETF	MSCI Canada Index	EWC	EWCIIV	EWCNV	www.ishares.com
iShares MSCI Chile Capped ETF	MSCI Chile IMI 25/50 Index	ECH	ECHIV	ECHNV	www.ishares.com
iShares MSCI China A ETF	MSCI China A International Index	CNYA	CNYAIV	CNYANV	www.ishares.com
iShares MSCI China ETF	MSCI China Index	MCHI	MCHIV	MCHINV	www.ishares.com
iShares MSCI China Small-Cap ETF	MSCI China Small Cap Index	ECNS	ECNSIV	ECNSNV	www.ishares.com
iShares MSCI Colombia Capped ETF	MSCI All Colombia Capped Index	ICOL	ICOLIV	ICOLNV	www.ishares.com
iShares MSCI Denmark Capped ETF	MSCI Denmark IMI 25/50 Index	EDEN	EDENIV	EDENNV	www.ishares.com
iShares MSCI EAFE ETF	MSCI EAFE Index	EFA	EFAIV	EFANV	www.ishares.com
iShares MSCI EAFE Growth ETF	MSCI EAFE Growth Index	EFG	EFGIV	EFGNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares MSCI EAFE Small-Cap ETF	MSCI EAFE Small-Cap Index	SCZ	SCZIV	SCZNV	www.ishares.com
iShares MSCI EAFE Value ETF	MSCI EAFE Value Index	EFV	EFVIV	EFVNV	www.ishares.com
iShares MSCI Emerging Markets Asia ETF	MSCI Emerging Markets Asia Index	EEMA	EEMAIV	EEMANV	www.ishares.com
iShares MSCI Emerging Markets ETF	MSCI Emerging Markets Index	EEM	EEMIV	EEMNV	www.ishares.com
iShares MSCI Emerging Markets Small Cap ETF	MSCI Emerging Markets Small Cap Index	EEMS	EEMSIV	EEMSNV	www.ishares.com
iShares MSCI Europe Financials ETF	MSCI Europe Financials Index	EUFN	EUFNIV	EUFNNV	www.ishares.com
iShares MSCI Europe Small-Cap ETF	MSCI Europe Small Cap	IEUS	IEUSIV	IEUSNV	www.ishares.com
iShares MSCI Finland Capped ETF	MSCI Finland IMI 25/50 Index	EFNL	EFNLIV	EFNLNV	www.ishares.com
iShares MSCI France ETF	MSCI France Index	EWQ	EWQIV	EWQNV	www.ishares.com
iShares MSCI Frontier 100 Fund	MSCI Frontier Markets 100 Index	FM	FMIV	FMNV	www.ishares.com
iShares MSCI Germany ETF	MSCI Germany Index	EWG	EWGIV	EWGNV	www.ishares.com
iShares MSCI Germany Small-Cap ETF	MSCI Germany Small Cap Index	EWGS	EWGSI V	EWGSN V	www.ishares.com
iShares MSCI Global Agriculture Producers ETF	MSCI ACWI Select Agriculture Producers Investable Market Index	VEGI	VEGIIV	VEGINV	www.ishares.com
iShares MSCI Global Energy Producers ETF	MSCI ACWI Select Energy Producers Investable Market Index	FILL	FILLIV	FILLNV	www.ishares.com
iShares MSCI Global Gold Miners ETF	MSCI ACWI Select Gold Miners Investable Market Index	RING	RINGIV	RINGNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares MSCI Global Metals & Mining Producers ETF	MSCI ACWI Select Metals & Mining Producers Ex Gold & Silver Investable Market Index	PICK	PICKIV	PICKNV	www.ishares.com
iShares MSCI Global Silver Miners ETF	MSCI ACWI Select Silver Miners Investable Market Index	SLVP	SLVPIV	SLVPNV	www.ishares.com
iShares MSCI Hong Kong ETF	MSCI Hong Kong Index	EWK	EWKIV	EWKNV	www.ishares.com
iShares MSCI India ETF	MSCI India Total Return Index	INDA	INDAIV	INDANV	www.ishares.com
iShares MSCI India Small-Cap ETF	MSCI India Small Cap Index	SMIN	SMINIV	SMINNV	www.ishares.com
iShares MSCI Indonesia ETF	MSCI Indonesia Investable Market Index	EIDO	EIDOIV	EIDONV	www.ishares.com
iShares MSCI Ireland Capped ETF	MSCI All Ireland Capped Index	EIRL	EIRLIV	EIRLNV	www.ishares.com
iShares MSCI Israel Capped ETF	MSCI Israel Capped Investable Market Index	EIS	EISIV	EISNV	www.ishares.com
iShares MSCI Italy Capped ETF	MSCI Italy 25/50 Index	EWI	EWIIV	EWINV	www.ishares.com
iShares MSCI Japan ETF	MSCI Japan Index	EWJ	EWJIV	EWJNV	www.ishares.com
iShares MSCI Japan Small Cap ETF	MSCI Japan Small Cap Index	SCJ	SCJIV	SCJNV	www.ishares.com
iShares MSCI KLD 400 Social ETF	MSCI Kokusai Index	TOK	TOKIV	TOKNV	www.ishares.com
iShares MSCI Malaysia ETF	MSCI Malaysia Index	EWM	EWMIV	EWMNV	www.ishares.com
iShares MSCI Mexico Capped ETF	MSCI Mexico IMI 25/50 Index	EWX	EWXIV	EWXNV	www.ishares.com
iShares MSCI Netherlands ETF	MSCI Netherlands Investable Market Index	EWN	EWNIV	EWNNV	www.ishares.com
iShares MSCI New Zealand Capped ETF	MSCI New Zealand IMI 25/50 Index	ENZL	ENZLIV	ENZLNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares MSCI Norway Capped ETF	MSCI Norway IMI 25/50 Index	ENOR	ENORIV	ENORNV	www.ishares.com
iShares MSCI Pacific ex-Japan ETF	MSCI Pacific ex Japan Index	EPP	EPPIV	EPPNV	www.ishares.com
iShares MSCI Philippines ETF	MSCI Philippines Investable Market Index	EPHE	EPHEIV	EPHENV	www.ishares.com
iShares MSCI Poland Capped ETF	MSCI Poland IMI 25/50 Index	EPOL	EPOLIV	EPOLNV	www.ishares.com
iShares MSCI Qatar Capped ETF	MSCI All Qatar Capped Index	QAT	QATIV	QATNV	www.ishares.com
iShares MSCI Russia Capped ETF	MSCI Russia 25/50 Index	ERUS	ERUSIV	ERUSNV	www.ishares.com
iShares MSCI Saudi Arabia Capped ETF	MSCI Saudi Arabia Investable Market Index (IMI) 25/50 Index	KSA	KSAIV	KSANV	www.ishares.com
iShares MSCI Singapore Capped ETF	MSCI Singapore 25/50 Index	EWS	EWSIV	EWSNV	www.ishares.com
iShares MSCI South Africa ETF	MSCI South Africa Index	EZA	EZAIV	EZANV	www.ishares.com
iShares MSCI South Korea Capped ETF	MSCI Korea 25/50 Index	EWY	EWYIV	EWYNV	www.ishares.com
iShares MSCI Spain Capped ETF	MSCI Spain 25/50 Index	EWP	EWPIV	EWPNV	www.ishares.com
iShares MSCI Sweden Capped ETF	MSCI Sweden 25/50 Index	EWD	EWDIV	EWDNV	www.ishares.com
iShares MSCI Switzerland Capped ETF	MSCI Switzerland 25/50 Index	EWL	EWLIV	EWLNV	www.ishares.com
iShares MSCI Taiwan Capped ETF	MSCI Taiwan 25/50 Index	EWT	EWTIV	EWTNV	www.ishares.com
iShares MSCI Thailand Capped ETF	MSCI Thailand IMI 25/50 Index	THD	THDIV	THDNV	www.ishares.com
iShares MSCI Turkey ETF	MSCI Turkey Investable Market Index	TUR	TURIV	TURNV	www.ishares.com
iShares MSCI UAE Capped ETF	MSCI All UAE Capped Index	UAE	UAEIV	UAENV	www.ishares.com
iShares MSCI United Kingdom ETF	MSCI United Kingdom Index	EWU	EWUIV	EWUNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares MSCI United Kingdom Small-Cap ETF	MSCI United Kingdom Small Cap Index	EWUS	EWUSI V	EWUSN V	www.ishares.com
iShares MSCI USA Equal Weighted ETF	MSCI USA Equal Weighted Index	EUSA	EUSAIV	EUSANV	www.ishares.com
iShares MSCI USA ESG Optimized ETF	MSCI USA ESG Focus Index	ESGU	ESGUIV	ESGUNV	www.ishares.com
iShares MSCI USA ESG Select ETF	MSCI USA ESG Select Index	SUSA	SUSA.I V	SUSA.N V	www.ishares.com
iShares MSCI World ETF	MSCI World Index	URTH	URTHIV	URTHNV	www.ishares.com
iShares Nasdaq Biotechnology ETF	NASDAQ Biotechnology Index	IBB	IBBIV	IBBNV	www.ishares.com
iShares National Muni Bond ETF	S&P National AMT-Free Municipal Bond Index	MUB	MUBIV	MUBNV	www.ishares.com
iShares New York Muni Bond ETF	S&P New York AMT-Free Municipal Bond Index	NYF	NYFIV	NYFNV	www.ishares.com
iShares North American Natural Resources ETF	S&P North American Natural Resources Sector Index	IGE	IGEIV	IGENV	www.ishares.com
iShares North American Tech ETF	S&P North American Technology Sector Index	IGM	IGMIV	IGMNV	www.ishares.com
iShares North American Tech-Multimedia Networking ETF	S&P North American Technology Multimedia Networking Index	IGN	IGNIV	IGNNV	www.ishares.com
iShares North American Tech-Software ETF	S&P North American Technology Software Index	IGV	IGVIV	IGVNV	www.ishares.com
iShares PHLX Semiconductor ETF	PHLX Semiconductor Index	SOXX	SOXXIV	SOXXNV	www.ishares.com
iShares Residential Real Estate Capped ETF	FTSE NAREIT All Residential Capped Index	REZ	REZIV	REZNV	www.ishares.com
iShares Russell 1000 ETF	Russell 1000 Index	IWB	IWBIV	IWBNV	www.ishares.com
iShares Russell 1000 Growth ETF	Russell 1000 Growth Index	IWF	IWFIV	IWFNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Russell 1000 Value ETF	Russell 1000 Value Index	IWD	IWDIV	IWDNV	www.ishares.com
iShares Russell 2000 ETF	Russell 2000 Index	IWM	IWMIV	IWMNV	www.ishares.com
iShares Russell 2000 Growth ETF	Russell 2000 Growth Index	IWO	IWOIV	IWONV	www.ishares.com
iShares Russell 2000 Value ETF	Russell 2000 Value Index	IWN	IWNIV	IWNNV	www.ishares.com
iShares Russell 2500 ETF	Russell 2500 Index	SMMD	SMMD.I V	SMMD.N V	www.ishares.com
iShares Russell 3000 ETF	Russell 3000 Index	IWV	IWVIV	IWVNV	www.ishares.com
iShares Russell Mid-Cap ETF	Russell MidCap Index	IWR	IWRIV	IWRNV	www.ishares.com
iShares Russell Mid-Cap Growth ETF	Russell MidCap Growth Index	IWP	IWPIV	IWPNV	www.ishares.com
iShares Russell Mid-Cap Value ETF	Russell MidCap Value Index	IWS	IWSIV	IWSNV	www.ishares.com
iShares Russell Top 200 ETF	Russell Top 200 Index	IWL	IWLIV	IWLVN	www.ishares.com
iShares Russell Top 200 Growth ETF	Russell Top 200 Growth Index	IWY	IWYIV	IWYNV	www.ishares.com
iShares Russell Top 200 Value ETF	Russell Top 200 Value Index	IWX	IWXIV	IWXNV	www.ishares.com
iShares S&P 100 ETF	S&P 100 Index	OEF	OEFIV	OEFNV	www.ishares.com
iShares S&P 500 Growth ETF	S&P 500 Growth Index	IWW	IWWIV	IWWNV	www.ishares.com
iShares S&P 500 Value ETF	S&P 500 Value Index	IVE	IVEIV	IVENV	www.ishares.com
iShares S&P India Nifty 50 Index Fund	Nifty 50 Index	INDY	INDYIV	INDYNV	www.ishares.com
iShares S&P Mid-Cap 400 Growth ETF	S&P Mid Cap 400 Growth Index	IJK	IJKIV	IJKNV	www.ishares.com
iShares S&P Mid-Cap 400 Value ETF	S&P Mid Cap 400 Value Index	IJJ	IJJIV	IJJNV	www.ishares.com
iShares S&P Small-Cap 600 Growth ETF	S&P SmallCap 600 Growth Index	IJT	IJTIV	IJTNV	www.ishares.com
iShares S&P Small-Cap 600 Value ETF	S&P SmallCap 600 Value Index	IJS	IJSIV	IJSNV	www.ishares.com
iShares Select Dividend Index ETF	Dow Jones U.S. Select Dividend Index	DVY	DVYIV	DVYNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Short Treasury Bond ETF	ICE U.S. Treasury Short Bond Index	SHV	SHVIV	SHVNV	www.ishares.com
iShares Short-Term National Muni Bond ETF	S&P Short Term National AMT-Free Municipal Bond Index	SUB	SUBIV	SUBNV	www.ishares.com
iShares TIPS Bond ETF	Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series-L)	TIP	TIPIV	TIPNV	www.ishares.com
iShares Transportation Average ETF	Dow Jones Transportation Average	IYT	IYTIV	IYTNV	www.ishares.com
iShares Treasury Floating Rate Bond ETF	Bloomberg Barclays US Treasury Floating Rate Bond Index	TFLO	TFLOIV	TFLONV	www.ishares.com
iShares Trust iShares MSCI EAFE ESG Optimized ETF	MSCI EAFE ESG Focus Index	ESGD	ESGDIV	ESGDNV	www.ishares.com
iShares Trust iShares MSCI Global Impact ETF	MSCI ACWI Sustainable Impact Index	MPCT	MPCTIV	MPCTNV	www.ishares.com
iShares U.S. Aerospace & Defense ETF	Dow Jones U.S. Select Aerospace & Defense Index	ITA	ITAIV	ITANV	www.ishares.com
iShares U.S. Basic Materials ETF	Dow Jones U.S. Basic Materials Index	IYM	IYMIV	IYMNV	www.ishares.com
iShares U.S. Broker-Dealers & Securities Exchanges ETF	Dow Jones U.S. Select Investment Services Index	IAI	IAIIV	IAINV	www.ishares.com
iShares U.S. Consumer Goods ETF	Dow Jones U.S. Consumer Goods Index	IYK	IYKIV	IYKNV	www.ishares.com
iShares U.S. Consumer Services ETF	Dow Jones U.S. Consumer Services Index	IYC	IYCIV	IYCNV	www.ishares.com
iShares U.S. Credit Bond ETF	Bloomberg Barclays U.S. Credit Bond Index	CRED	CREDIV	CREDNV	www.ishares.com
iShares U.S. Energy ETF	Dow Jones U.S. Oil & Gas Index	IYE	IYEIV	IYENV	www.ishares.com
iShares U.S. Financial Services ETF	Dow Jones U.S. Financial Services Index	IYG	IYGIV	IYGNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares U.S. Financials ETF	Dow Jones U.S. Financials Index	IYF	IYFIV	IYFNV	www.ishares.com
iShares U.S. Healthcare ETF	Dow Jones U.S. Health Care Index	IYH	IYHIV	IYHNV	www.ishares.com
iShares U.S. Healthcare Providers ETF	Dow Jones U.S. Select Health Care Providers Index	IHF	IHFIV	IHFNV	www.ishares.com
iShares U.S. Home Construction ETF	Dow Jones U.S. Select Home Construction Index	ITB	ITBIV	ITBNV	www.ishares.com
iShares U.S. Industrials ETF	Dow Jones U.S. Industrials Index	IYJ	IYJIV	IYJNV	www.ishares.com
iShares U.S. Insurance ETF	Dow Jones U.S. Select Insurance Index	IAK	IAKIV	IAKNV	www.ishares.com
iShares U.S. Medical Devices ETF	Dow Jones U.S. Select Medical Equipment Index	IHI	IHIIV	IHINV	www.ishares.com
iShares U.S. Oil & Gas Exploration & Production ETF	Dow Jones U.S. Select Oil Exploration & Production Index	IEO	IEOIV	IEONV	www.ishares.com
iShares U.S. Oil Equipment & Services ETF	Dow Jones U.S. Select Oil Equipment & Services Index	IEZ	IEZIV	IEZNV	www.ishares.com
iShares U.S. Pharmaceuticals ETF	Dow Jones U.S. Select Pharmaceuticals Index	IHE	IHEIV	IHENV	www.ishares.com
iShares U.S. Preferred Stock ETF	S&P U.S. Preferred Stock	PFF	PFFIV	PFFNV	www.ishares.com
iShares U.S. Real Estate ETF	Dow Jones U.S. Real Estate Index	IYR	IYRIV	IYRNV	www.ishares.com
iShares U.S. Regional Banks ETF	Dow Jones U.S. Select Regional Banks Index	IAT	IATIV	IATNV	www.ishares.com
iShares U.S. Technology ETF	Dow Jones U.S. Technology Index	IYW	IYWIV	IYWNV	www.ishares.com
iShares U.S. Telecommunications ETF	Dow Jones U.S. Select Telecommunications Index	IYZ	IYZIV	IYZNV	www.ishares.com
iShares U.S. Treasury Bond ETF	ICE U.S. Treasury Core Bond Index	GOVT	GOVTIV	GOVTNV	www.ishares.com
iShares U.S. Utilities ETF	Dow Jones U.S. Utilities Index	IDU	IDUIV	IDUNV	www.ishares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
iShares Yield Optimized Bond ETF	Morningstar US Bond Market Yield-Optimized Index	BYLD	BYLDIV	BYLDNV	www.ishares.com
iShares, Inc. iShares MSCI EM ESG Optimized ETF	MSCI Emerging Markets ESG Focus Index	ESGE	ESGEIV	ESGENV	www.ishares.com
Janus Detroit Street Trust Janus Henderson SG Global Quality Income ETF	SGI Global Quality Income Index	SGQI	SGQIIV	SGQINV	www.janus.com
