

20th Annual Edition

2024 Global ETF Handbook

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J.P. Morgan ETF Research

The 2024 J.P. Morgan ETF Handbook, the 20th annual edition, provides a detailed overview of the \$13 Trillion global ETF market. The first part of the report describes ETF markets in the Americas, Europe and Asia, and discusses new market developments and trends in the industry. The second part of the report provides a complete categorized listing of all ETFs trading worldwide, grouped first by region, and then by asset class and market segment.

ETFs are designed to allow an investor to quickly and easily obtain a desired market or benchmark exposure, by trading a single security. ETF shares may offer intraday liquidity, and continuous, real-time trading and pricing.

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EXCHANGE TRADED FUNDS – ETFs

What are ETFs?

Each share of an ETF represents a fractional ownership interest in a portfolio of securities, commodities or other instruments. This investment medium has captured significant market interest and strong inflows during the last couple of decades. As of the end of May 2024, total ETF assets under management (AUM) was ~\$13.0 Tr globally, up from \$10.1 Tr a year ago (see Figure 1 for a list and breakdown of regions included in this calculation). In addition, the number of listed ETFs globally has grown to over 12,000.

Characteristics of ETFs

ETFs have some characteristics that are similar to those of both stocks and mutual funds, but also have many differentiating characteristics. Like stocks, ETFs are listed on one or more stock exchanges. In some cases, they also trade in the third market (i.e., over the counter) and through Electronic Communication Networks (ECNs). Like mutual funds, ETFs are available on a wide range of both broad and narrow indices, or they can be actively managed. An ETF investor effectively can go long or sell short an entire portfolio of securities by trading a single listed ETF¹.

Advantages of Using ETFs

Index-linked ETFs generally provide an effective way to track their underlying benchmarks because an ETF typically trades on the exchange at a price that is at or close to its net asset value (NAV). Index-linked ETFs allow an investor to obtain a desired market or benchmark exposure by trading just a single security. ETF shares are designed to offer intraday liquidity, and continuous, real-time trading and pricing. In many instances, ETFs can be sold short and can be purchased on margin by an investor seeking leverage².

ETFs may also be structured to be more tax efficient than mutual funds. Mutual funds are often forced to liquidate portions of their holdings in order to pay investor redemptions in cash, which can generate capital gain distributions for shareholders. Many ETFs, on the other hand, are created and redeemed “in-kind” by broker-dealers acting as “Authorized Participants.” As a result, capital gain distributions and the internal costs associated with buying and selling securities in response to shareholder activity may be minimized³. Many ETFs, such as those linked to commodities or fixed-income indices, use in-cash creations and redemptions. These ETFs will not benefit from the tax advantages enjoyed by equity-linked ETFs that create and redeem primarily on an in-kind basis. In 2019, the SEC adopted rule 6c-11 (commonly referred to as the “ETF Rule”) which brought greater uniformity and clarity to ETF regulation, and allowed in-scope ETFs to use custom creation and redemption baskets that permit more efficient portfolio rebalancing (see p.18 of our [2019 ETF Handbook](#) for details).

Do ETFs Pay Dividends?⁴

It depends on the type of ETF. US ETFs that invest in stocks and securities generally are required to be registered under the Investment Company Act of 1940 (1940 Act) and qualify as regulated investment companies (RICs) under the Internal Revenue Code (IRC). These ETFs typically make distributions on a quarterly, monthly, annual, or irregular basis. Distributions must be made each year in order to eliminate any entity level tax, by distributing all of their ordinary income

and long-term capital gains. There is no distribution requirement for other ETFs (e.g. ETPs based on commodities or currencies) and such ETPs typically do not make distributions.

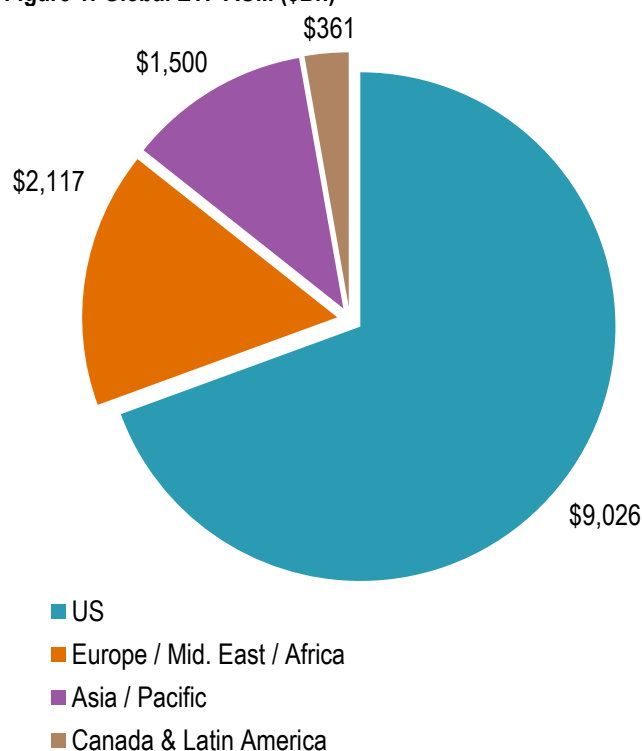
Liquidity and Trading

Liquidity is one of the key benefits that ETFs can offer. Unless an ETF has shut down creation orders (e.g., for an ETF that is liquidating), Authorized Participants always have the ability to create new ETF shares⁵. The result is that each ETF can be as liquid as its underlying securities. In the primary market, ETFs are issued by trusts, limited partnerships or other vehicles in large-sized blocks (typically 25,000 or 50,000 shares) called “Creation Units”. For ETFs that are created on an in-kind basis, each Authorized Participant deposits a specified portfolio with the trustee or its administrator, sponsor or distributor in exchange for a Creation Unit. In many instances, the Creation Unit is then broken up by the Authorized Participant, and the ETF shares are offered on exchanges in the secondary market where investors can buy or sell ETF shares in smaller quantities. Similarly, for ETFs that are subject to redemption on an in-kind basis, Authorized Participants can redeem ETFs by exchanging a Creation Unit of ETF shares for receipt from the ETF of assets that compose the underlying portfolio⁶. Certain ETFs also transact on a cash basis with Authorized Participants, and/or permit cash to be delivered in lieu of certain in-kind securities (e.g., securities on the Authorized Participant’s restricted list or that are subject to a trading halt).

Snapshot of the Global ETF Market

Figure 1 below depicts total global AUM held in ETFs, broken down by region.

Figure 1: Global ETF AUM (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. Data as of end of May 2024.

Risks and Considerations

ETF shareholders are subject to risks similar to those faced by holders of other portfolios of securities or commodities. A primary consideration of shareholders investing in ETFs is that the general level of prices within the portfolio may decline, adversely affecting the value of each ETF share (for ETFs that provide long exposure). For ETFs providing inverse or “short” exposure, the value of the ETF will go down as the prices of the instruments in the underlying portfolio increase. In addition, ETF shares may decline in value if the overall depth and liquidity of the secondary market decreases. A sector-focused ETF may be adversely affected by the specific performance of its targeted benchmark. International investments may involve the risk of capital loss as a result of unfavorable fluctuations in currency values, differences in generally accepted accounting principles, or economic and political instability in the nations represented by issuers of the underlying securities or other countries. Actively-managed ETFs may perform better or worse than the benchmark or market sector they are designed to outperform. Although the NAVs of index-linked ETFs typically correlate closely to the underlying indices, the market prices for these ETFs (particularly in the case of certain fixed income index-linked ETFs) may be discounted compared to the ETF’s NAV.

Although index-linked ETFs are designed to provide investment results that generally correspond to the price and yield performance of their respective underlying indices, ETF managers may not be able to exactly replicate the performance of the indices because of expenses and other factors. ETF shareholders are typically subject to expense fees charged by the issuer, and transactions are subject to standard brokerage commissions and markups or markdowns. For a more comprehensive list of other risk factors, see the “Possible Risks of Investing in ETFs” section at the end of this document.

Definitions of Analytics in ETF Listings

The second part of this report (beginning on p.27) provides a complete listing of ETFs trading worldwide, including information on each fund’s ticker and name, total AUM, changes in shares outstanding, average daily volume, bid-offer spread, expense ratio, and option liquidity⁷.

Given the continued growth in ETF offerings and evolving trends, we introduced a new subcategory in our ETF listing classifications in this edition of the ETF Handbook: call/put writing funds are moved into a separate subcategory (while last year they were grouped with managed risk/defined outcome funds) – see p.19 for an overview of option-based ETFs.

Additionally, in a change from prior years, we are only including the primary exchange listing for European ETFs, and not showing cross-listings or alternative currency versions of funds. Note that liquidity metrics (average daily volume, bid-ask spread) in the listing tables may be understated for European ETFs with cross-listings, as they report these stats only for the primary listing (and thus don’t reflect the total pool of available liquidity, due to the market’s fragmentation).

Below are definitions of the metrics presented:

- *Total Assets*: market value of the ETF’s total shares outstanding (in \$Mn) as of a given measurement date
- *Change in Shares Outstanding*: arrows indicate ETFs that have seen significant changes in shares outstanding over the last year, defined as a greater than a 20% increase or decrease
- *Average Daily Volume*: average daily exchange turnover over the trailing 6 months (in \$Mn)
- *Average Bid-Offer Spread*: average intraday bid-offer spread over the trailing month, as a percentage of the ETF’s price
- *Fund Leverage*: the explicit leverage of the fund – e.g. ‘2x’ denotes an ETF that delivers 200% of the daily performance of its benchmark, and ‘-1x’ denotes a daily inverse ETF
- *Actively Managed*: identifies ETFs that are actively managed, where Y denotes funds that use an active transparent wrapper and Y* denotes semi/non-transparent funds (see p.10-11 of our [2020 ETF Handbook](#) for background on the different wrapper types)
- *ESG Screened*: identifies ETFs that use ESG criteria in portfolio construction, or track an ESG-related theme. Note this field is based on the funds’ strategy descriptions, and we do not evaluate the effectiveness of their ESG methodology.
- *Currency Hedged*: identifies ETFs that use currency hedging. In Canada and Asia Pac, this field also identifies ETFs that have alternate currency versions of the fund listed (e.g. in Asia, “U” in this column indicates a USD version of the ETF exists). See the table footnotes for details.
- *ETF Options Liquidity*: we classify the ETF’s option liquidity in 4 categories based on its average daily notional turnover over the prior 3 months:
 - (H)igh = average daily notional turnover exceeds \$100Mn
 - (M)edium = average daily turnover between \$20 and \$100Mn
 - (L)ow = average daily turnover under \$20Mn
 - (N)one = not optionable

Data throughout the report are as of the end of May 2024, unless otherwise indicated.

ETF MARKET OVERVIEW

Snapshot of the US ETF Market

The US-listed ETF industry has grown dramatically over the last two decades, not only in size but also in the diversity of products offered. As of the end of May 2024, there were ~3,500 ETFs listed in the US, which held ~\$9.0 Tr in assets. In the early 2000s, US-listed ETF trading was dominated by ETFs referencing broad-based US equity indices (we term these “Equity Broad Based ETFs”), such as SPY and QQQ, referencing the S&P 500 and Nasdaq 100, respectively. These broad-based ETFs held ~90% of total AUM at the time. However, as new offerings came to market, the asset base began to diversify.

Broad-based ETFs now account for ~35% of total ETF assets, while US-listed ETFs referencing International Equities now represent 16% of AUM, up from just 3% in the early 2000s. Style-based ETFs⁸ have also grown to represent a proportionally larger piece of the ETF universe, increasing from 3% to 21% of ETF assets during the same period. Sector funds have grown from 5% to 8% of the total AUM. Fixed income ETFs have exhibited strong growth in recent years and have come to represent 17% of total ETF assets, while commodity, currency and multi-asset ETFs now represent 3% of total ETF assets. Asset growth was strong across all categories over the past year given both large inflows to ETFs and the strong performance of equities, with all major categories recording double-digit percentage AUM increases y/y.

Table 1: Breakdown of new US ETF listings by category (past year)

Category	% of new funds
Managed risk/defined outcome	16%
Factor/Smart Beta	11%
Call/put writing	10%
International Equity	9%
Theme	9%
Multi-asset	7%
Fixed Income-Aggregate	6%
Sector	5%
Crypto	5%
Fixed Income-Other	3%
Fixed Income-Corporates	4%
Fixed Income-Munis	3%
Single stock	3%
Equity Broad Based	3%
Other style categories	2%
Fixed Income-Money Market	1%
Commodities	1%
Passive	26%
Actively Managed	74%
ESG Screened	3%
Leveraged	6%

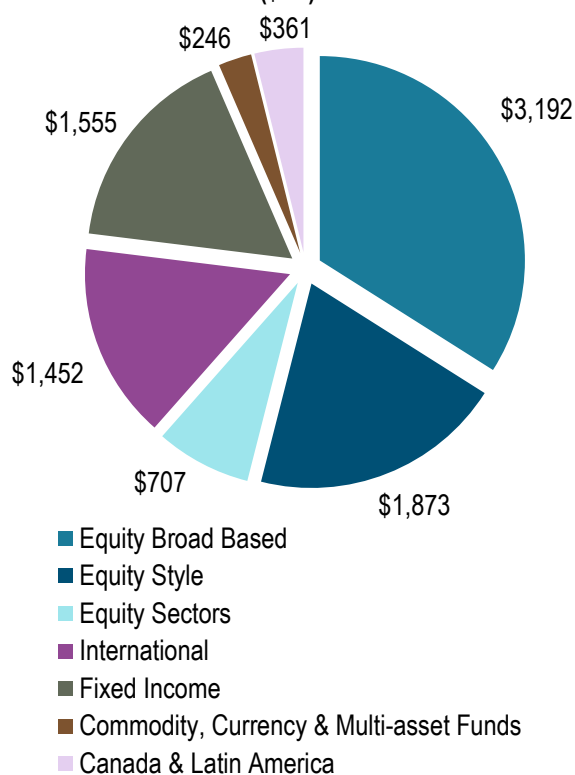
Source: J.P. Morgan Quantitative and Derivatives Strategy

The pace of new ETF launches remains robust as ETF providers continue to address new investment themes, offer more granular exposures, cover more of the investible universe, and increasingly migrate actively managed strategies to the ETF wrapper. Table 1 shows a breakdown by category for the ~600 new US ETFs that were launched over the past year. This table indicates where issuers are

focusing their product development efforts and hence where they see the greatest opportunities. We discuss developments in a number of these categories in the Developments in ETF Markets section beginning on p.8.

We note that for the fourth consecutive year, a majority of new ETFs are actively managed. Additionally, managed risk/defined outcome, factor, call/put writing, and thematic funds remained significant areas of focus for issuers over the past year, together accounting for nearly half of all new ETF launches. Cryptocurrency ETFs were another major area of focus over the past year (discussed on p.22); they accounted for ~5% of new fund launches, and attracted over 40% of the AUM in newly launched funds over the past year. However, ESG funds fell out of focus in the US, as just 3% of new ETF launches are employing ESG screening (vs. 18% the prior year). Meanwhile, ~200 ETPs were liquidated or delisted over the past year.

Figure 2: Americas ETF AUM (\$Bn)



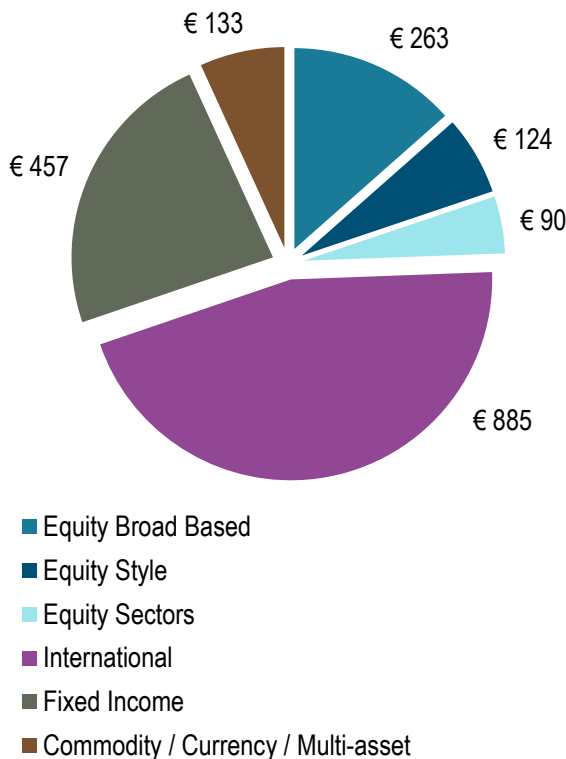
Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. Data as of end of May 2024.

ETF MARKET OVERVIEW

Snapshot of the European ETF Market

There are ~3,800 European ETFs and ETCs (Exchange Traded Commodities), excluding cross-listings and alternate currency versions⁹, which hold nearly €2.0 Tr (~USD 2.1 Tr) of assets. A majority of these ETFs and ETCs are cross-listed on multiple exchanges in Europe. Around 13% of AUM is held in broad-based ETFs; International- and Fixed Income-based ETFs account for 45% and 23% of assets, respectively, whereas Style-based ETFs account for ~6% of assets. The European market also offers more choice among ETFs that cover alternative assets compared to the US, with ~60% more non-equity ETPs currently listed.

Figure 3: European ETF AUM (€Bn)

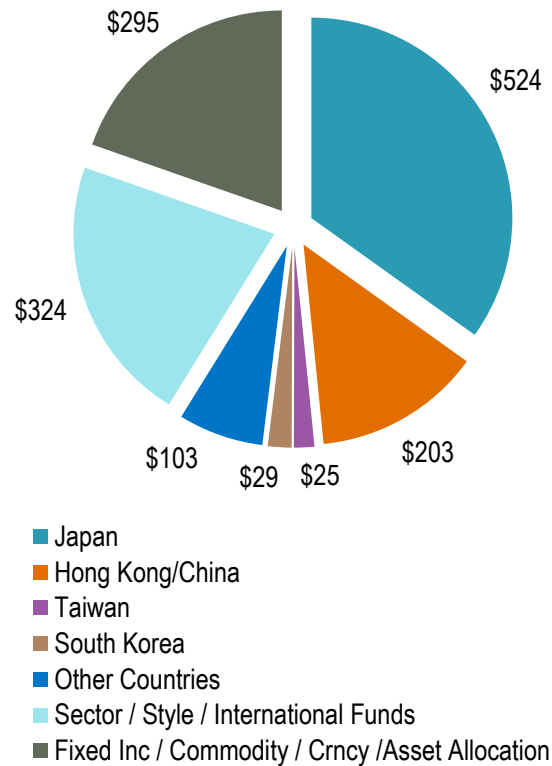


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. Data as of end of May 2024.

Snapshot of the Asia-Pacific ETF Market

There are currently ~3,600 listed Asia-Pacific ETFs (excluding cross-listings and alternate currency versions) and AUM for the region increased ~22% y/y to ~\$1.5 Tr USD. The asset base remains relatively concentrated in Japan-focused equity ETFs which hold ~35% of total Asia-Pac ETF assets (totaling ~\$524 Bn in assets currently). Non-equity (mainly Fixed Income) ETFs make up ~20% of Asia-Pacific ETF assets, while equity style, sector and international funds each comprise ~5-10% of the total.

Figure 4: Asia-Pacific ETF AUM (\$Bn)



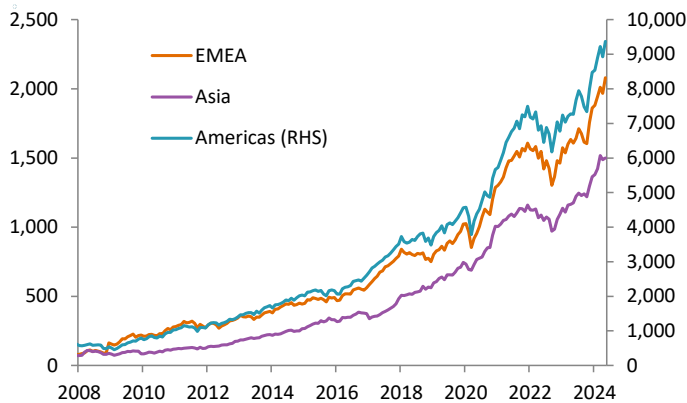
Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. Data as of end of May 2024.

DEVELOPMENTS IN ETF MARKETS

Evolution of ETF Markets

The first ETF was created in Canada in 1990 (TSE 35 participation units), and the first US ETF (the SPDR S&P 500 ETF, SPY) came to market in 1993. By 2000, US ETF offerings included funds tracking the S&P 500 and Dow Jones sectors, international MSCI indices, and major US capitalization and style benchmarks. The first ETF in Asia was launched in 1999 and in Europe in 2000. Over the following decade, ETF markets saw major growth. From 2001 to 2011, the number of ETFs listed globally increased from ~250 to ~3,700, registering an annualized growth rate of ~30%. Since then, the pace of increase of the number of ETFs listed has slowed to ~10% on average as the market matured.

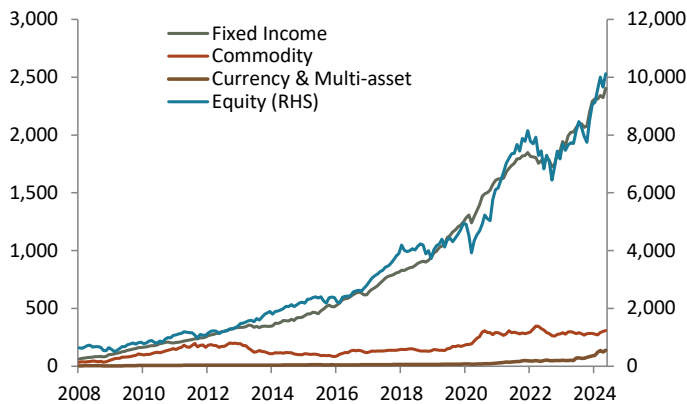
Figure 5: Global ETF AUM historical trends by region (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

There are currently ~12,000 ETFs listed globally, holding ~\$13.0 Tr in assets. The Americas (primarily the US) remains the largest ETF market, with ~72% of the global ETF AUM. Europe and Asia compose 16% and 12% of the global ETF AUM, respectively.

Figure 6: Global AUM historical trends by ETF type (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

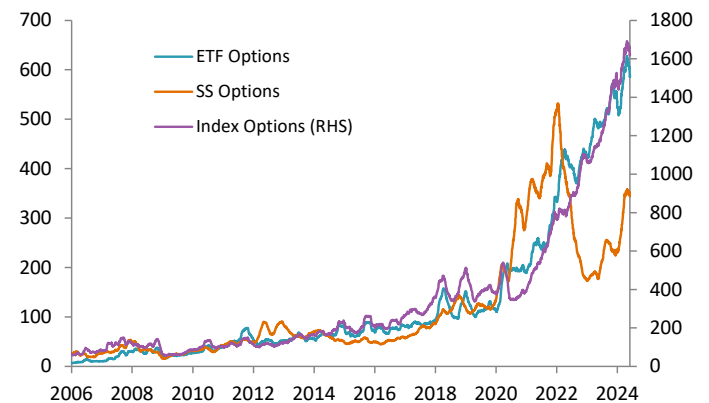
In the early years, ETFs were based only on broad equity indices. The first non-equity ETFs were launched in Canada in 2000 and in the US in 2002. However, significant interest in non-equity ETFs did not start until 2005. Since 2005, non-equity ETFs have grown from \$27 Bn to \$2.9 Tr in assets globally, an average annual growth rate of ~28% (vs. equity ETFs' growth rate of ~21% over this period). In terms of asset

class focus, equity ETFs currently compose 78% of the global ETF AUM, fixed income 19%, commodities ~2%, and currency and multi-asset ETFs ~1%.

ETF Options

Volumes in US ETF options markets have continued to grow. In the years leading up to the pandemic, ETF option volumes were on par with aggregate volumes across all US stock options, but a surge in retail investor trading during COVID drove stock option volumes above ETF option volumes. However, over the past two years, the advent of zero-day to expiry (ODTE) options trading, the more macro-oriented environment, and the decline in retail participation led to a surge in ETF (and index) option trading. Meanwhile, following a sharp decline in volumes in 2022/23, single stock option volumes rebounded over the past year, but remain well below those in ETFs. Currently, ~1,600 US ETFs have listed options (representing ~45% of all US ETFs), but ETF option activity is concentrated in a relatively small number of names. For example, SPY, QQQ and IWM accounted for ~95% of all ETF option volumes for 2024 YTD (SPY alone was ~66%). Table 2 shows the average daily option volumes for the most liquid optionable US ETFs in each exposure category (based on YTD notional option turnover).

Figure 7: The total volume on US ETF options now exceeds that of aggregate US stock option volumes (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Outside of the US, the ETF options markets have yet to take off. ETF daily option volumes in Europe and Asia remain orders of magnitude lower than in the US, and few ETFs in these regions have listed options trading.

Outside of very short-dated (e.g. ODTE) options trading, ETF options' primary use remains portfolio hedging, which we can infer from the put/call (P/C) open interest ratio. The ratio for ETF options has fluctuated around 1.7 put options for every call option outstanding over the last few years, close to the average ~1.9 ratio for index options. This suggests that ETF options are used mostly in protection strategies such as long puts or put spreads. This can be contrasted to the stock options market, where investors typically trade a greater proportion of call options for upside leverage or as a part of call overwriting strategies (~0.9 put options for every call option outstanding).

DEVELOPMENTS IN ETF MARKETS

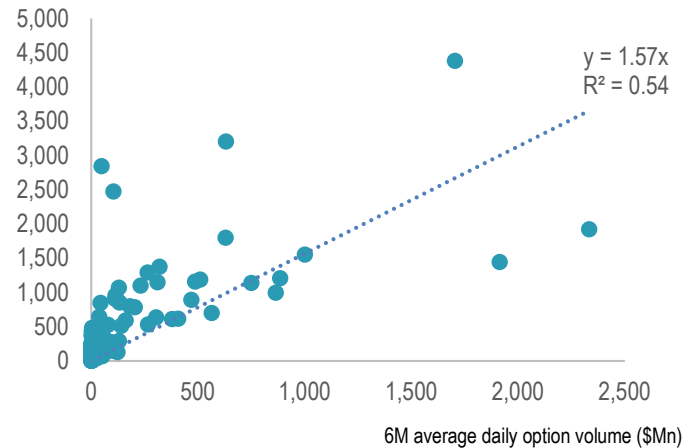
Table 2: Average daily notional option volumes for the most liquid US ETFs within each category (\$Mn)

Ticker	ETF Type	Average Option Volumes			
		2024 YTD	2023	2022	2021
SPY	Equity Broad Based	408,847	358,533	296,074	191,119
QQQ	Equity Broad Based	157,941	114,933	82,009	48,376
IWM	Equity Broad Based	25,293	20,378	15,507	15,246
DIA	Equity Broad Based	1,915	2,093	2,172	2,012
TQQQ	Equity Broad Based	1,706	1,095	1,347	1,507
EEM	International Equity	886	1,136	829	1,215
EFA	International Equity	512	593	784	653
FXI	International Equity	487	433	588	464
GDX	International Equity	470	357	326	432
EWZ	International Equity	409	558	482	609
SMH	Equity Sector	2,333	832	905	640
XLE	Equity Sector	1,001	1,019	1,584	981
XBI	Equity Sector	866	476	487	552
XLI	Equity Sector	750	863	213	227
SOXL	Equity Sector	632	235	259	159
ARKK	Equity Style	379	528	896	1,308
UVXY	Equity Style	105	198	333	471
VXX	Equity Style	99	195	296	700
TLT	Fixed Income	3,151	2,703	2,219	1,866
HYG	Fixed Income	2,428	3,110	3,639	2,138
LQD	Fixed Income	589	523	864	530
GLD	Commodity	3,568	3,035	2,498	2,278
SLV	Commodity	737	396	401	678
USO	Commodity	270	334	439	216
BITO	Currency	416	82	137	228
BITX	Currency	34	1	-	-
FXV	Currency	11	10	11	4

Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Option liquidity is also a strong driver of liquidity in the underlying ETF. Increased option volumes lead to an increase in hedging flows from option market makers (who dynamically hedge the delta exposure of their option positions), and increased usage of an ETF as a trading vehicle by investors (e.g. because it can allow investors to monetize more specific views on timing and price ranges, add or remove leverage, and/or risk-manage positions through option-based strategies). Figure 8 below illustrates this relationship between option and cash volumes, where we find that, similar to last year, on average each additional dollar of option volume corresponded to an additional ~\$1.6 of ETF cash volume for US equity funds over the past 6 months.

Figure 8: Each dollar of option volume corresponded to an additional ~\$1.6 of ETF cash volumes on average*
6M average daily ETF cash volume (\$Mn)



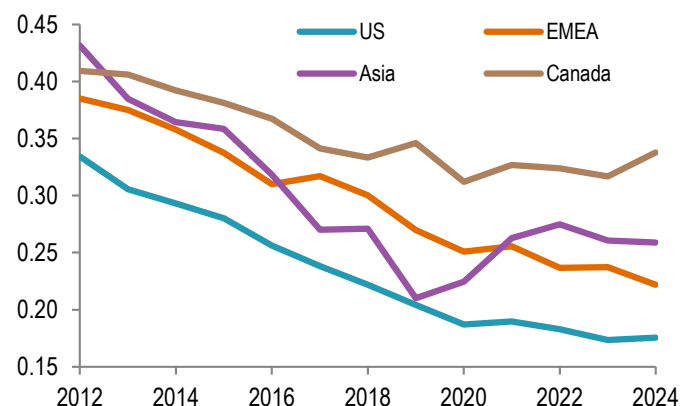
Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg. * Scatterplot universe is US-listed equity ETFs with >\$1Mn option ADV, excluding the 3 largest volume outliers

Trends in ETF Fees

As we have written in past editions of this Handbook, ETF fees have been persistently squeezed by competitive forces in recent years. Forces driving this trend include the continued shift from active to passive investing, a general shift among investors toward lower fee products, competition among established players for market share, and the challenge from new Fintech entrants to the market.

Average fees paid across ETFs have exhibited a steady march downward in recent years, decreasing by nearly 50% in the US since 2012 to an AUM weighted average of ~18bps, though they were little changed over the past year. Figure 9 and Figure 10 show the AUM-weighted average fees across global ETFs historically, broken down by region and asset class, respectively. The lower fee trend was driven both by investor flows gravitating towards lower fee funds within each region and asset class, as well as ETF issuers selectively cutting the expense ratio on a number of funds for competitive reasons.

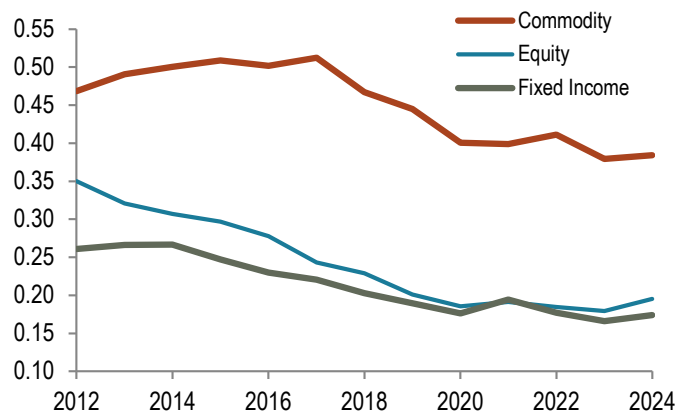
Figure 9: AUM-weighted average fees by region



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. Data points as of May of each respective year

DEVELOPMENTS IN ETF MARKETS

Figure 10: AUM-weighted average fees among global ETFs, by asset class

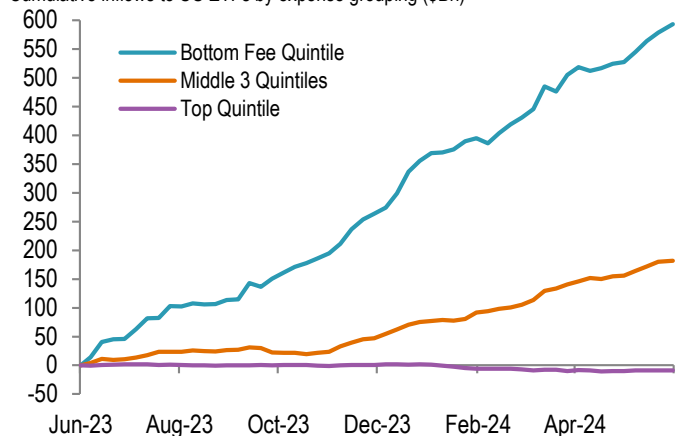


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. Data points as of May of each respective year

As we noted in past years, investors tend to gravitate towards the lowest fee funds (e.g. see the section titled “The Fee War Intensifies” in our [2019 ETF Handbook](#)). For example, funds in the lowest quintile by expense ratio (ETFs with an expense ratio ≤ 20 bps) pulled in over 75% of total ETF inflows in each year during 2014-2024, apart from the year ended May’21 when this segment’s share dropped to $\sim 2/3$ due to inflows to some higher-fee segments such as Thematic and ESG ETFs. However, the past year’s 77% flow share for the lowest fee quintile was the second lowest over this period, thanks to strong inflows to actively managed and option-based funds (discussed below and on p.19, respectively). The most expensive funds continued to see limited investor interest over the past year, as ETFs in the highest fee quintile (fees ≥ 85 bps) recorded net outflows overall (Figure 11).

Figure 11: The lowest fee funds attracted 77% of total inflows the past year, while the highest fee funds saw net outflows

Cumulative inflows to US ETFs by expense grouping (\$Bn)

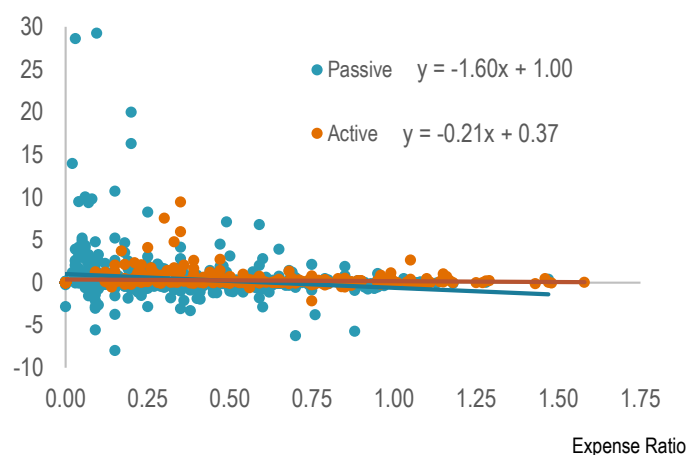


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Within the actively managed ETF segment, fee pressures are somewhat lighter. The AUM-weighted average expense ratio for US-listed active ETFs is 43bps, nearly triple the average 15bps fees for passive US ETFs. Investors are also somewhat less discerning with respect to fees in the actively managed segment, as there is likely greater focus on seeking out strategies that deliver alpha or provide a

desired strategy, rather than primarily focusing on fees. However, even in the actively managed segment, the majority of flows tend to go to the cheapest funds. For example, we note that the cheapest quintile of actively managed ETFs (fees ≤ 39 bps) attracted 67% of net inflows over the past year (and the top fee quintile just 8% of inflows), though this is a lower concentration compared to passive ETFs where the lowest fee quintile (fees ≤ 15 bps) pulled in 86% of inflows. Another illustration is shown in Figure 12 below; while both passive and active ETFs exhibited negative relationships between net flows and expense ratio, the slope for passive equity ETFs was ~ 8 x larger than for active.

Figure 12: Passive ETF flows were more sensitive to fees than active
Net inflows over the past year (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg. * Scatterplot universe is US-listed equity ETFs with $> \$100$ Mn AUM. Note y-axis is truncated

Actively managed ETFs hit their stride

As we discussed the past couple of years, actively managed ETFs have become an increasing focus for issuers, as managers migrate active strategies to the ETF wrapper. In the past, ETFs were seen as largely passive vehicles, and asset managers typically ran separate product development and marketing efforts for them. However, ETFs have become part of many asset managers’ core strategy, and their flagship active products are increasingly being launched on or migrated to the wrapper. For example, earlier this year Blackrock reorganized its structure to create a new global product solutions business that markets both Blackrock funds and iShares ETFs (see [here](#)), and a number of fund managers known for their active offerings have chosen to launch flagship products in the ETF wrapper and/or convert existing mutual fund offerings to ETFs (e.g. DFA, J.P.Morgan Asset Management, Capital Group, T.Rowe, PIMCO).

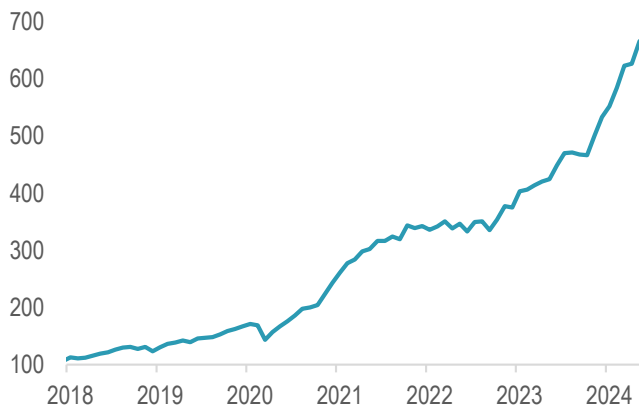
US-listed actively managed ETFs continue to see strong growth, with total assets in this segment rising $\sim 70\%$ y/y to $\sim \$670$ Bn (Figure 13). Moreover, actively managed ETFs have accounted for a significant majority ($> 60\%$) of new ETF launches in each of the past four years, and over the past year they took in $\sim 25\%$ of all ETF inflows in the US. In our view, a few major developments help explain this trend:

- 1) the approval of non-transparent and semi-transparent ETF structures (although adoption has been limited, in our view the approval of these wrappers was a catalyst for the strong growth of actively managed ETFs, as it caused more active managers to

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- consider launching their strategies via ETFs, even if most ultimately opt to use the active transparent structure).
- 2) adoption of the ETF Rule (discussed in our [2019 ETF Handbook](#)) that extended custom creation/redemption baskets to actively managed ETFs, which allows them to rebalance more efficiently
 - 3) the popularity of Thematic ETFs (discussed in our [2021 ETF Handbook](#)) and option-based ETFs (discussed on p.12 and in our [2020 ETF Handbook](#)) the past few years, a large portion of which are actively managed
 - 4) the ability to convert existing portfolios (e.g. mutual funds, SMAs) to the ETF wrapper (see p.24 for discussion)

Figure 13: AUM in US-listed actively managed US ETFs (\$Bn)



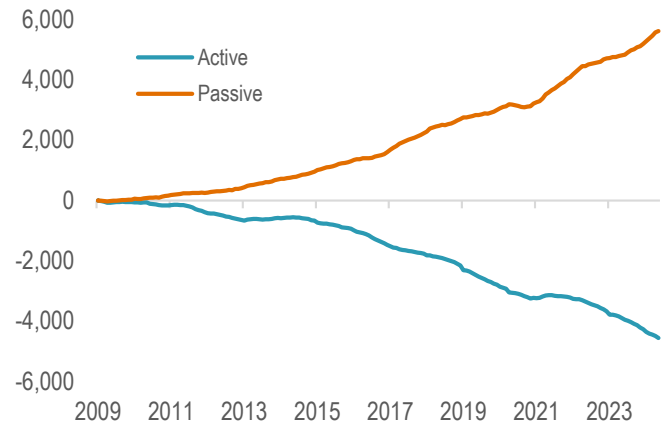
Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Despite the strong growth in active ETF AUM the past few years, they remain a relatively small piece of the total ETF pie, accounting for just ~7% of total US ETF assets (~6% in equities and ~13% in fixed income – though these figures are up from ~4% and ~10% a year ago, respectively). Or put another way, ETFs account for just ~4% of the assets in actively managed funds (i.e., mutual funds retain a 96% share of actively managed fund assets).

We expect ETFs to increasingly take market share of the actively managed universe from mutual funds, given ETFs' advantages: typically lower expenses, greater tax efficiency due to in-kind creation/redemption and custom in-kind baskets for rebalancing, intraday liquidity and continuous pricing, and the ability to short and trade options. In the past few years we've seen a number of successful mutual fund to ETF conversions (see p.24 for discussion) and more funds are likely to follow.

As such, we expect continued strong growth for actively managed ETFs in the years ahead. However, the broader rotation from active to passive funds (which has seen over \$4Tr flow in that direction in global equity funds over the past decade, Figure 14) appears unlikely to reverse near-term, suggesting the growth in active ETFs will likely come largely at the expense of active mutual funds rather than passive ETFs.

Figure 14: Cumulative flows to active and passive equity funds globally (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, EPFR.

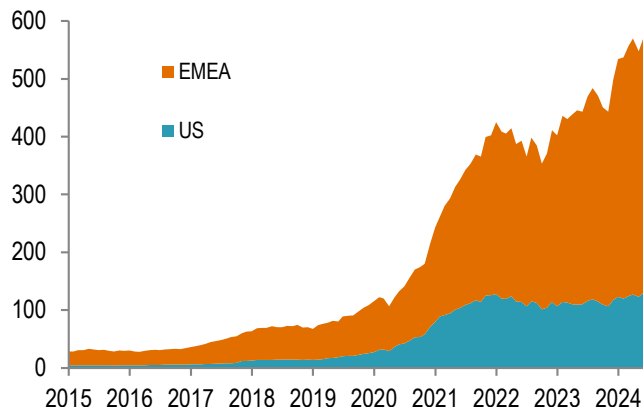
A few years ago, the SEC approved the first non- and semi-transparent ETF structures that permit ETF managers to at least partially shield their holdings (see our [2019](#) and [2020](#) ETF Handbooks for background). Adoption of the non- and semi-transparent structures remains relatively slow 4+ years after their launch, with just ~\$10.7 Bn AUM in total in these funds, accounting for less than 2% of the total AUM in actively managed ETFs. Additionally, a few ETFs that were launched as semi-transparent were subsequently converted to the active transparent wrapper (e.g. Fidelity converted two of its semi-transparent ETFs earlier this year). Indeed, the vast majority of assets and inflows in active ETFs are in transparent active funds (i.e. those that disclose portfolio holdings at T+1), demonstrating that portfolio transparency need not be an impediment to the success of an active ETF strategy. However, non-transparent structures continue to see periodic interest from fund managers who want to shield their intellectual property on some flagship active strategies.

Socially Responsible/ESG ETFs

In our [2017](#) and [2023](#) ETF Handbooks we discussed the landscape for ESG ETFs, which had become an area of increasing focus for issuers and investors. ESG ETFs saw exponential growth between 2016 and 2021, with assets growing ~15-fold over this period globally (Figure 15). However, growth in this segment slowed significantly over the past few years, in our view due to a combination of underperformance in 2022 (due to ESG's underweight of the Energy sector that strongly outperformed), controversy around definitions, and increasing politicization of ESG in the US. In fact, US ESG funds have attracted close to zero net flows over the past two years, new ESG fund launches in the US have slowed significantly (see p.6), and European ESG funds have seen decelerating inflows and recorded their largest ever monthly outflows in April 2024 (but they continued to see significant inflows overall the past year, Figure 16).

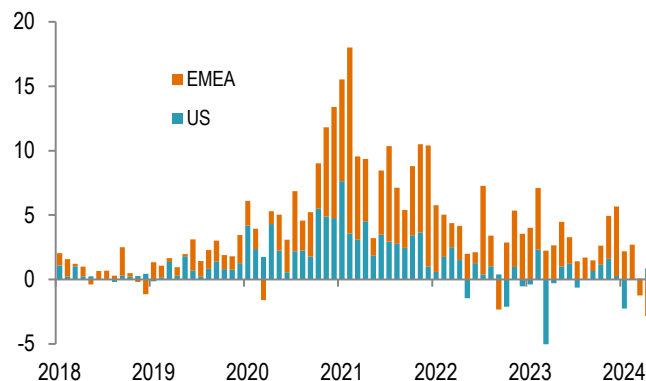
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Figure 15: ESG ETF AUM by region (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Figure 16: ESG ETF net flows by month (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Despite the slowing flows, ESG ETFs remain a focus area for issuers in Europe, with ~90 new ESG-screened products launched over the past year (vs. just ~20 in the US). Europe continues to dominate the ESG space, remaining well ahead of the US in terms of products offered, AUM and regulations, and the gap between the regions has widened further over the past year (Table 3). See our [2023 ETF Handbook](#) for additional background on ESG strategies, the ESG ETF landscape, and the regulatory environment.

Table 3: Europe remains well ahead of the US in ESG investing

Region	Number of ESG ETFs	ESG ETF AUM (\$Bn)	ESG Share of Total Regional ETF AUM
EMEA	765	441	21%
US	284	130	1.4%

Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Thematic ETFs

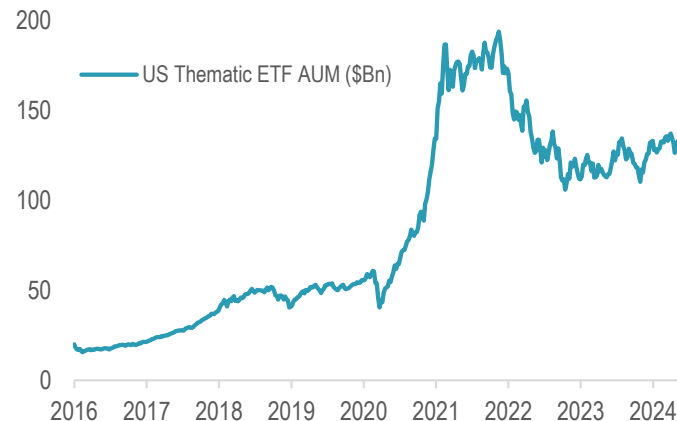
In our [2021 ETF Handbook](#), we examined the growing universe of Thematic ETFs, which provide exposure to macro trends that can't be traded via traditional regional, sector, or factor exposures. In that piece, we provided a taxonomy for themes, classifying them into 3 major categories: (1) Paradigm Shifts that include emerging products/technologies/business models, such as themes that capture digitalization and innovation; (2) Secular Growth that includes steadier

growth and longer-term themes such as consumption, development, fundamental moats and natural resources; and (3) Macro/Market themes that cover a variety of macro trends including mega cycles in economies or markets, market structure, and geopolitics.

Thematic ETFs were a strong beneficiary of trends early in the pandemic, as investors showed strong interest in themes in the paradigm shifts category (i.e. ETFs playing themes related to innovation and digitalization such as ARKK, SKYY, BLOK, ARKW, etc.). However, as we discussed in our 2022 ETF Handbook, many of these themes strongly underperformed in late 2021 to 2022 given crowding and unsustainable valuations; and the thematic ETF space has yet to recover from this episode. Overall, investor demand for thematic ETFs remains relatively weak, as US-listed Thematic ETFs have recorded net inflows of just ~\$4 Bn over the past year (and outflows YTD). Despite the limited investor demand over the past couple of years, issuers continue to focus on the segment, launching over 50 new Thematic ETFs in the US over the past year (~9% of all new ETF launches over this period).

As we discussed in last year's ETF Handbook, the public launch of generative AI/large language models stoked investor interest in potential beneficiaries of this technology, and drove significant inflows to AI-related themes. However, despite the excitement around AI and strong outperformance of related names (e.g. NVDA +650% since the start of 2023), flows into AI-related themes were much more muted than the initial innovation-led thematic boom a few years earlier. US-listed AI-related thematic ETFs have only attracted ~\$3 Bn of new assets over the past year, considerably less than the ~\$16 Bn that flowed into ARKK alone in the 12 months through March 2021.

Figure 17: US Thematic ETF assets under management



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Rather than allocating to thematic ETFs to position for the AI theme, investors appear to have primarily traded passive products in the segment; for example, we estimate ~\$40 Bn flowed into passive US Tech/Semiconductor/Nasdaq ETFs over the past year. Additionally, levered ETPs in the space have grown significantly over the past year thanks to their strong performance, even as investors overall withdrew money from these funds. The 3x levered Semis ETF SOXL and 3x Nasdaq ETF TQQQ are currently the largest levered ETPs, and AUM

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in SOXL has grown from \$6.2 Bn to \$10.4 Bn and in TQQQ from \$15.4 Bn to \$21.4 Bn over the past year. As a result, the short gamma rebalance effects have also grown (recall that levered ETFs rebalance by buying the underlying on up days and selling it on down days, which can exacerbate volatility on their target stocks); these two funds alone trigger over \$2 Bn of rebalancing flows per 1% move in their underlying stocks.

Single stock ETFs

In July 2022, the SEC approved the listing of the first single stock ETFs. Initially, the single stock products that were launched provided daily levered exposure to a variety of high-volume stocks. More recently, we have seen the launch of several single stock ETFs that embed option strategies such as call overwrites that distribute option premia as income, or hedging strategies (see the section on Option-based ETFs on p.19 for background).

Altogether, there are currently ~60 single stock ETFs listed in the US with ~\$8.7 Bn in total assets, of which ~25 funds with \$2.6 Bn AUM employ call overwriting. A year ago, ~2/3 of the assets in single stock ETFs were in funds that track TSLA and ~1/6 were in NVDA trackers. However, assets have broadened over the past year and NVDA funds have become more popular given investors' focus on the AI theme and the stock's strong outperformance (NVDA +190% vs. TSLA -13% over the past year). As such, nearly half of single stock ETF assets are now in NVDA funds vs. ~20% in TSLA. The list of single stock ETFs can be found on p.36 (and those with embedded call overwriting strategies are on p.32).

As we discussed in last year's ETF Handbook, single stock levered ETFs provide an access vehicle for investors to go short, gain levered long exposure, or receive a risk-tailored exposure via options to these stocks. An advantage is that losses to investors in these ETFs are limited to their initial investment, while other forms of leverage could deliver losses exceeding 100% (e.g. by short selling a stock that more than doubles or borrowing 50% reg T margin to go long a stock that falls by 50%+). However, because levered ETFs deliver daily leverage, they underperform during mean-reverting markets and outperform during trending markets due to the daily leverage resets and compounding of returns (e.g., see [here](#)). Additionally, levered ETFs rebalance in a short gamma fashion (i.e. they have to buy the underlying on up days and sell it on down days), which can exacerbate volatility on their target stocks should these products gain material assets.

Multi-asset ETFs

Over the past year, ETF issuers have significantly expanded their offerings of multi-asset ETFs. Forty of the ~150 outstanding ETFs in this segment are new since last year. However, the multi-asset space has been challenging for issuers to gather assets and gain a foothold – around ¼ of the multi-asset funds that were active a year ago have since been liquidated (and 13% were liquidated the year before), and over the past 2Y the total AUM in multi-asset ETFs has only grown by ~9%, trailing the ~15% appreciation of a traditional 60% equity/40% bond portfolio over the period. We divide the multi-asset fund universe into two subcategories: Asset Allocation funds (which have ~\$16 Bn AUM in total) and Liquid Alts (~\$7 Bn AUM). Asset Allocation ETFs

are mostly funds of funds that hold a portfolio of ETFs across asset classes. These include funds that target different investor risk tolerance levels (e.g. aggressive, moderate, conservative, etc. portfolios), and more recently iShares launched a suite of target date ETFs that gradually shift from aggressive to conservative allocations as a target retirement date nears. Meanwhile, the liquid alts segment includes a range of hedge fund replication strategies, such as multi-strat replicators, trend following, absolute return strategies, merger arbitrage, etc.

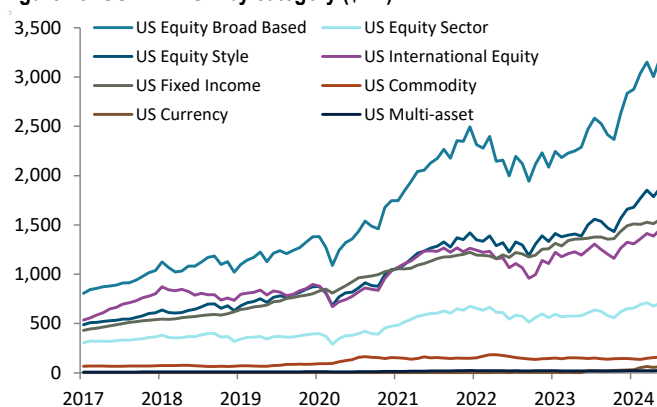
In our view, multi-asset funds have likely struggled to gather assets because 1) advisors generally provide their own asset allocation models and are unlikely to steer investors to an all-in-one asset allocation fund; 2) fees are relatively high – asset allocation funds of funds charge another layer of fees and have AUM-weighted fees of 61bps, while liquid alts' fees average ~117bps (both are well above the average 17bps fees for US-listed equity ETFs and 13bps for fixed income ETFs); and 3) liquid alts funds often have complex and/or opaque strategies.

US ETF Market

The size of the US ETF market currently stands at ~\$9.0 Tr, with ~\$7.2 Tr in equities, of which ~\$5.8 Tr is in domestic equity funds (equivalent to ~10.5% of the total US equity market cap of ~\$55 Tr).

Over the past year, asset growth was strong across nearly all categories given strong inflows to ETFs and positive returns for risky assets. The largest percentage gains were recorded by Currency funds (>+1000%) due to the launch of spot cryptocurrency ETFs that eclipsed existing funds in the category (see p.22), but all other categories besides Commodities saw double-digit % AUM gains y/y (Figure 18).

Figure 18: US ETF AUM by category (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

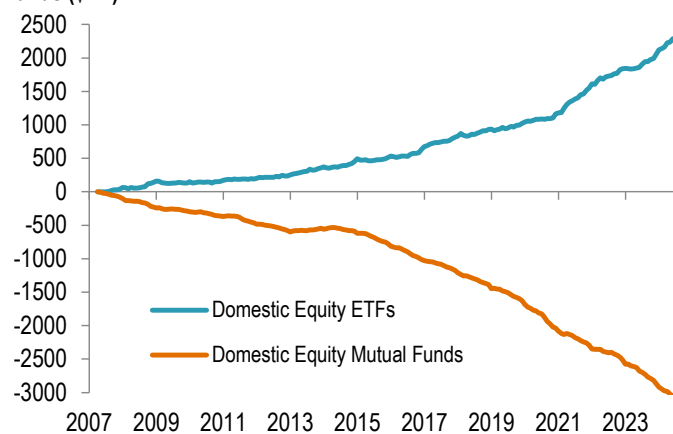
Fund Flows

Although the total asset base for mutual funds remains much larger than ETFs, ETFs have continued to attract assets at the expense of mutual funds in the US in recent years, partly reflecting an ongoing shift from active to passive management and a migration to the ETF wrapper given its advantages, including its generally lower fee structure (discussed on p.4).

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Since 2007, US domestic equity ETFs have recorded ~\$2.3 Tr of net inflows, while US domestic equity mutual funds have seen ~\$3.0 Tr of net outflows (Figure 19). This trend continued over the past year, with roughly \$350 Bn moving out of domestic equity mutual funds and ~\$460 Bn of inflows into ETFs. International equity funds also saw inflows to ETFs (~\$90 Bn) and outflows from mutual funds (~\$50 Bn) over the past year. Meanwhile, Bond ETFs recorded strong inflows over the past year totaling over \$200 Bn, while bond mutual funds also saw net inflows of ~\$140 Bn.

Figure 19: Cumulative flows into US domestic equity ETFs and mutual funds (\$Bn)

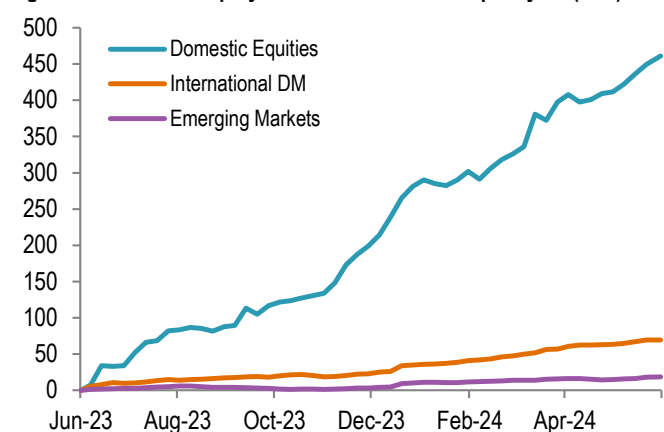


Source: J.P. Morgan Quantitative and Derivatives Strategy, EPFR.

Equity ETF Trends

Equity ETFs saw another strong year of inflows over the past year, totaling ~\$550 Bn for US-listed funds. Breaking this down by regions, we find domestic equity funds accounted for ~84% of the total (a larger share than in the prior couple of years), international developed markets ~13%, and emerging market equity funds ~3% (Figure 20).

Figure 20: US-listed Equity ETF net flows over the past year (\$Bn)

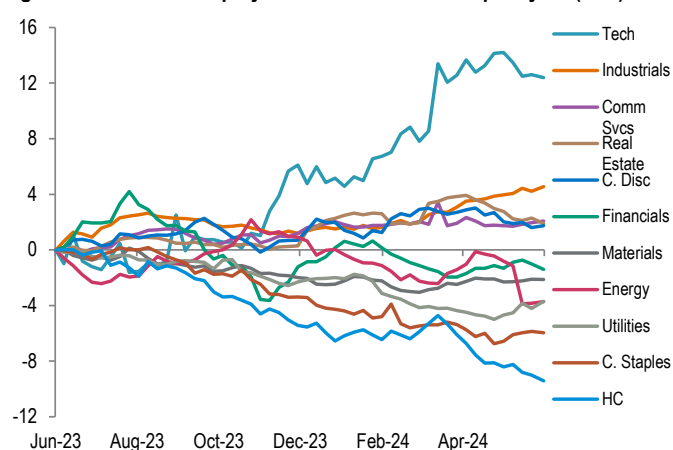


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Over half of US domestic equity inflows were poured into broad large cap ETFs, which received ~\$260 Bn in net inflows over the past year, while SMid cap ETFs accounted for ~8% of total domestic equity flows. Sector funds recorded close to zero net flows over the past year, with inflows to Technology funds (boosted by bullishness around

the AI theme) and outflows from defensive sectors (Health Care, Staples, Utilities) (Figure 21).

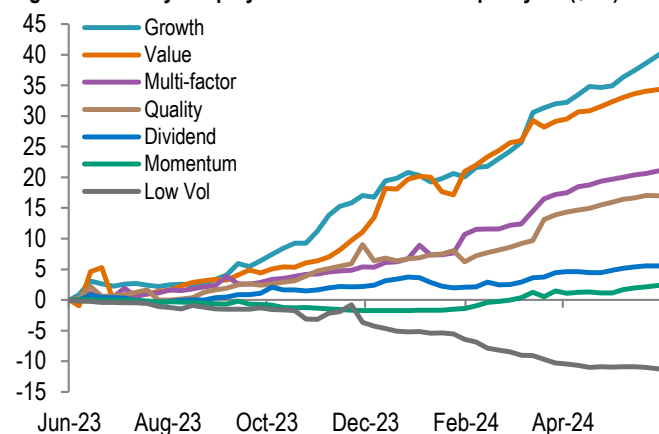
Figure 21: US Sector Equity ETF net flows over the past year (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Style funds recorded a large share of domestic equity inflows again over the past year, accounting for ~37% of the total. Within this category, we saw continued strong inflows to call/put writing and managed risk/defined outcome ETFs as discussed on p.19, that pulled in around one-quarter of net inflows to Style funds, while Thematic ETFs recorded modest net inflows overall the past year though net outflows during the past 9 months (Figure 22). Among equity factors, Growth, Value, Multi-factor and Quality funds saw the strongest inflows, while Low Vol funds recorded net outflows (Figure 22).

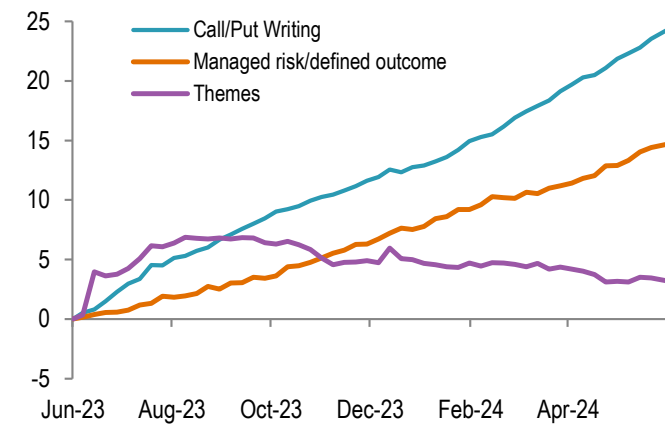
Figure 22: US Style Equity ETF net flows over the past year (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

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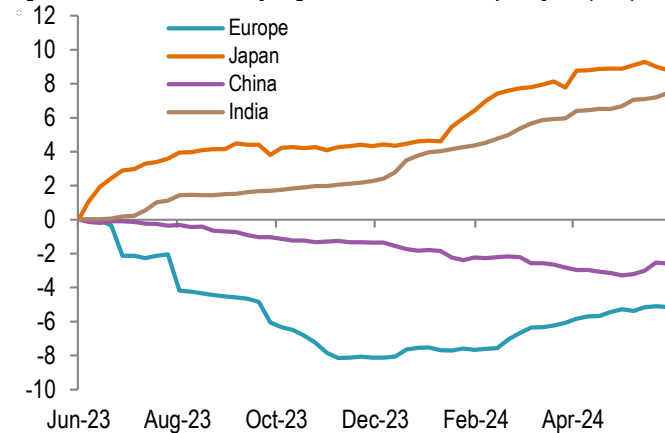
Figure 23: US Call/Put Writing, Managed Risk/Defined Outcome and Thematic ETF net flows over the past year (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

International equity ETFs recorded inflows over the past year (Figure 20), both across developed market (DM) and emerging market (EM) ETFs. Within DM, the vast majority of inflows went into global funds (e.g. World, EAFE). European equity funds recorded outflows overall the past year, while Japan funds saw inflows on optimism around the end to deflation and corporate reforms (Figure 24). In EM, global EM funds accounted for the majority of inflows again over the past year, while India funds also saw strong inflows, but China funds recorded material outflows.

Figure 24: US-listed country/regional flows over the past year (\$Bn)

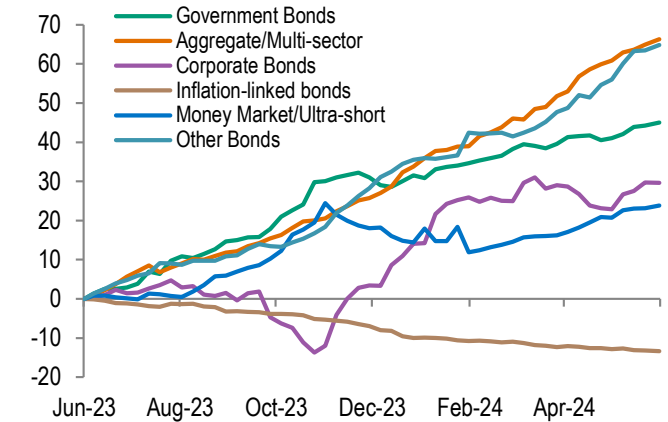


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Fixed Income ETF Trends

In our [2023 ETF Handbook](#), we provided an overview of the fixed income ETF landscape. Fixed income funds have seen strong growth in recent years, with the global AUM in fixed income ETFs growing from less than \$100 Bn in 2008 to ~\$2.4 Tr currently.

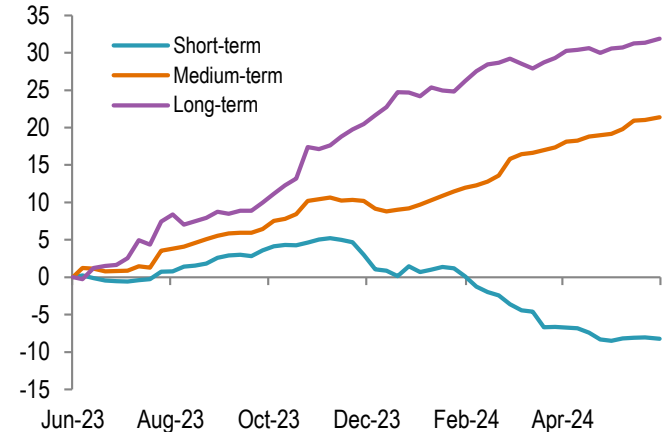
Figure 25: US Fixed Income ETF net flows over the past year (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P. * 'Other' category includes municipal bonds, mortgages, loans, international bond funds, etc.

Fixed income funds attracted strong inflows again over the past year, totaling ~\$220 Bn among US-listed funds (in-line with the prior year). Flows in this category were broad-based again, with gains across most fixed income subcategories, with the notable exception of inflation-linked bonds that saw material outflows (Figure 25). Within Treasury bond ETFs, we saw a significant rotation from short-term to longer-duration funds as investors increased duration ahead of an anticipated Fed cutting cycle (Figure 26).

Figure 26: US Treasury Bond ETF net flows by tenor over the past year (\$Bn)

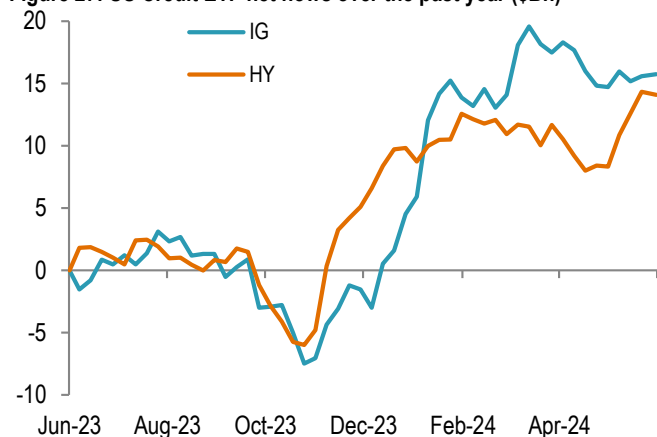


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Credit ETFs saw outflows, from both IG and HY funds, alongside a broader risky asset sell-off in Sep/Oct'23, but then returned to strong inflows thereafter (Figure 27). Inflation-linked bonds recorded strong outflows over the past year, as inflation pressures continued to ease (e.g. US CPI fell from a peak of 9.1% y/y in Jun'22 to 4% in May'23 and 3.3% in May'24). In the 'Other' bond category, the majority of inflows were to International and Municipal bond ETFs.

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Figure 27: US Credit ETF net flows over the past year (\$Bn)

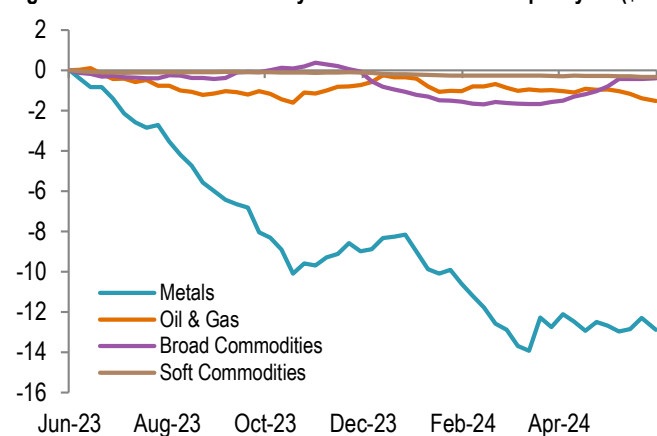


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Commodity ETP Trends

Commodity ETPs saw strong growth from 2005-2011 (with global AUM increasing from ~\$5 Bn to ~\$200 Bn over that period), but AUM subsequently declined due to the ~40% decline in gold prices from 2012-2015, ~70% decline in crude oil prices in 2014-15, and relatively stagnant flows. The COVID-19 pandemic and war in Eastern Europe breathed new life into this category over 2020-22, but they resumed outflows over the past 2 years. Most commodity ETF outflows over the past year were from gold funds, despite gold prices surging ~20% in Mar/Apr'24 to new record highs (Figure 28). Given the generally higher commodity prices y/y, AUM in global commodity ETPs increased y/y to ~\$310 Bn, but remains below the record high of ~\$350 Bn in March 2022.

Figure 28: US-listed Commodity ETF net flows over the past year (\$Bn)

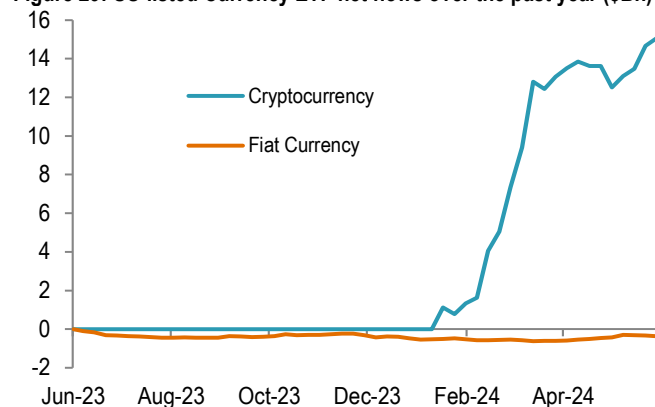


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Currency ETF Trends

The launch of spot Bitcoin ETFs in January 2024 led to a surge of inflows into these funds (Figure 29). See p.22 for a discussion on developments in cryptocurrency ETFs. Meanwhile, fiat currency funds continued to see limited interest and recorded modest net outflows over the past year.

Figure 29: US-listed Currency ETF net flows over the past year (\$Bn)

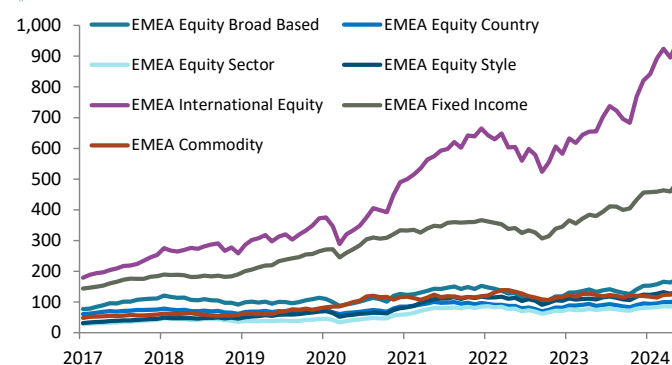


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

European ETF Market

Since the first European ETF was launched in 2000, AUM has grown to ~\$2.1 Tr, spread across ~3,800 funds. The AUM of European listed ETFs measured in \$ increased strongly (up 33%) since May 2023, the second highest growth rate recorded over the last decade (after 2021).

Figure 30: EMEA AUM chart



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg.

Socially responsible investment remains a dominant theme, but decelerated relative to last year

EMEA equity ETFs recorded a y/y increase in AUM of ~\$390 Bn, or a 37% increase. Fixed-income funds also saw a healthy AUM growth (~\$109 Bn and 29%), while Commodity ETFs were little changed. Several trends stand out:

- 1) The largest AUM growth for equity ETFs was recorded for US equity funds (~\$154 Bn), followed by Global International funds (~\$109 Bn), while European ETFs only saw ~\$58 Bn AUM growth across broad-based and country funds.
- 2) Amongst EMEA Sector ETFs, Technology and Communication Services saw the largest AUM growth year-on-year (both ~63%); Basic Materials (39%) and Industrials (31%) also saw strong growth, while Financials underperformed with a 12% AUM growth y/y, despite the strong sector returns.

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- 3) Style-focused ETFs' AUM growth was driven primarily by Thematic funds (~\$14 Bn and 41%), with smaller contributions from Quality, Dividend and Momentum funds.
- 4) Government bond ETFs recorded AUM growth across most categories, except for EM funds. The most notable year-on-year percentage growth was recorded for Money Market funds (156%), albeit from a relatively small base.
- 5) Cryptocurrency ETPs' AUM more than doubled (+176%), but their overall AUM remains relatively low at ~\$13 Bn. Interest in Fiat Currency ETFs was limited.
- 6) Commodity ETPs saw very limited AUM gains overall. Precious Metals AUM grew only \$4 Bn or ~4% over the year, while Energy, Soft Commodities and Base Metals ETNs all saw sharp declines in AUM of -32%, -19% and -9%, respectively.