Janus Detroit Street Trust Janus Henderson Small Cap Growth Alpha ETF	Janus Small Cap Growth Alpha Index	JSML	JSMLIV	JSMLNV	www.janus.com
Janus Detroit Street Trust Janus Henderson Small/Mid Cap Growth Alpha ETF	Janus Small/Mid Cap Growth Alpha Index	JSMD	JSMDIV	JSMDNV	www.janus.com
Janus Velocity Tail Risk Hedged Large Cap ETF	VelocityShares Tail Risk Hedged Large Cap Index	TRSK	TRSKIV	TRSKNV	www.janus.com
Janus Velocity Volatility Hedged Large Cap ETF	VelocityShares Volatility Hedged Large Cap Index	SPXH	SPXHIV	SPXHNV	www.janus.com
John Hancock Multifactor Consumer Discretionary ETF	John Hancock Dimensional Consumer Discretionary Index	JHMC	JHMCIV	JHMCNV	etf.jhinvestments.com
John Hancock Multifactor Consumer Staples ETF	John Hancock Dimensional Consumer Staples Index	JHMS	JHMSIV	JHMSNV	etf.jhinvestments.com
John Hancock Multifactor Developed International ETF	John Hancock Dimensional Developed International Index	JHMD	JHMDIV	JHMDNV	etf.jhinvestments.com
John Hancock Multifactor Energy ETF	John Hancock Dimensional Energy Index	JHME	JHMEIV	JHMENTV	etf.jhinvestments.com
John Hancock Multifactor Financials ETF	John Hancock Dimensional Financials Index	JHMF	JHMFIV	JHMFNV	etf.jhinvestments.com
John Hancock Multifactor Healthcare ETF	John Hancock Dimensional Healthcare Index	JHMH	JHMHIV	JHMHNV	etf.jhinvestments.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
John Hancock Multifactor Industrials ETF	John Hancock Dimensional Industrials Index	JHMI	JHMIIV	JHMINV	etf.jhinvestments.com
John Hancock Multifactor Large Cap ETF	John Hancock Dimensional Large Cap Index	JHML	JHMLIV	JHMLNV	etf.jhinvestments.com
John Hancock Multifactor Materials ETF	John Hancock Dimensional Materials Index	JHMA	JHMAIV	JHMANV	etf.jhinvestments.com
John Hancock Multifactor Mid Cap ETF	John Hancock Dimensional Mid Cap Index	JHMM	JHMMIV	JHMMNV	etf.jhinvestments.com
John Hancock Multifactor Technology ETF	John Hancock Dimensional Technology Index	JHMT	JHMTIV	JHMTNV	etf.jhinvestments.com
John Hancock Multifactor Utilities ETF	John Hancock Dimensional Utilities Index	JHMU	JHMUIV	JHMUNV	etf.jhinvestments.com
JPMorgan Diversified Return Global Equity ETF	FTSE Developed Diversified Factor Index	JPGE	JPGEIV	JPGENV	www.jpmorgan.com
JPMorgan Diversified Return Emerging Markets Equity ETF	FTSE Emerging Diversified Factor Index	JPEM	JPEMIV	JPEMNV	www.jpmorgan.com
JPMorgan Diversified Return Europe Currency Hedged ETF	FTSE Developed Europe Diversified Factor 100% Hedged to USD Index	JPEH	JPEHIV	JPEHNV	www.jpmorgan.com
JPMorgan Diversified Return Europe Equity ETF	FTSE Developed Europe Diversified Factor Index	JPEU	JPEUIV	JPEUNV	www.jpmorgan.com
JPMorgan Diversified Return International Currency Hedged ETF	FTSE Developed ex North America Diversified Factor 100% Hedged to USD Index	JPIH	JPIHIV	JPIHNV	www.jpmorgan.com
JPMorgan Diversified Return International Equity ETF	FTSE Developed ex North America Diversified Factor Index	JPIN	JPINIV	JPINNV	www.jpmorgan.com
JPMorgan Diversified Return U.S. Equity ETF	Russell 1000 Diversified Factor Index	JPUS	JPUSIV	JPUSNV	www.jpmorgan.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
JPMorgan Diversified Return U.S. Mid Cap Equity ETF	Russell Midcap Diversified Factor Index	JPME	JPMEIV	JPMENV	www.jpmorgan.com
JPMorgan Diversified Return U.S. Small Cap Equity ETF	Russell 2000 Diversified Factor Index	JPSE	JPSEIV	JPSENV	www.jpmorgan.com
Knowledge Leaders Developed World ETF	Knowledge Leaders Developed World Index	KLDW	KLDWIV	KLDWNV	www.exchangetradedconcepts.com
KraneShares Bosera MSCI China A Share ETF	MSCI China A International Index	KBA	KBAIV	KBANV	www.kraneshares.com
KraneShares CSI China Internet ETF	CSI Overseas China Internet Index	KWEB	KWEBIV	KWEBNV	www.kraneshares.com
KraneShares E Fund China Commercial Paper ETF	CSI Diversified High Grade Commercial Paper Index	KCNY	KCNYIV	KCNYNV	www.kraneshares.com
KraneShares FTSE Emerging Markets Plus ETF	FTSE Emerging incl China Overseas non-R/QFII GDP Weighted Index	KEMP	KEMPIV	KEMPNV	www.kraneshares.com
KraneShares Zacks New China ETF	Zacks New China Index	KFYP	KFYPIV	KFYPNV	www.kraneshares.com
Legg Mason Emerging Markets Low Volatility High Dividend ETF	QS Emerging Markets Low Volatility High Dividend Hedged Index	LVHE	LVHENIV	LVHENNV	www.leggmason.com
Legg Mason ETF Investment Trust Legg Mason Developed ex-US Diversified Core ETF	QS DBI Developed ex-US Diversified Index	DDBI	DDBIIV	DDBINNV	www.leggmason.com
Legg Mason ETF Investment Trust Legg Mason Emerging Markets Diversified Core ETF	QS DBI Emerging Markets Diversified Index	EDBI	EDBIIV	EDBINNV	www.leggmason.com
Legg Mason ETF Investment Trust Legg Mason Global Infrastructure ETF	RARE Global Infrastructure Index	INFR	INFRIV	INFRNV	www.leggmason.com
Legg Mason ETF Investment Trust Legg Mason Low Volatility High Dividend ETF	QS Low Volatility High Dividend Index	LVHD	LVHDIV	LVHDNV	www.leggmason.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Legg Mason ETF Investment Trust Legg Mason US Diversified Core ETF	QS DBI US Diversified Index	UDBI	UDBIIV	UDBINV	www.leggmason.com
Legg Mason International Low Volatility High Dividend ETF	QS International Low Volatility High Dividend Hedged Index	LVHI	LVHIIV	LVHINV	www.leggmason.com
Legg Mason Small-Cap Quality Value ETF	Royce Small-Cap Quality Value Index (TR)	SQLV	SQLV.I V	SQLV.N V	www.leggmason.com
Loncar Cancer Immunotherapy ETF	Loncar Cancer Immunotherapy Index	CNCR	CNCRIV	CNCRNV	www.exchangetradedconcepts.com
Master Income ETF	TFMS HIPS 300 Index	HIPS	HIPSIV	HIPSNV	www.exchangetradedconcepts.com
MomentumShares International Quantitative Momentum ETF	Alpha Architect International Quantitative Momentum Index	IMOM	IMOMIV	IMOMNV	www.alphaarchitect.com
MomentumShares U.S. Quantitative Momentum ETF	Alpha Architect Quantitative Momentum Index	QMOM	QMOMI V	QMOMN V	www.alphaarchitect.com
Nashville Area ETF	LocalShares Nashville Index	NASH	NASHIV	NASHNV	localshares.com
NuShares Enhanced Yield 1-5 Year U.S. Aggregate Bond ETF	BofA Merrill Lynch Enhanced Yield 1-5 Year US Broad Bond Index	NUSA	NUSAIV	NUSANV	www.nuveen.com/ETF
NuShares Enhanced Yield U.S. Aggregate Bond ETF	BofA Merrill Lynch Enhanced Yield US Broad Bond Index	NUAG	NUAGIV	NUAGNV	www.nuveen.com/ETF
NuShares ESG Emerging Markets Equity ETF	MSCI TIAA ESG Emerging Markets Equity Index USD -US DOLLAR NETR	NUEM	NUEMI V	NUEMN V	www.nuveen.com/ETF
NuShares ESG International Developed Markets Equity ETF	MSCI TIAA ESG International Developed Markets Equity Index USD -US DOLLAR NETR	NUDM	NUDMI V	NUDMN V	www.nuveen.com/ETF

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
NuShares ESG Large-Cap Growth ETF	TIAA ESG USA Large-Cap Growth Index	NULG	NULGIV	NULGNV	www.nuveen.com/ETF
NuShares ESG Large-Cap Value ETF	TIAA ESG USA Large-Cap Value Index	NULV	NULVIV	NULVNV	www.nuveen.com/ETF
NuShares ESG Mid-Cap Growth ETF	TIAA ESG USA Mid-Cap Growth Index	NUMG	NUMGI V	NUMGN V	www.nuveen.com/ETF
NuShares ESG Mid-Cap Value ETF	TIAA ESG USA Mid-Cap Value Index	NUMV	NUMVI V	NUMVN V	www.nuveen.com/ETF
NuShares ESG Small-Cap ETF	TIAA ESG USA Small-Cap Index	NUSC	NUSCIV	NUSCNV	www.nuveen.com/ETF
NuShares Short-Term REIT ETF	Dow Jones U.S. Select Short-Term REIT Index	NURE	NUREIV	NURENV	www.nuveen.com/ETF
Oppenheimer Emerging Markets Revenue ETF	OFI Revenue Weighted Emerging Markets Index	REEM	REEM.I V	REEM.N V	www.oppenheimerfunds.com
Oppenheimer ESG Revenue ETF	OFI Revenue Weighted ESG Index	ESGL	ESGLIV	ESGLNV	www.oppenheimerfunds.com
Oppenheimer Financials Sector Revenue ETF	OFI Revenue Weighted Financials Sector Index	RWW	RWWIV	RWWNV	www.oppenheimerfunds.com
Oppenheimer Global ESG Revenue ETF	OFI Revenue Weighted Global ESG Index	ESGF	ESGFIV	ESGFNV	www.oppenheimerfunds.com
Oppenheimer Global Revenue ETF	OFI Revenue Weighted Global Index	RGLB	RGLB.I V	RGLB.N V	www.oppenheimerfunds.com
Oppenheimer International Revenue ETF	OFI Revenue Weighted International Index	REFA	REFA.I V	REFA.N V	www.oppenheimerfunds.com
Oppenheimer Large Cap Revenue ETF	OFI Revenue Weighted Large Cap Index	RWL	RWLIV	RWLNV	www.oppenheimerfunds.com
Oppenheimer Mid Cap Revenue ETF	OFI Revenue Weighted Mid Cap Index	RWK	RWKIV	RWKNV	www.oppenheimerfunds.com
Oppenheimer Small Cap Revenue ETF	OFI Revenue Weighted Small Cap Index	RWJ	RWJIV	RWJNV	www.oppenheimerfunds.com
Oppenheimer Ultra Dividend Revenue ETF	Revenue Weighted Ultra Dividend Index	RDIV	RDIVIV	RDIVNV	www.oppenheimerfunds.com
O'Shares FTSE Asia Pacific Quality Dividend ETF	FTSE Developed Asia Pacific Qual/Vol/Yield Factor 5% Capped Index	OASI	OASIIV	OASINV	www.oshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
O'Shares FTSE Asia Pacific Quality Dividend Hedged ETF	FTSE Developed Asia Pacific Qual / Vol / Yield Factor 5% Capped 100% Hedged to USD Index	OAPH	OAPHIV	OAPHNV	www.oshares.com
O'Shares FTSE Europe Quality Dividend ETF	FTSE Developed Europe Qual/Vol/Yield Factor 5% Capped Index	OEUR	OEURIV	OEURNV	www.oshares.com
O'Shares FTSE Europe Quality Dividend Hedged ETF	FTSE Developed Europe Qual / Vol / Yield Factor 5% Capped 100% Hedged to USD Index	OEUH	OEUHIV	OEUHNV	www.oshares.com
O'Shares FTSE Russell International Quality Dividend ETF	FTSE Developed ex US Qual/Vol/Yield 5% Capped Factor Index	ONTL	ONTLIV	ONTLNV	www.oshares.com
O'Shares FTSE U.S. Quality Dividend ETF	FTSE US Qual/Vol/Yield Factor 5% Capped Index	OUSA	OUSAIV	OUSANV	www.oshares.com
O'Shares Russell Small Cap Quality Dividend ETF	FTSE USA Small Cap Qual/Vol/Yield 3% Capped Factor Index	OUSM	OUSMI V	OUSMN V	www.oshares.com
Pacer Developed Markets International Cash Cows 100 ETF	Pacer Developed Markets International Cash Cows 100 Index	ICOW	ICOWIV	ICOWNV	www.paceretfs.com
Pacer Global Cash Cows Dividend ETF	Pacer Global Cash Cows Dividends Index	GCOW	GCOWI V	GCOWN V	www.paceretfs.com
Pacer Trendpilot 100 ETF	Pacer NASDAQ-100 Trendpilot Index	PTNQ	PTNQIV	PTNQNV	www.paceretfs.com
Pacer Trendpilot 450 ETF	Pacer Wilshire US Mid-Cap Trendpilot Index	PTMC	PTMCIV	PTMCNV	www.paceretfs.com
Pacer Trendpilot 750 ETF	Pacer Wilshire US Large-Cap Trendpilot Index	PTLC	PTLCIV	PTLCNV	www.paceretfs.com
Pacer TrendpilotTM European Index ETF	Pacer Trendpilot European Index	PTEU	PTEUIV	PTEUNV	www.paceretfs.com
Pacer US Cash Cows 100 ETF	Pacer U.S. Cash Cows 100 Index	COWZ	COWZI V	COWZN V	www.paceretfs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Pacer US Small Cap Cash Cows 100 ETF	Pacer US Small Cap Cash Cows Index	CALF	CALFIV	CALFNV	www.paceretfs.com
PIMCO 0-5 Year High Yield Corporate Bond Index Exchange-Traded Fund	The BofA Merrill Lynch 0-5 Year US High Yield Constrained Index	HYS	HYSIV	HYSNV	www.pimco.com
PIMCO 1-3 Year U.S. Treasury Index Exchange-Traded Fund	The BofA Merrill Lynch 1-3 Year US Treasury Index	TUZ	TUZIV	TUZNV	www.pimco.com
PIMCO 1-5 Year U.S. Treasury TIPS Index Exchange-Traded Fund	BofA Merrill Lynch 1-5 Year US Inflation-Linked Treasury Index	STPZ	STPZIV	STPZNV	www.pimco.com
PIMCO 15+ Year U.S. TIPS Index Exchange-Traded Fund	The BofA Merrill Lynch 15+ Year US Inflation-Linked Treasury Index	LTPZ	LTPZIV	LTPZNV	www.pimco.com
PIMCO 25+ Year Zero Coupon U.S. Treasury Index Exchange-Traded Fund	The BofA Merrill Lynch Long US Treasury Principal STRIPS Index	ZROZ	ZROZIV	ZROZNV	www.pimco.com
PIMCO Broad U.S. TIPS Index Exchange-Traded Fund	The BofA Merrill Lynch US Inflation-Linked Treasury Index	TIPZ	TIPZIV	TIPZNV	www.pimco.com
PIMCO Investment Grade Corporate Bond Index Exchange-Traded Fund	The BofA Merrill Lynch US Corporate Index	CORP	CORPIV	CORPNV	www.pimco.com
PowerShares Water Resource Portfolio	NASDAQ OMX US Water Index	PHO	PHOIV	PHONV	www.invesco.com
PowerShares 1-30 Laddered Treasury Portfolio	Ryan/NASDAQ 1-30 Year Treasury Laddered Index	PLW	PLWIV	PLWNV	www.invesco.com
PowerShares Aerospace & Defense Portfolio	SPADE Defense Index	PPA	PPAIV	PPANV	www.invesco.com
PowerShares Buyback Achievers Portfolio	NASDAQ Buyback Achievers Index	PKW	PKWIV	PKWNV	www.invesco.com
PowerShares California AMT-Free Municipal Bond Portfolio	BofA Merrill Lynch California Long-Term Core Plus Municipal Securities Index	PWZ	PWZIV	PWZNV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares CEF Income Composite Portfolio	S-Network Composite Closed-End Fund Index	PCEF	PCEFIV	PCEFNV	www.invesco.com
PowerShares Chinese Yuan Dim Sum Bond Portfolio	Citigroup Dim Sum (Offshore CNY) Bond Index	DSUM	DSUMIV	DSUMNV	www.invesco.com
PowerShares Cleantech Portfolio	Cleantech Index	PZD	PZDIV	PZDNV	www.invesco.com
PowerShares Contrarian Opportunities Portfolio	Dow Jones U.S. Contrarian Opportunities Index	CNTR	CNTRIV	CNTRNV	www.invesco.com
PowerShares Developed EuroPacific Currency Hedged Low Volatility Portfolio	S&P EPAC ex. Korea Low Volatility USD Hedged Index	FXEP	FXEPIV	FXEPNV	www.invesco.com
PowerShares Dividend Achievers Portfolio	NASDAQ US Broad Dividend Achievers Index	PFM	PFMIV	PFMNV	www.invesco.com
PowerShares DWA Basic Materials Momentum Portfolio	DWA Basic Materials Technical Leaders Index	PYZ	PYZIV	PYZNV	www.invesco.com
PowerShares DWA Consumer Cyclical Momentum Portfolio	DWA Consumer Cyclical Technical Leaders Index	PEZ	PEZIV	PEZNV	www.invesco.com