Fragmentation of Liquidity

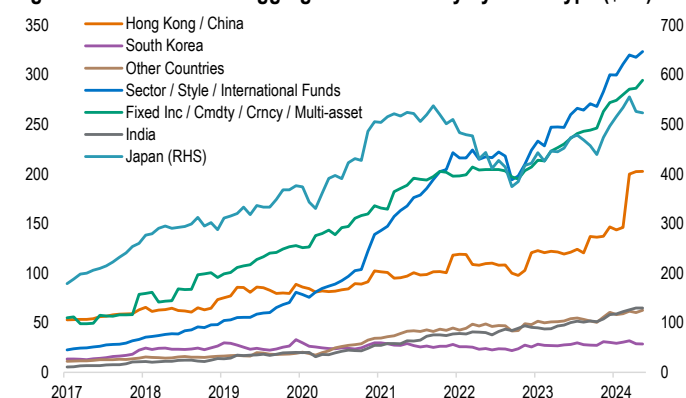
European ETFs are often listed in multiple countries in order to attract retail investor flows, as many European investors can often only trade (or prefer to trade) on their domestic exchange. Our ETF guide shows the major listings for each ETF on foreign exchanges ('cross listings'). The widespread use of multiple exchange listings has led to a fragmentation of liquidity for many European ETFs, as investor flows and market maker quotes have become dispersed across multiple exchanges rather than being consolidated in a single order book.

Asia Pacific ETF Market

The ETF market continues to grow steadily in Asia Pacific, with the total number of ETFs reaching ~3,600 and total AUM growing to \$1.5 Tr as of May 2024 (excluding cross-listings and alternate currency versions). Since last year, AUM has increased by 28%, similar to the growth observed in the US and EMEA. The growth in Asia's ETF market is largely driven by broad country exposure ETFs, fixed income ETFs and style/sector ETFs. Broad country exposure ETFs, particularly those linked to equity market indices of Japan, Hong Kong/ China, and India, continue to dominate the market, accounting for 53% of the region's total AUM and cementing their position as the primary driver of ETF product trends in APAC.

Among broad country ETFs, Hong Kong/China and Japan have seen the most significant surge in AUM over the past year, with increases of \$83 Bn (70% y/y) and \$72 Bn (16% y/y) respectively, whereas South Korea has lagged with a modest growth of \$1 Bn (3% y/y). Assets in broad China focused ETFs grew substantially in 1Q24 as major state-backed financial funds in China bought key A-share index-linked ETFs. For broad Japan focused ETFs, growth in AUM was primarily driven by the strong performance of Japanese equities over the previous year. Outside of country ETFs, fixed income funds and equity style have seen significant growth. Over the past year, assets in style funds grew by \$36 Bn (58% y/y), and in fixed income by \$51 Bn (24% y/y). Within these funds, dividend ETFs and international fixed income ETFs recorded staggering growth rates of 143% (+\$27 Bn) and 70% (+\$36 Bn), respectively, indicating a growing investor appetite for stable income streams and risk diversification.

Figure 31: Asia Pac ETF Aggregate AUM History by Fund Type (\$Bn)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P., Wind

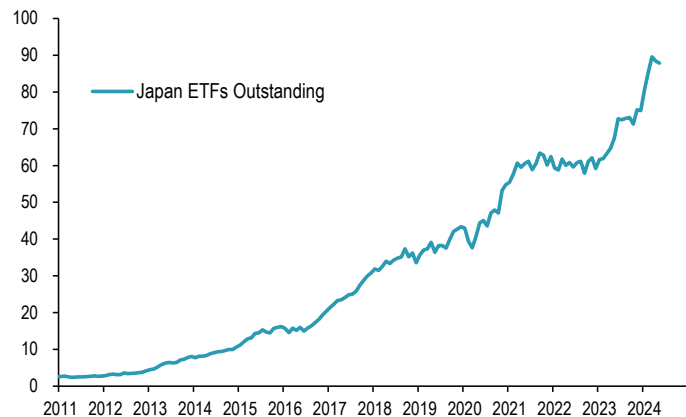
Japan ETF Market

The AUM in the Japanese ETF market increased throughout 2023. In USD terms, the AUM as of the end of May 2024 was \$559 Bn, an increase of +15% over the previous year. However, it should be noted that the Japanese yen weakened (against the US dollar) during the same period. On the other hand, when valued in JPY, the pace of increase in valuation was more significant, with the AUM expanding by +30% y/y from 67.5 Tr yen (end-May 2023) to 87.9 Tr yen (end-May 2024, Figure 32). This is due to the rise in Japanese equities since last year, and the large share of ETFs that track the TOPIX index contributed significantly to the increase in overall AUM.

Meanwhile, looking at the supply and demand side, the bank of Japan (BOJ) completely halted its ETF purchase program that had been in place for the past decade (the last purchase was in October 2023). The BOJ holds approximately 70 Tr yen in ETFs on a market value basis (~80% of the AUM of the Japanese ETF market), and its future course (i.e., its policy of selling or holding them indefinitely) requires caution.

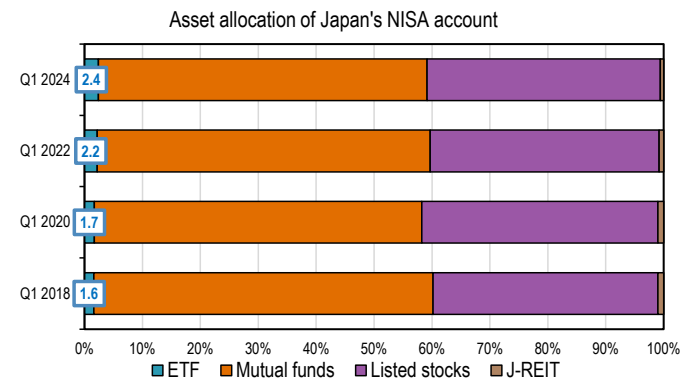
Japanese retail investors are expected to replace the BOJ as major buyers of ETFs, and with the new NISA (Nippon Individual Saving Accounts) starting in 2024, Japanese retail investors can purchase foreign stock type mutual funds and listed Japanese stocks. However, according to the Financial Services Agency Japan (FSA), ETFs account for only 2.4% of the asset allocation in NISA accounts (as of Q1 2024, Figure 33). For now, publicly offered mutual funds may be the main option for retail investors rather than ETFs.

Figure 32: Japan ETF Assets (Tr JPY)



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Figure 33: Asset allocation of Japan's NISA (Nippon Individual Saving Account)



Source: J.P. Morgan Quantitative and Derivatives Strategy, FSA Japan

Previous Editions of the J.P.Morgan ETF Handbook

Year / Link	Special Topics
2023	Fixed Income ETFs, ESG ETF developments, Actively managed ETFs, Market shares by issuer, AI-related themes, Developments in ETNs, Vanguard patent expiry
2022	Cryptocurrency ETFs, Credit ETFs, Complex products regulation
2021	Thematic ETFs, China onshore ETFs
2020	ETF markets through the crisis, managed risk/defined outcome ETFs, Non-transparent and semi-transparent ETFs, Target maturity bond ETFs
2019	The fee war intensifies, Regulatory shift: ETF rule and non-transparent ETFs
2018	Self-indexing ETFs, Volatility ETP landscape, Insurance company-sponsored ETFs, AI-driven ETFs
2017	Socially responsible ETFs, trends in active vs. passive indexing
2016	Factor ETFs, Asia ETF developments, Levered ETFs

OPTION-BASED ETFs

See [Option-Based ETFs: Landscape, volatility supply, and market implications](#), March 14, 2024, for additional analysis and background.

Growth of option-based ETFs

Investor adoption of option-based ETFs continues to broaden, driving strong growth in assets and in the number and variety of products offered. AUM in US-listed option-based ETFs has grown to ~\$115Bn^a across over 350 funds, with assets growing >600% over the past three years (Figure 34). Within this universe, call/put writing funds are the largest segment, comprising ~61% of assets in option-based ETFs. “Buffer” ETFs (put spread collar and collar overlay strategies) are the next largest segment, making up ~36% of AUM. The other ~3% of assets are made up of a variety of other strategies including long calls/puts, ODTE option writing (which we separate from the monthly call/put writing funds given their differing properties), structured product replication, and actively-managed option strategies.

Figure 34: Option-based ETF assets, by strategy (\$Bn)

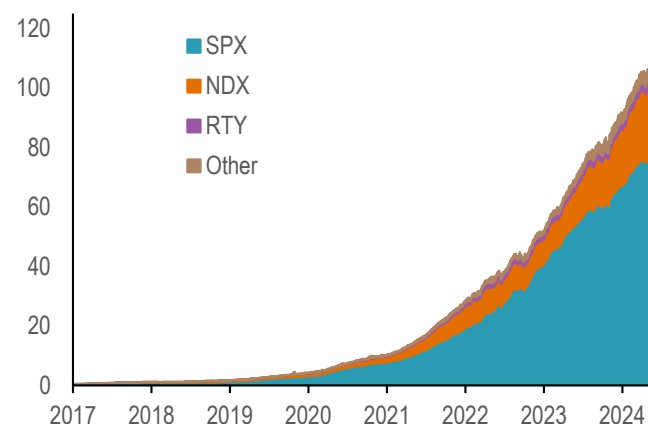


Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Growth of the option-based ETF market was boosted by the passage of the SEC’s Derivatives Rule (18f-4) in 2020, which sets out leverage limits, risk management, and record-keeping requirements, but makes it easier for ETFs that comply with these to employ derivatives strategies. Investors’ strong desire for income also drove their popularity, as option writing funds typically offer dividend income (derived from option premia) that significantly exceeds the yields available from bonds. Additionally, challenging market conditions and high risks of recession drove investors to seek hedging solutions, while investors and advisors are becoming more familiar with these options-based ETF products, and they are increasingly being incorporated into model portfolios.

Figure 34 above illustrates the growth of option-based ETFs by strategy, and Figure 35 shows a breakdown of the current AUM by option underlier.

Figure 35: Current option-based ETF assets, by option underlier (\$Bn)

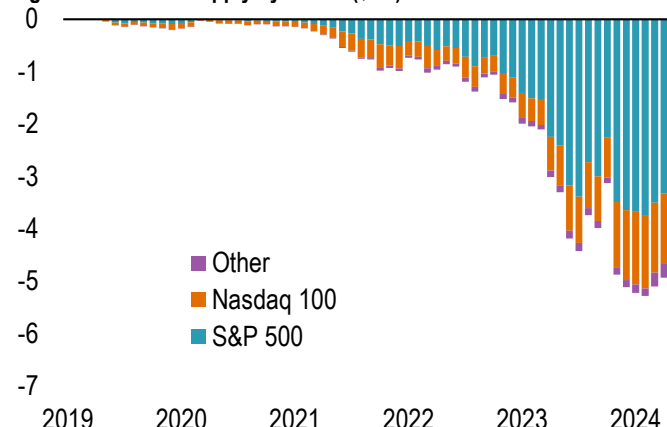


Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Volatility supply

Option-based ETFs have become a large source of volatility supply that has been increasingly weighing on equity market volatility, and is a major driver of its decline and recent low levels, in our view. This large supply is suppressing market volatility, both due to the direct market impact of option selling flows on implied volatility, as well as the ensuing hedging impact that is depressing the market’s realized volatility by leaving dealers with a sizable long gamma position to hedge. Indeed, in our [prior note](#) we demonstrated how the growth in option-based ETF gamma supply closely followed VIX levels, and the statistical relationship between changes in the option-based ETF gamma supplied and changes in the VIX level has been generally strengthening over the past few years. We estimate that option-based ETFs are currently supplying ~\$6Bn of gamma, up from just ~\$0.2Bn three years ago (Figure 36), the vast majority of which is coming from call overwriting strategies.

Figure 36: Gamma supply by month (\$Bn)



Source: J.P. Morgan Equity Derivatives Strategy.

Of this gamma supply, ~66% is on the S&P 500/SPY options, ~31% is in Nasdaq/QQQ, and the remainder is in a variety of index/ETF exposures (mainly Russell 2000, MSCI EAFE, and MSCI EM) and single names (e.g. TSLA and NVDA).

^a Excluding fund of funds

OPTION-BASED ETFs

With the large amount of volatility selling by these overwriting ETFs, some have drawn comparisons to 2018's [Volmageddon](#) episode, when large volatility selling flows via inverse VIX ETPs initially suppressed volatility, but ultimately led to a volatility spike and collapse of the short vol strategy itself. However, for overwriting ETFs we don't see a similar mechanism at play that could produce a Volmageddon-type episode^b since the call overwriting strategies are unlevered and have no need to sell equity exposure as the market declines. That said, the price range over which these ETFs suppress volatility is relatively narrow. If the market sells off by ~5-10%, the volatility suppressing force from these strategies largely disappears, leaving markets more vulnerable to other selling flows. For example, in the market's ~5% sell-off in early April 2024, the gamma exposure of these funds fell by ~70% (see [here](#)).

The above dynamics also mean that capital is likely to be stickier in call overwriting strategies than it proved to be in inverse VIX ETPs. In our view, these strategies are only likely to see large outflows in case of strong underperformance: either if markets crash and investors decide they don't want to be exposed to equities in general, or if markets rally strongly and the overwriting funds underperform due to their upside cap. However, the latter is likely to need sustained and substantial underperformance to drive large outflows; last year, overwriting ETFs significantly underperformed the market given the strong market rally, yet these funds have pulled in nearly \$40 Bn in net inflows since the start of 2023.

Fees

Overall, option-based ETFs charge higher fees on average than the broader US ETF universe: the average AUM-weighted fee for US listed option-based ETFs is 0.61%, vs ~0.18% average across all US ETFs. Overwriting ETFs on average charge lower fees than Buffer ETFs (0.46% vs 0.84%), though there is significant variation in fee levels across the funds in each category. Given the product differentiation and strong growth of the segment, competition has not driven fees lower, as AUM-weighted fees in option-based ETFs have remained relatively steady over the last several years.

Strategies

Option-based ETFs pursue a wide range of strategies, which we discuss below; however, the vast majority of assets in this segment are in call overwriting and buffer (mainly put spread collar overlay) strategies, which together account for ~97% of AUM.

Call / Put Writing ETFs

Call overwriting strategies are the largest segment of options-based ETFs and offer investors income enhancement on an equity portfolio through the monetization of option premia. The majority of ETFs in this category write covered calls on the S&P 500 index (~59%), though there is meaningful activity also on Nasdaq/QQQ options (33%). The remainder is made up of a variety of index/ETF exposures (mainly

Russell 2000, MSCI EAFE, and MSCI EM) and single names (mainly TSLA, NVDA and COIN).

Funds in this category for the most part follow one of two approaches: 1) overwriting staggered ~1-month index options on an actively managed stock portfolio (e.g., JEPI/JEPQ) or 2) following a BXM-like strategy (see background [here](#)) that holds the index itself and overwrites the full notional with 1-month (i.e., 3rd Friday expiry) calls (e.g., XYLD, QYLD, RYLD). There are also a few ETFs that engage in monthly put writing strategies, which as we discussed [previously](#) are economically equivalent to a call overwrite due to the put-call parity relationship, but in practice differences in the strategy mechanics and market impact from the strategies can drive meaningful performance differences. Table 4 below lists the largest US call overwriting and put writing ETFs.

Table 4: Largest call / put writing ETFs

Ticker	Name	Option underlier	Strike sold	AUM (\$Mn)
JEPI	JPMorgan Equity Premium Income	SPX	~30-delta	33,631
JEPQ	JPMorgan Nasdaq Equity Premium	NDX	~30-delta	13,938
QYLD	Global X Nasdaq 100 Covered Call	NDX	ATM	8,136
XYLD	Global X S&P 500 Covered Call	SPX	ATM	2,887
RYLD	Global X Russell 2000 Covered Call	RTY	ATM	1,411
SPYI	Neos S&P 500 High Income ETF	SPX	ATM	1,379
TSLY	Yieldmax TSLA Option Income ETF	TSLA	105-115%	682
FTHI	FT BuyWrite Income ETF	SPX	Varies	646
CONY	YieldMax COIN Option Income ETF	COIN	105-115%	552
NVDY	YieldMax NVDA Option Income ETF	NVDA	105-115%	547

Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Buffer ETFs: Put Spread Collar and Collar Overlays

Buffer ETFs overlay an option-based hedging strategy to an equity portfolio in order to limit or cap the losses it could face. These are most commonly implemented via put spread collar or collar overlays. Buffer strategies account for ~36% of option-based ETF assets and typically provide a fixed amount of downside protection in exchange for capping upside exposure throughout the defined outcome period. Typically the defined outcome period is 1 year, and issuers often launch these strategies as a series of 12 funds, with the option strategies staggered to expire every month of the year. Most ETFs in this category use FLEX options, allowing them to hold the exact strikes that correspond with their target strategy (e.g., they can buy exactly ATM-85% put spreads, instead of the closest listed strikes to 100% and 85%). Buffer ETFs on domestic indices are listed in the Managed Risk/Defined Outcome category of our ETF listings (e.g. see p.32 for US-listed buffer ETFs).

The most common strategy in this group is the standard buffer strategy, in which the fund buffers against a set amount of losses in exchange for an upside cap (i.e., a put spread collar overlay), and each defined outcome period is typically 1Y. Indeed, the largest funds in this category employ this strategy and provide 10% or 15% downside buffers (Table 5). The bulk of assets are in ETFs that provide 9-15% downside buffers, but there are funds that provide larger downside protection (at the cost of a lower upside cap, Figure 37). Alternatively, First Trust launched a few funds last year that aim to provide investors with twice the positive price return on the S&P 500

^b That's not to say we don't see Volmageddon risks in general, just that overwriting ETFs won't contribute to it – e.g. we believe vulnerabilities exist from the selling of very short-dated (e.g., 0DTE) options (see [here](#)).

OPTION-BASED ETFs

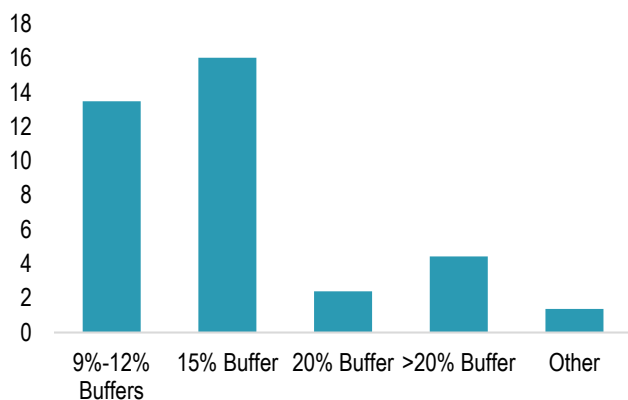
up to a predetermined cap, while buffering against a certain percentage of losses over a 1Y period. They accomplish this by adding a long ATM straddle; however, in exchange investors must accept a lower cap or less downside protection. Another strategy is to include multiple laddered put spread collars. There are also several funds of funds that hold an equally-weighted portfolio of the full series of 12 staggered monthly buffer ETFs for a particular buffer size.

Table 5: Largest buffer ETFs

Ticker	Name	Option underlier	Structure	AUM (\$Mn)
PJAN	Innovator Power Buffer (Jan)	SPX	ATM-85% PS vs C	1,155
PAPR	Innovator Power Buffer (Apr)	SPX	ATM-85% PS vs C	1,037
FDEC	FT Vest US Equity Buffer ETF (Dec)	SPX	ATM-90% PS vs C	882
FFEB	FT Vest US Equity Buffer ETF (Feb)	SPX	ATM-90% PS vs C	830
PDEC	Innovator Power Buffer (Dec)	SPX	ATM-85% PS vs C	798
FJAN	FT Vest US Equity Buffer ETF (Jan)	SPX	ATM-90% PS vs C	760
HELO	JPMorgan Hedged Equity Laddere	SPX	Varies	742
PFEB	Innovator Power Buffer (Feb)	SPX	ATM-85% PS vs C	739
FMAR	FT Vest US Equity Buffer ETF (Mar)	SPX	ATM-90% PS vs C	737
PJUL	Innovator Power Buffer (Jul)	SPX	ATM-85% PS vs C	733

Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Figure 37: Put spread collar ETFs, by buffer amount (AUM \$Bn)



Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Long Call/Put Strategies

Long call/put strategies are a smaller category of option-based ETFs, making up ~1% of the assets in our universe. Nearly all of the funds in this category focus on the S&P 500 and are either tail risk funds (that aim to hedge the possibility of large, adverse market sell-offs) or funds that use a discretionary long option overlay in their portfolios. The largest tail risk funds hold laddered portfolios of deep OTM SPX puts.

Table 6: Largest long call/put ETFs by AUM

Ticker	Name	Option underlier	AUM (\$Mn)
DRSK	Aptus Defined Risk ETF	SPX	558
HEGD	Swan Hedged Equity US Large Cap	SPX	248
SWAN	Amplify Blackswan Growth & Treasury	SPX	172
MRSK	Toews Agility Shares Managed Risk	SPX	144
TAIL	Cambria Tail Risk ETF	SPX	81

Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Zero-Day to Expiry Option ETFs

In recent months we've seen the launch of the first ETFs that trade zero-day to expiry (ODTE) options, which capitalize on the popularity and liquidity of these ultra short-dated options. These funds all sell options daily and are split between put writing and call overwriting strategies. Given the daily strike reset, these strategies follow their underlying index more closely than monthly call/put write strategies.

Table 7: Largest ODTE ETFs by AUM

Ticker	Name	Option underlier	AUM (\$Mn)	Sells
QQQY	Defiance Nasdaq 100 Enhanced Option	NDX	254	Puts
IWMY	Defiance R2000 Enhanced Option	RTY	176	Puts
ISPY	ProShares S&P 500 High Income	SPX	147	Calls
JEPY	Defiance S&P 500 Enhanced Option	SPX	129	Puts
IQQQ	ProShares Nasdaq-100 High Income	NDX	23	Calls

Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Structured Product Replication ETFs

Some option-based ETF products have recently come to market that more closely replicate common payoffs embedded in retail structured products, including reverse convertibles and principal protected notes (PPNs) (see [here](#) for additional background). This is a new segment of the options-based ETF market and one with so far relatively limited assets.

Reverse convertible replication ETFs sell narrow levered put spreads struck 10-40% down to replicate the payoff of an ATM put with a 90-60% knock-in strike and distribute the income generated from selling these options as a quarterly coupon. This ETF structure doesn't exactly match the payoff of a reverse convertible, but it has a similar flavor. PPN replication ETFs provide a capped equity-linked payoff with full downside protection by effectively using the interest income on the cash invested to purchase equity index call spreads (though their implementation uses a long zero strike call plus a risk reversal where the put is struck ATM, which is equivalent by put-call parity). All of the listed ETFs in this segment use S&P 500 options currently.

Table 8: Largest Structured Product Replication ETFs by AUM

Ticker	Name	Option underlier	Structure	AUM (\$Mn)
TJUL	Innovator Equity Defined Protection (Jul'25)	SPX	PPN	220
AJAN	Innovator Equity Defined Protection (Jan'26)	SPX	PPN	78
APRJ	Innovator Premium Income 30 Barrier (Apr)	SPX	Reverse convertible	39
APRH	Innovator Premium Income 20 Barrier (Apr)	SPX	Reverse convertible	27
JANJ	Innovator Premium Income 30 Barrier (Jan)	SPX	Reverse convertible	25

Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg Finance L.P.

Other Option Strategies

There are a variety of other option strategies employed by ETFs that don't fit into the categories discussed above. In most cases, these are actively managed option strategies that can go long or short options. These strategies have limited assets at the moment (total AUM ~\$400Mn).

SEC approved spot Bitcoin ETFs

On January 10, 2024, the SEC approved the listing of spot bitcoin ETFs, after years of petitioning by the industry. This action followed the U.S. Court of Appeals' decision that the SEC failed to "adequately explain its reasoning in disapproving the listing and trading of Grayscale's proposed ETP." The SEC had approved futures-based Bitcoin products in 2021 (see our [2022 ETF Handbook](#)), and was ultimately unable to explain why futures markets were not vulnerable to the potential manipulation in Bitcoin spot markets that they cited as reason not to approve spot-based products. Not all SEC concerns were ultimately addressed, with the SEC stating in its approval that the "action does not endorse the disclosed ETP arrangements, such as custody arrangements." Additionally, SEC Chair Gensler made clear in the approval that the SEC does not endorse Bitcoin, noting in a statement that "investors should remain cautious about the myriad risks associated with Bitcoin and products whose value is tied to crypto."

Eleven spot Bitcoin ETFs launched on January 11th following the SEC approval (Table 9); they comprise nine new products and two conversions: GBTC converted from a trust to an ETF, and DEFI switched from futures-based to spot-based. Fee competition began right from launch, with several issuers instituting temporary full or partial fee waivers to attempt to maximize their funds' market share. Fee waivers remain in place on 6 of these at the time of writing, but the largest spot fund, IBIT, has exceeded the asset threshold for its partial fee waiver (i.e. it waived 12.5bps of its fee on the first \$5Bn of AUM for the first 12 months). Vanguard, traditionally a dominant player in the ETF market, has thus far declined to bring a Bitcoin ETF to market, stating that "in Vanguard's view, crypto is more of a speculation than an investment."

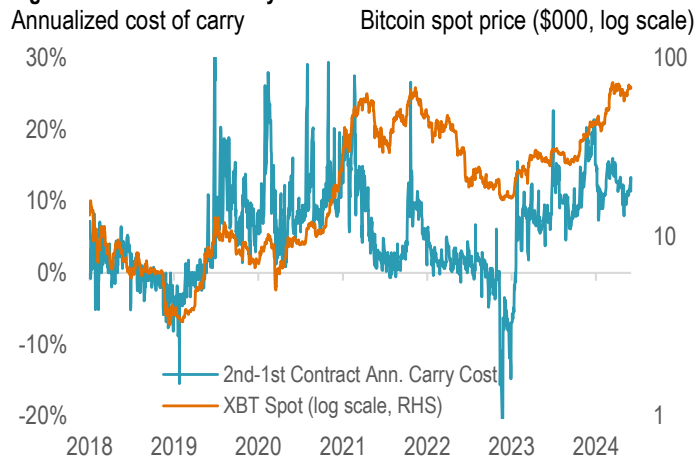
Table 9: Spot Bitcoin ETFs Outstanding

Ticker	Name	Assets (\$Mn)	20d ADV (\$Mn)	Expense Ratio
IBIT	iShares Bitcoin Trust	19,674	883	0.21%
GBTC	Grayscale Bitcoin Trust BTC	19,259	331	1.50%
FBTC	Fidelity Wise Origin Bitcoin F	11,082	339	0%
ARKB	ARK 21Shares Bitcoin ETF	3,183	88	0.21%
BITB	Bitwise Bitcoin ETF	2,482	62	0.11%
HODL	VanEck Bitcoin Trust	690	10	0.20%
BRRR	Valkyrie Bitcoin Fund	579	6	0.25%
BTCO	Invesco Galaxy Bitcoin Etf	493	12	0%
EZBC	Franklin Bitcoin ETF	415	6	0%
BTCW	WisdomTree Bitcoin Fund	88	6	0%
DEFI	Hashdex Bitcoin ETF	12	0	0.94%

Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

As we discussed in our [2022 ETF Handbook](#), cryptocurrency proponents had been touting the listing of physical cryptocurrency ETFs as an important driver to broaden adoption of the asset class. Many would-be investors were likely deterred from trading cryptocurrencies by the challenges of custodial assets, complexities of transacting on new unfamiliar platforms, and high transaction costs, but crypto ETFs can alleviate all of these issues. Crypto futures-based ETFs have been trading in the US since late-2021, but as we discussed [previously](#) they often have high carry costs due to futures curves in contango that can cause them to underperform the spot cryptocurrency (Figure 38).

Figure 38: BTC futures carry cost

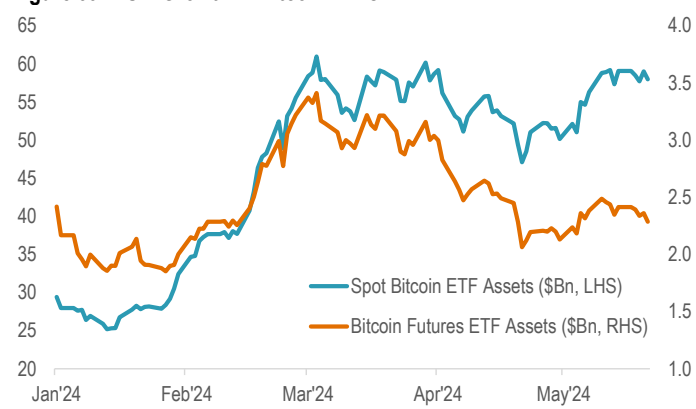


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Assets and Flows

Arguably, spot Bitcoin ETFs have so far proved to be the hit that proponents claimed they would be. Since launching, they have attracted ~\$29Bn in net new assets (i.e. net of outflows from GBTC – see below), and these inflows likely supported Bitcoin's strong YTD performance (Bitcoin has rallied ~50% since the SEC's approval). As a result, Bitcoin ETFs have become a more significant segment of the crypto ecosystem (see Figures 39 and 40 below). Based on the most recent 13-F filings, institutional ownership remains relatively light (accounting for ~24% of total spot Bitcoin assets), suggesting this adoption came primarily from retail investors.

Figure 39: AUM Growth in Bitcoin ETFs

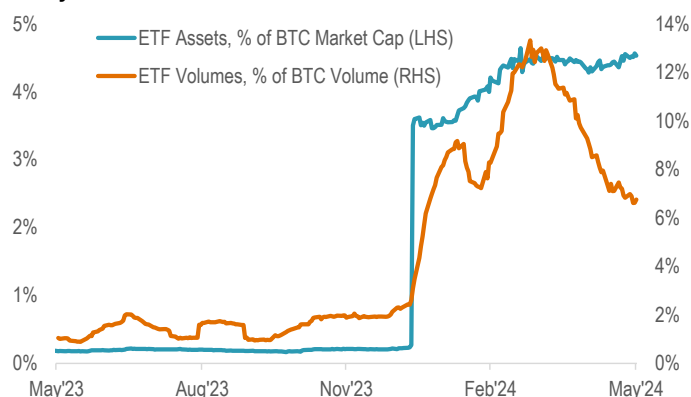


Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

As can be seen in Table 9, BlackRock's IBIT is the most liquid of the funds, with average daily volumes nearing \$1Bn. BlackRock's IBIT fund has also attracted the most assets out of the 9 new funds, even surpassing GBTC as the largest spot Bitcoin fund on May 28th, while FBTC, ARKB, and BITB have attracted notable assets as well. Spot Bitcoin ETFs currently hold ~\$58Bn in assets (up from the ~\$25Bn sitting in GBTC at the beginning of the year, prior to its conversion to an ETF), while futures based products have only ~\$2.3Bn.

UPDATE ON CRYPTOCURRENCY ETFs

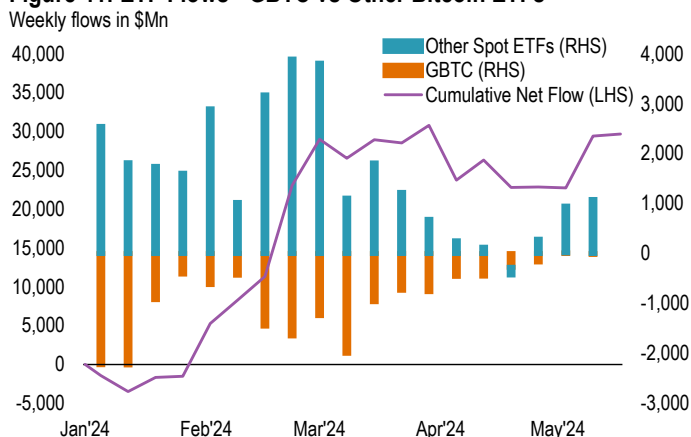
Figure 40: ETFs have become a significant part of the Bitcoin ecosystem



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Following Grayscale's conversion of their Bitcoin trust to an ETF, the fund lost ~\$9Bn in assets, mostly to the other spot ETFs, as Grayscale declined to reduce their expense ratio in response to lower cost offerings coming to market (Figure 41). It is likely that Grayscale expects some of their AUM to be "sticky" despite the higher fees, as some investors may have large unrealized gains that they do not want to realize in order to switch to lower cost funds. However, Grayscale's CEO stated in March that the expense ratio will be "reduced over time, as the market matures."

Figure 41: ETF Flows - GBTC vs Other Bitcoin ETFs



Source: J.P. Morgan Quantitative and Derivatives Strategy, Bloomberg Finance L.P.

Custody and Creation/Redemption

Custody for the majority of these ETFs is handled by Coinbase, which stores issuers' Bitcoin in cold wallets distributed across the globe (cold wallets are crypto wallets that are disconnected from the internet, making them less susceptible to hacking). However, it is important to note that hacks are still possible, and investors would have little protection were they to occur. Coinbase has an insurance policy in place of up to \$320Mn to cover the loss of client assets, a small fraction of their total crypto custody holdings (see IBIT's prospectus [here](#)). Additionally, even though shares are held in brokerage accounts, SIPC only covers assets lost due to broker-dealer failure, not hacks or fraud. This has led some market participants to worry

about the concentration of custodianship, for example Congressman Mike Flood [urged](#) the SEC to allow traditional banks to provide custody services^c as they are more regulated, have expertise in custodian services, and would reduce the concentration risk. In 2016, following the infamous DAO hack on the Ethereum platform, developers voted to institute a "hard fork" in which the ledger was altered and those impacted by the hack were made whole. While this set a precedent and could potentially also be applied in case of a large hack, such an action is not guaranteed and could lead to other adverse consequences, such as widespread distrust in the Bitcoin network.

These ETFs use an in-cash (as opposed to in-kind) creation and redemption process. Redemptions thus require the issuer – through the Custodian – to physically sell Bitcoin and deliver cash to the Authorized Participant in exchange for shares. This requires a representative of the custodian to physically travel to the cold wallets, input a private key, and sell Bitcoins, which is a slower process and may be subject to human error. Because most of these funds are set up as grantor trusts, there are no fund-level tax considerations like with traditional ETFs under the Investment Act of 1940. Each investor is considered to own the underlying indirectly and thus has their own tax basis, so the tax consequences of the redemption process are borne by the redeeming shareholders as opposed to all shareholders.

Ethereum ETFs

After market close on May 23rd, the SEC approved the exchanges' Rule 19b-4 applications to list 8 proposed spot Ethereum (ETH) ETFs. The SEC still needs to approve the individual issuers' registration filings before these can begin trading. While the timing of this approval is uncertain, SEC Chair Gensler hinted that S-1 approvals could be finalized "sometime this summer".

The approval came as somewhat of a surprise, as up until the week of approval, the SEC was adamant in its stance that Ethereum is a security (vs. Bitcoin that's deemed a commodity), which would have required ETH trading platforms to be registered as broker-dealers. First, Ethereum uses a Proof-of-Stake protocol instead of Proof-of-Work, which means that investors who "stake" their coins can expect a profit. This expectation of profits is one defining characteristic of a security. Second, there are concerns on whether Ethereum is truly decentralized. Indeed, our strategists [note](#) that since the ETH Merge, the share of liquid staking protocols remains uncomfortably high, with the top 5 providers controlling >50% of staking on the network.

The current outstanding ETH ETF applications have been amended to remove references to staking rewards, which may be one reason for the reversal in SEC opinion. ETH soared >20% following rumors of SEC approval, and we expect the eventual approval of Ethereum ETFs to drive new inflows into the asset class as it did following the approval of spot Bitcoin ETFs.

^c But they are currently disincentivized from doing so due to the SEC's SAB 121, a ruling that says publicly traded banks must put digital assets they custody on their balance sheet (unlike traditional securities), which puts them in scope of capital and liquidity charges.

ALTERNATIVE ETF LAUNCH ROUTES

Evolving regulations surrounding ETFs and the broader fund industry have opened an alternative route to launch an ETF in the US in recent years – namely, to convert an existing fund or portfolio into the ETF wrapper. Additionally, a second alternative entry route – launching an ETF as a share class of a mutual fund – is currently under review by the SEC. We discuss these developments in more detail below.

ETF Conversions

In recent years, a number of funds/portfolios have sought to convert to ETFs, as they were likely lured by the strong inflows into ETFs and the numerous advantages of the ETF wrapper, including: typically lower operational expenses, greater tax efficiency due to in-kind creation/redemption and custom in-kind baskets for rebalancing, intraday liquidity and continuous pricing, and the ability to short and trade options on the fund.

In the past few editions of the ETF Handbook, we've noted how fund managers were beginning to convert some of their mutual fund offerings to ETFs. The first mutual fund to ETF conversion took place in early 2021, and since then there have been 77 mutual fund to ETF conversions of funds with ~\$110Bn in assets (currently). We saw this trend continue over the past year, with 33 new mutual fund conversions totaling ~\$15Bn in assets. Fidelity represented a large share of these, converting 12 of their mutual funds with approximately ~\$11Bn in assets to ETFs over the past year. This included their Fidelity Enhanced Large Cap funds, which housed ~\$6.9Bn in assets. Additionally, J.P.Morgan converted 4 of their mutual funds to ETFs (with ~\$1.6Bn in assets). Given the growing contingent of successful conversions and the advantages of the ETF wrapper, we expect these mutual fund conversions to continue in future.

We have additionally begun to see conversions of a number of private portfolios into ETFs. This began with a small hedge fund that converted to an ETF in late 2020 in order to expand its investor base (see [here](#)). And more recently we have seen several Separately Managed Accounts (SMAs) converting to ETFs, including EAGL, CCMG, SMRI, and BRNY, which together hold ~\$3.3Bn in assets. The largest of these, EAGL, was converted at the end of March with ~\$1.8Bn in assets. SMAs are investment accounts in which investors have direct ownership over the securities in the account. They allow for more flexibility and customization in investment strategies and tax planning. For example, they can employ customized stock-level tax loss harvesting strategies to minimize investors' tax bill. However, there are several reasons advisors may want to convert SMAs to ETFs, which are discussed below.

These ETF conversions are often referred to as 'Section 351 conversions'. US Code Section 351(a) "provides that no gain or loss shall be recognized if property is transferred to a corporation by one or more persons solely in exchange for stock in such corporation and immediately after the exchange such person or persons are in control of the corporation", according to the IRS. In other words, investors in an SMA or group of SMAs can contribute securities to a newly created ETF (the corporation) in exchange for shares of the ETF, without triggering a taxable event. However, there are some special rules that apply for transfers to an investment company (like an ETF) in order to qualify for section 351 treatment. These include requirements on

diversification (the largest position must be <25% of the total portfolio and top 5 positions must be <50%), control (the SMA investors have to control >80% of the value of the ETF upon conversion), and documentation.

Tax efficiency appears to be the main driver for SMA to ETF conversions. For example, the ability to rebalance the portfolio via custom in-kind baskets without distributing gains to holders can be alluring for SMAs that are sitting on positions with large gains and/or strategies with relatively high turnover, as investors can realize long-term gains when they sell the ETF rather than be distributed short-term gains as the SMA's holdings are sold. Additionally, ETF fees are withdrawn from fund assets and thus are tax deductible, while SMA fees generally aren't deductible.

However, these advantages come at the cost of the greater ability to customize SMA portfolios to holders, and daily transparency (as the SMA manager may not wish to publish their holdings, trades and performance for the general public to see). Additionally, the tax advantage of converting to an ETF is smaller for SMAs than mutual funds. SMA investors hold the securities directly (vs. mutual fund holders that own a slice of the overall portfolio), so a) they are only distributed gains on securities sold in their direct holdings (while mutual fund holders can be distributed gains from securities sold to facilitate others' redemptions from the fund), and b) since SMAs are more customizable, they can engage in individualized strategies to mitigate tax impacts. In fact, individualized stock-level tax loss harvesting is often touted as one of the main selling points for SMAs.

ETFs as a Mutual Fund Share Class

A second potential alternative way to launch an ETF, provided such an approach is approved by the SEC, is as a share class of an existing mutual fund. In April 2024, the CBOE filed an application with the SEC proposing amendments to the ETF listing standards on its exchange, which aim to make it easier to list ETFs as a share class of an existing mutual fund. Currently, open-end investment companies that want to offer both ETF and mutual fund share classes require the SEC to issue exemptive relief from certain provisions of the 1940 Act that would disqualify them from the ETF Rule (see [here](#), and for more on the ETF Rule, see our [2019 ETF Handbook](#)). Vanguard is so far the only asset manager that was granted ETF share class relief, however this was only granted for some of their index-based products and the patent expired last May (see our discussion in last year's [ETF Handbook](#)). Since Feb 2023, eight applications have been filed with the SEC for share class relief (including from Dimensional, Fidelity, and PGIA), although none have so far been granted.

From an asset manager's perspective, there are several potential advantages to adding ETF share classes to their existing mutual fund lineup. First, ETF share classes could be added to the mutual funds that already exist in people's 401(k) accounts, as 401(k) accounts currently do not support ETFs. This opens up a large potential pool of assets for ETF managers that until now has been reserved for mutual funds. Additionally, mutual funds with ETF share classes would benefit from ETFs' tax efficiencies discussed above, as it would provide them access to in-kind creation/redemption for rebalancing the portfolio.

ALTERNATIVE ETF LAUNCH ROUTES

Furthermore, new investors may be attracted to an asset manager's mutual fund suite (the mutual fund universe remains much larger than the ETF universe) now that they can access those strategies through their preferred wrapper.

The SEC has so far expressed reservations about the multi-class structure, outlining several key concerns (see a discussion of these in Dimensional's application [here](#)). The most pressing appears to be the issue of cross-subsidization, as there are differing costs and tax benefits to shareholders of the different classes. ETF shareholders would be subsidizing mutual fund holders by sharing their tax efficiency with all shareholders. Similarly, a large mutual fund redemption could impose tax penalties on the ETF shareholders if the resulting capital gains have to be borne by all shareholders, and mutual funds typically have higher fees/commissions (e.g. they charge 12b-1 fees that ETFs do not). In other words, mutual fund holders would become better off by gaining access to the ETFs' tax advantages, but ETF holders could be worse off as a mutual fund share class than in a standalone ETF fund. The second is a concern that because mutual funds hold larger cash balances (to meet redemptions), they may impose cash drag on the ETF performance as well. ETFs typically do not suffer from this problem, as they meet redemptions through the in-kind mechanism and thus can be fully invested with the underlying index. Finally, the SEC raised concerns that the Mutual Fund class may be subject to front-running due to the requirement that ETFs disclose their holdings daily (while mutual funds typically provide quarterly disclosures with a 60-day lag).

Dimensional and Fidelity address the cross-subsidization concern in their applications by stating that mutual fund investors who trade more frequently will likely migrate to the ETF share class, thus reducing the embedded capital gains. PGIA, on the other hand, stated that the mutual fund and ETF class would each bear brokerage expenses based on its share of costs, and therefore mutual fund redemptions would not impose tax consequences or extra brokerage expenses on the ETF share class. On the cash drag and disclosure requirement concerns, applicants argue that these risks are immaterial: Dimensional argues that cash levels are under 1% of assets under management in their Mutual Fund offering, and since most investors in these funds are long-term investors, they do not expect needing to hold cash balances large enough to pose significant cash drag. Additionally, they argue that those funds that would be harmed by the daily disclosure requirement of ETFs would simply choose not to offer an ETF share class.

The SEC has a deadline in 4Q24 to respond to the CBOE's application, so further color may be forthcoming later this year. However, an [article](#) suggested the proposal isn't a high priority for the SEC, and while an eventual approval seems more likely than not, it will likely take time for applicants to work through the SEC's concerns and get it comfortable with the structure.

¹ Unlike mutual funds, however, ETFs are not redeemed by general holders. Moreover, unlike mutual funds, which must be transferred at their net asset values (“NAVs”), ETFs trade at market prices that may differ from their NAVs (i.e., “premium” or “discount”). Similarly, unlike most stocks, most ETFs are in continuous offering.

² Unlike the exemption that was previously available for short sales of ETFs in Rule 10a-1 under the Securities Exchange Act of 1934, under current Rule 201 of Regulation SHO, ETFs are deemed to be “covered securities” and, thus, subject to the price tests developed by exchanges for execution of short sales. In addition, although ETFs are marginable securities, broker-dealers generally are restricted from providing financing on the shares under Section 11(d)(1) of the Securities Exchange Act of 1934 if the broker-dealer or its affiliates or personnel receive compensation or economic benefit to promote or sell the ETF.

³ There are many factors which could impact this, including the structure of creation and redemption baskets.

⁴ ETFs that are formed under the 1940 Act and qualify as regulated investment companies (“RICs”) for tax purposes make distributions that are treated as ordinary dividends which, in general, reflects such RICs’ receipt of dividends and interest from their investments and gains from their short-term capital gain transactions. Long-term capital gain distributions are also distributed to shareholders, reflecting such RICs’ long-term capital gains from the disposition of investments. ETFs taxable as RICs typically make distributions on a quarterly basis, but in all events, at least annually, in order to distribute all of their ordinary and capital gain distributions to avoid an otherwise applicable excise tax. ETPs formed as grantor trusts, which include many metal-based ETPs, generally do not make distributions, and income and expenses are treated as if investors directly owned the underlying metals. Other types of ETPs (such as commodity-linked ETPs formed as limited partnerships) distribute earnings in accordance with general tax rules applicable to that type of entity.

⁵ ETF shares can be created on a T+2 provided the Authorized Participant delivers in payment for the ETF shares the portfolio basket underlying an aggregation of ETF shares (a “Creation Unit”) whose size is specified by the issuer, as well as a designated amount of cash.

⁶ ETFs that are subject to cash creation and redemption also require such creations and redemptions to be carried out through an “Authorized Participant” in Creation Unit size. Although there are designated market makers for ETFs on exchanges, some ETFs trade infrequently and have sizeable spreads between the bid and ask prices.

⁷ This information is provided for educational purposes only and we do not recommend investing in any particular ETF compared to any other ETF. Before investing in any ETF, an investor should review the ETF’s prospectus and consider talking with financial and tax professionals. All of this information has been provided by third-parties and may change from time to time. There is no guarantee that the information provided in this Handbook is accurate.

⁸ “Style-based” ETFs are those structured to provide investors an investment vehicle based on investing style (e.g. value, growth or a

combination). International ETFs refer generally to ETFs investing in securities based on geographic focus.

⁹ An ETC is an investment vehicle, including a type of fund, partnership, trust or other collective investment entity that tracks the performance of an underlying commodity or basket of commodities. It is a variation on an ETF. “Single commodity ETCs” typically follow the spot-price of a single commodity, whereas “index-tracking ETCs” follow the movement of an index or grouping of commodities, such as futures on oil or livestock.

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Large Cap										
SPY	SPDR S&P 500 Trust	534,558	37,825	0.00	0.09	-	-	-	-	H
IVV	iShares Core S&P 500	461,903	2,843	0.00	0.03	-	-	-	-	M
VOO	Vanguard S&P 500	454,931	2,476	0.00	0.03	-	-	-	-	H
QQQ	Invesco QQQ Trust Series 1	267,469	19,538	0.00	0.20	-	-	-	-	H
RSP	Invesco S&P 500 Equal Weight	55,534	1,069	0.01	0.20	-	-	-	-	H
SCHX	Schwab US LC	41,662	114	0.02	0.03	-	-	-	-	L
SPLG	SPDR Portfolio S&P 500	37,169	486	0.02	0.02	-	-	-	-	L
IWB	iShares Russell 1000	35,700	250	0.01	0.15	-	-	-	-	L
VV	Vanguard LC	34,824	62	0.02	0.04	-	-	-	-	L
DIA	SPDR Dow Jones Industrial Average	32,478	1,447	0.01	0.16	-	-	-	-	H
QQQM	Invesco Nasdaq 100	26,193	322	0.01	0.15	-	-	-	-	L
TQQQ	ProShares UltraPro QQQ	21,365	4,381	0.02	0.88	+3x	-	-	-	H
ESGU	iShares ESG Aware MSCI USA	12,787	96	0.01	0.15	-	-	Y	-	L
OEUF	iShares S&P 100	12,246	80	0.02	0.20	-	-	-	-	L
QLD	ProShares Ultra QQQ	6,316	308	0.01	0.95	+2x	-	-	-	L
ONEQ	Fidelity Nasdaq Composite Index	6,311	17	0.09	0.21	-	-	-	-	L
MGC	Vanguard Mega Cap	5,569	16	0.02	0.07	-	-	-	-	L
SSO	ProShares Ultra S&P500	5,097	269	0.01	0.91	+2x	-	-	-	L
VONE	Vanguard Russell 1000	4,744	17	0.03	0.08	-	-	-	-	L
SPXL	Direxion Daily S&P 500 Bull 3X	4,457	908	0.01	0.91	+3x	-	-	-	H
XLG	Invesco S&P 500 Top 50	4,385	48	0.02	0.20	-	-	-	-	L
SCHK	Schwab 1000 Index	3,464	15	0.02	0.05	-	-	-	-	L
UPRO	ProShares UltraPro S&P 500	3,256	442	0.02	0.92	+3x	-	-	-	M
RWL	Invesco S&P 500 Revenue	3,221	13	0.05	0.39	-	-	-	-	L
SQQQ	ProShares UltraPro Short QQQ	3,021	1,293	0.09	0.95	-3x	-	-	-	H
BKLC	BNY Mellon US LC Core Equity	2,418	8	0.08	0.00	-	-	-	-	L
USCA	Xtrackers MSCI USA Climate Action Eqty ETF	2,042	2	0.19	0.07	-	-	Y	-	N
QQEW	First Trust Nasdaq-100 Eq. Wt. Idx. SM	2,037	15	0.05	0.57	-	-	-	-	N
IYY	iShares Dow Jones U.S.	1,912	4	0.04	0.20	-	-	-	-	L
PABU	iShares Paris - Aligned Climate MSCI US	1,835	4	0.08	0.10	-	-	Y	-	N
SPYX	SPDR S&P 500 Fossil Reserves Free	1,765	5	0.05	0.20	-	-	Y	-	N
GUSA	Goldman Sachs Marketbeta US 1000 Equity	1,635	0	0.40	0.11	-	-	-	-	N
IWL	iShares Russell Top 200	1,376	10	0.02	0.15	-	-	-	-	N
EFIV	SPDR S&P 500 ESG	1,205	3	0.05	0.10	-	-	Y	-	N
QQQE	Direxion NASDAQ-100 Eq. Wt. Idx. Shares	1,159	18	0.05	0.35	-	-	-	-	N
SNPE	Xtrackers S&P 500 ESG	1,115	7	0.03	0.10	-	-	-	-	L
USPX	Franklin U.S. Equity Index ETF	1,113	3	0.07	0.03	-	-	-	-	L
USXF	iShares ESG Advanced MSCI USA	1,024	4	0.12	0.10	-	-	Y	-	L
SUSL	iShares ESG MSCI USA Leaders	1,002	3	0.04	0.10	-	-	Y	-	L
SH	ProShares Short S&P500	991	240	0.08	0.88	-1x	-	-	-	L
USSG	Xtrackers MSCI USA ESG Leaders Equity	983	2	0.04	0.10	-	-	Y	-	N
ILCB	iShares Morningstar US Equity	895	1	0.05	0.03	-	-	-	-	L
EPS	WisdomTree US LargeCap Fund	895	3	0.04	0.08	-	-	-	-	L
CATH	Global X S&P 500 Catholic Values	852	2	0.05	0.29	-	-	Y	-	L
EUSA	iShares MSCI USA Equal Weighted	726	4	0.06	0.09	-	-	-	-	L
UDOW	ProShares UltraPro Dow30	703	233	0.01	0.95	+3x	-	-	-	L
GSEW	GS Equal Weight US LC Equity	691	3	0.08	0.09	-	-	-	-	L
QQQJ	Invesco Nasdaq Next Gen 100	659	4	0.05	0.15	-	-	-	-	L
EQWL	Invesco S&P 100 Equal Weight	655	4	0.12	0.25	-	-	-	-	L
KRMA	Global X Conscious Companies	640	1	0.21	0.43	-	-	Y	-	L
VOTE	TCW Transform 500 ETF	635	3	0.04	0.05	-	-	Y	-	N
SPXU	ProShares UltraPro Short S&P 500	624	198	0.03	0.90	-3x	-	-	-	L
EQAL	Invesco Russell 1000 Equal Weight	596	2	0.08	0.20	-	-	-	-	L
SPUS	SP Funds S&P 500 Sharia Industry Excl	578	5	0.04	0.45	-	-	Y	-	N
SDS	ProShares UltraShort S&P500	572	224	0.04	0.90	-2x	-	-	-	L
PSQ	ProShares Short QQQ	559	166	0.02	0.95	-1x	-	-	-	L
TSPA	T Rowe Price US Equity Research ETF	557	4	0.11	0.34	-	-	Y*	-	N
SPXS	Direxion Daily S&P 500 Bear 3X Shares	557	232	0.11	1.07	-3x	-	-	-	M
STRV	Strive 500 ETF	536	3	0.04	0.05	-	-	-	-	L
DUSA	Davis Select US Equity ETF	497	1	0.33	0.61	-	-	Y	-	N
HLAL	Wahed FTSE USA Shariah	452	3	0.05	0.50	-	-	Y	-	N
GSPY	Gotham Enhanced 500 ETF	418	1	0.41	0.50	-	-	Y	-	L
DDM	ProShares Ultra Dow30	384	24	0.02	0.95	+2x	-	-	-	L
IQSU	IQ Candriam ESG US Equity	371	1	0.20	0.09	-	-	Y	-	N
EQAL	ALPS Equal Sector Weight	343	1	0.12	0.25	-	-	-	-	L
JUST	Goldman Sachs JUST US LC Equity	342	1	0.29	0.20	-	-	-	-	L
BIBL	Inspire 100 ETF	318	3	0.09	0.35	-	-	Y	-	L
SADOW	ProShares UltraPro Short Dow30	315	185	0.06	0.95	-3x	-	-	-	L
CVLC	Calvert US LC Core Responsible Idx. ETF	309	1	0.09	0.15	-	-	Y	-	L
AVLC	Avantis US Large Cap Equity ETF	279	1	0.11	0.15	-	-	Y	-	L
QID	ProShares UltraShort QQQ	259	191	0.02	0.95	-2x	-	-	-	N
XVV	iShares ESG Screened S&P 500	245	1	0.23	0.08	-	-	Y	-	L

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Large Cap (Continued)										
SHE	SPDR MSCI USA Gender Diversity	236	1	0.04	0.20	-	-	Y	-	L
EDOW	First Trust Dow 30 Equal Weight	230	2	0.33	0.50	-	-	-	-	L
USNZ	Xtrackers Zero Pathway Paris Aligned US Eqty	196	0	0.38	0.10	-	-	Y	-	N
ESG	FlexShares STOXX US ESG Select Idx	193	1	0.08	0.32	-	-	Y	-	N
ESGA	American Century Sustainable Equity ETF	187	0	0.14	0.39	-	-	Y*	Y	N
DOG	ProShares Short Dow30	182	34	0.03	0.95	-1x	-	-	-	L
BBLU	EA Bridgeway Blue Chip ETF	172	1	0.15	0.15	-	-	Y	Y	N
SPDN	Direxion Daily S&P 500 Bear 1x Shares	170	49	0.08	0.58	-1x	-	-	-	L
OVL	Overlay Shares LC Equity ETF	163	2	0.42	0.87	-	-	Y	-	N
QQXT	First Trust N-100 Ex-Tech Sect Idx SM	137	1	0.07	0.60	-	-	-	-	L
SPYU	MAX S&P 500 4X Leveraged ETN	131	-	0.04	0.95	+4x	-	-	-	N
PTL	Inspire 500 ETF	123	-	0.07	0.09	-	-	-	-	N
CHGX	AXS Change Finance ESG	122	1	0.08	0.49	-	-	Y	-	L
SPIU	Direxion Daily S&P 500 Bull 2X Shares	121	3	0.09	0.61	+2x	-	-	-	L
STNC	Hennessy Stance ESG ETF	112	0	0.58	0.85	-	-	Y*	Y	N
OALC	OneAsset LC Core ETF	110	1	0.18	0.49	-	-	Y	Y	N
SSPY	Syntex Stratified LC	94	0	0.28	0.30	-	-	-	-	N
MBCC	Monarch Blue Chips Core	89	0	0.12	1.25	-	-	-	-	N
DXD	ProShares UltraShort Dow30	74	18	0.03	0.95	-2x	-	-	-	L
SPXN	ProShares S&P 500 EX-Financials	60	0	0.11	0.09	-	-	-	-	L
FEUS	FlexShares ESG & Climate US LC Core Idx	59	0	0.08	0.09	-	-	Y	-	N
XDSQ	Innovator US Equity Accelerated ETF - Qtr	55	1	0.29	0.79	-	-	Y	-	N
WOMN	Impact Shares YWCA Women Empowerment	54	0	0.69	0.75	-	-	Y	-	N
SPXT	ProShares S&P 500 EX-Technology	53	0	0.10	0.09	-	-	-	-	L
SPXE	ProShares Trust S&P 500 EX-Energy	51	0	0.10	0.09	-	-	-	-	L
HIBL	Direxion Dly SPX High Beta Bull 3x	51	5	0.14	0.99	+3x	-	-	-	L
BCHP	Principal Focused Blue Chip ETF	45	0	0.17	0.58	-	-	Y*	-	N
NACP	Impact NAACP Minority Empowerment	45	0	0.29	0.49	-	-	Y	-	N
QQMG	Invesco ESG Nasdaq 100	42	0	0.09	0.20	-	-	Y	-	N
XDQQ	Innovator Growth+100 Accelerated ETF-Qtr	36	0	0.29	0.79	-	-	Y	-	N
BCUS	Bancroek US Large Cap ETF	35	-	0.17	0.70	-	-	Y	-	N
HIBS	Direxion Dly SPX High Beta Bear 3x	34	7	0.08	1.09	-3x	-	-	-	L
QTJA	Innovator Growth Accelerated Plus ETF - Jan	30	0	1.34	0.79	-	-	Y	-	N
NULC	Nuveen ESG LC	30	0	0.12	0.21	-	-	Y	-	N
CVSE	Calvert US Select Equity ETF	29	0	0.10	0.29	-	-	Y	Y	L
ESUS	ETRACS 2x Lev MSCI US ESG Focus TR	28	0	1.66	0.95	+2x	-	Y	-	N
XUSP	Innovator Uncapped Accelerated US Eqty ETF	27	0	0.34	0.79	-	-	Y	-	N
QQQN	Victory Shares NASDAQ Next 50	24	1	0.10	0.18	-	-	-	-	N
XTJA	Innovator US Equity Accelerated Plus ETF - Jan	22	0	1.96	0.79	-	-	Y	-	N
SPXV	ProShares -S&P 500 EX-Health Care	21	0	0.12	0.09	-	-	-	-	L
XTOC	Innovator US Equity Accelerated Plus ETF-Oct	18	0	0.79	-	-	-	Y	-	N
DFVE	DoubleLine Fortune 500 Equal Weight ETF	13	-	0.22	0.20	-	-	-	-	N
HAPY	Harbor Corporate Culture Leaders	12	0	0.30	0.50	-	-	Y	-	N
QTJL	Innovator Growth Accelerated Plus ETF - Jul	12	0	2.29	0.79	-	-	Y	-	N
QTOC	Innovator Growth Accelerated Plus ETF-Oct	11	0	2.48	0.79	-	-	Y	-	N
XDJL	Innovator U.S. Equity Accelerated ETF - Jul	10	0	0.93	0.79	-	-	Y	-	N
QTAP	Innovator Growth Accelerated Plus ETF - Apr	10	0	0.47	0.79	-	-	Y	-	N
XDJA	Innovator US Equity Accelerated ETF - Jan	9	0	0.90	0.79	-	-	Y	-	N
RSPE	Invesco ESG S&P 500 R Equal Weight	9	0	0.09	0.20	-	-	Y	-	N
XTAP	Innovator US Equity Accelerated Plus ETF-Apr	9	0	0.70	0.79	-	-	Y	-</	

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Mid Cap (Continued)										
RWK	Inv/Invesco S&P Midcap 400 Revenue	782	↑ 3	0.23	0.39	-	-	-	-	L
BKMC	BNY Mellon US Mid Cap Core Equity	465	↑ 1	0.17	0.04	-	-	-	-	N
IQSM	IQ Candriam US Mid Cap Equity ETF	222	↑ 0	0.25	0.15	-	-	Y	-	N
CZA	Invesco Zacks Mid-Cap	209	1	0.27	0.72	-	-	-	-	N
XJH	iShares ESG Screened S&P Mid-Cap	189	↑ 1	0.37	0.12	-	-	Y	-	N
NBSM	Neuberger Berman Small-Mid Cap ETF	173	-	0.11	0.74	-	Y	-	-	N
MVV	ProShares Ultra MidCap400	138	1	0.12	0.95	+2x	-	-	-	L
TMSL	T.Rowe Price Small-Mid Cap ETF	109	0	0.09	0.55	-	Y	-	-	N
MIDU	Direxion Daily Mid Cap Bull 3X Shares	95	↑ 4	0.13	1.03	+3x	-	-	-	L
SMCO	Hilton Small-MidCap Opportunity ETF	73	1	0.79	0.55	-	Y	-	-	N
AMID	Argent Mid Cap ETF	57	↑ 0	0.30	0.52	-	Y	-	-	N
CVMC	Calvert US Mid-Cap Core Responsible Idx ETF	53	↑ 0	0.17	0.15	-	-	Y	-	L
SMIZ	Zacks Small/Mid Cap ETF	53	0	0.32	0.56	-	Y	-	-	N
AVMC	Avantis US Mid Cap Equity ETF	51	1	0.23	0.18	-	Y	-	-	N
UMDD	ProShares UltraPro MidCap400	33	0	0.40	0.95	+3x	-	-	-	L
TMFX	Motley Fool Next Index	24	↓ 0	0.47	0.50	-	-	-	-	N
SAEF	Schwab Ariel ESG ETF	22	↑ 0	0.43	0.59	-	Y*	Y	-	N
RNMC	Mid Cap US Equity Select	16	0	0.60	0.60	-	-	-	-	N
PJFM	PGIM Jennison Focused Mid-Cap ETF	11	-	0.25	0.49	-	Y	-	-	N
SMDY	Syntax Stratified MidCap	11	0	0.33	0.35	-	-	-	-	N
STXM	Strive Mid-Cap ETF	9	-	0.30	0.18	-	-	-	-	N
MIDE	Xtrackers S&P MidCap 400 ESG	7	↓ 0	0.17	0.15	-	-	Y	-	N
MYV	ProShares Short MidCap 400	5	↓ 0	0.16	0.95	-1x	-	-	-	L
SMDD	ProShares UltraPro Short MidCap400	4	0	0.42	0.95	-3x	-	-	-	L
MZZ	ProShares UltraShort MidCap400	2	0	0.29	0.95	-2x	-	-	-	L
Small Cap										
IJR	iShares Core S&P SC	79,408	467	0.01	0.06	-	-	-	-	L
IWM	iShares Russell 2000	59,816	7,554	0.01	0.19	-	-	-	-	H
VB	Vanguard SC	55,245	174	0.05	0.05	-	-	-	-	L
SCHA	Schwab US SC	16,695	55	0.02	0.04	-	-	-	-	L
SPSM	SPDR Portfolio S&P 600 SC	10,462	↑ 81	0.03	0.03	-	-	-	-	L
VTVO	Vanguard Russell 2000	9,244	↑ 235	0.01	0.10	-	-	-	-	L
FNDA	Schwab Fundamental U.S. Small Co. Idx	8,325	19	0.05	0.25	-	-	-	-	L
DFAS	Dimensional US SC ETF	8,064	↑ 18	0.09	0.26	-	Y	-	-	L
VIOO	Vanguard S&P SC 600	2,634	12	0.08	0.10	-	-	-	-	L
TNA	Direxion Daily SC Bull 3X Shares	1,915	↑ 782	0.03	1.08	+3x	-	-	-	H
ESML	iShares ESG Aware MSCI USA SC	1,648	6	0.09	0.17	-	-	Y	-	N
RWJ	Invesco S&P SC 600 Revenue	1,500	7	0.15	0.39	-	-	-	-	L
NUSC	Nuveen ESG SC	1,310	4	0.09	0.31	-	-	Y	-	L
EES	WisdomTree US SC Fund	607	2	0.22	0.38	-	-	-	-	L
PSC	Principal US Small-Cap ETF	534	↑ 2	0.24	0.38	-	Y	-	-	N
URTY	ProShares UltraPro Russell2000	488	↑ 64	0.05	0.95	+3x	-	-	-	L
BBSC	JPMorgan BetaBuilders U.S. SC Equity	484	↓ 5	0.15	0.09	-	-	-	-	L
TZA	Direxion Daily SC Bear 3X Shares	380	↑ 383	0.05	1.04	-3x	-	-	-	M
ISCB	iShares Morningstar SC	219	0	0.43	0.04	-	-	-	-	N
UWM	ProShares Ultra Russell2000	203	↑ 37	0.03	0.95	+2x	-	-	-	L
ISMD	Inspire S Mid ESG	185	1	0.23	0.59	-	-	Y	-	N
RWM	ProShares Short Russell2000	165	↓ 47	0.05	0.95	-1x	-	-	-	L
TSME	Thrivent Small-Mid Cap ESG ETF	163	3	0.09	0.65	-	Y*	Y	-	N
SRTY	ProShares UltraPro Short Russell2000	127	42	0.04	0.95	-3x	-	-	-	N
HAPS	Harbor Corporate Culture SC ETF	124	0	0.77	0.60	-	-	Y	-	N
BKSE	BNY Mellon US SC Core Equity	114	↑ 0	0.11	0.04	-	-	-	-	N
XJR	iShares ESG Screened S&P SC	74	↑ 0	0.41	0.12	-	-	Y	-	N
TVM	ProShares UltraShort Russell2000	72	36	0.09	0.95	-2x	-	-	-	L
STXK	Strive SC ETF	47	↑ 0	0.17	0.18	-	-	-	-	N
SAA	ProShares Ultra SC600	33	0	0.58	0.95	+2x	-	-	-	L
RNSC	SC US Equity Select	28	0	0.32	0.60	-	-	-	-	L
IWML	ETRACS 2x Lev US Size Fctr TR	19	0	0.44	0.95	+2x	-	-	-	N
SSLY	Syntax Stratified SC	18	0	0.47	0.40	-	-	-	-	N
OVS	Overlay Shares SC Equity ETF	11	↑ 0	0.62	0.88	-	Y	-	-	N
SBB	ProShares Short SC600	6	↓ 0	0.35	0.95	-1x	-	-	-	L
ESIX	SPDR S&P SC 600 ESG	4	0	0.37	0.12	-	-	Y	-	N
SDD	ProShares UltraShort SC600	2	0	0.52	0.95	-2x	-	-	-	L
Micro Cap										
IWC	iShares Micro-Cap	845	4	0.34	0.60	-	-	-	-	L
FDM	First Trust DJ Select Microcap Idx	178	1	0.14	0.60	-	-	-	-	L
Multi Cap										
VTI	Vanguard Total Stock Market	394,928	849	0.01	0.03	-	-	-	-	M
ITOT	iShares Core S&P Total US Stock Market	55,084	157	0.01	0.03	-	-	-	-	L
SCHB	Schwab US Broad Market	28,433	54	0.02	0.03	-	-	-	-	L
VXF	Vanguard Extended Market	18,493	70	0.05	0.06	-	-	-	-	L
IWV	iShares Russell 3000	13,727	66	0.03	0.20	-	-	-	-	L

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Multi Cap (Continued)										
DFUS	Dimensional US Equity ETF	9,262	17	0.05	0.09	-	Y	-	-	L
ESGV	Vanguard ESG US Stock	8,514	20	0.04	0.09	-	-	Y	-	N
SPTM	SPDR Portfolio S&P 1500 Comp Stck Mkt	8,325	31	0.02	0.03	-	-	-	-	L
AVUS	Avantis US Equity ETF	6,540	↑ 24	0.03	0.15	-	Y	-	-	L
DFAU	Dimensional US Core Equity Market ETF	5,647	↑ 17	0.03	0.12	-	Y	-	-	L
PBUS	Invesco MSCI USA ETF	4,602	↑ 13	0.03	0.04	-	-	-	-	N
DSI	iShares MSCI KLD 400 Social ETF	4,442	13	0.03	0.25	-	-	Y	-	L
SUSA	iShares MSCI USA ESG Select	3,438	34	0.02	0.25	-	-	Y	-	L
BBUS	JPMorgan BetaBuilders US Equity	3,321	↑ 15	0.04	0.02	-	-	-	-	N
VTHR	Vanguard Russell 3000	2,404	7	0.07	0.10	-	-	-	-	L
GSUS	Goldman Sachs MarketBeta US Equity	2,113	↑ 8	0.07	0.07	-	-	-	-	L
LCTU	Blackrock US Carbon Transition Readiness ETF	1,232	↓ 3	0.05	0.14	-	Y	Y	-	L
SMMD	iShares Russell 2500	1,103	↑ 7	0.16	0.15	-	-	-	-	L
JMEE	JPM Market Expansion Enhanced Equity ETF	1,099	4	0.16	0.24	-	Y	-	-	N
PLDR	Putnam Sustainable Leaders ETF	521	1	0.11	0.59	-	Y*	Y	-	N
SIZE	iShares MSCI USA Size Factor	304	3	0.13	0.15	-	-	-	-	L
PFUT	Putnam Sustainable Future ETF	256	↑ 1	0.20	0.64	-	Y*	Y	-	N
ETHO	Etho Climate Leadership US	178	0	0.27	0.45	-	-	Y	-	N
HKND	Humankind US Stock	141	0	0.65	0.11	-	-	Y	-	N
SYUS	Syntax Stratified US Total Market ETF	21	0	0.78	0.35	-	Y	-	-	N
FSST	Fidelity Sustainable U.S. Equi	14	↑ 0	0.19	0.59	-	Y*	Y	-	N
LOPP	Gabelli Love Our Planet & People ETF	13	0	0.42	0.00	-	Y*	Y	-	N
SYII	Syntax Stratified Total Market II ETF	8	0	0.47	0.35	-	Y	-	-	N
FDWM	Fidelity Women's Leadership ETF	4	0	0.25	0.59	-	Y*	Y	-	N
Equity Style										
Growth (Large Cap)										
VUG	Vanguard Growth	124,915	348	0.02	0.04	-	-	-	-	L
IWF	iShares Russell 1000 Growth	90,938	467	0.02	0.19	-	-	-	-	L
IWW	iShares S&P 500 Growth	45,551	252	0.01	0.18	-	-	-	-	L
SCHG	Schwab U.S. LC Growth	28,389	131	0.01	0.04	-	-	-	-	L
SPYG	SPDR Portfolio S&P 500 Growth	27,165	↑ 162	0.01	0.04	-	-	-	-	L
MGK	Vanguard Mega Cap Growth	19,535	94	0.03	0.07	-	-	-	-	L
VONG	Vanguard Russell 1000 Growth	19,526	↑ 74	0.02	0.08	-	-	-	-	L
VOOG	Vanguard S&P 500 Growth	10,812	40	0.04	0.10	-	-	-	-	L
IWY	iShares Russell Top 200 Growth	10,095	93	0.03	0.20	-	-	-	-	L
FELG	Fidelity Enhanced Large Cap Growth ETF	2,476	6	0.04	0.18	-	Y	-	-	N
ILCG	iShares Morningstar Growth	2,227	6	0.04	0.04	-	-	-	-	L
JGRO	JPMorgan Active Growth ETF	1,766	↑ 12	0.05	0.44	-	Y	-	-	N
NULG	Nuveen ESG LC Growth	1,564	5	0.08	0.26	-	-	Y	-	N
RPG	Invesco S&P 500 Pure Growth	1,553	↓ 12	0.03	0.35	-	-	-	-	L
FTC	First Trust LC Growth AlphaDEX Fund	1,080	4	0.27	0.60	-	-	-	-	L
PWB	Invesco Dynamic LC Growth	1,009	↑ 2	0.05	0.56	-	-	-	-	L
SFY	Soft Select 500	782	↑ 5	0.06	0.00	-	-	-	-	L
TCHP	T Rowe Price Blue Chip Growth ETF	599	↑ 3	0.10	0.57	-	Y*	-	-	N
GGUS	GS MarketBeta Russell 1000 Growth Eqty ETF	498	3	0.15	0.12	-	-	-	-	N
WINN	Harbor Long-Term Growers ETF	463	↑ 2	0.15	0.57	-	Y	-	-	N
FTGS	First Trust Growth Strength ETF	396	↑ 4	0.12	0.60	-	-	-	-	N
CARK	CastleArk Large Growth ETF	343	-	0.13	0.54	-	Y	-	-	N
LRGE	ClearBridge LC Growth ESG ETF	226	↑ 1	0.27	0.47	-	Y	Y	-	N
TGRT	T. Rowe Price Growth ETF	214	1	0.11	0.38	-	Y	-	-	N
FBGX	FI Enhanced LC Growth ETN	210	0	2.22	0.85	+2x	-	-	-	N
TGRW	T Rowe Price Growth Stock ETF	184	↑ 1	0.09	0.52	-	Y*	-	-	N
CAML	Congress Large Cap Growth ETF	171	1	0.27	0.65	-	Y	-	-	N
LSGR	Natixis Loomis Sayles Focused Growth ETF	143	1	0.12	0.59	-	Y*	-	-	