PowerShares DWA Consumer Staples Momentum Portfolio	DWA Consumer Staples Technical Leaders Index	PSL	PSLIV	PSLNV	www.invesco.com
PowerShares DWA Developed Markets Momentum Portfolio	Dorsey Wright Developed Markets Technical Leaders Index	PIZ	PIZIV	PIZNV	www.invesco.com
PowerShares DWA Emerging Markets Momentum Portfolio	Dorsey Wright Emerging Markets Technical Leaders Index	PIE	PIEIV	PIENV	www.invesco.com
PowerShares DWA Energy Momentum Portfolio	DWA Energy Technical Leaders Index	PXI	PXIIV	PXINV	www.invesco.com
PowerShares DWA Financial Momentum Portfolio	DWA Financial Technical Leaders Index	PFI	PFIIV	PFINV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares DWA Healthcare Momentum Portfolio	DWA Healthcare Technical Leaders Index	PTH	PTHIV	PTHNV	www.invesco.com
PowerShares DWA Industrials Momentum Portfolio	DWA Industrials Technical Leaders Index	PRN	PRNIV	PRNNV	www.invesco.com
PowerShares DWA Momentum & Low Volatility Rotation Portfolio	Dorsey Wright Multi-Factor Global Equity Index	DWLV	DWLVIV	DWLVNV	www.invesco.com
PowerShares DWA Momentum Portfolio	Dorsey Wright Technical Leaders Index	PDP	PDPIV	PDPNV	www.invesco.com
PowerShares DWA NASDAQ Momentum Portfolio	Dorsey Wright NASDAQ Technical Leaders Index	DWAQ	DWAQIV	DWAQNV	www.invesco.com
PowerShares DWA SmallCap Momentum Portfolio	Dorsey Wright SmallCap Technical Leaders Index	DWAS	DWASIV	DWASN	www.invesco.com
PowerShares DWA Tactical Multi-Asset Income Portfolio	Dorsey Wright Multi-Asset Income Index	DWIN	DWINIV	DWINNV	www.invesco.com
PowerShares DWA Tactical Sector Rotation Portfolio	Dorsey Wright Sector 4 Index	DWTR	DWTRIV	DWTRNV	www.invesco.com
PowerShares DWA Technology Momentum Portfolio	DWA Technology Technical Leaders Index	PTF	PTFIV	PTFNV	www.invesco.com
PowerShares DWA Utilities Momentum Portfolio	DWA Utilities Technical Leaders Index	PUI	PUIIV	PUIINV	www.invesco.com
PowerShares Dynamic Biotechnology & Genome Portfolio	Dynamic Biotech & Genome Intellidex	PBE	PBEIV	PBENV	www.invesco.com
PowerShares Dynamic Building & Construction Portfolio	Dynamic Building & Construction Intellidex	PKB	PKBIV	PKBNV	www.invesco.com
PowerShares Dynamic Energy Exploration & Production Portfolio	Dynamic Energy Exploration & Production Intellidex	PXE	PXEIV	PXENV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares Dynamic Food & Beverage Portfolio	Dynamic Food & Beverage Intellidex	PBJ	PBJIV	PBJNV	www.invesco.com
PowerShares Dynamic Large Cap Growth Portfolio	Dynamic Large Cap Growth Intellidex	PWB	PWBIV	PWBNV	www.invesco.com
PowerShares Dynamic Large Cap Value Portfolio	Dynamic Large Cap Value Intellidex	PWV	PWVIV	PWVNV	www.invesco.com
PowerShares Dynamic Leisure & Entertainment Portfolio	Dynamic Leisure and Entertainment Intellidex	PEJ	PEJIV	PEJNV	www.invesco.com
PowerShares Dynamic Market Portfolio	Dynamic Market Intellidex	PWC	PWCIV	PWCNV	www.invesco.com
PowerShares Dynamic Media Portfolio	Dynamic Media Intellidex	PBS	PBSIV	PBSNV	www.invesco.com
PowerShares Dynamic Networking Portfolio	Dynamic Networking Intellidex	PXQ	PXQIV	PXQNV	www.invesco.com
PowerShares Dynamic Oil & Gas Services Portfolio	Dynamic Oil Services Intellidex	PXJ	PXJIV	PXJNV	www.invesco.com
PowerShares Dynamic Pharmaceuticals Portfolio	Dynamic Pharmaceutical Intellidex Index	PJP	PJPIV	PJPNV	www.invesco.com
PowerShares Dynamic Retail Portfolio	Dynamic Retail Intellidex	PMR	PMRIV	PMRNV	www.invesco.com
PowerShares Dynamic Semiconductors Portfolio	Dynamic Semiconductor Intellidex	PSI	PSIIV	PSINV	www.invesco.com
PowerShares Dynamic Software Portfolio	Dynamic Software Intellidex	PSJ	PSJIV	PSJNV	www.invesco.com
PowerShares Emerging Markets Infrastructure Portfolio	S-Network Emerging Infrastructure Builders Index	PXR	PXRIV	PXRNV	www.invesco.com
PowerShares Emerging Markets Sovereign Debt Portfolio	DB Emerging Market USD Liquid Balanced Index	PCY	PCYIV	PCYNV	www.invesco.com
PowerShares Europe Currency Hedged Low Volatility Portfolio	S&P Eurozone Low Volatility USD Hedged Index	FXEU	FXEUIV	FXEUNV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares Financial Preferred Portfolio	Wells Fargo Hybrid & Preferred Securities Financial Index	PGF	PGFIV	PGFNV	www.invesco.com
PowerShares FTSE International Low Beta Equal Weight Portfolio	FTSE Developed ex US Low Beta Equal Weight Index	IDLB	IDLBIV	IDLBNV	www.invesco.com
PowerShares FTSE RAFI Asia Pacific ex-Japan Portfolio	FTSE RAFI Developed Asia Pacific ex Japan Index	PAF	PAFIV	PAFNV	www.invesco.com
PowerShares FTSE RAFI Developed Markets ex-U.S. Portfolio	FTSE RAFI Developed ex US 1000 Index	PXF	PXFIV	PXFNV	www.invesco.com
PowerShares FTSE RAFI Developed Markets ex-U.S. Small-Mid Portfolio	FTSE RAFI Developed Markets ex-U.S. Mid-Small 1500 Index	PDN	PDNIV	PDNNV	www.invesco.com
PowerShares FTSE RAFI Emerging Markets Portfolio	FTSE RAFI Emerging Markets Index	PXH	PXHIV	PXHNV	www.invesco.com
PowerShares FTSE RAFI US 1000 Portfolio	FTSE RAFI US 1000 Index	PRF	PRFIV	PRFNV	www.invesco.com
PowerShares FTSE RAFI US 1500 Small-Mid Portfolio	FTSE RAFI US 1500 Small-Mid Index	PRFZ	PRFZIV	PRFZNV	www.invesco.com
PowerShares Fundamental High Yield Corporate Bond Portfolio	RAFI Bonds US High Yield 1-10 Index	PHB	PHBIV	PHBNV	www.invesco.com
PowerShares Fundamental Investment Grade Bond Portfolio	RAFI Bonds US Investment Grade 1-10 Index	PFIG	PFIGIV	PFIGNV	www.invesco.com
PowerShares Global Agriculture Portfolio	NASDAQ OMX Global Agriculture Index	PAGG	PAGGIV	PAGGNV	www.invesco.com
PowerShares Global Clean Energy Portfolio	WilderHill New Energy Global Innovation Index	PBD	PBDIV	PBDNV	www.invesco.com
PowerShares Global Gold & Precious Metals Portfolio	NASDAQ OMX Global Gold and Precious Metals Index	PSAU	PSAUIV	PSAUNV	www.invesco.com
PowerShares Global Listed Private Equity Portfolio	Red Rocks Global Listed Private Equity Index	PSP	PSPIV	PSPNV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares Global Short Term High Yield Bond Portfolio	DB Global Short Maturity High Yield Bond Index	PGHY	PGHYIV	PGHYNV	www.invesco.com
PowerShares Global Water Portfolio	NASDAQ OMX Global Water Index	PIO	PIOIV	PIONV	www.invesco.com
PowerShares Golden Dragon China Portfolio	NASDAQ Golden Dragon China Index	PGJ	PGJIV	PGJNV	www.invesco.com
PowerShares High Yield Equity Dividend Achievers Portfolio	NASDAQ Dividend Achievers 50 Index	PEY	PEYIV	PEYNV	www.invesco.com
PowerShares India Portfolio	Indus India Index	PIN	PINIV	PINNV	www.invesco.com
PowerShares International BuyBack Achievers Portfolio	NASDAQ International BuyBack Achievers	IPKW	IPKWIV	IPKWNV	www.invesco.com
PowerShares International Corporate Bond Portfolio	S&P International Corporate Bond Index	PICB	PICBIV	PICBNV	www.invesco.com
PowerShares International Dividend Achievers Portfolio	NASDAQ International Dividend Achievers Index	PID	PIDIV	PIDNV	www.invesco.com
PowerShares Japan Currency Hedged Low Volatility Portfolio	S&P Japan 500 Low Volatility USD Hedged Index	FXJP	FXJPIV	FXJPNV	www.invesco.com
PowerShares KBW Bank Portfolio	KBW Nasdaq Bank Index	KBWB	KBWBI V	KBWBN V	www.invesco.com
PowerShares KBW High Dividend Yield Financial Portfolio	KBW Nasdaq Financial Sector Dividend Yield Index	KBWD	KBWDI V	KBWDN V	www.invesco.com
PowerShares KBW Premium Yield Equity REIT Portfolio	KBW Nasdaq Premium Yield Equity REIT Index	KBWY	KBWYI V	KBWYN V	www.invesco.com
PowerShares KBW Property & Casualty Insurance Portfolio	KBW Nasdaq Property & Casualty Index	KBWP	KBWPI V	KBWPN V	www.invesco.com
PowerShares KBW Regional Banking Portfolio	KBW Nasdaq Regional Banking Index	KBWR	KBWRI V	KBWRN V	www.invesco.com
PowerShares LadderRite 0-5 Year Corporate Bond Portfolio	NASDAQ LadderRite 0-5 Year USD Corporate Bond Index	LDRI	LDRIIV	LDRINV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares Nasdaq International Portfolio	NASDAQ Internet Index	PNQI	PNQIIV	PNQINV	www.invesco.com
PowerShares National AMT-Free Municipal Bond Portfolio	The BofA Merrill Lynch National Long-Term Core Plus Municipal Securities Index	PZA	PZAIV	PZANV	www.invesco.com
PowerShares New York AMT-Free Municipal Bond Portfolio	The BofA Merrill Lynch New York Long-Term Core Plus Municipal Securities Index	PZT	PZTIV	PZTNV	www.invesco.com
PowerShares Preferred Portfolio	BofA Merrill Lynch Core Plus Fixed Rate Preferred Securities Index	PGX	PGXIV	PGXNV	www.invesco.com
PowerShares QQQ Trust, Series 1	NASDAQ-100 Index	QQQ	QXV	QQQNV	www.invesco.com
PowerShares Russell 1000 Enhanced Equal Weight Portfolio	Russell 1000 Enhanced Value Equal Weight Index	USEQ	USEQ.I V	USEQ.N V	www.invesco.com
PowerShares Russell 1000 Equal Weight Portfolio	Russell 1000 Equal Weight Index	EQAL	EQALIV	EQALNV	www.invesco.com
PowerShares Russell 1000 Low Beta Equal Weight Portfolio	Russell 1000 Low Beta Equal Weight Index	USLB	USLBIV	USLBNV	www.invesco.com
PowerShares Russell 2000 Equal Weight Portfolio	Russell 2000 Equal Weight Index	EQWS	EQWSI V	EQWSN V	www.invesco.com
PowerShares Russell 2000 Pure Growth Portfolio	Russell 2000 Pure Growth Index	PXSG	PXSGIV	PXSGNV	www.invesco.com
PowerShares Russell 2000 Pure Value Portfolio	Russell 2000 Pure Value Index	PXSV	PXSVIV	PXSVNV	www.invesco.com
PowerShares Russell Midcap Equal Weight Portfolio	Russell MidCap Equal Weight Index	EQWM	EQWMI V	EQWMN V	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares Russell Midcap Pure Growth Portfolio	Russell Midcap Pure Growth Index	PXMG	PXMGIV	PXMGN V	www.invesco.com
PowerShares Russell Midcap Pure Value Portfolio	Russell Midcap Pure Value Index	PXMV	PXMVIV	PXMVNV	www.invesco.com
PowerShares Russell Top 200 Equal Weight Portfolio	Russell Top 200 Equal Weight Index	EQWL	EQWLIV	EQWLN V	www.invesco.com
PowerShares Russell Top 200 Pure Growth Portfolio	Russell Top 200 Pure Growth Index	PXLG	PXLGIV	PXLGNV	www.invesco.com
PowerShares Russell Top 200 Pure Value Portfolio	Russell Top 200 Pure Value Index	PXLV	PXLVIV	PXLVNV	www.invesco.com
PowerShares S&P 500 BuyWrite Portfolio	CBOE S&P 500 BuyWrite Index	PBP	MNV	PBPNV	www.invesco.com
PowerShares S&P 500 Enhanced Value Portfolio	S&P 500 Enhanced Value Index	SPVU	SPVUIV	SPVUNV	www.invesco.com
PowerShares S&P 500 ex-Rate Sensitive Low Volatility Portfolio	S&P 500 Low Volatility Rate Response Index	XRLV	XRLVIV	XRLVNV	www.invesco.com
PowerShares S&P 500 High Beta Portfolio	S&P 500 High Beta Index	SPHB	SPHBIV	SPHBNV	www.invesco.com
PowerShares S&P 500 High Dividend Low Volatility Portfolio	S&P 500 Low Volatility High Dividend Index	SPHD	SPHDIV	SPHDNV	www.invesco.com
PowerShares S&P 500 Low Volatility Portfolio	S&P 500 Low Volatility Index	SPLV	SPLVIV	SPLVNV	www.invesco.com
PowerShares S&P 500 Minimum Variance Portfolio	S&P 500 Minimum Volatility Index	SPMV	SPMV.IV	SPMV.N V	<u>www.invesco.com</u>
PowerShares S&P 500 Momentum Portfolio	S&P 500 Momentum Index	SPMO	SPMOIV	SPMON V	www.invesco.com
PowerShares S&P 500 Quality Portfolio	S&P 500 Quality Index	SPHQ	SPHQIV	SPHQNV	www.invesco.com
PowerShares S&P 500 Value With Momentum Portfolio	S&P 500 Value Momentum Total Return Index	SPVM	SPVMIV	SPVMNV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares S&P Emerging Markets Low Volatility Portfolio	S&P BMI Emerging Markets Low Volatility Index	EELV	EELVIV	EELVNV	www.invesco.com
PowerShares S&P Emerging Markets Momentum Portfolio	S&P Momentum Emerging Plus LargeMidCap Index	EEMO	EEMOIV	EEMONV	www.invesco.com
PowerShares S&P International Developed High Dividend Low Volatility Portfolio	S&P EPAC Ex-Korea Low Volatility High Dividend Index	IDHD	IDHDIV	IDHDNV	www.invesco.com
PowerShares S&P International Developed Low Volatility Portfolio	S&P BMI International Developed Low Volatility Index	IDLV	IDLVIV	IDLNV	www.invesco.com
PowerShares S&P International Developed Momentum Portfolio	S&P Momentum Developed Ex U.S. & South Korea LargeMidCap Index	IDMO	IDMOIV	IDMONV	www.invesco.com
PowerShares S&P International Developed Quality Portfolio	S&P Quality Developed ex-U.S. LargeMidCap Index	IDHQ	IDHQIV	IDHQNV	www.invesco.com
PowerShares S&P MidCap Low Volatility Portfolio	S&P MidCap 400 Low Volatility Index	XMLV	XMLVIV	XMLNV	www.invesco.com
PowerShares S&P SmallCap Consumer Discretionary Portfolio	S&P SmallCap 600 Capped Consumer Discretionary Index	PSCD	PSCDIV	PSCDNV	www.invesco.com
PowerShares S&P SmallCap Consumer Staples Portfolio	S&P SmallCap 600 Capped Consumer Staples Index	PSCC	PSCCIV	PSCCNV	www.invesco.com
PowerShares S&P SmallCap Energy Portfolio	S&P SmallCap 600 Capped Energy Index	PSCE	PSCEIV	PSCENV	www.invesco.com
PowerShares S&P SmallCap Financials Portfolio	S&P SmallCap 600 Capped Financials Index	PSCF	PSCFIV	PSCFNV	www.invesco.com
PowerShares S&P SmallCap Health Care Portfolio	S&P SmallCap 600 Capped Health Care Index	PSCH	PSCHIV	PSCHNV	www.invesco.com
PowerShares S&P SmallCap High Dividend Low Volatility Portfolio	S&P SmallCap 600 Low Volatility High Dividend Index	XSHD	XSHDIV	XSHDNV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
PowerShares S&P SmallCap Industrials Portfolio	S&P SmallCap 600 Capped Industrials Index	PSCI	PSCIIV	PSCINV	www.invesco.com
PowerShares S&P SmallCap Information Technology Portfolio	S&P SmallCap 600 Capped Information Technology Index	PSCT	PSCTIV	PSCTNV	www.invesco.com
PowerShares S&P SmallCap Low Volatility Portfolio	S&P SmallCap 600 Low Volatility Index	XSLV	XSLVIV	XSLNV	www.invesco.com
PowerShares S&P SmallCap Materials Portfolio	S&P SmallCap 600 Capped Materials Index	PSCM	PSCMIV	PSCMNV	www.invesco.com
PowerShares S&P SmallCap Quality Portfolio	S&P Small Cap 600 Quality Total Return Index	XSHQ	XSHQIV	XSHQNV	www.invesco.com
PowerShares S&P SmallCap Utilities Portfolio	S&P SmallCap 600 Capped Utilities Index	PSCU	PSCUIV	PSCUNV	www.invesco.com
PowerShares Senior Loan Portfolio	S&P/LSTA U.S. Leveraged Loan 100 Index	BKLN	BKLNIV	BKLNNV	www.invesco.com
PowerShares Taxable Municipal Bond Portfolio	BofA Merrill Lynch US Taxable Municipal Securities Plus Index	BAB	BABIV	BABNV	www.invesco.com
PowerShares Treasury Collateral Portfolio	ICE U.S. Treasury Short Bond Index	CLTL	CLTLIV	CLTLNV	www.invesco.com
PowerShares Variable Rate Preferred Portfolio	Wells Fargo Hybrid and Preferred Securities Floating and Variable Rate Index	VRP	VRPIV	VRPNV	www.invesco.com
PowerShares VRDO Tax-Free Weekly Portfolio	Bloomberg US Municipal AMT-Free Weekly VRDO Index	PVI	PVIIV	PVINV	www.invesco.com
PowerShares WilderHill Clean Energy Portfolio	WilderHill Clean Energy Index	PBW	PBWIV	PBWNV	www.invesco.com
PowerShares WilderHill Progressive Energy Portfolio	WilderHill Progressive Energy Index	PUW	PUWIV	PUWNV	www.invesco.com
PowerShares Zacks Micro Cap Portfolio	Zacks Micro Cap Index	PZI	PZIIV	PZINV	www.invesco.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Premise Capital Frontier Advantage Diversified Tactical ETF	Premise Capital Frontier Advantage Diversified Tactical Index	TCTL	TCTLIV	TCTLNV	www.exchangetradedconcepts.com
Principal Healthcare Innovators Index ETF	NASDAQ U.S. Healthcare Innovators Index	BTEC	BTECIV	BTECNV	www.principalfunds.com
Principal Millennials Index ETF	NASDAQ Global Millennial Opportunity Index	GENY	GENYIV	GENYNV	www.principalfunds.com
Principal Price Setters Index ETF	NASDAQ US Price Setters Index	PSET	PSETIV	PSETNV	www.principalfunds.com
Principal Shareholder Yield Index ETF	NASDAQ U.S. Shareholder Yield Index	PY	PYIV	PYNV	www.principalfunds.com
Principal U.S. Small Cap Index ETF	NASDAQ US Small Cap Select Leaders Index	PSC	PSCIV	PSCNV	www.principalfunds.com
ProShares UltraPro QQQ	NASDAQ-100 Index	TQQQ	TQQQIV	TQQQN V	www.proshares.com
ProShares DJ Brookfield Global Infrastructure ETF	Dow Jones Brookfield Global Infrastructure Composite Index	TOLZ	TOLZIV	TOLZNV	www.proshares.com
ProShares German Sovereign/Sub-Sovereign ETF	Markit iBoxx EUR Germany Sovereign & Sub-Sovereign Liquid Index	GGOV	GGOVIV	GGOVN V	www.proshares.com
ProShares Global Listed Private Equity ETF	LPX Direct Listed Private Equity Index	PEX	PEXIV	PEXNV	www.proshares.com
ProShares Hedge Replication ETF	Merrill Lynch Factor Model--Exchange Series	HDG	HDGIV	HDGNV	www.proshares.com
ProShares Hedged FTSE Europe ETF	FTSE Developed Europe 100% Hedged to USD Index	HGEU	HGEUIV	HGEUNV	www.proshares.com
ProShares Hedged FTSE Japan ETF	FTSE Japan 100% Hedged to USD Index	HGJP	HGJPIV	HGJPNV	www.proshares.com
ProShares High Yield-Interest Rate Hedged ETF	Citi High Yield (Treasury Rate-Hedged) Index	HYHG	HYHGIV	HYHGNV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares Inflation Expectations ETF	Citi 30-Year TIPS (Treasury Rate-Hedged) Index	RINF	RINFIV	RINFNV	www.proshares.com
ProShares Investment Grade-Interest Rate Hedged	Citi Corporate Investment Grade (Treasury Rate-Hedged) Index	IGHG	IGHGIV	IGHGNV	www.proshares.com
ProShares Large Cap Core Plus	Credit Suisse 130/30 Large Cap Index	CSM	CSMIV	CSMNV	www.proshares.com
ProShares Merger ETF	S&P Merger Arbitrage Index	MRGR	MRGRIV	MRGRNV	www.proshares.com
ProShares Morningstar Alternatives Solution ETF	Morningstar Diversified Alternatives Index	ALTS	ALTSIV	ALTSNV	www.proshares.com
ProShares MSCI EAFE Dividend Growers ETF	MSCI EAFE Dividend Masters Index	EFAD	EFADIV	EFADNV	www.proshares.com
ProShares MSCI Emerging Markets Dividend Growers ETF	MSCI Emerging Markets Dividend Masters Index	EMDV	EMDVIV	EMDVNV	www.proshares.com
ProShares MSCI Europe Dividend Growers ETF	MSCI Europe Dividend Masters Index	EUDV	EUDVIV	EUDNVV	www.proshares.com
ProShares RAFI Long/Short	FTSE RAFI US 1000 Long/Short Total Return Index	RALS	RALSIV	RALSNV	www.proshares.com
ProShares Russell 2000 Dividend Growers ETF	Russell 2000 Dividend Growth Index	SMDV	SMDVIV	SMDNVV	www.proshares.com
ProShares S&P 500 Dividend Aristocrats ETF	S&P 500 Dividend Aristocrats Index	NOBL	NOBLIV	NOBLNV	www.proshares.com
ProShares S&P 500 Ex-Energy ETF	S&P 500 Ex-Energy Index	SPXE	SPXEIV	SPXENV	www.proshares.com
ProShares S&P 500 Ex-Financials ETF	S&P 500 Ex-Financials and Real Estate Index	SPXN	SPXNIV	SPXNNV	www.proshares.com
ProShares S&P 500 Ex-Health Care ETF	S&P 500 Ex-Health Care Index	SPXV	SPXVIV	SPXVNV	www.proshares.com
ProShares S&P 500 Ex-Technology ETF	S&P 500 Ex-Information Technology & Telecommunication Services Index	SPXT	SPXTIV	SPXTNV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares S&P MidCap 400 Dividend Aristocrats ETF	S&P MidCap 400 Dividend Aristocrats Index	REGL	REGLIV	REGLNV	www.proshares.com
ProShares Short 20+ Year Treasury	ICE U.S. Treasury 20+ Year Bond Index	TBF	TBFIV	TBFNV	www.proshares.com
ProShares Short 7-10 Year Treasury	ICE U.S. Treasury 7-10 Year Bond Index	TBX	TBXIV	TBXNV	www.proshares.com
ProShares Short Basic Materials	Dow Jones U.S. Basic Materials Index	SBM	SBMIV	SBMNV	www.proshares.com
ProShares Short Dow 30	Dow Jones Industrial Average	DOG	DOGIV	DOGNV	www.proshares.com
ProShares Short Financials	Dow Jones U.S. Financials Index	SEF	SEFIV	SEFNV	www.proshares.com
ProShares Short FTSE China 50	FTSE China 50 Index HKD	YXI	YXIIV	YXINV	www.proshares.com
ProShares Short High Yield	Markit iBoxx \$ Liquid High Yield Index	SJB	SJBIV	SJBNV	www.proshares.com
ProShares Short MidCap	S&P MidCap 400 Index	MYX	MYXIV	MYXNV	www.proshares.com
ProShares Short MSCI EAFE	MSCI EAFE Index	EFZ	EFZIV	EFZNV	www.proshares.com
ProShares Short MSCI Emerging Markets	MSCI Emerging Markets Index	EUM	EUMIV	EUMNV	www.proshares.com
ProShares Short Oil & Gas	Dow Jones U.S. Oil & Gas Index	DDG	DDGIV	DDGNV	www.proshares.com
ProShares Short QQQ	NASDAQ-100 Index	PSQ	PSQIV	PSQNV	www.proshares.com
ProShares Short Real Estate	Dow Jones U.S. Real Estate Index	REK	REKIV	REKNV	www.proshares.com
ProShares Short Russell 2000	Russell 2000 Index	RWM	RWMIV	RWMNV	www.proshares.com
ProShares Short S&P 500	S&P 500 Index	SH	SHIV	SHNV	www.proshares.com
ProShares Short S&P Regional Banking	S&P Regional Banks Select Industry Index	KRS	KRSIV	KRSNV	www.proshares.com
ProShares Short SmallCap 600	S&P SmallCap 600 Index	SBB	SBBIV	SBBNV	www.proshares.com
ProShares Short Term USD Emerging Markets Bond ETF	DBIQ Short Duration Emerging Market Bond Index	EMSH	EMSHIV	EMSHNV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares Ultra 20+ Year Treasury	ICE U.S. Treasury 20+ Year Bond Index	UBT	UBTIV	UBTNV	www.proshares.com
ProShares Ultra 7-10 Year Treasury	ICE U.S. Treasury 7-10 Year Bond Index	UST	USTIV	USTNV	www.proshares.com
ProShares Ultra Basic Materials	Dow Jones U.S. Basic Materials Index	UYM	UYMIV	UYMNV	www.proshares.com
ProShares Ultra Consumer Goods ProShares	Dow Jones U.S. Consumer Goods Index	UGE	UGEIV	UGENV	www.proshares.com
ProShares Ultra Consumer Services	Dow Jones U.S. Consumer Services Index	UCC	UCCIV	UCCNV	www.proshares.com
ProShares Ultra Dow30	Dow Jones Industrial Average	DDM	DDMIV	DDMNV	www.proshares.com
ProShares Ultra Financials	Dow Jones U.S. Financials Index	UYG	UYGIV	UYGNV	www.proshares.com
ProShares Ultra FTSE China 50	FTSE China 50 Index HKD	XPP	XPPIV	XPPNV	www.proshares.com
ProShares Ultra FTSE Europe	FTSE Developed Europe Index	UPV	UPVIV	UPNV	www.proshares.com
ProShares Ultra Gold Miners	NYSE Arca Gold Miners Index	GDXX	GDXXIV	GDXXNV	www.proshares.com
ProShares Ultra Health Care	Dow Jones U.S. Health Care Index	RXL	RXLIV	RXLNV	www.proshares.com
ProShares Ultra High Yield	Markit iBoxx \$ Liquid High Yield Index	UJB	UJBIV	UJBNV	www.proshares.com
ProShares Ultra Industrials	Dow Jones U.S. Industrials Index	UXI	UXIIV	UXINV	www.proshares.com
ProShares Ultra Junior Miners	MVIS Global Junior Gold Miners Index	GDJJ	GDJJIV	GDJJNV	www.proshares.com
ProShares Ultra MidCap	S&P MidCap 400 Index	MVV	MVVIV	MVVNV	www.proshares.com
ProShares Ultra MSCI Brazil Capped	MSCI Brazil 25/50 Index	UBR	UBRIV	UBRNV	www.proshares.com
ProShares Ultra MSCI EAFE	MSCI EAFE Index	EFO	EFOIV	EFONV	www.proshares.com
ProShares Ultra MSCI Emerging Markets	MSCI Emerging Markets Index	EET	EETIV	EETNV	www.proshares.com
ProShares Ultra MSCI Japan	MSCI Japan Index	EZJ	EZJIV	EZJNV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares Ultra MSCI Mexico Capped IMI	MSCI Mexico IMI 25/50 Index	UMX	UMXIV	UMXNV	www.proshares.com
ProShares Ultra NASDAQ Biotechnology	NASDAQ Biotechnology Index	BIB	BIBIV	BIBNV	www.proshares.com
ProShares Ultra Oil & Gas	Dow Jones U.S. Oil & Gas Index	DIG	DIGIV	DIGNV	www.proshares.com
ProShares Ultra Oil & Gas Exploration & Production	S&P Oil & Gas Exploration & Production Select Industry Index	UOP	UOPIV	UOPNV	www.proshares.com
ProShares Ultra QQQ	NASDAQ-100 Index	QLD	QLDIV	QLDNV	www.proshares.com
ProShares Ultra Real Estate	Dow Jones U.S. Real Estate Index	URE	UREIV	URENV	www.proshares.com
ProShares Ultra Russell2000	Russell 2000 Index	UWM	UWMIV	UWMNV	www.proshares.com
ProShares Ultra S&P 500	S&P 500 Index	SSO	SSOIV	SSONV	www.proshares.com
ProShares Ultra S&P Regional Banking	S&P Regional Banks Select Industry Index	KRU	KRUIV	KRUNV	www.proshares.com
ProShares Ultra Semiconductors	Dow Jones U.S. Semiconductors Index	USD	USDIV	USDNV	www.proshares.com
ProShares Ultra SmallCap 600	S&P SmallCap 600 Index	SAA	SAAIV	SAANV	www.proshares.com
ProShares Ultra Technology	Dow Jones U.S. Technology Index	ROM	ROMIV	ROMNV	www.proshares.com
ProShares Ultra Telecommunications	Dow Jones U.S. Select Telecommunications Index	LTL	LTLIV	LTLNV	www.proshares.com
ProShares Ultra Utilities	Dow Jones U.S. Utilities Index	UPW	UPWIV	UPWNV	www.proshares.com
ProShares UltraPro Dow30	Dow Jones Industrial Average	UDOW	UDOWIV	UDOWNV	www.proshares.com
ProShares UltraPro Financial Select Sector	Financial Select Sector Index	FINU	FINUIV	FINUNV	www.proshares.com
ProShares UltraPro MidCap 400	S&P MidCap 400 Index	UMDD	UMDDIV	UMDDNV	www.proshares.com
ProShares UltraPro NASDAQ Biotechnology	NASDAQ Biotechnology Index	UBIO	UBIOIV	UBIONV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares UltraPro Russell2000	Russell 2000 Index	URTY	URTYIV	URTYNV	www.proshares.com
ProShares UltraPro S&P 500	S&P 500 Index	UPRO	UPROIV	UPRONV	www.proshares.com
ProShares UltraPro Short 20+ Year Treasury	ICE U.S. Treasury 20+ Year Bond Index	TTT	TTTIV	TTTNV	www.proshares.com
ProShares UltraPro Short Dow 30	Dow Jones Industrial Average	SDOW	SDOWIV	SDOWNV	www.proshares.com
ProShares UltraPro Short Financial Select Sector	Financial Select Sector Index	FINZ	FINZIV	FINZNV	www.proshares.com
ProShares UltraPro Short MidCap 400	S&P MidCap 400 Index	SMDD	SMDDIV	SMDDNV	www.proshares.com
ProShares UltraPro Short NASDAQ Biotechnology	NASDAQ Biotechnology Index	ZBIO	ZBIOIV	ZBIONV	www.proshares.com
ProShares UltraPro Short QQQ	NASDAQ-100 Index	SQQQ	SQQQIV	SQQQNV	www.proshares.com
ProShares UltraPro Short Russell2000	Russell 2000 Index	SRTY	SRTYIV	SRTYNV	www.proshares.com
ProShares UltraPro Short S&P 500	S&P 500 Index	SPXU	SPXUIV	SPXUNV	www.proshares.com
ProShares UltraShort 20+ Year Treasury	ICE U.S. Treasury 20+ Year Bond Index	TBT	TBTIV	TBTNV	www.proshares.com
ProShares UltraShort 3-7 Year Treasury	ICE U.S. Treasury 3-7 Year Bond Index	TBZ	TBZIV	TBZNV	www.proshares.com
ProShares UltraShort 7-10 Year Treasury	ICE U.S. Treasury 7-10 Year Bond Index	PST	PSTIV	PSTNV	www.proshares.com
ProShares UltraShort Basic Materials	Dow Jones U.S. Basic Materials Index	SMN	SMNIV	SMNNV	www.proshares.com
ProShares UltraShort Consumer Goods	Dow Jones U.S. Consumer Goods Index	SZK	SZKIV	SZKNV	www.proshares.com
ProShares UltraShort Consumer Services	Dow Jones U.S. Consumer Services Index	SCC	SCCIV	SCCNV	www.proshares.com
ProShares UltraShort Dow 30	Dow Jones Industrial Average	DXD	DXDIV	DXDNV	www.proshares.com
ProShares UltraShort Financials	Dow Jones U.S. Financials Index	SKF	SKFIV	SKFNV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares UltraShort FTSE China 50	FTSE China 50 Index HKD	FXP	FXPIV	FXPNV	www.proshares.com
ProShares UltraShort FTSE Europe	FTSE Developed Europe Index	EPV	EPVIV	EPVNV	www.proshares.com
ProShares UltraShort Gold Miners	NYSE Arca Gold Miners Index	GDXS	GDXSIV	GDXSNV	www.proshares.com
ProShares UltraShort Health Care	Dow Jones U.S. Health Care Index	RXD	RXDIV	RXDNV	www.proshares.com
ProShares UltraShort Industrials	Dow Jones U.S. Industrials Index	SIJ	SIJIV	SIJNV	www.proshares.com
ProShares UltraShort MidCap400	S&P MidCap 400 Index	MZZ	MZZIV	MZZNV	www.proshares.com
ProShares UltraShort MSCI Brazil Capped	MSCI Brazil 25/50 Index	BZQ	BZQIV	BZQNV	www.proshares.com
ProShares UltraShort MSCI EAFE	MSCI EAFE Index	EFU	EFUIV	EFUNV	www.proshares.com