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Growth (Large Cap) (Continued)										
LRGG	Macquarie Focused Large Growth ETF	5	-	0.13	0.44	-	Y	-	-	N
CNEQ	Alger Concentrated Equity ETF	5	-	0.19	0.55	-	Y	-	-	N
Growth (Mid Cap)										
IWP	iShares Russell Mid-Cap Growth	13,908	87	0.02	0.23	-	-	-	-	L
VOT	Vanguard Mid-Cap Growth	13,096	38	0.07	0.07	-	-	-	-	L
IJK	iShares S&P Mid-Cap 400 Growth	9,686	34	0.03	0.17	-	-	-	-	L
MDYG	SPDR S&P 400 Mid Cap Growth	2,437	24	0.05	0.15	-	-	-	-	L
IMCG	iShares Morningstar Mid-Cap Growth	1,965	11	0.04	0.06	-	-	-	-	L
IVOG	Vanguard S&P Mid-Cap 400 Growth	1,026	3	0.17	0.15	-	-	-	-	L
NUMG	Nuveen ESG Mid-Cap Growth ETF	443	1	0.18	0.31	-	-	Y	-	N
RFG	Invesco S&P Mid-Cap 400 Pure Growth	360	2	0.07	0.35	-	-	-	-	L
JSMD	Janus Henderson SC/IC Gwth Alpha	351	↑	0.41	0.30	-	-	-	-	L
FNY	First Trust Mid Cap Growth AlphaDEX Fund	331	1	0.15	0.70	-	-	-	-	L
TMFM	Molloy Foc Mid-Cap Growth ETF	192	0	0.27	0.85	-	Y	-	-	N
SFYX	SoFi Next 500	83	↑	0.17	0.00	-	-	-	-	L
MID	American Century Mid Cap Growth Impact ETF	65	↑	0.16	0.45	-	Y*	Y	-	N
FRTY	Alger Mid Cap 40 ETF	35	0	1.54	0.60	-	Y*	-	-	N
AWEG	Alger Weatherbie Enduring Growth ETF	5	0	0.74	0.65	-	Y*	Y	-	N
Growth (Small Cap)										
VBK	Vanguard SC Growth	17,042	78	0.06	0.07	-	-	-	-	L
IWO	iShares Russell 2000 Growth	11,002	139	0.05	0.24	-	-	-	-	L
IJT	iShares S&P SC 600 Growth	5,936	15	0.11	0.18	-	-	-	-	L
SLYG	SPDR S&P 600 SC Growth	3,271	15	0.07	0.15	-	-	-	-	L
VTWG	Vanguard Russell 2000 Growth	916	6	0.13	0.15	-	-	-	-	L
VIOG	Vanguard S&P SC 600 Growth	869	↑	0.16	0.15	-	-	-	-	L
ISCG	iShares Morningstar SC Growth	553	↑	0.54	0.06	-	-	-	-	N
FYC	First Trust SC Growth AlphaDEX Fund	274	2	0.23	0.70	-	-	-	-	L
JSML	Janus Henderson SC Growth Alpha	221	↑	0.40	0.30	-	-	-	-	L
RZG	Invesco S&P SC 600 Pure Growth	104	1	0.33	0.35	-	-	-	-	L
TMFS	Molloy Foc SC Growth E	77	0	0.22	0.85	-	Y	-	-	N
MMSC	First Trust Multi-Manager SC Opp ETF	15	↑	0.39	0.95	-	Y	-	-	N
CAFG	Pacer US SC Cash Cows Growth Leaders ETF	10	↑	0.19	0.59	-	-	-	-	N
Growth (Multi Cap)										
IUSG	iShares Core S&P U.S. Growth	17,650	59	0.03	0.04	-	-	-	-	L
FFLG	Fidelity Fundamental Large Cap Growth ETF	299	↑	0.19	0.38	-	-	-	-	N
FDG	American Century Focused Dynamic Growth ETF	211	1	0.13	0.45	-	Y	-	-	N
FAD	First Trust MultiCap Gwth AlphaDEX Fund	189	1	0.20	0.64	-	-	-	-	L
CSMD	Congress Smid Growth ETF	133	1	0.60	0.68	-	Y	-	-	N
CACG	ClearBridge All Cap Growth ESG ETF	120	0	0.29	0.54	-	Y	Y	-	N
TMFE	Molloy Foc Capital Efficiency Index	42	↑	0.25	0.50	-	-	-	-	N
AOTG	AOT Growth And Innovation ETF	36	0	0.37	0.75	-	Y	-	-	N
GK	AdvisorShares Gerber Kawasaki ETF	21	0	0.19	0.75	-	Y	-	-	L
RJMG	FT Raymond James Multicap Growth Equity ETF	9	-	0.40	0.85	-	Y	-	-	N
BEEZ	Honeytree US Equity ETF	5	0	0.67	0.64	-	Y	Y	-	N
Value (Large Cap)										
VTV	Vanguard Value	115,979	369	0.01	0.04	-	-	-	-	L
IWD	iShares Russell 1000 Value	55,549	379	0.01	0.19	-	-	-	-	L
IVE	iShares S&P 500 Value	32,860	150	0.02	0.18	-	-	-	-	L
COWZ	Pacer US Cash Cows 100	23,417	↑	127	0.02	0.49	-	-	-	L
SPYV	SPDR Portfolio S&P 500 Value	21,514	↑	132	0.02	0.04	-	-	-	L
SCHV	Schwab U.S. LC Value	10,777	31	0.02	0.04	-	-	-	-	L
DFUV	Dimensional US Marketwide Value ETF	10,580	13	0.03	0.21	-	Y	-	-	L
VONV	Vanguard Russell 1000 Value	8,406	33	0.03	0.08	-	-	-	-	L
MGV	Vanguard Mega Cap Value	7,396	21	0.02	0.07	-	-	-	-	L
VOOV	Vanguard S&P 500 Value	4,672	16	0.04	0.10	-	-	-	-	L
AVLV	Avantis US LC Value ETF	3,589	↑	0.03	0.15	-	Y	-	-	L
IWX	iShares Russell Top 200 Value	2,190	10	0.02	0.20	-	-	-	-	L
RPV	Invesco SPX Pure Value	2,037	20	0.03	0.35	-	-	-	-	L
DFLV	Dimensional US LC Value ETF	1,969	↑	10	0.05	0.22	-	Y	-	L
NULV	Nuveen ESG LC Value	1,828	5	0.04	0.26	-	-	Y	-	N
FELV	Fidelity Enhanced Large Cap Value ETF	1,815	4	0.07	0.18	-	Y	-	-	N
FTA	First Trust LC Value AlphaDEX Fund	1,200	4	0.04	0.60	-	-	-	-	N
JAVA	JPMorgan Active Value ETF	1,191	↑	7	0.04	0.44	-	Y	-	N
PWV	Invesco Dynamic LC Value	1,062	2	0.03	0.55	-	-	-	-	L
ILCV	iShares Morningstar Value	922	2	0.04	0.04	-	-	-	-	N
JVAL	JPMorgan US Value Factor	799	↑	4	0.05	0.12	-	-	-	L
FVAL	Fidelity Value Factor	773	↑	4	0.06	0.15	-	-	-	L
PVAL	Putnam Focused LC Value ETF	595	↑	5	0.07	0.56	-	Y*	-	N
GVUS	GS MarketBeta Russell 1000 Value Equity ETF	483	2	0.15	0.12	-	-	-	-	N
SEIV	SEI Enhanced US LC Value Factor ETF	466	↑	4	0.16	0.15	-	Y	-	N
VFLO	VictoryShares Free Cash Flow ETF	395	3	0.05	0.39	-	-	-	-	N
SMRI	Bushido Capital US Equity ETF	341	0	0.71	0.71	-	Y	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Value (Large Cap) (Continued)										
WTV	WisdomTree U.S. Value Fund	310	↑	2	0.09	0.12	-	Y	-	L
FLV	American Century Focused LC Value ETF	207	1	0.13	0.42	-	Y*	-	-	N
DVAL	Brandywineglobal Dynamic US LC Value ETF	155	0	0.15	0.49	-	Y	-	-	N
BUSA	Brandes US Value ETF	131	1	0.16	0.60	-	Y	-	-	N
FBCV	Fidelity Blue Chip Value ETF	123	1	0.17	0.59	-	Y*	-	-	N
SPVU	Invesco S&P 500 Enhanced Value	120	1	0.21	0.13	-	-	-	-	L
TVAL	T. Rowe Price Value ETF	74	0	0.12	0.33	-	Y	-	-	N
REVS	Columbia Research Enhanced Value	51	↑	0	0.73	0.19	-	-	-	N
STXV	Strive 1000 Value ETF	45	↑	0	0.14	0.18	-	-	-	N
IWDL	ETRACS 2x Lev US Value Fctr TR	36	0	0.36	0.95	+2x	-	-	-	N
DEEP	Roundhill Acquirers Deep Value	36	0	0.32	0.80	-	-	-	-	L
PJFV	PGIM Jennison Focused Value ETF	14	0	0.54	0.75	-	Y	-	-	N
BLCV	Blackrock LC Value ETF	7	0	0.24	0.46	-	Y	-	-	N
SNPV	Xtrackers S&P 500 Value ESG ETF	6	0	0.08	0.15	-	-	Y	-	N
VMAX	Hartford US Value ETF	6	-	0.15	0.29	-	-	-	Y	N
EVUS	iShares ESG Aware MSCI USA Value ETF	5	↑	0	0.08	0.18	-	-	Y	N
QOOWZ	Invesco Nasdaq Free Cash Flow Achievers ETF	3	-	0.21	0.39	-	-	-	-	N
FLOW	Global X US Cash Flow Kings 100 ETF	3	0	0.51	0.25	-	-	-	-	L
NXTV	Simplify Next Intangible Value Index ETF	3	-	0.15	0.25	-	-	-	-	N
CFCV	ClearBridge Focus Value ESG ETF	2	↓	0	0.34	0.48	-	Y	Y	-
FFLV	Fidelity Fundamental Large Cap Value ETF	2	-	0.35	0.38	-	Y	-	-	N
FCFY	First Trust SPX Div Free Cash Flow ETF	1	0	0.16	0.60	-	-	-	-	N
USCF	Themes US Cash Flow Champions ETF	1	-	0.66	0.29	-	-	-	-	N
Value (Mid Cap)										
VOE	Vanguard Mid-Cap Value	16,412	59	0.03	0.07	-	-	-	-	L
IWS	iShares Russell Mid-Cap Value	12,745	63	0.04	0.23	-	-	-	-	L
IJJ	iShares S&P Mid-Cap 400 Value	7,567	19	0.05	0.18	-	-	-	-	L
MDYV	SPDR S&P 400 Mid Cap Value	2,451	21	0.05	0.15	-	-	-	-	L
IWOV	Vanguard S&P Mid-Cap 400 Value	871	2	0.09	0.15	-	-	-	-	L
IMCV	iShares Morningstar Mid-Cap Value	611	2	0.06	0.06	-	-	-	-	N
NUMV	Nuveen ESG Mid-Cap Value	385	1	0.08	0.31	-	-	Y	-	N
RFV	Invesco S&P Mid-Cap 400 Pure Value	303	3	0.15	0.35	-	-	-	-	L
FNK	First Trust Mid Cap Value AlphaDEX Fund	223	1	0.17	0.70	-	-	-	-	L
MGMT	Ballast Smid ETF	141	↑	1	0.26	1.10	-	Y	-	N
BAMV	Brookstone Value Stock ETF	76	0	0.09	0.95	-	-	-	-	N
BSMC	Brandes US Small-Mid Cap Value ETF	55	0	0.33	0.70	-	Y	-	-	N
AVMV	Avantis US Mid Cap Value ETF	28	0	0.23	0.20	-	Y	-	-	N
VNMC	Natixis Vaughan Nelson Mid Cap ETF	4	↓	0	0.26	0.85	-	Y*	-	N
Value (Small Cap)										
VBR	Vanguard SC Value	28,379	99	0.07	0.07	-	-	-	-	L
IWN	iShares Russell 2000 Value	11,695	209	0.02	0.24	-	-	-	-	L
AVUV	Avantis U.S. SC Value ETF	11,479	↑	67	0.04	0.25	-	Y	-	L
DFAT	Dimensional US Targeted Value ETF	9,987	14	0.14	0.28	-	Y	-	-	L
CALF	Pacer US SC Cash Cows 100	9,725	↑	105	0.03	0.59	-	-	-	L
IJS	iShares S&P SC 600 Value	6,838	49	0.06	0.18	-	-	-	-	L
SLYV	SPDR S&P 600 SC Value	3,836	20	0.06	0.15	-	-	-	-	L
DFSV	Dimensional US SC Value ETF	3,063	↑	13	0.05	0.31	-	Y	-	L
VIOV	Vanguard S&P SC 600 Value	1,341	5	0.11	0.15	-	-	-	-	L
BSVO	EA Bridgeway Omni SC Value ETF	1,277	↑	4	0.09	0.47	-	Y	-	N
AVSC	Avantis US SC Equity ETF	1,068	↑	6	0.18	0.25	-	Y	-	N
VTWV	Vanguard Russell 2000 Value	782	5	0.16	0.15	-	-	-	-	L
ISCV	iShares Morningstar SC Value	412	1	0.18	0.06	-	-	-	-	N
RZV	Invesco S&P SC 600 Pure Value	255	1	0.30	0.35	-	-	-	-	L
FYT	First Trust SC Value AlphaDEX Fund	181	1	0.27	0.70	-	-	-	-	N
DSMC	Distillate Small/Mid Cash Flow ETF	84	↑	1	0.12	0.55	-	Y	-	N
SVAL	iShares US SC Value Factor									

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Value (Multi Cap) (Continued)											
MVPA	Miller Value Partners Appreciation ETF	53	-	1.04	0.60	-	Y	-	-	N	
WBIF	WBI BullBear Value 3000 ETF	34	0	1.57	1.64	-	Y	-	-	N	
VNSE	Natixis Vaughan Nelson Select ETF	32	0	0.16	0.80	-	Y*	-	-	N	
CVAR	Cultivar ETF	31	↑	0	0.37	0.87	-	Y	-	N	
FOVL	iShares Focused Value Factor	18	0	0.32	0.25	-	-	-	-	N	
Dividend											
VIG	Vanguard Dividend Appreciation	78,098	191	0.02	0.06	-	-	-	-	L	
SCHD	Schwab US Dividend Equity	54,950	278	0.01	0.06	-	-	-	-	L	
WYM	Vanguard High Dividend Yield	54,296	130	0.01	0.06	-	-	-	-	L	
DGRO	iShares Core Dividend Growth	27,173	91	0.02	0.08	-	-	-	-	L	
SDY	SPDR S&P Dividend	20,254	52	0.03	0.35	-	-	-	-	L	
DVY	iShares Select Dividend	18,650	73	0.03	0.38	-	-	-	-	L	
NOBL	ProShares S&P 500 Dividend Aristocrats	11,819	51	0.02	0.35	-	-	-	-	L	
RDVY	First Trust Rising Dividend Achievers	10,644	42	0.02	0.49	-	-	-	-	L	
HDV	iShares Core High Dividend	10,370	60	0.02	0.08	-	-	-	-	L	
FVD	First Trust Value Line Div Index Fund	9,606	↓	45	0.02	0.60	-	-	-	L	
CGDV	Capital Group Dividend Value ETF	8,204	↑	52	0.03	0.33	-	Y	-	L	
SPYD	SPDR Portfolio S&P 500 High Dividend	6,892	49	0.03	0.07	-	-	-	-	L	
SDVY	First Trust SMID Rising Div Achievers	4,440	↑	35	0.04	0.60	-	-	-	L	
FDL	First Trust Morningstar Div Ldrs	3,970	↓	30	0.03	0.45	-	-	-	L	
DLN	WisdomTree US LargeCap Dividend Fund	3,950	10	0.02	0.28	-	-	-	-	L	
DON	WisdomTree US MidCap Dividend Fund	3,533	8	0.06	0.38	-	-	-	-	L	
DIVO	Amplify CWP Enhanced Dividend	3,207	11	0.09	0.56	-	Y	-	-	L	
FDVV	Fidelity High Dividend	2,794	↑	13	0.07	0.15	-	-	-	L	
KNG	FT Vest SPX Div Aristocrat Tgt Inc	2,785	↑	19	0.08	0.75	-	-	-	N	
DES	WisdomTree US SC Dividend Fund	1,892	5	0.07	0.38	-	-	-	-	L	
REGL	Pro S&P Midcap 400 Div Aristocrats	1,531	5	0.06	0.40	-	-	-	-	L	
SYLD	Cambria Shareholder Yield ETF	1,245	↑	6	0.12	0.59	-	Y	-	L	
DTD	WisdomTree US Total Dividend Fund	1,209	2	0.14	0.28	-	-	-	-	L	
PEY	Invesco HY Edgy Div Achievers	1,188	7	0.06	0.52	-	-	-	-	L	
SDOG	ALPS Sector Dividend Dogs	1,147	3	0.04	0.36	-	-	-	-	L	
DHS	WisdomTree US High Dividend Fund	1,065	5	0.06	0.38	-	-	-	-	L	
RDVI	FT Vest Rising Div Achievers Target Income	1,042	↑	7	0.09	0.75	-	Y	-	L	
RDIV	Invesco S&P Ultra Dividend Revenue	768	2	0.06	0.39	-	-	-	-	L	
SMDV	Pro-Pro Russell 2000 Div Growers	763	5	0.08	0.40	-	-	-	-	L	
PFM	Invesco Div Achievers	645	1	0.06	0.53	-	-	-	-	L	
FDRR	Fidelity Dividend for Rising Rates	533	1	0.33	0.15	-	-	-	-	L	
QDPL	Pacer Melaruss US LC Target Div 400	381	↑	2	0.25	0.60	-	-	-	L	
DIVB	iShares Core Dividend ETF	366	↑	2	0.07	0.05	-	-	-	L	
CDL	Victory US LC High Div Vol Wtd	343	1	0.09	0.35	-	-	-	-	L	
CSB	Victory US SC High Div Vol Wtd	315	↓	1	0.16	0.35	-	-	-	L	
DJD	Invesco Dow Jones Industrial Avg Div	295	1	0.07	0.07	-	-	-	-	L	
GDIV	Harbor Dividend Growth Leaders ETF	264	↑	1	0.08	0.50	-	Y	-	L	
VSDA	Victory Shares Dividend Accelerator	243	1	0.08	0.35	-	-	-	-	L	
TPHD	Timothy Plan High Dividend Stock	225	2	0.14	0.52	-	-	Y	-	N	
BGIG	Bahl & Gaynor Income Growth ETF	140	0	0.13	0.45	-	Y	-	-	N	
SDVD	FT Vest SMID Rising Div Achievers Target Income	113	1	0.30	0.85	-	Y	-	-	N	
MBOX	Freedom Day Dividend ETF	102	↑	0	0.11	0.39	-	Y	-	N	
FDV	Federated Hermes US Strategic Dividend ETF	101	↑	1	0.20	0.50	-	Y	-	N	
FDIV	MarketDesk Focused US Dividend ETF	97	0	0.16	0.35	-	Y	-	-	N	
BAMD	Brookstone Dividend Stock ETF	76	0	0.14	0.95	-	Y	-	-	N	
HIPS	GraniteShares HIPS US High Income	74	↑	0	0.31	1.99	-	-	-	N	
PY	Principal Value	66	↑	0	0.14	0.15	-	Y	-	N	
WBY	WBI Power Factor High Dividend	62	↓	0	0.93	1.00	-	-	-	N	
TBG	TBG Dividend Focus ETF	61	0	0.22	0.59	-	Y	-	-	N	
SPDV	AAM S&P 500 High Dividend Value	60	↓	0	0.35	0.29	-	-	-	N	
EQIN	Columbia US Equity Income ETF	57	0	0.37	0.35	-	-	Y	-	N	
LEAD	Siren DIVCON Leaders Dividend	55	0	0.18	0.43	-	-	-	-	N	
DURA	VarEck Durable High Dividend ETF	54	↓	0	0.08	0.30	-	-	-	L	
UDIV	Franklin U.S. Core Dividend Tilt Tdx ETF	53	↑	0	0.20	0.06	-	-	-	N	
YLDE	ClearBridge Dividend Strategy ESG ETF	47	↑	0	0.31	0.48	-	Y	Y	N	
MYLD	Cambria Micro and SmallCap Shareholder Yield	38	-	0.30	0.59	-	Y	-	-	N	
SCDL	ETRACS 2x Leveraged US Div Factor TR ETN	35	0	0.45	0.95	+2x	-	-	-	N	
KNGZ	First Trust S&P 500 Dividend Aristocrats	35	↑	0	0.49	0.50	-	-	-	N	
SMHB	ETRACS Mily 2x Lev US SC High Div Sr B	34	0	1.17	0.85	+2x	-	-	-	N	
MDPL	Monarch Dividend Plus Index ETF	34	-	0.22	1.25	-	-	-	-	N	
DVND	Touchstone Dividend Select ETF	33	0	0.27	0.68	-	Y	-	-	N	
DIVS	SmartETFs Dividend Builder ETF	32	0	0.17	0.65	-	Y	-	-	N	
DOGG	FT Vest DJIA Dogs 10 Target Income ETF	32	↑	0	0.30	0.75	-	Y	-	N	
DIVY	Sound Equity Income ETF	29	0	1.78	0.45	-	Y	-	-	N	
FTDS	First Trust Dividend Strength	22	0	0.49	0.70	-	-	-	-	N	
IPDP	Dividend Performers ETF	21	0	0.73	1.52	-	Y	-	-	N	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None

² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active or Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Dividend (Continued)											
SHRY	First Trust Bloomberg Shareholder Yield ETF	19	0	0.33	0.60	-	-	-	-	N	
COWS	Amplify Cash Flow Dividend Leaders ETF	15	0	0.39	0.00	-	-	-	-	L	
HIDV	AB US High Dividend ETF	13	↑	0	0.14	0.45	-	Y	-	N	
DFND	Siren DIVCON Dividend Defender	10	↓	0	1.61	-	-	-	-	N	
JHDV	John Hancock US High Dividend ETF	8	0	0.06	0.34	-	Y	-	-	N	
NUDV	Nuveen ESG Dividend	8	↓	0	0.15	0.26	-	Y	-	N	
TMDV	ProShares Russell US Dividend Growers	7	↓	0	0.28	0.35	-	-	-	L	
BDVG	IMGP Berkshire Dividend Growth ETF	7	0	0.37	0.55	-	Y	-	-	N	
UDI	USCF Dividend Income Fund	6	0	0.26	0.65	-	Y	Y	-	N	
SPDG	SPDR Portfolio S&P Sector Neutral Dividend ETF	5	0	0.10	0.05	-	-	-	-	N	
SNPD	Xtrackers S&P ESG Dividend Aristocrats ETF	5	0	0.09	0.15	-	-	Y	-	N	
KNGS	Roundhill S&P Dividend Monarchs ETF	3	0	1.02	0.35	-	-	-	-	N	
DIVG	Invesco S&P High Dividend Growers ETF	3	-	0.19	0.39	-	-	-	-	N	
DVDN	Kingsman Dividend Opportunity ETF	1	0	0.51	0.90	-	Y	-	-	N	
Low Volatility											
USMV	iShares MSCI USA Min Vol Factor	24,084	↓	225	0.01	0.15	-	-	-	L	
SPLV	Invesco S&P 500 Low Vol	6,911	↓	132	0.02	0.25	-	-	-	L	
FDLO	Fidelity Low Vol Factor	1,065	↑	7	0.05	0.15	-	-	-	L	
XMLV	Invesco S&P MidCap Low Vol	789	↓	3	0.18	0.25	-	-	-	L	
SMVM	iShares MSCI USA SC Min Vol Factor	780	4	0.09	0.20	-	-	-	-	N	
LGLV	SPDR SSGA US LC Low Vol Index	694	↓	4	0.06	0.12	-	-	-	L	
SPHB	Invesco S&P 500 High Beta	640	50	0.02	0.25	-	-	-	-	L	
CFA	VictoryShares US 500 Vol Wtd	515	1	0.05	0.35	-	-	-	-	L	
XSLV	Invesco S&P SC Low Vol	330	↓	1	0.20	0.25	-	-	-	L	
BTAL	AGF US Market Neutral Anti-Beta Fund	226	↓	6	0.27	1.43	-	Y	-	L	
TPLC	Timothy Plan US LC/MC Core	223	1	0.12	0.52	-	-	Y	-	N	
SMLV	SPDR SSGA US SC Low Vol Index	177	1	0.27	0.12	-	-	-	-	L	
TPSC	Timothy Plan US SC Core	127	↑	1	0.26	0.52	-	-	Y	N	
SELV	SEI Enhanced Low Vol US LC ETF	125	↑	1	0.17	0.15	-	Y	-	N	
INCE	Franklin Income Equity Focus ETF	112	↓	1	0.23	0.29	-	Y	-	N	
VFMV	Vanguard U.S. Minimum Vol ETF	102	0	0.52	0.13	-	Y	-	-	N	
HUSV	First Trust Horizon Managed Vol Domestic ETF	84	↓	0	0.10	0.70	-	Y	-	N	
TPLE	Timothy Plan US Large/MC Core Enhanced	71	0	0.21	0.52	-	-	Y	-	N	
THLV	THOR Low Vol ETF	51	↓	0	0.10	0.64	-	-	-	L	
XRLV	Invesco SPX Ex-Rate Sensitive Low V	41	0	0.15	0.25	-	-	-	-	L	
USML	ETRACS 2x Lev MSCI US Min Vol Fctr TR	34	0	0.51	0.95	+2x	-	-	-	N	
CSA	VictoryShares US SC Vol Wtd	31	0	0.17	0.35	-	-	-	-	N	
HSMV	First Trust Horizon Managed Vol Small/Mid ETF	19	0	0.29	0.80	-	Y	-	-	N	
LVOL	American Century Low Vol ETF	12	0	0.13	0.29	-	Y	-	-	N	
ESMV	iShares ESG MSCI USA Min Vol Factor	12	↑	0	0.12	0.18	-	-	Y	N	
SPMV	Invesco S&P 500 Minimum Variance	5	↓	0	0.19	0.10	-	-	-	L	
Momentum											
MTUM	iShares MSCI USA Momentum Factor	10,128	133	0.02	0.15	-	-	-	-	M	
FV	First Trust Dorsey Wright Focus 5	3,666	8	0.11	0.90	-	-	-	-	L	
XMMO	Invesco S&P MidCap Momentum ET	2,837	↑	24	0.13	0.34	-	-	-	L	
SPMO	Invesco S&P 500 Momentum	1,508	↑	20	0.08	0.13	-	-	-	L	
PDP	Invesco DWA Momentum	1,225	2	0.11	0.62	-	-	-	-	L	
DWAS	Invesco DWA SC Momentum	943	↑	5	0.18	0.60	-	-	-	L	
JMOM	JPMorgan US Momentum Factor	932	↑	5	0.17	0.12	-	-	-	N	
XSMO	Invesco S&P SC Momentum	686	↑	6	0.23	0.39	-	-	-	L	
VFMO	Vanguard US Momentum Factor ETF	568	↑	4	0.22	0.13	-	Y	-	L	
SEIM	SEI Enhanced US LC Momentum Factor ETF	463	↑	4	0.16	0.15	-	Y	-	N	
QMOM	Alpha Architect US Quantitative Momentum ETF	255	↑								

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Quality (Continued)											
VFQY	Vanguard US Quality Factor ETF	333	↑	2	0.31	0.13	-	Y	-	-	L
SEIQ	SEI Enhanced US LC Quality Factor ETF	227	↑	2	0.13	0.15	-	Y	-	-	N
XSHQ	Invesco S&P SC Quality	165	↑	1	0.30	0.29	-	-	-	-	L
SRHQ	SRH US Quality ETF	134	0	0.29	0.35	-	-	-	-	-	N
ZECP	Zacks Earnings Consistent Portfolio ETF	134	↑	1	0.11	0.55	-	Y	-	-	N
MDCP	Victoryshares THB Mid Cap ESG ETF	103	↑	1	0.18	0.55	-	Y	Y	-	N
ROE	Astoria US Equal Weight Quality Kings ETF	86	0	0.96	0.49	-	Y	-	-	-	N
LGRO	Level 4 Large Cap Growth Active ETF	79	0	0.31	0.50	-	Y	-	-	-	N
QULL	ETRACS 2x Lev MSCI US Qlty Fctr TR	43	0	0.62	0.95	+2x	-	-	-	-	N
WBIL	WBI BullBear Quality 3000 ETF	41	0	1.37	1.65	-	Y	-	-	-	N
BWTG	Brendan Wood TopGun ETF	6	0	0.25	0.98	-	Y	-	-	-	N
Multi-factor											
FNDX	Schwab Fundamental U.S. Large Co. Idx	15,289	33	0.02	0.25	-	-	-	-	-	L
DGRW	WisdomTree U.S. Quality Div Growth	12,809	↑	47	0.02	0.28	-	-	-	-	L
GSLC	GS ActiveBeta U.S. LC Equity	11,977	32	0.03	0.09	-	-	-	-	-	L
DYNF	Blackrock US Equity Factor Rotation ETF	8,014	↑	75	0.03	0.30	-	Y	-	-	N
PRF	Invesco FTSE RAFI US 1000	7,017	18	0.03	0.39	-	-	-	-	-	N
OMFL	Invesco R1000 Dynamic MultiFctr	6,270	↑	29	0.03	0.29	-	-	-	-	L
SPGP	Invesco S&P 500 GARP	4,921	↑	33	0.04	0.34	-	-	-	-	L
JHMM	John Hancock Multi-Factor Mid Cap	3,720	12	0.05	0.42	-	-	-	-	-	L
SPHD	Invesco S&P 500 High Div Low Vol	2,984	28	0.02	0.30	-	-	-	-	-	N
NUGO	Nuveen Growth Opp ETF	2,978	3	0.09	0.56	-	Y*	-	-	-	N
CGUS	Capital Group Core Equity ETF	2,718	↑	18	0.04	0.33	-	Y	-	-	L
FELC	Fidelity Enhanced Large Cap Core ETF	2,656	10	0.05	0.18	-	Y	-	-	-	N
PRFZ	Invesco FTSE RAFI US 1500 Small-Mid	2,380	5	0.12	0.39	-	-	-	-	-	L
USMC	Principal US Mega-Cap	2,331	↑	4	0.05	0.12	-	Y	-	-	L
LRGF	iShares MSCI USA Multifactor	1,981	↑	8	0.03	0.08	-	-	-	-	L
QDF	FlexShares Quality Dividend Index Fund	1,891	3	0.05	0.37	-	-	-	-	-	L
DSTL	Distillate US Fundmental Stability & Val	1,787	↑	8	0.05	0.39	-	Y	-	-	N
FMDE	Fidelity Enhanced Mid Cap ETF	1,662	3	0.09	0.23	-	Y	-	-	-	N
TCAF	T Rowe Price Capital Appreciation Equity ETF	1,556	15	0.04	0.31	-	Y	-	-	-	N
APUE	Activepassive US Equity ETF	1,473	↑	11	0.12	0.33	-	Y	-	-	N
QUS	SPDR MSCI USA StrategicFactors	1,279	5	0.05	0.15	-	-	-	-	-	L
FLQL	Franklin Liberty Q US Equity	1,262	3	0.07	0.15	-	-	-	-	-	L
FEX	First Trust LC Core AlphaDEX Fund	1,206	3	0.06	0.60	-	-	-	-	-	L
FNX	First Trust Mid Cap Core AlphaDEX Fund	1,171	3	0.19	0.60	-	-	-	-	-	L
SMLF	iShares MSCI USA SC Multifactor	1,117	4	0.14	0.15	-	-	-	-	-	L
QVML	Invesco S&P 500 QVM Multi-factor	959	0	0.71	1.11	-	-	-	-	-	N
JHML	John Hancock Multi-Factor LC	876	2	0.04	0.29	-	-	-	-	-	L
FYX	First Trust SC Core AlphaDEX Fund	867	3	0.24	0.60	-	-	-	-	-	L
QGRO	American Century STOXX US Qlty Gwth	839	↑	5	0.17	0.29	-	-	-	-	L
ONEY	SPDR Russell 1000 Yield Focus	798	2	0.11	0.20	-	-	-	-	-	L
X SVM	Invesco S&P SC Value with Mom	786	4	0.21	0.36	-	-	-	-	-	N
FNDB	Schwab Fundamental U.S. Broad Mkt Idx	751	↑	2	0.05	0.25	-	-	-	-	L
OUSA	O'Shares US Quality Dividend	744	2	0.05	0.48	-	-	-	-	-	L
JPEF	JPMorgan Equity Focus ETF	640	↑	4	0.09	0.50	-	Y	-	-	N
ONEV	SPDR Russell 1000 Low Vol Focus	637	1	0.17	0.20	-	-	-	-	-	L
RECS	Columbia Research Enhanced Core	629	↑	5	0.20	0.15	-	-	-	-	N
DIV	Global X SuperDividend US	619	3	0.07	0.45	-	-	-	-	-	L
FLQM	Franklin Liberty Q US Mid Cap Equity	618	↑	5	0.09	0.30	-	-	-	-	L
OUSM	O'Shares US SC Quality Dividend	612	↑	3	0.11	0.48	-	-	-	-	L
LVHD	Legg Mason Low Vol High Dividend	590	↓	5	0.05	0.27	-	-	-	-	L
FESM	Fidelity Enhanced Small Cap ETF	578	2	0.12	0.28	-	Y	-	-	-	N
VUSE	Vident Core US Equity	557	1	0.33	0.50	-	-	-	-	-	N
TDVG	T Rowe Price Dividend Growth ETF	538	↑	3	0.08	0.50	-	Y*	-	-	N
DCOR	Dimensional US Core Equity 1 ETF	536	4	0.14	0.14	-	Y	-	-	-	N
GSSC	GS ActiveBeta US SC Equity	490	2	0.20	0.20	-	-	-	-	-	N
JPSE	JPM Diversified Return US SC Eqty	487	2	0.14	0.29	-	-	-	-	-	L
SMIG	AAM Bahl & Gaynor SMid Income Growth ETF	470	↑	2	0.14	0.60	-	Y	-	-	N
JPUS	JPMorgan Diversified Return US Equity	436	↓	1	0.10	0.18	-	-	-	-	N
GRPM	Invesco S&P MidCap 400 GARP ETF	430	↑	3	0.27	0.35	-	-	-	-	L
JHSC	John Hancock Multifactor SC	428	1	0.24	0.42	-	-	-	-	-	N
ROUS	Hartford Multifactor US Equity	410	1	0.11	0.19	-	-	-	-	-	N
TTAC	FCF US Quality ETF	397	↑	1	0.19	0.59	-	Y	Y	-	L
QDEF	FlexShares Quality Div Defensive Idx	393	1	0.07	0.37	-	-	-	-	-	L
QGRW	WisdomTree US Quality Growth Fund	390	↑	4	0.09	0.28	-	-	-	-	L
CAPE	DoubleLine Shiller Cape US Equities ETF	382	↑	1	0.13	0.65	-	Y*	-	-	N
JPME	JPM Diversified Return US Mct Eqty	377	1	0.15	0.24	-	-	-	-	-	N
DGRS	WisdomTree US SC Qlty Div Gwth	363	↑	1	0.16	0.38	-	-	-	-	L
OMFS	Invesco Russell 2000 Dynamic MultiFctr	336	2	0.23	0.39	-	-	-	-	-	L
FSMD	Fidelity Small-Mid Multifactor	333	↑	3	0.20	0.15	-	-	-	-	L
PALC	Pacer Lunt LC Multi-Factor Alternator	316	1	0.23	0.60	-	-	-	-	-	L

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Multi-factor (Continued)											
OSCV	Opus SC Value ETF	316	1	0.10	0.79	-	Y	-	-	-	N
QVMF	Invesco S&P MidCap 400 QVM Multi-factor	304	0	1.01	0.15	-	-	-	-	-	N
USMF	WisdomTree US Multifactor	301	1	0.18	0.28	-	-	-	-	-	L
VFMF	Vanguard US Multifactor ETF	269	↑	1	0.41	0.18	-	Y	-	-	L
AUSF	Global X Adaptive US Factor	262	↑	1	0.24	0.27	-	-	-	-	N
SIXA	ETC 6 Meridian Mega Cap Equity ETF	240	0	0.15	0.78	-	Y	-	-	-	N
ALTL	Pacer Lunt LC Alternator	238	↓	3	0.06	0.60	-	-	-	-	L
BRNY	Burney US Factor Rotation ETF	232	0	0.26	0.79	-	Y	-	-	-	N
USVM	Victory USAA MSCI USA SC Value Mom	230	1	0.10	0.25	-	-	-	-	-	N
XMMV	Invesco S&P MidCap Value with Momentum	227	1	0.36	0.39	-	-	-	-	-	L
QLC	FlexShares US Quality LC Idx	214	↑	1	0.13	0.25	-	-	-	-	N
VALQ	American Century US Quality Value ETF	213	0	0.17	0.29	-	-	-	-	-	L
FUNL	CornetCap Fundamentals LC ETF	194	0	0.44	0.50	-	Y	-	-	-	N
QVMS	Invesco S&P SC 600 QVM Multi-Fctr	186	0	1.12	0.15	-	-	-	-	-	N
DFVX	Dimensional US Large Cap Vector ETF	181	1	0.14	0.22	-	Y	-	-	-	N
QUVU	Hartford Quality Value ETF	171	0	0.28	0.45	-	Y	-	-	-	N
TEQI	T Rowe Price Equity Income ETF	165	↑	1	0.13	0.54	-	Y*	-	-	N
RUNN	Running Oak Efficient Growth ETF	161	1	0.53	0.58	-	Y	-	-	-	L
SIXL	ETC 6 Meridian Low Beta Equity ETF	160	0	1.10	0.79	-	Y	-	-	-	N
USSE	Segall Bryant & Hamill Select Equity ETF	159	1	0.14	0.65	-	Y	-	-	-	N
DEUS	Xtrackers Russell US Multifactor	154	0	0.14	0.17	-	-	-	-	-	L
ULVM	Victory USAA MSCI USA Value Mom	154	↓	0	0.10	0.20	-	-	-	-	N
ONEO	SPDR Russell 1000 Momentum Focus	147	0	0.18	0.20	-	-	-	-	-	L
LSAT	LeaderShares AlphaFactor Tactical Focused ETF	146	↓	1	0.21	0.99	-	Y	-	-	N
MFUS	PIMCO RAFI Dynamic Multi-Fctr US Eqty	145	0	0.21	0.29	-	-	-	-	-	N
LSAF	LeaderShares AlphaFactor US Core Equity	144	↓	0	0.17	0.75	-	-	-	-	N
COWG	Pacer US LC Cash Cows Growth Leaders ETF	142	↑	1	0.13	0.49	-	-	-	-	N
BFOR	Barron's 400	139	0	0.12	0.65	-	-	-	-	-	L
VSMV	Victory US Multi-Fctr Min Vol	137	1	0.19	0.35	-	-	-	-	-	N
QLV	FlexShares US Quality Low Vol Idx	133	↓	1	0.10	0.17	-	-	-	-	N
SQEW	LeaderShares Equity Skew ETF	123	0	0.17	0.75	-	Y	-	-	-	N
OPTZ	Optimize Strategy Index ETF	123	-	0.66	0.50	-	-	-	-	-	N
LRGC	AB US Large Cap Strategic Equities ETF	122	1	0.31	0.48	-	Y	-	-	-	N
HDUS	Hartford Disciplined US Equity ETF	117	↑	0	0.15	0.19	-	-	-	-	N
JOET	Virtus Terranova U.S. Quality Momentum	109	1	0.12	0.29	-	-	-	-	-	L
FLRG	Fidelity U.S. Multifactor	107	↑	1	0.13	0.15	-	-	-	-	N
DWUS	AdvisorShares Dorsey Wright FSM US Core ETF	106	0	0.36	1.18	-	Y	-	-	-	N
DIVZ	Opal Dividend Income ETF	104	↑	1	0.11	0.65	-	Y	-	-	N
BMVP	Invesco Bloomberg MVP Multi-factor ETF	98	0	0.13	0.29	-	-	-	-	-	N
FDLS	Inspire Fidelis Multi Factor ETF	83	↑	0	0.16	0.76	-	Y	-	-	N
GSLC	SGI US LC Core Equity Fund/The	83	1	1.06	0.85	-	Y*	-	-	-	N
SIXS	ETC 6 Meridian SC Equity ETF	79	0	0.38	0.85	-	Y	-	-	-	N
RFDA	RiverFront Dynamic US Dividend Adv	76	0	0.20	0.52	-	-	-	-	-	N
IFED	ETRACS IFED Invest With Fed TR	74	0	0.45	-	-	-	-	-	-	N
FCTR	First Trust Lunt US Factor Rotation</										

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Multi-factor (Continued)										
KONG	Formidable Fortress ETF	25	0	0.56	0.89	-	Y	-	-	N
RFCC	ALPS Active Equity Opportunity ETF	21	↓	0.12	0.48	-	Y	-	-	N
ESGY	American Century Sustainable Growth ETF	15	↑	0.14	0.39	-	Y	Y	-	N
NDVG	Nuveen Dividend Growth ETF	15	↑	0.19	0.65	-	Y*	-	-	N
TGLR	LAFFER I Tengler Equity Income ETF	12	0	0.34	0.95	-	Y	-	-	N
HDLB	ETRACS Mthly 2x Lev US High Div Low Vol-B	12	0	1.81	0.85	+2x	-	-	-	N
MDLV	Morgan Dempsey LC Value ETF	11	↓	0.86	0.58	-	Y	-	-	N
AFMC	First Trust Active Factor Mid Cap ETF	10	↑	0.65	0.65	-	Y	-	-	N
AFSM	First Trust Active Factor SC ETF	10	↑	0.76	0.75	-	Y	-	-	N
QRFT	Qraft AI-Enhanced US LC ETF	10	↑	0.10	0.75	-	Y	-	-	N
ABCS	Alpha Blue Capital US Small-Mid Cap Dynamic	10	-	1.32	0.27	-	Y	-	-	N
AFLG	First Trust Active Factor LC ETF	6	0	0.47	0.55	-	Y	-	-	N
HQGO	Hartford US Quality Growth ETF	6	-	0.17	0.34	-	-	-	Y	N
LQAI	LG QRAFT AI-Powered US Large Cap Core ETF	5	0	0.17	0.75	-	Y	-	-	N
JHAC	John Hancock Fundamental All Cap Core ETF	3	0	0.15	0.72	-	Y*	-	-	N
QSMML	WisdomTree US SmallCap Quality Growth Fund	3	-	0.52	0.38	-	-	-	-	N
GRPZ	Invesco S&P Smallcap 600 GARP ETF	2	-	0.50	0.35	-	-	-	-	N
QMID	WisdomTree US MidCap Quality Growth Fund	1	-	0.35	0.38	-	-	-	-	N
Volatility										
SVOL	Simplify Vol Premium ETF	966	↑	15	0.05	1.16	-0.25x	Y	-	L
SVXY	ProShares Short VIX Short-Term Futures	293	↓	149	0.03	0.95	-0.5x	-	-	M
VXX	iPath Series B SPX VIX ST Futures	274	↑	155	0.08	0.89	-	-	-	M
UVXY	ProShares Ultra VIX Short-Term Futures	233	↑	147	0.04	0.95	+1.5x	-	-	M
SVIX	-1x Short VIX Futures ETF	198	↑	45	0.12	1.47	-1x	Y	-	L
VIXY	ProShares VIX Short-Term Futures	145	↑	49	0.08	0.85	-	-	-	L
VIXM	ProShares VIX Mid-Term Futures	104	↑	2	0.21	0.85	-	-	-	L
UVXM	2x Long VIX Futures ETF	76	↑	37	0.13	2.19	+2x	Y	-	L
VXZ	iPath Series B SPX VIX Mid-Term Futures	32	0	0.30	0.89	-	-	-	-	L
ZIVB	-1x Short VIX Mid-Term Futures Strat	8	↑	0.32	1.35	-1x	Y	-	-	N
WEIX	Dynamic Short Short-Term Vol Futures ETF	6	↑	0	0.79	0.50	-0.5x	Y	-	N
Call/put writing										
JEPI	JPMorgan Equity Premium Income ETF	33,631	↑	196	0.02	0.35	-	Y	-	L
JEPQ	JPM Nasdaq Equity Premium Income ETF	13,938	↑	146	0.02	0.35	-	Y	Y	L
QYLD	Global X Nasdaq 100 Covered Call	8,136	66	0.06	0.61	-	-	-	-	L
XYLD	Global X S&P 500 Covered Call	2,887	18	0.03	0.60	-	-	-	-	L
RYLD	Global X Russell 2000 Covered Call	1,411	12	0.06	0.60	-	-	-	-	L
SPYI	Neos S&P 500 High Income ETF	1,379	↑	19	0.05	0.68	-	Y	-	L
TSLY	YieldMax Tsla Option Income ETF	682	↑	25	0.09	0.99	-	Y	-	L
FTHI	FTI/First Trust ETF VI FT Buy Write Income ETF	646	↑	5	0.10	0.75	-	Y	-	L
CONY	YieldMax COIN Option Income Strategy ETF	552	19	0.25	0.99	-	Y	-	-	L
NVDY	YieldMax NVDA Option Income Strat	547	↑	15	0.19	0.99	-	Y	-	L
NBOS	Neuberger Berman Option Strategy ETF	465	1	0.58	0.56	-	Y	-	-	N
BUYW	Main Buy Write ETF	458	↑	2	0.18	1.29	-	Y	-	N
SIXH	ETC 6 Meridian Hedged Equity Idx Option ETF	402	0	0.24	1.01	-	Y	-	-	N
JUCY	Aptus Enhanced Yield ETF	329	3	0.23	0.59	-	Y	-	-	L
FTQI	First Trust Nasdaq Buy Write Inc	324	↑	2	0.21	0.75	-	Y	-	L
QQQY	Defiance Nasdaq 100 Enhanced Options Income	254	8	0.07	0.99	-	Y	-	-	L
FEPI	REX FANG & Innovation Eqty Premium Income	233	5	0.17	0.65	-	Y	-	-	L
QQQI	Neos Nasdaq-100 High Income ETF	206	-	0.11	0.68	-	Y	-	-	L
IWMY	Defiance R2000 Enhanced Options Income ETF	176	5	0.07	0.99	-	Y	-	-	L
YMAX	YieldMax Universe Fund of Option Income ETFs	173	-	0.23	1.28	-	Y	-	-	L
DUBS	Aptus Large Cap Enhanced Yield ETF	168	1	1.07	0.39	-	Y	-	-	L
MSTY	YieldMax MSTR Option Income Strategy ETF	163	-	0.52	0.99	-	Y	-	-	L
ISPY	ProShares S&P 500 High Income ETF	147	-	0.29	0.55	-	-	-	-	N
JEPY	Defiance SPX Enhanced Options Income ETF	129	3	0.07	0.99	-	Y	-	-	L
GPIX	GS S&P 500 Core Premium Income	125	2	0.13	0.29	-	Y	-	-	L
AMDY	YieldMax AMD Option Income Strategy ETF	114	4	0.26	0.99	-	Y	-	-	L
ULTY	YieldMax Ultra Option Income Strategy ETF	114	-	0.31	1.14	-	Y	-	-	L
AMZY	YieldMax Amzn Option Income ETF	106	2	0.26	0.99	-	Y	-	-	L
QYLG	Global X Nasdaq 100 Covered Call & Gwth	106	1	0.31	0.35	-	-	-	-	L
PBP	Invesco S&P 500 Buy Write	98	0	0.36	0.29	-	-	-	-	L
GQI	Natixis Gateway Quality Income ETF	94	-	0.24	0.34	-	Y	-	-	N
PUTW	WisdomTree PutWrite Strategy	92	1	0.42	0.44	-	-	-	-	L
USDX	SGI Enhanced Core ETF	91	-	0.98	-	-	Y	-	-	N
GPIQ	GS Nasdaq-100 Core Premium Income ETF	85	1	0.11	0.29	-	Y	-	-	L
DJIA	Global X Dow 30 Covered Call	84	1	0.60	0.60	-	-	-	-	L
FBY	YieldMax Meta Option Income Strategy ETF	78	2	0.38	0.99	-	Y	-	-	L
CVRD	Madison Covered Call ETF	74	0	1.20	0.90	-	Y	-	-	N
OARK	YieldMax Innovation Option Inc	69	↑	1	0.20	0.99	-	Y	-	L
APLY	YieldMax AAPL Option Income Strat	65	↑	1	0.59	0.99	-	Y	-	L
XYLG	Global X S&P 500 Covered Call & Growth	63	0	0.39	0.35	-	-	-	-	L
MSFO	YieldMax MSFT Option Income Strategy ETF	63	1	0.33	0.99	-	Y	-	-	L

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
 3 Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Call/put writing (Continued)										
YMAG	YieldMax Mag 7 Fund of Option Income ETF	54	-	0.30	1.28	-	Y	-	-	L
NFLY	YieldMax NFLX Option Income Strategy ETF	53	1	0.43	0.99	-	Y	-	-	L
SRHR	SRH REIT Covered Call ETF	50	0	0.49	0.75	-	Y	-	-	N
GOOY	YieldMax GOOGL Option Income Strategy ETF	44	1	0.20	0.99	-	Y	-	-	L
BALI	BlackRock Advantage Large Cap Income ETF	42	0	0.18	0.35	-	Y	-	-	N
MDST	Westwood Salient Enhanced Midstream Income	39	-	0.32	0.80	-	Y	-	-	N
AIYY	YieldMax AI Option Income Strategy ETF	34	1	0.56	0.99	-	Y	-	-	L
PAPI	Parametric Equity Premium Income ETF	33	0	0.28	0.29	-	Y	-	-	N
PUDT	Cboe Valiudx S&P 500 Dynamic Putwrite Index	32	0	2.36	0.60	-	-	-	-	N
SRQY	YieldMax SQ Option Income Strategy ETF	29	1	0.40	0.99	-	Y	-	-	L
MARNY	YieldMax MRNA Option Income Strategy ETF	27	1	0.50	0.99	-	Y	-	-	L
QDTE	Roundhill N-100 0dte Covered Call Strategy ETF	24	-	0.32	0.95	-	Y	-	-	L
XOMO	YieldMax Xom Option Income Strategy ETF	23	0	0.31	0.99	-	Y	-	-	L
IQQQ	ProShares Nasdaq-100 High Income ETF	23	-	0.35	0.55	-	-	-	-	N
PYPY	YieldMax PYPPL Option Income Strategy ETF	21	0	1.15	0.99	-	Y	-	-	L
DISO	YieldMax DIS Option Income Strategy ETF	19	0	0.77	0.99	-	Y	-	-	L
JPMO	YieldMax JPM Option Income Strategy ETF	19	0	0.93	0.99	-	Y	-	-	L
IVWW	iShares S&P 500 Buy Write ETF	18	-	0.42	0.25	-	-	-	-	N
SPYT	Defiance S&P 500 Target Income ETF	17	-	0.41	0.94	-	Y	-	-	N
IWMW	iShares Russell 2000 Buy Write ETF	15	-	0.35	0.39	-	-	-	-	N
XDTE	Roundhill S&P 500 0DTE Cov Call Strategy	10	-	0.38	0.95	-	Y	-	-	L
DIVP	Cullen Enhanced Equity Income ETF	8	-	0.38	0.55	-	Y	-	-	N
RYLG	Global X Russell 2000 Cov Call & Growth	8	↑	0.83	0.35	-	-	-	-	L
FYEE	Fidelity Yield Enhanced Equity ETF	6	-	0.31	1.28	-	Y	-	-	N
PSTR	PeakShares Sector Rotation ETF	5	-	0.35	1.05	-	Y	-	-	N
GDXY	YieldMax Gold Miners Option Income Strategy	4	-	0.99	-	-	Y	-	-	N
CRSH	YieldMax Short TSLA Option Income Strategy	4	-	0.80	0.99	-	Y	-	-	N
SCAP	InfraCap Small Cap Income ETF	4	-	0.30	1.35	-	Y	-	-	N
SC LZ	Swan Enhanced Dividend Income ETF	4	-	0.36	0.85	-	Y	-	-	N
HCOW	Amplify Cash Flow High Income ETF	3	0	0.80	0.65	-	Y	-	-	N
WEEI	Westwood Salient Enhanced Energy Income ETF	3	-	0.53	0.85	-	Y	-	-	N
TSLP	Kurv Yield Premium Strategy Tesla TSLA ETF	3	0	0.61	0.99	-	Y	-	-	L
WEEL	Peerless Option Income Wheel ETF	2	-	1.07	-	-	Y	-	-	N
QDCC	Global X S&P 500 Quality Dividend Cov Call	2	-	0.65	0.35	-	-	-	-	N
QYLE	Global X Nasdaq 100 ESG Covered Call ETF	2	0	1.18	0.61	-	-	-	-	L
DYLG	Global X Dow 30 Covered Call & Growth ETF	2	0	0.44	0.35	-	-	-	-	L
GOOP	Kurv Yield Premium Strategy GOOGL ETF	2	0	0.58	0.99	-	Y	-	-	L
XYLE	Global X S&P 500 ESG Covered Call ETF	1	↓	0	1.58	0.60	-	Y	-	N
AMZP	YieldMax Option Income Strategy AMZN ETF	1	0	0.41	0.99	-	Y	-	-	L
MSFY	Kurv Yield Premium Strategy MSFT ETF	1	0	0.42	0.99	-	Y	-	-	L
FDND	FT Vest Dow Jones Internet & Target Income ETF	1	-	0.67	0.75	-	Y	-	-	N
NFLP	Kurv Yield Premium Strategy NFLX ETF	1	0	0.58	0.99	-	Y	-	-	L
AAPY	Kurv Yield Premium Strategy AAPL ETF	1	0	0.57	0.99	-	Y	-	-	L
Managed risk/defined outcome										
BUFR	FT Vest Laddered Buffer ETF	4,267	↑	31	0.04	1.05	-	Y	-	N
PTLC	Pacer Trendpilot US LC	2,770	7	0.08	0.60	-	-	-	-	N
PTNQ	Pacer NASDAQ-100 Trendpilot	1,220	↑	4	0.06	0.65	-	-	-	L
PJAN	Innovator U.S. Equity Power Buffer - Jan	1,155	↑	9	0.20	0.79	-	Y	-	N
PAPR	Innovator U.S. Equity Power Buffer - Apr	1,037	↑	8	0.13	0.79	-	Y	-	N
ACIO	Aptus Collared Investment Opportunity ETF	958	↑	5	0.11	0.79	-	Y	-	N
FDEC	FT Vest U.S. Equity Buffer - DEC	882	↑	6	0.20	0.85	-	Y	-	N
BUFD	FT Vest Laddered Deep Buffer ETF	879	↑	5	0.07	1.05	-	Y	-	N
CDC	Victory US EQ Income Enhanced Vol Wtd	845	↓	5	0.08	0.38				

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Managed risk/defined outcome (Continued)											
SSUS	Day Hagan/Ned Davis Research Smart Sector	607	↑ 3	0.09	0.79	-	Y	-	-	L	
FAPR	FT Vest U.S. Equity Buffer ETF - April	573	↑ 4	0.20	0.85	-	Y	-	-	N	
PMAY	Innovator U.S. Equity Power Buffer - May	572	3	0.19	0.79	-	Y	-	-	N	
DRSK	Aplus Defined Risk ETF	558	3	0.11	0.78	-	Y	-	-	L	
FOCT	FT Vest U.S. Equity Buffer - OCT	554	↑ 1	0.20	0.85	-	Y	-	-	N	
BUFC	AB Conservative Buffer ETF	552	-	0.79	0.69	-	Y	-	-	N	
FSEP	FT Vest U.S. Equity Buffer - SEP	537	↑ 1	0.17	0.85	-	Y	-	-	N	
FHEQ	Fidelity Hedged Equity ETF	446	-	0.50	0.48	-	Y	-	-	N	
CFO	Victory US 500 Enhanced Vol Wtd	443	↓ 2	0.08	0.40	-	-	-	-	L	
BUFF	Innovator Laddered Allocatn Power Buffer	431	↑ 3	0.36	0.89	-	-	-	-	N	
PJUN	Innovator U.S. Equity Power Buffer - Jun	428	2	0.37	0.79	-	Y	-	-	N	
QMAR	FT Vest Nasdaq-100 Buffer ETF - March	427	↑ 3	0.24	0.90	-	Y	-	-	N	
KJAN	Innovator U.S. SC Power Buffer - Jan	409	↑ 5	0.30	0.79	-	Y	-	-	N	
GFEB	FT Vest US Equity Mod Buffer -Feb	409	↑ 4	0.25	0.85	-	Y	-	-	N	
PTMC	Pacer Trendpilot US Mid Cap	402	1	0.12	0.60	-	-	-	-	N	
JANW	AllianzIM US LC Buffer20 Jan ETF	389	↑ 4	0.21	0.74	-	Y	-	-	N	
QDEC	FT Vest Nasdaq-100 Buffer - Dec	381	↑ 4	0.23	0.90	-	Y	-	-	N	
GMAR	FT Vest US Equity Mod Buffer - Mar	373	↑ 4	0.18	0.85	-	Y	-	-	N	
NUMI	Nationwide Nasdaq-100 Risk-Managed Income	372	↓ 1	0.30	0.68	-	Y	-	-	L	
DMAR	FT Vest US Equity Deep Buffer-Mar	371	↑ 2	0.19	0.85	-	Y	-	-	N	
XDEC	FT Vest US Equity Enhance & Mod Buffer -Dec	358	2	0.24	0.85	-	Y	-	-	N	
DDEC	FT Vest U.S. Equity Deep Buffer - Dec	338	3	0.22	0.85	-	Y	-	-	N	
QJUN	FT Vest Nasdaq-100 Buffer ETF - June	334	↑ 2	0.37	0.90	-	Y	-	-	N	
APRW	AllianzIM US LC Buffer20 Apr ETF	330	↑ 3	0.19	0.74	-	Y	-	-	N	
PSFF	Pacer Swan Sos Fund of Funds ETF	329	↑ 2	0.39	0.72	-	Y	-	-	N	
HCMT	Direxion HCM Tactical Enhanced US ETF	307	2	0.19	1.17	+2x	Y	-	-	N	
DJUL	FT Vest US Equity Deep Buffer ETF - July	298	↑ 3	0.18	0.85	-	Y	-	-	N	
QSPT	FT Vest Growth-100 Buffer - Sep	293	↑ 1	0.29	0.90	-	Y	-	-	N	
DAUG	FT Vest U.S. Equity Deep Buffer - Aug	278	↓ 2	0.12	0.85	-	Y	-	-	N	
GJAN	FT Vest US Equity Mod Buffer - Jan	276	↑ 3	0.24	0.85	-	Y	-	-	N	
BAPR	Innovator U.S. Equity Buffer Apr	276	↑ 2	0.21	0.79	-	Y	-	-	N	
SFLR	Innovator Equity Managed Floor ETF	275	↑ 2	0.32	0.89	-	Y	-	-	N	
DFEB	FT Vest US Equity Deep Buffer - Feb	274	3	0.19	0.85	-	Y	-	-	N	
BJAN	Innovator U.S. Equity Buffer - Jan	270	2	0.19	0.79	-	Y	-	-	N	
GJUL	FT Vest US Equity Moderate Buffer ETF - July	263	2	0.17	0.85	-	Y	-	-	N	
DNOV	FT Vest US Equity Deep Buffer - Nov	261	1	0.19	0.85	-	Y	-	-	N	
DJAN	FT Vest U.S. Equity Deep Buffer - JAN	252	3	0.20	0.85	-	Y	-	-	N	
MARW	AllianzIM US LC Buffer20 Mar ETF	252	↑ 2	0.59	0.74	-	Y	-	-	N	
HEGD	Swan Hedged Equity US LC ETF	248	↑ 2	0.42	0.87	-	Y	-	-	N	
GMAJ	FT Vest U.S. Equity Mod Buffer - May	245	↑ 2	0.24	0.85	-	Y	-	-	N	
NJAN	Innovator Growth 100 Power Buffer - Jan	243	↑ 3	0.24	0.79	-	Y	-	-	N	
DAPR	FT Vest U.S. Equity Deep Buffer ETF - April	237	↓ 1	0.21	0.85	-	Y	-	-	N	
IAPR	Innovator Int Developed Power Buffer - Apr	234	↓ 3	0.53	0.85	-	Y	-	-	N	
BFEB	Innovator U.S. Equity Buffer - Feb	225	↑ 2	0.22	0.79	-	Y	-	-	N	
GAPR	FT Vest US Equity Mod Buffer - Apr	225	2	0.25	0.85	-	Y	-	-	N	
TJUL	Innovator Equity Def Protection 2 Yr to Jul 2025	220	1	0.54	0.79	-	Y	-	-	N	
BUFG	FT Vest Buffered Allocation Growth ETF	219	↑ 1	0.36	1.05	-	Y	-	-	N	
NAPR	Innovator Growth 100 Power Buffer - Apr	218	↑ 2	0.24	0.79	-	Y	-	-	N	
FEBW	AllianzIM US LC Buffer20 Feb ETF	215	↑ 2	0.29	0.74	-	Y	-	-	N	
DMAY	FT Vest US Equity Deep Buffer ETF - May	215	1	0.20	0.85	-	Y	-	-	N	
MARM	FT Vest US Equity Max Buffer ETF - March	200	-	0.30	0.85	-	Y	-	-	N	
UAPR	Innovator U.S. Equity Ultra Buffer - Apr	197	2	0.11	0.79	-	Y	-	-	N	
BJUL	Innovator U.S. Equity Buffer - Jul	194	↑ 2	0.27	0.79	-	Y	-	-	N	
BMAR	Innovator U.S. Equity Buffer - Mar	191	↑ 1	0.18	0.79	-	Y	-	-	N	
UJAN	Innovator U.S. Equity Ultra Buffer - Jan	190	1	0.23	0.79	-	Y	-	-	N	
XMAR	FT Vest US Eqy Enhance & Mod Buffer- Mar	190	↓ 2	0.22	0.85	-	Y	-	-	N	
DOCT	FT Vest U.S. Equity Deep Buffer - OCT	188	1	0.20	0.85	-	Y	-	-	N	
CAOS	Alpha Architect Tail Risk ETF	187	0	0.39	0.63	-	Y	-	-	N	
UAUG	Innovator U.S. Equity Ultra Buffer - Aug	186	↑ 4	0.22	0.79	-	Y	-	-	N	
DJUN	FT Vest US Equity Deep Buffer ETF - June	186	↑ 1	0.41	0.85	-	Y	-	-	N	
GDEC	FT Vest US Equity Moderate Buffer ETF - Dec	183	-	0.21	0.85	-	Y	-	-	N	
GJUN	FT Vest US Equity Moderate Buffer ETF - June	179	2	0.24	0.85	-	Y	-	-	N	
DSEP	FT Vest U.S. Equity Deep Buffer - Sep	175	1	0.20	0.85	-	Y	-	-	N	
BOCT	Innovator U.S. Equity Buffer - Oct	173	1	0.21	0.79	-	Y	-	-	N	
SWAN	Amplify Blackswan Gwth & Trsry Core	172	↓ 0	0.43	0.49	-	-	-	-	L	
NJUL	Innovator Growth 100 Power Buffer - Jul	171	↑ 2	0.20	0.79	-	Y	-	-	N	
KAPR	Innovator U.S. SC Power Buffer - Apr	170	2	0.31	0.79	-	Y	-	-	N	
CCOR	Core Alternative ETF	168	↓ 2	0.83	1.07	-	Y	-	-	L	
XJUN	FT Vest US Equity Enhance & Mod Buffer - Jun	163	↑ 2	0.24	0.85	-	Y	-	-	N	
NOCT	Innovator Growth-100 Power Buffer - Oct	162	↑ 1	0.22	0.79	-	Y	-	-	N	
HEQT	Simplify Hedged Equity ETF	159	↑ 4	0.09	0.53	-	Y	-	-	L	
GNOV	FT Vest US Equity Moderate Buffer ETF - Nov	157	1	0.40	0.85	-	Y	-	-	N	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Managed risk/defined outcome (Continued)											
FVC	First Trust Dorsey Wright Dyn Focus 5	157	↓ 1	0.42	0.84	-	-	-	-	N	
MRSK	Toews Agility Shares Managed Risk ETF	144	↑ 1	0.31	0.97	-	Y	-	-	N	
JULW	AllianzIM US LC Buffer20 Jul ETF	143	1	0.21	0.74	-	Y	-	-	N	
UMAR	Innovator U.S. Equity Ultra Buffer - Mar	143	↑ 2	0.25	0.79	-	Y	-	-	N	
BAUG	Innovator U.S. Equity Buffer - Aug	142	↓ 2	0.21	0.79	-	Y	-	-	N	
BSEP	Innovator U.S. Equity Buffer - Sep	140	↓ 1	0.21	0.79	-	Y	-	-	N	
BMAY	Innovator U.S. Equity Buffer - May	139	1	0.19	0.79	-	Y	-	-	N	
BDEC	Innovator U.S. Equity Buffer -Dec	137	1	0.21	0.79	-	Y	-	-	N	
KJUL	Innovator U.S. SC Power Buffer - Jul	134	↑ 1	0.30	0.79	-	Y	-	-	N	
XSEP	FT Vest US Eqy Enhance & Mod Buffer-Sep	129	1	0.22	0.85	-	Y	-	-	N	
SHDG	Soundwatch Hedged Equity ETF	129	0	1.61	0.53	-	Y	-	-	N	
OCTW	AllianzIM US LC Buffer20 Oct ETF	129	0	0.22	0.74	-	Y	-	-	N	
MSTB	LHA Market State Tactical Beta ETF	128	↓ 0	0.44	1.48	-	Y	-	-	N	
ONOF	Global X Adaptive US Risk Management	123	↑ 0	0.29	0.40	-	-	-	-	N	
PHDG	Invesco S&P 500 Downside Hedge ETF	122	↓ 1	0.42	0.39	-	Y	-	-	L	
GSEP	FT Vest US Equity Moderate Buffer ETF - Sept	119	0	0.17	0.85	-	Y	-	-	N	
BUFB	Innovator Laddered Allocation Buffer	114	↑ 1	0.42	0.89	-	Y	-	-	N	
ZALT	Innovator US Equity 10 Buffer ETF	113	1	0.93	0.69	-	Y	-	-	N	
JANT	AllianzIM US LC Buffer10 Jan ETF	113	1	0.29	0.74	-	Y	-	-	N	
CPSM	Calamos SPX Structured Alt Protection ETF - May	109	-	0.13	0.69	-	Y	-	-	N	
SPD	Simplify US Equity PLUS Downside Convexity	109	1	0.14	0.53	-	Y	-	-	L	
QFLR	Innovator Nasdaq-100 Managed Floor ETF	108	-	0.38	0.89	-	Y	-	-	N	
BUFT	FT Vest Buffered Allocation Defensive ETF	107	0	0.26	1.05	-	Y	-	-	N	
APRT	AllianzIM US LC Buffer10 Apr ETF	107	↑ 1	0.25	0.74	-	Y	-	-	N	
MART	AllianzIM US LC Buffer10 Mar ETF	106	↑ 1	0.38	0.74	-	Y	-	-	N	
BUFZ	FT Vest Laddered Moderate Buffer ETF	105	1	0.15	1.05	-	Y	-	-	N	
BNOV	Innovator U.S. Equity Buffer - Nov	104	↓ 0	0.44	0.79	-	Y	-	-	N	
GAUG	FT Vest US Equity Moderate Buffer ETF - August	103	1	0.22	0.85	-	Y	-	-	N	
GOCT	FT Vest US Equity Moderate Buffer ETF - Oct	99	1	0.17	0.85	-	Y	-	-	N	
YMAR	FT Vest Int Equity Buffer - Mar	97	1	0.38	0.90	-	Y	-	-	N	
UFEB	Innovator U.S. Equity Ultra Buffer - Feb	96	1	0.34	0.79	-	Y	-	-	N	
UOCT	Innovator U.S. Equity Ultra Buffer Oct	95	0	0.27	0.79	-	Y	-	-	N	
YDEC	FT Vest Int Equity Mod Buffer ETF - Dec	94	↑ 1	0.52	0.90	-	Y	-	-	N	
XBJA	Innovator US Equity Accelerated 9 Buffer - Jan	94	↑ 1	0.50	0.79	-	Y	-	-	N	
FFTY	Innovator IBD R 50	92	2	0.08	0.80	-	Y	-	-	L	
SIXJ	AllianzIM U.S. LC 6 Month Buffer10 Jan/Jul ETF	91	↑ 1	0.96	0.74	-	Y	-	-	N	
BJUN	Innovator U.S. Equity Buffer - Jun	91	↓ 1	1.00	0.79	-	Y	-	-	N	
XJAN	FT Vest US Eqy Enhance & Mod Buffer ETF - Jan	90	-	0.28	0.85	-	Y	-	-	N	
XBAP	Innovator US Equity Accelerated 9 Buffer - Apr	89	↑ 1	0.23	0.79	-	Y	-	-	N	
EALT	Innovator US Equity 5 to 15 Buffer ETF-Quarterly	89	1	0.47	0.69	-	Y	-	-	N	
SIXO	AllianzIM US LC 6 Month Buffer10 Apr/Oct ETF	89	1	0.44	0.74	-	Y	-	-	N	
KOCT	Innovator U.S. SC Power Buffer - Oct	87	0	0.30	0.79	-	Y	-	-	N	
PSPT	Innovator Power Buffer Step-UP Strat	86	0	0.41	0.89	-	Y	-	-	N	
FEBT	AllianzIM US LC Buffer10 Feb ETF	83	↑ 1	0.37	0.74	-	Y	-	-	N	
DECW	AllianzIM US LC Buffer20 Dec ETF	82	↓ 1	0.25	0.74	-	Y	-	-	N	
QMMY	FT Vest Nasdaq-100 Moderate Buffer ETF - May	82	-	0.90	-	-	Y	-	-	N	
TAIL	Cambria Tail Risk ETF	81	↓ 1	0.34	0.59	-	Y	-	-	L	
EAPR	Innovator EM Power Buffer - Apr	80	↑ 1	2.03	0.89	-	Y	-	-	N	
AUGW	AllianzIM US										