ProShares UltraShort MSCI Emerging Markets	MSCI Emerging Markets Index	EEV	EEVIV	EEVNV	www.proshares.com
ProShares UltraShort MSCI Japan	MSCI Japan Index	EWV	EWVIV	EWVNV	www.proshares.com
ProShares UltraShort MSCI Mexico Capped IMI	MSCI Mexico IMI 25/50 Index	SMK	SMKIV	SMKNV	www.proshares.com
ProShares UltraShort NASDAQ Biotechnology	NASDAQ Biotechnology Index	BIS	BISIV	BISNV	www.proshares.com
ProShares UltraShort Oil & Gas	Dow Jones U.S. Oil & Gas Index	DUG	DUGIV	DUGNV	www.proshares.com
ProShares UltraShort Oil & Gas Exploration & Production	S&P Oil & Gas Exploration & Production Select Industry Index	SOP	SOPIV	SOPNV	www.proshares.com
ProShares UltraShort QQQ	NASDAQ-100 Index	QID	QIDIV	QIDNV	www.proshares.com
ProShares UltraShort Real Estate	Dow Jones U.S. Real Estate Index	SRS	SRSIV	SRSNV	www.proshares.com
ProShares UltraShort Russell2000	Russell 2000 Index	TWM	TWMIV	TWMNV	www.proshares.com
ProShares UltraShort S&P 500	S&P 500 Index	SDS	SDSIV	SDSNV	www.proshares.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
ProShares UltraShort Semiconductors	Dow Jones U.S. Semiconductors Index	SSG	SSGIV	SSGNV	www.proshares.com
ProShares UltraShort SmallCap600	S&P SmallCap 600 Index	SDD	SDDIV	SDDNV	www.proshares.com
ProShares UltraShort Technology	Dow Jones U.S. Technology Index	REW	REWIV	REWNV	www.proshares.com
ProShares UltraShort TIPS	Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series-L)	TPS	TPSIV	TPSNV	www.proshares.com
ProShares UltraShort Utilities	Dow Jones U.S. Utilities Index	SDP	SDPIV	SDPNV	www.proshares.com
ProShares USD Covered Bond	Solactive Diversified USD Covered Bond Index	COBO	COBOIV	COBON V	www.proshares.com
ProSports Sponsors ETF	ProSports Sponsors Index	FANZ	FANZ.IV	FANZ.NV	www.sportsetfs.com
PureFunds Drone Economy Strategy ETF	Reality Shares Drone Index	IFLY	IFLYIV	IFLYNV	www.etfmg.com
PureFunds ETFx HealthTech ETF	ETFx HealthTech Index	IMED	IMEDIV	IMEDNV	www.etfmg.com
PureFunds ISE Big Data ETF	ISE Big Data Index	BIGD	BIGDIV	BIGDNV	www.etfmg.com
PureFunds ISE Cyber Security ETF	ISE Cyber Security Index	HACK	HACKIV	HACKNV	www.etfmg.com
PureFunds ISE Junior Silver (Small Cap Miners/Explorers) ETF	ISE Junior Silver (Small Cap Miners/Explorers) Index	SILJ	SILJIV	SILJNV	www.etfmg.com
PureFunds ISE Mobile Payments ETF	ISE Mobile Payments Index	IPAY	IPAYIV	IPAYNV	www.etfmg.com
Purefunds Solactive FinTech ETF	Solactive FinTech Index	FINQ	FINQIV	FINQNV	www.etfmg.com
PureFunds Video Game Tech ETF	EEFund Video Game Tech Index	GAMR	GAMRIV	GAMRN V	www.etfmg.com
QuantShares Hedged Dividend Income Fund	Indxx Hedged Dividend Income Index	DIVA	DIVAIV	DIVANV	www.agfiq.com
QuantShares U.S. Market Neutral Anti-Beta Fund	Dow Jones U.S. Thematic Market Neutral Anti-Beta Index	BTAL	BTALIV	BTALNV	www.agfiq.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
QuantShares U.S. Market Neutral Momentum Fund	Dow Jones U.S. Thematic Market Neutral Momentum Index	MOM	MOMIV	MOMNV	www.agfiq.com
QuantShares U.S. Market Neutral Size Fund	Dow Jones U.S. Thematic Market Neutral Size Index	SIZ	SIZIV	SIZNV	www.agfiq.com
QuantShares U.S. Market Neutral Value Fund	Dow Jones U.S. Thematic Market Neutral Value Index	CHEP	CHEPIV	CHEPNV	www.agfiq.com
QuantX Dynamic Beta US Equity ETF	QuantX Dynamic Beta US Equity Index	XUSA	XUSAIV	XUSANV	www.inspireinvesting.com
QuantX Risk Managed Growth ETF	QuantX Risk Managed Global Growth Index	QXGG	QXGGIV	QXGGNV	www.inspireinvesting.com
QuantX Risk Managed Multi-Asset Income ETF	QuantX Risk Managed Multi-Asset Income Index	QXMI	QXMIIV	QXMINV	www.inspireinvesting.com
QuantX Risk Managed Multi-Asset Total Return ETF	QuantX Risk Managed Multi-Asset Total Return Index	QXTR	QXTRIV	QXTRNV	www.inspireinvesting.com
QuantX Risk Managed Real Return ETF	QuantX Risk Managed Real Return Index	QXRR	QXRRIV	QXRRNV	www.inspireinvesting.com
Reality Shares DIVCON Dividend Defender ETF	Reality Shares DIVCON Dividend Defender Index	DFND	DFNDIV	DFNDNV	www.realityshares.com
Reality Shares DIVCON Dividend Guard ETF	Reality Shares DIVCON Dividend Guard Index	GARD	GARDIV	GARDNV	www.realityshares.com
Reality Shares DIVCON Leaders Dividend ETF	Reality Shares DIVCON Leaders Dividend Index	LEAD	LEADIV	LEADNV	www.realityshares.com
Renaissance International IPO ETF	Renaissance International IPO Index	IPOS	IPOSIV	IPOSNV	www.renaissancecapital.com
Renaissance IPO Fund	Renaissance IPO Index	IPO	IPOIV	IPONV	www.renaissancecapital.com
Schwab Emerging Markets Equity ETF	FTSE Emerging Index	SCHE	SCHEIV	SCHENV	www.schwab.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Schwab Fundamental Emerging Markets Large Company Index ETF	Russell RAFI Emerging Markets Large Company Index	FNDE	FNDEIV	FNDENV	www.schwab.com
Schwab Fundamental International Large Company Index ETF	Russell RAFI Developed ex-U.S. Large Company Index	FNDF	FNDFIV	FNDFNV	www.schwab.com
Schwab Fundamental International Small Company Index ETF	Russell RAFI Developed ex-U.S. Small Company Index	FNDC	FNDCIV	FNDCNV	www.schwab.com
Schwab Fundamental U.S. Broad Market Index ETF	Russell RAFI U.S. Index	FNDB	FNDBIV	FNDBNV	www.schwab.com
Schwab Fundamental U.S. Large Company Index ETF	Russell RAFI U.S. Large Company Index	FNDX	FNDXIV	FNDXNV	www.schwab.com
Schwab Fundamental U.S. Small Company Index ETF	Russell RAFI U.S. Small Company Index	FNDA	FNDAIV	FNDANV	www.schwab.com
Schwab Intermediate-Term U.S. Treasury ETF	Bloomberg Barclays U.S. 3-10 Year Treasury Bond Index	SCHR	SCHRIV	SCHRNV	www.schwab.com
Schwab International Equity ETF	FTSE Developed ex-US Index	SCHF	SCHFIV	SCHFNV	www.schwab.com
Schwab International Small-Cap Equity ETF	FTSE Developed Small Cap ex-US Liquid Index	SCHC	SCHCIV	SCHCNV	www.schwab.com
Schwab Short-Term U.S. Treasury ETF	Bloomberg Barclays Capital U.S. 1-3 Year Treasury Bond	SCHO	SCHOIV	SCHONV	www.schwab.com
Schwab U.S. Aggregate Bond Fund	Bloomberg Barclays U.S. Aggregate Bond Index	SCHZ	SCHZIV	SCHZNV	www.schwab.com
Schwab U.S. Broad Market ETF	Dow Jones U.S. Broad Stock Market Index	SCHB	SCHBIV	SCHBNV	www.schwab.com
Schwab U.S. Dividend Equity ETF	Dow Jones U.S. Dividend 100 Index	SCHD	SCHDIV	SCHDNV	www.schwab.com
Schwab U.S. Large-Cap ETF	Dow Jones U.S. Large-Cap Total Stock Market Index	SCHX	SCHXIV	SCHXNV	www.schwab.com
Schwab U.S. Large-Cap Growth ETF	Dow Jones U.S. Large Cap Growth Total Stock Market Index	SCHG	SCHGIV	SCHGNV	www.schwab.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Schwab U.S. Large-Cap Value ETF	Dow Jones U.S. Large-Cap Value Total Stock Market Index	SCHV	SCHVIV	SCHVNV	www.schwab.com
Schwab U.S. Mid-Cap ETF	Dow Jones U.S. Mid-Cap Total Stock Market Index	SCHM	SCHMIV	SCHMNV	www.schwab.com
Schwab U.S. REIT ETF	Dow Jones U.S. Select REIT Index	SCHH	SCHHIV	SCHHNV	www.schwab.com
Schwab U.S. Small-Cap ETF	Dow Jones U.S. Small-Cap Total Stock Market Index	SCHA	SCHAIIV	SCHANV	www.schwab.com
Schwab U.S. TIPs ETF	Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series-L)	SCHP	SCHPIV	SCHPNV	www.schwab.com
SerenityShares Impact ETF	SPADE Impact Index	ICAN	ICANIV	ICANNV	www.exchangetradedconcepts.com
SPDR Bloomberg Barclays 0-5 Year TIPS ETF	Bloomberg Barclays 0-5 Year Government Inflation-Linked Bond Index	SIPE	SIPEIV	SIPENV	www.spdrs.com
SPDR Bloomberg Barclays 1-10 Year TIPS ETF	Bloomberg Barclays 1-10 Year Government Inflation-linked Bond Index	TIPX	TIPXIV	TIPXNV	www.spdrs.com
SPDR Bloomberg Barclays Aggregate Bond ETF	Bloomberg Barclays U.S. Aggregate Bond Index	BNDS	BNDSIV	BNDSNV	www.spdrs.com
SPDR Bloomberg Barclays Convertible Securities ETF	Bloomberg Barclays U.S. Convertible Bond >\$500MM Index	CWB	CWBIV	CWBNV	www.spdrs.com
SPDR Bloomberg Barclays Emerging Markets Local Bond ETF	Bloomberg Barclays EM Local Currency Government Diversified Index	EBND	EBNDIV	EBNDNV	www.spdrs.com
SPDR Bloomberg Barclays High Yield Bond ETF	Bloomberg Barclays High Yield Very Liquid Index	JNK	JNKIV	JNKNV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR Bloomberg Barclays Intermediate Term Corporate Bond ETF	Bloomberg Barclays Intermediate U.S. Corporate Index	ITR	ITRIV	ITRNV	www.spdrs.com
SPDR Bloomberg Barclays Intermediate Term Treasury ETF	Bloomberg Barclays Intermediate U.S. Treasury Index	ITE	ITEIV	ITENV	www.spdrs.com
SPDR Bloomberg Barclays International Corporate Bond ETF	Bloomberg Barclays Global Aggregate ex-USD >\$1B: Corporate Bond Index	IBND	IBNDIV	IBNDNV	www.spdrs.com
SPDR Bloomberg Barclays International Treasury Bond ETF	Bloomberg Barclays Global Treasury Ex-US Capped Index	BWX	BWXIV	BWXNV	www.spdrs.com
SPDR Bloomberg Barclays Investment Grade Floating Rate ETF	Bloomberg Barclays US Floating Rate Note < 5 Years Index	FLRN	FLRNIV	FLRNNV	www.spdrs.com
SPDR Bloomberg Barclays Issuer Scored Corporate Bond ETF	Bloomberg Barclays Issuer Scored Corporate Index	CBND	CBNDIV	CBNDNV	www.spdrs.com
SPDR Bloomberg Barclays Long Term Corporate Bond ETF	Bloomberg Barclays Long U.S. Corporate Index	LWC	LWCIV	LWCNV	www.spdrs.com
SPDR Bloomberg Barclays Long Term Treasury ETF	Bloomberg Barclays Long U.S. Treasury Index	TLO	TLOIV	TLONV	www.spdrs.com
SPDR Bloomberg Barclays Mortgage Backed Bond ETF	Bloomberg Barclays U.S. MBS Index	MBG	MBGIV	MBGNV	www.spdrs.com
SPDR Bloomberg Barclays Short Term Corporate Bond ETF	Bloomberg Barclays U.S. 1-3 Year Corporate Bond Index	SCPB	SCPBIV	SCPBNV	www.spdrs.com
SPDR Bloomberg Barclays Short Term High Yield Bond ETF	Bloomberg Barclays US High Yield 350mn Cash Pay 0-5 Yr 2% Capped Index	SJNK	SJNKIV	SJNKNV	www.spdrs.com
SPDR Bloomberg Barclays Short Term International Treasury Bond ETF	Bloomberg Barclays 1-3 Year Global Treasury ex-US Capped Index	BWZ	BWZIV	BWZNV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR Bloomberg Barclays Short Term Treasury ETF	Bloomberg Barclays 1-5 Year U.S. Treasury Index	SST	SSTIV	SSTNV	www.spdrs.com
SPDR Bloomberg Barclays TIPS ETF	Bloomberg Barclays U.S. Government Inflation-linked Bond Index	IPE	IPEIV	IPENV	www.spdrs.com
SPDR BofA Merrill Lynch Crossover Corporate Bond ETF	BofA Merrill Lynch US Diversified Crossover Corporate Index	CJNK	CJNKIV	CJKNV	www.spdrs.com
SPDR Citi International Government Inflation-Protected Bond ETF	Citi International Inflation-Linked Securities Select Index	WIP	WIPIV	WIPNV	www.spdrs.com
SPDR Dorsey Wright Fixed Income Allocation ETF	Dorsey Wright Fixed Income Allocation Index	DWFI	DWFIIV	DWFINV	www.spdrs.com
SPDR Dow Jones Global Real Estate ETF	Dow Jones Global Select Real Estate Securities Index	RWO	RWOIV	RWONV	www.spdrs.com
SPDR Dow Jones International Real Estate ETF	Dow Jones Global ex-U.S. Select Real Estate Securities Index	RWX	RWXIV	RWXNV	www.spdrs.com
SPDR Dow Jones REIT ETF	Dow Jones U.S. Select REIT Index	RWR	RWRIV	RWRNV	www.spdrs.com
SPDR EURO STOXX 50 Currency Hedged ETF	EURO STOXX 50 Hedged USD Index	HFEZ	HFEZIV	HFEZNV	www.spdrs.com
SPDR EURO STOXX 50 ETF	EURO STOXX 50 Index	FEZ	FEZIV	FEZNV	www.spdrs.com
SPDR EURO STOXX Small Cap ETF	EURO Stoxx Small Index	SMEZ	SMEZIV	SMEZNV	www.spdrs.com
SPDR FactSet Innovative Technology ETF	FactSet Innovative Technology Index	XITK	XITKIV	XITKNV	www.spdrs.com
SPDR Global Dow ETF	Global Dow	DGT	DGTIV	DGTNV	www.spdrs.com
SPDR Morgan Stanley Technology ETF	Morgan Stanley Technology Index	MTK	MTKIV	MTKNV	www.spdrs.com
SPDR MSCI ACWI ex-US ETF	MSCI ACWI ex USA Index	CWI	CWIIV	CWINV	www.spdrs.com
SPDR MSCI ACWI IMI ETF	MSCI ACWI IMI Index	ACIM	ACIMIV	ACIMNV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR MSCI ACWI Low Carbon Target ETF	MSCI ACWI Low Carbon Target Index	LOWC	LOWCIV	LOWCNV	www.spdrs.com
SPDR MSCI Australia StrategicFactors ETF	MSCI Australia Factor Mix A-Series Capped Index	QAUS	QAUSIV	QAUSNV	www.spdrs.com
SPDR MSCI Canada StrategicFactors ETF	MSCI Canada Factor Mix A-Series Capped Index	QCAN	QCANIV	QCANNV	www.spdrs.com
SPDR MSCI China A Shares IMI ETF	MSCI China A International IMI Index	XINA	XINAIV	XINANV	www.spdrs.com
SPDR MSCI EAFE Fossil Fuel Reserves Free ETF	MSCI EAFE ex Fossil Fuels Index	EFAX	EFAXIV	EFAXNV	www.spdrs.com
SPDR MSCI EAFE StrategicFactors ETF	MSCI EAFE Factor Mix A-Series Index	QEFA	QEFAIV	QEFANV	www.spdrs.com
SPDR MSCI Emerging Markets Fossil Fuel Reserves Free ETF	MSCI Emerging Markets ex Fossil Fuels Index	EEMX	EEMXIV	EEMXNV	www.spdrs.com
SPDR MSCI Emerging Markets StrategicFactors ETF	MSCI Emerging Markets Factor Mix A-Series Index	QEMM	QEMMIV	QEMMN V	www.spdrs.com
SPDR MSCI Germany StrategicFactors ETF	MSCI Germany Factor Mix A-Series Capped Index	QDEU	QDEUIV	QDEUNV	www.spdrs.com
SPDR MSCI Japan StrategicFactors ETF	MSCI Japan Factor Mix A-Series Capped Index	QJPN	QJPNIV	QJPNNV	www.spdrs.com
SPDR MSCI Spain StrategicFactors ETF	MSCI Spain Factor Mix A-Series Capped Index	QESP	QESPIV	QESPNV	www.spdrs.com
SPDR MSCI United Kingdom StrategicFactors ETF	MSCI UK Factor Mix A-Series Capped Index	QGBR	QGBRIV	QGBRN V	www.spdrs.com
SPDR MSCI USA StrategicFactors ETF	MSCI USA Factor Mix A-Series Capped Index	QUS	QUSIV	QUSNV	www.spdrs.com
SPDR MSCI World StrategicFactors ETF	MSCI World Factor Mix A-Series Index	QWLD	QWLDIV	QWLDN V	www.spdrs.com
SPDR Nuveen Bloomberg Barclays Municipal Bond ETF	Bloomberg Barclays Municipal Managed Money Index	TFI	TFIIV	TFINV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR Nuveen Bloomberg Barclays Short Term Municipal Bond ETF	Bloomberg Barclays Managed Money Municipal Short Term Index	SHM	SHMIV	SHMNV	www.spdrs.com
SPDR Nuveen S&P High Yield Municipal Bond ETF	S&P Municipal Yield Index	HYMB	HYMBIV	HYMBNV	www.spdrs.com
SPDR Russell 1000 ETF	Russell 1000 Index	ONEK	ONEKIV	ONEKNV	www.spdrs.com
SPDR Russell 1000 Low Volatility Focus ETF	Russell 1000 Low Volatility Focused Factor Index	ONEV	ONEVIV	ONEVNV	www.spdrs.com
SPDR Russell 1000 Momentum Focus ETF	Russell 1000 Momentum Focused Factor Index	ONEO	ONEOIV	ONEON V	www.spdrs.com
SPDR Russell 1000 Yield Focus ETF	Russell 1000 Yield Focused Factor Index	ONEY	ONEYIV	ONEYNV	www.spdrs.com
SPDR Russell 2000 ETF	Russell 2000 Index	TWOK	TWOKIV	TWOKN V	www.spdrs.com
SPDR Russell 3000 ETF	Russell 3000 Index	THRK	THRKIV	THRKNV	www.spdrs.com
SPDR S&P 1000 ETF	S&P 1000 Index	SMD	SMDIV	SMDNV	www.spdrs.com
SPDR S&P 1500 Momentum Tilt ETF	S&P 1500 Positive Momentum Tilt Index	MMTM	MMTMIV	MMTMN V	www.spdrs.com
SPDR S&P 1500 Value Tilt ETF	S&P 1500 Low Valuation Tilt Index	VLU	VLUIV	VLUNV	www.spdrs.com
SPDR S&P 400 Mid Cap Growth ETF	S&P Mid Cap 400 Growth Index	MDYG	MDYGIV	MDYGN V	www.spdrs.com
SPDR S&P 500 Buyback ETF	S&P 500 Buyback Index	SPYB	SPYBIV	SPYBNV	www.spdrs.com
SPDR S&P 500 Fossil Fuel Reserves Free ETF	S&P 500 Fossil Fuel Free Index	SPYX	SPYXIV	SPYXNV	www.spdrs.com
SPDR S&P 500 Growth ETF	S&P 500 Growth Index	SPYG	SPYGIV	SPYGNV	www.spdrs.com
SPDR S&P 500 High Dividend ETF	S&P 500 High Dividend Index	SPYD	SPYDIV	SPYDNV	www.spdrs.com
SPDR S&P 500 Value ETF	S&P 500 Value Index	SPYV	SPYVIV	SPYVNV	www.spdrs.com
SPDR S&P 600 Mid Cap Value ETF	S&P Mid Cap 400 Value Index	MDYV	MDYVIV	MDYVNV	www.spdrs.com
SPDR S&P 600 Small Cap ETF	S&P SmallCap 600 Index	SLY	SLYIV	SLYNV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR S&P 600 Small Cap Growth ETF	S&P SmallCap 600 Growth Index	SLYG	SLYGIV	SLYGNV	www.spdrs.com
SPDR S&P 600 Small Cap Value ETF	S&P SmallCap 600 Value Index	SLYV	SLYVIV	SLYVNV	www.spdrs.com
SPDR S&P Aerospace & Defense ETF	S&P Aerospace & Defense Select Industry Index	XAR	XARIV	XARNV	www.spdrs.com
SPDR S&P Bank ETF	S&P Banks Select Industry Index	KBE	KBEIV	KBENV	www.spdrs.com
SPDR S&P Biotech ETF	S&P Biotechnology Select Industry Index	XBI	XBIIV	XBINV	www.spdrs.com
SPDR S&P Capital Markets ETF	S&P Capital Markets Select Industry Index	KCE	KCEIV	KCENV	www.spdrs.com
SPDR S&P China ETF	S&P China BMI Index	GXC	GXCIV	GXCNV	www.spdrs.com
SPDR S&P Dividend ETF	S&P High Yield Dividend Aristocrats Index	SDY	SDYIV	SDYNV	www.spdrs.com
SPDR S&P Emerging Asia Pacific ETF	S&P Asia Pacific Emerging BMI Index	GMF	GMFIV	GMFNV	www.spdrs.com
SPDR S&P Emerging Europe ETF	S&P European Emerging BMI Capped Index	GUR	GURIV	GURNV	www.spdrs.com
SPDR S&P Emerging Latin America ETF	S&P Latin America BMI Index	GML	GMLIV	GMLNV	www.spdrs.com
SPDR S&P Emerging Markets Dividend ETF	S&P Emerging Markets Dividend Opportunities Index	EDIV	EDIVIV	EDIVNV	www.spdrs.com
SPDR S&P Emerging Markets ETF	S&P Emerging BMI Index	GMM	GMMIV	GMMNV	www.spdrs.com
SPDR S&P Emerging Markets Small Cap ETF	S&P Emerging Markets Under USD2 Billion Index	EWX	EWXIV	EWXNV	www.spdrs.com
SPDR S&P Emerging Middle East & Africa ETF	S&P Mid-East and Africa BMI Index	GAF	GAFIV	GAFNV	www.spdrs.com
SPDR S&P Global Dividend ETF	S&P Global Dividend Aristocrats Index	WDIV	WDIVIV	WDIVNV	www.spdrs.com
SPDR S&P Global Infrastructure ETF	S&P Global Infrastructure Index	GII	GIIIV	GIINV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR S&P Global Natural Resources ETF	S&P Global Natural Resources Index	GNR	GNRIV	GNRNV	www.spdrs.com
SPDR S&P Health Care Equipment ETF	S&P Health Care Equipment Select Industry Index	XHE	XHEIV	XHENV	www.spdrs.com
SPDR S&P Health Care Services ETF	S&P Health Care Services Select Industry Index	XHS	XHSIV	XHSNV	www.spdrs.com
SPDR S&P Homebuilders ETF	S&P Homebuilders Select Industry Index	XHB	XHBIV	XHBNV	www.spdrs.com
SPDR S&P Insurance ETF	S&P Insurance Select Industry Index	KIE	KIEIV	KIENV	www.spdrs.com
SPDR S&P International Consumer Discretionary Sector ETF	S&P Developed Ex-U.S. BMI Consumer Discretionary Sector Index	IPD	IPDIV	IPDNV	www.spdrs.com
SPDR S&P International Consumer Staples Sector ETF	S&P Developed Ex-U.S. BMI Consumer Staples Sector Index	IPS	IPSIV	IPSNV	www.spdrs.com
SPDR S&P International Dividend Currency Hedged ETF	S&P International Dividend Opportunities USD Hedged Index	HDWX	HDWXIV	HDWXNV	www.spdrs.com
SPDR S&P International Dividend ETF	S&P International Dividend Opportunities Index	DWX	DWXIV	DWXNV	www.spdrs.com
SPDR S&P International Energy Sector ETF	S&P Developed Ex-U.S. BMI Energy Sector Index	IPW	IPWIV	IPWNV	www.spdrs.com
SPDR S&P International Financial Sector ETF	S&P Developed Ex-U.S. BMI Financials Sector Index	IPF	IPFIV	IPFNV	www.spdrs.com
SPDR S&P International Health Care Sector ETF	S&P Developed Ex-U.S. BMI Health Care Sector Index	IRY	IRYIV	IRYNV	www.spdrs.com
SPDR S&P International Industrial Sector ETF	S&P Developed Ex-U.S. BMI Industrial Sector Index	IPN	IPNIV	IPNNV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR S&P International Materials Sector ETF	S&P Developed Ex-U.S. BMI Materials Sector Index	IRV	IRVIV	IRVNV	www.spdrs.com
SPDR S&P International Small Cap ETF	S&P Developed Ex-U.S. Under USD2 Billion Index	GWX	GWXIV	GWXNV	www.spdrs.com
SPDR S&P International Technology Sector ETF	S&P Developed Ex-U.S. BMI Information Technology Sector Index	IPK	IPKIV	IPKNV	www.spdrs.com
SPDR S&P International Telecommunications Sector ETF	S&P Developed Ex-U.S. BMI Telecommunication Services Sector Index	IST	ISTIV	ISTNV	www.spdrs.com
SPDR S&P International Utilities Sector ETF	S&P Developed Ex-U.S. BMI Utilities Sector Index	IPU	IPUIV	IPUNV	www.spdrs.com
SPDR S&P Internet ETF	S&P Internet Select Industry Index	XWEB	XWEBIV	XWEBNV	www.spdrs.com
SPDR S&P Metals & Mining ETF	S&P Metals and Mining Select Industry Index	XME	XMEIV	XMENV	www.spdrs.com
SPDR S&P North American Natural Resources ETF	S&P BMI North American Natural Resources Index	NANR	NANRIV	NANRNV	www.spdrs.com
SPDR S&P Oil & Gas Equipment & Services ETF	S&P Oil & Gas Equipment & Services Select Industry Index	XES	XESIV	XESNV	www.spdrs.com
SPDR S&P Oil & Gas Exploration & Production ETF	S&P Oil & Gas Exploration & Production Select Industry Index	XOP	XOPIV	XOPNV	www.spdrs.com
SPDR S&P Pharmaceuticals ETF	S&P Pharmaceuticals Select Industry Index	XPB	XPBIV	XPBNV	www.spdrs.com
SPDR S&P Regional Banking ETF	S&P Regional Banks Select Industry Index	KRE	KREIV	KRENV	www.spdrs.com
SPDR S&P Retail ETF	S&P Retail Select Industry Index	XRT	XRTIV	XRTNV	www.spdrs.com
SPDR S&P Russia ETF	S&P Russia Capped BMI Index	RBL	RBLIV	RBLNV	www.spdrs.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
SPDR S&P Semiconductor ETF	S&P Semiconductor Select Industry Index	XSD	XSDIV	XSDNV	www.spdrs.com
SPDR S&P Software & Services ETF	S&P Software & Services Select Industry Index	XSW	XSWIV	XSWNV	www.spdrs.com
SPDR S&P Technology Hardware ETF	S&P Technology Hardware Select Industry Index	XTH	XTHIV	XTHNV	www.spdrs.com
SPDR S&P Telecom ETF	S&P Telecom Select Industry Index	XTL	XTLIV	XTLNV	www.spdrs.com
SPDR S&P Transportation ETF	S&P Transportation Select Industry Index	XTN	XTNIV	XTNNV	www.spdrs.com
SPDR S&P World ex-US ETF	S&P Developed Ex-U.S. BMI Index	GWL	GWLIV	GWLNV	www.spdrs.com
SPDR SSGA Gender Diversity Index ETF	SSGA Gender Diversity Index	SHE	SHEIV	SHENV	www.spdrs.com
SPDR SSGA US Large Cap Low Volatility Index ETF	SSGA US Large Cap Low Volatility Index	LGLV	LGLVIV	LGLVNV	www.spdrs.com
SPDR SSGA US Small Cap Low Volatility Index ETF	SSGA US Small Cap Low Volatility Index	SMLV	SMLVIV	SMLVNV	www.spdrs.com
SPDR STOXX 50 ETF	STOXX Europe 50 Index	FEU	FEUIV	FEUNV	www.spdrs.com
SPDR Wells Fargo Preferred Stock ETF	Wells Fargo Hybrid and Preferred Securities Aggregate Index	PSK	PSKIV	PSKNV	www.spdrs.com
SPDR Bloomberg Barclays 1-3 Month T-Bill ETF	Bloomberg Barclays 1-3 Month U.S. Treasury Bill Index	BIL	BILIV	BILNV	www.spdrs.com
Spirited Funds/ETFMG Whiskey & Spirits ETF	Spirited Funds/ETFMG Whiskey & Spirits Index	WSKY	WSKYIV	WSKYN V	www.etfmg.com
Sprott Gold Miners ETF	Sprott Zacks Gold Miners Index	SGDM	SGDMIV	SGDMN V	www.alpsfunds.com
Sprott Junior Gold Miners ETF	Sprott Zacks Junior Gold Miners Index	SGDJ	SGDJIV	SGDJNV	www.alpsfunds.com
Stock Split Index Fund	2 for 1 Index	TOFR	TOFRIV	TOFRNV	www.uscfinvestments.com

Appendix A

Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Summit Water Infrastructure Multifactor ETF	Summit Zacks Global Water Index	WTRX	WTRXIV	WTRXNAV	www.summitwateretf.com.
The 3D Printing ETF	Total 3D-Printing Index	PRNT	PRNTIV	PRNTNV	ark-funds.com
The Consumer Discretionary Select Sector SPDR Fund	Consumer Discretionary Select Sector Index	XLY	XLYIV	XLYNV	www.spdrs.com
The Consumer Staples Select Sector SPDR Fund	Consumer Staples Select Sector Index	XLP	XLPIV	XLPNV	www.spdrs.com
The Energy Select Sector SPDR Trust	Energy Select Sector Index	XLE	XLEIV	XLENV	www.spdrs.com
The Financial Select Sector SPDR Fund	Financial Select Sector Index	XLF	XLFIV	XLFNV	www.spdrs.com
The Health and Fitness ETF	Solactive Health and Fitness Index	FITS	FITSIV	FITSNV	www.janus.com
The Health Care Select Sector SPDR Fund	Health Care Select Sector Index	XLV	XLVIV	XLVNV	www.spdrs.com
The Industrial Select Sector SPDR Fund	Industrial Select Sector Index	XLI	XLIIV	XLINV	www.spdrs.com
The Long-Term Care ETF	Solactive Long-Term Care Index	OLD	OLDIV	OLDNV	www.janus.com
The Materials Select Sector SPDR Fund	Materials Select Sector Index	XLB	XLBIV	XLBNV	www.spdrs.com
The Obesity ETF	Solactive Obesity Index	SLIM	SLIMIV	SLIMNV	www.janus.com
The Organics ETF	Solactive Organics Index	ORG	ORGIV	ORGNV	www.janus.com
The Real Estate Select Sector SPDR Fund	Real Estate Select Sector Index	XLRE	XLREIV	XLRENV	www.spdrs.com
The Technology Select Sector SPDR Fund	Technology Select Sector Index	XLK	XLKIV	XLKNV	www.spdrs.com
The Utilities Select Sector SPDR Trust	Utilities Select Sector Index	XLU	XLUIV	XLUNV	www.spdrs.com
The WEAR ETF	EQM Wearables Index	WEAR	WEARIV	WEARNAV	www.exchangetradedconcepts.com
Tierra XP Latin America Real Estate ETF	Solactive Latin America Real Estate Index	LARE	LAREIV	LARENV	www.etfmg.com
Tortoise North American Pipeline Fund	Tortoise North American Pipeline Index	TPYP	TPYPIV	TPYPNV	www.tortoiseadvisors.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Tortoise Water Fund	Tortoise Water Total Return Index	TBLU	TBLUIV	TBLUNV	www.tortoiseadvisors.com
Trust Units	Dow Jones Industrial Average	DIA	DIAIV	DIANV	www.spdrs.com
U.S. Global Jets ETF	U.S. Global Jets Index	JETS	JETSIV	JETSNV	www.exchangetradedconcepts.com
Units	S&P MidCap 400 Index	MDY	MDYIV	MDYNV	www.spdrs.com
Units	S&P 500 Index	SPY	SPYIV	SPYNV	www.spdrs.com
US Global GO Gold and Precious Metals Miners ETF	US Global GO GOLD and Precious Metals Miners Index	GOAU	GOAUIV	GOAUNV	www.exchangetradedconcepts.com
USCF Restaurant Leaders Fund	Restaurant Leaders Indxx Index	MENU	MENUIV	MENUNV	www.uscfinvestments.com
ValueShares International Quantitative Value ETF	Alpha Architect International Quantitative Value Index	IVAL	IVALIV	IVALNV	www.alphaarchitect.com
ValueShares U.S. Quantitative Value ETF	Alpha Architect Quantitative Value Index	QVAL	QVALIV	QVALNV	www.alphaarchitect.com
VanEck Vectors Africa Index ETF	MVIS GDP Africa Index	AFK	AFKIV	AFKNV	www.vaneck.com
VanEck Vectors Agribusiness ETF	MVIS Global Agribusiness Index	MOO	MOOIV	MOONV	www.vaneck.com
VanEck Vectors AMT-Free 12-17 Year Municipal Index ETF	Bloomberg Barclays AMT-Free 12-17 Year Intermediate Continuous Municipal Index	ITML	ITMLIV	ITMLNV	www.vaneck.com
VanEck Vectors AMT-Free 6-8 Year Municipal Index ETF	Bloomberg Barclays AMT-Free 6-8 Year Intermediate Continuous Municipal Index	ITMS	ITMSIV	ITMSNV	www.vaneck.com
VanEck Vectors AMT-Free Intermediate Municipal Index ETF	Bloomberg Barclays AMT-Free Intermediate Continuous Municipal Index	ITM	ITMIV	ITMNV	www.vaneck.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
VanEck Vectors AMT-Free Long Municipal Index ETF	Bloomberg Barclays AMT-Free Long Continuous Municipal Index	MLN	MLNIV	MLNNV	www.vaneck.com
VanEck Vectors AMT-Free Short Municipal Index ETF	Bloomberg Barclays AMT-Free Short Continuous Municipal Index	SMB	SMBIV	SMBNV	www.vaneck.com
VanEck Vectors BDC Income ETF	MVIS US Business Development Companies Index	BIZD	BIZDIV	BIZDNV	www.vaneck.com
VanEck Vectors Biotech ETF	MVIS US Listed Biotech 25 Index	BBH	BBHIV	BBHNV	www.vaneck.com
VanEck Vectors Brazil Small-Cap ETF	MVIS Brazil Small-Cap Index	BRF	BRFIV	BRFNV	www.vaneck.com
VanEck Vectors CEF Municipal Income ETF	S-Network Municipal Bond Closed-End Fund Index	XMPT	XMPTIV	XMPTNV	www.vaneck.com
VanEck Vectors ChinaAMC China Bond ETF	ChinaBond China High Quality Bond Index	CBON	CBONIV	CBONNV	www.vaneck.com
VanEck Vectors ChinaAMC CSI 300 ETF	CSI 300 Index	PEK	PEKIV	PEKNV	www.vaneck.com
VanEck Vectors ChinaAMC SME-ChiNext ETF	SME-ChiNext 100 Index	CNXT	CNXTIV	CNXTNV	www.vaneck.com
VanEck Vectors Coal ETF	MVIS Global Coal Index	KOL	KOLIV	KOLNV	www.vaneck.com