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Managed risk/defined outcome (Continued)										
XOCT	FT Vest US Eqy Enhance & Mod Buffer ETF - Oct	51	0	0.28	0.85	-	Y	-	-	N
DECZ	TrueShares Structured Outcome Dec ETF	48	↑	0.36	0.80	-	Y	-	-	N
CSF	Victory US Discovery Enhanced Vol Wtd	46	↓	0.11	0.42	-	-	-	-	N
PSFD	Pacer Swan SOS Flex Jan ETF	44	↑	0.66	0.60	-	Y	-	-	N
DFNV	Donoghue Fortines Innovation ETF	43	↓	0.25	0.69	-	-	-	-	N
PSMO	Pacer Swan SOS Moderate Oct ETF	42	↑	0.62	0.60	-	Y	-	-	N
IVVM	iShares Large Cap Moderate Buffer ETF	42	0	0.33	0.50	-	Y	-	-	N
MVFD	Monarch Volume Factor Dividend Tree Index ETF	42	-	0.22	1.25	-	-	-	-	N
UNOV	Innovator U.S. Equity Ultra Buffer - Nov	41	↓	0.36	0.79	-	Y	-	-	N
SAUG	FT Vest US Small Cap Mod Buffer ETF - Aug	39	0	0.35	0.90	-	Y	-	-	N
OCTT	AllianzIM US LC Buffer10 Oct ETF	39	↓	0.29	0.74	-	Y	-	-	N
APRJ	Innovator Premium Income 30 Barrier ETF - Apr	39	0	0.62	0.79	-	Y	-	-	N
PHEQ	Parametric Hedged Equity ETF	37	0	0.66	0.29	-	Y	-	-	N
SMAY	FT Vest U.S. SC Mod Buffer - May	36	↑	0.24	0.90	-	Y	-	-	N
XJUL	FT Vest US Eqy Enhance & Mod Buffer ETF - Jul	35	0	0.26	0.85	-	Y	-	-	N
XRMI	Global X S&P 500 Risk Managed Income	35	↑	0.32	0.60	-	-	-	-	L
XFEF	FT Vest US Eqy Enhance & Mod Buffer ETF - Feb	34	-	0.27	0.85	-	Y	-	-	N
SHUS	Syntax Stratified US Total Market Hedged ETF	34	0	0.44	0.65	-	Y	-	-	N
ZHDG	ZEGA Buy and Hedge ETF	34	↓	0.28	0.98	-	Y	-	-	L
SEPW	AllianzIM US Large Cap Buffer20 Sep ETF	33	0	0.40	0.74	-	Y	-	-	N
NVBW	AllianzIM US LC Buffer20 Nov ETF	33	0	0.26	0.74	-	Y	-	-	N
PSCW	Pacer Swan SOS Conservative Apr ETF	32	↑	0.94	0.60	-	Y	-	-	N
FCUS	Pinnacle Focused Opp ETF	31	↑	0.60	0.79	-	Y	-	-	N
SNOV	FT Vest US Small Cap Mod Buffer ETF - Nov	30	0	0.28	0.90	-	Y	-	-	N
PBL	PGIM Portfolio Ballast ETF	29	0	0.36	0.45	-	Y	-	-	N
BSR	Beacon Selective Risk ETF	29	↑	0.79	1.10	-	Y	-	-	N
AUGT	AllianzIM US Large Cap Buffer10 Aug ETF	28	1	0.32	0.74	-	Y	-	-	N
JULT	AllianzIM US LC Buffer10 Jul ETF	28	↓	1.23	0.74	-	Y	-	-	N
APRH	Innovator Premium Income 20 Barrier ETF - Apr	27	0	0.75	0.79	-	Y	-	-	N
FDVL	Foundations Dynamic Value ETF	27	1	0.18	0.79	-	Y	-	-	N
APRZ	TrueShares Structured Outcome Apr ETF	27	↑	0.57	0.79	-	Y	-	-	N
DECT	AllianzIM US LC Buffer10 Dec ETF	27	1	0.27	0.74	-	Y	-	-	N
LFEQ	VanEck Long/Flat Trend	27	↓	0.09	0.68	-	-	-	-	N
BTR	Beacon Tactical Risk ETF	26	↑	0.83	1.10	-	Y	-	-	N
QCAP	FT Vest Nasdaq-100 Conserv Buffer ETF - Apr	26	-	0.27	0.90	-	Y	-	-	N
PSFJ	Pacer Swan SOS Flex Jul ETF	26	↑	0.52	0.60	-	Y	-	-	N
MARZ	TrueShares Structured Outcome Mar ETF	25	↑	0.49	0.79	-	Y	-	-	N
JANJ	Innovator Premium Income 30 Barrier ETF - Jan	25	-	0.79	-	-	Y	-	-	N
JULJ	Innovator Premium Income 30 Barrier ETF-July	24	0	0.79	-	-	Y	-	-	N
JULH	Innovator Premium Income 20 Barrier ETF-July	23	0	0.79	-	-	Y	-	-	N
PSFM	Pacer Swan SOS Flex Apr ETF	23	0	0.55	0.60	-	Y	-	-	N
JUNW	AllianzIM U.S. Large Cap Buffer20 Jun ETF	22	↑	1.39	0.74	-	Y	-	-	N
OCTJ	Innovator Premium Income 30 Barrier ETF - Oct	22	0	1.57	0.79	-	Y	-	-	N
OVLH	Overlay Shares Hedged LC Equity ETF	22	↓	1.73	0.93	-	Y	-	-	L
JULJ	TrueShares Structured Outcome Jul ETF	21	↑	0.38	0.79	-	Y	-	-	N
BDGS	Bridges Capital Tactical ETF	21	↑	0.85	-	-	Y	-	-	N
XNOV	FT Vest US Eqy Enhance & Mod Buffer - Nov	21	0	0.26	0.85	-	Y	-	-	N
APRQ	Innovator Premium Income 40 Barrier ETF - Apr	20	↓	0.15	0.79	-	Y	-	-	N
PSCX	Pacer Swan SOS Conservative Jan ETF	20	↑	0.80	0.60	-	Y	-	-	N
OCTH	Innovator Premium Income 20 Barrier ETF Oct	20	0	1.54	0.79	-	Y	-	-	N
XIDE	FT Vest US Eqy Buffer & Premium Income-Dec	19	-	1.24	0.85	-	Y	-	-	N
ARLU	AllianzIM US Equity Buffer15 Uncapped Apr ETF	19	-	0.35	0.74	-	Y	-	-	N
NOVZ	TrueShares Structured Outcome Nov ETF	18	↑	0.30	0.79	-	Y	-	-	N
SEPZ	TrueShares Structured Outcome Sep ETF	18	↓	0.40	0.79	-	Y	-	-	N
MAYT	AllianzIM US LC Buffer10 May ETF	18	↓	1.81	0.74	-	Y	-	-	N
LOCT	Innovator Premium Income 15 Buffer ETF-October	17	0	0.79	-	-	Y	-	-	N
LJAN	Innovator Premium Income 15 Buffer ETF - Jan	17	-	2.68	0.79	-	Y	-	-	N
XIMR	FT Vest US Eqy Buffer & Premium Income-Mar	17	-	0.28	0.85	-	Y	-	-	N
AUGZ	TrueShares Structured Outcome Aug ETF	15	↓	0.34	0.80	-	Y	-	-	N
PSFO	Pacer Swan SOS Flex Oct ETF	15	↑	0.32	0.60	-	Y	-	-	N
JANQ	Innovator Premium Income 40 Barrier ETF - Jan	15	-	0.79	-	-	Y	-	-	N
MSTQ	ETF Series Sol-LHA Market State Tactical Q ETF	14	↑	0.53	1.59	-	Y	-	-	N
OCTQ	Innovator Premium Income 40 Barrier ETF - Oct	14	0	1.77	0.79	-	Y	-	-	N
XAPR	FT Vest US Eqy Enhance & Mod Buffer ETF - Apr	14	-	0.27	0.85	-	Y	-	-	N
HOCT	Innovator Premium Income 9 Buffer ETF-October	14	0	0.79	-	-	Y	-	-	N
PSCJ	Pacer Swan SOS Conservative Jul ETF	14	↑	0.42	0.60	-	Y	-	-	N
SIXF	AllianzIM US Large Cap 6 M Buffer10 Feb/Aug	13	-	0.35	0.74	-	Y	-	-	N
QRMI	Global X Nasdaq 100 Risk Managed Income	13	↑	0.27	0.61	-	-	-	-	L
XAUG	FT Vest US Eqy Enhance & Moderate Buffer-Aug	13	0	0.27	0.85	-	Y	-	-	N
MAYU	AllianzIM US Equity Buffer15 Uncapped May ETF	13	-	0.35	0.74	-	Y	-	-	N
BOUT	Innovator IBD Breakout Opp	12	↓	0.85	0.85	-	-	-	-	N
SEPT	AllianzIM US Large Cap Buffer10 Sep ETF	12	0	0.34	0.74	-	Y	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
 3 Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Managed risk/defined outcome (Continued)										
XMAY	FT Vest US Eqy Enhance & Moderate Buffer- May	12	-	0.85	-	-	Y	-	-	N
FLJJ	AllianzIM US Equity 6 Month Floor5 Jan/Jul ETF	11	-	0.40	0.74	-	Y	-	-	N
JANH	Innovator Premium Income 20 Barrier-Jan	11	-	0.79	-	-	Y	-	-	N
NVBT	AllianzIM US LC Buffer10 Nov ETF	10	↓	0.25	0.74	-	Y	-	-	N
HJAN	Innovator Premium Income 9 Buffer ETF-January	9	-	1.96	0.79	-	Y	-	-	N
PSCQ	Pacer Swan SOS Conservative Oct ETF	9	↑	0.38	0.60	-	Y	-	-	N
APRD	Innovator Premium Income 10 Barrier ETF - Apr	9	0	0.56	0.79	-	Y	-	-	N
JUNT	AllianzIM U.S. Large Cap Buffer10 Jun ETF	8	↑	0.42	0.74	-	Y	-	-	N
JULQ	Innovator Premium Income 40 Barrier ETF-July	8	0	0.79	-	-	Y	-	-	N
GDEF	Goldman Sachs Defensive Equity ETF	7	0	0.80	0.55	-	Y	-	-	L
JANZ	TrueShares Structured Outcome Jan ETF	7	↑	0.53	0.79	-	Y	-	-	N
SIXZ	AllianzIM US Large Cap 6 M Buffer10 May/Nov	7	-	0.47	0.74	-	Y	-	-	N
MKAM	MKAM ETF	7	↑	0.89	0.96	-	Y	-	-	N
XVOL	Acruence Active Hedge U.S. Equity ETF	7	↓	1.53	0.83	-	Y	-	-	L
FEBZ	TrueShares Structured Outcome Feb ETF	6	↑	0.41	0.79	-	Y	-	-	N
FBUF	Fidelity Dynamic Buffered Equity ETF	6	-	0.34	0.48	-	Y	-	-	N
PBAP	PGIM US Large-Cap Buffer 20 ETF - Apr	6	-	0.33	0.50	-	Y	-	-	N
JAND	Innovator Premium Income 10 Barrier-Jan	5	-	0.79	-	-	Y	-	-	N
OCTD	Innovator Premium Income 10 Barrier ETF - Oct	5	0	1.58	0.79	-	Y	-	-	N
PBMR	PGIM US Large-Cap Buffer 20 ETF - March	5	-	0.30	0.50	-	Y	-	-	N
MAYZ	TrueShares Structured Outcome May ETF	5	0	0.66	0.79	-	Y	-	-	N
PBMY	PGIM US Large-Cap Buffer 20 ETF - May	4	-	0.36	0.50	-	Y	-	-	N
APRP	PGIM US Large-Cap Buffer 12 ETF - April	4	-	0.24	0.50	-	Y	-	-	N
OCTZ	TrueShares Structured Outcome Oct ETF	4	0	0.44	0.79	-	Y	-	-	N
JULD	Innovator Premium Income 10 Barrier ETF-July	4	0	0.79	-	-	Y	-	-	N
LAPR	Innovator Premium Income 15 Buffer ETF - April	4	-	0.79	-	-	Y	-	-	N
FEBP	PGIM US Large-Cap Buffer 12 ETF - February	4	-	0.41	0.50	-	Y	-	-	N
PBFB	PGIM US Large-Cap Buffer 20 ETF - February	4	-	0.38	0.50	-	Y	-	-	N
MRCP	PGIM US Large-Cap Buffer 12 ETF - March	4	-	0.18	0.50	-	Y	-	-	N
XTR	Global X S&P 500 Tail Risk	3	0	0.39	0.25	-	-	-	-	N
JANP	PGIM US Large-Cap Buffer 12 ETF - January	3	-	0.39	0.50	-	Y	-	-	N
JUNZ	TrueShares Structured Outcome Jun ETF	3	↓	0.64	0.79	-	Y	-	-	N
PBJA	PGIM US Large-Cap Buffer 20 ETF - January	3	-	0.54	0.50	-	Y	-	-	N
OCFS	Otter Creek Focus Strategy ETF	3	-	0.85	-	-	Y	-	-	N
QTR	Global X NASDAQ 100 Tail Risk	3	↑	0.34	0.25	-	-	-	-	N
MAYP	PGIM US Large-Cap Buffer 12 ETF - May	2	-	0.33	0.50	-	Y	-	-	N
XCLR	Global X S&P 500 Collar 95-110	2	↓	0.43	0.25	-	-	-	-	N
HAPR	Innovator Premium Income 9 Buffer ETF - April	2	-	0.79	-	-	Y	-	-	N
QCLR	Global X NASDAQ 100 Collar 95-110	2	↓	0.35	0.26	-	-	-	-	N
FDCE	Foundations Dynamic Core ETF	1	1	0.20	0.79	-	Y	-	-	N
CANQ	Calamos Alternative Nasdaq & Bond ETF	1	-	0.38	0.90	-	Y	-	-	N
JULP	PGIM US Large-Cap Buffer 12 ETF - July	1	-	0.43	0.50	-	Y	-	-	N
AUGP	PGIM US Large-Cap Buffer 12 ETF - August	1	-	0.47	0.50	-	Y	-	-	N
PBJL	PGIM US Large-Cap Buffer 20 ETF - July	1	-	0.42	0.50	-	Y	-	-	N
PBAU	PGIM US Large-Cap Buffer 20 ETF - August	1	-	0.89	0.50	-	Y	-	-	N
SEPP	PGIM US Large-Cap Buffer 12 ETF - September	1	-	0.44	0.50	-	Y	-	-	N
PBSE	PGIM US Large-Cap Buffer 20 ETF - September	1	-	0.48	0.50	-	Y	-	-	N
PBDE	PGIM US Large-Cap Buffer 20 ETF - December	1	-	0.50	0.50	-	Y	-	-	N
BUFS	FT Vest Laddered Small Cap Moderate Buffer ETF	1	-	1.10	-	-	Y	-	-	N
PBOC	PGIM US Large-Cap Buffer 20 ETF - October	1	-	0.50	0.50	-	Y	-	-	N
OCTP	PGIM US Large-Cap Buffer 12 ETF - October	1	-	0.50	0.50	-	Y	-	-	N
PBNV	PGIM US Large-Cap Buffer 20 ETF - November	1	-							

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Theme (Continued)											
JTEK	JPMorgan US Tech Leaders ETF	416	4	0.18	0.65	-	Y	-	-	N	
TECB	iShares US Tech Breakthrough Multisect	398	2	0.05	0.40	-	-	-	-	L	
URNJ	Sprott Junior Uranium Miners ETF	398	↑	7	0.67	0.80	-	-	-	L	
PBW	Invesco WilderHill Clean Energy	349	7	0.17	0.66	-	-	Y	-	L	
SMOT	VanEck Morningstar SMID Moat ETF	346	↑	3	0.09	0.49	-	-	-	L	
MAGS	Roundhill Magnificent 7 ETF	334	↑	8	0.22	0.29	-	Y	-	L	
HAPI	Harbor Human Capital Factor US Large Cap ETF	322	0	0.25	0.35	-	-	-	-	N	
FNGO	MicroSectors FANG Idx 2X Leveraged ETN	306	2	0.14	0.95	+2x	-	-	-	N	
PEJ	Invesco Dynamic Leisure and Ent	270	↓	3	0.07	0.58	-	-	-	L	
FNGS	MicroSectors FANG+ ETNs	268	↑	8	0.04	0.58	-	-	-	L	
GVIP	Goldman Sachs Hedge Industry VIP	222	↑	1	0.37	0.45	-	-	-	L	
ACES	ALPS Clean Energy	220	↓	5	0.29	0.55	-	-	Y	L	
POWA	Invesco Bloomberg Pricing Power ETF	190	↓	1	0.10	0.40	-	-	-	L	
FCPI	Fidelity Stocks for Inflation	162	↓	1	0.14	0.15	-	-	-	L	
WEBL	Direxion Dly DJ Internet Bull 3x	141	↓	11	0.07	1.00	+3x	-	-	L	
SARK	AXS Short Innovation ETF	138	↓	46	0.04	0.75	-1x	Y	-	L	
BITQ	Bitwise Crypto Industry Innovators	127	2	0.56	0.85	-	-	-	-	L	
MJUS	ETFMG US Alternative Harvest ETF	122	0	0.77	0.75	-	Y	-	-	N	
XITK	SPDR FactSet Innovative Technology	118	1	0.25	0.45	-	-	-	-	L	
MILN	Global X Millennial Consumer	115	0	0.27	0.50	-	-	-	-	L	
ACTV	LeaderShares Activist Leaders ETF	96	↓	0	0.22	0.75	-	Y	-	N	
NANC	Unusual Whales Subversive Democratic Trading	95	↑	1	0.33	0.75	-	Y	-	N	
VEGN	US Vegan Climate	93	0	0.17	0.60	-	-	Y	-	L	
ACVF	American Conservative Values ETF	91	↑	0	0.18	0.75	-	Y	-	N	
ACSI	American Customer Satisfaction	83	0	0.18	0.65	-	-	-	-	N	
ENTR	ERShares Entrepreneurs	81	↑	0	0.22	0.75	-	Y	-	N	
EVX	VanEck Environmental Services	71	0	0.45	0.55	-	-	Y	-	L	
SPRX	Spear Alpha ETF	70	↑	2	0.08	0.75	-	Y	-	L	
MSOX	AdvisorShares MSOS 2x Daily ETF	69	↑	6	0.39	1.13	+2x	Y	-	L	
YALL	God Bless America ETF	69	↑	0	0.23	0.65	-	Y	-	L	
SAMT	Strategas Macro Thematic Opp ETF	67	0	0.21	0.65	-	Y	-	-	N	
PEXL	Pacer US Export Leaders	64	↑	0	0.66	0.60	-	-	-	N	
AIFD	TCW Artificial Intelligence ETF	61	↑	0	0.18	0.75	-	Y	-	N	
BUZZ	VanEck Social Sentiment	60	↓	0	0.11	0.75	-	-	-	L	
FITE	SPDR S&P Kensho Future Security	56	↑	0	0.25	0.45	-	-	-	L	
DRUP	GraniteShares Nasdaq Select Disruptors ETF	54	↓	0	0.16	0.60	-	-	-	L	
HAIL	SPDR S&P Kensho Smart Mobility	54	0	0.29	0.45	-	-	-	-	L	
TARK	AXS 2x Innovation ETF	52	6	0.34	1.15	+2x	Y	-	-	L	
PSET	Principal Quality	51	0	0.31	0.15	-	Y	-	-	N	
FMED	Fidelity Disruptive Medicine ETF	50	0	0.27	0.50	-	Y	-	-	N	
SURE	AdvisorShares Insider Advantage ETF	48	0	0.74	0.90	-	Y	-	-	N	
FNGG	Direxion Dly Select LCs & FANGs Bull 2X	46	↑	2	0.33	0.98	+2x	-	-	L	
CRTC	Xtrackers US National Critical Technologies ETF	44	0	0.56	0.35	-	-	-	-	N	
HOMZ	Hoya Capital Housing	42	0	0.38	0.30	-	-	-	-	L	
IDGT	iShares US Dig Infrastructure and Real Estate	42	↓	0	0.08	0.41	-	-	-	L	
LRNZ	Listed Funds Trust TrueMark Technology AI & DL	40	↑	0	0.18	0.69	-	Y	-	L	
PP	The Meet Kevin Pricing Power ETF	40	↑	0	0.23	0.77	-	Y	-	L	
SOVF	Sovereign's Capital Flourish Fund	38	0	0.38	0.75	-	Y	-	-	N	
TRFM	AAM Transformers ETF	38	↑	0	0.09	0.49	-	-	-	N	
DYNI	IDX Dynamic Innovation ETF	38	0	0.16	1.05	-	Y	-	-	N	
CDEI	Calvert US LC Diversity Equity & Incl Idx	36	↑	0	0.06	0.14	-	-	Y	L	
ITAN	Sparkline Intangible Value ETF	35	↑	0	0.27	0.50	-	Y	-	N	
RSHO	Tema American Reshoring ETF	35	↑	0	0.98	0.75	-	Y	-	N	
LCF	Touchstone US LC Focused ETF	35	0	0.21	0.70	-	Y	-	-	N	
DEMZ	Democratic LC Core	35	0	0.21	0.45	-	-	-	-	N	
GFGF	Guru Favorite Stocks ETF	31	↓	0	0.25	0.65	-	Y	-	N	
TRFK	Pacer Data And Digital Revolution ETF	30	↑	1	0.21	0.60	-	-	-	N	
ECLN	First Trust EIP Carbon Impact ETF	29	↓	0	0.45	0.97	-	Y	Y	L	
ILDR	First Trust Innovation Leaders ETF	28	↑	0	0.25	0.76	-	Y	-	N	
CCSO	Carbon Collective Climate Sol US Equity ETF	28	↑	0	0.75	0.35	-	Y	Y	N	
WFH	Direxion Work From Home	26	↓	0	0.32	0.45	-	-	-	L	
TXS	Texas Capital Texas Equity Index ETF	23	0	0.25	0.49	-	-	-	-	N	
TIME	Clockwise Capital Innovation ETF	22	↓	0	0.12	0.95	-	Y	-	L	
MAGA	Point Bridge America First ETF	21	0	0.37	0.72	-	-	-	-	L	
MOON	Direxion Moonshot Innovators	21	↓	0	0.37	0.65	-	-	-	L	
WISE	Themes Generative Artificial Intelligence ETF	20	-	0.43	0.35	-	-	-	-	L	
WEBS	Direxion Dly DJ Internet Bear 3x	19	4	0.15	1.10	-3x	-	-	-	L	
KRUZ	Unusual Whales Subversive Republican Trading	19	↑	0	0.37	0.75	-	Y	-	L	
GXTG	Global X Thematic Growth	19	↓	0	0.96	0.50	-	-	-	L	
BERZ	MicroSectors FANG & Innv-3X Inv Lev	18	↑	2	0.11	0.95	-3x	-	-	N	
FTWO	Strive Faang 2 0 ETF	17	0	0.37	0.49	-	-	-	-	N	
VRAI	Virtus Real Asset Income	17	↓	0	0.79	0.55	-	-	-	N	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Theme (Continued)											
ROKT	SPDR S&P Kensho Final Frontiers	16	0	0.25	0.45	-	-	-	-	L	
EQRR	ProShares Equities For Rising Rates	16	↓	0	0.15	0.35	-	-	-	N	
SUPP	TCW Transform Supply Chain ETF	15	0	0.06	0.75	-	Y	-	-	N	
SIMS	SPDR S&P Kensho Intelligent Structures	15	↓	0	0.30	0.45	-	-	-	L	
BKIV	BNY Mellon Innovators ETF	14	0	0.25	0.50	-	Y	-	-	N	
PJBF	PGIM Jennison Better Future ETF	14	-	0.35	0.59	-	Y	Y	-	N	
TXSS	Texas Capital Texas Small Cap Eqty Idx	13	-	0.73	0.49	-	-	-	-	N	
BKWO	BNY Mellon Women's Opp ETF	13	0	0.16	0.50	-	Y	Y	-	N	
NEWZ	StockSnpis AI-Powered Sentiment US All Cap	12	-	1.23	0.65	-	Y	-	-	N	
FFND	The Future Fund Active ETF	11	0	0.38	1.01	-	Y	-	-	N	
CLIX	ProShares Long Online/Short Stores	11	↓	0	0.20	0.65	-	-	-	L	
HLGE	Hartford Longevity Economy	10	0	0.20	0.44	-	-	-	-	N	
MOTO	SmartETFs Smart Transportation & Tech	10	↓	0	0.10	0.68	-	Y	-	N	
OOTO	Direxion Dly Travel & Vacation Bull 2X	10	↓	0	0.77	1.00	+2x	-	-	L	
RBLD	First Trust Alerian US NextGen Infrastructure ETF	9	0	0.23	0.65	-	-	-	-	L	
SSPX	Janus Henderson US Sustainable Equity ETF	9	↓	0	0.23	0.55	-	Y	Y	N	
QQQS	Invesco Nasdaq Future Gen 200 ETF	8	↑	0	0.21	0.20	-	-	-	N	
BTHM	BlackRock Future U.S. Themes ETF	7	0	0.10	0.60	-	Y	-	-	N	
VICE	AdvisorShares Vice ETF	7	↓	0	0.54	0.99	-	Y	-	L	
LRND	IQ US LC R&D Leaders	7	0	0.13	0.14	-	-	-	-	L	
GPOW	GS North American Pipelines & Power Eqty	7	0	0.51	0.55	-	-	-	-	N	
FLYU	MicroSectors Travel 3X Leveraged ETN	6	0	0.39	0.95	+3x	-	-	-	N	
VERS	ProShares Metaverse	6	0	0.17	0.58	-	Y	-	-	L	
QQQU	Direxion Daily Concentrated QS Bull 2x Shares	6	-	0.25	1.07	+2x	-	-	-	N	
MOTE	VanEck Morningstar ESG Moat	6	↑	0	0.19	0.49	-	Y	-	N	
AIBU	Direxion Daily AI and Big Data Bull 2X Shares	6	-	0.37	1.07	+2x	-	-	-	N	
NSCR	Nuveen Sustainable Core ETF	6	-	0.17	0.45	-	Y	Y	-	N	
IVRA	Invesco Real Assets ESG ETF	5	↑	0	0.49	0.59	-	Y*	Y	N	
VCAR	Simplify Volt Robocar Disruption ETF	5	0	1.22	0.99	-	Y	-	-	L	
AVIE	Avantis Inflation Focused Equity ETF	5	↓	0	0.17	0.25	-	Y	-	N	
GAST	Gabelli Automation ETF	5	0	0.43	0.00	-	Y*	-	-	N	
ALAI	Alger AI Enablers & Adopters ETF	5	-	0.20	0.55	-	Y	-	-	N	
GGRW	Gabelli Growth Innovators ETF	5	↑	0	0.37	0.90	-	Y*	-	N	
EVAV	Direxion Daily Ev & AV Bull 2X Shares	5	↑	0	1.27	0.98	+2x	-	-	L	
QQQD	Direxion Daily Concentrated QS Bear 1x Shares	5	-	0.31	0.57	-1x	-	-	-	N	
ISHP	First Trust S-Network E-Commer	5	↓	0	0.54	0.60	-	-	-	L	
UPGR	Xtrackers US Green Infrastructure Select Eqty	5	0	0.32	0.35	-	-	Y	-	N	
RVRB	Reverb ETF	4	↑	0	0.36	0.30	-	Y	-	N	
CLDL	Direxion Dly Cloud Computing Bull 2X	4	↓	0	0.85	0.97	+2x	-	-	L	
CTEX	ProShares S&P Kensho Cleantech	4	↓	0	1.68	0.58	-	Y	-	L	
NVIR	Horizon Kinetics Energy Remediation ETF	4	↑	0	2.01	0.85	-	Y	Y	N	
VIRS	Pacer Biothreat	4	0	0.45	0.70	-	-	-	-	N	
UCYB	ProShares Ultra Nasdaq Cybersecurity	3	↑	0	1.17	0.95	+2x	-	-	L	
WOCM	Hypatia Women CEO ETF	3	↑	0	0.40	0.85	-	Y	Y	N	
MAGX	Roundhill Daily 2X Long Magnificent 7 ETF	3	-	0.58	0.95	+2x	Y	-	-	L	
SKYU	ProShares Ultra Nasdaq Cloud Computing	3	↑	0	0.39	0.95	+2x	-	-	L	
BWEB	Bitwise Web3 ETF	3	↑	0	0.17	0.85	-	-	-	N	
JFWD	Jacob Forward ETF	3	0	0.73	0.75	-	-	-	-	N	
NXTI	Simplify Next Intangible Core Index ETF	3	-	0.18	0.25	-	-	-	-	N	
AIBD	Direxion Daily AI and Big Data Bear 2X Shares	3	-	0.46	1.07	-2x	-	-	-	N	
FLYD	MicroSectors Travel 3X Inverse Leveraged ETN	2	↑	0	0.34	0.95	-3x	-	-	N	
FTIF	First Trust BCG Inflation Sensitive Equity ETF	2	↑	0	0.56	0.60	-	-	-	N	
SUPL	ProShares Supply Chain Logistics	2	0	1.81	0.58	-	-	-	-	L	

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Alpha (Continued)											
CWS	AdvisorShares Focused Equity ETF	151	↑	1	0.77	0.84	-	Y	-	-	L
AESR	Anfield US Equity Sector Rotation ETF	115		1	0.23	1.11	-	Y	-	-	N
UPGD	Invesco BGG Analyst Rating Improvers	110	↓	0	0.11	0.40	-	-	-	-	N
AIEQ	AI Powered Equity ETF	104		0	0.24	0.75	-	Y	-	-	L
CLSE	Convergence Long/short Equity ETF	98	↑	1	0.35	1.25	-	Y	-	-	N
FMCX	FMC Excelsior Focus Equity ETF	91		0	0.31	0.70	-	Y*	-	-	N
ABEQ	Absolute Select Value ETF	87		0	0.29	0.85	-	Y	-	-	N
MOHR	Mohr Growth ETF	66	↓	0	0.13	1.07	-	Y	-	-	N
RUFF	Alpha Dog ETF	61		0	0.34	0.90	-	Y	-	-	N
HTUS	Hull Tactical US ETF	58	↑	0	0.35	0.95	-	Y	-	-	N
MSSS	Monarch Select Subsector Index ETF	56		-	0.15	1.25	-	-	-	-	N
ZIG	The Acquirers Fund	47		0	1.10	0.79	-	Y	-	-	N
EHLS	Even Herd Long Short ETF	47		-	0.69	1.58	-	Y	-	-	N
SNV	Mohr Sector Nav ETF	44	↑	0	0.21	1.30	-	Y	-	-	N
LBAY	Leatherback Long/Short Alternative Yield ETF	44	↓	0	0.30	1.24	-	Y	-	-	N
GURU	Global X Guru Index	41	↓	0	0.30	0.75	-	-	-	-	L
SZNE	Pacer CFRA-Stovall Eq Wt Seasonal Rotatn	39	↓	0	0.17	0.60	-	-	-	-	L
KOOL	North Shore Equity Rotation ETF	34		-	0.42	0.94	-	Y	-	-	N
CBLS	Clough Hedged Equity ETF	26	↑	0	0.30	2.59	-	Y	-	-	N
FFLS	Future Fund Long/short ETF/The	22		0	0.41	1.75	-	Y	-	-	N
ATFV	Alger 35 ETF	19	↑	0	0.71	0.55	-	Y*	-	-	N
INAV	Mohr Industry Nav ETF	18		-	0.18	1.20	-	Y	-	-	N
SHRT	Gotham Short Strategies ETF	15		0	2.12	1.35	-	Y	-	-	N
LSEQ	Harbor Long-Short Equity ETF	15		-	0.54	1.70	-	Y	-	-	N
RHRX	RH Tactical Rotation ETF	14	↓	0	0.43	1.36	-	Y	-	-	N
NSCS	Nuveen SC Select ETF	7		0	0.27	0.86	-	Y*	-	-	N
INRO	Blackrock US Industry Rotation ETF	6		-	0.15	0.42	-	Y	-	-	N
Preferred/Convertible											
PFF	iShares Preferred & Income Securities	14,407		148	0.03	0.46	-	-	-	-	L
FPE	First Trust Preferred Securities and Income ETF	5,279		26	0.06	0.84	-	Y	-	-	L
PGX	Invesco Preferred	4,297		45	0.09	0.50	-	-	-	-	L
CWB	SPDR BGG Convertible Securities	3,496		38	0.04	0.40	-	-	-	-	L
PFFD	Global X US Preferred	2,346		15	0.06	0.23	-	-	-	-	L
ICVT	iShares Convertible Bond	1,960	↑	22	0.06	0.20	-	-	-	-	L
VRP	Invesco Variable Rate Preferred	1,695		9	0.07	0.50	-	-	-	-	L
PFXF	VanEck Pref. Sec. ex Fin	1,692	↑	9	0.06	0.41	-	-	-	-	L
FPEI	First Trust Institutional Pref. Sec and Income ETF	1,262	↑	6	0.07	0.85	-	Y	-	-	N
PFFA	Virtus InfraCap US Preferred Stock ETF	986	↑	6	0.17	2.52	-	Y	-	-	L
PGF	Invesco Financial Preferred	902		3	0.07	0.56	-	-	-	-	L
PREF	Principal Spectrum Preferred Sec Active ETF	879	↑	4	0.09	0.55	-	Y	-	-	N
PSK	SPDR ICE Preferred Securities	784		4	0.09	0.45	-	-	-	-	L
PFLD	AAM Low Dur Pref. and Income Securities	310	↑	2	0.42	0.46	-	-	-	-	N
PFFV	Global X Variable Rate Preferred	249		1	0.15	0.25	-	-	-	-	L
SPFF	Global X SuperIncome Preferred	153	↓	1	0.15	0.48	-	-	-	-	L
EPRF	Innovator S&P IG Preferred	108		0	1.34	0.47	-	-	-	-	N
PRFD	PIMCO Preferred And Capital Securities Active	94		1	0.68	0.69	-	Y	-	-	N
FCVT	First Trust ETF IV - SSI Strategic Conv. Sec ETF	89		1	0.51	0.95	-	Y	-	-	N
PFFR	Infracap REIT Preferred	79	↑	1	1.00	0.45	-	-	-	-	N
QFFF	American Century Quality Preferred ETF	73	↑	1	0.38	0.33	-	Y	-	-	L
QCON	American Century Quality Convertible Sec ETF	41	↑	0	0.29	0.33	-	Y	-	-	N
JHPI	John Hancock Preferred Income ETF	39	↑	0	1.01	0.54	-	Y	-	-	N
FPFD	Fidelity Preferred Securities & Income ETF	37		0	0.51	0.59	-	Y	-	-	N
NPFI	Nuveen Preferred And Income ETF	15		-	0.63	0.55	-	Y	-	-	N
CVRT	Calamos Convertible Equity Alternative ETF	14		0	0.32	0.69	-	Y	-	-	N
IPPP	Preferred-Plus ETF	11		0	1.94	1.27	-	Y	-	-	N
PFFL	ETRACS Monthly Pay 2x Lev Pref. Stock	10		0	1.85	0.85	+2x	-	-	-	N
Private Investments & IPOs											
BIZD	VanEck BDC Income	1,145	↑	10	0.06	11.17	-	-	-	-	L
FPX	First Trust US Equity Opp	718	↓	2	0.07	0.59	-	-	-	-	L
PSP	Invesco Global Listed Private Equity	249		1	0.72	1.06	-	-	-	-	L
IPO	Renaissance IPO	177		2	0.09	0.60	-	-	-	-	L
PBDC	Putnam BDC Income ETF	86	↑	1	0.15	6.79	-	Y	Y	-	N
SPC	Crossingbridge Pre-Merger Spac ETF	70		0	0.80	-	-	Y	-	-	L
CSD	Invesco S&P Spin-Off	61		0	0.25	0.65	-	-	-	-	L
VPC	Virtus Private Credit Strategy	52	↑	0	0.33	9.72	-	-	-	-	L
BDCX	ETRACS Quarterly Pay 1.5x Leve	35		0	0.81	0.95	+1.5x	-	-	-	N
BDCZ	ETRACS MVIS Business Developme	27		0	0.77	0.85	-	-	-	-	N
SPAQ	Horizon Kinetics Spac Active ETF	18	↑	0	2.23	0.85	-	Y	-	-	N
SPAX	Robinson Alternative Yield Pre-Merger SPAC	13	↓	0	0.75	-	-	Y	-	-	N
SPCX	SPAC & New Issue ETF	12	↓	0	0.98	1.89	-	Y	-	-	N
PEX	ProShares Global Listed Private Equity	11		0	0.49	2.79	-	-	-	-	N
SPCZ	Rivemorth Enhanced Pre-Merger SPAC ETF	5		0	0.89	-	-	Y	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active / Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Private Investments & IPOs (Continued)											
REAI	Tidal ETF Trust Intelligent Real Estate ETF	3		0	0.99	0.59	-	Y	-	-	N
LBO	WHITEWOLF Publicly Listed Private Equity ETF	2		0	0.53	0.70	-	Y	-	-	N
Single Stock											
NVDL	GraniteShares 2x Long NVDA Daily ETF	2,555	↑	645	0.05	1.15	+2x	Y	-	-	M
TSLL	Direxion Daily TSLA Bull 2X Shares	1,017	↑	151	0.14	0.96	+2x	Y	-	-	L
NVDX	T-Rex 2X Long NVIDIA Daily Target ETF	525		93	0.12	1.05	+2x	Y	-	-	L
CONL	GraniteShares 2x Long COIN Daily ETF	490	↑	70	0.27	1.15	+2x	Y	-	-	L
TSLT	T-Rex 2X Long Tesla Daily Target ETF	296		41	0.10	1.05	+2x	Y	-	-	L
NVDU	Direxion Daily NVDA Bull 2X Shares	237		32	0.20	1.04	+2x	Y	-	-	L
FBL	GraniteShares 2x Long META Daily ETF	100	↑	10	0.14	1.15	+2x	Y	-	-	L
TSLQ	AXS TSLA Bear Daily ETF	96	↑	123	0.03	1.15	-1x	Y	-	-	L
AMZU	Direxion Daily AMZN Bull 2X Shares	94	↑	9	0.13	1.06	+2x	Y	-	-	L
GGLL	Direxion Daily GOOGL Bull 2X Shares	83	↑	8	0.10	1.05	+2x	Y	-	-	L
MSFU	Direxion Daily MSFT Bull 2X Shares	83	↑	9	0.07	1.04	+2x	Y	-	-	L
AAPU	Direxion Daily AAPL Bull 2X Shares	72	↑	8	0.08	1.04	+2x	Y	-	-	L
NVDS	AXS 1.25x NVDA Bear Daily ETF	67	↑	35	0.06	1.15	-1.25x	Y	-	-	L
NVD	GraniteShares 2x Short NVDA Daily ETF	53		11	0.23	1.50	-2x	Y	-	-	L
TSLS	Direxion Daily TSLA Bear 1X Shares	46	↑	32	0.04	1.07	-1x	Y	-	-	L
TS LZ	T-Rex 2X Inverse Tesla Daily Target ETF	40		23	0.10	1.05	-2x	Y	-	-	L
AMDL	GraniteShares 2x Long AMD Daily ETF	38		-	0.29	1.15	+2x	Y	-	-	L
NVDQ	T-Rex 2X Inverse NVIDIA Daily Target ETF	28		8	0.26	1.05	-2x	Y	-	-	L
AAPD	Direxion Daily AAPL Bear 1x Shares	22	↓	5	0.05	1.06	-1x	Y	-	-	L
BABX	GraniteShares 2x Long BABA Daily ETF	19	↑	2	0.19	1.15	+2x	Y	-	-	L
TS LR	GraniteShares 2x Long TSLA Daily ETF	19	↑	3	0.13	1.50	+2x	Y	-	-	L
AAPB	GraniteShares 2x Long AAPL Daily ETF	16	↑	3	0.09	1.15	+2x	Y	-	-	L
AMZZ	GraniteShares 2x Long AMZN Daily ETF	12		-	0.09	1.15	+2x	Y	-	-	L
NVDD	Direxion Daily NVDA Bear 1X Shares	10		1	0.20	1.01	-1x	Y	-	-	L
TSDD	GraniteShares 2x Short TSLA Daily ETF	9		3	0.15	1.50	-2x	Y	-	-	L
MSFX	T-Rex 2X Long Microsoft Daily Target ETF	8		-	0.21	1.05	+2x	Y	-	-	L
GOOX	T-Rex 2X Long Alphabet Daily Target ETF	7		-	0.18	1.05	+2x	Y	-	-	L
TS L	GraniteShares 1.25 Long TSLA Daily ETF	7	↑	1	0.15	1.15	+1.25x	Y	-	-	L
MSFD	Direxion Daily MSFT Bear 1x Shares	5	↓	1	0.07	1.06	-1x	Y	-	-	L
AAPX	T-Rex 2X Long Apple Daily Target ETF	4		-	0.20	1.05	+2x	Y	-	-	L
MSFL	GraniteShares 2x Long MSFT Daily ETF	4		-	0.10	1.15	+2x	Y	-	-	L
AMZD	Direxion Daily AMZN Bear 1X Shares	3	↓	1	0.09	1.09	-1x	Y	-	-	L
GGLS	Direxion Daily Googl Bear 1x Shares	2		0	0.09	1.09	-1x	Y	-	-	L
AMDS	GraniteShares 1x Short AMD Daily ETF	1		1	0.35	1.15	-1x	Y	-	-	L
TS LH	Innovator Hedged TSLA ETF	1	↓	0	0.37	0.79	-	Y	-	-	N

Equity Sector											
Communication Services											
XLC	Comm Services Select Sector SPDR	18,421		480	0.01	0.09	-	-	-	-	M
VOX	Vanguard Communication Services	4,301		23	0.03	0.10	-	-	-	-	L
FCOM	Fidelity MSCI Comm Services Index	1,081		5	0.04	0.08	-	-	-	-	L
IYZ	iShares US Telecommunications	220		10	0.05	0.40	-	-	-	-	L
RSPC	Invesco S&P 500 Equal Weight Comm Services	68	↓	1	0.36	0.40	-	-	-	-	L
XTL	SPDR S&P Telecom	60		0	0.24	0.35	-	-	-	-	L
LTL	ProShares Ultra Telecommunications	3	↑	0	0.16	0.95	+2x	-	-	-	L

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Consumer Discretionary (Continued)										
SCC	ProShares UltraShort Consumer Services	2	↓	0	0.32	0.95	-2x	-	-	L
Consumer Staples										
XLP	Consumer Staples Select Sector SPDR Fund	15,320		959	0.01	0.09	-	-	-	H
VDC	Vanguard Consumer Staples	6,756		26	0.04	0.10	-	-	-	L
IYK	iShares US Consumer Staples	1,244	↓	8	0.03	0.40	-	-	-	L
FSTA	Fidelity MSCI Consumer Staples Index	1,085		5	0.03	0.08	-	-	-	L
FXG	First Trust Cons. Staples AlphaDEX Fund	434	↓	3	0.06	0.63	-	-	-	L
RSPG	Invesco SPX Equal Weight Consumer Staples	418	↓	2	0.05	0.40	-	-	-	L
PBJ	Invesco Food & Beverage ETF	118	↓	1	0.13	0.57	-	-	-	L
PSL	Invesco DWA Consumer Staples Momentum	84	↓	0	0.21	0.60	-	-	-	L
PSCC	Invesco S&P SC Consumer Staples	58	↓	1	0.24	0.29	-	-	-	L
FTXG	First Trust Nasdaq Food & Beverage	44	↓	1	0.08	0.60	-	-	-	L
UGE	ProShares Ultra Consumer Goods	7		0	0.26	0.95	+2x	-	-	L
SZK	ProShares UltraShort Consumer Goods	1	↓	0	0.31	0.95	-2x	-	-	L
Energy										
XLE	Energy Select Sector SPDR Fund	37,682		1,554	0.01	0.09	-	-	-	H
VDE	Vanguard Energy	9,115		71	0.02	0.10	-	-	-	L
AMLP	Alerian MLP	8,300		60	0.02	0.85	-	-	-	L
XOP	SPDR S&P O&G E&P	3,532		533	0.02	0.35	-	-	-	H
EMLP	First Trust North American Energy Infra Fund	2,532		7	0.07	0.96	-	Y	-	L
NRGU	MicroSectors US Big Oil Index 3X Lev	1,979		23	0.24	0.95	+3x	-	-	N
FENY	Fidelity MSCI Energy Index	1,878		21	0.04	0.08	-	-	-	L
OIH	VanEck Oil Services	1,865	↓	128	0.08	0.35	-	-	-	H
MLPA	Global X MLP	1,619		6	0.18	0.45	-	-	-	L
MLPX	Global X MLP & Energy Infrastructure	1,479	↑	8	0.06	0.45	-	-	-	L
IYE	iShares U.S. Energy	1,450		27	0.02	0.40	-	-	-	L
EIPI	FT Energy Income Partners Enhanced Income ETF	995		-	0.10	1.10	-	Y	-	N
IEO	iShares US O&G E&P	805		16	0.04	0.40	-	-	-	L
AMJB	Alerian MLP Index ETNs due January 28 2044	758		-	0.31	0.85	-	-	-	N
FXN	First Trust Energy AlphaDEX Fund	654		39	0.06	0.62	-	-	-	L
RSPG	Invesco S&P 500 Equal Weight Energy ETF	593		7	0.05	0.40	-	-	-	L
IGE	iShares North American Natural Resources	580	↓	6	0.03	0.41	-	-	-	L
NANR	SPDR S&P North American Nat Resources	561		2	0.11	0.35	-	-	-	L
TPYP	Tortoise North American Pipeline Fund	558		3	0.15	0.40	-	-	-	L
GUSH	Direxion Dly S&P O&G E&P Bull 2X	454	↓	34	0.06	0.97	+2x	-	-	L
FCG	First Trust Natural Gas	429	↓	7	0.04	0.60	-	-	-	L
ATMP	iPath Select MLP ETN	387	↑	1	0.22	0.95	-	-	-	L
AMZA	InfraCap MLP ETF	384		2	0.42	2.18	-	Y	-	L
DRLL	Strive US Energy ETF	367		2	0.08	0.41	-	-	-	L
ERX	Direxion Daily Energy Bull 2X Shares	350	↓	39	0.04	0.93	+2x	-	-	L
XES	SPDR S&P Oil & Gas Equipment & Services	294		11	0.11	0.35	-	-	-	L
IEZ	iShares U.S. Oil Equipment & Services	267		5	0.05	0.40	-	-	-	L
MLPB	ETRACS Alerian MLP Infra Idx Series B	240		0	0.37	0.85	-	-	-	N
FTXN	First Trust Nasdaq Oil & Gas	221	↓	2	0.06	0.60	-	-	-	L
PSCE	Invesco S&P SC Energy	182	↓	2	0.14	0.29	-	-	-	L
PXE	Invesco Dynamic Energy E&P	147	↓	1	0.09	0.60	-	-	-	L
ENFR	Alerian Energy Infrastructure	144		1	0.31	0.35	-	-	-	L
DIG	ProShares Ultra Energy	119	↓	3	0.06	0.95	+2x	-	-	L
PXJ	Invesco Oil & Gas Services ETF	102	↑	1	0.11	0.63	-	-	-	L
AMNA	ETRACS Alerian Midstream Energy Index	86		0	0.47	0.75	-	-	-	N
AMJB	ETRACS Alerian MLP Index ETN Series B	82		0	0.43	0.80	-	-	-	N
NRGD	MicroSectors US Big Oil Idx -3X Inv Lev	81		6	0.22	0.95	-3x	-	-	N
PXI	Invesco DWA Energy Momentum	76	↓	1	0.11	0.60	-	-	-	L
AMTR	ETRACS Alerian Midstream Energy TR Idx	72		0	0.48	0.75	-	-	-	N
OILU	MicroSectors O&G E&P -3X Lev	65		5	0.13	0.95	+3x	-	-	N
MLPR	ETRACS Qtrly 1.5X Lev Alerian MLP Idx	56		0	0.74	0.95	+1.5x	-	-	N
USAI	Pacer American Energy Independence	55		0	0.27	0.75	-	-	-	L
DRIP	Direxion Dly S&P O&G E&P Bear 2X	49	↑	13	0.11	1.09	-2x	-	-	L
EINC	VanEck Energy Income	48	↑	0	1.33	0.45	-	-	-	L
AMND	ETRACS Alerian Midstream Energy High Div	44		0	0.46	0.75	-	-	-	N
ERY	Direxion Daily Energy Bear 2X Shares	24	↑	7	0.05	1.08	-2x	-	-	L
DUG	ProShares UltraShort Energy	20	↑	2	0.11	0.95	-2x	-	-	L
OILD	MicroSectors O&G E&P -3X Inverse Lev	14		1	0.11	0.95	-3x	-	-	N
OILT	Texas Capital Texas Oil Index ETF	14		-	0.53	0.35	-	-	-	N
WTIU	MicroSectors Energy 3X Leveraged ETN	3		0	0.55	0.95	+3x	-	-	N
WTID	MicroSectors Energy -3X Inverse Lev ETN	2		0	0.60	0.95	-3x	-	-	N
Financials										
XLF	Financial Select Sector SPDR Fund	38,655		1,802	0.02	0.09	-	-	-	H
VFH	Vanguard Financials	9,224		47	0.03	0.10	-	-	-	L
IYF	iShares US Financials	2,666		13	0.05	0.40	-	-	-	L
KRE	SPDR S&P Regional Banking	2,376	↓	702	0.02	0.35	-	-	-	H
FAS	Direxion Daily Financial Bull 3X Shares	2,089	↓	73	0.08	0.94	+3x	-	-	M

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active, Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Financials (Continued)										
FNCL	Fidelity MSCI Financials Index	1,616		7	0.05	0.08	-	-	-	L
KBWB	Invesco KBW Bank	1,539		45	0.02	0.35	-	-	-	L
IYG	iShares U.S. Financial Services	1,325		4	0.03	0.40	-	-	-	L
KBE	SPDR S&P Bank	1,308		110	0.02	0.35	-	-	-	L
IAI	iShares US Broker-Dealers & Sec Exch	1,119	↑	10	0.09	0.40	-	-	-	L
FXO	First Trust Financial AlphaDEX Fund	882	↓	4	0.06	0.62	-	-	-	L
KIE	SPDR S&P Insurance	772		47	0.02	0.35	-	-	-	L
UYG	ProShares Ultra Financials	681		2	0.09	0.95	+2x	-	-	L
IAK	iShares U.S. Insurance	625		8	0.11	0.40	-	-	-	L
DPST	Direxion Dly Regional Banks Bull 3x	599		96	0.14	0.95	+3x	-	-	M
IAT	iShares US Regional Banks	586	↓	11	0.04	0.40	-	-	-	L
KBWD	Invesco KBW High Div Yield Financial	378		2	0.09	2.02	-	-	-	L
KBWP	Invesco KBW Property & Casualty	331	↓	3	0.18	0.35	-	-	-	L
BNKU	MicroSectors US Big Banks Idx 3X Lev	313		15	0.13	0.95	+3x	-	-	N
RSPF	Invesco S&P 500 Equal Weight Financials ETF	266	↓	1	0.26	0.40	-	-	-	L
KCE	SPDR S&P Capital Markets	233	↑	5	0.21	0.35	-	-	-	L
FAZ	Direxion Daily Financial Bear 3X Shares	135	↑	28	0.09	1.08	-3x	-	-	L
FTXO	First Trust Nasdaq Bank	110	↓	1	0.07	0.60	-	-	-	L
QABA	First Trust NASDAQ ABA Community Bank	68	↓	1	0.13	0.60	-	-	-	L
PFI	Invesco DWA Financial Momentum	57	↑	0	0.34	0.60	-	-	-	L
KBWR	Invesco KBW Regional Banking E	52	↓	0	0.73	0.35	-	-	-	L
PSCF	Invesco S&P SC Financials	18	↓	0	0.25	0.29	-	-	-	L
SKF	ProShares UltraShort Financials	15		0	0.14	0.95	-2x	-	-	L
GABF	Gabelli Financial Services Opp ETF	15	↑	0	0.27	0.00	-	Y*	-	N
SEF	ProShares Short Financials	12	↓	0	0.11	0.95	-1x	-	-	L
BNKD	MicroSectors US Big Banks -3X Inv Lev	11	↑	2	0.18	0.95	-3x	-	-	N
SKRE	Tuttle Capital Daily 2X Inverse Regional Banks	8		-	0.44	0.75	-2x	Y	-	L
FYLG	Global X Financials Covered Call & Growth ETF	3		0	1.09	0.60	-	-	-	L
Health Care										
XLV	Health Care Select Sector SPDR Fund	38,624		1,150	0.01	0.09	-	-	-	H
VHT	Vanguard Health Care	17,496		49	0.04	0.10	-	-	-	L
IBB	iShares Biotechnology	7,110		232	0.02	0.45	-	-	-	H
XBI	SPDR S&P Biotech	6,847		997	0.01	0.35	-	-	-	H
IHI	iShares U.S. Medical Devices	5,173		62	0.02	0.40	-	-	-	L
IYH	iShares U.S. Healthcare	3,298		19	0.03	0.40	-	-	-	L
FHLC	Fidelity MSCI Health Care Index	2,986		10	0.04	0.08	-	-	-	L
FXH	First Trust Health Care AlphaDEX Fund	1,254		4	0.15	0.62	-	-	-	L
FBT	First Trust NYSE Arca Biotechnology Idx	1,113	↓	4	0.15	0.56	-	-	-	L
LABU	Direxion Dly S&P Biotech Bull 3X	1,056	↑	278	0.12	0.96	+3x	-	-	M
RSPH	Invesco S&P 500 Equal Weight Health Care ETF	956		3	0.17	0.40	-	-	-	L
IHF	iShares U.S. Healthcare Providers	766	↓	5	0.06	0.40	-	-	-	L
IHE	iShares US Pharmaceuticals	677	↑	4	0.06	0.40	-	-	-	L
PPH	VanEck Pharmaceutical	568		12	0.03	0.36	-	-	-	L
BBH	VanEck Biotech	432		2	0.11	0.35	-	-	-	L
PJP	Invesco Pharmaceuticals ETF	268		2	0.11	0.57	-	-	-	L
XHE	SPDR S&P Health Care Equipment	256	↓	3	0.18	0.35	-	-	-	L
PBE	Invesco Biotechnology & Genome ETF	253		1	0.15	0.58	-	-	-	L
PSCH	Invesco S&P SC Health Care	204	↓	1	0.24	0.29	-	-	-	L
XPH	SPDR S&P Pharmaceuticals	195		2	0.09	0.35	-	-	-	L
PTH	Invesco DWA Healthcare Momentum	138	↓	1	0.25	0.60	-	-	-	L
LABD	Direxion Dly S&P Biotech Bear 3X	122	↑	123	0.12	1.10	-3x	-	-	L
PINK	Simplify Health Care ETF	121	↑	2	0.17	0.50	-	Y	-	L
SBIO	ALPS Medical Breakthroughs	106		0	0.38	0.50	-	-	-	L
SURI	Simplify Propel Opp ETF	98	↑	0	1.03	2.51	-	Y	-	N
BIB	ProShares Ultra Nasdaq Biotechnology	8								

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Health Care (Continued)										
RXD	ProShares UltraShort Health Care	1	0	0.47	0.95	-2x	-	-	-	L
Industrials										
XLI	Industrial Select Sector SPDR Fund	18,404	1,141	0.01	0.09	-	-	-	-	H
ITA	iShares US Aerospace & Defense	6,390	60	0.03	0.40	-	-	-	-	L
VIS	Vanguard Industrials	5,266	22	0.05	0.10	-	-	-	-	L
PPA	Invesco Aerospace & Defense	3,347	16	0.05	0.58	-	-	-	-	L
XAR	SPDR S&P Aerospace & Defense	2,170	11	0.11	0.35	-	-	-	-	L
FXR	First Trust Ind/Prodr Durabls AlphaDEX	1,918	6	0.05	0.61	-	-	-	-	L
IYJ	iShares U.S. Industrials	1,578	8	0.04	0.40	-	-	-	-	L
FIDU	Fidelity MSCI Industrials Index	1,199	5	0.05	0.08	-	-	-	-	L
IYT	iShares US Transportation	873	35	0.02	0.40	-	-	-	-	L
RSPN	Invesco S&P 500 Equal Weight Industrials ETF	705	4	0.08	0.40	-	-	-	-	L
PKB	Invesco Building & Construction ETF	404	2	0.16	0.62	-	-	-	-	L
PRN	Invesco DWA Industrials Momentum	232	1	0.33	0.60	-	-	-	-	L
PSCI	Invesco S&P SC Industrials	191	1	0.29	0.29	-	-	-	-	L
DFEN	Dirxion Dly Aerospace & Defense Bull 3X	172	7	0.11	0.97	+3x	-	-	-	L
XTN	SPDR S&P Metals & Mining	164	1	0.13	0.35	-	-	-	-	L
MSL	First Trust Indxx Aerospace & Defense ETF	67	1	0.41	0.60	-	-	-	-	L
FTXR	First Trust Nasdaq Transportation	38	0	0.12	0.60	-	-	-	-	L
DUSL	Dirxion Dly Industrials Bull 3x	34	1	0.23	1.00	+3x	-	-	-	L
UXI	ProShares Ultra Industrials	23	0	0.23	0.95	+2x	-	-	-	L
TPOR	Dirxion Dly Transportation Bull 3x	21	1	0.44	0.99	+3x	-	-	-	L
GCAD	Gabelli Commercial Aerospace a	6	0	0.38	0.00	-	Y*	-	-	N
SIJ	ProShares UltraShort Industrials	1	0	0.36	0.95	-2x	-	-	-	L
Materials										
XLB	Materials Select Sector SPDR Fund	5,502	479	0.01	0.09	-	-	-	-	M
VAW	Vanguard Materials	3,069	13	0.06	0.10	-	-	-	-	M
XME	SPDR S&P Metals & Mining	2,335	192	0.02	0.35	-	-	-	-	M
IYM	iShares U.S. Basic Materials	664	4	0.06	0.40	-	-	-	-	M
FMAT	Fidelity MSCI Materials Index	527	2	0.05	0.08	-	-	-	-	M
FXZ	First Trust Materials AlphaDEX Fund	410	3	0.07	0.62	-	-	-	-	L
RSPM	Invesco S&P 500 Equal Weight Materials ETF	294	1	0.06	0.40	-	-	-	-	L
GOAU	US Gbl GO Gold & Precious Metal Miners	102	1	0.86	0.60	-	-	-	-	L
PYZ	Invesco DWA Basic Materials Momentum	66	1	0.17	0.60	-	-	-	-	L
UYM	ProShares Ultra Materials	46	0	0.34	0.95	+2x	-	-	-	L
PSCM	Invesco S&P SC Materials	17	0	0.47	0.29	-	-	-	-	L
SMN	ProShares UltraShort Materials	1	0	0.42	0.95	-2x	-	-	-	L
Real Estate										
VNQ	Vanguard Real Estate	31,931	396	0.01	0.12	-	-	-	-	L
SCHH	Schwab U.S. REIT	6,331	66	0.05	0.07	-	-	-	-	L
XLRE	Real Estate Select Sector SPDR Fund	5,834	285	0.03	0.09	-	-	-	-	L
IYR	iShares U.S. Real Estate	2,880	591	0.01	0.40	-	-	-	-	H
USRT	iShares Core US REIT	2,356	14	0.04	0.08	-	-	-	-	L
ICF	iShares Cohen & Steers REIT	2,000	9	0.04	0.33	-	-	-	-	L
RWR	SPDR Dow Jones REIT	1,378	31	0.04	0.25	-	-	-	-	L
DFAR	Dimensional US Real Estate ETF	1,001	5	0.07	0.19	-	Y	-	-	L
FREL	Fidelity MSCI Real Estate Index	914	5	0.05	0.08	-	-	-	-	L
BBZ	JPMorgan BetaBuilders MSCI US REIT	806	2	0.07	0.11	-	-	-	-	L
REZ	iShares Residential & Multisector RE	634	3	0.08	0.48	-	-	-	-	L
REM	iShares Mortgage Real Estate	604	8	0.05	0.48	-	-	-	-	L
SRVR	Pacer Benchmark Data & Infra RE Sctr	443	2	0.13	0.55	-	-	-	-	L
JPRE	JPMorgan Realty Income ETF	346	1	0.09	0.50	-	Y	-	-	N
MORT	VanEck Mortgage REIT Income	269	3	0.10	0.43	-	-	-	-	L
INDS	Pacer Benchmark Ind RE Sctr	202	1	0.23	0.55	-	-	-	-	L
KBWY	Invesco KBW Premium Yield Equity REIT	193	1	0.08	0.35	-	-	-	-	L
ROOF	IQ US Real Estate SC	145	1	0.35	0.60	-	-	-	-	N
PPTY	US Diversified Real Estate	124	0	0.25	0.53	-	-	-	-	N
RSPR	Invesco S&P 500 Equal Weight Real Estate ETF	115	1	0.65	0.40	-	-	-	-	L
FRI	First Trust S&P REIT Index Fund	115	1	0.07	0.50	-	-	-	-	L
DRV	Dirxion Dly Real Estate Bear 3X	93	9	0.11	1.10	-3x	-	-	-	L
DRN	Dirxion Dly Real Estate Bull 3X	70	8	0.13	1.01	+3x	-	-	-	L
RIET	Hoya Capital High Dividend Yield	65	1	0.22	0.50	-	-	-	-	L
PSR	Invesco Active US Real Estate Fund	61	1	0.13	0.35	-	Y	-	-	L
URE	ProShares Ultra Real Estate	58	0	0.30	0.95	+2x	-	-	-	L
NETL	NETLease Corporate Real Estate	52	0	1.02	0.60	-	-	-	-	L
NURE	Nuveen Short-Term REIT	47	0	0.19	0.36	-	-	-	-	N
RINC	AXS Real Estate Income ETF	44	0	0.48	0.89	-	-	-	-	L
SRS	ProShares UltraShort Real Estate	41	1	0.10	0.95	-2x	-	-	-	L
REIT	ALPS Active REIT ETF	25	0	0.21	0.68	-	Y	-	-	N
REK	ProShares Short Real Estate	18	1	0.16	0.95	-1x	-	-	-	L
MVRL	ETRACS Mthly Pay 1.5X Lev Mortgage REIT	17	0	0.68	0.95	+1.5x	-	-	-	N
FFRO	Fidelity Real Estate Investment ETF	12	0	0.24	0.59	-	Y*	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Real Estate (Continued)										
BYRE	Principal Real Estate Active Opp ETF	10	0	0.34	0.65	-	Y*	-	-	N
JRE	Janus Henderson U.S. Real Estate ETF	3	0	0.74	0.65	-	Y	-	-	N
CREED	Columbia Research Enhanced Real Estate ETF	3	0	1.03	0.33	-	-	-	-	N
IRET	IREIT - Marketvector Quality REIT Index ETF	2	-	1.01	0.60	-	-	-	-	N
HAUS	Residential REIT ETF	2	0	1.42	0.60	-	Y	-	-	L
DESK	VanEck Office and Commercial REIT ETF	1	0	0.20	0.50	-	-	-	-	L
Technology										
VGIT	Vanguard Information Technology	68,340	250	0.04	0.10	-	-	-	-	L
XLK	Technology Select Sector SPDR Fund	65,691	1,376	0.01	0.09	-	-	-	-	H
SMH	VanEck Semiconductor	20,266	1,921	0.01	0.35	-	-	-	-	H
IYW	iShares US Technology	17,060	118	0.01	0.40	-	-	-	-	L
SOXX	iShares Semiconductor	14,189	851	0.02	0.35	-	-	-	-	H
SOXL	Dirxion Dly Semiconductors Bull 3x	10,445	3,206	0.02	0.76	+3x	-	-	-	H
FTEC	Fidelity MSCI Information Tech Index	9,799	38	0.04	0.08	-	-	-	-	L
IGV	iShares Expanded Tech-Software Sector	5,448	263	0.01	0.41	-	-	-	-	M
IGM	iShares Expanded Tech Sector	4,555	23	0.03	0.41	-	-	-	-	L
FNGU	MicroSectors FANG+ 3X Lev due Jan 8 2038	4,464	408	0.08	0.95	+3x	-	-	-	N
RSPT	Invesco S&P 500 Equal Weight Technology ETF	3,899	18	0.03	0.40	-	-	-	-	L
QTEC	First Trust NASDAQ-100 Tech Index Fund	3,874	20	0.06	0.57	-	-	-	-	L
TECL	Dirxion Daily Technology Bull 3X Shares	3,068	192	0.02	0.94	+3x	-	-	-	L
TDIV	First Trust NASDAQ Technology Div Idx	2,495	7	0.05	0.50	-	-	-	-	L
XSD	SPDR S&P Semiconductor	1,528	12	0.14	0.35	-	-	-	-	L
FTXL	First Trust Nasdaq Semiconductor	1,497	8	0.10	0.60	-	-	-	-	L
FXL	First Trust Technology AlphaDEX Fund	1,321	4	0.08	0.62	-	-	-	-	L
USD	ProShares Ultra Semiconductors	1,002	39	0.12	0.95	+2x	-	-	-	L
PSI	Invesco Semiconductors ETF	985	4	0.10	0.57	-	-	-	-	L
XNTK	SPDR NYSE Technology	779	4	0.09	0.35	-	-	-	-	L
SOXS	Dirxion Dly Semiconductors Bear 3x	763	427	0.04	1.03	-3x	-	-	-	M
ROM	ProShares Ultra Technology	667	4	0.08	0.95	+2x	-	-	-	L
SOXQ	Invesco PHLX Semiconductor	409	8	0.06	0.19	-	-	-	-	L
PTF	Invesco DWA Technology Momentum	404	2	0.24	0.60	-	-	-	-	L
XSW	SPDR S&P Software & Services	357	2	0.10	0.35	-	-	-	-	L
PSCT	Invesco S&P SC Information Tech	328	1	0.22	0.29	-	-	-	-	L
TDV	ProShares S&P Tech Div Aristocrats	273	2	0.12	0.45	-	-	-	-	L
IETC	iShares U.S. Tech Independence Focused ETF	252	2	0.08	0.18	-	Y	-	-	L
FNGD	MicroSect FANG+ 3X Inv Lev due 01/08/38	163	43	0.06	0.95	-3x	-	-	-	N
TECS	Dirxion Daily Technology Bear 3X Shares	103	73	0.13	1.10	-3x	-	-	-	L
SHOC	Strive US Semiconductor ETF	70	1	0.09	0.40	-	-	-	-	N
TDVI	FT Vest Technology Dividend Target Income ETF	25	0	0.25	0.75	-	Y	-	-	N
XPND	First Trust Expanded Technology ETF	20	0	0.14	0.65	-	Y	-	-	L
TYLG	Global X IT Covered Call & Growth ETF	7	1	0.64	0.60	-	-	-	-	L
SSG	ProShares UltraShort Semiconductors	6	0	0.31	0.95	-2x	-	-	-	L
REW	ProShares UltraShort Technology	4	0	0.30	0.95	-2x	-	-	-	L
Utilities										
XLU	Utilities Select Sector SPDR Fund	13,792	1,101	0.01	0.09	-	-	-	-	H
VPU	Vanguard Utilities	5,732	34	0.04	0.10	-	-	-	-	L
FUTY	Fidelity MSCI Utilities Index	1,263	12	0.03	0.08	-	-	-	-	L
IDU	iShares US Utilities	1,254	7	0.05	0.40	-	-	-	-	L
RSPU	Invesco S&P 500 Equal Weight Utilities ETF	282	2	0.06	0.40	-	-	-	-	L
FXU	First Trust Utilities AlphaDEX Fund	239	2	0.05	0.64	-	-	-	-	L
UTES	Virtus Reaves Utilities ETF	108	1	0.24	0.49	-	Y	-	-	N
PUI	Invesco DWA Utilities Momentum	40	0	0.15	0.60	-	-	-	-	L
UTSL	Dirxion Daily Utilities Bull 3x Shares	39	6	0.13	0.99	+3x	-	-	-	L
UPW	ProShares Ultra Utilities	16	0	0.14	0.95	+2x	-	-	-	L
PSCU	Invesco S&P SC Utilities & Comm Svcs	14	0	0.30	0.29	-	-	-	-	N
SDP										