VanEck Vectors Egypt Index ETF	MVIS Egypt Index	EGPT	EGPTIV	EGPTNV	www.vaneck.com
VanEck Vectors EM Investment Grade + BB Rated USD Sovereign Bond ETF	J.P. Morgan Custom EM Investment Grade Plus BB-Rated Sovereign USD Bond Index	IGEM	IGEMIV	IGEMNV	www.vaneck.com
VanEck Vectors Emerging Markets Aggregate Bond ETF	MVIS EM Aggregate Bond Index	EMAG	EMAGIV	EMAGNV	www.vaneck.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
VanEck Vectors Emerging Markets High Yield Bond ETF	BofA Merrill Lynch Diversified High Yield US Emerging Markets Corporate Plus Index	HYEM	HYEMIV	HYEMNV	www.vaneck.com
VanEck Vectors Environmental Services ETF	NYSE Arca Environmental Services Index	EVX	HVX	HVXNV	www.vaneck.com
VanEck Vectors Fallen Angel High Yield Bond ETF	BofA Merrill Lynch US Fallen Angel High Yield Index	ANGL	ANGLIV	ANGLNV	www.vaneck.com
VanEck Vectors Gaming ETF	MVIS Global Gaming Index	BJK	BJKIV	BJKNV	www.vaneck.com
VanEck Vectors Generic Drugs ETF	Indxx Global Generics & New Pharma Index	GNRX	GNRXIV	GNRXNV	www.vaneck.com
VanEck Vectors Global Alternative Energy ETF	Ardour Global Index (Extra Liquid)	GEX	GEXIV	GEXNV	www.vaneck.com
VanEck Vectors Global Spin-Off ETF	Horizon Kinetics Global Spin-Off Index	SPUN	SPUNIV	SPUNNV	www.vaneck.com
VanEck Vectors Gold Miners ETF	NYSE Arca Gold Miners Index	GDX	GMI	GMINV	www.vaneck.com
VanEck Vectors Green Bond ETF	S&P Green Bond Select Index	GRNB	GRNBIV	GRBNBV	www.vaneck.com
VanEck Vectors High Income Infrastructure MLP ETF	Solactive High Income Infrastructure MLP Index	YMLI	YMLIIV	YMLINV	www.vaneck.com
VanEck Vectors High Income MLP ETF	Solactive High Income MLP Index	YMLP	YMLPIV	YMLPNV	www.vaneck.com
VanEck Vectors High-Yield Municipal Index ETF	Bloomberg Barclays Municipal Custom High Yield Composite Index	HYD	HYDIV	HYDNV	www.vaneck.com
VanEck Vectors India Small-Cap Index ETF	MVIS India Small-Cap Index	SCIF	SCIFIV	SCIFNV	www.vaneck.com
VanEck Vectors Indonesia Index ETF	MVIS Indonesia Index	IDX	IDXIV	IDXNV	www.vaneck.com
VanEck Vectors International High Yield Bond ETF	BofA Merrill Lynch Global Ex-US Issuers High Yield Constrained Index	IHY	IHYIV	IHYNV	www.vaneck.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
VanEck Vectors Investment Grade Floating Rate ETF	MVIS US Investment Grade Floating Rate Index	FLTR	FLTRIV	FLTRNV	www.vaneck.com
VanEck Vectors Israel ETF	BlueStar Israel Global Index	ISRA	ISRAIV	ISRANV	www.vaneck.com
VanEck Vectors J.P. Morgan EM Local Currency Bond ETF	J.P. Morgan GBI-EMG Core Index	EMLC	EMLCIV	EMLCNV	www.vaneck.com
VanEck Vectors Junior Gold Miners ETF	MVIS Global Junior Gold Miners Index	GDXJ	GDXJIV	GDXJNV	www.vaneck.com
VanEck Vectors Morningstar International Moat ETF	Morningstar Global ex-US Moat Focus Index	MOTI	MOTIIV	MOTINV	www.vaneck.com
VanEck Vectors Morningstar Wide Moat ETF	Morningstar Wide Moat Focus Index	MOAT	MOATIV	MOATNV	www.vaneck.com
VanEck Vectors Mortgage REIT Income ETF	MVIS Global Mortgage REITs Index	MORT	MORTIV	MORTNV	www.vaneck.com
VanEck Vectors Natural Resources ETF	VanEck Natural Resources Index	HAP	HAPIV	HAPNV	www.vaneck.com
VanEck Vectors Oil Refiners ETF	MVIS Global Oil Refiners Index	CRAK	CRAKIV	CRAKNV	www.vaneck.com
VanEck Vectors Oil Services ETF	MVIS US Listed Oil Services 25 Index	OIH	OIHIV	OIHNV	www.vaneck.com
VanEck Vectors Pharmaceutical ETF	MVIS US Listed Pharmaceutical 25 Index	PPH	PPHIV	PPHNV	www.vaneck.com
VanEck Vectors Poland ETF	MVIS Poland Index	PLND	PLNDIV	PLNDNV	www.vaneck.com
VanEck Vectors Preferred Securities ex Financials ETF	Wells Fargo Hybrid and Preferred Securities ex Financials Index	PFXF	PFXFIV	PFXFNV	www.vaneck.com
VanEck Vectors Pre-Refunded Municipal Index ETF	Bloomberg Barclays Municipal Pre-Refunded-Treasury-Escrowed Index	PRB	PRBIV	PRBNV	www.vaneck.com
VanEck Vectors Rare Earth/Strategic Metals ETF	MVIS Rare Earth/Strategic Metals Index	REMX	REMXIV	REMXNV	www.vaneck.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
VanEck Vectors Retail ETF	MVIS US Listed Retail 25 Index	RTH	RTHIV	RTHNV	www.vaneck.com
VanEck Vectors Russia ETF	MVIS Russia Index	RSX	RSXIV	RSXNV	www.vaneck.com
VanEck Vectors Russia Small-Cap ETF	MVIS Russia Small-Cap Index	RSXJ	RSXJIV	RSXJNV	www.vaneck.com
VanEck Vectors Semiconductor ETF	MVIS US Listed Semiconductor 25 Index	SMH	SMHIV	SMHNV	www.vaneck.com
VanEck Vectors Short High-Yield Municipal Index ETF	Bloomberg Barclays Municipal High Yield Short Duration Index	SHYD	SHYDIV	SHYDNV	www.vaneck.com
VanEck Vectors Solar Energy ETF	MVIS Global Solar Energy Index	KWT	KWTIV	KWTNV	www.vaneck.com
VanEck Vectors Steel ETF	NYSE Arca Steel Index	SLX	KLX	KLXNV	www.vaneck.com
VanEck Vectors Treasury-Hedged High Yield Bond ETF	MVIS US Treasury-Hedged High Yield Bond Index	THHY	THHYIV	THHYNV	www.vaneck.com
VanEck Vectors Unconventional Oil & Gas ETF	MVIS Unconventional Oil & Gas Index	FRAK	FRAKIV	FRAKNV	www.vaneck.com
VanEck Vectors Uranium + Nuclear Energy ETF	MVIS Global Uranium and Nuclear Energy Index	NLR	NLRIV	NLRNV	www.vaneck.com
VanEck Vectors Vietnam ETF	MVIS Vietnam Index	VNM	VNMIV	VNMNV	www.vaneck.com
Vanguard Consumer Discretionary ETF	MSCI US Investable Market Consumer Discretionary 25/50	VCR	VCRIV	VCRNV	www.vanguard.com
Vanguard Consumer Staples ETF	MSCI US Investable Market Consumer Staples 25/50	VDC	VDCIV	VDCNV	www.vanguard.com
Vanguard Dividend Appreciation ETF	Dividend Achievers Select Index	VIG	VIGIV	VIGNV	www.vanguard.com
Vanguard Emerging Markets Government Bond ETF	Bloomberg Barclays USD Emerging Markets Government RIC Capped Index	VWOB	VWOBIV	VWOBN V	www.vanguard.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Vanguard Energy ETF	MSCI US Investable Market Energy 25/50 Index	VDE	VDEIV	VDENV	www.vanguard.com
Vanguard Extended Duration ETF	Barclays Capital Treasury STRIPS 20-30 Year Equal Par Bond	EDV	EDVIV	EDVNV	www.vanguard.com
Vanguard Extended-Market ETF	S&P Completion Index	VXF	VXFIV	VXFNV	www.vanguard.com
Vanguard Financials ETF	MSCI US Investable Market Financials 25/50	VFH	VFHIV	VFHNV	www.vanguard.com
Vanguard FTSE All-World ex-US ETF	FTSE All-World ex US Index	VEU	VEUIV	VEUNV	www.vanguard.com
Vanguard FTSE All-World ex-US Small-Cap ETF	FTSE Global Small Cap ex US Index	VSS	VSSIV	VSSNV	www.vanguard.com
Vanguard FTSE Developed Markets ETF	FTSE Developed All Cap ex US Index	VEA	VEAIV	VEANV	www.vanguard.com
Vanguard FTSE Emerging Markets ETF	FTSE Emerging Markets All Cap China A Inclusion Index	VWO	VWOIV	VWONV	www.vanguard.com
Vanguard FTSE Europe ETF	FTSE Developed Europe All Cap Index	VGK	VGKIV	VGKNV	www.vanguard.com
Vanguard FTSE Pacific ETF	FTSE Developed Asia Pacific All Cap Index	VPL	VPLIV	VPLNV	www.vanguard.com
Vanguard Global ex-U.S. Real Estate ETF	S&P Global ex-U.S. Property Index	VNQI	VNQIIV	VNQINV	www.vanguard.com
Vanguard Growth ETF	CRSP U.S. Large Cap Growth Index	VUG	VUGIV	VUGNV	www.vanguard.com
Vanguard Health Care ETF	MSCI US Investable Market Health Care 25/50	VHT	VHTIV	VHTNV	www.vanguard.com
Vanguard High Dividend Yield ETF	FTSE High Dividend Yield Index	VYM	VYMIV	VYMNV	www.vanguard.com
Vanguard Industrials ETF	MSCI US Investable Market Industrials 25/50 Index	VIS	VISIV	VISNV	www.vanguard.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Vanguard Information Technology ETF	MSCI US Investable Market Information Technology 25/50	VGT	VGTV	VGTVN	www.vanguard.com
Vanguard Intermediate - Term Government Bond ETF	Bloomberg Barclays U.S. 3-10 Year Government Float Adjusted Index	VGIT	VGITV	VGITN	www.vanguard.com
Vanguard Intermediate-Term Bond ETF	Barclays U.S. 5-10 Year Government/Credit Float Adjusted Index	BIV	BIVV	BIVN	www.vanguard.com
Vanguard Intermediate-Term Corporate Bond ETF	Bloomberg Barclays U.S. 5-10 Year Corporate Bond Index	VCIT	VCITV	VCITN	www.vanguard.com
Vanguard International Dividend Appreciation ETF	NASDAQ International Dividend Achievers Select Index	VIGI	VIGIV	VIGIN	www.vanguard.com
Vanguard International High Dividend Yield ETF	FTSE All-World ex US High Dividend Yield Index Net TR US RIC	VYMI	VYMIV	VYMIN	www.vanguard.com
Vanguard Large-Cap ETF	CRSP US Large Cap Index	VV	VVIV	VVN	www.vanguard.com
Vanguard Long-Term Bond ETF	Barclays U.S. Long Government/Credit Float Adjusted Index	BLV	BLVV	BLVN	www.vanguard.com
Vanguard Long-Term Corporate Bond ETF	Bloomberg Barclays U.S. 10+ Year Corporate Bond Index	VCLT	VCLTV	VCLTN	www.vanguard.com
Vanguard Long-Term Government Bond ETF	Bloomberg Barclays U.S. Long Government Float Adjusted Index	VGLT	VGLTV	VGLTN	www.vanguard.com
Vanguard Materials ETF	MSCI US Investable Market Materials 25/50	VAW	VAWV	VAWN	www.vanguard.com
Vanguard Mega Cap ETF	CRSP US Mega Cap Index	MGC	MGCIV	MGCN	www.vanguard.com
Vanguard Mega Cap Growth ETF	CRSP U.S. Mega Cap Growth Index	MGK	MGKIV	MGKN	www.vanguard.com
Vanguard Mega Cap Value ETF	CRSP U.S. Mega Cap Value Index	MGV	MGVIV	MGVN	www.vanguard.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Vanguard Mid-Cap ETF	CRSP US Mid Cap Index	VO	VOIV	VONV	www.vanguard.com
Vanguard Mid-Cap Growth ETF	CRSP U.S. Mid Cap Growth Index	VOT	VOTIV	VOTNV	www.vanguard.com
Vanguard Mid-Cap Value ETF	CRSP U.S. Mid Cap Value Index	VOE	VOEIV	VOENV	www.vanguard.com
Vanguard Mortgage-Backed Securities ETF	Bloomberg Barclays U.S. MBS Float Adjusted Index	VMBS	VMBSIV	VMBSNV	www.vanguard.com
Vanguard REIT ETF	MSCI US REIT Index	VNQ	VNQIV	VNQNV	www.vanguard.com
Vanguard Russell 1000 ETF	Russell 1000 Index	VONE	VONEIV	VONENV	www.vanguard.com
Vanguard Russell 1000 Growth ETF	Russell 1000 Growth Index	VONG	VONGIV	VONGNV	www.vanguard.com
Vanguard Russell 1000 Value ETF	Russell 1000 Value Index	VONV	VONVIV	VONNVNV	www.vanguard.com
Vanguard Russell 2000 ETF	Russell 2000 Index	VTWO	VTWOIV	VTWONV	www.vanguard.com
Vanguard Russell 2000 Growth ETF	Russell 2000 Growth Index	VTWG	VTWGIV	VTWGNV	www.vanguard.com
Vanguard Russell 2000 Value ETF	Russell 2000 Value Index	VTWV	VTWVIV	VTWVNV	www.vanguard.com
Vanguard Russell 3000 ETF	Russell 3000 Index	VTHR	VTHRIV	VTHRN	www.vanguard.com
Vanguard S&P 500 ETF	S&P 500 Index	VOO	VOOIV	VOONV	www.vanguard.com
Vanguard S&P 500 Growth ETF	S&P 500 Growth Index	VOOG	VOOGIV	VOOGNV	www.vanguard.com
Vanguard S&P 500 Value ETF	S&P 500 Value Index	VOOV	VOOVIV	VOOVNV	www.vanguard.com
Vanguard S&P Mid-Cap 400 ETF	S&P MidCap 400 Index	IVOO	IVOOIV	IVOONV	www.vanguard.com
Vanguard S&P Mid-Cap 400 Growth ETF	S&P Mid Cap 400 Growth Index	IVOG	IVOGIV	IVOGNV	www.vanguard.com
Vanguard S&P Mid-Cap 400 Value ETF	S&P Mid Cap 400 Value Index	IVOV	IVOVIV	IVOVNV	www.vanguard.com
Vanguard S&P Small-Cap 600 ETF	S&P SmallCap 600 Index	VIOO	VIOOIV	VIOONV	www.vanguard.com
Vanguard S&P Small-Cap 600 Growth ETF	S&P SmallCap 600 Growth Index	VIOG	VIOGIV	VIOGNV	www.vanguard.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Vanguard S&P Small-Cap 600 Value ETF	S&P SmallCap 600 Value Index	VIOV	VIOVIV	VIOVNV	www.vanguard.com
Vanguard Short-Term Bond ETF	Barclays U.S. 1-5 Year Government/Credit Float Adjusted Index	BSV	BSVIV	BSVNV	www.vanguard.com
Vanguard Short-Term Corporate Bond ETF	Bloomberg Barclays U.S. 1-5 Year Corporate Bond Index	VCSH	VCSHIV	VCSHNV	www.vanguard.com
Vanguard Short-Term Government ETF	Bloomberg Barclays U.S. 1-3 Year Government Float Adjusted Index	VGSH	VGSHIV	VGSHNV	www.vanguard.com
Vanguard Short-Term Inflation-Protected Securities Index Fund	Bloomberg Barclays U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index	VTIP	VTIPIV	VTIPNV	www.vanguard.com
Vanguard Small-Cap ETF	CRSP US Small Cap Index	VB	VBIV	VBNV	www.vanguard.com
Vanguard Small-Cap Growth ETF	CRSP U.S. Small Cap Growth Index	VBK	VBKIV	VBKNV	www.vanguard.com
Vanguard Small-Cap Value ETF	CRSP U.S. Small Cap Value Index	VBR	VBRIV	VBRNV	www.vanguard.com
Vanguard Tax-Exempt Bond ETF	S&P National AMT-Free Municipal Bond Index	VTEB	VTEBIV	VTEBNV	www.vanguard.com
Vanguard Telecommunication Services ETF	MSCI US IMI Telecommunication Services 25-50 Index	VOX	VOXIV	VOXNV	www.vanguard.com
Vanguard Total Bond Market ETF	Barclays Capital U.S. Aggregate Float Adjusted Index	BND	BNDIV	BNDNV	www.vanguard.com
Vanguard Total International Bond ETF	Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index	BNDX	BNDXIV	BNDXNV	www.vanguard.com
Vanguard Total International Stock ETF	FTSE Global All Cap ex US Net US RIC	VXUS	VXUSIV	VXUSNV	www.vanguard.com
Vanguard Total Stock Market ETF	CRSP US Total Market Index	VTI	VTIIV	VTINV	www.vanguard.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
Vanguard Total World Stock ETF	FTSE Global All Cap Index	VT	VTIV	VTNV	www.vanguard.com
Vanguard Utilities ETF	MSCI US Investable Market Utilities 25/50	VPU	VPUIV	VPUNV	www.vanguard.com
Vanguard Value ETF	CRSP U.S. Large Cap Value Index	VTV	VTVIV	VTNVV	www.vanguard.com
VictoryShares Developed Enhanced Volatility Wtd ETF	CEMP International 500 Long/Cash Volatility Weighted Index	CIZ	CIZIV	CIZNV	www.vanguard.com
VictoryShares Dividend Accelerator ETF	Nasdaq Victory Dividend Accelerator Index	VSDA	VSDAIV	VSDANV	www.vanguard.com
VictoryShares Emerging Market Volatility Wtd ETF	CEMP Emerging Market 500 Volatility Weighted Index	CEZ	CEZIV	CEZNV	www.vanguard.com