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Global (Broad Based) (Continued)										
SPGM	SPDR Portfolio MSCI Global Stock Market	783	↑ 3	0.11	0.09	-	-	-	-	L
KOKU	Xtrackers MSCI Kokusai Equity	576	0	0.46	0.09	-	-	-	-	N
GXUS	Goldman Sachs Marketbeta Total Intl Eqty	452	0	1.15	0.18	-	-	-	-	N
DFAW	Dimensional World Equity ETF	395	3	0.18	0.25	-	Y	-	-	N
AVGE	Avantis All Equity Markets ETF	367	↑ 2	0.12	0.23	-	Y	-	-	N
DWLD	Davis Select Worldwide ETF	315	0	1.12	0.63	-	Y	-	-	N
WWJD	Inspire International ETF	295	↑ 1	0.36	0.73	-	-	Y	-	N
SDG	iShares Trust iShares MSCI Glo	283	↓ 1	0.29	0.49	-	-	Y	-	N
HAWX	iShares Currency Hedged MSCI ACWI EX US	222	1	0.21	0.35	-	-	-	Y	N
DGT	SPDR Global Dow	205	↑ 1	0.24	0.50	-	-	-	-	L
TOK	iShares MSCI Kokusai	201	0	0.19	0.26	-	-	-	-	L
IFV	First Trust Dorsey Wright Int Focus 5	194	↓ 1	1.07	1.03	-	-	-	-	L
DINT	Davis Select International ETF	179	0	1.12	0.66	-	Y	-	-	N
ESGG	FlexShares STOXX Global ESG Select Idx	178	0	0.31	0.42	-	-	Y	-	N
JSTC	Adasina Social Justice All Cap Global ETF	171	0	1.13	0.89	-	Y	Y	-	L
DBAW	Xtrackers MSCI All World ex US Hedged Eqty	154	0	0.19	0.41	-	-	-	Y	N
NZAC	SPDR MSCI ACWI Climate Paris Aligned	112	↓ 2	0.40	0.12	-	-	Y	-	L
BLES	Inspire Global Hope ETF	108	↓ 1	0.33	0.56	-	-	Y	-	N
UMMA	Wahed Dow Jones Islamic World ETF	92	↑ 1	0.58	0.65	-	Y	Y	-	N
TOUS	T Rowe Price International Equity ETF	84	0	0.18	0.50	-	Y	-	-	N
SSXU	Day Hagan/Ned Davis Research Smart Sect Int	38	↑ 0	0.19	1.15	-	Y	-	-	N
KOCG	FIS Knights of Columbus Global Belief ETF	24	0	1.71	0.75	-	Y	Y	-	N
AVNM	Avantis All International Markets Equity ETF	20	0	0.17	0.31	-	Y	-	-	N
AVDS	Avantis International Small Cap Equity ETF	17	0	0.17	0.30	-	Y	-	-	N
NTZG	Nuveen Global Net Zero Transition ETF	6	0	0.34	0.56	-	Y	Y	-	N
GHEE	Goose Hollow Enhanced Equity ETF	3	0	0.83	1.28	-	Y	-	-	N
Global (Style)										
DFAX	Dimensional World EX US Core Equity 2 ETF	6,902	14	0.05	0.28	-	Y	-	-	L
AVDV	Avantis International SC Value ETF	6,026	↑ 20	0.13	0.36	-	Y	-	-	N
CGGR	Capital Group Growth ETF	5,729	↑ 39	0.04	0.39	-	-	-	-	L
ACVV	iShares MSCI Global Min Vol Factor	4,233	18	0.05	0.20	-	-	-	-	N
CGGO	Capital Group Global Growth Equity ETF	3,621	↑ 20	0.04	0.47	-	Y	-	-	N
JGLO	JPMorgan Global Select Equity ETF	3,053	18	0.14	0.47	-	-	-	-	N
GCOW	Pacer Global Cash Cows Dividend	1,976	13	0.05	0.60	-	-	-	-	N
EAGL	Eagle Capital Select Equity ETF	1,912	-	0.13	0.80	-	Y	-	-	N
FBCC	Fidelity Blue Chip Growth ETF	1,673	↑ 14	0.09	0.59	-	Y*	-	-	N
PID	Invesco International Div Achievers	883	↓ 3	0.14	0.53	-	-	-	-	L
GLOV	GS Activebeta World Low Vol Plus Equity	881	2	0.42	0.25	-	-	-	-	L
CCMG	CCM Global Equity ETF	872	-	0.68	0.34	-	Y	-	-	N
SDIV	Global X SuperDividend	799	5	0.07	0.58	-	-	-	-	N
SCHY	Schwab Strategic -Schwab Int Div Eqty	795	3	0.27	0.14	-	-	-	-	N
APIE	ActivePassive International Equity ETF	717	↑ 6	0.95	0.45	-	Y	-	-	N
DNL	WisdomTree Global ex-US Qly Div Gwth	644	3	0.12	0.42	-	-	-	-	L
IQDF	FlexShares International Quality Div Idx	619	1	0.11	0.47	-	-	-	-	L
FGD	First Trust DJ Global Select Div Idx	559	↓ 3	0.11	0.56	-	-	-	-	L
DWX	SPDR S&P International Dividend	439	2	0.16	0.45	-	-	-	-	L
TMFG	Motley Fool Global Opp	430	1	0.23	0.85	-	Y	-	-	N
VIDI	Vident International Equity Fund	378	1	1.34	0.61	-	-	-	-	N
CGDG	Capital Group Dividend Growers ETF	357	4	0.09	0.47	-	Y	-	-	N
FFLC	Fidelity Fundamental Large Cap Core ETF	319	↑ 2	0.13	0.38	-	Y	-	-	N
QINT	American Century Qly Diversified Int	247	1	0.23	0.39	-	-	-	-	N
WDIV	SPDR S&P Global Dividend	201	1	0.10	0.40	-	-	-	-	L
IDUB	Aplus International Enhanced Yield ETF	180	↑ 1	0.99	0.45	-	Y	-	-	L
IGTR	Innovator Gradient Tactical Rotation Strat	176	↓ 1	0.13	0.80	-	Y	-	-	N
OSEA	Harbor International Compounds ETF	160	↑ 1	0.54	0.55	-	Y	-	-	N
XCOR	FundX ETF	156	0	0.14	1.27	-	Y	-	-	N
CGIE	Capital Group International Equity ETF	143	2	0.09	0.54	-	Y	-	-	N
QWLD	SPDR MSCI World Strategic Factors	128	↑ 1	0.14	0.30	-	-	-	-	L
GLOF	iShares Global Equity Factor ETF	126	0	0.29	0.20	-	-	-	-	N
OAIM	Oneascent International Equity ETF	125	1	0.32	1.11	-	Y	Y	-	N
IDVO	Amplify Int Enhanced Dividend Income ETF	123	↑ 1	0.37	0.66	-	Y	-	-	L
INTL	Main International ETF	120	0	0.22	1.04	-	Y	-	-	N
FPAG	FPA Global Equity ETF	114	↑ 1	0.32	0.49	-	Y	-	-	N
TPIF	TIMOTHY PLAN-Timothy Plan International	108	0	0.44	0.62	-	-	-	-	N
CGV	Conductor Global Equity Value ETF	108	0	0.52	1.25	-	Y	-	-	N
GVAL	Cambria Global Value	107	↓ 0	1.36	0.70	-	Y	-	-	N
DEW	WisdomTree Global High Dividend Fund	105	0	0.15	0.58	-	-	-	-	L
FMAG	Fidelity Magellan ETF	102	↑ 1	0.11	0.59	-	Y*	-	-	N
IPKW	Invesco International BuyBack Achievers	100	1	0.28	0.55	-	-	-	-	L
PCGG	Polen Capital Global Growth ETF	100	1	0.43	0.85	-	Y	-	-	N
BINV	Brades International ETF	97	1	0.31	0.70	-	Y	-	-	N
HERD	Pacer Cash Cows Fund of Funds	95	↑ 0	0.22	0.74	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
 3 Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Global (Style) (Continued)										
CIL	Victory Int Vol Wtd	95	0	0.33	0.45	-	-	-	-	N
JIG	JPMorgan International Growth ETF	90	0	0.19	0.55	-	Y	-	-	N
FID	First Trust S&P Int Div Aristocrats	81	0	0.43	0.60	-	-	-	-	L
AVGV	Avantis All Equity Markets Value ETF	79	1	0.16	0.26	-	Y	-	-	N
DWAW	AdvisorShares Dorsey Wright FSM AC World	77	↓ 0	0.26	1.28	-	Y	-	-	N
IQDY	Flex Int Qly Div Dynamic Idx	75	↓ 0	0.18	0.47	-	-	-	-	N
AGQI	First Trust Active Global Quality Income ETF	71	1	0.12	0.85	-	Y	-	-	N
FFSM	Fidelity Fundamental Small-Mid Cap ETF	68	↑ 0	0.12	0.43	-	Y*	-	-	N
RAYD	Rayliant Quantitative Developed Market Eqty ETF	64	0	0.89	0.80	-	Y	-	-	N
GTR	WisdomTree Target Range Fund	63	0	0.60	0.70	-	Y	-	-	N
CAMX	Cambiar Aggressive Value ETF	59	0	0.42	0.59	-	Y	-	-	N
GINX	SGI Enhanced Global Income ETF	57	-	1.20	0.98	-	Y	-	-	N
TDI	Touchstone Dynamic International ETF	56	0	0.57	0.65	-	Y	-	-	N
PRAY	FIS Christian Stock Fund	54	↑ 0	1.03	0.69	-	Y	Y	-	N
RSEE	Rareview Systematic Equity ETF	51	0	0.17	1.27	+1.33x	Y	-	-	N
MVFG	Monarch Volume Factor Global Unconstrained Idx	47	-	0.11	1.25	-	-	-	-	N
TPNM	Timothy Plan Market Neutral ETF	41	↓ 0	0.31	0.65	-	Y	Y	-	N
ROMO	Strat Newfound/ReSolve Robust Eqty Mom	40	↓ 0	0.23	0.96	-	-	-	-	N
DXTX	Distillate Int Fundamental Stab. & Val	35	↑ 0	0.56	0.55	-	Y	-	-	N
WLDR	Affinity World Leaders Equity	33	↓ 0	2.06	0.67	-	-	-	-	N
MCSE	Martin Currie Sustainable Int Equity ETF	33	0	0.43	0.59	-	Y	Y	-	N
SMCP	Alphamark Actively Managed SC ETF	33	0	0.41	0.90	-	Y	-	-	N
VMOT	Alpha Architect Value Momentum Trend	28	↓ 0	0.29	1.38	-	Y	-	-	N
JDVI	John Hancock Disciplined Value Intf Select	27	-	0.25	0.69	-	Y	-	-	N
XNAV	FundX Aggressive ETF	26	0	0.15	1.30	-	Y	-	-	N
AZTD	Azfan Global Stock Selection DM SMID ETF	26	↓ 0	1.09	0.75	-	-	-	-	N
PCIG	Polen Capital International Growth ETF	26	-	1.23	0.85	-	Y	-	-	N
IQDE	Flex Int Qly Div Defensive Idx	25	↓ 0	0.24	0.47	-	-	-	-	N
GDVD	R3 Global Dividend Growth ETF	23	↑ 0	0.46	0.88	-	-	-	-	L
OVF	Overlay Shares Foreign Equity ETF	18	0	1.06	0.98	-	Y	-	-	N
JIVE	JPMorgan International Value ETF	14	0	0.33	0.55	-	Y	-	-	N
DARP	Grizzle Growth ETF	14	↑ 0	0.59	0.75	-	-	-	-	N
CBSE	Cough Select Equity ETF	14	↑ 0	0.38	0.86	-	Y	Y	-	N
HDAW	Xtrackers MSCI AW ex US Hgh Div Yld Eqty	12	0	0.20	-	-	-	-	-	N
SROI	Calamos Antetokounmpo Global Sustainable Eqty	11	0	0.27	0.95	-	Y	Y	-	N
WVID	Virtus WMC International Dividend ETF	10	0	0.17	0.49	-	Y	-	-	N
DWCR	Arrow DWA Country Rotation	8	0	0.74	1.53	-	-	-	-	N
DIVD	Altrius Global Dividend ETF	7	0	0.21	0.49	-	Y	-	-	N
ROIS	Hartford Multifactor Intl Small Company	5	-	0.56	0.49	-	-	-	Y	N
IPOS	Renaissance International IPO	5	↓ 0	1.58	0.80	-	-	-	-	L
AVNV	Avantis All International Markets Value ETF	2	0	0.21	0.34	-	Y	-	-	N
PRMN	PlanRock Market Neutral Income ETF	2	-	0.29	1.30	-	Y	-	-	N
EAFE (Broad Based)										
VEA	Vanguard FTSE Developed Markets	134,497	565	0.02	0.06	-	-	-	-	L
IEFA	iShares Core MSCI EAFE	119,283	607	0.01	0.07	-	-	-	-	L
EFA	iShares MSCI EAFE	54,361	1,189	0.01	0.33	-	-	-	-	H
SCHF	Schwab International Equity	37,957	149	0.03	0.06	-	-	-	-	L
SPDW	SPDR Portfolio Developed World ex-US	20,622	119	0.03	0.03	-	-	-	-	L
IDEV	iShares Core MSCI Int Devlpd Mkts	13,888	49	0.02	0.04	-	-	-	-	L
FNDF	Schwab Fundamental Int Large Co. Idx	13,455	36	0.03	0.25	-	-	-	-	L
SCZ	iShares MSCI EAFE SC	9,688	78	0.02	0.40	-	-	-	-	L
ESGD	iShares ESG Aware MSCI EAFE ETF	8,328	25	0.04	0.20	-	-	Y	-	L
HEFA	iShares Currency Hedged MSCI EAFE ETF	6,957	↑ 42	0.03	0.35	-	-	-	Y	L
JIRE	JPM International Research Enhanced Equity ETF	6,497	25	0.09	0.24	-				

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
International Equity											
EAFE (Broad Based) (Continued)											
PPIE	Putnam PanAgora ESG International Equity ETF	176	↑	0	0.29	0.49	-	Y	Y	-	N
AVSD	Avantis Responsible International Equity ETF	142	↑	0	0.24	0.23	-	Y	Y	-	N
HSCZ	iShares Currency Hedged MSCI EAFE SC ETF	139	↑	1	0.14	0.42	-	-	-	Y	N
RFDI	First Trust RiverFront Dynamic Developed Int ETF	127	↑	0	0.07	0.83	-	Y	-	Y	N
CVIE	Calvert International Responsible Idx ETF	103	↑	0	0.12	0.18	-	-	Y	-	L
BKCI	BNY Mellon Concentrated International ETF	77	↑	1	0.37	0.80	-	Y	-	-	N
PABD	iShares Paris-Aligned Climate MSCI World ex USA	55	-	-	0.27	0.12	-	-	Y	-	N
FEDM	Flex ESG & Climate DM ex-US Core	53	↑	0	0.51	0.12	-	-	Y	-	N
EASG	Xtrackers MSCI EAFE ESG Leaders Equity	51	↑	0	0.43	0.14	-	-	Y	-	N
EFZ	ProShares Short MSCI EAFE	21	↓	1	0.13	0.95	-1x	-	-	-	L
PJIO	PGIM Jennison International Opportunities ETF	13	-	-	0.34	0.90	-	Y	-	-	N
SPWO	SP Funds S&P World ex-US ETF	12	-	-	2.09	0.55	-	-	-	-	N
EFO	ProShares Ultra MSCI EAFE	11	↓	0	0.79	0.95	+2x	-	-	-	L
CEFA	Gbl X S&P Catholic Values Devlpd EX-US	10	↓	0	0.56	0.35	-	-	Y	-	N
ISZE	iShares MSCI Intl Size Factor ETF	5	↓	0	0.32	0.30	-	-	-	-	N
BCIL	Bancreek International Large Cap ETF	2	-	-	0.42	0.80	-	Y	-	-	N
EFU	ProShares UltraShort MSCI EAFE	1	↓	0	0.58	0.95	-2x	-	-	-	L
EAFE (Style)											
EFV	iShares MSCI EAFE Value	17,514	↑	119	0.02	0.34	-	-	-	-	L
EFG	iShares MSCI EAFE Growth	12,222	↑	63	0.08	0.36	-	-	-	-	L
IQLT	iShares MSCI Intl Qty Fctr	8,275	↑	44	0.03	0.30	-	-	-	-	L
VYMI	Vanguard International High Div Yield	7,615	↑	27	0.05	0.22	-	-	-	-	L
DFIV	Dimensional International Value ETF	7,555	↑	26	0.04	0.27	-	Y	-	-	L
EFAV	iShares MSCI EAFE Min Vol Factor	6,728	↑	39	0.02	0.22	-	-	-	-	L
VIGI	Vanguard International Div Appreciation	6,641	↑	24	0.04	0.15	-	-	-	-	L
IDV	iShares International Select Dividend	4,288	↑	23	0.04	0.51	-	-	-	-	L
GSIE	GS ActiveBeta International Equity	3,674	↑	15	0.03	0.25	-	-	-	-	L
FNDC	Schwab Fundamental Int Small Co. Idx	3,402	↑	6	0.11	0.39	-	-	-	-	L
IHDG	WisdomTree Int Hedged Quality Div Growth Fund	2,634	↑	14	0.03	0.58	-	-	Y	-	L
CGXU	Capital Group International Focus Equity ETF	2,599	↑	15	0.04	0.54	-	Y	-	-	N
DIHP	Dimensional International High Profitability ETF	2,193	↑	11	0.05	0.29	-	Y	-	-	L
IMTM	iShares MSCI Intl Mom Fctr	2,136	↑	8	0.04	0.30	-	-	-	-	L
DISV	Dimensional International SC Value ETF	1,938	↑	8	0.07	0.42	-	Y	-	-	L
VLVU	iShares MSCI Intl Value Factor ETF	1,821	↑	9	0.04	0.30	-	-	-	-	L
PXF	Invesco FTSE RAFI Devlpd Mkts ex-US	1,761	↑	3	0.41	0.45	-	-	-	-	L
HDEF	Xtrackers MSCI EAFE High Div Yield Eqly	1,566	↑	5	0.08	0.09	-	-	-	-	L
FENI	Fidelity Enhanced International ETF	1,548	↑	2	0.39	0.28	-	Y	-	-	N
ICOW	Pacer Devlpd Mkts Int Cash Cows 100	1,464	↑	12	0.04	0.65	-	-	-	-	N
RODM	Hartford MultiFctr Devlpd Mkts ex-US	1,154	↓	8	0.07	0.29	-	-	-	-	N
INTF	iShares International Equity Factor ETF	1,127	↑	4	0.23	0.15	-	-	-	-	L
DLS	WisdomTree International SC Div	1,110	↑	3	0.14	0.58	-	-	-	-	L
LVHI	Franklin Int Low Vol High Dividend Idx ETF	1,005	↑	6	0.14	0.40	-	-	Y	-	L
QDEFA	SPDR MSCI EAFE StrategicFactors	970	↑	4	0.25	0.30	-	-	-	-	L
IQDGG	WisdomTree Intl Qty Div Gwth	916	↑	5	0.05	0.42	-	-	-	-	L
DIVI	Franklin International Core Dividend Tilt Idx ETF	846	↑	5	0.17	0.09	-	-	-	Y	L
JHMD	John Hancock MultiFctr Devlpd Int	738	↑	3	0.35	0.39	-	-	-	-	N
IGRO	iShares International Dividend Growth	674	↑	2	0.31	0.15	-	-	-	-	L
ISCF	iShares MSCI Intl SC MultiFctr	559	↑	2	0.11	0.23	-	-	-	-	L
DOL	WisdomTree International LargeCap Div	531	↑	1	0.15	0.48	-	-	-	-	L
TLTD	Flex Morningstar DM ex-US Fctr Tilt Idx	495	↑	1	0.15	0.39	-	-	-	-	L
IMFL	Invesco Int Devlpd Dynamic MultiFctr	485	↑	2	0.49	0.34	-	-	-	-	N
DFSI	Dimensional Int Sustainability Core 1 ETF	427	↑	2	0.43	0.24	-	Y	Y	-	N
FDT	First Trust DM ex-US AlphaDEX	427	↓	2	0.69	0.80	-	-	-	-	L
IDLV	Invesco S&P Intl Devlpd Low Vol	403	↓	2	0.40	0.25	-	-	-	-	L
AVIV	Avantis International LC Value ETF	381	↑	2	0.15	0.25	-	Y	-	-	N
JPIN	JPMorgan Diversified Return Int Eqly	377	↓	1	0.09	0.37	-	-	-	-	L
DTH	WisdomTree - WisdomTree Intl High Div	344	↓	1	0.13	0.58	-	-	-	-	L
IDHQ	Invesco S&P Intl Devlpd Qty	306	↑	2	0.61	0.29	-	-	-	-	L
IDOG	ALPS International Sector Dividend Dogs	299	↑	1	0.33	0.50	-	-	-	-	N
DDLS	WisdomTree Dynamic Curr Hdgd Int SC Eqly	290	↑	1	0.18	0.48	-	-	Y	-	L
FYLD	Cambria Foreign Shareholder Yield	289	↑	1	0.79	0.59	-	Y	-	-	L
MPDX	PIMCO RAFI Dynamic Multi-Fctr Int Eqly	261	↑	1	0.09	0.39	-	-	-	-	N
UVM	Victory USAA MSCI Int Value Mom	233	0	0	0.14	0.35	-	-	-	-	N
IJAN	Innovator Int Developed Power Buffer - Jan	208	↑	1	0.72	0.85	-	Y	-	-	N
IDMO	Invesco S&P Intl Devlpd Mom	204	↑	2	0.18	0.25	-	-	-	-	N
IQIN	IQ 500 International	196	↑	1	0.19	0.25	-	-	-	-	N
ISVL	iShares Int Devlpd SC Value Fctr	193	0	0	0.43	0.30	-	-	-	-	N
IQSI	IQ Candriam International Equity ETF	185	↑	1	0.10	0.15	-	-	Y	-	N
YJUN	FT Vest Int Equity Buffer - Jun	162	↑	1	0.47	0.90	-	Y	-	-	N
IVAL	Alpha Architect Int Quantitative Value	155	0	0	0.53	0.39	-	Y	-	-	N
FPXI	First Trust International Equi	154	↓	1	0.57	0.70	-	-	-	-	L
IJUL	Innovator Int Developed Power Buffer - Jul	146	↑	1	0.53	0.85	-	Y	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
International Equity											
EAFE (Style) (Continued)											
FIVA	Fidelity International Value Factor	144	↑	1	0.31	0.18	-	-	-	-	L
DIM	WisdomTree International MidCap Div	138	0	0	0.17	0.58	-	-	-	-	N
PIZ	Invesco DWA Developed Markets Momentum	134	↑	1	0.49	0.80	-	-	-	-	L
IOCT	Innovator Int Developed Power Buffer - Oct	114	0	0	0.56	0.85	-	Y	-	-	N
FICS	First Trust Int Devlpd Capital Strength	111	↑	1	0.12	0.70	-	-	-	-	N
FIDI	Fidelity International High Dividend	99	0	0	0.46	0.18	-	-	-	-	L
IMOM	Alpha Architect Int Quantitative Mom	86	0	0	0.46	0.39	-	Y	-	-	N
EFAD	ProShares MSCI EAFE Dividend Growers	76	↓	0	0.26	0.50	-	-	-	-	N
AVI	WisdomTree International AI Enhanced Value Fund	76	0	0	0.20	0.58	-	Y	-	-	L
FDEV	Fidelity International Multifactor	72	↑	1	0.68	0.18	-	-	-	-	N
TTAI	FCF International Quality ETF	61	0	0	0.53	0.59	-	Y	-	-	N
DEEF	Xtrackers FTSE Devlpd ex US MultiFctr	55	↓	0	0.97	0.24	-	-	-	-	N
ISEP	Innovator Intl Developed Power Buffer ETF-Sept	47	0	0	2.05	0.85	-	Y	-	-	N
QLVD	Flex Devlpd Mkts EX-US Qty Low Vol Idx	46	↓	0	0.83	0.32	-	-	-	-	N
DWVF	WisdomTree International Multifactor Fund	38	0	0	0.15	0.38	-	Y	-	Y	N
YSEP	FT Vest Int Equity Buffer - Sep	35	0	0	0.50	0.90	-	Y	-	-	N
HDMV	First Trust Horizon Managed Vol Dev Int ETF	34	0	0	0.29	0.80	-	Y	-	-	N
CIZ	Victory Devlpd Enhanced Vol Wtd	33	↓	0	0.35	0.51	-	-	-	-	N
AADR	AdvisorShares Dorsey Wright ADR ETF	28	↓	0	0.86	1.10	-	Y	-	-	N
RODE	Hartford MultiFctr Diversified Int	19	0	0	0.77	0.29	-	-	-	-	N
CID	Victory Intl High Div Vol Wtd	18	0	0	0.30	0.45	-	-	-	-	N
IFEB	Innovator Intl Dev Power Buffer ETF - Feb	15	-	-	1.00	0.85	-	Y	-	-	N
IMAR	Innovator Intl Dev Power Buffer ETF - Mar	15	-	-	2.42	0.85	-	Y	-	-	N
IDEC	Innovator Intl Dev Power Buffer ETF - Dec	14	-	-	1.96	0.85	-	Y	-	-	N
EFAS	Global X MSCI SuperDividend EAFE	12	0	0	0.68	0.56	-	-	-	-	L
IMAY	Innovator Intl Dev Power Buffer ETF - May	10	-	-	2.04	0.85	-	Y	-	-	N
FDTS	First Trust DM ex-US SC AlphaDEX	9	0	0	0.78	0.80	-	-	-	-	N
JHID	John Hancock International High Dividend ETF	8	0	0	0.37	0.46	-	Y	-	-	N
INEQ	Columbia Sustainable Int Eqly Income	8	0	0	0.65	0.45	-	-	Y	-	N
INOV	Innovator Intl Dev Power Buffer ETF - Nov	4	0	0	0.85	-	-	Y	-	-	N
DMDV	AAM S&P Devlpd Mkts High Div Value	2	0	0	0.75	0.39	-	-	-	-	N
EAFG	Pacer Devlpd Mkts Cash Cows Grwth Leaders ETF	1	-	-	0.49	0.65	-	-	-	-	N
Emerging Markets (Broad Based)											
IEMG	iShares Core MSCI EM	77,670	↑	549	0.02	0.09	-	-	-	-	L
VVO	Vanguard FTSE EM	77,649	↑	433	0.02	0.08	-	-	-	-	L
EEM	iShares MSCI EM	18,599	↓	1,210	0.02	0.70	-	-	-	-	H
EMXC	iShares MSCI EM ex China	13,390	↑	113	0.02	0.25	-	-	-	-	L
SPEM	SPDR Portfolio EM	8,974	↑	67	0.03	0.07	-	-	-	-	L
SCHE	Schwab EM Equity	8,901	↑	34	0.04	0.11	-	-	-	-	L
AVEM	Avantis EM Equity ETF	5,627	↑	20	0.12	0.33	-	Y	-	-	L
ESGE	iShares ESG Aware MSCI EM ETF	4,151	↑	28	0.03	0.25	-	-	Y	-	L
DFEM	Dimensional EM Core Equity 2 ETF	3,750	↑	18	0.04	0.39	-	Y	-	-	N
XSOE	WisdomTree EM EX-State-Owned Ent	2,010	↑	11	0.05	0.32	-	-	Y	-	L
XCEM	Columbia EM Core ex-China	1,058	↑	6	0.24	0.16	-	-	-	-	N
EWX	SPDR S&P EM SC	742	↑	5	0.14	0.65	-	-			

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Emerging Markets (Broad Based) (Continued)										
JADE	JPM Active Developing Markets Equity ETF	14	-	0.65	-	Y	-	Y	N	
MEMS	Mathews EM Discovery Active ETF	8	-	0.26	0.89	-	Y	-	N	
EMDM	First Trust BBG EM Democracies ETF	8	↑	0	0.31	0.75	-	-	Y	N
PEMX	Putnam EM EX-China ETF	8	0	0.17	0.85	-	Y	-	-	N
KALL	KraneShares MSCI All China Index	7	0	0.34	0.49	-	-	-	-	L
AVXC	Avantis Emerging Markets ex-China Equity ETF	6	-	0.25	0.33	-	-	Y	-	N
EEV	ProShares UltraShort MSCI EM	5	↓	0	0.65	0.95	-2x	-	-	L
XXCH	Direxion Daily MSCI EM ex China Bull 2X Shrs	3	-	0.57	1.18	+2x	-	-	-	N
Emerging Markets (Style)										
FNDE	Schwab Fundamental EM Large Co. Index	5,939	18	0.04	0.39	-	-	-	-	L
EEMV	iShares MSCI EM Min Vol Factor	4,386	21	0.03	0.25	-	-	-	-	L
DFAE	Dimensional Emerging Core Equity Market ETF	3,984	↑	19	0.05	0.35	-	Y	-	N
DEM	WisdomTree EM High Dividend Fund	2,930	13	0.03	0.63	-	-	-	-	L
DGS	Wisdom Tree - WisdomTree EM SC Div	2,469	17	0.03	0.58	-	-	-	-	L
PXH	Invesco FTSE RAFI EM	1,272	5	0.07	0.49	-	-	-	-	L
JEMA	JPM ActiveBuilders EM Equity ETF	1,027	5	0.17	0.33	-	Y	-	-	N
GEM	GS ActiveBeta EM Equity	945	4	0.11	0.45	-	-	-	-	L
FRDM	Freedom 100 EM	806	↑	3	0.38	0.49	-	-	-	L
DVYE	iShares EM Dividend	719	3	0.19	0.49	-	-	-	-	L
JHEM	John Hancock Multifactor EM	684	1	0.14	0.49	-	-	-	-	N
DFEV	Dimensional EM Value ETF	643	↑	3	0.12	0.43	-	Y	-	N
EMGF	iShares MSCI EM Multifactor	641	↓	4	0.18	0.25	-	-	-	L
AVES	Avantis EM Value ETF	473	↑	3	0.24	0.36	-	Y	-	-
FEM	First Trust EM AlphaDEX Fund	455	2	0.24	0.80	-	-	-	-	L
EDIV	SPDR S&P EM Dividend	448	↑	4	0.32	0.49	-	-	-	L
EELV	Invesco S&P EM Low Vol	444	↓	4	0.21	0.29	-	-	-	L
EYLD	Cambria Emerging Shareholder Yield	413	↑	2	0.46	0.64	-	Y	-	-
FEMS	First Trust EM SC AlphaDEX Fund	330	2	0.84	0.80	-	-	-	-	L
JPEM	JPMorgan Diversified Return EM Equity	319	2	0.18	0.44	-	-	-	-	L
TLTE	Flex Morningstar EM FcF Tilt Idx	263	1	0.30	0.57	-	-	-	-	L
DFSE	Dimensional EM Sustainability Core 1 ETF	252	↑	1	0.50	0.41	-	Y	Y	-
UEVM	Victory USAA MSCI EM Value Mom	188	0	0.19	0.45	-	-	-	-	L
DEHP	Dimensional EM High Profitability	183	1	0.18	0.41	-	Y	-	-	N
EJAN	Innovator EM Power Buffer - Jan	152	↑	3	0.69	0.89	-	Y	-	-
DGRE	WisdomTree EM Quality Dividend Growth Fund	136	↑	0	0.62	0.32	-	Y	-	-
PIE	Invesco DWA EM Markets Momentum	132	↓	1	0.93	0.90	-	-	-	L
MFEM	PIMCO RAFI Dynamic Multi-Factor EM Eqty	104	0	0.17	0.49	-	-	-	-	N
ECOW	Pacer EM Cash Cows 100	103	↑	1	0.81	0.70	-	-	-	L
EJUL	Innovator EM Power Buffer - Jul	86	1	1.52	0.89	-	Y	-	-	N
FDEM	Fidelity EM Multifactor	66	↑	1	0.88	0.25	-	-	-	N
RAYE	Raylent Quantamental EM Equity ETF	50	↑	0	1.06	0.88	-	Y	-	-
SDEM	Global X MSCI SuperDividend EM	48	0	0.17	0.68	-	-	-	-	L
QEMM	SPDR MSCI EM StrategicFactors	45	0	0.40	0.30	-	-	-	-	L
FTHF	First Trust EM Human Flourishing ETF	41	0	0.48	0.75	-	-	Y	-	-
EOCT	Innovator EM Power Buffer -Oct	37	0	1.53	0.89	-	Y	-	-	N
LDEM	iShares ESG MSCI EM Leaders	34	↓	0	0.33	0.17	-	-	Y	-
RFEM	First Trust RiverFront Dynamic EM ETF	32	0	0.10	0.95	-	Y	-	Y	N
EDOG	ALPS Emerging Sector Dividend Dogs	26	0	0.41	0.60	-	-	-	-	N
EMMF	WisdomTree EM Multifactor Fund	24	↑	0	0.31	0.48	-	Y	-	Y
ROAM	Hartford Multifactor Emerging Markets	23	0	0.54	0.44	-	-	-	-	N
RNEM	EM Equity Select	18	↓	0	0.46	0.75	-	-	-	N
MEMX	Mathews EM ex China Active ETF	16	↑	0	0.23	0.79	-	Y	-	-
DIEM	Franklin EM Core	13	0	0.26	0.19	-	-	-	-	N
EMDV	ProShares MSCI EM Dividend Growers	13	0	2.57	0.60	-	-	-	-	N
QLVE	FlexShares EM Quality Low Vol Idx	12	↓	0	0.45	0.40	-	-	-	L
EEMO	Invesco S&P EM Markets Momentum	8	↑	0	0.67	0.29	-	-	-	N
EEMD	AAM S&P EM High Dividend Value	8	0	0.58	0.49	-	-	-	-	N
EMCC	Global X MSCI EM Covered Call ETF	2	0	0.63	0.60	-	-	-	-	N
Americas (Broad Based)										
BBCA	JPMorgan BetaBuilders Canada	7,228	18	0.04	0.19	-	-	-	-	L
EWZ	iShares MSCI Brazil	4,637	619	0.03	0.59	-	-	-	-	H
EWC	iShares MSCI Canada	2,555	↓	82	0.03	0.50	-	-	-	L
EWWW	iShares MSCI Mexico	2,008	↑	140	0.02	0.50	-	-	-	L
ILF	iShares Latin America 40	1,522	↑	30	0.04	0.48	-	-	-	L
FLCA	Franklin FTSE Canada	406	↑	1	0.22	0.09	-	-	-	N
ARGT	Global X MSCI Argentina	349	↑	7	0.39	0.59	-	-	-	L
EWZS	iShares MSCI Brazil SC	182	↑	7	0.15	0.59	-	-	-	L
FLBR	Franklin FTSE Brazil	158	1	0.18	0.19	-	-	-	-	L
EPU	iShares MSCI Peru	127	↓	1	0.39	0.59	-	-	-	L
BRZU	Direxion Dly MSCI Brazil Bull 2X	89	2	0.28	1.24	+2x	-	-	-	N
FLLA	Franklin FTSE Latin America	58	0	0.13	0.19	-	-	-	-	L
FLMX	Franklin FTSE Mexico	51	↑	1	0.18	0.19	-	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Americas (Broad Based) (Continued)										
GXG	Global X MSCI Colombia	47	↑	1	0.88	0.63	-	-	-	L
BRF	VanEck Brazil SC	23	0	0.72	0.70	-	-	-	-	L
MEXX	Direxion Dly MSCI Mexico Bull 3x	13	↓	0	0.92	1.25	+3x	-	-	L
BZQ	ProShares UltraShort MSCI Brazil Capped	9	0	0.74	0.95	-2x	-	-	-	L
UBR	ProShares Ultra MSCI Brazil Capped	3	↓	0	0.80	0.95	+2x	-	-	L
BRAZ	Global X Brazil Active ETF	3	0	0.57	0.75	-	-	Y	-	N
Americas (Style)										
FLN	First Trust Latin America AlphaDEX Fund	62	↓	0	0.43	0.80	-	-	-	N
FBZ	First Trust Brazil AlphaDEX Fund	6	0	0.77	0.80	-	-	-	-	L
EMEA (Broad Based)										
VGK	Vanguard FTSE Europe	20,142	163	0.01	0.09	-	-	-	-	L
BBEU	JPMorgan BetaBuilders Europe	8,173	↓	39	0.02	0.09	-	-	-	L
EZU	iShares MSCI Eurozone	7,949	119	0.02	0.51	-	-	-	-	L
IEUR	iShares Core MSCI Europe	5,106	48	0.02	0.11	-	-	-	-	L
FEZ	SPDR EURO STOXX 50	3,845	↑	66	0.02	0.29	-	-	-	L
EWU	iShares MSCI UK	2,835	65	0.03	0.50	-	-	-	-	L
HEDJ	WisdomTree Europe Hedged Equity Fund	1,944	8	0.20	0.58	-	-	-	Y	L
IEV	iShares Europe	1,758	18	0.02	0.67	-	-	-	-	L
EWL	iShares MSCI Switzerland	1,152	28	0.02	0.50	-	-	-	-	L
EWP	iShares MSCI Spain	1,050	↑	12	0.04	0.50	-	-	-	L
EWG	iShares MSCI Germany	955	↓	48	0.03	0.50	-	-	-	L
KSA	iShares MSCI Saudi Arabia	726	↓	21	0.04	0.74	-	-	-	L
FLGB	Franklin FTSE UK	725	6	0.11	0.09	-	-	-	-	N
EWQ	iShares MSCI France	652	↓	22	0.03	0.50	-	-	-	L
ECH	iShares MSCI Chile	607	9	0.21	0.59	-	-	-	-	L
DBEU	Xtrackers MSCI Europe Hedged Equity ETF	557	4	0.32	0.46	-	-	-	Y	L
EWI	iShares MSCI Italy	461	13	0.03	0.50	-	-	-	-	L
HEZU	iShares Currency Hedged MSCI Eurozone ETF	458	3	0.06	0.53	-	-	-	Y	L
EWD	iShares MSCI Sweden	371	11	0.04	0.54	-	-	-	-	L
EPOL	iShares MSCI Poland	341	5	0.05	0.59	-	-	-	-	L
SPEU	SPDR Portfolio Europe	293	↓	2	0.05	0.07	-	-	-	L
EDEN	iShares MSCI Denmark	276	2	0.41	0.53	-	-	-	-	N
EWN	iShares MSCI Netherlands	274	↓	8	0.14	0.50	-	-	-	L
TUR	iShares MSCI Turkey	254	5	0.22	0.59	-	-	-	-	L
EZA	iShares MSCI South Africa	243	7	0.20	0.59	-	-	-	-	L
GREK	Global X MSCI Greece	199	1	0.54	0.57	-	-	-	-	L
EIS	iShares MSCI Israel ETF	155	2	0.53	0.59	-	-	-	-	N
EIRL	iShares MSCI Ireland	119	1	0.33	0.50	-	-	-	-	N
IEUS	iShares MSCI Europe SC	102	↓	1	0.44	0.42	-	-	-	N
QAT	iShares MSCI Qatar	76	0	0.52	0.59	-	-	-	-	N
FLEE	Franklin FTSE Europe	74	↓	1	0.25	0.09	-	-	-	N
DAX	Global X Dax Germany	73	0	0.67	0.20	-	-	-	-	L
ISRA	VanEck Israel	70	↑	0	0.74	0.59	-	-	-	L
KWT	iShares MSCI Kuwait	70	0	0.84	0.74	-	-	-	-	N
EWO	iShares MSCI Austria	65	0	0.41	0.50	-	-	-	-	L
NORW	Global X MSCI Norway	54	0	0.77	0.51	-	-	-	-	N
FLSW	Franklin FTSE Switzerland	48	0	0.11	0.09	-	-	-	-	L
EUSC	WisdomTree Europe Hedged SC Equity Fund	47	↓	0	0.11	0.58	-	-	-	Y
EWUS	iShares MSCI UK SC	43	0	0.49	0.59	-	-	-	-	L
AFK	VanEck Africa Index	43	0	1.17	1.31	-	-	-	-	L
DBEZ	Xtrackers MSCI Eurozone Hedged Equity ETF	40	↑	0	0.12	0.45	-	-	-	Y
UAE	iShares MSCI UAE	40	0	0.54	0.59	-	-	-	-	N
HEWG	iShares Currency Hedged MSCI Germany ETF	32	↓	0	0.37	0.53	-	-	-	Y
ENOR	iShares MSCI Norway	30	0	0.42	0.53	-	-	-	-	N
EURL	Direxion Dly FTSE Europe Bull 3x	27	↓	1	0.79	1.06	+3x	-	-	L
FLGR	Franklin FTSE Germany	24	0	0.27	0.09	-	-	-	-	N
EPV	ProShares UltraShort FTSE Europe	21	↓	1	0.14					

US LISTED ETFS

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International Equity										
EMEA (Style) (Continued)										
FEUZ	First Trust Eurozone AlphaDEX Fund	18	0	0.79	0.80	-	-	-	-	L
GSEU	Goldman Sachs ActiveBeta Europe Equity	11	0	0.10	0.25	-	-	-	-	N
FGM	First Trust Germany AlphaDEX Fund	10	↓	0	0.39	0.80	-	-	-	L
EUDV	Pro - Pro MSCI Europe Div Growers	7	↓	0	0.69	0.55	-	-	-	N
FPXE	First Trust IPOX Europe Equity Opp.	4	↓	0	0.40	0.70	-	-	-	N
Asia Pacific (Broad Based)										
EWJ	iShares MSCI Japan	16,123	↑	530	0.01	0.50	-	-	-	M
BBJP	JPMorgan BetaBuilders Japan	11,697	↑	86	0.02	0.19	-	-	-	L
INDA	iShares MSCI India	10,313	↑	231	0.02	0.65	-	-	-	M
VPL	Vanguard FTSE Pacific	7,055	↓	32	0.02	0.08	-	-	-	L
MCHI	iShares MSCI China	5,628	↓	186	0.02	0.59	-	-	-	L
EWY	iShares MSCI South Korea	5,258	↑	208	0.02	0.59	-	-	-	L
DXJ	WisdomTree Japan Hedged Equity Fund	5,179	↑	105	0.01	0.48	-	-	-	L
EWT	iShares MSCI Taiwan	4,907	↑	160	0.02	0.59	-	-	-	L
FXI	iShares China LC	4,731	1,158	0.04	0.74	-	-	-	-	H
BBAX	JPM BetaBuilders Devlpd APac-ex Japan	4,695	17	0.03	0.19	-	-	-	-	L
AAJX	iShares MSCI All Country Asia ex Japan	2,426	↓	48	0.02	0.70	-	-	-	L
FLJP	Franklin FTSE Japan	2,112	↑	21	0.04	0.09	-	-	-	L
ASHR	Xtrackers Harvest CSI 300 China A-	2,050	95	0.04	0.65	-	-	-	-	M
EPP	iShares MSCI Pacific ex Japan	1,964	16	0.03	0.48	-	-	-	-	L
IPAC	iShares Core MSCI Pacific	1,925	7	0.14	0.09	-	-	-	-	L
EWA	iShares MSCI Australia	1,653	↓	58	0.04	0.50	-	-	-	L
AIA	iShares Asia 50	1,528	3	0.18	0.50	-	-	-	-	L
FLIN	Franklin FTSE India	1,107	↑	9	0.07	0.19	-	-	-	N
YINN	Direxion Daily FTSE China Bull 3X Shares	905	↑	162	0.04	1.47	+3x	-	-	M
SMIN	iShares MSCI India SC	901	↑	19	0.15	0.79	-	-	-	L
INDY	iShares India 50	863	↑	4	0.13	0.89	-	-	-	L
EWH	iShares MSCI Hong Kong	527	45	0.06	0.50	-	-	-	-	L
VNM	VanEck VIETNAM	519	6	0.09	0.70	-	-	-	-	N
GXC	SPDR S&P China	491	↓	10	0.15	0.59	-	-	-	L
EWS	iShares MSCI Singapore	433	9	0.05	0.50	-	-	-	-	L
DBJP	Xtrackers MSCI Japan Hedged Equity ETF	431	2	0.32	0.47	-	-	-	-	L
EEMA	iShares MSCI EM Asia	421	↓	3	0.44	0.49	-	-	-	L
CXSE	WisdomTree China ex-State-Owned Ent	385	↓	3	0.19	0.32	-	-	-	L
HEWJ	iShares Currency Hedged MSCI Japan ETF	377	↑	6	0.04	0.50	-	-	-	L
EIDO	iShares MSCI Indonesia	363	11	0.05	0.59	-	-	-	-	L
GMF	SPDR S&P Emerging Asia Pacific	361	1	0.20	0.49	-	-	-	-	L
CNYA	iShares MSCI China A	287	3	0.08	0.60	-	-	-	-	L
EWM	iShares MSCI Malaysia	273	8	0.05	0.50	-	-	-	-	L
THD	iShares MSCI Thailand	239	3	0.22	0.59	-	-	-	-	L
PIN	Invesco India ETF Trust	238	↑	2	0.35	0.78	-	-	-	L
FLKR	Franklin FTSE South Korea	234	↓	2	0.20	0.09	-	-	-	N
FLTW	Franklin FTSE Taiwan	234	↑	1	0.11	0.19	-	-	-	N
NFTY	First Trust India Nifty 50 Equ	223	↑	2	0.54	0.80	-	-	-	L
YANG	Direxion Daily FTSE China Bear 3X Shares	206	↑	38	0.13	1.09	-3x	-	-	L
KBA	Krane Boserer MSCI China A 50 Connect	201	↓	3	0.06	0.55	-	-	-	L
PGJ	Invesco Golden Dragon China	157	2	0.12	0.70	-	-	-	-	L
SCJ	iShares MSCI Japan SC	123	↑	3	0.10	0.50	-	-	-	L
FLCH	Franklin FTSE China	111	↑	1	0.16	0.19	-	-	-	L
EPHE	iShares MSCI Philippines	108	2	0.25	0.59	-	-	-	-	L
INDL	Direxion Daily MSCI India Bull 2X Shares	90	2	0.17	1.29	+2x	-	-	-	L
JPNX	iShares JPX Nikkei 400 Index	88	1	0.24	0.48	-	-	-	-	N
ENZL	iShares MSCI New Zealand	86	↓	1	0.50	0.50	-	-	-	L
ASIA	Mathews Pacific Tiger Active ETF	84	0	0.26	0.79	-	-	-	-	N
DXJS	WisdomTree Japan Hedged SC Equity Fund	76	↑	1	0.55	0.58	-	-	-	L
CHAU	Direxion Dly CSI300 China A Shr Bull 2X	69	↑	2	0.11	1.30	+2x	-	-	L
FLJH	Franklin FTSE Japan Hedged ETF	64	↑	1	0.13	0.09	-	-	-	L
MKOR	Mathews Korea Active ETF	61	0	0.40	0.79	-	-	-	-	N
ECNS	iShares MSCI China SC	56	0	0.29	0.59	-	-	-	-	L
FLAU	Franklin FTSE Australia	47	↑	0	0.41	0.09	-	-	-	N
ASEA	Global X FTSE Southeast Asia	44	0	0.52	0.65	-	-	-	-	L
KORU	Direxion Dly South Korea Bull 3X	33	↑	3	0.13	1.34	+3x	-	-	L
FLAX	Franklin FTSE Asia ex Japan	32	0	0.23	0.19	-	-	-	-	L
RAYJ	Rayliant SMDAM Japan Equity ETF	32	-	0.76	0.72	-	-	-	-	N
IDX	VanEck Indonesia Index	27	0	0.43	0.58	-	-	-	-	L
ASHS	Xtrackers Harvest CSI 500 China A-	21	0	0.25	0.65	-	-	-	-	L
FXP	ProShares UltraShort FTSE China 50	15	0	0.37	0.95	-2x	-	-	-	L
NDIA	Global X India Active ETF	14	0	0.69	0.76	-	-	-	-	L
VNAM	Global X MSCI VIETNAM	12	↑	0	0.75	0.55	-	-	-	N
FLHK	Franklin FTSE Hong Kong	11	↓	0	0.79	0.09	-	-	-	N
XPP	ProShares Ultra FTSE China 50	11	0	0.73	0.97	+2x	-	-	-	L
EZJ	ProShares Ultra MSCI Japan	9	0	0.58	1.17	+2x	-	-	-	L

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International Equity										
Asia Pacific (Broad Based) (Continued)										
INDE	Mathews India Active ETF	9	0	0.48	0.79	-	-	-	-	N
YXI	ProShares Short FTSE China 50	7	0	0.65	0.95	-1x	-	-	-	L
IOPP	Simplify Tara India Opportunities ETF	6	-	0.31	0.70	-	-	-	-	N
EWV	ProShares UltraShort MSCI Japan	5	↑	0	0.77	0.95	-2x	-	-	L
KEM	Kraneshares Dynamic EM Strategy ETF	4	0	0.88	0.49	-	-	-	-	L
AFTY	Pacer CSOP FTSE China A50	4	0	0.80	0.70	-	-	-	-	L
JPAN	Mathews Japan Active ETF	2	0	0.24	0.79	-	-	-	-	N
MCHS	Mathews China Discovery Active ETF	2	-	0.54	0.89	-	-	-	-	N
Asia Pacific (Style)										
EPI	WisdomTree India Earnings Fund	3,411	↑	46	0.02	0.85	-	-	-	L
EWJV	iShares MSCI Japan Value	265	3	0.16	0.15	-	-	-	-	N
DFJ	WisdomTree Japan SC Dividend Fund	244	3	0.14	0.58	-	-	-	-	L
FJP	First Trust Japan AlphaDEX Fund	205	↑	1	0.99	0.80	-	-	-	L
GLIN	VanEck India Growth Leaders	137	↑	1	0.58	0.87	-	-	-	L
MINV	Mathews Asia Innovators Active ETF	68	↓	1	0.39	0.79	-	-	-	N
DVYA	iShares Asia/Pacific Dividend	43	0	0.32	0.49	-	-	-	-	N
INDH	WisdomTree India Hedged Equity Fund	43	-	0.35	0.63	-	-	-	-	Y
RAYC	Rayliant Quantamental China Equity ETF	35	↓	0	0.31	0.80	-	-	-	N
MCH	Mathews China Active ETF	26	0	0.32	0.79	-	-	-	-	N
GSJY	Goldman Sachs ActiveBeta Japan Equity	23	↑	0	0.10	0.25	-	-	-	N
FPA	First Trust APAC ex-Japan AlphaDEX	14	↓	0	1.30	0.80	-	-	-	N
JCHI	JPMorgan Active China ETF	11	0	1.72	0.65	-	-	-	-	N
FCA	First Trust China AlphaDEX Fund	8	0	1.02	0.80	-	-	-	-	L
CGRO	CoreValues Alpha Greater China Growth ETF	8	0	1.97	0.75	-	-	-	-	N
NBCE	Neuberger Berman China Equity ETF	6	0	1.84	0.75	-	-	-	-	N
ADIV	SmartETFs Asia Pacific Dividend Builder ETF	3	0	0.55	0.78	-	-	-	-	N
KDIV	Kraneshares S&P Pan Asia Div Aristocrats ETF	3	0	1.65	0.68	-	-	-	-	L
ADVE	Mathews Asia Dividend Active ETF	2	0	0.21	0.79	-	-	-	-	N
PCCE	Polen Capital China Growth ETF	2	-	1.58	1.00	-	-	-	-	N
Sector										
GDX	VanEck Gold Miners/USA	13,669	895	0.03	0.51	-	-	-	-	H
GDXJ	VanEck Junior Gold Miners	5,248	319	0.02	0.52	-	-	-	-	M
IXN	iShares Global Tech	4,578	21	0.10	0.41	-	-	-	-	L
IXJ	iShares Global Healthcare	3,976	14	0.08	0.42	-	-	-	-	L
URA	Global X Uranium	3,620	↑	99	0.04	0.69	-	-	-	M
IXC	iShares Global Energy	3,576	↑	28	0.03	0.44	-	-	-	L
REET	iShares Global REIT	3,519	14	0.05	0.14	-	-	-	-	L
VNOJ	Vanguard Global ex-U.S. Real Estate	3,460	10	0.15	0.12	-	-	-	-	L
COPX	Global X Copper Miners	2,609	55	0.08	0.65	-	-	-	-	L
URNM	Sprott Uranium Miners	1,869	↑	41	0.32	0.75	-	-	-	M
DFGR	Dimensional Global Real Estate ETF	1,694	↑	8	0.07	0.22	-	-	-	L
EUFN	iShares MSCI Europe Financials	1,665	13	0.05	0.51	-	-	-	-	L
PICK	iShares MSCI Gbl Metals & Mining Prod	1,327	12	0.20	0.39	-	-	-	-	L
SIL	Global X Silver Miners	1,212	21	0.14	0.65	-	-	-	-	L
RWO	SPDR Dow Jones Global Real Estate	1,174	4	0.17	0.50	-	-	-	-	L
JETS	US Global Jets	1,172	↓	77	0.05	0.60	-	-	-	M
SILJ	Amplify Junior Silver Miners ETF	999	24	0.09	0.69	-	-	-	-	L
KXI	iShares Global Consumer Staples	873	↓	3	0.17	0.41	-	-	-	L
HAUZ	Xtrackers International Real Estate	702	1	0.61	0.10	-	-	-	-	L
CQQQ	Invesco China Technology	653	9	0.13	0.65	-	-	-	-	L
EXI	iShares Global Industrials	585	2	0.21	0.42	-	-	-	-	L
NUGT	Direxion Dly Gold Miners Idx Bull 2X	542	110	0.04	1.18	+2x	-	-	-	M
RING	iShares MSCI Global Gold Miners	497	3	0.26	0.39	-	-	-	-	L
AVRE	Avantis Real Estate ETF	444	↑	2	0.16	0.17	-	-	-	L
IXG	iShares Global Financials	395	↓	1	0.49	0.42	-	-	-	L
VGSR	Vert Global Sustainable Real Estate									

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International Equity										
Sector (Continued)										
WOOD	iShares Global Timber & Forestry	195	1	0.42	0.42	-	-	-	-	L
DFNL	Davis Select Financial ETF	195	0	0.75	0.64	-	Y	-	-	L
CURE	Direxion Daily Healthcare Bull 3x Shares	190	4	0.21	0.96	+3x	-	-	-	L
IBUY	Amplify Online Retail	174	↓	1	0.34	0.65	-	-	-	L
DUST	Direxion Div Gold Miners Idx Bear 2X	167	↑	47	0.13	0.99	-2x	-	-	L
JXI	iShares Global Utilities	135	1	0.17	0.43	-	-	-	-	L
SGDJ	Sprott Junior Gold Miners	124	1	0.90	0.50	-	-	-	-	L
SPRE	SP Funds S&P Global Reit Sharia	115	↑	1	0.48	0.55	-	-	-	N
FILL	iShares MSCI Global Energy Producers	114	1	0.43	0.39	-	-	-	-	L
IFGL	iShares Int Devlpd Real Estate	111	0	0.44	0.48	-	-	-	-	L
SLX	VanEck Steel	105	1	0.14	0.56	-	-	-	-	L
IZRL	ARK Israel Innovative Technology	102	0	1.28	0.49	-	-	-	-	L
JDST	Direxion Div Junior Gold Miners Bear 2X	86	↑	35	0.26	0.98	-2x	-	-	L
ITEQ	BlueStar Israel Technology	81	0	0.32	0.75	-	-	-	-	L
BOAT	Sonicshares Global Shipping	56	↑	1	0.35	0.69	-	-	-	L
KURE	Krane MSCI All China Health Care Idx	45	↓	0	1.03	0.65	-	-	-	L
GDxD	MicroSectors Gold Miners -3X Inv Lev	43	↑	8	0.25	0.95	-3x	-	-	N
CRAX	VanEck Oil Refiners	42	1	0.61	0.62	-	-	-	-	L
GOEX	Global X Gold Explorers	40	0	1.67	0.65	-	-	-	-	L
SEMI	Columbia Seligman Semiconductor and Tech ETF	40	↑	0	0.21	0.75	-	Y	-	N
INQQ	INQQ The India Internet & Commerce	38	↑	0	0.40	0.86	-	-	-	L
CARZ	First Trust S-Network Future V	38	0	0.89	0.70	-	-	-	-	L
ICOP	iShares Copper and Metals Mining ETF	37	1	0.27	0.47	-	-	-	-	L
WPS	iShares Int Devlpd Property	36	0	0.43	0.48	-	-	-	-	L
SPTE	SP Funds S&P Global Technology ETF	31	-	1.87	0.55	-	-	-	-	N
COPP	Sprott Copper Miners ETF	29	-	0.36	0.65	-	-	-	-	N
GDOC	Goldman Sachs Future Health Care Equity ETF	25	↓	0	0.35	0.75	-	Y	-	L
BLDG	Cambria Global Real Estate ETF	25	0	0.25	0.59	-	Y	-	-	N
WTRF	WisdomTree New Economy Real Es	19	↓	0	0.38	0.58	-	-	-	L
GREI	GS Future Real Estate And Infra Eqty ETF	19	↓	0	0.35	0.75	-	Y	Y	-
DTRE	First Trust Alerian Disruptive	17	↓	0	0.90	0.60	-	-	-	N
CNCR	Loncar Cancer Immunotherapy	17	0	1.05	0.79	-	-	-	-	N
SETM	Sprott Energy Transition Materials ETF	16	↑	0	1.53	0.65	-	Y	-	N
RDOG	ALPS REIT Dividend Dogs	12	↓	0	0.70	0.35	-	-	-	N
OFOF	Range Global Offshore Oil Services Index ETF	11	-	0.41	0.85	-	-	-	-	N
COAL	Range Global Coal Index ETF	10	-	0.49	0.85	-	-	-	-	N
CRIT	Optica Rare Earth & Critical Materials	9	↑	0	0.63	0.85	-	-	-	L
ERET	iShares Environmentally Aware Real Estate ETF	9	0	0.58	0.30	-	-	Y	-	N
INDF	Nifty India Financials	8	0	0.75	0.75	-	-	-	-	N
CHPS	Xtrackers Semiconductor Select Equity ETF	8	0	0.53	0.15	-	-	-	-	N
SEA	US Global Sea to Sky Cargo	7	↑	0	0.73	0.60	-	-	-	L
KTEC	KraneShares Hang Seng TECH Index	7	0	0.97	0.69	-	-	-	-	L
TCHI	iShares MSCI China Multisector Tech	7	0	0.40	0.59	-	-	-	-	L
DMAT	Gbl X s-Gbl X Disruptive Materials	7	↑	0	0.75	0.59	-	-	-	L
RITA	ETF Green SRI REITs	7	↓	0	1.16	0.50	-	Y	-	N
NBGR	Neuberger Berman Global Real Estate ETF	6	0	0.96	0.75	-	Y	-	-	N
GBLD	Invesco MSCI Green Building	6	0	0.56	0.39	-	-	Y	-	L
BMED	BlackRock Future Health ETF	4	↓	0	0.43	0.85	-	Y	-	L
JETD	MAX Airlines -3X Inverse Leveraged ETN	3	0	0.46	0.95	-3x	-	-	-	N
JETU	MAX Airlines 3X Leveraged ETN	3	0	0.47	0.95	+3x	-	-	-	N
MDEV	First Trust Indxx Medical Devices	3	↑	0	0.33	0.70	-	-	-	L
ILIT	iShares Lithium Miners and Producers ETF	3	0	0.50	0.47	-	-	-	-	L
LGHT	Langar Global Healthtech ETF	2	-	0.73	0.85	-	Y	-	-	N
AJMI	Themes Gold Miners ETF	1	-	2.21	0.35	-	-	-	-	N
GSIB	Themes Global Systemically Important Banks ETF	1	-	0.86	0.35	-	Y	-	-	N
SHPP	Pacer Industrials and Logistics ETF	1	0	0.51	0.60	-	-	-	-	N
URAX	Defiance Daily Target 2X Long Uranium ETF	1	-	0.95	+2x	Y	-	-	-	N
LNGG	Roundhill Alerian LNG ETF	1	0	0.39	0.65	-	-	-	-	L
AGMI	Themes Silver Miners ETF	1	-	0.74	0.35	-	-	-	-	N
AIRL	Themes Airlines ETF	1	-	1.85	0.35	-	-	-	-	N
Theme										
GUNR	Flex Gbl Upstream Natural Resources Idx	6,262	34	0.03	0.46	-	-	-	-	L
CIBR	First Trust NASDAQ Cybersecurity	6,113	36	0.08	0.59	-	-	-	-	L
KWEB	KraneShares CSI China Internet	5,828	637	0.03	0.69	-	-	-	-	H
IGF	iShares Global Infrastructure	3,790	20	0.06	0.41	-	-	-	-	L
XT	iShares Exponential Technologies	3,373	6	0.10	0.46	-	-	-	-	L
GNR	SPDR S&P Global Natural Resources	3,294	21	0.10	0.40	-	-	-	-	L
SKYY	First Trust Cloud Computing	2,858	15	0.06	0.60	-	-	-	-	L
BOTZ	Gbl X Robotics & AI	2,700	32	0.04	0.68	-	-	-	-	L
ICLN	iShares Global Clean Energy	2,445	↓	57	0.07	0.41	-	Y	-	L
NFRA	Flex STOXX Global Broad Infra Idx	2,253	4	0.09	0.47	-	-	-	-	L
AIQ	Global X Artificial Intelligence & Tech	1,834	↑	20	0.06	0.68	-	-	-	L

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
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³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Theme (Continued)										
HACK	Amplify Cybersecurity ETF	1,644	8	0.20	0.60	-	-	-	-	L
LIT	Global X Lithium & Battery Tech	1,462	↓	23	0.13	0.75	-	-	-	L
GRID	First NASDAQ Clean Edge Smart Grid Infra	1,421	↑	9	0.12	0.57	-	-	-	L
ARKG	ARK Genomic Revolution ETF	1,350	68	0.04	0.75	-	Y	-	-	M
ROBO	ROBO Gbl Robotics and Automation Idx	1,241	4	0.20	0.95	-	-	-	-	L
TAN	Invesco Solar	1,180	66	0.11	0.67	-	-	Y	-	M
CGW	Invesco S&P Global Water Index	991	3	0.10	0.56	-	-	-	-	L
ARKF	ARK Fintech Innovation ETF	920	↓	15	0.05	0.75	-	Y	-	L
ARKQ	ARK Autonomous Technology & Robotics ETF	831	6	0.07	0.75	-	Y	-	-	L
IHAK	iShares Cybersecurity and Tech	786	4	0.08	0.47	-	-	-	-	L
MOO	VanEck Agribusiness	775	↓	5	0.16	0.53	-	-	-	L
BUG	Global X Cybersecurity	764	6	0.18	0.50	-	-	-	-	L
IRBO	iShares Robotics & AI Multisector	662	↑	4	0.20	0.47	-	-	-	L
INFL	Horizon Kinetics Inflation Beneficiaries ETF	651	↓	5	0.19	0.85	-	Y	-	L
BLOK	Amplify Transformational Data Sharing ETF	648	8	0.22	0.76	-	Y	-	-	L
FIVG	Defiance Next Gen Connectivity	564	↓	2	0.06	0.30	-	-	-	L
DRIV	Global X Autonomous & Electric Vehicles	553	↓	3	0.29	0.68	-	-	-	L
ROBT	First Trust Nasdaq AI and Robotics	531	↑	3	0.12	0.65	-	-	-	L
CLOU	Global X Cloud Computing	451	↓	5	0.06	0.68	-	-	-	L
GII	SPDR S&P Global Infrastructure	416	↓	1	0.14	0.40	-	-	-	L
METV	Roundhill Ball Metaverse	386	↓	3	0.09	0.59	-	-	-	L
NXTG	First Trust Indxx NexIG	381	↓	1	0.32	0.70	-	-	-	L
EMQQ	EM Internet and Ecommerce	377	↓	3	0.20	0.86	-	-	-	L
GINN	Goldman Sachs Innovate Equity	349	1	0.23	0.52	-	-	-	-	L
IGPT	Invesco AI and Next Gen Software ETF	330	↑	2	0.39	0.60	-	-	-	L
CWEB	Direxion Div CSI China Internet Bull 2x	325	23	0.12	1.28	+2x	-	-	-	L
FWD	AB Disruptors ETF	323	↑	1	0.22	0.65	-	Y	-	N
IPAY	Amplify Mobile Payments ETF	302	↓	2	0.27	0.75	-	-	-	L
INCO	Columbia India Consumer	301	↑	3	0.24	0.75	-	-	-	L
FINX	Global X FinTech	296	↓	2	0.41	0.68	-	-	-	L
PIO	Invesco Global Water	282	0	0.57	0.75	-	-	Y	-	L
SNSR	Global X Internet of Things	278	↓	1	0.60	0.68	-	-	-	L
QUTM	Defiance Quantum	275	↑	2	0.08	0.40	-	-	-	L
WTAI	WisdomTree AI And Innovation	268	↑	4	0.10	0.45	-	-	-	L
MJ	ETFMG Alternative Harvest	258	11	0.27	0.78	-	-	-	-	L
ESPO	VanEck Video Gaming and eSports	248	↓	1	0.44	0.56	-	-	-	L
ARKX	ARK Space Exploration & Innovation ETF	241	1	0.13	0.75	-	Y	-	-	L
IDRV	iShares Self-Driving EV and Tech	233	↓	2	0.27	0.47	-	-	-	L
MOTI	VanEck Morningstar International Moat	232	1	0.87	0.58	-	-	-	-	N
SHLD	Global X Defense Tech ETF	231	2	0.21	0.50	-	-	-	-	N
CNRG	SPDR S&P Kensho Clean Power	211	↓	1	0.15	0.45	-	Y	-	L
FAN	First Trust Global Wind Energy	207	↓	1	0.25	0.60	-	-	Y	-
FTRI	First Trust Indxx Gbl Natural Res. Inc	190	↓	1	0.15	0.70	-	-	-	L
ERTH	Invesco MSCI Sustainable Future	186	↓	1	0.33	0.62	-	Y	-	L
GRW	TCW Compounding ETF	186	0	0.24	0.75	-	Y	-	-	N
THNQ	Robo Global Artificial Intelligence	176	↑	1	0.59	0.68	-	-	-	L
GTEK	The GS Future Tech Leaders Equity ETF	174	↓	0	0.42	0.75	-	Y	-	L
CHAT	Roundhill Generative AI & Technology ETF	167	↑	3	0.18	0.75	-	Y	-	L
EMC	Global X EM Consumer ETF	156	↓	1	0.15	0.75	-	Y	-	N
FDTX	Fidelity Disruptive Technology ETF	148	1	0.19	0.50	-	Y	-	-	N
SMOG	VanEck Low Carbon Energy	145	0	1.42	0.61	-	-	Y	-	L
SOCL	Global X Social Media	143	1	1.09	0.65	-	-	-	-	L
HAP	VanEck Natural Resources	142	1	0.20	0.43	-	-	-	-	L
BKCH	Global X Blockchain	140	4	0.53	0.50	-	-	-	-	L
IDNA	iShares Genomics Immunology and HC	139								

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Theme (Continued)										
TOGA	Tremblant Global ETF	96	-	0.58	0.69	-	Y	-	-	N
GNOM	Global X Genomics & Biotechnology	93	↓	1	0.15	0.50	-	-	-	L
FDIG	Fidelity Covington-Crypto Ind & Dig Pay	91	↑	2	1.42	0.39	-	-	-	L
WCBR	WisdomTree Cybersecurity Fund	88	↑	2	0.13	0.45	-	-	-	L
BATT	Amplify Lithium & Battery Tech	85	↓	1	0.51	0.59	-	-	-	L
BETZ	Roundhill Sports Betting & iGaming	82	↓	0	0.35	0.75	-	-	-	L
AWAY	ETFMG Travel Tech	81	↓	0	0.61	0.75	-	-	-	L
RAAX	VanEck Inflation Allocation ETF	81	↓	1	0.66	0.77	-	Y	-	L
FLCL	Fidelity Cloud Computing	75	↑	1	0.44	0.39	-	-	-	L
PAWZ	ProShares Pet Care	71	↓	0	0.59	0.50	-	-	-	L
DTCR	Global X Data Center & Digital Infrastructure ETF	70	↑	1	0.59	0.50	-	-	-	L
BLCN	Siren Nasdaq NexGen Economy	69	↓	1	0.68	-	-	-	-	L
EBIZ	Global X E-Commerce	68	0	0.44	0.50	-	-	-	-	L
WUCT	ETRACS Whitney U.S. Critical Tech Idx ETN	65	0	0.55	-	-	-	-	N	
AGNG	Global X Aging Population	61	0	0.38	0.50	-	-	-	-	L
GBUY	Goldman Sachs Future Consumer Equity ETF	60	↓	1	0.88	0.75	-	Y	-	N
ECON	Columbia EM Consumer	59	0	0.43	0.49	-	-	-	-	L
KGRN	KraneShares MSCI China Clean Tech Idx	58	0	1.01	0.79	-	-	Y	-	L
HTEC	ROBO Gbl R HealthCare Tech & innovatn	58	↓	0	0.15	0.68	-	-	-	L
NXTE	AXS Green Alpha ETF	56	↓	0	0.71	1.00	-	Y	Y	L
CRPT	First Trust SkyBridge Crypto Industry and Digi Eco	56	↑	1	2.55	0.85	-	Y	-	L
CUT	Invesco MSCI Global Timber	55	0	0.72	0.61	-	-	-	-	L
LOUP	Innovator Loup Frontier Tech	55	0	0.67	0.70	-	-	-	-	L
EBLU	Ecofin Global Water ESG Fund	54	0	1.10	0.40	-	-	Y	-	L
MBNR	American Beacon GLG Natural Resources ETF	52	-	0.87	0.75	-	-	-	-	N
CTEC	Global X CleanTech	52	↓	0	0.84	0.50	-	-	Y	-
FDCF	Fidelity Disruptive Communications ETF	51	0	0.20	0.50	-	Y	-	-	N
HYDR	Global X Hydrogen	51	↑	1	0.81	0.50	-	-	Y	-
YOLO	AdvisorShares Pure Cannabis ETF	48	0	1.25	1.03	-	Y	-	-	L
EDOC	Global X Telemedicine & Digital Health	46	↓	0	0.83	0.68	-	-	-	L
DFRA	Donoghue Fortines Yld Enh Real Asset	45	↓	0	0.59	0.69	-	-	-	N
GSFP	The Goldman Sachs Future Planet Equity ETF	44	↓	0	0.42	0.75	-	Y	Y	-
FDFF	Fidelity Disruptive Finance ETF	43	0	0.22	0.50	-	-	Y	-	N
RNRG	Global X Renewable Energy Producers	41	↓	0	0.74	0.65	-	-	Y	-
KNCT	Invesco Next Gen Connectivity ETF	40	0	0.50	0.40	-	-	-	-	L
GAMR	WedbushMG Video Game Tech	39	↓	0	0.75	-	-	-	-	L
STCE	Schwab Crypto Thematic ETF	39	↑	1	0.22	0.30	-	-	-	L
BJK	VanEck Gaming	38	↓	0	1.33	0.72	-	-	-	L
UBOT	Direxion Dly Robo AI & Autmth Bull 2X	37	↑	1	0.60	1.38	+2x	-	-	-
FDRV	Fidelity EV and Future Transportation	35	0	0.52	0.39	-	-	-	-	L
SAGP	Strategas Global Policy Opp ETF	35	0	0.36	0.65	-	Y	-	-	N
CNBS	Amplify Seymour Cannabis ETF	33	0	1.08	0.77	-	Y	-	-	L
GMGE	Invesco Next Gen Media and Gaming ETF	32	↓	0	0.45	0.60	-	-	-	L
FMET	Fidelity Metaverse	32	↑	0	0.43	0.39	-	-	-	L
UFO	Procore Space	32	↓	0	0.72	0.75	-	-	-	L
NBCT	Neuberger Berman Carbon Transition & Infra	31	0	0.23	0.55	-	Y	Y	-	N
INNO	Harbor Disruptive Innovation ETF	31	0	0.53	0.75	-	Y	-	-	L
BKGI	BNY Mellon Global Infrastructure Income ETF	30	↑	0	0.74	0.65	-	Y	-	N
GMET	VanEck Green Metals	30	↑	0	0.34	0.66	-	-	Y	-
WUGI	AXS Esoterica NEXTG Economy ETF	29	0	0.57	0.75	-	Y	-	-	N
FRNW	Fidelity Clean Energy	29	0	0.54	0.39	-	-	Y	-	L
CRUZ	Defiance Hotel Airline and Cruise	29	↓	0	0.34	0.45	-	-	-	L
IVES	Amplify Global Cloud Technology ETF	29	0	0.77	0.68	-	-	-	-	L
CLIA	Verdian Climate Action ETF	28	↑	0	0.87	0.85	-	Y	Y	-
FDNI	First Trust Dow Jones Int Internet	28	0	0.43	0.65	-	-	-	-	L
FMQQ	FMQQ The Next Frontier Internet & Ecomm	27	↑	0	0.48	0.86	-	-	-	N
BITS	Global X Blockchain & Bitcoin Strat	26	1	0.88	0.65	-	Y	-	-	L
BLLD	JPM Sustainable Infrastructure ETF	26	↑	0	0.78	0.49	-	Y	Y	-
HDRO	Defiance Next Gen H2	26	0	0.83	0.30	-	-	Y	-	L
HJEN	Direxion Hydrogen	25	0	1.09	0.45	-	-	Y	-	L
TEMP	JPMorgan Climate Change Solutions ETF	25	0	0.21	0.49	-	Y	Y	-	N
KSTR	KraneShares SSE STAR Market 50 Index	24	↓	0	0.89	0.89	-	-	-	L
DGIN	VanEck Digital India	24	↑	0	0.46	0.76	-	-	-	L
MUSQ	MUSQ Global Music Industry ETF	23	0	0.49	0.78	-	-	-	-	N
EMIF	iShares EM Infrastructure	23	0	0.25	0.60	-	-	-	-	N
IQM	Franklin Intelligent Machines ETF	21	↑	0	0.40	0.50	-	Y	-	L
IBLC	iShares Blockchain And Tech	19	↑	1	0.26	0.47	-	-	-	L
NERD	Roundhill Video Games ETF	19	↓	0	0.44	0.50	-	-	-	L
NBDS	Neuberger Berman Disruptors ETF	18	↑	0	0.20	0.55	-	Y	-	N
BTEK	BlackRock Future Tech ETF	16	0	0.34	0.88	-	Y	-	-	L
NIKL	Sprott Nickel Miners ETF	16	↑	0	1.03	0.75	-	-	-	N
KEMQ	KraneShares EM Consumer Tech Index	15	0	0.54	0.60	-	-	-	-	L

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
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International Equity										
Theme (Continued)										
CNXT	VanEck ChiNext	15	0	0.32	0.65	-	-	-	-	L
MOTG	VanEck Morningstar Global Wide Moat	15	↓	0	0.15	0.52	-	-	-	N
COPJ	Sprott Junior Copper Miners ETF	13	↑	0	1.54	0.78	-	-	-	N
NDIV	Amplify Natural Resources Dividend Income ETF	13	↑	0	0.53	0.59	-	-	-	N
GCLN	GS BBG Clean Energy Equity	12	↑	0	1.01	0.45	-	-	Y	-
NRES	Xtrackers RREEF Global Natural Resources ETF	12	-	0.27	0.45	-	Y	-	-	N
HEAT	Touchstone Climate Transition ETF	12	0	0.48	0.69	-	Y	Y	-	N
IBOT	VanEck Robotics ETF	11	↑	0	0.34	0.47	-	-	-	N
TOKE	Cambria Cannabis ETF	11	0	0.42	-	-	Y	-	-	L
BUYZ	Franklin Disruptive Commerce ETF	11	0	0.38	0.50	-	Y	-	-	L
AQWA	Global X Clean Water	10	0	0.48	0.50	-	-	Y	-	L
OZEM	Roundhill GLP-1 & Weight Loss ETF	10	-	0.59	-	-	Y	-	-	L
NRSH	Azitan N. A. Nearshoring Stock Selection	10	0	1.04	0.75	-	-	-	-	N
NUKZ	Range Nuclear Renaissance Index ETF	10	-	0.29	0.85	-	-	-	-	N
FTAG	First Trust Indxx Global Agriculture	10	↓	0	0.38	0.70	-	-	-	L
BCDF	Horizon Kinetics Blockchain Development ETF	10	↑	0	1.46	0.85	-	Y	-	N
HELX	Franklin Genomic Advancements ETF	9	0	0.35	0.50	-	Y	-	-	L
HART	IndexIQ Trust-IQ Healthy Hearts	9	0	0.31	0.45	-	-	Y	-	N
IBAT	iShares Energy Storage & Materials ETF	9	-	0.59	0.47	-	-	Y	-	N
ASET	FlexShares Real Assets Allocation Idx	9	↓	0	0.11	0.49	-	-	-	N
INFR	Clearbridge Sustainable Infrastructure ETF	8	↑	0	0.36	0.59	-	Y	Y	-
FDHT	Fidelity Digital Health	8	0	0.57	0.39	-	-	-	-	L
ANEW	ProShares MSCI Transformational Changes	8	↓	0	0.82	0.45	-	-	-	L
TOLL	Terna Monopolies and Oligopolies ETF	8	↑	0	2.48	0.75	-	Y	-	N
KFVG	Krane CICC China 5G and Semiconductor	8	↓	0	0.67	0.65	-	-	-	L
LUX	Tema Luxury ETF	8	↑	0	2.28	0.75	-	Y	-	N
DMCY	Democracy International Fund	8	↓	0	0.41	0.50	-	-	-	N
NSI	National Security Emerging Markets Index ETF	8	-	0.50	1.00	-	-	-	-	N
SXUS	Janus Henderson Int Sustainable Equity ETF	7	↓	0	0.49	0.60	-	Y	Y	-
IDAT	iShares Cloud 5G and Tech	7	0	0.23	0.47	-	-	-	-	L
PWER	Macquarie Energy Transition ETF	7	0	0.25	0.79	-	Y	Y	-	N
SATO	Invesco Alerian Galaxy Crypto Economy	7	0	0.29	0.60	-	-	-	-	L
FDFF	Grayscale Future of Finance	7	0	1.59	0.70	-	-	-	-	L
EV	Mast Global Battery Recycling & Production ETF	7	-	0.66	0.65	-	-	Y	-	N
DAT	ProShares Big Data Refiners	7	↑	0	0.66	0.58	-	-	-	L
RAY5	Global X Ray	7	↑	0	0.56	0.50	-	-	Y	-
PSIL	AdvisorShares Psychedelics ETF	7	↑	0	1.16	0.99	-	Y	-	L
WRND	IQ Global Equity R&D Leaders	6	0	0.26	0.18	-	-	-	-	N
IVRS	iShares Future Metaverse Tech And Comm ETF	6	0	0.31	0.47	-	-	-	-	L
XDAT	Franklin Exponential Data ETF	6	↑	0	0.41	0.50	-	Y	-	L
WTR	iShares MSCI Water Management Multisector ETF	6	0	0.33	0.47	-	-	Y	-	N
TINY	ProShares Nanotechnology	6	↑	0	1.45	0.58	-	-	-	L
WEED	Roundhill Cannabis ETF	6	↑	0	1.85	0.40	-	Y	-	L
JRNY	ALPS Global Travel Beneficiaries	6	0	0.39	0.65	-	-	-	-	N
VLCL	Virius Duff & Phelps Clean Energy ETF	6	↑	0	0.52	0.59	-	Y	Y	-
EATV	VegTech Plant-Based Innovation & Climate ETF	6	0	0.55	0.76	-	-	Y	-	L
NBCC	Neuberger Berman Next Gen CON Consumer	6	0	0.31	0.56	-	-	Y	-	N
PSWD	Xtrackers Cybersecurity Select Equity ETF	6	0	0.38	0.20	-	-	-	-	N
SYNB	Putnam BioRevolution ETF	5	0	0.25	0.70	-	-	Y	-	N
CLNR	IQ Cleaner Transport	5	↓	0	0.35	0.45	-	-	Y	-
SOLR	SmartETFs Sustainable Energy II ETF	5	0	0.43	0.79	-	-	Y	Y	-
OCEAN	IQ Clean Oceans	5	0	0.30	0.45	-	-	Y	-	N
BILD	Macquarie Global Listed Infrastructure ETF	5	0	0.28	0.49	-	Y	-	-	N
EFRA	iShares Env Infrastructure And Industrials ETF	5	0	0.49	0.47	-	-	Y	-	N
IQRA	IQ CBRE Real Assets ETF	5	0	0.33	0.65	-	-	-	-	N

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
International Equity											
Theme (Continued)											
WNDY	Global X Wind Energy	3	↓	0	0.49	0.51	-	-	Y	-	L
KSEA	KraneShares Rockefeller Ocean Engagement ETF	3		0	0.60	0.86	-	Y	Y	-	L
KBUF	KraneShares 90% KWEB Def Outcome Jan 2026	3		1	0.31	0.95	-	Y	-	-	N
FIXT	Procure Disaster Recovery ETF	3	↑	0	1.71	0.75	-	-	-	-	N
MPVS	Amplify Thematic All-Stars	3	↓	0	0.46	0.49	-	-	-	-	L
KPRO	KraneShares 100% KWEB Def Outcome 2026	3		-	1.50	0.95	-	Y	-	-	N
RNWZ	TruShares Eagle Global Renew Energy Income	3		0	0.94	0.75	-	Y	Y	-	N
KLXY	KraneShares Global Luxury Index ETF	3		0	0.45	0.69	-	-	-	-	L
KPOP	KPOP and Korean Entertainment ETF	3	↑	0	0.93	0.75	-	-	-	-	N
WDNA	WisdomTree BioRevolution Fund	2		0	0.41	0.45	-	-	-	-	N
EKG	First Trust Nasdaq Lux. Dig. Health Sol	2	↑	0	1.31	0.65	-	-	-	-	L
ION	ProShares S&P Global Core Battery Metals ETF	2		0	1.02	0.58	-	-	-	-	L
EMFQ	Amplify EM FinTech	2		0	0.44	0.69	-	-	-	-	L
ZSB	USCF Sustainable Battery Metals Strategy Fund	2		0	0.61	-	Y	Y	-	-	N
THNR	Amplify Weight Loss Drug & Treatment ETF	2		-	0.59	-	-	-	-	-	N
LUXX	Roundhill S&P Global Luxury ETF	1		0	0.52	0.45	-	-	-	-	L
MAKX	ProShares S&P Kensho Smart Factories	1		0	0.52	0.58	-	-	-	-	L
BULD	Pacer BlueStar Engineering the Future ETF	1	↓	0	2.48	0.60	-	-	-	-	N
ODDS	Pacer BlueStar Digital Entertainment	1		0	1.77	0.60	-	-	-	-	L
CZAR	Themes Natural Monopoly ETF	1		-	2.63	0.35	-	-	-	-	N
MRAD	SmartETFs Advertising & Marketing Tech ETF	1	↓	0	0.69	0.68	-	Y	-	-	N
OND	ProShares On-Demand	1		0	0.92	0.58	-	-	-	-	L
BOTT	Themes Robotics & Automation ETF	1		-	1.26	0.35	-	-	-	-	N
FINE	Themes European Luxury ETF	0		-	1.20	0.35	-	-	-	-	N
ROYA	Tema Global Royalties ETF	0		0	0.55	0.75	-	Y	-	-	N
LNZG	Range Global LNG Ecosystem Index ETF	0		-	0.54	0.85	-	-	-	-	N

Multi-asset											
Asset Allocation											
AOR	iShares Core Growth Allocation	2,033		16	0.03	0.15	-	-	-	-	L
AOA	iShares Core Aggressive Allocation	1,902		9	0.10	0.15	-	-	-	-	L
AOM	iShares Core Moderate Allocation	1,383		7	0.07	0.15	-	-	-	-	L
NTSX	WisdomTree US Efficient Core F	1,038		4	0.24	0.20	-	Y	-	-	L
HNDL	Strategy Shares NASDAQ 7 HANDL	817	↓	2	0.30	0.96	-	-	-	-	L
PCEF	Invesco CEF Income Composite	747		3	0.10	3.08	-	-	-	-	L
RPAR	RPAR Risk Parity ETF	620	↓	2	0.13	0.50	-	Y	-	-	L
AOK	iShares Core Conservative Allocation	589		5	0.05	0.15	-	-	-	-	N
CGBL	Capital Group Core Balanced ETF	466		5	0.08	0.33	-	Y	-	-	N
QQH	HCM Defender 100 Index	449		2	0.09	1.02	-	-	-	-	N
MDIV	First Trust Multi-Asset Diversified Inc.	417		2	0.36	0.68	-	-	-	-	N
LGH	HCM Defender 500 Index	378		1	0.08	1.01	-	-	-	-	N
NTSI	WisdomTree International Efficient Core Fund	331	↑	1	0.18	0.26	-	Y	-	-	L
TBFC	The Brinsmere Fund - Conservative ETF	282		-	0.76	0.41	-	Y	-	-	N
TBFG	The Brinsmere Fund - Growth ETF	276		-	0.34	0.42	-	Y	-	-	N
AGOX	Adaptive Alpha Opp ETF	269		1	0.80	1.39	-	Y	-	-	N
TDSC	Cabana Target Drawdown 10 ETF	240	↓	3	0.10	0.83	-	Y	-	-	L
GAL	SPDR SSGA Global Allocation ETF	240		1	0.09	0.35	-	Y	-	-	L
YLD	Principal Active HY ETF	201	↑	1	0.15	0.39	-	Y	-	-	L
TUG	STF Tactical Growth ETF	189		1	0.28	0.65	-	Y	-	-	N
CLSM	Cabana Target Leading Sector Moderate ETF	179		2	0.15	0.79	-	Y	-	-	N
ADME	Aptus Drawdown Managed Equity	161	↓	1	0.20	0.79	-	Y	-	-	N
PTIN	Pacer Trendplot International	149		1	0.54	0.68	-	-	-	-	N
GDMA	Gadsden Dynamic Multi-Asset ETF	149		0	0.55	0.80	-	Y	-	-	N
GMOM	Cambria Global Momentum ETF	140	↓	0	0.63	1.06	-	Y	-	-	N
OCIO	ClearShares Ocio ETF	135		0	1.28	0.64	-	Y	-	-	N
MPRO	Monarch Procap	122	↑	0	0.05	1.25	-	-	-	-	N
IYLD	iShares Morningstar Multi-Asset Income	119		1	0.16	0.60	-	-	-	-	N
CVY	Invesco Zacks Multi-Asset Income	117		0	0.34	1.06	-	-	-	-	N
TRTY	Cambria Trinity ETF	111		0	0.80	0.49	-	Y	-	-	L
TDSB	Cabana Target Beta ETF	110	↓	1	0.13	0.83	-	Y	-	-	N
DALI	First Trust Dorsey Wright DALI 1	106	↓	1	0.20	1.07	-	-	-	-	N
RSSB	Return Stacked Global Stocks & Bonds ETF	95		-	0.54	0.56	-	Y	-	-	N
RISN	Inspire Tactical Balanced ETF	88		0	0.54	0.79	-	Y	Y	-	N
LCR	Leuthold Core ETF	86		0	0.20	0.86	-	Y	-	-	N
QVOY	Q3 All-Season Active Rotation ETF	85	↑	0	0.12	1.10	-	Y	-	-	N
UPAR	UPAR Ultra Risk Parity ETF	83	↑	0	0.97	0.65	-	Y	-	-	L
LEXI	Alexis Practical Tactical ETF	83		0	0.17	1.00	-	Y	-	-	N
MAMB	Monarch Ambassador Income	73	↑	0	0.07	1.25	-	-	-	-	N
INKM	SPDR SSGA Income Allocation ETF	70		0	0.08	0.50	-	Y	-	-	L
VEGA	AdvisorShares STAR Global Buy-Write ETF	59		0	1.32	1.71	-	Y	-	-	N
DYTA	SGI Diversified Tactical Fund/The	57	↓	1	0.60	0.95	-	Y*	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Multi-asset											
Asset Allocation (Continued)											
XRLX	FundX Conservative ETF	56		0	0.44	1.63	-	Y	-	-	N
GAA	Cambria Global Asset Allocation ETF	55		0	0.79	0.42	-	Y	-	-	N
TRND	Pacer Trendplot Fund of Funds	51		0	0.34	0.77	-	-	-	-	N
TUGN	STF Tactical Growth & Income ETF	46	↑	0	0.35	0.65	-	Y	-	-	N
DSCF	Discipline Fund ETF	41		0	1.15	0.39	-	Y	-	-	N
RULE	Adaptive Core ETF	39	↓	0	0.20	1.10	-	Y	-	-	N
ISWN	Amplify BlackSwan ISWN	38		0	2.65	0.49	-	-	-	-	N
NDOW	Any drus Advantage ETF	34		-	0.88	2.10	-	Y	-	-	N
GHTA	Goose Hollow Tactical Allocation ETF	34	↓	0	0.34	1.12	-	Y	-	-	N
FCEF	First Trust ETF VIII First Trust Income Opp ETF	33		0	0.58	3.29	-	Y	-	-	N
HISF	First Trust High Income Strategic Focus ETF	33		0	0.26	0.87	-	Y	-	-	N
TWIO	Trajan Wealth Income Opp ETF	33		0	1.46	0.85	-	Y	-	-	N
EAOA	iShares ESG Aware Aggressive Allocation	28		0	0.09	0.18	-	-	Y	-	N
FDAT	Tactical Advantage ETF	26	↑	0	2.96	0.74	-	Y	-	-	N
NTSE	WisdomTree EM Efficient Core Fund	26	↓	0	0.32	0.32	-	Y	-	-	N
ARP	PMV Adaptive Risk Parity ETF	25		0	0.28	1.42	-	Y	-	-	N
QPX	AdvisorShares Q Dynamic Growth ETF	25		0	0.21	1.51	-	Y	-	-	L
PQDI	Principal Spectrum Tax-Advantaged Div Active	24		0	0.37	0.60	-	Y	-	-	N
FIG	Simplify Macro Strat	23	↓	0	1.22	1.00	-	Y	-	-	N
GYLD	Arrow Dow Jones Global Yield	22		0	0.75	-	-	-	-	-	L
PWS	Pacer WealthShield	20	↓	0	0.31	0.60	-	-	-	-	N
CEFD	ETRACS Monthly Pay 1.5X Lev Closed-End	19		0	0.61	0.95	+1.5x	-	-	-	N
SPBC	Simplify US Equity PLUS GBTC ETF	19	↑	0	0.35	0.72	-	Y	-	-	L
EAOR	iShares ESG Aware Growth Allocation	18		0	0.10	0.18	-	-	Y	-	N
MOOD	Relative Sentiment Tactical Allocation ETF	16	↑	0	0.34	0.68	-	Y	-	-	N
ITDC	iShares LifePath Target Date 2035 ETF	11		0	0.05	0.10	-	Y	-	-	N
AVMA	Avantis Moderate Allocation ETF	11		0	0.13	0.21	-	Y	-	-	N
ITDE	iShares LifePath Target Date 2045 ETF	11		0	0.05	0.11	-	Y	-	-	N
RORO	ATAC US Rotation ETF	11		0	0.70	1.15	-	Y	-	-	N
ITDF	iShares LifePath Target Date 2050 ETF	10		0	0.05	0.11	-	Y	-	-	N
RHTX	RH Tactical Outlook ETF	10	↓	0	0.45	1.38	-	Y	-	-	N
ITDB	iShares LifePath Target Date 2030 ETF	9		0	0.05	0.09	-	Y	-	-	N
ITDD	iShares LifePath Target Date 2040 ETF	9		0	0.05	0.11	-	Y	-	-	N
EAOK	iShares ESG Aware Conservative Allocn	8		0	0.11	0.18	-	-	Y	-	N
GCEC	Claymore CEF GS Connect ETN	8		-	0.95	-	-	-	-	-	N
BPIX	Build Bond Innovation ETF	7	↓	0	0.50	-	Y	-	-	-	L
EAOM	iShares ESG Aware Moderate Allocation	6		0	0.09	0.18	-	-	Y	-	N
ITDG	iShares LifePath Target Date 2055 ETF	6		0	0.05	0.11	-	Y	-	-	N
ITDI	iShares LifePath Target Date 2065 ETF	4		0	0.05	0.11	-	Y	-	-	N
ITDH	iShares LifePath Target Date 2060 ETF	4		0	0.05	0.11	-	Y	-	-	N
MAPP	Harbor Multi-Asset Explorer ETF	4		0	0.32	0.92	-	Y	-	-	N
ITDA	iShares LifePath Target Date 2025 ETF	3		0	0.05	0.09	-	Y	-	-	N
IRTR	iShares LifePath Retirement ETF	3		0	0.05	0.08	-	Y	-	-	N
DWAT	Arrow DWA Tactical ETF	3		0	0.26	1.95	-	Y	-	-	N
MPAY	Akros Monthly Payout	3	↑	0	0.58	0.59	-	-	-	-	N
KNOW	Fundamentals First ETF	3		-	1.10	-	Y	-	-	-	N
QSWN	Amplify BlackSwan Tech & Trsry	3		0	1.87	0.49	-	-	-	-	N
ZZZ	Cyber Homet S&P 500 and Bitcoin 75/25 Strategy	2		-	0.26	0.95	-	-	-	-	L
WVI	Arch Indices VOI Absolute Income ETF	2		0	0.69	0.52	-	-	-	-	N
Liquid Aits											
DBMF	iMGP DBI Managed Futures Strat	1,038	↑	11	0.17	0.85	-	Y	-	-	L
RLY	SPDR SSGA Multi-Asset										

US LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Multi-asset										
Liquid Alts (Continued)										
PPI	AXS Astoria Inflation Sensitive ETF	62	↓	0	0.30	0.75	-	Y	-	L
FIAX	Nicholas Fixed Income Alternative ETF	61	↑	1	0.09	0.95	-	Y	-	N
MSMR	McElhenny Sheffield Managed Risk ETF	58	↑	0	0.45	0.96	-	Y	-	N
MFUL	Mindful Conservative ETF	55	↓	0	0.22	1.20	-	Y	-	N
ICAP	InfraCap Equity Income Fund ETF	53	0	0	0.52	2.96	-	Y	-	N
AHLT	American Beacon AHI Trend ETF	40	0	0	0.36	0.95	-	Y	-	N
MARB	First Trust Merger Arbitrage ETF	39	↓	1	0.31	1.80	-	Y	-	N
BAMA	Brookstone Active ETF	37	0	0	0.12	0.95	-	Y	-	N
BAMO	Brookstone Opportunities ETF	35	0	0	0.09	0.95	-	Y	-	N
HFND	Unlimited HFND Multi-Strategy Return Tracker	35	↓	0	0.84	1.22	-	Y	-	L
ALTY	Global X Alternative Income	34	0	0	0.53	0.50	-	Y	-	N
BAMY	Brookstone Yield ETF	33	0	0	0.13	0.95	-	Y	-	N
THY	Toews Agility Shares Dynamic Tactical Income	31	0	0	1.09	1.11	-	Y	-	N
HDG	ProShares Hedge Replication	28	0	0	0.51	0.95	-	-	-	L
WLTG	WealthTrust DBS Long Term Growth ETF	27	↑	0	0.23	0.77	-	Y	-	N
FORH	Fomidable ETF	27	0	0	1.16	1.19	-	Y	-	N
HIDE	Alpha Architect High Inflation And Deflation ETF	23	↑	0	2.38	0.29	-	Y	-	N
THTA	SoFi Enhanced Yield ETF	23	0	0	0.35	0.49	-	Y	-	N
GGM	GGM Macro Alignment ETF	20	0	0	0.23	0.88	-	Y	-	N
MSVX	LHA Market State Alpha Seeker ETF	20	↓	0	1.26	-	-	Y	-	N
AMAX	RH Hedged Multi-Asset Income ETF	19	↓	0	1.72	1.29	-	Y	-	N
HF	DGA Absolute Return ETF	18	0	0	0.72	1.53	-	Y	-	N
HYIN	WisdomTree Alternative Income Fund	18	↑	0	0.17	4.29	-	-	-	N
DBEH	iMGP DBI Hedge Strat	18	↓	0	1.63	0.85	-	Y	-	N
CCEF	Calamos CEF Income & Arbitrage ETF	11	-	-	0.32	2.74	-	Y	-	N
MRGR	ProShares Merger	10	↓	0	0.51	0.75	-	-	-	N
MFUT	Cambria Chesapeake Pure Trend ETF	10	-	-	0.75	-	-	Y	-	N
SAMM	Stratigas Macro Momentum ETF	10	-	-	0.20	0.66	-	Y	-	N
LALT	First Trust Multi-Strategy Alternative ETF	8	↑	0	0.53	1.94	-	Y	-	N
IWIN	Amplify Inflation Fighter ETF	8	↓	0	0.76	0.87	-	Y	-	L
PRAE	PlanRock Alternative Growth ETF	7	-	-	0.20	1.45	-	Y	-	N
ASMF	Virtus AlphaSimplex Managed Futures ETF	6	-	-	0.28	0.80	-	Y	-	N
EVNT	AltShares Event-Driven ETF	5	↑	0	0.70	1.53	-	Y	-	N
SPQ	Simplify US Equity PLUS QIS ETF	3	0	0	1.99	1.00	-	Y	-	N
INC	VanEck Dynamic High Income ETF	1	↑	0	0.44	0.43	-	Y	-	N
CETF	Drivewealth ICE 100 Index ETF	1	↓	0	0.83	0.85	-	-	-	N

Fixed Income										
Treasuries (Short-term)										
SHY	iShares 1-3 Year Trsry Bond	24,360	365	0.01	0.15	-	-	-	-	L
VGSH	Vanguard Short-Term Trsry	19,431	178	0.02	0.04	-	-	-	-	L
USFR	WisdomTree Floating Rate Trsry Fund	17,802	218	0.02	0.15	-	-	-	-	L
SCHO	Schwab Short-Term U.S. Trsry	10,405	↓	74	0.02	0.03	-	-	-	L
TFLO	iShares Trsry Floating Rate Bond	7,000	131	0.02	0.15	-	-	-	-	L
SPTS	SPDR Portfolio Short Term Trsry	4,262	↓	45	0.03	0.03	-	-	-	L
IBTE	iShares iBonds Dec 2024 Term Trsry	2,817	↑	18	0.04	0.07	-	-	-	N
IBTF	iShares iBonds Dec 2025 Term Trsry	2,307	↑	13	0.04	0.07	-	-	-	N
IBTG	iShares iBonds Dec 2026 Term Trsry	1,088	↑	7	0.04	0.07	-	-	-	N
XONE	BondBloxx BBG 1Yr Tgt Duration US Trsry	420	↓	5	0.02	0.03	-	-	-	N
UTWO	US Trsry 2 Year Note ETF	366	4	0.03	0.15	-	-	-	-	L
FTSD	Franklin Short Duration U.S. Government ETF	149	1	0.14	0.25	-	Y	-	-	N
XTWO	BondBloxx BBG 2Yr Tgt Duration US Trsry	118	↑	1	0.03	0.05	-	-	-	N
XTRE	BondBloxx BBG 3Yr Tgt Duration US Trsry	50	↑	0	0.05	0.05	-	-	-	N
UTRE	US Trsry 3 Year Note ETF	6	↑	0	0.11	0.15	-	-	-	N
BBSB	JPM BetaBuilders US Trsry Bond 1-3 Year ETF	4	0	0.09	0.07	-	-	-	-	N
USSH	WisdomTree 1-3 Year Laddered Treasury Fund	1	-	0.03	0.15	-	-	-	-	N
HYKE	Vest 2 Year Interest Rate Hedge ETF	1	-	0.59	0.85	-	Y	-	-	N
Treasuries (Medium-term)										
IEF	iShares 7-10 Year Trsry Bond	29,180	838	0.01	0.15	-	-	-	-	H
VGIT	Vanguard Intermediate-Term Trsry	27,387	↑	164	0.02	0.04	-	-	-	L
IEI	iShares 3-7 Year Trsry Bond	13,251	213	0.01	0.15	-	-	-	-	L
SCHR	Schwab Intermediate-Term U.S. Trsry	8,056	47	0.02	0.03	-	-	-	-	L
SPTI	SPDR Portfolio Int. Term Trsry	5,568	↑	54	0.04	0.03	-	-	-	L
IBTH	iShares iBonds Dec 2027 Term Trsry	843	↑	6	0.05	0.07	-	-	-	N
TUA	Simplify Short Term Trsry Futures Strat	517	↑	14	0.05	0.16	-	Y	-	N
IBTI	iShares iBonds Dec 2028 Term Trsry	490	↑	3	0.05	0.07	-	-	-	N
IBTJ	iShares iBonds Dec 2029 Term Trsry	254	↑	1	0.05	0.07	-	-	-	N
IBTK	iShares iBonds Dec 2030 Term Trsry	233	↑	2	0.06	0.07	-	-	-	N
XTEN	BondBloxx BBG 10Yr Tgt Duration US Trsry	204	↑	2	0.12	0.08	-	-	-	N
IBTM	iShares iBonds Dec 2032 Term Trsry	199	↑	1	0.06	0.07	-	-	-	N
IBTL	iShares iBonds Dec 2031 Term Trsry	183	↑	1	0.06	0.07	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Treasuries (Medium-term) (Continued)										
IBTO	iShares iBonds Dec 2033 Term Treasury ETF	174	1	0.06	0.07	-	-	-	-	N
UTEN	US Trsry 10 Year Note ETF	139	↑	2	0.05	0.15	-	-	-	L
XSVN	BondBloxx BBG 7Yr Tgt Duration US Trsry	137	↑	1	0.06	0.05	-	-	-	N
XFIV	BondBloxx BBG 5Yr Tgt Duration US Trsry	79	↑	1	0.06	0.05	-	-	-	N
TYD	Dirxion Dly 7-10 Year Trsry Bull 3x	45	↑	1	0.35	1.09	+3x	-	-	L
TBX	ProShares Short 7-10 Trsry	20	↓	1	0.05	0.95	-1x	-	-	N
UFIV	US Trsry 5 Year Note ETF	19	↑	0	0.05	0.15	-	-	-	N
UST	ProShares Ultra 7-10 Year Trsry	19	↑	0	0.45	0.95	+2x	-	-	L
PST	Pro UltraShort Lehman 7-10 Year Trsry	17	↓	1	0.07	0.95	-2x	-	-	L
TYO	Dirxion Dly 7-10 Year Trsry Bear 3x	16	↓	0	0.10	1.09	-3x	-	-	L
RYSE	Vest 10 Year Interest Rate Hedge ETF	10	↑	0	0.60	0.85	-	Y	-	N
USVN	US Trsry 7 Year Note ETF	5	↑	0	0.07	0.15	-	-	-	N
BBIB	JPM BetaBuilders US Trsry Bond 3-10 Year ETF	4	0	0.06	0.07	-	-	-	-	N
USIN	WisdomTree 7-10 Year Laddered Treasury Fund	3	-	0.03	0.15	-	-	-	-	N
Treasuries (Long-term)										
TLT	iShares 20+ Year Trsry Bond	47,765	↑	3,897	0.01	0.15	-	-	-	H
VLGT	Vanguard Long-Term Trsry	12,327	↑	142	0.02	0.04	-	-	-	L
SPTL	SPDR Portfolio Long Term Trsry	9,388	↑	114	0.04	0.03	-	-	-	L
TLH	iShares 10-20 Year Trsry Bond	7,579	72	0.02	0.15	-	-	-	-	L
TMF	Dirxion Dly 20 Year Plus Trsry Bull 3x	4,728	↑	351	0.02	1.04	+3x	-	-	H
EDV	Vanguard Extended Duration Trsry	3,126	↑	38	0.07	0.06	-	-	-	L
ZROZ	PIMCO 25+ Year Zero Coupon US Trsry	1,373	↑	23	0.08	0.15	-	-	-	L
TLTW	iShares 20+ Year Trsry Bond Buy Write Strat	856	↑	14	0.04	0.35	-	-	-	N
SCHQ	Schwab Long-Term U.S. Trsry	665	↑	8	0.03	0.03	-	-	-	N
LGOV	First Trust Long Duration Opp ETF	450	↑	5	0.07	0.67	-	Y	-	N
TBT	ProShares UltraShort 20+ Year Trsry	355	↓	42	0.03	0.90	-2x	-	-	L
TMV	Dirxion Dly 20 Year Plus Trsry Bear 3x	248	↓	111	0.03	1.01	-3x	-	-	L
GOVZ	iShares 25+ Year Trsry STRIPS Bond	229	↑	3	0.10	0.10	-	-	-	L
TBF	ProShares Short 20+ Year Trsry	102	↓	10	0.04	0.92	-1x	-	-	L
UBT	ProShares Ultra 20+ Year Trsry	92	↑	2	0.30	0.95	+2x	-	-	L
TFJL	Innovator 20+ Year Trsry Bond 5 Floor ETF - Jul	73	↑	1	2.43	0.79	-	Y	-	N
TBJL	Innovator 20+ Year Trsry Bond 9 Buffer - Jul	65	↑	0	2.35	0.79	-	Y	-	N
TYA	Simplify Intermediate Term Trsry Futures Strat	42	0	0.12	0.17	-	Y	-	-	N
TTT	Pro UltraPro Short 20+ Year Trsry	39	↓	2	0.49	0.95	-3x	-	-	L
XTWY	BondBloxx BBG Twenty Yr Tgt Duration US Trsry	25	0	0.17	0.13	-	-	-	-	N
UTHY	US Trsry 30 Year Bond ETF	24	↑	0	0.07	0.15	-	-	-	L
BBLB	JPM BetaBuilders US Trsry Bond 20+ Year ETF	23	↑	0	0.09	0.07	-	-	-	N
UTWY	US Trsry 20 Year Bond ETF	20	↑	1	0.08	0.15	-	-	-	L
RATE	Global X Interest Rate Hedge ETF	2	↓	0	0.17	0.50	-	Y	-	N
Treasuries (Multi-term)										
GOVT	iShares US Trsry Bond	25,559	190	0.04	0.05	-	-	-	-	L
FLGV	Franklin U.S. Trsry Bond ETF	757	↑	3	0.08	0.09	-	Y	-	N
GOVI	Invesco Trust II Invesco Eq Wgt 0-30 Year Trsry	638	4	0.10	0.15	-	-	-	-	N
PPIX	Simplify Interest Rate Hedge ETF	151	6	0.52	0.50	-	Y	-	-	L
SPTB	SPDR Portfolio Treasury ETF	24	-	0.03	-	-	-	-	-	N
Corporates (Broad)										
SCHI	Schwab 5-10 Year Corp Bond	6,537	↑	19	0.03	0.03	-	-	-	N
FTSM	First Trust Enhanced Short Maturity ETF	6,369	↓	59	0.02	0.45	-	Y	-	L
KORP	American Century Diversified Corp Bond ETF	247	↑	1	0.09	0.29	-	Y	-	N
FCOR	Fidelity Corp Bond ETF	215	↑	1	0.30	0.36	-	Y	-	N
STOT	SPDR DoubleLine Short Duration TR Tactical ETF	165	↑	1	0.06	0.45	-	Y	-	N
FXED	Sound Enhanced Fixed Income ETF	37	↑	0	2.49	2.33	-	Y	-	N
Corporates (Investment Grade)										
VCIT	Vanguard Intermediate-Term Corp Bond	45,337	635	0.01	0.04	-	-	-	-	L
VCSH	Vanguard Short-Term Corp Bond	34,076	331	0.01	0.04	-	-	-	-	L
LQD	iShares iBoxx \$ IG Corp Bond	28,238	2							

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Corporates (Investment Grade) (Continued)											
SLQD	iShares 0-5 Year IG Corp Bond	2,133	↓ 15	0.02	0.06	-	-	-	-	L	
BSCR	Invesco Bullet 2027 Corp Bond	1,880	↑ 10	0.05	0.10	-	-	-	-	N	
IBDT	iShares iBonds Dec 2028 Term Corporate	1,855	↑ 9	0.05	0.10	-	-	-	-	N	
BSCS	Invesco Bullet 2028 Corp Bond	1,636	↑ 10	0.05	0.10	-	-	-	-	N	
FLTR	VanEck IG Floating Rate	1,609	↑ 14	0.04	0.14	-	-	-	-	N	
SPBO	SPDR Portfolio Corp Bond	1,435	↑ 10	0.04	0.03	-	-	-	-	L	
IBDU	iShares iBonds Dec 2029 Term Corporate	1,381	↑ 7	0.08	0.10	-	-	-	-	N	
CORP	PIMCO IG Corp Bond Index	1,095	↑ 7	0.04	0.20	-	-	-	-	N	
FSIG	First Trust Limited Duration IG Corporate ETF	1,086	↑ 7	0.06	0.55	-	Y	-	-	N	
SUSC	iShares ESG Aware USD Corp Bond	1,078	7	0.05	0.18	-	-	Y	-	N	
QLTA	iShares Aaa - A Rated Corp Bond	1,042	7	0.03	0.15	-	-	-	-	N	
VTC	Vanguard Total Corp Bond Fund	979	4	0.04	0.04	-	-	-	-	L	
IBDV	iShares iBonds Dec 2030 Term Corporate	971	↑ 5	0.07	0.10	-	-	-	-	N	
BSCT	Invesco Bullet 2029 Corp Bond	942	↑ 6	0.06	0.10	-	-	-	-	N	
SUSB	iShares ESG Aware 1-5 Yr USD Corp Bond	854	3	0.05	0.12	-	-	Y	-	L	
IBDW	iShares iBonds Dec 2031 Term Corporate	834	↑ 5	0.08	0.10	-	-	-	-	N	
GIGB	GS Access IG Corp Bond	801	↑ 3	0.04	0.14	-	-	-	-	N	
SPLB	SPDR Portfolio Long Term Corp Bond	767	17	0.05	0.04	-	-	-	-	L	
BSCU	Invesco Bullet 2030 Corp Bond	718	↑ 5	0.07	0.10	-	-	-	-	N	
AVIG	Avantis Core Fixed Income ETF	706	↑ 4	0.03	0.15	-	Y	-	-	N	
IGEB	iShares IG Bond Factor	702	↑ 5	0.06	0.18	-	-	-	-	N	
IBDX	iShares iBonds Dec 2032 Term Corporate ETF	651	↑ 4	0.09	0.10	-	-	-	-	N	
VCEB	Vanguard ESG U.S. Corp Bond	575	↑ 2	0.11	0.12	-	-	Y	-	N	
BSCW	Invesco BulletShares 2032 Corp Bond ETF	461	↑ 3	0.12	0.10	-	-	-	-	N	
IBDY	iShares iBonds Dec 2033 Term Corporate ETF	451	3	0.16	0.10	-	-	-	-	N	
BSCV	Invesco Bullet 2031 Corp Bond	448	↑ 2	0.29	0.10	-	-	-	-	N	
SCHJ	Schwab 1-5 Year Corp Bond	399	2	0.04	0.03	-	-	-	-	L	
SKOR	Flex Credit-Scored US Corp Bond Idx	386	↑ 2	0.06	0.15	-	-	-	-	N	
FLCO	Franklin IG Corporate ETF	370	↓ 4	0.08	0.35	-	Y	-	-	N	
LQDH	iShares Interest Rate Hedged Corp Bond ETF	358	↑ 2	0.04	0.23	-	-	-	-	L	
IBD	Inspire Corp Bond ESG	309	↑ 1	0.33	0.44	-	-	Y	-	N	
IGHG	ProShares IG-Interest Rate Hedged	293	2	0.25	0.30	-	-	-	-	L	
BSCX	Invesco BulletShares 2033 Corporate Bond ETF	250	2	0.16	0.10	-	-	-	-	N	
FIIG	First Trust Intermediate Duration IG Corp	177	2	0.15	0.65	-	Y	-	-	N	
LQDW	iShares IG Corp Bond Buywrite Strat	170	↑ 2	0.07	0.34	-	-	-	-	N	
AGZD	WisdomTree Int Rate Hdg US Agg Bond	166	↓ 2	0.33	0.23	-	-	-	-	N	
IGBH	iShares Int. Rate Hedged LT Corp Bond	162	↑ 1	0.05	0.14	-	-	-	-	N	
FLTB	Fidelity Ltd Term Bond ETF	144	↓ 1	0.78	0.25	-	Y	-	-	N	
UCRD	VictoryShares Corp Bond ETF	133	↑ 0	0.11	0.40	-	Y	Y	-	N	
TAGG	T Rowe Price QM US Bond ETF	90	↑ 0	0.20	0.08	-	Y	-	-	N	
IG	Principal IG Corporate Active ETF	80	↑ 0	0.12	0.19	-	Y	-	-	N	
LQIG	SPDR MarketAxess IG 400 Corp Bond	57	↑ 0	0.12	0.07	-	-	-	-	N	
PFIG	Invesco Fundamental IG Corp Bond	55	0	0.44	0.22	-	-	-	-	N	
JHCB	John Hancock Corp Bond ETF	54	↑ 0	0.11	0.29	-	Y	-	-	N	
LQDI	iShares Inflation Hedged Corp Bond	50	↓ 0	0.31	0.18	-	-	-	-	L	
BBCB	JPMorgan BetaBuilders USD Inve	48	1	0.16	0.09	-	-	-	-	N	
IIGD	Invesco IG Defensive	48	↓ 0	0.15	0.13	-	-	-	-	N	
SFIG	WisdomTree US Short Term Corp Bond	48	↑ 0	0.12	0.18	-	-	-	-	N	
OVT	Overlay Shares Short Term Corp Bond	45	↓ 1	1.63	0.85	-	Y	-	-	L	
FEIG	Flex ESG & Climate IG Corporate Corp Idx	40	0	0.22	0.12	-	-	Y	-	N	
BBBS	BondBlox BBB Rated 1-5 Year Corp Bond	40	-	0.07	0.19	-	-	-	-	N	
LQDB	iShares BBB Rated Corp Bond	34	↑ 0	0.18	0.15	-	-	-	-	N	
LKOR	Flex Credit-Scored US Long Corp Bond Idx	32	0	0.19	0.15	-	-	-	-	N	
JLQD	Janus Henderson Corporate Bond ETF	31	0	0.20	0.35	-	Y	-	-	N	
FCSH	Federated Hermes Short Duration Corporate ETF	27	0	0.24	0.30	-	Y	-	-	N	
EYEG	AB Corporate Bond ETF	25	-	0.20	0.30	-	Y	-	-	N	
RHCB	BNY Mellon Responsible Horizons Corp Bond	23	0	0.26	0.35	-	Y	Y	-	N	
ZTRE	F/m 3-Year Investment Grade Corp Bond	18	-	2.65	0.15	-	-	-	-	N	
WFIG	WisdomTree US Corp Bond Fund	18	↑ 0	0.19	0.18	-	-	-	-	N	
FTCB	First Trust Core Investment Grade ETF	15	0	0.30	0.55	-	Y	-	-	N	
ZTEN	F/m 10-Year Investment Grade Corp Bond	14	-	0.43	0.15	-	-	-	-	N	
MIG	VanEck Moody's Analytics IG Corp Bond	13	0	0.31	0.20	-	-	-	-	N	
ELQD	iShares ESG Advanced IG Corp Bond	12	0	0.18	0.18	-	-	Y	-	N	
IBDZ	iShares iBonds Dec 2034 Term Corporate ETF	11	-	0.10	-	-	-	-	-	N	
WINC	Western Asset Short Duration Income ETF	11	↓ 0	0.18	0.29	-	Y	-	-	N	
CCSB	Carbon Collective Short Duration Green Bond	10	-	0.50	-	-	Y	Y	-	N	
ZTWO	F/m 2-Year Investment Grade Corporate Bond	10	-	0.15	-	-	-	-	-	N	
GSIG	GS Access IG Corporate 1-5 Year Bond	9	0	0.11	0.14	-	-	-	-	N	
MBBB	VanEck Moody's Analytics BBB Corp Bond	8	0	0.20	0.25	-	-	-	-	N	
BBBI	BondBlox BBB Rated 5-10 Year Corporate Bond	5	-	0.11	0.19	-	-	-	-	N	
BBBL	BondBlox BBB Rated 10+ Year Corp Bond	5	-	0.10	0.19	-	-	-	-	N	
GOLY	Strategy Shares Gold-Hedged Bond ETF	3	↓ 0	0.87	0.79	-	-	-	-	L	

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
 3 Actively Managed: Y = Active Transparent, Y* = Semi-Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Corporates (High Yield)											
HYG	iShares iBoxx HY Corp Bond	16,964	2,858	0.01	0.49	-	-	-	-	H	
USHY	iShares Broad USD HY Corp Bond	12,390	↑ 235	0.03	0.40	-	-	-	-	L	
JNK	SPDR BBG HY Bond	8,283	503	0.01	0.08	-	-	-	-	L	
SHYG	iShares 0-5 Year HY Corp Bond	6,107	62	0.02	0.30	-	-	-	-	L	
SPHY	SPDR Portfolio HY Bond	4,836	↑ 60	0.04	0.05	-	-	-	-	L	
SJNK	SPDR BBG Short Term HY Bond	4,613	↑ 104	0.04	0.40	-	-	-	-	L	
HYLB	Xtrackers USD HY Corp Bond	3,258	75	0.03	0.05	-	-	-	-	L	
ANGL	VanEck Fallen Angel HY Bond	3,021	37	0.04	0.25	-	-	-	-	L	
FALN	iShares Fallen Angels USD Bond	1,670	19	0.04	0.25	-	-	-	-	L	
HYLS	First Trust ETF IV First Trust Tactical HY ETF	1,428	7	0.10	1.02	-	Y	-	-	N	
HYGV	FlexShares HY Value-Scored Bond Idx	1,386	↑ 10	0.03	0.37	-	-	-	-	N	
HYS	PIMCO 0-5 Year HY Corp Bond Index	1,213	14	0.05	0.55	-	-	-	-	L	
BBHY	JPMorgan BetaBuilders USD High	1,041	↑ 7	0.04	0.15	-	-	-	-	N	
BSJP	Invesco Bullet 2025 HY Corp Bond	941	↑ 10	0.05	0.42	-	-	-	-	N	
BSJO	Invesco Bullet 2024 HY Corp Bond	653	4	0.05	0.43	-	-	-	-	N	
PHB	Invesco Fundamental HY Corp Bond	643	4	0.07	0.50	-	-	-	-	L	
BHYB	Xtrackers USD HY BB-B ex Financials	627	4	0.14	0.20	-	-	-	-	N	
HYDB	iShares HY Bond Factor	585	↑ 8	0.04	0.35	-	-	-	-	N	
IBHE	iShares iBonds 2025 Term HY and Income	533	↑ 4	0.05	0.35	-	-	-	-	N	
BSJQ	Invesco Bullet 2026 HY Corp Bond	532	↑ 3	0.07	0.42	-	-	-	-	N	
IBHD	iShares iBonds 2024 Term HY and Income	446	↑ 4	0.05	0.35	-	-	-	-	N	
HYBB	iShares BB Rated Corp Bond	389	↑ 2	0.09	0.25	-	-	-	-	L	
IBHF	iShares iBonds 2026 Term HY and Income	384	↑ 4	0.06	0.35	-	-	-	-	N	
FDHY	Fidelity HY Factor ETF	301	1	0.35	0.45	-	Y	-	-	N	
BKHY	BNY Mellon HY Beta	292	↑ 3	0.07	0.22	-	-	-	-	N	
FLHY	Franklin HY Corporate ETF	277	↑ 1	0.06	0.40	-	Y	-	-	N	
HYGH	iShares Interest Rate Hedged HY Bond	265	↑ 2	0.12	0.52	-	-	-	-	L	
WFHY	WisdomTree US HY Corp Bond	224	1	0.07	0.38	-	-	-	-	N	
HYDW	Xtrackers Low Beta HY Bond	215	↓ 0	0.12	0.20	-	-	-	-	N	
BSJR	Invesco Bullet 2027 HY Corp Bond	209	↑ 1	0.09	0.42	-	-	-	-	N	
BSJS	Invesco Bullet 2028 HY Corp Bond	194	↑ 2	0.14	0.42	-	-	-	-	N	
HYZD	WisdomTree Interest Rate Hedged HY Bond	169	1	0.40	0.43	-	-	-	-	L	
SCYB	Schwab High Yield Bond ETF	157	2	0.04	0.03	-	-	-	-	N	
CDX	Simplify HY PLUS Credit Hedge ETF	154	↑ 1	0.32	0.26	-	Y	-	-	N	
GHYB	GS Access HY Corp Bond	154	↑ 1	0.13	0.34	-	-	-	-	L	
HYBL	SPDR Blackstone High Income ETF	150	↑ 1	0.11	0.70	-	Y	-	-	N	
HYHG	ProShares HY-Interest Rate Hedged	137	1	0.42	0.50	-	-	-	-	N	
PGHY	Invesco Global Short Term HY Bond	134	1	0.34	0.35	-	-	-	-	N	
PHYD	Putnam ESG HY ETF	131	↑ 0	0.20	0.55	-	Y	Y	-	N	
HYXF	iShares iShares ESG Advanced HY	131	0	0.19	0.35	-	-	Y	-	N	
HYFI	AB HY ETF	128	↑ 1	0.13	0.40	-	Y	-	-	N	
PHYL	PGIM Active HY Bond ETF	125	↑ 1	0.09	0.39	-	Y	-	-	N	
SIHY	Harbor Scientific Alpha High-Yield ETF	125	0	0.23	0.48	-	Y	-	-	N	
IBHG	iShares iBonds 2027 Term HY and Income	122	↑ 1	0.16	0.35	-	-	-	-	N	
SHYL	Xtrackers Short Duration HY Bond	106	↑ 1	0.10	0.20	-	-	-	-	N	
SJB	ProShares Short HY	95	↓ 3	0.06	0.95	-1x	-	-	-	L	
NUHY	Nuveen ESG HY Corp Bond	85	1	0.09	0.31	-	-	Y	-	N	
IBHH	iShares iBonds 2028 Term HY And Income	79	↑ 1	0.15	0.35	-	-	-	-	N	
AOHY	Angel Oak High Yield Opportunities ETF	79	-	0.55	-	-	Y	-	-	N	
XHYE	BondBlox USD HY Bond Energy Sector	72	↑ 0	0.45	0.35	-	-	-	-	L	
IQHI	IQ Mackay ESG High Income ETF	63	↓ 0								

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Corporates (High Yield) (Continued)											
EVHY	Eaton Vance High Yield ETF	21	0	0.15	0.48	-	Y	-	-	N	
FSYD	Fidelity Sustainable HY ETF	21	↑	0	0.17	0.55	-	Y	Y	-	
IBHJ	iShares iBonds 2030 Term HY and Income	21	0	0.20	0.35	-	-	-	-	N	
XB	BondBlox B-Rated USD HY Corp Bond	14	0	0.48	0.30	-	-	-	-	N	
HYUP	Xtrackers High Beta HY Bond	12	0	0.14	0.20	-	-	-	-	N	
XHYD	BondBlox USD HY Bond Cons Non-Cyclical	11	↑	0	0.43	0.35	-	-	-	L	
HIYS	Invesco HY Select ETF	10	0	0.30	0.50	-	Y	-	Y	N	
IBHK	iShares iBonds 2031 Term HY And Income	10	-	-	0.35	-	-	-	-	N	
UJB	ProShares Ultra HY	8	↑	1	0.20	0.96	+2x	-	-	N	
HYGI	iShares Inflation Hedged HY Bond ETF	3	0	0.25	0.52	-	-	-	-	N	
Aggregate/Multi-sector											
AGG	iShares Core U.S. Agg Bond	107,895	↑	859	0.01	0.03	-	-	-	L	
BND	Vanguard Total Bond Market	107,117		532	0.01	0.03	-	-	-	L	
BSV	Vanguard Short-Term Bond	32,090		156	0.01	0.04	-	-	-	L	
BIV	Vanguard Intermediate-Term Bond	17,677	↑	96	0.02	0.04	-	-	-	L	
MINT	PIMCO Enhanced Short Maturity Active ETF	11,798	↑	106	0.01	0.35	-	Y	-	L	
FBND	Fidelity Total Bond ETF	9,494	↑	56	0.03	0.36	-	Y	-	L	
SPAB	SPDR Portfolio Agg Bond	7,815	63	0.04	0.03	-	-	-	-	L	
SCHZ	Schwab U.S. Agg Bond	7,572	38	0.03	0.03	-	-	-	-	L	
BLV	Vanguard Long-Term Bond	5,516	61	0.02	0.04	-	-	-	-	L	
DFCF	Dimensional Core Fixed Income ETF	4,933	↑	26	0.03	0.17	-	Y	-	L	
FIXD	First Trust TCW Opportunistic Fixed Income ETF	4,923	↑	33	0.04	0.65	-	Y	-	L	
BOND	PIMCO Active Bond ETF	4,239	↑	25	0.03	0.55	-	Y	-	L	
ISTB	iShares Core 1-5 Year USD Bond	4,042	23	0.03	0.06	-	-	-	-	L	
EAGG	iShares ESG Aware US Agg Bond	3,656	↑	14	0.03	0.10	-	-	Y	-	
GVI	iShares Intermediate Govt/Credit Bond	3,163	21	0.02	0.20	-	-	-	-	L	
JCPB	JPMorgan Core Plus Bond ETF	3,139	↑	19	0.03	0.40	-	Y	-	N	
DFSD	Dimensional Short-Duration Fixed Income ETF	2,874	↑	17	0.03	0.16	-	Y	-	N	
UCON	First Trust TCW Unconstrained Plus Bond ETF	2,400	↑	16	0.06	0.85	-	Y	-	N	
CGCP	Capital Group Core Plus Income ETF	2,317	↑	13	0.05	0.34	-	Y	-	N	
UITB	VictoryShares Core Intermediate Bond ETF	2,056	6	0.05	0.38	-	Y	-	-	N	
FLCB	Franklin U.S. Core Bond ETF	1,800	↑	5	0.06	0.15	-	Y	-	N	
BKAG	BNY Mellon Core Bond	1,765	↑	14	0.04	0.00	-	-	-	N	
HTRB	Hartford TR Bond ETF	1,583	6	0.04	0.29	-	Y	-	-	N	
BBAG	JPMorgan BetaBuilders US Agg	1,505	10	0.03	0.03	-	-	-	-	N	
JPIE	JPMorgan Income ETF	1,346	↑	9	0.04	0.41	-	Y	-	N	
GTO	Invesco TR Bond ETF	1,309	↑	9	0.02	0.25	-	Y	-	N	
UNYI	WisdomTree Voya Yld Enhanced USD Univ Bond	1,287	1	0.26	0.15	-	-	-	-	N	
VRIG	Invesco Variable Rate IG ETF	1,036	↑	9	0.04	0.30	-	Y	-	N	
AGGY	WisdomTree Yld Enhanced US Agg Bond	907	5	0.04	0.12	-	-	-	-	N	
PYLD	PIMCO Multi Sector Bond Active ETF	886	9	0.05	0.55	-	Y	-	-	N	
CGMS	Capital Group US Multi-Sector Income ETF	792	↑	7	0.04	0.39	-	Y	-	N	
SMTH	ALPS Smith Core Plus Bond ETF	737	-	0.07	0.59	-	Y	-	-	N	
APCB	ActivePassive Core Bond ETF	688	↑	5	0.18	0.36	-	Y	-	N	
USTB	VictoryShares Short-Term Bond ETF	629	↑	3	0.05	0.35	-	Y	-	N	
AGZ	iShares Agency Bond	621	4	0.06	0.20	-	-	-	-	L	
EUSB	iShares ESG Advanced Total USD Bond Mkt	620	2	1.35	0.12	-	-	Y	-	N	
CGCB	Capital Group Core Bond ETF	579	6	0.05	0.27	-	Y	-	-	N	
ILTB	iShares Core 10+ Year USD Bond	579	6	0.11	0.06	-	-	-	-	N	
PCRB	Putnam ESG Core Bond ETF	567	↑	2	0.19	0.35	-	Y	Y	-	
CGSD	Capital Group Short Duration Income ETF	512	↑	3	0.06	0.25	-	Y	-	N	
FLDR	Fidelity Low Duration Bond Factor	470	↑	5	0.06	0.15	-	-	-	N	
JSCP	JPMorgan Short Duration Core Plus ETF	452	↑	3	0.06	0.33	-	Y	-	N	
VBND	Vident US Bond Strategy ETF	430	1	1.44	0.41	-	-	-	-	N	
GCOR	Goldman Sachs Access US Agg Bond	416	3	0.08	0.14	-	-	-	-	L	
EVTR	Eaton Vance Total Return Bond ETF	382	-	0.22	0.32	-	Y	-	-	N	
FLDB	Fidelity Low Duration Bond ETF	373	-	0.20	0.20	-	Y	-	-	N	
AVSF	Avantis Short-Term Fixed Income ETF	356	↑	2	0.03	0.15	-	Y	-	N	
NUBD	Nuveen ESG US Agg Bond	348	↑	2	0.06	0.16	-	-	Y	-	
UBND	VictoryShares Core Plus Intermediate Bond ETF	333	↑	1	0.11	0.40	-	Y	-	N	
HTAB	Hartford Schroders Tax-Aware Bond ETF	321	↑	2	0.07	0.40	-	Y	-	N	
HCRB	Hartford Core Bond ETF	276	1	0.15	0.29	-	Y	-	-	N	
DBND	DoubleLine Opportunistic Bond ETF	272	↑	1	0.04	0.50	-	Y	-	N	
VCRB	Vanguard Core Bond ETF	270	-	0.07	0.10	-	Y	-	Y	N	
JBND	JPMorgan Active Bond ETF	253	2	0.10	0.30	-	Y	-	-	N	
PTRB	PGIM TR Bond ETF	239	↑	2	0.10	0.49	-	Y	-	N	
FISR	SPDR SSGA Fixed Income Sector Rotation ETF	226	↑	2	0.07	0.50	-	Y	-	N	
GBF	iShares Government/Credit Bond	220	↑	2	0.13	0.20	-	-	-	N	
ESGB	IQ MacKay ESG Core Plus Bond ETF	209	0	0.10	0.39	-	Y	Y	-	N	
AGGH	Simply Aggregate Bond ETF	202	↑	1	0.38	0.33	-	Y	-	N	
CARY	Angel Oak Income ETF	199	↑	2	1.81	0.79	-	Y	-	N	
BYLD	iShares Yield Optimized Bond	194	↑	1	0.07	0.19	-	-	-	N	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None

² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Aggregate/Multi-sector (Continued)											
MJUI	American Century Multisector Income ETF	191	↑	1	0.11	0.36	-	Y	-	N	
IMTB	iShares Core 5-10 Year USD Bond	186	1	0.23	0.06	-	-	-	-	N	
PTBD	Pacer Trendpilot US Bond	175	↓	1	0.09	0.60	-	-	-	L	
EMNT	PIMCO Enhanced Short Maturity Active ESG	166	1	0.04	0.24	-	Y	Y	-	N	
BNDX	FlexShares Core Select Bond Fund	162	1	0.06	0.35	-	Y	-	-	N	
OACP	OneAscent Core Plus Bond ETF	155	↑	1	0.07	0.77	-	Y	Y	-	
LDSF	First Trust Low Duration Strategic Focus ETF	147	1	0.14	0.75	-	Y	-	-	N	
VPLS	Vanguard Core-Plus Bond ETF	138	-	0.07	0.20	-	Y	-	Y	N	
TOTR	T Rowe Price TR ETF	113	↑	0	0.17	0.31	-	Y	-	N	
AFIF	Amfield Universal Fixed Income ETF	104	0	0.19	1.09	-	Y	-	-	N	
SIO	Touchstone Strategic Income Opp ETF	104	0	0.26	0.65	-	Y	-	-	N	
BUXX	Stive Enhanced Income Short Maturity ETF	101	1	0.32	0.25	-	Y	-	-	N	
PIFI	ClearShares Pilon Intermediate Fixed Income ETF	96	↓	0	0.17	0.46	-	Y	-	N	
HSRT	Hartford AAA CLO ETF	96	↑	1	0.14	0.24	-	Y	-	N	
STXT	Stive Total Return Bond ETF	94	1	2.59	0.49	-	Y	-	-	N	
FTRB	Federated Hermes Total Return Bond ETF	89	-	0.26	0.39	-	Y	-	-	N	
BRTR	BlackRock Total Return ETF	82	-	0.10	0.38	-	Y	-	-	N	
FIGB	Fidelity IG Bond ETF	76	↑	1	0.37	0.36	-	Y	-	N	
DYLD	LeaderShares Dynamic Yield ETF	72	↓	0	0.12	0.75	-	Y	-	N	
FIBR	iShares US FI Balanced Risk Fctr	64	0	0.16	0.25	-	-	-	-	N	
XFLX	FundX Flexible ETF	61	0	1.17	-	-	Y	-	-	N	
MSTI	Madison Short-Term Strategic Income ETF	60	0	0.61	0.40	-	Y	-	-	N	
HSUN	Hartford Sustainable Income ETF	56	0	0.24	0.54	-	Y	Y	-	N	
BAMB	Brookstone Intermediate Bond ETF	55	0	0.14	0.95	-	Y	-	-	N	
SBND	Columbia Short Duration Bond	53	0	0.22	0.25	-	-	-	-	N	
CPLS	AB Core Plus Bond ETF	52	-	0.14	0.33	-	Y	-	-	N	
MAGG	Madison Aggregate Bond ETF	52	0	0.41	0.40	-	Y	-	-	N	
ARCM	Arrow Reserve Capital Management ETF	46	0	0.30	0.50	-	Y	-	-	N	
PAB	PGIM Active Agg Bond ETF	43	0	0.21	0.19	-	Y	-	-	N	
OVV	Overlay Shares Core Bond ETF	42	0	1.87	0.87	-	Y	-	-	N	
ADFI	Amfield Dynamic Fixed Income ETF	41	↑	0	1.39	1.50	-	Y	-	N	
SSFI	Day Hagan/Ned Davis Research Smart Sector FI	41	0	0.36	0.81	-	Y	-	-	N	
WABF	Western Asset Bond ETF	40	0	0.09	0.35	-	Y	-	-	N	
RDFI	Rareview Dynamic Fixed Income ETF	38	0	0.36	0.69	-	Y	-	-	N	
SHAG	WisdomTree Yield Enhanced US ST Agg Bond	38	↓	1	0.14	1.12	-	-	-	N	
OBND	SPDR Loomis Sayles Opportunistic Bond ETF	37	↑	0	0.18	0.55	-	Y	-	N	
PSDM	PGIM Short Duration Multi Sector Bond	35	0	0.14	0.40	-	Y	-	-	N	
MGOV	First Trust Intermediate Govt Opportunities	35	0	0.16	0.65	-	Y	-	-	N	
NUAG	Nuveen Enhanced Yield US Agg Bond	33	0	0.14	0.21	-	-	-	-	N	
SDSI	American Century Short Duration Strat Income	33	0	0.16	0.33	-	Y	-	-	N	
RMIF	LHA Risk-Managed Income ETF	31	0	1.38	-	-	Y	-	-	N	
DYFI	IDX Dynamic Fixed Income ETF	30	-	0.37	1.33	-	Y	-	-	N	
NCPB	Nuveen Core Plus Bond ETF	30	-	0.14	0.30	-	Y	-	-	N	
NUAA	Nuveen Enhanced Yld 1-5 Year US Agg Bond	30	0	0.27	0.16	-	-	Y	-	N	
XFIX	Firm Opportunistic Income ETF	29	0	0.22	0.39	-	Y	-	-	N	
AGGS	Harbor Disciplined Bond ETF	28	-	0.14	0.35	-	Y	-	-	N	
OGSP	Obra High Grade Structured Products ETF	26	-	2.87	0.90	-	Y	-	Y	N	
RFCI	RiverFront Dynamic Core Income ETF	25	↓	0	0.22	0.52	-	Y	-	N	
FUSI	American Century Multisector Floating Income	20	0	0.34	0.27	-	Y	-	-	N	
LSST	Natixis Loomis Sayles Short Duration Income ETF	18	↓	0	0.22	0.35	-	Y	-	N	
OOSP	Obra Opportunistic Structured Products ETF	16	-	0.90	-	-	Y	-	-	N	
SCIO	First Trust Structured Credit Income Opportunities	15	-	1.02	0.95	-	Y	-	-	N	
GHMS	Goose Hollow										

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Aggregate/Multi-sector (Continued)										
KDRN	Kingsbarn Tactical Bond ETF	1	0	0.40	1.14	-	Y	-	-	N
GENT	Gener Capital Taxable Quality Intermediate ETF	0	-	0.38	-	-	Y	-	-	N
Loans										
JAAA	Janus Henderson AAA CLO ETF	9,843	↑ 87	0.02	0.21	-	Y	-	Y	L
BKLN	Invesco Senior Loan	8,119	↑ 206	0.05	0.65	-	-	-	-	L
SRLN	SPDR Blackstone Senior Loan ETF	6,424	↑ 112	0.03	0.70	-	Y	-	-	L
FTSL	First Trust Senior Loan ETF	2,273	15	0.07	0.87	-	Y	-	-	L
EVLN	Eaton Vance Floating-Rate ETF	805	-	0.05	0.60	-	Y	-	-	N
JBBB	Janus Henderson B-BBB CLO ETF	619	↑ 8	0.03	0.49	-	Y	-	-	L
FLBL	Franklin Senior Loan ETF	444	↑ 5	0.05	0.45	-	Y	-	-	N
LONZ	PIMCO Senior Loan Active ETF	381	↑ 2	0.19	0.60	-	Y	-	-	N
CLOI	VanEck CLO ETF	366	↑ 3	0.05	0.40	-	Y	-	-	N
CLOZ	Panagram Bbb-B Clo ETF	344	↑ 3	0.07	0.50	-	Y	-	-	N
FLRT	Pacer Pacific Asset Floating Rate High Income	281	↑ 3	0.05	0.61	-	Y	-	-	N
CLOA	Blackrock AAA CLO ETF	270	↑ 3	0.04	0.20	-	Y	-	-	N
PAAB	PGIM AAA CLO ETF	164	1	0.04	0.19	-	Y	-	-	N
TFLR	T Rowe Price Floating Rate ETF	152	↑ 1	0.13	0.60	-	Y	-	-	N
SEIX	Virtus Seix Senior Loan ETF	138	↑ 1	0.08	0.62	-	Y	-	-	N
ICLO	Invesco AAA CLO Floating Rate Note ETF	124	↑ 1	0.06	0.20	-	Y	-	Y	N
PFRL	PGIM Floating Rate Income ETF	66	0	0.12	0.72	-	Y	-	-	N
CLOX	Panagram AAA CLO ETF	57	0	1.81	0.20	-	Y	-	-	N
BRLN	Blackrock Floating Rate Loan ETF	42	↑ 1	0.48	0.55	-	Y	-	-	N
AAA	AXS First Priority CLO Bond ETF	22	↑ 0	0.25	0.25	-	Y	-	-	N
Money Market/Ultra-short										
BIL	SPDR BBG 1-3 Month T-Bill	32,066	656	0.01	0.14	-	-	-	-	L
JPST	JPMorgan Ultra-Short Income ETF	23,371	204	0.02	0.18	-	Y	-	-	L
SGOV	iShares 0-3 Month Treasury Bond	21,646	↑ 359	0.01	0.07	-	-	-	-	N
SHV	iShares Short Treasury Bond	19,088	266	0.01	0.15	-	-	-	-	N
PULS	PGIM Ultra Short Bond ETF	6,850	↑ 64	0.02	0.15	-	Y	-	-	L
ICSH	BlackRock Ultra Short-Term Bond	5,530	57	0.02	0.08	-	Y	-	-	L
GBIL	Goldman Sachs Access Treasury 0-1 Year	5,286	73	0.01	0.12	-	-	-	-	N
VUSB	Vanguard Ultra Short Bond ETF	4,191	↑ 44	0.02	0.10	-	Y	-	-	N
TBIL	US Treasury 3 Month Bill ETF	3,619	↑ 49	0.02	0.15	-	-	-	-	L
BOXX	Alpha Architect 1-3 Month Box ETF	3,125	↑ 41	0.01	0.19	-	Y	-	-	N
NEAR	BlackRock Short Duration Bond ETF	2,965	↓ 20	0.03	0.25	-	Y	-	-	N
BILS	SPDR BBG 3-12 Month T-Bill	2,816	↑ 34	0.01	0.14	-	-	-	-	L
JMST	JPM Ultra-Short Municipal Income ETF	2,643	17	0.02	0.18	-	Y	-	-	N
GSY	Invesco Ultra Short Duration ETF	2,081	27	0.02	0.23	-	Y	-	-	L
TBILL	Invesco Short Term Treasury ETF	1,714	↑ 15	0.01	0.08	-	-	-	-	N
XHLF	BondBlox BBG 6M Target Duration US Treasury	1,154	↑ 12	0.02	0.03	-	-	-	-	N
YEAR	AB Ultra Short Income ETF	1,021	↑ 8	0.03	0.25	-	Y	-	-	N
GSST	Goldman Sachs Access Ultra Short Bond ETF	593	4	0.02	0.16	-	Y	-	-	N
ULST	SPDR SSGA Ultra Short Term Bond ETF	581	5	0.04	0.20	-	Y	-	-	N
XBIL	US Treasury 6 Month Bill ETF	557	↑ 7	0.02	0.15	-	-	-	-	L
DUSB	Dimensional Ultrashort Fixed Income ETF	506	5	0.04	0.15	-	Y	-	-	N
UYLD	Angel Oak Ultrashort Income ETF	427	↑ 3	1.26	0.29	-	Y	-	-	N
CLIP	Global X 1-3 Month T-Bill ETF	388	6	0.04	0.07	-	-	-	-	L
BILZ	PIMCO Ultra Short Government Active ETF	327	4	0.02	0.14	-	Y	-	-	N
OBIL	US Treasury 12 Month Bill ETF	207	↑ 2	0.02	0.15	-	-	-	-	N
FUMB	First Trust Ultra Short Duration Municipal ETF	203	↓ 1	0.07	0.45	-	Y	-	-	N
TBUX	T Rowe Price Ultra Short-Term Bond ETF	164	↑ 1	0.12	0.17	-	Y	-	-	N
SOF	Amplify Samsung Sof ETF	161	1	0.42	0.20	-	Y	-	-	N
OPER	ClearShares Ultra-Short Maturity ETF	155	↓ 2	0.05	0.20	-	Y	-	-	N
PULT	Pulham ESG Ultra Short ETF	90	↓ 1	0.03	0.25	-	Y	Y	-	N
TUSI	Touchstone Ultra Short Income ETF	82	↑ 0	0.14	0.25	-	Y	-	-	N
BKUI	BNY Mellon Ultra Short Income ETF	74	↑ 1	0.07	0.12	-	Y	-	-	N
BAMU	Brookstone Ultra-Short Bond ETF	62	0	0.25	0.95	-	Y	-	-	N
CVSB	Calvert Ultra-Short IG ETF	55	↑ 0	0.15	0.24	-	Y	Y	-	N
EVSU	Eaton Vance Ultra-Short Income ETF	40	0	0.19	0.17	-	Y	-	-	N
NUSB	Nuveen Ultra Short Income ETF	16	-	0.17	-	-	Y	-	-	N
FLUD	Franklin Ultra Short Bond ETF	5	↑ 0	1.45	0.15	-	Y	-	-	N
TRES	Defiance Treasury Alternative Yield ETF	3	-	0.75	-	-	Y	-	-	N
Municipals										
MUB	iShares National Muni Bond	36,689	395	0.01	0.05	-	-	-	-	M
VTEB	Vanguard Tax-Exempt Bond Index	32,130	↑ 218	0.02	0.05	-	-	-	-	L
SUB	iShares Short-Term National Muni Bond	8,674	47	0.02	0.07	-	-	-	-	N
SHM	SPDR Nuveen BBG ST Municipal Bond	3,781	16	0.03	0.20	-	-	-	-	N
TFI	SPDR Nuveen BBG Municipal Bond	3,506	27	0.03	0.23	-	-	-	-	L
HYD	VanEck HY Muni	2,940	35	0.03	0.32	-	-	-	-	L
CMF	iShares California Muni Bond	2,812	↑ 13	0.03	0.08	-	-	-	-	L
PZA	Invesco Nat AMT-Free Municipal Bond	2,791	↑ 19	0.06	0.28	-	-	-	-	L
HYMB	SPDR Nuveen BBG HY Municipal Bond	2,645	↑ 29	0.04	0.35	-	-	-	-	L

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active, Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Municipals (Continued)										
FMB	First Trust Managed Municipal ETF	1,955	9	0.04	0.65	-	Y	-	-	N
ITM	VanEck Intermediate Muni	1,788	14	0.03	0.18	-	-	-	-	L
MUNI	PIMCO Intermediate Municipal Bond Active ETF	1,467	↑ 9	0.03	0.35	-	Y	-	-	L
JMUB	JPMorgan Municipal ETF	1,415	↑ 10	0.03	0.18	-	Y	-	-	N
DFNM	Dimensional National Municipal Bond ETF	1,250	↑ 5	0.04	0.17	-	Y	-	-	N
BAB	Invesco Taxable Municipal Bond	1,169	↓ 9	0.06	0.28	-	-	-	-	L
PWZ	Invesco California AMT-Free Mun Bond	840	↑ 3	0.14	0.28	-	-	-	-	L
CGMU	Capital Group Municipal Income ETF	747	↑ 6	0.05	0.27	-	Y	-	Y	N
NYF	iShares New York Muni Bond	709	↑ 4	0.04	0.25	-	-	-	-	N
MMIT	IQ MacKay Municipal Intermediate ETF	659	↑ 3	0.07	0.36	-	Y	-	-	N
MEAR	BlackRock Short Maturity Municipal Bond ETF	626	↑ 4	0.09	0.25	-	Y	-	-	N
FMHI	First Trust Municipal High Income ETF	614	↑ 4	0.19	0.70	-	Y	-	-	N
SMMU	PIMCO Short Term Municipal Bond Active ETF	577	3	0.09	0.35	-	Y	-	-	N
IBMN	iShares iBonds Dec 2025 Term Muni Bond	518	3	0.05	0.18	-	-	-	-	N
TAFI	AB Tax Aware Short Duration Municipal ETF	508	↑ 4	0.07	0.27	-	Y	-	-	N
MMIN	IQ MacKay Municipal Insured ETF	460	↑ 2	0.10	0.36	-	Y	-	-	N
IBMM	iShares iBonds Dec 2024 Term Muni Bond	458	↓ 2	0.05	0.18	-	-	-	-	N
MLN	VanEck Long Muni	458	↑ 5	0.07	0.24	-	-	-	-	L
IBMO	iShares iBonds Dec 2026 Term Muni Bond	456	↑ 2	0.05	0.18	-	-	-	-	N
VTES	Vanguard Short-Term Tax-Exempt Bond ETF	440	↑ 4	0.03	0.07	-	-	-	-	N
TAXF	American Century Div Municipal Bond	435	↑ 2	0.16	0.29	-	Y	-	-	N
IBMP	iShares iBonds Dec 2027 Term Muni Bond	424	↑ 2	0.06	0.18	-	-	-	-	N
FSMB	First Trust Short Duration Managed Municipal ETF	418	2	0.07	0.55	-	Y	-	-	L
HMOP	Hartford Municipal Opp ETF	414	2	0.31	0.29	-	Y	-	-	N
MUST	Columbia Multi-Sector Municipal Income	400	↑ 2	0.16	0.23	-	-	-	-	N
SCMB	Schwab Municipal Bond ETF	323	↑ 2	0.09	0.03	-	-	-	-	N
SHYD	VanEck Short HY Muni	320	2	0.28	0.35	-	-	-	-	N
IBMQ	iShares iBonds Dec 2028 Term Muni Bond	316	↑ 1	0.07	0.18	-	-	-	-	N
DFCA	Dimensional California Municipal Bond ETF	278	1	0.14	0.19	-	Y	-	-	N
SMB	VanEck Short Muni	254	1	0.07	0.07	-	-	-	-	L
XMPT	VanEck CEF Muni Income	226	1	0.18	1.82	-	-	-	-	N
FCAL	First Trust California Municipal High Income ETF	223	↑ 2	0.31	0.65	-	Y	-	-	N
FLMI	Franklin Dynamic Municipal Bond ETF	220	↑ 1	0.10	0.30	-	Y	-	-	N
BSPM	Invesco Bullet 2025 Municipal Bond	216	↑ 1	0.08	0.18	-	-	-	-	N
JMSI	JPMorgan Sustainable Municipal Income ETF	209	↑ 1	0.13	0.18	-	Y	Y	-	N
BSMO	Invesco Bullet 2024 Municipal Bond	201	1	0.14	0.18	-	-	-	-	N
BSMQ	Invesco Bullet 2026 Municipal Bond	189	↑ 1	0.07	0.18	-	-	-	-	N
JMHI	JPMorgan High Yield Municipal ETF	173	↑ 1	0.12	0.35	-	Y	-	-	N
MINO	PIMCO Municipal Income Opp Active ETF	154	↑ 1	0.27	0.39	-	Y	-	-	N
VTEI	Vanguard Intermediate Tax-Exempt Bond ETF	148	-	0.06	0.08	-	-	-	-	N
AVMU	Avantis Core Municipal Fixed Income ETF	142	↑ 0	0.14	0.15	-	Y	-	-	N
BSMR	Invesco Bullet 2027 Municipal Bond	137	↑ 1	0.10	0.18	-	-	-	-	N
APMU	Activepassive Intermediate Municipal Bond ETF	128	↑ 1	0.69	0.36	-	Y	-	-	N
RVNU	Xtrackers Municipal Infra Revenue Bond	128	0	0.32	0.15	-	-	-	-	N
EVSU	Eaton Vance Short Duration Municipal Income	123	-	0.15	0.19	-	Y	-	-	N
PZT	Invesco NY AMT-Free Mun Bond	112	↑ 1	0.55	0.28	-	-	-	-	N
FLMB	Franklin Municipal Green Bond	111	0	0.46	0.30	-	Y	Y	-	N
HYMU	BlackRock HY Muni Income Bond ETF	106	↑ 1	0.14	0.35	-	Y	-	-	N
BSMS	Invesco Bullet 2028 Municipal Bond	101	↑ 1	0.09	0.18	-	-	-	-	N
BSMT	Invesco Bullet 2029 Municipal Bond	100	↑ 1	0.10	0.18	-	-	-	-	N
IBMR	iShares iBonds Dec 2029 Term Muni Bond ETF	96	↑ 1	0.08	0.18	-	-	-	-	N
BSMU	Invesco Bullet 2030 Municipal Bond	86	↑ 0	0.10	0.18	-	-	-	-	N