VictoryShares International High Div Volatility Wtd ETF	CEMP International High Dividend 100 Volatility Weighted Index	CID	CIDIV	CIDNV	www.vanguard.com
VictoryShares International Volatility Wtd ETF	CEMP International 500 Volatility Weighted Index	CIL	CILIV	CILNV	www.vanguard.com
VictoryShares US 500 Enhanced Volatility Wtd ETF	CEMP U.S. Large Cap 500 Long/Cash Volatility Weighted Index	CFO	CFOIV	CFONV	www.vanguard.com
VictoryShares US 500 Volatility Wtd ETF	CEMP U.S. Large Cap 500 Volatility Weighted Index	CFA	CFAIV	CFANV	www.vanguard.com
VictoryShares US Discovery Enhanced Volatility Wtd ETF	CEMP U.S. Small Cap 500 Long/Cash Volatility Weighted Index	CSF	CSFIV	CSFNV	www.vanguard.com
VictoryShares US EQ Income Enhanced Volatility Wtd ETF	CEMP U.S. Large Cap High Dividend 100 Long/Cash Volatility Weighted Index	CDC	CDCIV	CDCNV	www.vanguard.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
VictoryShares US Large Cap High Div Volatility Wtd ETF	CEMP U.S. Large Cap High Dividend 100 Volatility Weighted Index	CDL	CDLIV	CDLNV	www.vanguard.com
VictoryShares US Multi-Factor Minimum Volatility ETF	Nasdaq Victory US Multi-Factor Minimum Volatility Index	VSMV	VSMVIV	VSMVNV	www.vcm.com
VictoryShares US Small Cap High Div Volatility Wtd ETF	CEMP U.S. Small Cap High Dividend 100 Volatility Weighted Index	CSB	CSBIV	CSBNV	www.vanguard.com
VictoryShares US Small Cap Volatility Wtd ETF	CEMP U.S. Small Cap 500 Volatility Weighted Index	CSA	CSAIV	CSANV	www.vanguard.com
Vident Core U.S. Bond Strategy Fund	Vident Core U.S. Bond Index	VBND	VBNDIV	VBNDNV	www.exchangetradedconcepts.com
Vident Core US Equity ETF	Vident Core U.S. Stock Index	VUSE	VUSEIV	VUSENV	www.exchangetradedconcepts.com
Vident International Equity Fund	Vident Core International Equity Index	VIDI	VIDIIV	VIDINV	www.exchangetradedconcepts.com
WBI Power Factor High Dividend ETF	Solactive Power Factor High Dividend PR Index	WBIY	WBIYIV	WBIYNV	www.wbishes.com
Wilshire Micro-Cap ETF	Wilshire US MicroCap	WMCR	WMCRIV	WMCRNV	www.guggenheiminvestments.com
Wilshire US REIT ETF	Wilshire US Real Estate Investment Trust Index	WREI	WREIIV	WREINV	www.guggenheiminvestments.com
WisdomTree Middle East Dividend Fund	WisdomTree Middle East Dividend Index	GULF	GULFIV	GULFNV	www.wisdomtree.com
WisdomTree Asia-Pacific ex-Japan Fund	WisdomTree Asia-Pacific ex-Japan Index	AXJL	AXJLIV	AXJLNV	www.wisdomtree.com
WisdomTree Australia Dividend Fund	WisdomTree Australia Dividend Index	AUSE	AUSEIV	AUSENV	www.wisdomtree.com
WisdomTree Barclays Yield Enhanced U.S. Aggregate Bond Fund	Bloomberg Barclays U.S. Aggregate Enhanced Yield Index	AGGY	AGGYIV	AGGYNV	www.wisdomtree.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
WisdomTree Barclays Yield Enhanced U.S. Short-Term Aggregate Bond Fund	Bloomberg Barclays Short US AGGY Total Return Index Value Unhedged USD	SHAG	SHAGIV	SHAGNV	www.vanguard.com
WisdomTree Bloomberg Floating Rate Treasury Fund	Bloomberg U.S. Treasury Floating Rate Bond Index	USFR	USFRIV	USFRNV	www.wisdomtree.com
WisdomTree CBOE S&P 500 PutWrite Strategy Fund	CBOE S&P 500 Put Write Index	PUTW	PUTWIV	PUTWNV	www.wisdomtree.com
WisdomTree Dynamic Bearish U.S. Equity Fund	WisdomTree Dynamic Bearish U.S. Equity Index	DYB	DYBIV	DYBNV	www.wisdomtree.com
WisdomTree Dynamic Currency Hedged Europe Equity Fund	WisdomTree Dynamic Currency Hedged Europe Equity Index	DDEZ	DDEZIV	DDEZNV	www.wisdomtree.com
WisdomTree Dynamic Currency Hedged International Equity Fund	WisdomTree Dynamic Currency Hedged International Equity Index	DDWM	DDWMIV	DDWMNV	www.wisdomtree.com
WisdomTree Dynamic Currency Hedged International Quality Dividend Growth Fund	WisdomTree Dynamic Currency Hedged International Quality Dividend Growth Index	DHDG	DHDGIV	DHDGNV	www.wisdomtree.com
WisdomTree Dynamic Currency Hedged International SmallCap Equity Fund	WisdomTree Dynamic Currency Hedged International SmallCap Equity Index	DDLS	DDLSIV	DDLSNV	www.wisdomtree.com
WisdomTree Dynamic Currency Hedged Japan Equity Fund	WisdomTree Dynamic Currency Hedged Japan Equity Index	DDJP	DDJPIV	DDJPNV	www.wisdomtree.com
WisdomTree Dynamic Long/Short U.S. Equity Fund	WisdomTree Dynamic Long/Short U.S. Equity Index	DYLS	DYLSIV	DYLSNV	www.wisdomtree.com
WisdomTree Emerging Markets Consumer Growth Fund	WisdomTree Emerging Markets Consumer Growth Index	EMCG	EMCGIV	EMCGNV	www.wisdomtree.com
WisdomTree Emerging Markets Dividend Fund	WisdomTree Emerging Markets Dividend Index	DVEM	DVEMIV	DVEMNV	www.wisdomtree.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
WisdomTree Emerging Markets ex-State-Owned Enterprises Fund	WisdomTree Emerging Markets ex-State-Owned Enterprises Index	XSOE	XSOEIV	XSOENV	www.wisdomtree.com
WisdomTree Emerging Markets High Dividend Fund	WisdomTree Emerging Markets High Dividend Index	DEM	DEMIV	DEMNV	www.wisdomtree.com
WisdomTree Emerging Markets SmallCap Dividend Fund	WisdomTree Emerging Markets SmallCap Dividend Index	DGS	DGSIV	DGSNV	www.wisdomtree.com
WisdomTree Europe Domestic Economy Fund	WisdomTree Europe Domestic Economy Index (TR)	EDOM	EDOMIV	EDOMNV	www.wisdomtree.com
WisdomTree Europe Hedged SmallCap Equity Fund	WisdomTree Europe Hedged SmallCap Equity Index	EUSC	EUSCIV	EUSCNV	www.wisdomtree.com
WisdomTree Europe Quality Dividend Growth Fund	WisdomTree Europe Quality Dividend Growth Index	EUDG	EUDGIV	EUDGNV	www.wisdomtree.com
WisdomTree Europe SmallCap Dividend Fund	WisdomTree Europe SmallCap Dividend Index	DFE	DFEIV	DFENV	www.wisdomtree.com
WisdomTree Fundamental U.S. Corporate Bond Fund	WisdomTree Fundamental U.S. Corporate Bond Index	WFIG	WFIGIV	WFIGNV	www.wisdomtree.com
WisdomTree Fundamental U.S. High Yield Corporate Bond Fund	WisdomTree Fundamental U.S. High Yield Corporate Bond Index	WFHY	WFHYIV	WFHYNV	www.wisdomtree.com
WisdomTree Fundamental U.S. Short-Term Corporate Bond Fund	WisdomTree Fundamental U.S. Short-term Corporate Bond Index	SFIG	SFIGIV	SFIGNV	www.wisdomtree.com
WisdomTree Fundamental U.S. Short-Term High Yield Corporate Bond Fund	WisdomTree Fundamental U.S. Short-term High Yield Corporate Bond Index	SFHY	SFHYIV	SFHYNV	www.wisdomtree.com
WisdomTree Germany Hedged Equity Fund	WisdomTree Germany Hedged Equity Index	DXGE	DXGEIV	DXGENV	www.wisdomtree.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
WisdomTree Global ex-Mexico Equity Fund	WisdomTree Global ex-Mexico Equity Index	XXMX	XXMXIV	XXMXNV	www.wisdomtree.com
WisdomTree Global ex-U.S. Hedged Dividend Fund	WisdomTree Global ex-U.S. Hedged Dividend Index	DXUS	DXUSIV	DXUSNV	www.wisdomtree.com
WisdomTree Global ex-U.S. Hedged Real Estate Fund	WisdomTree Global ex-US Hedged Real Estate Index	HDRW	HDRWIV	HDRWNV	www.wisdomtree.com
WisdomTree Global ex-US Quality Dividend Growth Fund	WisdomTree Global ex-U.S. Quality Dividend Growth Index	DNL	DNLIV	DNLNV	www.wisdomtree.com
WisdomTree Global ex-US Real Estate Fund	WisdomTree Global ex-U.S. Real Estate Index	DRW	DRWIV	DRWNV	www.wisdomtree.com
WisdomTree Global Hedged SmallCap Dividend Fund	WisdomTree Global Hedged SmallCap Dividend Index	HGSD	HGSDIV	HGSDNV	www.wisdomtree.com
WisdomTree Global SmallCap Dividend Fund	WisdomTree Small Cap Dividend Index	GSD	GSDIV	GSDNV	www.wisdomtree.com
WisdomTree Global High Dividend Fund	WisdomTree Global High Dividend Index	DEW	DEWIV	DEWNV	www.wisdomtree.com
WisdomTree India Earnings Fund	WisdomTree India Earnings Index	EPI	EPIIV	EPINV	www.wisdomtree.com
WisdomTree International Dividend Ex-Financials Fund	WisdomTree International Dividend ex-Financials Index	DOO	DOOIV	DOONV	www.wisdomtree.com
WisdomTree International Equity Fund	WisdomTree International Equity Index	DWM	DWMIV	DWMNV	www.wisdomtree.com
WisdomTree International Hedged Equity Fund	WisdomTree Europe Hedged Equity Index	HEDJ	HEDJIV	HEDJNV	www.wisdomtree.com
WisdomTree International Hedged Quality Dividend Growth Fund	WisdomTree International Hedged Quality Dividend Growth Index	IHDG	IHDGIV	IHDGNV	www.wisdomtree.com
WisdomTree International High Dividend Fund	WisdomTree International High Dividend Index	DTH	DTHIV	DTHNV	www.wisdomtree.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
WisdomTree International LargeCap Dividend Fund	WisdomTree International LargeCap Dividend Index	DOL	DOLIV	DOLNV	www.wisdomtree.com
WisdomTree International MidCap Dividend Fund	WisdomTree International MidCap Dividend Index	DIM	DIMIV	DIMNV	www.wisdomtree.com
WisdomTree International Quality Dividend Growth Fund	WisdomTree International Quality Dividend Growth Index	IQDG	IQDGIV	IQDGNV	www.wisdomtree.com
WisdomTree International SmallCap Dividend Fund	WisdomTree International SmallCap Dividend Index	DLS	DLSIV	DLSNV	www.wisdomtree.com
WisdomTree Japan Hedged Capital Goods Fund	WisdomTree Japan Hedged Capital Goods Index	DXJC	DXJCIV	DXJCNV	www.wisdomtree.com
WisdomTree Japan Hedged Equity Fund	WisdomTree Japan Hedged Equity Index	DXJ	DXJIV	DXJNV	www.wisdomtree.com
WisdomTree Japan Hedged Financials Fund	WisdomTree Japan Hedged Financials Index	DXJF	DXJFIV	DXJFNV	www.wisdomtree.com
WisdomTree Japan Hedged Health Care Fund	WisdomTree Japan Hedged Health Care Index	DXJH	DXJHIV	DXJHNV	www.wisdomtree.com
WisdomTree Japan Hedged Quality Dividend Growth Fund	WisdomTree Japan Hedged Quality Dividend Growth Index	JHDG	JHDGIV	JHDGNV	www.wisdomtree.com
WisdomTree Japan Hedged Real Estate Fund	WisdomTree Japan Hedged Real Estate Index	DXJR	DXJRIV	DXJRNV	www.wisdomtree.com
WisdomTree Japan Hedged SmallCap Equity Fund	WisdomTree Japan Hedged SmallCap Equity Index	DXJS	DXJSIV	DXJSNV	www.wisdomtree.com
WisdomTree Strong Dollar Emerging Markets Equity Fund	WisdomTree Strong Dollar Emerging Markets Equity Index	EMSD	EMSDIV	EMSDNV	www.wisdomtree.com
WisdomTree Trust WisdomTree Barclays Interest Rate Hedged U.S. Aggregate Bond Fund	Bloomberg Barclays Rate Hedged U.S. Aggregate Bond Index Zero Duration	AGZD	AGZDIV	AGZDNV	www.wisdomtree.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
WisdomTree Trust WisdomTree Barclays Negative Duration U.S. Aggregate Bond Fund	Bloomberg Barclays Rate Hedged U.S. Aggregate Bond Index Negative Five Duration	AGND	AGNDIV	AGNDNV	www.wisdomtree.com
WisdomTree Trust WisdomTree China ex- State-Owned Enterprises Fund	WisdomTree China ex- State-Owned Enterprises Index	CXSE	CXSEIV	CXSENV	www.wisdomtree.com
WisdomTree Trust WisdomTree Emerging Markets Quality Dividend Growth Fund	WisdomTree Emerging Markets Quality Dividend Growth Index	DGRE	DGREIV	DGRENV	www.wisdomtree.com
WisdomTree Trust WisdomTree Interest Rate Hedged High Yield Bond Fund	BofA Merrill Lynch 0-5 Year US High Yield Constrained Zero Duration Index	HYZD	HYZDIV	HYZDNV	www.wisdomtree.com
WisdomTree Trust WisdomTree U.S. Quality Dividend Growth Fund	WisdomTree U.S. Quality Dividend Growth Index	DGRW	DGRWIV	DGRWN V	www.wisdomtree.com
WisdomTree Trust WisdomTree U.S. SmallCap Quality Dividend Growth Fund	WisdomTree U.S. SmallCap Quality Dividend Growth Index	DGRS	DGRSIV	DGRSNV	www.wisdomtree.com
WisdomTree Trust WisdomTree WisdomTree Negative Duration High Yield Bond Fund	BofA Merrill Lynch 0-5 Year US High Yield Constrained Negative Seven Duration Index	HYND	HYNDIV	HYNDNV	www.wisdomtree.com
WisdomTree U.S. Domestic Economy Fund	WisdomTree Strong Dollar U.S. Equity Index	WUSA	WUSAIV	WUSAN V	www.wisdomtree.com
WisdomTree U.S. Earnings 500 Fund	WisdomTree Earnings 500 Index	EPS	EPSIV	EPSNV	www.wisdomtree.com
WisdomTree U.S. Export and Multinational Fund	WisdomTree Weak Dollar U.S. Equity Index	WEXP	WEXPIV	WEXPN V	www.wisdomtree.com
WisdomTree U.S. High Dividend Fund	WisdomTree High Dividend Index	DHS	DHSIV	DHSNV	www.wisdomtree.com
WisdomTree U.S. LargeCap Dividend Fund	WisdomTree LargeCap Dividend Index	DLN	DLNIV	DLNNV	www.wisdomtree.com

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Fund Name	Underlying Index Name	Fund Symbol	IIV Symbol	NAV Symbol	Fund Website
WisdomTree U.S. LargeCap Value Fund	WisdomTree LargeCap Value Index	EZY	EZYIV	EZYNV	www.wisdomtree.com
WisdomTree U.S. MidCap Dividend Fund	WisdomTree MidCap Dividend Index	DON	DONIV	DONNV	www.wisdomtree.com
WisdomTree U.S. MidCap Earnings Fund	WisdomTree MidCap Earnings Index	EZM	EZMIV	EZMNV	www.wisdomtree.com
WisdomTree U.S. Multifactor Fund	WisdomTree U.S. Multifactor Index	USMF	USMFIV	USMFNV	www.wisdomtree.com
WisdomTree U.S. SmallCap Dividend Fund	WisdomTree SmallCap Dividend Index	DES	DESIV	DESNV	www.wisdomtree.com
WisdomTree U.S. SmallCap Earnings Fund	WisdomTree SmallCap Earnings Index	EES	EESIV	EESNV	www.wisdomtree.com
WisdomTree U.S. Total Dividend Fund	WisdomTree Dividend Index	DTD	DTDIV	DTDNV	www.wisdomtree.com
WisdomTree U.S. Total Earnings Fund	WisdomTree Earnings Index	EXT	EXTIV	EXTNV	www.wisdomtree.com
WisdomTree U.S. Dividend Ex-Financials Fund	WisdomTree Dividend ex-Financials Index	DTN	DTNIV	DTNNV	www.wisdomtree.com
WisdomTree United Kingdom Hedged Equity Fund	WisdomTree United Kingdom Hedged Equity Index	DXPS	DXPSIV	DXPSNV	www.wisdomtree.com
WisdomTree Japan SmallCap Dividend Fund	WisdomTree Japan SmallCap Dividend Index	DFJ	DFJIV	DFJNV	www.wisdomtree.com
Workplace Equality Portfolio	Workplace Equality Index	EQLT	EQLTIV	EQLTNV	www.alpsfunds.com
YieldShares High Income ETF	ISE High Income Index	YYY	YYYIV	YYYNV	www.exchangetradedconcepts.com