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Municipals (Continued)											
RTAI	Rareview Tax Advantaged Income ETF	19	0	0.65	3.78	-	Y	-	-	N	
MINN	Mairs & Power Minnesota Municipal Bond ETF	19	0	2.54	0.25	-	Y	-	-	N	
FMNY	First Trust New York Municipal High Income ETF	19	↑	0	0.73	0.65	-	Y	-	N	
MFLX	First Trust Flexible Municipal High Income ETF	16	↑	0	0.96	0.88	-	Y	-	N	
SMI	VanEck HIP Sustainable Muni ETF	11	↓	0	0.21	0.24	-	Y	Y	N	
GMUN	Goldman Sachs Community Municipal Bond ETF	10	↓	0	0.23	0.15	-	-	Y	N	
STAX	Macquarie Tax-Free USA Short Term ETF	5	0	0.26	0.29	-	Y	-	-	N	
ZTAX	X-Square Municipal Income ETF	3	↑	0	1.10	-	-	Y	-	N	
IBMS	iShares Bonds Dec 2030 Term Muni Bond ETF	2	-	-	0.18	-	-	-	-	N	
GENM	Genter Capital Municipal Quality Intermediate ETF	0	-	-	0.38	-	Y	-	-	N	
Mortgage											
MBB	iShares MBS	30,498	233	0.01	0.04	-	-	-	-	L	
VMBS	Vanguard MBS	17,291	73	0.02	0.04	-	-	-	-	L	
SPMB	SPDR Portfolio Mortgage Backed Bond	5,107	↑	18	0.05	0.04	-	-	-	L	
JMBS	Janus Henderson MBS ETF	4,032	↑	20	0.03	0.23	-	Y	-	L	
LMBS	First Trust Low Duration Opp ETF	4,024	23	0.04	0.64	-	Y	-	-	L	
MTBA	Simplify MBS ETF	715	8	0.04	0.15	-	Y	-	-	N	
JPLD	JPMorgan Limited Duration Bond ETF	701	2	0.16	0.24	-	Y	-	-	N	
CMBS	iShares CMBS	428	3	0.28	0.25	-	-	-	-	L	
GNMA	iShares GNMA Bond	317	3	0.32	0.10	-	-	-	-	N	
DMBS	DoubleLine Mortgage ETF	301	↑	3	0.09	0.49	-	Y	-	N	
JSI	Janus Henderson Securitized Income ETF	276	2	0.17	0.50	-	Y	-	-	N	
DCRE	DoubleLine Commercial Real Estate ETF	137	↑	1	0.16	0.39	-	Y	-	N	
OWNS	CCM Affordable Housing MBS ETF	117	0	0.30	0.30	-	Y	-	-	N	
MBSD	Flex - Flex Disciplined Duration Mbs Idx	80	0	0.07	0.20	-	-	-	-	N	
TSEC	Touchstone Securitized Income ETF	69	0	0.30	0.40	-	Y	-	-	N	
DEED	First Trust TCW Securitized Plus ETF	68	1	0.27	0.76	-	Y	-	-	N	
MBS	Angel Oak Mortgage-Backed Securities ETF	61	-	-	0.49	-	Y	-	-	N	
RISR	FolioBeyond Rising Rates ETF	58	1	2.15	1.13	-	Y	-	-	N	
VETZ	Academy Veteran Impact ETF	57	0	1.40	0.35	-	Y	-	-	N	
MTGP	WisdomTree Mortgage Plus Bond Fund	52	↑	0	0.34	0.45	-	Y	-	N	
MBSF	Regan Floating Rate MBS ETF	50	-	-	0.69	0.49	-	Y	-	N	
JHMB	John Hancock MBS ETF	43	↑	0	0.25	0.39	-	Y	-	N	
CAAA	First Trust Commercial Mortgage Opportunities	15	-	-	0.69	0.55	-	Y	-	N	
VABS	Virtus Newfleet ABS/MBS ETF	10	↓	0	0.48	0.39	-	Y	-	N	
Inflation											
TIP	iShares TIPS Bond	18,260	247	0.01	0.19	-	-	-	-	L	
VTIP	Vanguard ST Inflation-Protected Sec.	10,864	↓	62	0.02	0.04	-	-	-	L	
SCHP	Schwab US TIPS	10,766	70	0.02	0.03	-	-	-	-	L	
STIP	iShares 0-5 Year TIPS Bond	7,967	↓	62	0.01	0.03	-	-	-	L	
TDTT	Flex iBoxx 3-Yr Tgt Dur TIPS Idx	1,752	6	0.04	0.18	-	-	-	-	L	
TIPX	SPDR BBG 1-10 Year TIPS	1,355	5	0.06	0.15	-	-	-	-	L	
SPIP	SPDR Portfolio TIPS	1,240	↓	8	0.05	0.12	-	-	-	L	
LTPZ	PIMCO 15+ Year U.S. TIPS Index	746	↑	11	0.04	0.20	-	-	-	L	
TDTF	Flex iBoxx 5-Yr Tgt Dur TIPS Idx	688	5	0.05	0.18	-	-	-	-	L	
IVOL	Quadratic Int Rate Vol & Inflation Hedge ETF	664	7	0.06	1.03	-	Y	-	-	L	
JCPI	JPMorgan Inflation Managed Bond ETF	638	↑	3	0.23	0.25	-	Y	-	L	
DFIP	Dimensional Inflation-Protected Securities ETF	553	↑	3	0.03	0.11	-	Y	-	L	
STPZ	PIMCO 1-5 Year U.S. TIPS Index	497	↓	4	0.03	0.20	-	-	-	L	
WIP	SPDR FTSE Int Govt Inflation-Protected Bnd	392	2	0.45	0.50	-	-	-	-	N	
GTIP	GS Access Inflation Protected USD Bond	122	1	0.09	0.12	-	-	-	-	N	
TIPZ	PIMCO Broad U.S. TIPS Index	96	↓	1	0.04	0.20	-	-	-	N	
PBTP	Invesco 0-5 Yr US TIPS ETF	54	↓	0	0.09	0.07	-	-	-	N	
BNDD	Quadratic Deflation ETF	26	↓	1	0.14	1.04	-	Y	-	N	
RINF	ProShares Inflation Expectations	22	↓	0	0.16	0.30	-	-	-	N	
IBIC	iShares iBonds Oct 2026 Term TIPS ETF	18	0	0.07	0.10	-	-	-	-	N	
IBIB	iShares iBonds Oct 2025 Term TIPS ETF	17	0	0.08	0.10	-	-	-	-	N	
IBID	iShares iBonds Oct 2027 Term TIPS ETF	17	0	0.16	0.10	-	-	-	-	N	
IBIE	iShares iBonds Oct 2028 Term TIPS ETF	15	0	0.08	0.10	-	-	-	-	N	
IBIJ	iShares iBonds Oct 2033 Term TIPS ETF	15	0	0.09	0.10	-	-	-	-	N	
CPIL	Ionic Inflation Protection ETF	14	↑	0	1.17	0.70	-	Y	-	L	
IBIF	iShares iBonds Oct 2029 Term TIPS ETF	14	0	0.08	0.10	-	-	-	-	N	
IBIG	iShares iBonds Oct 2030 Term TIPS ETF	13	0	0.08	0.10	-	-	-	-	N	
IBIA	iShares iBonds Oct 2024 Term TIPS ETF	13	0	0.10	0.10	-	-	-	-	N	
IBIH	iShares iBonds Oct 2031 Term TIPS ETF	11	0	0.08	0.10	-	-	-	-	N	
IBII	iShares iBonds Oct 2032 Term TIPS ETF	10	0	0.08	0.10	-	-	-	-	N	
IBIK	iShares iBonds Oct 2034 Term TIPS ETF	2	-	-	0.10	-	-	-	-	N	
IRVH	Global X Interest Rate Vol & Inflation Hedge ETF	2	↓	0	0.20	0.50	-	Y	-	L	
BBIP	JPM BetaBuilders US TIPS 0-5 Year ETF	1	↓	0	1.36	0.07	-	-	-	N	
International											
BNDX	Vanguard Total International Bond ETF	55,561	197	0.02	0.07	-	-	-	Y	L	
IUSB	iShares Core Total USD Bond Market	28,338	↑	132	0.02	0.06	-	-	-	L	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
International (Continued)											
EMB	iShares JPM USD EM Bond	14,759	555	0.01	0.39	-	-	-	-	H	
IAGG	iShares Core International Agg Bond ETF	5,975	↑	25	0.02	0.07	-	-	-	Y L	
VVOB	Vanguard EM Government Bond	4,887	↑	36	0.04	0.20	-	-	-	L	
BINC	Blackrock Flexible Income ETF	3,088	↑	30	0.03	0.40	-	Y	-	N	
TOTL	SPDR Doubleline TR Tactical ETF	2,894	20	0.03	0.55	-	Y	-	-	L	
EMLC	VanEck JPM EM Local Currency Bond	2,793	33	0.04	0.30	-	-	-	-	L	
VNLA	Janus Henderson Short Duration Income ETF	2,257	19	0.03	0.23	-	Y	-	-	L	
EBND	SPDR BBG EM Local Bond	1,957	↑	6	0.06	0.30	-	-	-	L	
PCY	Invesco EM Sovereign Debt	1,497	11	0.06	0.50	-	-	-	-	N	
RAVI	FlexShares Ultra-Short Income Fund	1,139	5	0.02	0.25	-	Y	-	-	N	
BWX	SPDR BBG Int Trsny Bond	886	9	0.07	0.35	-	-	-	-	L	
LDUR	PIMCO Enhanced Low Duration Active ETF	883	6	0.05	0.46	-	Y	-	-	N	
BNDW	Vanguard Total World Bond	813	↑	4	0.02	0.05	-	-	-	N	
DFPG	Dimensional Global Core Plus Fixed Income ETF	696	6	0.08	0.22	-	Y	-	Y	N	
JPMB	JPMorgan USD EM Sovereign Bond	603	↑	2	0.14	0.39	-	-	-	N	
FLIA	Franklin International Agg Bond ETF	521	↑	2	0.08	0.25	-	Y	-	Y N	
IGOV	iShares International Trsny Bond	502	↓	7	0.45	0.35	-	-	-	L	
JPIB	JPM International Bond Opp ETF	441	↑	2	0.17	0.50	-	Y	-	N	
LEMB	iShares JPM EM Local Curr Bond	427	3	0.11	0.30	-	-	-	-	L	
CEMB	iShares JPM EM Corp Bond	426	2	0.04	0.50	-	-	-	-	L	
EMHY	iShares J.P. Morgan EM HY Bond	407	2	0.05	0.50	-	-	-	-	N	
HYEM	VanEck EM HY Bond	372	3	0.12	0.40	-	-	-	-	L	
DFGX	Dimensional Global ex US Core Fixed Income	366	3	0.11	0.20	-	Y	-	Y	N	
BGRN	iShares USD Green Bond ETF	352	1	0.06	0.20	-	-	Y	Y	N	
DIAL	Columbia Diversified FI Allocation	349	2	0.08	0.28	-	-	-	-	N	
EMHC	SPDR BBG EM USD Bond	307	↑	2	0.14	0.23	-	-	-	N	
DFSB	Dimensional Global Sust Fixed Income ETF	297	↑	2	0.12	0.24	-	Y	Y	N	
DGCB	Dimensional Global Credit ETF	248	2	0.11	0.20	-	Y	-	Y	N	
XEMD	BondBlox JPM USD EM 1-10 Year Bond ETF	212	0	0.20	0.29	-	-	-	-	N	
SPSK	SP Funds Dow Jones Global Sukuk	201	↑	2	1.43	0.55	-	Y	-	N	
IBND	SPDR BBG Int Corp Bond	157	2	0.28	0.50	-	-	-	-	L	
BWZ	SPDR BBG ST Int Trsny Bond	151	1	0.66	0.35	-	-	-	-	N	
FEMB	First Trust EM Local Currency Bond ETF	150	2	0.64	0.85	-	Y	-	-	N	
EMBD	Global X EM Bond ETF	145	↑	0	0.48	0.39	-	Y	-	L	
GHYD	iShares US & International HY Corp Bond	131	1	0.23	0.40	-	-	-	-	N	
PICB	Invesco International Corp Bond	125	1	0.12	0.50	-	-	-	-	N	
NFLT	Virtus Newfleet Multi-Sector Bond ETF	102	↑	1	0.87	0.50	-	Y	-	N	
RIGS	Riverfront Strategic Income Fund	97	1	0.49	0.47	-	Y	-	-	N	
GRNB	VanEck Green Bond	93	↑	0	0.13	0.20	-	Y	-	N	
EMTL	SPDR DoubleLine EM Fixed Income ETF	86	0	0.13	0.65	-	Y	-	-	N	
ELD	WisdomTree EM Local Debt Fund	81	↓	0	1.08	0.55	-	Y	-	L	
ISHG	iShares 1-3 Year Int Trsny Bond	81	0	0.50	0.35	-	-	-	-	N	
CRDT	Simplify Opportunistic Income ETF	73	0	0.25	0.50	-	Y	-	-	N	
EMCB	WisdomTree EM Corp Bond Fund	61	↑	0	1.09	0.60	-	Y	-	N	
GEMD	GS Access EM USD Bond	59	0	0.16	0.39	-	-	-	-	N	
HYXU	iShares International HY Bond	49	0	0.18	0.40	-	-	-	-	L	
FIU	UVA Unconstrained Medium-Term FI ETF	43	↓	0	1.06	0.54	-	Y	-	N	
BEMB	iShares JPM Broad USD EM Bond ETF	41	0	0.15	0.18	-	-	-	-	N	
EFIX	First Trust TCW EM Debt ETF	40	↑	0	2.22	0.95	-	Y	-	N	
WBND	Western Asset TR ETF	38	0	0.14	0.45	-	Y	-	-	N	
SIFI	Harbor Scientific Alpha Income ETF	33	0	0.17	0.50	-	Y	-	-	N	
IHY	VanEck International HY Bond	29	↓	0	0.42	0.40	-	-	-	L	
AEMB	American Century EM Bond ETF	29	0	0.43	-	-	Y	-	-	N	
CBON	VanEck China Bond	24	↓	0	0.21	0.51	-	-			

US LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Currency											
Fiat Currency (Continued)											
EURO	ProShares UltraShort Euro	37	↓	1	0.06	0.95	-2x	-	-	-	L
CEW	WisdomTree Emerging Currency Strategy Fund	7		0	0.30	0.55	-	Y	-	-	L
ULE	ProShares Ultra Euro	6	↓	0	0.13	0.95	+2x	-	-	-	L
Cryptocurrency											
IBIT	iShares Bitcoin Trust	19,674		-	0.03	0.21	-	-	-	-	N
GBTC	Grayscale Bitcoin Trust BTC	19,259	↓	775	0.02	1.50	-	-	-	-	N
FBTC	Fidelity Wise Origin Bitcoin Fund	11,082		-	0.02	0.00	-	-	-	-	N
ARKB	ARK 21Shares Bitcoin ETF	3,183		-	0.05	0.21	-	-	-	-	N
BITB	Bitwise Bitcoin ETF	2,482		-	0.04	0.11	-	-	-	-	N
BITO	ProShares Bitcoin Strat	2,115	↑	498	0.04	0.95	-	Y	-	-	H
BITX	2x Bitcoin Strategy ETF	1,571		148	0.08	1.85	+2x	Y	-	-	M
HODL	VanEck Bitcoin Trust	690		-	0.10	0.20	-	-	-	-	N
BRRR	Valkyrie Bitcoin Fund	579		-	0.07	0.25	-	-	-	-	N
BTCO	Invesco Galaxy Bitcoin ETF	493		-	0.09	0.00	-	-	-	-	N
EZBC	Franklin Bitcoin ETF	415		-	0.12	0.00	-	-	-	-	N
BITU	ProShares Ultra Bitcoin ETF	219		-	0.18	0.95	+2x	-	-	-	L
EETH	ProShares Ether Strategy ETF	98		7	0.16	0.95	-	Y	-	-	N
BTCW	WisdomTree Bitcoin Fund	88		-	0.09	0.00	-	-	-	-	N
BITI	ProShares Short Bitcoin Strat	79	↑	51	0.13	0.95	-1x	-	-	-	L
BTF	Valkyrie Bitcoin Strat	56		2	0.23	1.24	-	Y	-	-	N
BTFX	Valkyrie Bitcoin Futures Leveraged Strategy ETF	40		-	0.22	1.85	+2x	Y	-	-	L
EFUT	VanEck Ethereum Strategy ETF	32		1	0.29	0.66	-	Y	-	-	L
YBTC	Roundhill Bitcoin Covered Call Strategy ETF	30		-	1.28	0.95	-	Y	-	-	L
MAXI	Simplify Bitcoin Strategy PLUS Income ETF	23	↓	1	0.60	11.18	-	Y	-	-	L
ARKA	ARK 21Shares Active Bitcoin Futures Strategy	18		1	0.22	0.70	-	Y	-	-	N
YBIT	YieldMax Bitcoin Option Income Strategy ETF	15		-	0.93	0.99	-	Y	-	-	L
AETH	Bitwise Ethereum Strategy ETF	15		1	0.23	0.90	-	Y	-	-	N
ARKZ	ARK 21Shares Active Ethereum Futures Strategy	14		0	0.24	0.70	-	Y	-	-	N
BITC	Bitwise Bitcoin Strategy Optimum Roll ETF	13	↑	1	0.16	0.85	-	Y	-	-	N
DEFI	Hashdex Bitcoin ETF	12	↑	1	0.85	0.94	-	-	-	-	N
SBIT	ProShares UltraShort Bitcoin ETF	10		-	0.21	0.95	-2x	-	-	-	N
BTOP	Bitwise Bitcoin And Ether Equal Weight Strat	10		0	0.15	0.85	-	Y	-	-	N
BETH	ProShares Bitcoin & Ether Strategy ETF	8		0	0.45	0.95	-	Y	-	-	N
SETH	ProShares Short Ether Strategy ETF	7		0	0.29	0.95	-1x	-	-	-	N
BETE	ProShares Bitcoin & Ether Equal Weight Strat	6		0	0.45	0.95	-	Y	-	-	N
ARKY	ARK 21Shares Active Bitcoin Ethereum Strat	5		0	0.33	1.00	-	Y	-	-	L
ARKC	ARK 21Shares Active On-Chain Bitcoin Strategy	2		0	0.31	0.93	-	Y	-	-	L
BTRN	Global X Bitcoin Trend Strategy ETF	2		-	0.35	0.95	-	-	-	-	L
Commodity											
Broad Commodities											
PDBC	Invesco Opt Yld Diversified Cmty Strat No K-1	5,195		59	0.07	0.59	-	Y	-	-	L
FTGC	First Trust Global Tactical Cmty Strategy Fund	2,416		17	0.05	1.02	-	Y	-	-	L
DBC	Invesco DB Commodity Idx Tracking Fund	1,781		30	0.04	0.87	-	-	-	-	L
GSG	iShares S&P GSCI Commodity Idx Trd Trust	1,067		13	0.05	0.75	-	-	-	-	L
BCI	Abrdn BBG All Commodity Strat K-1 Free	1,053	↑	9	0.05	0.26	-	-	-	-	L
COMT	iShares GSCI Commodity Dynamic	972	↑	8	0.05	0.48	-	-	-	-	L
DJP	iPath BBG Commodity Index TR	585		4	0.08	0.70	-	-	-	-	L
COM	Direxion Auspice Broad Cmty Strat	281		2	0.08	0.80	-	-	-	-	L
CMCT	PIMCO Cmty Strat Active ETF	276	↑	1	0.23	0.65	-	Y	-	-	N
NBCM	Neuberger Berman Commodity Strat	266		1	0.31	0.66	-	Y	-	-	N
CMDY	iShares BBG Roll Select Commodity Strat	236	↓	2	0.11	0.28	-	-	-	-	L
BCD	Abrdn BBG All Cmty Long Dtd Strat K-1	230		2	0.18	0.30	-	-	-	-	L
UCSI	United States Commodity Index Fund	183		1	0.26	1.07	-	-	-	-	L
HGER	Harbor All Weather Inflation Focus	168	↑	1	0.24	0.68	-	-	-	-	L
GCC	WisdomTree Enhanced Cmty Strat Fund	139	↓	1	0.67	0.55	-	Y	-	-	L
FAAR	First Trust Alternative Absolute Return Strat	123	↓	1	0.37	1.01	-	Y	-	-	N
GSCE	GS Connect S&P GSCI Enh Cmty TR Strat	98		-	1.25	-	-	-	-	-	N
COMB	GraniteShares BBG Cmty Broad Strat no K-1	92	↓	1	0.08	0.25	-	Y	-	-	L
CCR	iShares Commodity Curve Carry Strategy	47	↑	1	0.22	0.40	-	-	-	-	L
DJCB	ETRACS BBG Commodity Idx TR Series B	45	↓	0	0.50	-	-	-	-	-	N
BDRY	Breakwave Dry Bulk Shipping	42	↓	3	0.53	3.50	-	-	-	-	L
UCIB	ETRACS UBS BBG Const Mat Cmty CMCI TR	29		0	0.55	-	-	-	-	-	L
PIT	VanEck Commodity Strat	24		0	0.89	0.55	-	Y	-	-	N
RENEW	Harbor Energy Transition Strat	23		0	0.92	0.80	-	-	Y	-	N
SDCI	USCF SummerHaven Dyn Cmty Strat No K-1	22	↑	0	0.42	0.64	-	Y	-	-	N
DCMT	DoubleLine Commodity Strategy ETF	22		-	0.18	0.65	-	Y	-	-	N
HCOM	Harford Schroders Commodity Strat	11	↓	0	2.40	0.60	-	Y	-	-	L
HARD	Simplify Commodities Strategy NO K-1 ETF	11	↑	0	0.80	0.75	-	Y	-	-	N
CMCI	VanEck CmcI Commodity Strategy ETF	3		0	2.87	0.65	-	-	-	-	N
ZSC	USCF Sustainable Commodity Strategy Fund	3		0	0.59	-	-	Y	Y	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Energy											
USO	United States Oil Fund LP	1,241	↓	326	0.01	0.60	-	-	-	-	H
UNG	United States Natural Gas Fund LP	685		130	0.06	1.06	-	-	-	-	M
UCO	ProShares Ultra BBG Crude Oil	543	↓	72	0.03	0.95	+2x	-	-	-	L
BOIL	ProShares Ultra BBG Natural Gas	499	↑	165	0.07	0.95	+2x	-	-	-	M
USOI	UBS AG ETRACS Crude Oil Shares Cov Call	376	↑	3	0.37	0.85	-	-	-	-	N
KRBN	KraneShares Global Carbon Strategy	336	↓	3	0.42	0.79	-	-	Y	-	L
KCCA	KraneShares California Carbon	262		1	0.44	0.81	-	-	Y	-	L
DBO	Invesco DB Oil Fund	234		7	0.07	0.77	-	-	-	-	L
SCO	ProShares UltraShort BBG Crude Oil	181	↑	38	0.06	0.95	-2x	-	-	-	L
KOLD	Pro UltraShort BBG Natural Gas	147	↓	130	0.16	0.95	-2x	-	-	-	M
OILK	Pro-Pro K-1 Free Crude Oil Strategy	133	↑	3	0.13	0.73	-	-	-	-	L
BNO	United States Brent Oil Fund LP	123	↓	19	0.03	1.00	-	-	-	-	L
DBE	Invesco DB Energy Fund	85		1	0.20	0.77	-	-	-	-	L
UGA	United States Gasoline Fund LP	65		2	0.13	0.97	-	-	-	-	L
USL	United States 12 Month Oil Fund LP	62	↓	0	0.22	0.85	-	-	-	-	L
GRN	iPath Series B Carbon ETN	29	↓	0	1.37	0.75	-	-	Y	-	L
UNL	United States 12 Month Natural Gas LP	19	↑	1	0.33	1.71	-	-	-	-	L
KEUA	KraneShares European Carbon AI	13	↓	0	0.56	0.79	-	-	Y	-	L
AMPD	Cnic Ioe US Carbon Neutral Power Idx ETF	5	↑	0	2.76	0.95	-	-	Y	-	N
USE	USCF Energy Cmty Strat Abs Return	4		0	0.26	0.79	-	-	Y	-	N
BWET	Breakwave Tanker Shipping ETF	4		1	3.50	-	-	Y	-	-	L
USOY	Defiance Oil Enhanced Options Income ETF	2		-	0.54	0.99	-	Y	-	-	N
Precious Metals											
GLD	SPDR Gold Shares	62,810		1,646	0.01	0.40	-	-	-	-	H
IAU	iShares Gold Trust	28,774		290	0.02	0.25	-	-	-	-	M
SLV	iShares Silver Trust	12,932		669	0.04	0.50	-	-	-	-	H
GLDM	SPDR Gold MiniShares Trust	7,390		170	0.02	0.10	-	-	-	-	N
PHYS	Sprott Physical Gold Trust	7,280		37	0.06	0.41	-	-	-	-	N
PSLV	Sprott Physical Silver Trust	5,197		35	0.10	0.60	-	-	-	-	N
SGOL	Abrdn Gold Trust	3,160		70	0.04	0.17	-	-	-	-	L
SIVR	Abrdn Silver Trust	1,405		34	0.04	0.30	-	-	-	-	L
IAUM	iShares Gold Trust Micro	1,187		22	0.04	0.09	-	-	-	-	N
PPLT	Abrdn Platinum Trust	1,091		14	0.19	0.60	-	-	-	-	N
BAR	GraniteShares Gold Trust	1,063		19	0.04	0.18	-	-	-	-	N
GLTR	Abrdn Precious Metals Basket Trust	1,031		3	0.14	0.60	-	-	-	-	N
OUNZ	VanEck Merk Gold Shares	945		25	0.04	0.25	-	-	-	-	L
AAAU	Goldman Sachs Physical Gold	710		58	0.04	0.18	-	-	-	-	N
AGQ	ProShares Ultra Silver	540		61	0.10	0.95	+2x	-	-	-	M
PALL	Abrdn Palladium Trust	292	↑	6	0.42	0.60	-	-	-	-	N
UGL	ProShares Ultra Gold	225		14	0.07	0.95	+2x	-	-	-	L
DBP	Invesco DB Precious Metals Fund	150	↓	1	0.17	0.77	-	-	-	-	L
SLVO	UBS AG ETRACS Silver Shares Covered Call	122		1	0.40	0.65	-	-	-	-	N
DGP	DB Gold Double Long ETN	99		0	0.84	0.75	+2x	-	-	-	N
IGLD	FT Vest Gold Strategy Target Income ETF	97	↑	0	0.45	0.85	-	Y	-	-	L
GLDI	UBS AG ETRACS Gold Shares Covered Call	83		0	0.49	0.65	-	-	-	-	L
ZSL	ProShares UltraShort Silver	76	↑	12	0.08	0.95	-2x	-	-	-	L
FGDL	Franklin Responsibly Sourced Gold ETF	69	↓	0	0.53	1.15	-	-	Y	-	N
PLTM	GraniteShares Platinum Trust	45		1	0.18	0.50	-	-	-	-	N
IAUF	iShares Gold Strategy	43		1	0.39	0.25	-	-	-	-	L
GDE	WisdomTree Efficient Gold Plus Equity Strat	28	↑	0	0.97	0.20	-	Y	-	-	L
BGLD	FT Vest Gold Strategy Quarterly Buffer ETF	22	↑	0	0.55	0.91	-	Y	-	-	N
SHNY											

US LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Soft Commodities (Continued)											
PDBA	Invesco Agriculture Cmnty Strat NO K-1 ETF	29	↑	1	0.29	0.59	-	Y	-	-	L
TAGS	Teucrium Agricultural Fund	14	↓	0	0.80	0.18	-	-	-	-	L
CANE	Teucrium Sugar Fund	12	↓	0	0.28	0.23	-	-	-	-	L
OAJA	Teucrium Aila Long-Short Agriculture ETF	5	↓	0	0.36	1.63	-	-	-	-	N
TILL	Teucrium Agricultural NO K-1 Strat	2	↓	0	1.14	1.03	-	Y	-	-	L

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None

² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, Y* = Semi/Non-transparent, (Blank) = Passive

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Large Cap										
XIU CN	iShares S&P/TSX 60	9,001	162	0.04	0.18	-	-	-	-	M
HXT CN	Global X S&P/TSX 60 Index Corp	2,762	21	0.04	0.08	-	-	-	-	L
TTP CN	TD CAN Equity	1,323	2	0.11	0.05	-	-	-	-	N
VCE CN	Vanguard FTSE Canada	1,276	4	0.06	0.06	-	-	-	-	N
DRFC CN	Desjardins RI Canada Multifactor	164	↓	1	0.30	0.61	-	-	Y	N
DMEC CN	Desjardins CAN Equity	132	-	0.13	0.05	-	-	-	-	N
QCE CN	Mackenzie CAN Large Cap Equity	93	0	0.07	0.04	-	-	-	-	N
CNDX CN	Global X S&P/TSX 60	61	-	0.13	0.13	-	-	-	-	N
FST CN	First Trust CAN Capital Strength ETF	58	0	0.11	0.66	-	Y	-	-	N
ESGC CN	Invesco S&P/TSX Comp ESG	55	0	0.11	0.17	-	-	Y	-	N
SITC CN	Scotia CAN Large Cap Equity Tracker	51	↑	0	0.10	0.06	-	-	-	N
ZIU CN	BMO S&P/TSX 60	49	0	0.07	0.15	-	-	-	-	L
FCLC CN	Fidelity CAN Large Cap Fund	40	↑	0	0.45	1.10	-	Y	-	N
DRMC CN	Desjardins RI Canada NetZ	37	0	0.81	0.18	-	-	Y	-	N
HXU CN	BetaPro S&P/TSX 60 2x Daily Bull ETF	35	1	0.13	1.11	+2x	-	-	-	Y
INOC CN	Global X Innovator CAN Equity	24	0	0.22	0.75	-	-	-	-	N
HXD CN	BetaPro S&P/TSX 60 2x Daily	20	2	0.22	0.56	-2x	-	-	-	Y
FCCA CN	Fidelity All CAN Equity ETF	8	-	0.34	0.35	-	Y	-	-	N
HIX CN	BetaPro S&P/TSX 60 Daily Inverse ETF	7	↓	0	0.14	0.26	-1x	-	-	Y
HLFE CN	Harvest CAN Equity Ench Inc Lead ETF	3	↓	0	0.30	2.68	+1.25x	-	-	Y
IXTE CN	Invesco S&P/TSX 60 ESG Tilt	2	0	0.30	0.17	-	-	Y	-	N
CANL CN	Global X Ench S&P/TSX 60	2	0	0.11	1.84	+1.25x	-	-	-	N
ICTE CN	Invesco S&P/TSX Comp ESG Tilt	1	↓	0	0.22	0.17	-	-	Y	N
Mid Cap										
XMD CN	iShares S&P/TSX Completion	162	1	0.17	0.60	-	-	-	-	N
Small Cap										
XCS CN	iShares S&P/TSX SmallCap	96	1	0.30	0.60	-	-	-	-	N
Multi Cap										
XIC CN	iShares Core S&P/TSX Comp	8,917	↑	45	0.05	0.06	-	-	-	L
ZCN CN	BMO S&P/TSX Comp	5,604	14	0.07	0.06	-	-	-	-	L
VCN CN	Vanguard FTSE Canada All Cap	4,969	10	0.04	0.05	-	-	-	-	N
NSCE CN	NBI Sustainable CAN Equity ETF	1,484	1	0.14	0.69	-	Y	Y	-	N
QCN CN	Mackenzie CAN Equity	1,040	3	0.11	0.04	-	-	-	-	N
HXC CN	Global X S&P/TSX Comp Index Corp	946	9	0.12	0.05	-	-	-	-	N
CCEI CN	CIBC CAN Equity	434	↑	2	1.24	0.05	-	-	-	N
FCLD CN	Franklin FTSE Canada All Cap	150	0	0.11	0.06	-	-	-	-	N
CCDN CN	CI CAN Equity	132	0	0.14	0.05	-	-	-	-	N
ESGA CN	BMO MSCI Canada ESG Leaders	65	0	0.07	0.17	-	-	Y	-	N
QXM CN	CI Morningstar National Bank Quebec	51	0	0.16	0.58	-	-	-	-	N
CSCE CN	CIBC Sustainable CAN Equity ETF	9	↓	0	0.22	0.73	-	Y	Y	N
TMEC CN	TD Morningstar ESG Canada Equity	7	↓	0	0.34	0.11	-	-	Y	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Growth										
XCG CN	iShares CAN Growth	60	0	0.11	0.55	-	-	-	-	N
Value										
FXM CN	CI Morningstar Canada Value	225	↓	0	0.17	0.89	-	-	-	N
FCCV CN	Fidelity CAN Value ETF	119	↑	0	0.16	0.39	-	-	-	N
XCV CN	iShares CAN Value	63	0	0.09	0.55	-	-	-	-	N
ZVC CN	BMO MSCI Canada Value	38	↑	0	0.10	0.40	-	-	-	N
Dividend										
VDY CN	Vanguard FTSE CAN High Div Yld	1,908	10	0.04	0.22	-	-	-	-	N
XEI CN	iShares S&P/TSX Comp High Div	1,202	5	0.06	0.22	-	-	-	-	N
ZWC CN	BMO CAN High Div Cov Call ETF	1,193	4	0.09	0.72	-	Y	-	-	N
XDV CN	iShares CAN Select Div	1,110	3	0.06	0.55	-	-	-	-	L
ZDV CN	BMO CAN Div ETF	717	2	0.07	0.39	-	Y	-	-	L
CDZ CN	iShares S&P/TSX CAN Div Aristocrats	630	2	0.12	0.66	-	-	-	-	N
PDC CN	Invesco CAN Div	563	1	0.08	0.56	-	-	-	-	N
CDIV CN	Manulife Smart Div ETF	370	↑	1	0.14	0.32	-	Y	-	N
TQCD CN	TD Q CAN Div ETF	321	↑	1	0.25	0.45	-	Y	-	N
DXC CN	Dynamic Active CAN Div ETF	186	↑	1	0.11	0.85	-	Y	-	N
FCCD CN	Fidelity CAN High Div ETF	123	0	0.14	0.39	-	-	-	-	N
PDF CN	Purpose Core Div Fund	118	0	0.14	0.55	-	Y	-	Y	N
RCD CN	RBC Quant CAN Div Leaders ETF	111	0	0.15	0.43	-	Y	-	-	N
HXH CN	Global X CAN High Div Index Corp	93	↑	0	0.13	0.11	-	-	-	N
HAL CN	Global X Active CAN Div ETF	86	0	0.17	0.68	-	Y	-	Y	N
GCFE CN	Guardian CAN Focused Equity Fund	47	0	0.37	0.76	-	Y	-	-	N
RDE CN	Purpose Core Equity Inc Fund	25	↑	1	0.16	0.75	-	Y	-	N
RDCD CN	RBC CAN Div Cov Call ETF	24	↑	0	0.19	0.71	-	Y	-	N
BGC CN	BRISTOL GATE Concentrate ETF	16	↑	0	0.26	0.85	-	Y	-	N
NDIV CN	NBI CAN Div Inc ETF	10	-	0.12	0.63	-	Y	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, (Blank) = Passive

⁴ Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Dividend (Continued)										
ICAE CN	Invesco S&P/TSX CAN Div Aristo ESG	5	↑	0	0.15	0.23	-	-	Y	-
RCEI CN	RBC CAN Equity Inc Fund	1	0	0.87	0.79	-	-	Y	-	N
Low Volatility										
ZLB CN	BMO Low Vol CAN Equity ETF	2,587	10	0.04	0.39	-	Y	-	-	L
XWV CN	iShares MSCI Min Vol Canada	147	0	0.11	0.33	-	-	-	-	N
FCCL CN	Fidelity CAN Low Vol ETF	72	↑	0	0.11	0.39	-	-	-	N
TLV CN	Invesco S&P/TSX Comp Low Vol	61	↓	1	0.14	0.34	-	-	-	N
TCLV CN	TD Q CAN Low Vol ETF	23	0	0.15	0.34	-	Y	-	-	N
Momentum										
WXM CN	CI Morningstar Canada Momentum	405	1	0.13	0.84	-	-	-	-	N
FCCM CN	Fidelity CAN Momentum ETF	70	↑	0	0.17	0.38	-	-	-	N
Quality										
FCCQ CN	Fidelity CAN High Quality ETF	86	↑	1	0.11	0.39	-	-	-	N
GCSC CN	Guardian CAN Sector Control Equity	12	↑	0	0.13	0.67	-	Y	-	N
Multi-factor										
XDIV CN	iShares Core MSCI CAN Quality Div	913	↑	5	0.06	0.11	-	-	-	N
DGRC CN	CI Canada Quality Div Growth	588	↑	2	0.10	0.23	-	-	-	N
MCLC CN	Manulife Multifactor CAN Large Cap	240	0	0.15	0.41	-	Y	-	-	N
MCSM CN	Manulife Multifactor CAN Smid Cap	198	↑	1	0.24	0.60	-	Y	-	N
PXC CN	Invesco FTSE RAFI CAN Funda Index	134	0	0.09	0.51	-	-	-	-	N
CRQ CN	iShares CAN Fundamental	66	0	0.10	0.72	-	-	-	-	N
MPY CN	Mulvihill Prem Yld Fund	6	↑	0	0.74	2.92	-	Y	-	N
FLVC CN	Franklin CAN Low Vol High Div	1	-	0.12	0.27	-	-	-	-	N
CQLC CN	CIBC Qx CAN Low Vol Div	1	0	0.24	0.34	-	Y	-	-	N
CDEF CN	Manulife Smart Defensive Equity	1	-	0.23	0.36	-	Y	-	-	N
Volatility										
HUV CN	BetaPro S&P 500 VIX Short Term Fut	15	1	0.35	0.30	-	-	-	Y	N
CUDV CN	CI US Minimum Downside Vol	6	-	0.32	0.36	-	-	-	-	H
Call/Put Writing										
HDIV CN	Hamilton Ench MultiSector Cov Call	300	2	0.13	0.00	-	-	-	-	N
QQCC CN	Global X NASDAQ 100 Cov Call /Can	112	1	0.18	0.85	-	-	-	-	N
YTSL CN	Tesla TSLA Yld Shares Purpose	87	↑	2	0.63	1.70	-	N	-	N
HLIF CN	Harvest CAN Equity Inc Leaders	79	0	0.20	1.22	-	Y	-	-	N
ENCL CN	Global X Ench CAN Oil and Gas Cov Call	71	1	0.32	0.40	+1.25x	Y	-	-	N
CNCC CN	Global X S&P/TSX 60 Cov Call ETF	55	↑	0	0.19	0.64	-	Y	-	N
YAMZ CN	Amazon AMZN Yld Shares Purpose	36	↑	0	0.30	1.72	-	N	-	N
TIF CN	Ninepoint Target Inc Fund	25	0	0.69	1.60	-	-	-	-	N
YNVD CN	Nvidia NVDA Yld SHARES PURPOSE	17	-	0.36	0.40	-	Y	-	-	N
ETSX CN	Evolve S&P/TSX 60 Ench Yld Fund	17	↑	0	0.20	0.45	-	-	-	N
YGOG CN	Alphabet GOOGL Yld Shares Purpose	13	↑	0	0.97	1.81	-	N	-	N
APLY CN	Apple AAPL Yld Shares Purpose	11	↑	0	0.81	1.79	-	N	-	N
CNCL CN	Global X Ench S&P/TSX 60 Cov Call	10	0	0.21	0.52	+1.25x	-	-	-	N
HRIF CN	Harvest Diversified Equity Inc	8	↑	0	0.25	1.18	-	Y	-	N
BRKY CN	Berkshire Hath BRK Yld Share Purpose	7	↑	0	0.70	1.90	-	N	-	N
MSFY CN	Microsoft Mst Yld Shares	6	-	0.20	0.40	-	Y	-	-	N
Theme										
XESG CN	iShares ESG Aware MSCI Canada	288	1	0.12	0.16	-	-	Y	-	N
XCSR CN	iShares ESG Advanced MSCI Canada	154	↑	0	0.12	0.17	-	-	Y	-
XEN CN	iShares Jantzi Social	84	0	0.09	0.55	-	-	Y	-	N
XEXP CN	iShares Exponential Technologies	11	↑	0	0.36	0.44	-	-	-	N
XHAK CN	iShares Cybersecurity And Tech	10	↑	0	0.68	0.43	-	-	-	N
FMTV CN	Fidelity Total Metaverse	5	0	0.51	0.56	-	-	-	-	N
XDNA CN	iShares Genomics Immuno and Health	4	-	1.47	0.44	-	-	-	-	N
SRIC CN	Scotia Responsible Invest CAN Equity	3	↑	0	0.13	0.16	-	-	Y	-
ARKG CN	BMO ARK Genomic Revolution Fund	3	↑	0	0.40	0.84	-	Y	-	N
NFAM CN	NBI CAN Family Business	1	↓	0	0.21	0.40	-	-	-	N
CMVX CN	CI Galaxy Metaverse	1	-	1.39	0.67	-	-	-	-	Y
Alpha										
MKC CN	Mackenzie Maximum Div Canada	313	1	0.16	0.45	-	-	-	-	N
DANC CN	Desjardins Alt L/S Equity Mkt Neutral	297	↓	0	0.22	1.47	-	Y	-	U
CMDO CN	CI Alternative Diversified Oppor Fund	187	1	0.27	1.69	+3x	Y	-	-	N
PFMN CN	Picton Mahoney Fort Mkt Neutral Alt	158								

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Preferred/ Convertible											
ZPR CN	BMO Lad Pref Share	1,120	5	0.24	0.50	-	-	-	-	L	
HPR CN	Global X Active Pref Share	784	3	0.34	0.62	-	Y	-	Y	L	
CPD CN	iShares S&P/TSX CAN Pref Share	770	3	0.24	0.50	-	-	-	-	N	
DXP CN	Dynamic Active Pref Shares	469	1	0.35	0.68	-	Y	-	Y	N	
RPF CN	RBC CAN Pref Share	410	2	0.36	0.59	-	Y	-	-	N	
TPRF CN	TD Active Pref Share	210	1	0.57	0.50	-	Y	-	-	N	
SPLT CN	BROMPTON Split Corp Pref	142	1	0.33	0.60	-	Y	-	-	N	
NPRF CN	NBI Active CAN Pref Shares	102	0	0.73	0.58	-	Y	-	-	N	
HLPR CN	Global X Lad CAN Pref Share Index Corp	77	0	0.58	0.33	-	-	-	-	N	
CVD CN	iShares Convertible Bond	67	0	1.50	0.49	-	-	-	-	N	
PR CN	LysanderSlater Pref Share Activ	60	0	0.90	0.92	-	Y	-	-	N	
RPS CN	Purpose CAN Pref Share Fund	46	↑	0	0.72	0.75	-	Y	-	N	
HYBR CN	Global X ACT Hybrid Bond Pref Share	46	↓	0	1.61	0.64	-	Y	-	Y	
FPR CN	CI Pref Share	40	0	1.02	0.84	-	Y	-	-	N	
DIVS CN	Evolve Active CAN Pref Share Fund	37	↓	0	0.71	0.65	-	Y	-	Y	
CXF CN	CI CAN Convertible Bond	36	0	2.29	0.73	-	Y	-	-	N	
RPU CN	Purpose US Pref Share Fund	23	0	0.78	0.75	-	Y	-	Y	N	
DCP CN	Desjardins CAN Pref Share	23	0	1.01	0.53	-	-	-	-	N	

Equity Sector											
Energy											
NNRG CN	Ninepoint Energy Fund ETF	1,369	↓	2	0.23	2.50	-	Y	-	U	N
XEG CN	iShares S&P/TSX Energy	1,333	↓	39	0.08	0.60	-	-	-	-	L
ENCC CN	Global X CAN Oil and Gas Cov Call ETF	243	↑	2	0.13	0.80	-	-	-	-	N
NRGI CN	Ninepoint Energy Inc Fund	212	↓	0	0.50	2.50	-	Y	-	-	N
ZEO CN	BMO Equal Weight Oil & Gas	164	1	0.07	0.61	-	-	-	-	-	L
HXE CN	Global X S&P/TSX Energy Index Corp	73	1	0.13	0.27	-	-	-	-	-	N
ZCLN CN	BMO Clean Energy	54	0	0.80	0.40	-	-	Y	-	-	N
HEU CN	BetaPro S&P/TSX Ener 2x Daily Bull	35	↓	2	0.16	1.07	+2x	-	-	Y	N
ZWEN CN	BMO Cov Call Energy ETF	31	↑	0	0.18	0.73	-	Y	-	-	N
PPLN CN	Global X Pipelines & Energy Services	22	0	0.65	0.45	-	-	-	-	-	L
HCLN CN	Harvest Clean Energy ETF	19	0	0.57	0.85	-	-	Y	-	-	N
QCLN CN	First Trust NASDAQ Clean Edg	7	0	0.29	0.58	-	-	Y	-	-	N
HED CN	BetaPro S&P/TSX Ener 2x Daily Bear	2	↑	0	0.42	0.52	-2x	-	-	Y	N
CCLN CN	CIBC Clean Energy	1	0	0.34	0.38	-	-	Y	-	-	N
Financials / REITs											
ZEB CN	BMO Equal Weight Banks	2,662	127	0.05	0.28	-	-	-	-	M	
ZWB CN	BMO Cov Call CAN Banks ETF	2,195	6	0.09	0.71	-	Y	-	-	-	N
XFN CN	iShares S&P/TSX Financials	1,034	18	0.05	0.61	-	-	-	-	-	L
XRE CN	iShares S&P/TSX REIT	796	↑	11	0.12	0.61	-	-	-	-	L
HMAX CN	Hamilton CAN Financials Yld Max	774	↑	4	0.11	0.65	-	Y	-	-	N
HBNK CN	Global X Equal Weight CAN Banks	587	4	0.07	0.09	-	-	-	-	-	N
HEB CN	Hamilton CAN Bank Eq Wgt	494	↑	1	0.10	0.19	-	-	-	-	N
HCAL CN	Hamilton Ench CAN Bank ETF	386	↑	3	0.09	0.65	+1.25x	-	-	-	N
ZRE CN	BMO Equal Weight REITs	386	1	0.16	0.61	-	-	-	-	-	N
RIT CN	CI CAN REIT	331	1	0.25	0.87	-	Y	-	Y	-	N
VRE CN	Vanguard FTSE CAN Cap REIT	187	1	0.18	0.39	-	-	-	-	-	N
RBNK CN	RBC CAN Bank Yld	180	1	0.06	0.32	-	-	-	-	-	N
CEW CN	iShares Equal Weight Banc & Lifeco	144	0	0.10	0.61	-	Y	-	-	-	N
CIC CN	CI CAN Banks Cov Call Inc	142	0	0.13	0.82	-	-	-	-	-	N
BANK CN	Evol C Bkn Lc En Yld Idx Fd	130	↑	1	0.21	1.60	+1.25x	-	-	-	N
BKCC CN	Global X Eq Wgt CAN Bank Cov Call	118	↑	0	0.14	0.82	-	-	-	-	N
HEWB CN	Global X Eq Wgt CAN Banks Corp	108	0	0.08	0.28	-	-	-	-	-	N
HFIN CN	Hamilton Ench CAN Financials ETF	93	0	0.14	0.65	-	-	-	-	-	N
CBNK CN	Mulvihill CAN Bank Ench Yld	73	↑	0	0.29	2.34	+1.25x	Y	-	-	N
FLI CN	CI US & Canada Lifeco Cov Call	66	0	0.20	1.11	-	-	-	-	-	N
BKCL CN	Global X Eq Wgt CAN Banks Cov Call	65	1	0.14	0.27	-	Y	-	-	-	N
HXF CN	Global X S&P/TSX Fin Index Corp	58	0	0.18	0.28	-	-	-	-	-	N
HCA CN	Hamilton CAN Bank Mean Reversion	53	0	0.09	0.29	-	-	-	-	-	N
HCRE CN	Global X Eq Wgt CAN REITs Index Corp	34	0	0.31	0.33	-	-	-	-	-	N
ZBI CN	BMO CAN Bank Inc	28	↑	0	0.31	0.28	-	-	-	-	N
HFU CN	BetaPro S&P/TSX Fins 2x Daily Bull	22	0	0.14	1.08	+2x	-	-	-	Y	N
TBNC CN	TD CAN Bank Div	12	↑	0	0.10	0.28	-	-	-	-	N
BNKL CN	Global X Ench Equal Weight Banks	8	0	0.12	0.22	+1.25x	-	-	-	-	N
HFD CN	BetaPro S&P/TSX Fin 2x Daily Bear	6	0	0.20	0.52	-2x	-	-	-	Y	N
HRED CN	BetaPro Eq Wgt CAN Reit2x Daily Bear	4	↓	0	0.61	0.72	-2x	-	-	-	N
HBKU CN	BetaPro Eq Wgt CAN Bank 2x Daily Bull	4	0	0.34	1.84	+2x	-	-	-	-	N
HBKD CN	BetaPro Eq Wgt CAN Bank2x Daily Bear	3	-	0.43	1.85	-2x	-	-	-	-	N
ZEBAC CN	BMO CAN Banks Accelerator	3	0	0.31	0.73	-	Y	-	-	-	N
HREU CN	BetaPro Eq Wgt CAN Reit 2x Daily Bull	2	↓	0	0.61	1.47	+2x	-	-	-	N
BNC CN	Purpose CAN Financial Inc Fund	1	↓	0	0.16	0.55	-	Y	-	Y	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active Transparent, (Blank) = Passive

4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Sector											
Other Sectors											
ZWU CN	BMO Cov Call Utilities	1,334	5	0.15	0.71	-	Y	-	-	N	
TXF CN	CI Tech Giants Cov Call	531	2	0.13	0.78	-	Y	-	U	N	
XIT CN	iShares S&P/TSX Info Tech	444	2	0.18	0.60	-	-	-	-	N	
ZUT CN	BMO Equal Weight Utilities	323	4	0.12	0.61	-	-	-	-	L	
XUT CN	iShares S&P/TSX Utilities	196	12	0.09	0.61	-	-	-	-	N	
XST CN	iShares S&P/TSX Cons Staples	158	1	0.14	0.61	-	-	-	-	N	
XMA CN	iShares S&P/TSX Materials	124	↓	1	0.13	0.61	-	-	-	L	
MHCD CN	Middlefield Healthcare Div ETF	117	0	0.55	0.85	-	Y	-	-	N	
CGXF CN	CI Gold+ Giants Cov Call ETF	109	1	0.24	1.11	-	-	-	U	N	
HUTS CN	Hamilton Ench Utilities ETF	65	↑	0	0.15	0.65	-	-	-	N	
ZJG CN	BMO Junior Gold	51	0	0.25	0.61	-	-	-	-	N	
TRVI CN	Harvest Travel & Leisure Inc ETF	46	↑	0	0.23	1.25	-	-	-	N	
ZGD CN	BMO Equal Weight Global Gold	46	0	0.19	0.60	-	-	-	-	N	
HTAE CN	Harvest Tech Achievers Ench Inc ETF	45	↑	0	0.20	2.67	-	-	-	Y	N
ZIN CN	BMO S&P/TSX Equal Weight Industrials	36	↓	0	0.23	0.62	-	-	-	N	
HHLN CN	Harvest Health Leaders Ench Inc ETF	26	↑	0	0.25	2.61	+1.25x	-	-	Y	N
ZWHC CN	BMO Cov Call Health Care ETF	11	↑	0	0.22	0.73	-	Y	-	-	N
UTIL CN	Global X CAN Utility Services High Div	7	↑	0	0.12	0.61	-	-	-	Y	N
XLVE CN	Mulvihill US Health Care Ench Yld	5	↑	-	0.65	7.24	-	Y	-	-	N

International Equity											
North America											
ZSP CN	BMO S&P 500	12,301	62	0.05	0.09	-	-	-	-	H	L
VFV CN	Vanguard S&P 500	10,416	↑	56	0.03	0.09	-	-	-	-	L
XSP CN	iShares Core S&P 500 CAD HDG	7,325	41	0.04	0.09	-	-	-	-	Y	L
VUN CN	Vanguard US Total Market	6,166	11	0.04	0.17	-	-	-	-	-	L
XUS CN	iShares Core S&P 500	4,723	14	0.05	0.09	-	-	-	-	-	N
HXS CN	Global X S&P 500 Index Corp	2,608	11	0.13	0.11	-	-	-	-	-	N
VSP CN	Vanguard S&P 500 CAD HDG	2,347	9	0.06	0.09	-	-	-	-	Y	N
QUU CN	Mackenzie US Large Cap Equity	2,159	6	0.13	0.06	-	-	-	-	-	N
XUU CN	iShares Core S&P US Total Market	2,120	4	0.04	0.07	-	-	-	-	-	N
XQQ CN	iShares NASDAQ 100 CAD HDG	2,077	15	0.04	0.39	-	-	-	-	Y	N
TPU CN	TD US Equity	1,743	4	0.09	0.07	-	-	-	-	U	N
ESGY CN	BMO MSCI USA ESG Leaders	1,388	1	0.11	0.22	-	-	-	-	Y	-
QQQQ CN	Global X NASDAQ100	1,302	3	0.24	0.25	-	-	-	-	-	N
ZLU CN	BMO Low Vol US Equity ETF	1,170	3	0.09	0.33	-	Y	-	-	H	L
SITU CN	Scotia US Equity Index Tracker ETF	1,109	↑	5	0.13	0.09	-	-	-	-	N
VGG CN	Vanguard US Div Appreciation	1,092	↑	3	0.07	0.31	-	-	-	-	N
EQL CN	Invesco S&P 500 Equal Weighted	1,052	↑	5	0.08	0.26	-	-	-	-	N
ZWH CN	BMO US High Div Cov Call ETF	840	1	0.09	0.72	-	Y	-	-	H	N
QQC CN	Invesco NASDAQ 100	823	↑	3	0.08	0.20	-	-	-	H	N
VUS CN	Vanguard US Total Market CAD HDG	694	2	0.14	0.16	-	-	-	-	Y	N
ZNQ CN	BMO NASDAQ 100 Equity	642	↑	3	0.05	0.39	-	-	-	H	N
ZUQ CN	BMO MSCI USA High Quality	627	2	0.11	0.34	-	-	-	-	-	L
HTA CN	Harvest Tech Achievers Growth & Inc	602	2	0.13	1.08	-	Y	-	-	Y	N
HXQ CN	Global X NASDAQ100 Index Corp	555	↓	4	0.05	0.28	-	-	-	-	L
DMEU CN	Desjardins American Equity	530	-	0.13	0.05	-	-	-	-	-	N
VGH CN	Vanguard US Div Appr CAD HDG	488	1	0.10	0.31	-	-	-	-	Y	N
WSRI CN	Wealthsimple North Am SR	481	1	0.21	0.22	-	-	-	-	Y	-
RUD CN	RBC Quant US Div Leaders ETF	425	1	0.16	0.43	-	Y				

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
North America (Continued)										
HSH CN	Global X S&P 500 CAD HDG Index Corp	204	1	0.19	0.11	-	-	-	Y	N
QBTL CN	AGF US Market Neutral AntiBet	203	↓	0.61	0.55	-	-	-	Y	N
DRFU CN	Desjardins RI USA Multifactor	196	↑	0.17	0.59	-	-	Y	-	N
XMC CN	iShares S&P US MidCap	190	↑	0.14	0.16	-	-	-	-	N
BGU CN	BRISTOL GATE CONCEN US ETF	187	0	0.20	0.84	-	Y	-	-	N
FCUD CN	Fidelity US High Div ETF	171	0	0.11	0.38	-	-	-	-	N
DRMU CN	Desjardins RI USA NetZero	170	↑	0.29	0.24	-	-	Y	-	N
TQSM CN	TD Q US SmallMidCap Equity ETF	169	↑	0.32	0.45	-	Y	-	-	N
XMH CN	iShares S&P US MidCap CAD HDG	166	↑	0.16	0.16	-	-	-	Y	N
UDIV CN	Manulife Smart US Div ETF	164	↓	0.18	0.43	-	Y	-	U,H	N
FCUL CN	Fidelity US Low Vol ETF	163	↑	0.14	0.39	-	-	-	-	N
USSX CN	Global X S&P 500	161	-	0.12	0.08	-	-	-	U	N
XUSR CN	iShares ESG Advanced MSCI USA	158	0	0.16	0.23	-	-	Y	-	N
ZSML CN	BMO S&P US Small Cap	153	↑	0.26	0.23	-	-	-	-	N
FCMO CN	Fidelity US Momentum ETF	152	↑	0.20	0.37	-	-	-	-	N
ZWA CN	BMO Cov Call DJ Industrial Avg HDG CAD	152	0	0.15	0.72	-	Y	-	Y	N
XDU CN	iShares Core MSCI US Quality Div	152	0	0.12	0.16	-	-	-	-	N
USSC CN	Global X S&P 500 Cov Call ETF/Canada	150	↑	0.18	0.60	-	Y	-	-	N
CLU CN	iShares US Fundamental	149	0	0.14	0.72	-	-	-	Y	N
XHU CN	iShares US High Div Equity	143	0	0.11	0.34	-	-	-	-	N
XPF CN	iShares S&P/TSX North Am Pref Stock	139	0	0.68	0.50	-	-	Y	-	N
CUSA CN	CI US 500	136	-	0.30	0.09	-	-	-	H	N
XHD CN	iShares US High Div Equity CAD HDG	135	0	0.10	0.33	-	-	-	Y	N
QUS CN	AGF Systematic US Equity ETF	114	0	0.15	0.45	-	Y	-	-	N
DXU CN	Dynamic Active US Div ETF	106	0	0.15	0.89	-	Y	-	Y	N
PYF CN	Purpose Prem Yld Fund	99	↑	0.15	0.60	-	Y	-	Y	N
HSU CN	BetaPro S&P 500 2x Daily Bull ETF	97	7	0.08	1.25	+2x	-	-	Y	N
RUDH CN	RBC Quant US Div Leaders CAD HDG	97	0	0.19	0.43	-	Y	-	Y	N
IUMF CN	Invesco Russ 1000 Dynamic Multifactor	96	1	0.22	0.35	-	-	-	H	N
ULVF CN	Invesco S&P 500 Low Vol	96	0	0.17	0.31	-	-	-	U,H	N
QQCE CN	Invesco Esg NASDAQ 100	93	↑	0.33	0.22	-	-	Y	-	N
CUSMB CN	CI US 1000	92	↑	0.23	0.18	-	-	-	-	N
XQLT CN	iShares MSCI USA Quality Factor	84	↑	0.09	0.32	-	-	-	-	N
MUS CN	Mackenzie Maximum Diversification US	77	↓	0.22	0.45	-	-	-	-	N
SRIU CN	Scotia Responsible Invest US Equity	65	↑	0.16	0.19	-	-	Y	-	N
MULC CN	Manulife Multifactor US Large Cap	66	↓	0.14	0.44	-	Y	-	Y	N
TULV CN	TD Q US Low Vol ETF	55	0	0.21	0.34	-	Y	-	-	N
USCL CN	Global X Ench S&P 500 Cov Call ETF	54	1	0.16	0.20	-	-	-	-	N
ZPW CN	BMO US Put Write ETF	53	0	0.23	0.71	-	Y	-	H	N
ESPX CN	Evolve S&P 500 Ench Yld Fund	52	↑	0.14	0.45	-	-	-	U,H	N
HOD CN	BetaPro NASDAQ100 2x Daily Bear ETF	51	13	0.10	0.81	-2x	-	-	Y	N
ZUP CN	BMO US Pref Share	46	0	0.89	0.50	-	-	-	H	N
XDUH CN	iShares Core MSCI US Quality Div	46	↓	0.13	0.16	-	-	-	Y	N
HSD CN	BetaPro S&P 500 2x Daily Bear ETF	43	↓	0.09	0.85	-2x	-	-	Y	N
FLUS CN	Franklin US Large Cap Multifactor /Can	40	0	0.16	0.28	-	-	-	-	N
FCQH CN	Fidelity US High Quality Curr Neutral	38	0	0.14	0.42	-	-	-	Y	N
UDAC CN	Caldwell US Div Advantage Fund	38	0	0.87	0.75	-	Y	-	-	N
BFIN CN	BROMPTON North American Finan	37	0	0.18	0.96	-	Y	-	Y	N
THU CN	TD US Equity CAD HDG	37	↑	0.19	0.07	-	-	-	-	N
FCRR CN	Fidelity US Div for Rising Rates ETF	37	0	0.12	0.39	-	-	-	-	N
MUMC CN	Manulife Multifactor US Mid Cap	37	↓	0.18	0.61	-	Y	-	Y	N
PXUJ/F CN	Invesco FTSE RAFI US	35	↓	0.16	0.45	-	-	-	Y	N
XSMC CN	iShares S&P US SmallCap	33	↑	0.10	0.22	-	-	-	-	N
AUGB/F CN	First Trust Vest US Equity Buff ETF Aug	32	↑	0.38	0.91	-	Y	-	Y	N
NUSA CN	NBI Active US Equity ETF	32	↑	0.23	0.63	-	Y	-	-	N
MUSA CN	Middlefield US Equity Div ETF	31	0	0.26	0.75	-	Y	-	-	N
FEBB/F CN	FIVT US Eq BfETF Feb	30	↑	0.35	0.95	-	Y	-	Y	N
ZVU CN	BMO MSCI USA Value	30	↓	0.14	0.34	-	-	-	-	N
QAH CN	Mackenzie US Large Cap Equity	29	0	0.13	0.06	-	-	-	-	N
ZLSU CN	BMO US US Equity ETF	29	-	0.21	0.73	-	Y	-	-	N
QQCL CN	Global X Ench NASDAQ100 Cov Call ETF	29	0	0.27	0.49	+1.25x	Y	-	-	N
XMS CN	iShares MSCI Min Vol USA CAD HDG	28	0	0.18	0.33	-	-	-	Y	N
PXS CN	Invesco FTSE RAFI US II	27	↓	0.14	0.45	-	-	-	-	N
FCVH CN	Fidelity US Value Currency Neutral ETF	25	↑	0.19	0.43	-	-	-	Y	N
FCAM CN	Fidelity AllAmerican Equity ETF	25	-	0.27	0.35	-	Y	-	-	N
FCUH CN	Fidelity US High Div Currency Neutral ETF	25	↓	0.11	0.41	-	-	-	Y	N
DXUS CN	Dynamic Active US Equity ETF	22	0	0.18	0.86	-	Y	-	-	N
PDIV CN	Purpose Ench Div Fund	22	↑	0.27	0.65	-	Y	-	Y	N
FLSA CN	Fidelity US Alternative Fund	22	-	0.38	1.15	-	Y	-	-	N
HDGE CN	Accelerate Absolute Return Fund	22	↑	0.53	-	-	Y	-	-	N
ZACE CN	BMO US All Cap Equity Fund ETF	21	↑	0.11	0.81	-	Y	-	-	N
ZOCT CN	BMO US Equity Buffer ETF October	21	0	0.46	0.73	-	Y	-	Y	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, (Blank) = Passive

⁴ Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
North America (Continued)										
UMI CN	CI US MidCap Div	20	0	0.24	0.46	-	-	-	Y	N
DXZ CN	Dynamic Active US MidCap	19	0	0.34	0.99	-	Y	-	-	N
XQQU CN	iShares NASDAQ 100	18	0	0.11	0.33	-	-	-	U	N
HUM CN	Hamilton US MidCap Financials	17	0	0.26	0.75	-	Y	-	-	N
HIU CN	BetaPro S&P 500 Daily Inverse	16	↓	0.26	0.40	-1x	-	-	Y	N
XSMH CN	iShares S&P US SmallCap CAD HDG	16	↑	0.47	0.22	-	-	-	Y	N
NOVB/F CN	First Trust Vest US Equity Buffer Nov	15	↓	0.49	0.92	-	Y	-	Y	N
CMOM CN	CI US Ench Momentum	14	-	0.31	0.30	-	-	-	H	N
ZVLU CN	iShares MSCI USA Value Factor	12	0	0.14	0.32	-	-	-	-	N
XJAN CN	BMO US Equ Buf HDG to CAD January	12	-	0.41	0.73	-	Y	-	Y	N
RUDC CN	RBC US Div Cov Call	12	↑	0.19	0.75	-	Y	-	U	N
IUAEC CN	Invesco S&P US Div Aristocrats ESG	11	↓	0.17	0.34	-	-	-	Y	H
ZAPR CN	BMO US Equ Buf HDG to CAD April	11	-	0.63	0.73	-	Y	-	Y	N
RNAV CN	RBC North Am Value Fund	10	↑	0.34	0.80	-	Y	-	-	N
MAYB/F CN	First Trust Vest US Equity Buffer May	9	↓	0.34	0.94	-	Y	-	Y	N
PBI CN	Purpose Best Ideas Fund	9	-	0.19	0.65	-	Y	-	Y	N
BUFR CN	First Trust Vest Fund Of Buf	9	0	0.86	1.05	-	-	-	Y	N
QQEQ CN	Invesco NASDAQ 100 Equal Weight	8	0	0.16	0.28	-	-	-	-	N
TMEU CN	TD Morningstar ESG US Equity	8	0	0.48	0.17	-	-	-	Y	N
FCRH CN	Fidelity US Dividend For RIS	8	0	0.13	0.42	-	-	-	Y	N
PAYF CN	Purpose Ench Prem Yld Fund	7	↑	0.26	0.75	-	Y	-	Y	N
BLOV CN	BROMPTON North Amer Low Vol	7	0	0.30	0.76	-	Y	-	Y	N
FDL CN	First Trust Morningstar Divi	7	↓	0.148	0.61	-	-	-	Y	N
CVLU CN	CI US Ench Value	5	-	0.37	0.30	-	-	-	H	N
FCLH CN	Fidelity US Low Vol Currency Neutral	5	0	0.16	0.42	-	-	-	Y	N
IUTE CN	Invesco S&P US Total Market ESG Tilt	5	↑	0.23	0.23	-	-	-	Y	N
WOMN CN	BMO Women In Leadership Fund	4	↑	0.14	0.39	-	Y	-	Y	N
UDEF CN	Manulife Smart US Defensive Equity	4	↓	0.26	0.43	-	Y	-	U,H	N
CUTL CN	CI Utilities Giants Cov Call	4	0	0.60	0.85	-	Y	-	H	N
FUD CN	First Trust Value Line Div CAD HDG	4	↓	0.69	0.76	-	Y	-	Y	N
MUSC CN	Manulife Multifactor US Small Cap	3	-	0.27	0.61	-	Y	-	Y	N
PHE CN	Purpose Tactical HDG Equity Fund	3	↓	0.17	0.80	-	Y	-	Y	N
CNAO CN	CI Alternative North Am Oppor Fund	2	↑	0.30	3.80	-	Y	-	-	N
XMTM CN	iShares MSCI USA Momentum Factor	2	0	0.13	0.32	-	-	-	-	N
GIQU CN	Guardian I3 US Quality Growth	2	0	0.18	0.71	-	Y	-	Y	N
ZUEA CN	BMO US Equity Accelerator	2	0	0.40	0.73	-	Y	-	Y	N
USSL CN	Global X Ench S&P 500	2	-	-	0.08	-	-	-	-	N
QQQL CN	Global X Ench NASDAQ100	2	-	-	0.49	-	-	-	-	N
ISTE CN	Invesco S&P 500 ESG Tilt	2	-	0.23	0.17	-	-	-	Y	N
CUEH CN	CIBC US Equity CAD HDG	2	0	0.96	0.05	-	-	-	Y	N
FLVJ CN	Franklin US Low Vol High Div /Canada	1	-	0.22	0.12	-	-	-	-	N
FCMH CN	Fidelity US Momentum Currency Neutral	1	↑	0.23	0.41	-	-	-	Y	N
RNAG CN	RBC North Am Growth Fund	1	0	-	0.79	-	Y	-	Y	N
QQJE CN	Invesco Esg NASDAQ Next Gen 100	1	0	0.60	0.22	-	-	-	Y	N
AENU CN	AGF Ench US Equity Inc Fund	1	0	0.86	0.96	-	Y	-	-	N
CQLU CN	CIBC Gx US Low Vol Div	1	↓	0.24	0.34	-	-	-	-	N
QQJR CN	Invesco NASDAQ Next Gen 100	1	↓	0.22	0.21	-	-	-	-	N
IUCE CN	Invesco S&P US Total Market ESG	1	-	0.25	0.23	-	-	-	Y	N
TUEX CN	TD Active US Ench Div CAD HDG	1	0	0.19	0.72	-	Y	-	Y	N
DSAE CN	Desjardins Sustainable American Equity	1	↓	0.17	0.92	-	Y	-	-	N
FMNA CN	Fidelity Market Neutral Alternative Fund	1								

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
International Equity											
Global (Continued)											
WSRD CN	Wealthsimple Dev Mkts EX North Am SR	463	1	0.39	0.28	-	-	Y	-	N	
MINT CN	Manulife Multifactor Dev International	453	0	-	0.56	-	Y	-	Y	N	
HXDM CN	Global X Intl Dev Mkt Equity Index Corp	440	2	0.13	0.22	-	-	-	-	N	
FCIQ CN	Fidelity International High Quality	402	1	0.59	0.50	-	-	-	-	N	
NSGE CN	NBI Sustainable Global Equity	393	↓	0	2.61	0.75	-	Y	Y	-	
VDU CN	Vanguard FTSE Dev All Cap Ex US	316	2	0.06	0.22	-	-	-	-	N	
IQD CN	CI International Quality Div Growth	315	↑	1	0.61	0.82	-	-	Y	N	
HAZ CN	Global X Active Global Div	282	↑	1	0.20	0.78	-	Y	-	Y	
VI CN	Vanguard FTSE Dev All Cap ex Nor Am	275	↑	1	0.20	0.22	-	-	Y	N	
VVL CN	Vanguard Global Value Factor	265	1	1.12	0.38	-	Y	-	-	N	
XDG CN	iShares Core MSCI Global Quality Div	260	1	0.85	0.22	-	-	-	H	N	
DMEI CN	Desjardins International Equity	253	-	0.29	0.20	-	-	-	-	N	
ZLI CN	BMO Low Vol International Equity	244	0	0.65	0.45	-	Y	-	H	N	
SITI CN	Scotia Intern Equity Index Tracker	234	1	0.32	0.22	-	-	-	-	N	
MWD CN	Mackenzie Max Divers All World Dev	219	↓	0	0.64	0.50	-	-	-	N	
VXMCN	CI Morningstar International Value	217	0	0.88	0.83	-	-	-	Y	N	
FCGS CN	Fidelity GI Sm Cap Opp	205	↑	1	1.04	1.13	-	Y	-	U	
FCIV CN	Fidelity International Value	182	↑	1	0.21	0.51	-	-	-	N	
HEQT CN	Global X AllEquity Asset Alloc	176	1	0.15	0.18	-	Y	-	-	N	
ZWGC CN	BMO Global High Div Cov Call	175	1	0.24	0.72	-	Y	-	-	N	
IDIVB CN	Manulife Smart International Div	168	↑	0	0.97	0.64	-	Y	-	N	
ZDH CN	BMO International Div HDG to CAD	165	↓	0	0.48	0.44	-	Y	-	H	
CMAG CN	CI Munro Alternative Global Gr	164	↓	1	0.46	2.70	-	Y	-	-	
TQGD CN	TD Q Global Div	160	↑	1	0.35	0.45	-	Y	-	N	
XSEA CN	iShares ESG Aware MSCI EAFE	151	0	1.02	0.28	-	-	Y	-	N	
DRFD CN	Desjardins RI Dev ExU	141	↑	-	0.47	0.75	-	Y	-	N	
VDY CN	Vanguard Fse Dev Ex NorthAm H Div Yld	128	↑	1	-	0.31	-	-	-	N	
XMW CN	iShares MSCI Min Vol Global	125	0	0.14	0.48	-	-	-	-	N	
TQGM CN	TD Q Global Multifactor	117	↑	0	0.74	0.45	-	Y	-	N	
CIE CN	iShares International Fundamental	107	0	0.51	0.72	-	-	-	-	N	
VMO CN	Vanguard Global Momentum Factor	104	↑	1	0.58	0.38	-	Y	-	N	
CYH CN	iShares Global Monthly Div CAD HDG	104	0	1.13	0.66	-	-	-	Y	N	
GDY CN	Guardian Directed Prem Yld	95	0	1.06	1.03	-	Y	-	Y	N	
RID CN	RBC Quant EAFE Div Leaders	87	0	0.34	0.55	-	Y	-	-	N	
QEF CN	AGF Systematic Global ESG Fact	80	0	0.43	0.45	-	Y	Y	-	N	
XMI CN	iShares MSCI Min Vol EAFE Index	79	↓	0	0.11	0.38	-	-	-	N	
FCIM CN	Fidelity International Momentum	79	↑	0	0.47	0.48	-	-	-	N	
EAFX CN	Global X MSCI EAFE	74	-	0.90	0.20	-	-	-	U	N	
FCIL CN	Fidelity International Low Vol	72	↑	0	0.84	0.50	-	-	-	N	
CGLCO CN	CIBC Global Growth	67	↑	0	1.80	0.89	-	Y	-	N	
ZEQT CN	BMO All Equity	66	↑	0	0.10	0.20	-	Y	-	N	
BDIV CN	BROMPTON Global Dividend	64	0	1.54	0.96	-	Y	-	Y	N	
GEQT CN	iShares ESG Equity Portfolio	63	↑	0	0.21	0.25	-	Y	-	N	
FCGC CN	Fidelity Greater Canada Fund	62	↑	0	0.42	1.10	-	Y	-	N	
CGDVCN	CI Global Minimum Downside Vol	60	-	0.47	0.48	-	-	-	H	N	
CESG CN	CI MSCI World ESG Impact	59	0	0.42	1.72	-	-	Y	Y	N	
TGROCN	TD Growth Portfolio	58	↑	0	0.12	0.23	-	Y	-	N	
FCID CN	Fidelity Intern High Div /Can	56	0	0.55	0.51	-	-	-	-	N	
PID CN	Purpose International Div Fund	55	↑	0	0.67	0.55	-	Y	-	N	
CINT CN	CIBC International Equity	53	0	1.70	0.89	-	Y	-	-	N	
GIES CN	Guardian Intern Equity Select Fund	50	-	0.58	0.93	-	Y	-	-	N	
TILV CN	TD Q International Low Vol	50	0	1.69	0.40	-	Y	-	-	N	
IIMF CN	Invesco Intern Dev Dynamic Multifactor	47	0	0.81	0.40	-	-	-	H	N	
DAMG CN	Desjardins Alt L/S Gls Equity Mkt	46	-	0.35	1.46	-	Y	-	U	Y	
MDIV CN	Middlefield Sustainable Global Div	46	0	1.26	0.85	-	Y	Y	-	N	
ZESG CN	BMO Bal ESG	45	0	0.16	0.20	-	Y	Y	-	N	
GDEP CN	Guardian Directed Equity Path	41	0	1.53	1.07	-	Y	-	Y	N	
QIE CN	AGF Systematic International Equity	40	0	2.44	0.45	-	Y	-	-	N	
ONEQ CN	CI ONE Global Equity	40	0	0.15	1.01	-	Y	-	-	N	
ZXM CN	CI Morningstar International Momentum	39	0	0.56	1.00	-	-	-	Y	N	
TBAL CN	TD Bal Portfolio	37	↑	0	0.14	0.23	-	Y	-	N	
MWLV CN	Mackenzie World Low Vol	33	-	0.36	0.50	-	Y	-	-	N	
CIEI CN	CIBC International Equity	33	↑	0	1.45	0.19	-	-	-	N	
THE CN	TD International Equity Cad HDG	33	↑	0	0.58	0.19	-	-	Y	N	
RIDH CN	RBC Quant EAFE Div Leaders CAD HDG	32	0	0.35	0.55	-	Y	-	Y	N	
IICE CN	Invesco S&P International Dev ESG	31	↑	0	0.85	0.29	-	Y	-	N	
DXGE CN	Dynamic Active Global Equity Inc	30	0	0.31	0.86	-	Y	-	-	N	
FCIN CN	Fidelity AllInternational Equity	29	-	0.83	0.00	-	Y	-	-	N	
CMGG CN	CI Munro Global Growth Equity Fund	28	↑	0	0.19	1.30	-	Y	-	N	
ESGG CN	BMO MSCI Global ESG Leaders	28	↑	0	0.15	0.28	-	Y	-	N	
QDXH CN	Mackenzie Intern Equity CAD HDG	28	↑	0	1.29	0.17	-	-	Y	N	
XINC CN	iShares Core Inc Bal Portfolio	27	0	0.13	0.20	-	-	-	Y	N	

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
 3 Actively Managed: Y = Active Transparent, (Blank) = Passive
 4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
International Equity											
Global (Continued)											
TGGR CN	TD Active Global Equity Growth	25	↑	0	-	0.72	-	Y	-	N	
TCON CN	TD Cons Portfolio	24	↑	0	0.17	0.23	-	Y	-	N	
XML CN	iShares MSCI Min Vol EAFE CAD HDG	22	0	0.87	0.38	-	-	-	Y	N	
VVO CN	Vanguard Global Minimum Vol	21	↓	0	-	0.40	-	Y	-	Y	
ZZZD CN	BMO Tactical Div Fund Serie	21	↓	0	0.24	0.75	-	Y	-	N	
PZW CN	Invesco FTSE RAFI Global Small	19	↓	0	0.26	0.50	-	-	-	N	
RIIN CN	Russell Invs Global Infra Pool	19	↑	0	2.88	0.95	-	Y	-	N	
MXU CN	Mackenzie Max Divers Dev EX North Am	18	↓	0	1.52	0.50	-	-	-	N	
EVO CN	Evovest Global Equity	16	-	0.39	0.73	-	Y	-	-	N	
DXW CN	Dynamic Active International Div	15	↓	0	0.76	1.31	-	Y	-	N	
BREA CN	BROMPTON Sust RI Asst Divd	14	0	0.59	0.96	-	Y	Y	Y	N	
GDIV CN	Manulife Smart Global Div Portfolio	12	↑	0	0.45	0.35	-	Y	-	N	
ETP CN	First Trust Global Risk Managed Inc	12	0	0.31	0.87	-	-	-	-	N	
FLGS CN	Fidelity Global Value US Fund	11	-	0.53	1.15	-	Y	-	-	N	
IIAE CN	Invesco S&P Intern Dev Div Arist ESG	11	-	-	0.87	-	-	Y	H	N	
FGGE CN	Franklin Global Growth Fund/Canada	11	↓	0	0.53	0.99	-	Y	-	N	
MIVG CN	Mackenzie Ivy Global Equity	10	↓	0	1.15	0.75	-	Y	-	N	
HUTE CN	Harvest Eq Wgt Glob Util Ench Inc	10	↑	0	0.41	2.50	-	-	Y	N	
XMY CN	iShares MSCI Min Vol Global CAD HDG	10	0	0.48	0.48	-	-	-	Y	N	
DRFG CN	Desjardins Gls MF Foss Fuel	10	-	0.35	0.76	-	-	Y	-	N	
FLGD CN	Franklin Global Div Quality	8	0	1.00	0.35	-	-	-	-	N	
EQCL CN	Global X Ench AllEquity Asset Cov/Call	8	0	0.26	0.62	+1.25x	Y	-	-	N	
FINT CN	First Trust International Capital Strength	8	↑	-	0.92	0.54	-	-	-	N	
MWMN CN	Mackenzie Global Women's Leadership	8	↓	0	0.77	0.55	-	Y	-	N	
FINE CN	Forstrong Global Ex North Am Equity	7	0	0.22	0.70	-	Y	-	-	N	
FGEP CN	Fidelity Global Equity + Fund	7	-	-	0.90	-	Y	-	-	N	
EACC CN	Global X MSCI EAFE Cov Call	7	-	-	0.80	-	Y	-	-	N	
FLDM CN	Franklin International Multifactor	5	↑	-	0.47	-	-	-	-	N	
MDVD CN	Mackenzie Global Sustainable Div	5	↓	0	1.44	0.25	-	Y	-	N	
GUAEQSF CN	Guardian International Equity Select	4	-	-	0.93	-	Y	-	-	L	
GIQG CN	Guardian I3 Global Quality Growth	4	↓	0	0.39	0.82	-	Y	-	Y	
CEQT CN	CI Equity Asset Alloc	4	↑	0	0.17	0.37	-	Y	-	N	
TGAF CN	Trucent Global Alt L/S Equity	4	0	0.78	0.97	-	Y	-	-	N	
HEQL CN	Global X Ench AllEquity Asset Alloc	4	0	0.21	0.32	-	Y	-	-	N	
DXIF CN	Dynamic Active International	4	↓	0	0.61	1.37	-	Y	-	N	
MEQT CN	Mackenzie AllEquity Alloc	3	0	0.35	0.17	-	Y	-	-	N	
IITE CN	Invesco S&P Intern Dev ESG Tit	3	-	0.91	0.28	-	-	Y	-	N	
DRMD CN	Desjardins RI Dev ExU	3	↓	-	0.31	0.37	-	Y	-	N	
FLVI CN	Franklin Intl Low Vol High Div	3	-	0.44	0.40	-	-	-	-	N	
PHWC CN	Purpose Inter Tactical HDG Equity Fund	3	-	-	0.80	-	Y	-	-	N	
FJFG CN	First Trust JFL Global Equity	2	0	0.32	0.85	-	Y	-	-	N	
IDEF/B CN	Manulife Smart Intern Defen Equity	2	-	1.45	0.53	-	Y	-	-	N	
FGRW CN	Forstrong Global Growth	2	-	0.24	0.55	-	Y	-	-	N	
EACL CN	Global X Ench MSCI EAFE Cov Call	2	-	-	0.75	-	-	-	-	N	
EQCC CN	Global X AllEquity Asset Alloc Cov Call	2	-	-	2.49	-	Y	-	-	N	
EAFI CN	Global X Ench MSCI EAFE	2	-	-	0.45	-	-	-	-	N	
BGEQ CN	BMO Global Equity Fund	1	0	0.31	0.83	-	Y	-	-	N	
RINT CN	RBC International Equity Fund	1	0	-	1.02	-	Y	-	-	N	
GUASLFA CN	Guardian Intern Equity Select Fund	0	↑	-	0.93	-	Y	-	-	L	
BGDV CN	BMO Global Div Oppor Fund	0	0	0.61	0.85	-	Y	-	-	N	
Emerging Markets											
XSEM CN	iShares ESG Aware MSCI EM	2,131	↑	3	0.24	0.33	-	-	Y	-	
VEE CN	Vanguard FTSE EM All Cap	1,365	3	0.06	0.25	-	-	-	EM	N	
XEC CN	iShares Core MSCI EM IMI	1,148	3	0.13	0.27	-	-	-	-	N	

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Emerging Markets (Continued)										
REM CN	Purpose EM Div Fund	9	↑ 0	1.04	0.80	-	-	-	-	N
FLEM CN	Franklin Emerging Market Equity	9	↑ 0	0.62	0.22	-	-	-	-	N
EMCC CN	Global X MSCI EM Cov Call /Toronto	5	-	-	0.69	-	Y	-	-	N
AEMX CN	AGF EM EX China Fund	3	0	0.34	0.90	-	Y	-	-	N
DXEM CN	Dynamic Active EM ETF	2	↑ 0	1.22	1.19	-	Y	-	-	N
EMCL CN	Global X Ench MSCI EM Cov Call ETF	2	-	-	0.85	-	-	-	-	N
EMML CN	Global X Ench MSCI EM	2	-	-	0.49	-	-	-	-	N
FEME CN	Forstrong EM Equity ETF	1	-	0.34	0.70	-	-	-	-	N
FCEM CN	Fidelity EM Fund ETF	1	-	-	0.85	-	Y	-	-	N
Regional										
ZEQ CN	BMO MSCI Eur High Quality HDG CAD	592	↓ 1	0.33	0.45	-	-	-	Y	L
ZWP CN	BMO Europe High Div Cov Call ETF	572	1	0.42	0.71	-	Y	-	H	N
XEU CN	iShares MSCI Europe IMI	239	0	0.36	0.28	-	-	-	-	N
FLUR CN	Franklin International Equity	193	↑ 1	0.53	0.10	-	-	-	-	N
VE CN	Vanguard FTSE Dev Europe All Cap	137	0	0.53	0.22	-	-	-	-	N
XEH CN	iShares MSCI Europe IMI CAD HDG	112	0	0.35	0.28	-	-	-	Y	N
HXX CN	Global X Europe 50 Index Corp	73	0	0.50	0.19	-	-	-	-	N
VA CN	Vanguard FTSE Dev Asia Pac All Cap	71	0	0.49	0.22	-	-	-	-	N
RPD CN	RBC Quant European Div Leaders ETF	22	0	0.73	0.55	-	Y	-	-	N
EDGF CN	BROMPTON European Dividend G	16	0	2.42	0.96	-	Y	-	Y	N
RPDH CN	RBC Quant European Div Leaders	11	0	0.49	0.55	-	Y	-	Y	N
MEU CN	Mackenzie Max Diver Dev Europe	5	↓ 0	1.04	0.50	-	-	-	-	N
EHE CN	CI Europe HDG Equity	4	↓ 0	0.50	1.08	-	-	-	Y	N
EOE CN	INVESCO S&P EUROPE 350 Eq Wgt	4	↓ 0	0.77	0.34	-	-	-	Y	N
CIEH CN	CIBC International Equity CAD HDG	2	0	0.75	0.16	-	Y	-	Y	N
Country										
JAPN CN	CI Japan Equity	768	↑ 0	0.58	0.65	-	-	-	Y	N
ZJPN CN	BMO Japan	534	1	0.36	0.40	-	-	-	Y	N
ZID CN	BMO MSCI India ESG Leaders Ind	116	↑ 0	0.72	0.67	-	-	-	-	N
XID CN	iShares India	85	↑ 0	0.20	1.03	-	-	-	-	N
CJP CN	iShares Japan Fundamental CAD HDG	81	↑ 1	1.82	0.72	-	-	-	Y	N
XCH CN	iShares China	76	2	0.15	0.86	-	-	-	-	N
ZCH CN	BMO MSCI China ESG Leaders	60	↓ 1	0.51	0.67	-	-	-	-	N
FLJA CN	Franklin FTSE Japan	41	0	0.31	0.09	-	-	-	-	N
QCH CN	Mackenzie China AShares CSI 300	16	0	1.07	0.14	-	-	-	-	N
CHNA/B CN	CI ICBCCS S&P China 500	5	↓ 0	1.01	0.72	-	-	-	-	N
Sector										
TEC CN	TD Global Technology Leaders	1,841	↑ 4	0.29	0.39	-	-	-	U	N
HHL CN	Harvest Healthcare Leaders Inc ETF	1,059	3	0.17	1.07	-	Y	-	Y	N
XGD CN	iShares S&P/TSX Global Gold	962	14	0.09	0.61	-	-	-	-	L
ZBK CN	BMO Equal Weight US Banks	494	2	0.13	0.38	-	-	-	H	L
XHC CN	iShares Global Healthcare CAD HDG	438	2	0.20	0.65	-	-	-	Y	N
FSF CN	CI Global Financial Sector ETF	340	↓ 0	0.75	1.20	-	Y	-	Y	N
ZWK CN	BMO Cov Call US Banks ETF	252	2	0.14	0.72	-	Y	-	-	N
XBM CN	iShares S&P/TSX Global Base Metals	245	2	0.17	0.60	-	-	-	-	N
NXF CN	CI Energy Giants Cov Call ETF	242	↓ 1	0.24	0.71	-	-	-	U,H	N
QMAX CN	Hamilton Technology Yld Maximizer ETF	209	2	0.14	0.65	-	Y	-	-	N
UMAX CN	Hamilton Utilities Yld Maximizer ETF	209	2	0.12	0.65	-	Y	-	-	N
HUTL CN	Harvest Equal Wgt Glob Utilities Inc ETF	204	↑ 1	0.47	0.79	+1.25x	-	-	Y	N
CHCL/B CN	CI Global Healthcare Leaders	186	↑ 1	0.43	0.38	-	-	-	-	N
LIFE CN	Evolve Global Healthcare Ench Yld Fund	181	0	0.23	0.45	-	-	-	Y	N
QIF CN	AGF Systematic Global Infrastr	144	↓ 0	0.49	0.45	-	Y	-	-	N
CGR CN	iShares Global Real Estate	141	1	0.67	0.72	-	-	-	-	N
HUBL CN	Harvest US Bank Leaders Inc ETF	120	0	0.20	1.22	-	Y	-	Y	N
HBA CN	Hamilton Australian Bank Eq Wgt	96	0	1.90	0.55	-	-	-	Y	N
TLF CN	BROMPTON Tech Leaders Inc	93	↑ 0	0.17	0.96	-	Y	-	Y	N
LMAX CN	Hamilton Healthcare Yld Maximizer ETF	91	-	0.18	0.65	-	Y	-	-	N
ZWT CN	BMO Cov Call Technology ETF	90	↑ 1	0.15	0.73	-	Y	-	-	N
MREL CN	Middlefield Real Estate Div ETF	87	↑ 0	0.42	0.75	-	Y	-	-	N
BGHC CN	BMO Global Health Care Fund	87	1	0.49	0.98	-	Y	-	-	N
EMAX CN	Hamilton Energy Yld Maximizer ETF	81	-	0.17	0.65	-	Y	-	-	N
AMAX CN	Hamilton Gold Prod Yld Maximizer	79	-	0.25	0.65	-	Y	-	-	N
HGU CN	BetaPro CAN Gold 2x Daily Bull ETF	77	9	0.25	1.11	+2x	-	-	Y	L
HURACN	Global X Uranium	75	1	0.98	0.99	-	-	-	-	N
CHPS CN	Global X Semiconductor	75	↑ 1	0.61	0.64	-	-	-	Y	N
FHI CN	CI Health Care Giants Cov Call ETF	71	0	0.22	0.78	-	-	-	U,H	N
CALL CN	Evolve US Banks Ench Yld Fund	71	↑ 0	0.20	0.45	-	-	-	Y	N
XGI CN	iShares S&P Global Indus CAD HDG	64	0	0.42	0.67	-	-	-	Y	N
TDOC CN	TD Global Healthcare Leaders	60	↑ 0	0.36	0.39	-	-	-	-	N
TRVL CN	Harvest Travel & Leisure	58	↓ 0	0.20	0.65	-	-	-	-	N
XCD CN	iShares S&P Global Cons Dis CAD HDG	54	0	1.00	0.66	-	-	-	Y	N
TGRE CN	TD Active Global Real Estate Equity ETF	52	0	1.40	0.73	-	Y	-	-	N

1 Option Liquidity: H = High / L = Low / N = None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active / Transparent, (Blank) = Passive

4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Sector (Continued)										
CGRE CN	CI Global REIT Pvt Pool ETF	43	↓ 0	1.40	2.11	-	Y	-	Y	N
HPF CN	Harvest Energy Leaders Plus Inc ETF	42	0	0.42	1.48	-	Y	-	Y	N
FMAX CN	Hamilton US Financials Yld Maximizer	41	-	0.17	0.65	-	Y	-	-	N
HIG CN	BROMPTON Global Healthcare H	39	0	0.37	0.96	-	Y	-	Y	N
BASE CN	Evolve Global Mat & Mining Ench Yld	37	↑ 0	0.29	0.60	-	-	-	Y	N
BGRT CN	BMO Global REIT Fund	36	0	0.46	1.01	-	Y	-	-	N
HFG CN	Hamilton Global Financials ETF	35	0	0.73	0.75	-	Y	-	-	N
ZMT CN	BMO Eq Wgt GI Base Metals HDG CAD	29	0	0.22	0.61	-	-	-	Y	N
STPL CN	BMO GIB Cons Staples HDG to CAD	24	0	0.47	0.40	-	-	-	Y	N
DISC CN	BMO Global Cons Dis HDG to CAD	24	0	0.34	0.40	-	-	-	Y	N
FHG CN	First Trust AlphaDEX US Indus Sector	23	↑ 0	0.44	0.78	-	-	-	-	N
COMMCN	BMO Global Communications	21	0	0.47	0.40	-	-	-	-	N
QQQY CN	Evolve Nii Enhanced Yld Fund	20	0	0.17	0.45	-	Y	-	-	N
QQQYMFACN	Evolve NASDAQ Tec En YdA	20	-	-	1.50	-	Y	-	-	L
QQQYMFCCN	Evolve NASDAQ Tec En YdF	20	-	-	0.50	-	Y	-	-	L
FHQ CN	First Trust AlphaDEX US Tech Sector	19	↓ 0	0.29	0.78	-	-	-	-	N
HGD CN	BetaPro CAN Gold 2x Daily Bear ETF	18	↑ 2	0.37	0.56	-2x	-	-	Y	L
QQQT CN	Evolve NASDAQ Tech Index Fund	18	0	0.12	0.25	-	-	-	-	N
HGR CN	Harvest Global REIT Leaders Inc ETF	17	↑ 0	0.55	1.23	-	Y	-	Y	N
COOP CN	Global X Copper Producers	17	↑ 0	0.30	0.81	-	-	-	Y	N
HGGG CN	Harvest Global Gold Giants	16	0	1.12	0.90	-	-	-	Y	N
FCII CN	Frank CbSust GIB InfEtf	12	↑ 0	0.80	0.94	-	Y	Y	-	N
RUBY CN	RBC US Banks Yld	11	↓ 0	0.24	0.32	-	-	-	-	N
XCHP CN	iShares Semiconductor	10	0	0.18	0.35	-	-	-	-	N
ZHU CN	BMO Equal Weight US Health Care	10	↓ 0	0.22	0.39	-	-	-	H	N
PHR CN	Purpose Real Estate Inc Fund	9	↓ 0	1.35	0.65	-	Y	-	Y	N
FHH CN	First Trust AlphaDEX US Health Sector	9	-	0.29	0.76	-	-	-	-	N
SCGR CN	Starlight Global Real Estate Fund	8	0	0.78	1.29	-	Y	-	-	N
DXF CN	Dynamic Active Global Fin Services	8	↓ 0	0.40	0.94	-	Y	-	-	N
QRET CN	Mackenzie Dev Mkt Real Est	8	0	1.49	0.40	-	-	-	-	N
XCLN CN	iShares Global Clean Energy	6	↑ 0	1.49	0.39	-	Y	-	-	N
HIND CN	Harvest Industrial Leaders Inc ETF	5	-	0.28	0.75	-	Y	-	H	N
XAD CN	iShares US Aerospace & Defense	5	0	0.17	0.40	-	-	-	-	N
TECI CN	TD Global Technology Innovators	5	0	0.74	0.50	-	-	-	-	N
RUBH CN	RBC US Banks Yld Cad HDG	4	↓ 0	0.24	0.32	-	-	-	Y	N
ZGRN CN	BMO MSCI ACWI Paris Alig Climate Eq	3	↑ 0	0.57	0.28	-	-	-	Y	N
XUSF CN	iShares S&P US Financials	3	0	0.12	0.28	-	-	-	-	N
RTEC CN	RBC Global Technology Fund	2	↑ 0	2.45	1.02	-	Y	-	-	N
XETM CN	iShares S&P/TSX Energy Trans Materials	2	0	0.25	0.62	-	-	-	-	N
EBNK CN	Evolve European Banks Ench Yld	2	↓ 0	0.59	0.60	-	-	-	-	N
AGLR CN	AGF Global Real Assets Fund	1	-	0.51	0.60	-	Y	-	-	N
RGPM CN	RBC Global Precious Metals Fund	1	0	0.79	1.02	-	Y	-	-	N
FBT CN	First Trust NYSE Arca Biotech	1	↓ 0	0.24	0.56	-	-	-	-	N
RENG CN	RBC Global Energy Fund	1	0	0.52	1.02	-	Y	-	-	N
Theme										
NREA CN	NBI Global Real Assets Inc ETF	861	1	-	0.93	-	Y	-	-	N
HBF CN	Harvest Brand Leaders Plus Inc	476	1	0.16	1.03	-	Y	-	Y	N
ZGI CN	BMO Global Infra	451	1	0.11	0.61	-	-	-	-	N
NGPE CN	NBI Global Pvt Equity ETF	412	0	0.67	0.63	-	-	-	-	N
CIF CN	iShares Global Infra	337	1	0.20	0.72	-	-	-	-	N
CAIA CN	CI Global Artificial Intelligence ETF	336	-	0.13	0.20	-	Y	-	-	N
CWW CN	iShares Global Water	251	0	0.72	0.62	-	-	-	-	N
COW CN	iShares Global Agriculture	219	↓ 1	0.30	0.72	-	-	-	-	N
FINN CN	Fidelity Global Innovators ETF	216	↑ 2	0.37	1.13	-	Y	-	U	N
CINF CN	CI Global Infra Pvt Pool ETF</									

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Theme (Continued)										
CARS CN	Evolve Auto Innov Index Fund	22	↓	0	1.57	0.40	-	-	-	Y N
HBLK CN	Blockchain Technologies ETF	22	↓	0	2.20	1.34	-	-	-	N
DXN CN	Dynamic Active Global Infra ETF	21	0	0.85	1.10	-	Y	-	-	N
ARKK CN	BMO ARK Innovation Fund ETF	21	↑	0	0.20	0.83	-	Y	-	N
MINF CN	Middlefield Sustainable Infra Div ETF	21	↓	0	0.55	1.25	-	Y	Y	-
CSGE CN	CIBC Sustainable Global Equity ETF	20	0	0.99	0.90	-	Y	Y	-	N
HERO CN	Evolve EGaming	15	↓	0	-	0.70	-	-	-	Y N
LEAD CN	Evolve Future Leadership Fund	15	↓	-	0.33	0.75	-	Y	-	Y N
HBGD CN	Global X Big Data & Hardware	13	0	0.93	0.58	-	-	-	-	Y N
HLIT CN	Global X Lithium Producers	13	0	0.76	0.88	-	-	-	-	Y N
RTT CN	Purpose Tactical Thematic Fund	12	0	0.18	0.67	-	Y	-	-	N
DATA CN	Evolve Cloud Computing Index Fund	10	↓	0	0.35	0.60	-	-	-	Y N
AGSG CN	AGF Global Sus Growth Equity ETF	10	↓	0	0.49	0.65	-	Y	Y	-
INAI CN	Invesco Morningstar Global Next Gen AI	9	-	-	0.32	0.35	-	-	-	H N
GRNI CN	BMO Brookfield Global Renew Infra Fund	8	↓	0	0.64	0.90	-	Y	Y	-
DXET CN	Dynamic Active Energy Evolution ETF	7	↓	-	1.09	1.20	-	Y	-	N
CLML CN	CI Global Climate Leaders Fund ETF	7	0	-	1.32	-	Y	Y	-	N
MCKG CN	Mackenzie Corp Knights Global 100	7	↑	0	-	0.50	-	-	-	Y N
SCGI CN	Starlight Global Infra Fund	6	↓	0	0.68	2.37	-	Y	-	N
FDN CN	First Trust DJ Internet ETF	5	0	0.14	0.51	-	-	-	-	Y N
FOUR CN	Global X Industry 4.0	5	↓	0	1.07	0.64	-	-	-	Y N
CINV CN	CI Global Alpha Innovation ETF	5	↑	0	0.39	1.38	-	Y	-	-
QINF CN	Mackenzie Global Infra	5	0	1.32	0.40	-	-	-	-	N
CGRA CN	CI Global Real Asset Pvt Pool ETF	5	↑	-	0.56	2.12	-	Y	-	Y N
CDNACN	CI BioRevolution	4	-	-	0.78	0.44	-	-	-	Y N
MTAV CN	Global X Metaverse	4	0	0.73	0.64	-	-	-	-	Y N
TMEI CN	TD Morningstar ESG International Equity	4	↓	0	1.96	0.23	-	-	-	Y N
XDRV CN	iShares Global Electric and Auto Veh	4	-	-	1.39	0.44	-	-	-	Y N
ARKW CN	BMO ARK Next Gen Internet Fund	4	0	0.16	0.84	-	Y	-	-	N
FCSI CN	Frank Clear Bri Sus IgtEtf	3	↓	0	-	2.13	-	Y	Y	-
TOWR CN	BMO Brookfield GI Real Est Tech Fund	3	↓	0	0.62	0.87	-	Y	-	N
ZEAT CN	BMO Global Agriculture ETF	3	↓	0	0.24	0.40	-	Y	-	N
LONG CN	CI Global Longevity Economy Fund	3	-	-	0.50	2.14	-	Y	-	Y N
HBFE CN	Harvest Brand Leaders Ench Inc	3	0	0.32	2.70	+1.25x	-	-	-	Y N
ARTI CN	Evolve Artificial Intelligence Fund	3	-	-	0.21	0.60	-	Y	-	-
FINO CN	Franklin Innovation Fund	2	-	-	-	0.90	-	Y	-	-
BGIN CN	BMO Global Innovators Fund	2	0	0.38	1.05	-	Y	-	-	N
HBUG CN	Global X Cybersecurity	2	0	0.79	0.55	-	-	-	-	N
TECX CN	TD Global Tech Leaders CAD HDG	2	↑	0	0.59	0.39	-	-	-	Y N
AIGO CN	Global X Artificial Intelli & Tech	2	-	-	0.63	0.49	-	-	-	N
CBUG CN	CI Digital Security	2	↓	0	0.46	0.44	-	-	-	Y N
IGET CN	Invesco Morningstar Global Energy Trans	2	-	-	0.78	0.40	-	-	-	H N
SKYY CN	FirstTrust Cloud Computing ETF	2	↓	0	0.30	0.60	-	-	-	N
TTTX CN	Global X Innovative Bluechip Top 10	1	-	-	0.31	0.68	-	-	-	N
COLI CN	CIBC Qx International Low Vol Div ETF	1	0	1.57	0.46	-	Y	-	-	N
BLCK CN	Ft Indx Innovativ Trans/Ca	1	↓	0	-	0.81	-	-	-	N
MJJ CN	Purpose Marijuana Oppor Fund	1	↓	0	-	0.75	-	Y	-	-
NXTG CN	FirstTrust Indx X NextG ETF CAD	1	-	-	0.58	0.87	-	-	-	N
PINV CN	Purpose Global Innovators Fund	1	-	-	0.26	0.75	-	Y	-	-
CGRN CN	CI Global Sustainable Infra Fund	1	-	-	2.39	1.06	-	Y	Y	U N
CBCX CN	CI Galaxy Blockchain	1	↑	-	0.65	0.73	-	-	-	Y N

Multi-asset										
Asset Allocation										
VGRO CN	Vanguard Growth ETF Portfolio	3,809		10	0.05	0.24	-	-	-	N
IGAF CN	IA Clarington Loomis Glob Alloc Fund	3,532	0	2.65	1.10	-	Y	-	Y	N
XEQT CN	iShares Core Equity ETF Portfolio	2,711	↑	15	0.06	0.20	-	-	-	Y N
VBAL CN	Vanguard Bal ETF Portfolio	2,031		7	0.06	0.24	-	-	-	N
ISIF CN	IA Clarington Strategic Inc Fund ETF	1,848	0	0.80	0.99	-	Y	-	Y	N
XGRO CN	iShares Core Growth ETF Portfolio	1,662	↑	5	0.06	0.20	-	-	-	N
XBAL CN	iShares Core Bal ETF Portfolio	990	↑	3	0.06	0.20	-	-	-	N
FBAL CN	Fidelity AllinOne Bal ETF	725	↑	4	0.23	0.40	-	Y	-	-
FIE CN	iShares CAN Financial Monthly Inc ETF	721	2	0.19	0.80	-	Y	-	-	N
FGRO CN	Fidelity AllinOne Growth ETF	368	↑	2	0.24	0.42	-	Y	-	-
VCNS CN	Vanguard Cons ETF Portfolio	344	1	0.07	0.24	-	-	-	-	N
XTR CN	iShares Diversified Monthly Inc ETF	276	1	0.16	0.61	-	-	-	-	N
HDIF CN	Harvest Diversified Monthly Inc ETF	268	1	0.24	2.64	+3.3x	Y	-	Y	N
FEQT CN	Fidelity AllinOne Equity ETF	234	↑	2	0.24	0.43	-	Y	-	-
FCNS CN	Fidelity AllinOne Cons ETF	223	↑	1	0.27	0.38	-	Y	-	-
ZGRO CN	BMO Growth ETF	210	↑	1	0.09	0.20	-	Y	-	-
VRIF CN	Vanguard Retirement Inc ETF Portfolio	209	0	0.10	0.29	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year
 3 Actively Managed: Y = Active Transparent, (Blank) = Passive
 4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Multi-asset										
Asset Allocation (Continued)										
RTA CN	Purpose Tactical Asset Alloc Fund/ ETF	193	0	0.10	0.75	-	Y	-	-	N
ZBAL CN	BMO Bal ETF	178	↑	1	0.10	0.20	-	Y	-	Y N
HAC CN	Global X Seasonal Rotation ETF	156	0	0.33	1.09	-	Y	-	Y	N
VCIP CN	Vanguard Cons Inc ETF Portfolio	151	1	0.09	0.24	-	-	-	-	N
CCOM CN	CI Auspice Broad Commodity Fund	119	↑	1	0.15	0.70	-	Y	-	Y N
HBAL CN	Global X Bal Asset Alloc ETF	103	0	0.15	0.16	-	-	-	-	Y N
XCNS CN	iShares Core Cons Bal ETF Port	93	↑	2	0.14	0.20	-	-	-	Y N
CROP CN	Purpose Credit Oppor Fund	93	0	0.28	0.85	-	Y	-	U	N
PABF CN	Purpose Active Bal Fund	90	1	0.17	0.46	-	Y	-	-	N
ZMI CN	BMO Monthly Inc ETF	90	0	0.16	0.20	-	Y	-	-	N
PFAA CN	Picton Mahoney Fortified Alpha Alt	79	↑	0	0.53	0.95	-	Y	-	-
GGRO CN	iShares ESG Growth ETF Portfolio	67	↑	0	0.18	0.25	-	-	-	Y N
MBAL CN	Mackenzie Bal Alloc ETF	61	↑	0	0.27	0.17	-	Y	-	-
HRAA CN	Global X Resolve Adapt Asset Alloc Corp	59	↓	0	0.78	0.96	-	Y	-	-
GBAL CN	iShares ESG Bal ETF Portfolio	55	↑	0	0.18	0.25	-	-	-	Y N
PAGF CN	Purpose Active Growth Fund	52	0	0.21	0.43	-	Y	-	-	N
PINC CN	Purpose MultiAsset Inc Fund	46	0	1.73	0.85	-	Y	-	-	N
BMAX CN	BROMPTON Enh MultiAsset ETF	45	↑	0	0.54	2.85	-	Y	-	Y N
PRA CN	Purpose Diversified Real Asset Fund	43	↓	0	0.95	0.60	-	Y	-	Y N
HCON CN	Global X Cons Asset Alloc ETF	33	↓	0	0.21	0.15	-	Y	-	Y N
PACF CN	Purpose Active Cons Fund	31	0	1.10	0.20	-	Y	-	-	N
ZCON CN	BMO Cons ETF	31	0	0.13	0.20	-	Y	-	-	N
MGRW CN	Mackenzie Growth Alloc ETF	25	↑	0	0.28	0.17	-	Y	-	-
MCON CN	Mackenzie Cons Alloc ETF	23	↑	0	0.32	0.17	-	Y	-	-
PMM CN	Purpose MultiStrategy Market Neutral	23	0	-	0.95	-	Y	-	-	N
CGRO CN	CI Growth Asset Alloc ETF	17	↑	0	0.18	0.32	-	Y	-	-
GCNS CN	iShares ESG Cons Bal ETF Portfolio	17	↑	0	0.17	0.25	-	-	-	Y N
FCGI CN	Fidelity Global Monthly High Inc ETF	16	↑	0	0.27	0.63	-	Y	-	-
CBAL CN	CI Bal Asset Alloc ETF	15	↑	0	0.19	0.22	-	Y	-	-
CGAA CN	CI Global Asset Alloc Pvt Pool ETF	13	↑	0	0.41	2.07	-	Y	-	-
ONEC CN	Accelerate OneChoice Alt Portfolio ETF	12	0	1.59	0.20	-	Y	-	-	N
CSBA CN	CIBC Sustainable Bal Solution ETF	12	0	0.24	0.85	-	Y	Y	-	N
PLVC CN	Invesco Low Vol Portfolio ETF	12	↓	-	0.51	0.39	-	-	-	N
CSBG CN	CIBC Sustainable Bal Growth Sol	10	0	0.24	0.90	-	Y	Y	-	N
DXR CN	Dynamic Active Retirement Inc ETF	8	-	-	0.54	1.05	-	Y	-	Y N
ZWQT CN	BMO Global Ench Inc Fund	8	0	0.25	0.71	-	Y	-	-	N
HGRW CN	Global X Growth Asset Alloc ETF	7	0	0.19	0.18	-	Y	-	-	N
RIRA CN	Russell Inv's Real Assets ETF	6	↓	0	-	0.90	-	Y	-	-
CSCB CN	CIBC Sustainable Cons Bal Solution	5	0	0.25	0.79	-	Y	Y	-	N
FCMI CN	Fidelity CAN Monthly High Inc ETF	5	↓	0	0.26	0.59	-	Y	-	-
GRCC CN	Global X Growth Asset Alloc Cov Call ETF	4	0	0.37	0.52	-	Y	-	-	N
CBIN CN	CI Bal Inc Asset Alloc	4	↑	0	0.19	0.34	-	Y	-	-
PIN CN	Purpose Monthly Inc Fund	3	-	-	0.30	0.55	-	Y	-	Y N
EGIF CN	Exemplar Growth and Inc Fund	3	↓	-	0.56	0.80	-	Y	-	-
FGEB CN	Fidelity Global Equity + Bal Fund	2	-	-	0.85	-	Y	-	-	N
CCNV CN	CI Cons Asset Alloc ETF	2	↑	0	0.21	0.36	-	Y	-	-
HBIE CN	Harvest Bal Inc & Growth Ench ETF	2	-	-	0.29	-	-	Y	-	Y N
CBGR CN	CI Bal Growth Asset Alloc ETF	2	↑	-	0.17	0.46	-	Y	-	-
GPMD CN	GuardPatm TM Man Decumu 2042	1	0	2.03	0.90	-	Y	-	Y	N
FINC CN	Forstrong Global Inc ETF	1	-	-	0.28	0.55	-	Y	-	-
FTHI CN	Fidelity Tactical High Inc Fund ETF	1	-	-	2.11	-	Y	-	-	N
PRP CN	Purpose Cons Inc Fund	1	-	-	0.22	0.55	-	Y	-	Y N
HBIG CN	Harvest Bal Inc & Growth ETF	-	-	-	0.24	-	-	Y	-	Y N

Liquid Alts										
NALT CN	NBI Liquid Alternatives ETF	313	1	0.28	0.69	-	Y	-	-	N
PFIA CN	Picton Mahoney Fort Inc Alt	250	1	0.25	0.95	-	Y	-		

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Government (Continued)										
ZFS CN	BMO Short Fed Bond	273	↓	1	0.11	0.22	-	-	-	N
ZMBS CN	BMO CAN MBS	258	0	0.18	0.17	-	-	-	-	N
PGL CN	Invesco Long Term Govt Bond	242	1	0.28	0.28	-	-	-	-	N
ZPS CN	BMO Short Provincial Bond	230	2	0.14	0.28	-	-	-	-	N
ZMP CN	BMO Mid Provincial Bond	229	4	0.14	0.28	-	-	-	-	N
XRB CN	iShares CAN Real Return Bond	218	↓	1	0.51	0.39	-	-	-	N
ZPL CN	BMO Long Provincial Bond	182	↑	1	0.22	0.28	-	-	-	N
ZSB CN	BMO ShortTerm Bond	75	↓	0	0.08	0.10	-	-	-	N
ZFH CN	BMO Float Rate High Yld	74	↑	0	0.44	0.45	-	Y	-	N
VGVC CN	Vanguard CAN Govt Bond	63	0	0.11	0.17	-	-	-	-	N
ZRR CN	BMO Real Return Bond	62	0	0.66	0.28	-	-	-	-	N
DCG CN	Desjardins 15 year Lad CAN Gov Bond	57	↑	0	0.16	0.14	-	-	-	N
QLB CN	Mackenzie CAN Govt Long Bond	47	0	0.27	0.18	-	-	-	-	N
RGQO CN	RBC Target 2026 CAN Govt Bond ETF	42	↑	0	0.11	0.17	-	Y	-	N
RGQR CN	RBC Target 2029 CAN Govt Bond ETF	38	↑	0	0.19	0.18	-	Y	-	N
RGQN CN	RBC Target 2025 CAN Govt Bond ETF	35	↑	0	0.10	0.17	-	Y	-	N
RGQQ CN	RBC Target 2028 CAN Govt Bond ETF	26	↑	0	0.14	0.18	-	Y	-	N
BXF CN	CI 15 Year Lad Govt Strip Bond	25	↓	0	0.29	0.22	-	-	-	N
HMP CN	Global X Active CAN Mun Bond ETF	24	↓	0	0.39	0.35	-	Y	-	N
RGQP CN	RBC Target 2027 CAN Govt Bond ETF	23	↑	0	0.13	0.17	-	Y	-	N
XFLB CN	iShares Core CAN 15+ Year Fed Bond	21	0	0.25	0.17	-	-	-	-	N
FGB CN	CI Short Term Govt Bond Index Class	12	0	0.17	0.36	-	-	-	-	N
RGQS CN	RBC Target 2030 CAN Govt Bond ETF	5	-	0.15	0.15	-	-	Y	-	N
PAYS CN	Global X ShortTerm Govt Prem Yld	1	-	-	0.40	-	-	Y	-	N
FGOV CN	Franklin CAN Government	-	-	0.23	0.15	-	-	-	-	N
Corporate										
HBB CN	Global X CAND Sel Univ Ind C	2,300	12	0.12	0.10	-	-	-	-	N
XCB CN	iShares Core CAN Corporat	1,147	7	0.09	0.17	-	-	-	-	L
ZCS CN	BMO Short Corp Bond	1,114	3	0.11	0.11	-	-	-	-	N
CACB CN	CIBC Active Inv Grade Corp Bond ETF	992	1	0.49	0.40	-	Y	-	-	N
XSH CN	iShares Core CAN Short Term Corp Bond	919	5	0.09	0.10	-	-	-	-	N
NHYB CN	NBI High Yld Bond ETF	776	1	0.42	0.69	-	Y	-	Y	N
VSC CN	Vanguard CAN ShortTerm Corp Bond	667	2	0.09	0.11	-	-	-	-	L
RQO CN	RBC Target 2026 CAN Corp Bond	571	↑	3	0.11	0.23	-	-	-	N
RQN CN	RBC Target 2025 CAN Corp Bond	505	↑	3	0.08	0.23	-	-	-	N
CBO CN	iShares 15 Year Lad Corp Bond	505	1	0.12	0.28	-	-	-	-	N
QCB CN	Mackenzie CAN All Corp Bond	409	↑	2	0.40	0.14	-	-	-	N
RQP CN	RBC Target 2027 CAN Corp Bond	390	↑	2	0.13	0.23	-	-	-	N
ZCM CN	BMO Mid Corp Bond	362	1	0.18	0.33	-	-	-	-	L
DXDB CN	Dynamic Active Discount Bond ETF	353	↑	2	0.19	0.40	-	Y	-	N
ZLC CN	BMO Long Corp Bond	296	↑	2	0.22	0.33	-	-	-	N
RQQ CN	RBC Target 2028 CAN Corp Bond	281	↑	1	0.18	0.23	-	-	-	N
PSB CN	Invesco 15 Year Lad Inv Corp Bond	266	1	0.18	0.28	-	-	-	-	N
CBH CN	iShares 110 Year Lad Corp Bond	264	2	0.18	0.28	-	-	-	-	N
RQL CN	RBC Target 2024 CAN Corp Bond	249	2	0.07	0.22	-	-	-	-	N
HAB CN	Global X Active Corp Bond ETF	244	1	0.33	0.59	-	Y	-	Y	N
VCB CN	Vanguard CAN Corp Bond	231	1	0.18	0.17	-	-	-	-	N
TERM CN	Manulife Smart ShortTerm Bond ETF	170	↓	1	0.21	0.23	-	Y	-	N
WSGB CN	Wealthsimple North Am Green Bond	170	0	0.46	0.29	-	-	Y	Y	N
RQR CN	RBC Target 2029 CAN Corp Bond	139	↑	1	0.17	0.24	-	-	-	N
XHB CN	iShares CAN HYBrid Corp Bond	137	0	0.28	0.50	-	-	-	-	N
FCSB CN	Fidelity CAN Short Term Corp Bond ETF	111	0	0.30	0.45	-	Y	-	-	N
DXVC CN	Dynamic Active Inv Grade Float Rate ETF	108	↑	1	0.20	0.34	-	Y	-	N
NSCC CN	NBI Sustainable CAN Corp Bond ETF	103	0	0.35	0.63	-	Y	Y	-	N
RBO CN	RBC 15 Year Lad CAN Corp Bond ETF	93	0	0.16	0.28	-	Y	-	-	N
GIGC CN	Guardian Inv Grade Corp	93	-	0.26	0.40	-	Y	-	-	N
TCSB CN	TD Select Short Term Corp Bond Lad	89	↑	1	0.18	0.28	-	Y	-	Y
CBND CN	Manulife Smart Corp Bond ETF	89	↑	0	0.35	0.27	-	Y	-	N
ZCB CN	BMO Corp Bond	84	0	0.25	0.17	-	-	-	-	N
ZCBC CN	Desjardins CAN Corp Bond	83	-	0.37	0.15	-	-	-	-	N
ZSDB CN	BMO Short Term Discount Bond ETF	78	↑	0	0.12	0.10	-	Y	-	N
XSTB CN	iShares ESG Aware CAN Sho	67	0	0.12	0.17	-	-	Y	-	N
SYLD CN	Purpose Strategic Yld Fund	55	0	1.14	0.80	-	-	-	-	N
RATE CN	Arrow EC Inc Advantage AI Fund ETF	50	↑	0	0.47	1.92	-	Y	-	N
ESGB CN	BMO ESG Corp Bond	42	0	0.38	0.17	-	-	Y	-	N
NSSB CN	NBI Sustainable CAN Short Term Bond	31	0	0.50	0.29	-	Y	Y	Y	N
ZCDB CN	BMO Corp Discount Bond ETF	30	0	0.28	0.17	-	Y	-	-	N
SRIB CN	Scotia Responsible Invest CAN Bond	29	↑	0	1.01	0.15	-	Y	-	N
QHY CN	Mackenzie US High Yld Bond CAD HDG	26	-	0.98	0.40	-	-	-	-	Y
XCBG CN	iShares ESG Advanced CAN Corp Bond	25	↑	0	0.28	0.17	-	-	Y	-
TBCN CN	TD Target 2025 Inv Grade Bond ETF	25	-	0.13	0.20	-	Y	-	-	N
RIFI CN	Russell Invs Fixed Inc Pool ETF	22	↓	0	0.34	0.95	-	Y	-	N

1 Option Liquidity: H = High / L = Low / N = None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active / Transparent, (Blank) = Passive

4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Corporate (Continued)										
TBCG CN	TD Target 2027 Inv Grade Bond ETF	21	-	0.20	0.20	-	Y	-	-	N
ZQB CN	BMO High Quality Corp Bond	20	↑	0	0.18	0.11	-	-	-	N
TBCF CN	TD Target 2026 Inv Grade Bond ETF	15	-	0.17	0.20	-	Y	-	-	N
ZBCC CN	BMO BBB Corp Bond	14	↑	0	0.23	0.17	-	-	-	N
FLCI CN	Franklin CAN Corp	13	0	0.40	0.35	-	Y	-	-	N
XSHG CN	iShares ESG Adv 15 Year CAN Corp	11	↑	0	0.17	0.17	-	-	Y	-
CSBI CN	CIBC CAN ShortTerm Bond	7	↑	0	2.62	0.07	-	-	-	N
GBFC CN	GuardBondsTM 2026 Inv Grade	7	-	0.30	0.20	-	Y	-	-	N
RQS CN	RBC Target 2030 CAN Corp Bond	6	-	0.33	0.20	-	-	-	-	N
INCM CN	Accelerate Diversified Credit Inc Fund	6	-	0.60	0.75	-	Y	-	-	N
DCC CN	Desjardins 15 year Lad CAN Corp Bond	5	0	0.34	0.17	-	-	-	-	N
CMEY CN	CI Marret Alternative Ench Yld Fund	3	↑	-	0.80	1.79	-	Y	-	Y
TMCC CN	TD Morningstar ESG Canada Corp Bond	3	↑	0	0.68	0.17	-	-	Y	-
Aggregate/Multisector										
ZAG CN	BMO Aggregate Bond	5,240	20	0.09	0.09	-	-	-	-	L
XBB CN	iShares Core CAN Universe Bond	5,223	↑	27	0.05	0.10	-	-	-	N
VAB CN	Vanguard CAN Aggregate Bond	3,430	8	0.07	0.09	-	-	-	-	L
NSCB CN	NBI Sustainable CAN Bond ETF	2,038	↑	5	0.34	0.63	-	Y	Y	Y
PMIF CN	PIMCO Monthly Inc Fund	1,777	↑	7	0.09	0.86	-	Y	-	Y
XSB CN	iShares Core CAN Short Term Bond	1,509	7	0.06	0.10	-	-	-	-	L
TDB CN	TD CAN Aggregate Bond	1,111	↑	3	0.13	0.08	-	-	-	N
ZCPB CN	BMO Core Plus ETF	933	1	0.14	0.56	-	Y	-	Y	N
XLB CN	iShares Core CAN Long Term Bond	902	↑	7	0.13	0.20	-	-	-	N
VSB CN	Vanguard CAN ShortTerm Bond	826	9	0.07	0.11	-	-	-	-	L
RCDB CN	RBC CAN Discount Bond ETF	803	↑	3	0.13	0.17	-	Y	-	N
QBB CN	Mackenzie CAN Aggregate Bond	636	1	0.16	0.07	-	-	-	-	N
ZDB CN	BMO Discount Bond	597	3	0.13	0.10	-	-	-	-	N
ICPB CN	IA Clarington Core Plus ETF	518	↑	1	0.43	0.66	-	Y	-	Y
DCU CN	Desjardins CAN Universe Bond	509	↑	3	0.16	0.08	-	-	-	N
FCCB CN	Fidelity Systematic CAN Bond	477	↑	1	0.21	0.28	-	-	-	N
CCRE CN	CIBC Core Fixed Inc ETF	471	↑	0	0.37	0.46	-	Y	-	N
FSB CN	CI Ench Short Duration Bond	433	↓	2	0.26	1.41	-	Y	-	Y
CPLS CN	CIBC Core Plus Fixed Inc Pool ETF	413	↓	0	0.41	0.47	-	Y	-	N
MKB CN	Mackenzie Core Plus CAN Fixed Inc ETF	409	1	0.18	0.40	-	Y	-	-	N
CAFR CN	CIBC Active Inv Grade Float Rate Bond	278	0	0.50	0.34	-	Y	-	-	N
SITB CN	Scotia CAN Bond Index Tracker ETF	267	↑	1	0.27	0.09	-	-	-	N
CREC CN	CI Alternative Inv Grade Credit Fund	264	1	0.26	2.28	-	Y	-	Y	N
GCBD CN	Guardian CAN Bond ETF	250	↑	0	0.14	0.39	-	Y	-	N
XQB CN	iShares High Quality CAN Bond	235	1	0.12	0.13	-	-	-	-	N
VLB CN	Vanguard CAN LongTerm Bond	187	↑	1	0.21	0.17	-	-	-	N
FIG CN	CI Inv Grade Bond ETF	150	↓	0	0.35	0.77	-	Y	-	Y
CDLB CN	CI Doubleline Total Return Bond US\$	146	↓	0	0.59	1.38	-	Y	-	Y
XSAB CN	iShares ESG Aware CAN Ag	113	0	0.16	0.17	-	-	Y	-	N
FHIS CN	Franklin CAN Ultra Short Term	94	↑	1	0.12	0.17	-	Y	-	Y
DXB CN	Dynamic Active Tactical Bond ETF	92	0	0.18	0.56	-	Y	-	Y	N
BSKT CN	Manulife Smart Core Bond ETF	87	↑	1	0.33	0.24	-	Y	-	N
RLB CN	RBC 15 Year Lad CAN Bond ETF	85	0	0.15	0.25	-	Y	-	-	N
CAGG CN	CI CAN Aggregate Bond	78	↑	1	0.31	0.21	-	-	-	N
BESG CN	Invesco ESG CAN Core Plus ETF	75	0	0.50	0.39	-	Y	Y	Y	N
FLCP CN	Franklin CAN Core Plus	59	↑	0	0.24	0.62	-	Y	-	N
CCNS CN	CIBC Cons Fixed Inc Pool ETF	49	-	0.30	0.46	-	Y	-	-	N
DXO CN	Dynamic Active Crossover Bond ETF	46	0	0.59	0.55	-	Y	-	Y	N
CCBI CN	CIBC CAN Bond									

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Money Market/Savings										
CSAV CN	CI High Interest Savings ETF	5,335	24	0.02	0.33	-	-	-	-	N
CASH CN	Global X High Interest Savings ETF	3,540	↑ 51	0.02	0.11	-	-	-	-	N
PSAC CN	Purpose High Interest Savings Fund	2,350	51	0.02	0.15	-	-	-	-	N
HSAV CN	Global X Cash Maximizer Corp	1,650	6	0.09	0.20	-	-	-	-	N
ZST CN	BMO Ultra ShortTerm Bond ETF	1,542	↑ 9	0.03	0.17	-	Y	-	-	N
HISA CN	High Interest Savings Account Fund	979	52	0.02	0.15	-	-	-	-	N
ZMMK CN	BMO Money Market Fund ETF	950	↑ 16	0.02	0.13	-	Y	-	-	N
HSU/UC CN	Global X USD Cash Maximizer Corp	737	4	0.09	0.20	-	-	-	U	N
CMR CN	iShares Prem Money Market ETF	675	↑ 11	0.02	0.13	-	-	-	-	N
MNY CN	Purpose Cash Management Fund	447	↑ 7	0.02	0.20	-	Y	-	-	N
NSAV CN	Ninepoint High Interest Savings Fund	348	↑ 0	0.04	0.25	-	-	-	-	N
HFR CN	Global X ACT UltraShort Term Inv Bond	290	1	0.13	0.46	-	Y	-	Y	N
TCSH CN	TD Cash Management ETF	120	-	0.05	0.15	-	Y	-	-	N
GCTB CN	Guardian Ultra Short CAN T Bill Fund	111	1	0.05	0.16	-	Y	-	-	N
QASH CN	Mackenzie CAN Ultra Short Bond	91	1	0.03	0.15	-	-	-	-	N
FARNUSA CN	Franklin CAN Ultra Short Term	78	-	-	0.17	-	Y	-	-	L
FRBUSBO CN	Franklin CAN Ultra Short Term	78	-	-	0.17	-	Y	-	-	L
UCSHU/UC CN	Global X USD High Interest Savings ETF	45	-	0.03	0.14	-	-	-	U	N
MCAD CN	Prem Cash Management Fund	42	↑ 1	0.04	0.05	-	Y	-	-	N
RGQL CN	RBC Target 2024 CAN Govt Bond ETF	37	↑ 0	0.09	0.17	-	Y	-	-	N
QSB CN	Mackenzie CAN ShortTerm Bond	26	↓ 1	0.09	0.08	-	-	-	-	N
TBIL CN	Harvest CAN TBill ETF	22	-	0.05	0.35	-	Y	-	-	N
CMNY CN	CI Money Market ETF	14	0	0.05	0.15	-	-	-	-	N
PLDI CN	Pimco Low Dur Monthly Inc Fund CAN	8	0	0.54	0.89	-	Y	-	Y	N
GBFA CN	GuardBondsTM 2024 Inv Grade	4	-	0.16	0.20	-	Y	-	-	N
FRANULF CN	Franklin CAN Ultra Short Term	-	-	-	0.17	-	Y	-	-	L
North America										
ZIC CN	BMO MidTerm US IG Corp Bond	2,083	1	0.35	0.28	-	-	-	H	N
ZJK CN	BMO High Yld US Corp Bond	745	0	0.40	0.61	-	-	-	H	N
VBU CN	Vanguard US Agg Bond Cad HDG	718	1	0.10	0.23	-	-	-	Y	N
CBIL CN	Global X 03 Month TBill ETF	554	↑ 12	0.03	0.11	-	Y	-	-	N
ISCB CN	IA Clairington Strategic Corp	498	-	0.47	0.84	-	Y	-	-	N
PSU/UC CN	Purpose US Cash Fund	476	11	0.01	0.15	-	-	-	U	N
BND CN	Purpose Global	459	↑ 1	0.29	0.35	-	Y	-	Y	N
HTB CN	Global X US 710 Yr Treas Bond Corp	439	↑ 4	0.25	0.17	-	-	-	-	N
ZTL CN	BMO LongTerm US Treas Bond	407	↑ 1	0.22	0.22	-	-	-	-	N
QUIG CN	Mackenzie US Inv Grade Corp Bond	349	0	0.39	0.15	-	-	-	Y	N
UBIL/UC CN	Global X 03 Month US TBill ETF	337	↑ 4	0.03	0.13	-	Y	-	U	N
XHY CN	iShares US High Yld Bond CAD HDG	298	1	0.30	0.56	-	-	-	Y	N
HISU/UC CN	US High Interest Savings Account Fund	290	↑ 9	0.01	0.15	-	-	-	-	N
ZUAG CN	BMO US Aggregate Bond	286	↑ -	0.29	0.09	-	-	-	U,H	N
HPYT CN	Harvest Prem Yld Treas ETF	234	3	0.14	0.45	-	Y	-	U	N
XIG CN	iShares US IG Corp Bond CAD HDG	213	↑ 1	0.08	0.32	-	-	-	Y	N
QTIP CN	Mackenzie US TIPS CAD HDG	212	↓ 1	0.34	0.15	-	-	-	Y	N
TUHY CN	TD Active US High Yld Bond ETF	178	↑ 1	1.68	0.62	-	Y	-	Y	N
RUSB CN	RBC Short Term US Corp Bond ETF	177	↑ 0	0.37	0.40	-	Y	-	-	N
PFH/UC CN	Invesco Funda High Yld Corp Bond	146	↑ 1	0.62	0.55	-	-	-	Y	N
ZTIP CN	BMO ShortTerm US TIPS	120	↓ 0	0.34	0.17	-	-	-	Y	N
BPRF CN	BROMPTON Flaherty & Crum Et	118	0	0.35	0.91	-	Y	-	Y	N
BOND CN	Evolve Ench Yld	114	1	0.16	0.45	-	Y	-	-	N
ZSU CN	BMO Short US IG Corp Bond HDG CAD	111	0	0.41	0.28	-	-	-	Y	N
XTLH CN	iShares 20 + Year US Treas Bond	101	↑ 1	0.09	0.18	-	-	-	Y	N
XTLT CN	iShares 20 + Year US Treas Bond	99	↑ 1	0.11	0.18	-	-	-	U	N
QTL CN	Mackenzie US Government Long Bond	87	1	0.57	0.18	-	-	-	-	N
HBND CN	Hamilton US Bond Yld Maximizer ETF	78	1	0.16	0.45	-	Y	-	-	N
GUTB/UC CN	Guardian UltraShort US TBill Fund	65	0	0.07	0.16	-	Y	-	U	N
ONEB CN	CI ONE North Am Core Plus Bond ETF	65	0	0.16	0.64	-	Y	-	-	N
XSTH CN	iShares 05 Year TIPS Bond CAD HDG	62	↓ 0	0.10	0.16	-	-	-	Y	N
RUDB CN	RBC US Discount Bond ETF	58	↑ 0	0.34	0.29	-	Y	-	U	N
TIPS CN	BMO US TIPS	57	↑ -	0.25	0.17	-	-	-	U,H	N
XSTP CN	iShares 05 Year TIPS Bond	50	0	0.12	0.16	-	-	-	-	N
MNU/UC CN	Purpose USD Cash Management Fund	50	2	0.04	0.20	-	Y	-	U	N
MPAY CN	Horizons MidTerm US Treas Prem Yld	50	0	0.11	0.54	-	Y	-	U	N
SPAY CN	Global X ShortTerm US Treas Prem Yld	46	1	0.08	0.20	-	Y	-	U	N
BEPR CN	BROMPTON Enhanced Ig Pref	45	0	0.45	3.65	-	Y	-	U,Y	N
ZTS CN	BMO ShortTerm US Treas Bond	45	↑ 0	0.17	0.23	-	-	-	-	N
HPYM CN	Harvest Prem Yld 710 Treas	44	-	0.20	0.45	-	Y	-	U	N
IGB CN	Purpose Global Bond Class	43	↑ 0	0.35	0.50	-	Y	-	-	N
ZUS/UC CN	BMO Ultra ShortTerm US Bond ETF	43	0	0.27	0.17	-	Y	-	U	N
XIGS CN	iShares 15 Year US IG Corp Bond	43	0	0.17	0.16	-	-	-	Y	N
XAGH CN	iShares US Aggregate Bond	41	↑ 0	0.13	0.20	-	-	-	Y	N
TULB CN	TD US Long Term Treas Bond ETF	38	↓ 1	0.39	0.23	-	Y	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active Transparent, (Blank) = Passive

4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
North America (Continued)										
MUSD/UC CN	US Prem Cash Management Fund	36	↑ 0	0.14	0.05	-	Y	-	U	N
LPAY CN	Global X LongTerm US Treas Prem Yld	33	0	0.34	0.41	-	Y	-	U	N
QUB CN	Mackenzie US Aggregate Bond	28	↑ 0	0.65	0.15	-	-	-	Y	N
RDBH CN	RBC US Discount Bond Cad HDG	27	↑ 0	0.43	0.29	-	Y	-	U,H	N
ZTM CN	BMO MidTerm US Treas Bond	23	0	0.33	0.23	-	-	-	-	N
DXBU CN	Dynamic Act US Inv Grade Corp Bond	18	0	0.39	0.52	-	Y	-	-	N
ZUCM CN	BMO USD Cash Management ETF	17	0	0.11	0.14	-	Y	-	U	N
ESGF CN	BMO ESG US Corp Bond HDG to CAD	16	0	0.50	0.23	-	-	-	Y	Y
CTIP CN	CI US Treas InLinked Bond Cad HDG	15	0	0.45	0.17	-	-	-	Y	N
XAGG CN	iShares US Aggregate Bond	13	↑ -	0.09	0.20	-	-	-	-	N
TUSB CN	TD Select US Short Term Corp Bond	8	0	0.53	0.28	-	Y	-	-	N
XSHU CN	iShares 15 Year US IG Corp Bond	8	↑ 0	0.21	0.16	-	-	-	-	N
ESGH CN	BMO ESG High Yld US Corp Bond	5	↓ 0	0.73	0.51	-	-	-	Y	N
XCBU CN	iShares US IG Corp Bond	4	↑ -	0.18	0.32	-	-	-	-	N
RUQC CN	RBC Target 2026 US Corp Bond ETF	4	-	0.26	0.20	-	Y	-	-	N
RUCN CN	RBC Target 2025 US Corp Bond ETF	4	-	0.46	0.20	-	Y	-	-	N
UMNY/UC CN	CI US Money Market ETF	4	0	0.11	0.15	-	-	-	-	U
IUFRI/UC CN	Invesco US Treas Float Rate Note USD	4	-	0.15	0.12	-	-	-	-	U
RUQC CN	RBC Target 2028 US Corp Bond ETF	3	-	0.32	0.20	-	Y	-	-	N
RUQP CN	RBC Target 2027 US Corp Bond ETF	3	-	0.45	0.20	-	Y	-	-	N
TMUC CN	TD Morningstar ESG US Corp Bond	2	↑ -	0.50	0.23	-	-	-	Y	Y
RUQS CN	RBC Target 2030 US Corp Bond ETF	1	-	0.34	0.20	-	Y	-	-	N
RUQR CN	RBC Target 2029 US Corp Bond ETF	1	-	0.56	0.20	-	Y	-	-	N
PFQB CN	Picton Mahoney Fortified Core	1	-	0.66	0.65	-	Y	-	-	N
International										
NUBF CN	NBI Unconstrained Fixed Inc ETF	1,838	1	0.59	0.86	-	Y	-	-	N
FCGB CN	Fidelity Global Core Plus Bond ETF	821	↑ 3	0.26	0.56	-	Y	-	Y	N
MUB CN	Mackenzie Unconstrained Bond ETF	677	3	0.14	0.50	-	Y	-	-	N
VBG CN	Vanguard Global ex US Agg Bond	532	1	0.10	0.39	-	-	-	Y	N
ZEF CN	BMO EMs Bond HDG to CAD	443	0	0.64	0.56	-	-	-	Y	N
IFRF CN	IA Clairington Float Rate Inc Fund	438	0	0.69	0.94	-	Y	-	Y	N
MFT CN	Mackenzie Float Rate Inc ETF	409	1	0.18	0.60	-	Y	-	-	N
CGBI CN	CIBC Global Bond EXCanada	333	↑ 1	2.26	0.22	-	-	-	Y	N
XGGB CN	iShares Global Government Bond	290	↑ 1	0.29	0.22	-	-	-	Y	N
FLGA CN	Franklin Global Core	260	0	0.36	0.39	-	Y	-	Y	N
ILGB CN	IA Clairington Loomis Gbl Multisec	246	0	0.46	0.95	-	Y	-	-	N
MHYB CN	Mackenzie Global High Yld Fixed Inc	193	0	0.82	0.60	-	Y	-	Y	N
QEBH CN	Mackenzie EM Bond CAD HDG	182	-	0.98	0.45	-	-	-	Y	N
TGFI CN	TD Active Global Inc ETF	176	↑ 1	0.79	0.62	-	Y	-	Y	N
NBND CN	Ninepoint Diversified ETF	150	↑ 0	0.94	1.65	-	Y	-	-	N
IWEB CN	Invesco ESG Global Bond ETF	136	0	0.82	0.51	-	Y	Y	Y	N
MGSB CN	Mackenzie Global Sustainable Bond	135	0	0.82	0.50	-	Y	Y	Y	N
FCIG CN	Fidelity Global Inv Grade Bond ETF	133	↑ 1	0.26	0.57	-	Y	-	Y	N
CGIN CN	CI Global Inv Grade ETF	119	↑ 1	0.29	0.70	-	Y	-	U	N
VGAB CN	Vanguard Global Aggregate Bond	112	↑ 0	0.10	0.33	-	-	-	Y	N
PCOR CN	Pimco Managed Core Bond Pool	98	↑ 1	0.51	0.66	-	Y	-	-	N
XSE CN	iShares Cons Strategic Fixed Inc ETF	94	↓ 0	0.14	0.56	-	Y	-	-	N
QGB CN	AGF Systematic Global MultiSe	87	0	0.35	0.45	-	Y	-	Y	N
MGB CN	Mackenzie Core Plus Global Fixed Inc	83	1	0.41	0.50	-	Y	-	-	N
XEB CN	iShares JP Morgan USD EM Bond	82	0	0.11	0.53	-	-	-	Y	N
NACO CN	Ninepoint Alternative Credit Oppor	64	↓ 0	1.97						

CANADA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
International (Continued)										
HGGB CN	Global X S&P Green Bond	4	0	0.53	0.55	-	-	Y	-	N
CFRT CN	CI Float Rate Inc Fund	3	↑	0	0.76	1.15	-	Y	-	N
RCNS CN	RBC Cons Bond Pool	3	-	0.50	0.40	-	-	-	-	N
FWCP CN	Franklin Western Asset Core Plus Bond	2	↓	0	0.36	0.57	-	Y	-	N
FGCPBEF CN	Fidelity Global Core Plus Bond ETF Fund	0	-	-	1.21	-	Y	-	Y	L
LYCT CN	LysanderCanso Corp Treas Activ ETF	0	-	2.84	0.56	-	Y	-	-	N
LYFR CN	LysanderCanso Float Rate	0	↑	-	0.63	0.49	-	Y	-	N

Currency										
Fiat currency										
DLR CN	Global X US Dollar Currency ETF	93		0.08	0.60	-	-	-	-	N
Cryptocurrency										
BTCX/B CN	CI Galaxy Bitcoin ETF	588	↑	11	0.14	0.76	-	-	-	U L
ETHX/B CN	CI Galaxy Ethereum ETF	496		14	0.17	0.77	-	-	-	U L
BTCC CN	Purpose Bitcoin ETF	468	↑	12	0.14	1.00	-	-	-	U,H N
FBTC CN	Fidelity Advantage Bitcoin ETF	358	↑	4	0.16	0.95	-	Y	-	N
BTCQ CN	3iQ Bitcoin ETF	239	-	-	1.75	-	-	-	-	L
EBIT CN	Evolve Bitcoin ETF	145	↑	4	0.19	0.75	-	-	-	L
ETHH CN	Purpose Ether ETF	114		4	0.60	1.00	-	-	-	U,H N
ETHR CN	Evolve Ether ETF	67		1	0.34	0.75	-	-	-	U L
BTCY CN	Purpose Bitcoin Yield	55	↑	1	0.47	1.10	-	Y	-	U,H N
ETHQ CN	3iQ Ether Staking ETF	53	↑	1	0.31	1.56	-	-	-	L
ETHY CN	Purpose Ether Yld	39		0	0.86	1.10	-	Y	-	U,H N
ETC CN	Evolve Cryptocurrencies ETF	29		0	0.70	0.00	-	Y	-	N
FETH CN	Fidelity Advantage Ether ETF	15	↑	0	0.72	0.90	-	-	-	U N
CMCX/B CN	CI Galaxy Multi Crypto ETF	13	↓	0	0.26	1.03	-	Y	-	U N
BITI CN	BetaPro Inverse Bitcoin ETF	13	↑	2	0.32	3.03	-1x	-	-	N

Commodity										
CGL CN	iShares Gold Bullion ETF	755		2	0.18	0.55	-	-	-	Y N
MNT CN	Royal CAN Mint CAN Gold Reserves	418		1	-	0.35	-	-	-	N
SVR CN	iShares Silver Bullion ETF	99		0	0.69	0.66	-	-	-	Y N
KILO CN	Purpose Gold Bullion Fund	99		0	0.22	0.20	-	-	-	Y N
HNU CN	BetaPro Natural Gas Lever Daily Bull	93	↑	33	0.36	0.72	+2x	Y	-	Y L
MNS CN	Royal CAN Mint CAN Silver Reserves	77		0	-	0.45	-	-	-	N
VALT CN	CI Gold Bullion Fund	70	↑	0	0.24	0.17	-	-	-	Y N
HOU CN	BetaPro Crude Oil 2x Daily Bull ETF	61	↓	15	0.13	0.71	+2x	Y	-	Y L
HND CN	BetaPro Natural Gas Inverse Le	52	↑	31	0.31	0.71	-2x	-	-	Y L
HZU CN	BetaPro Silver 2x Daily Bull ETF	47		4	0.18	0.81	+2x	-	-	Y N
HGY CN	Global X Gold Yld	46		0	0.21	0.89	-	Y	-	Y N
HOD CN	BetaPro Crude Oil 2x Daily Bear ETF	43	↑	9	0.18	0.72	-2x	-	-	Y L
HUZ CN	Global X Silver ETF	18	↓	0	0.16	0.89	-	-	-	Y N
HUC CN	Global X Crude Oil ETF	17		0	0.12	0.98	-	-	-	Y N
HUG CN	Global X Gold ETF	13		0	0.15	0.34	-	-	-	Y N
HUN CN	Global X Natural Gas ETF	12	↑	0	0.82	0.99	-	-	-	Y N
HBU CN	BetaPro Gold Bullion 2x Daily Bull ETF	11		0	0.14	0.91	+2x	-	-	Y N
ZGLD CN	BMO Gold Bullion ETF	7		-	0.24	0.23	-	-	-	U,H N
CBON CN	Ninepoint Carbon Credit ETF	6		0	0.46	1.75	-	-	Y	U N
HZD CN	BetaPro Silver 2x Daily Bear ETF	6	↑	1	0.24	0.81	-2x	-	-	Y N
SBT CN	Purpose Silver Bullion Fund	5		0	1.17	0.40	-	-	-	U,H N
CARB CN	Global X Carbon Credits ETF	3	↓	0	1.75	0.91	-	-	Y	Y N
TCBN CN	TD Global Carbon Credit	3		0	0.84	0.73	-	-	Y	Y N
HBD CN	BetaPro Gold Bullion 2x Daily	1		0	0.20	0.91	-2x	-	-	Y N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None

² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, (Blank) = Passive

⁴ Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

LATIN AMERICA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Large Cap										
DIA* MM	SPDR DJ Industrial Avg ETF Trust	32,478	0	0.40	0.16	-	-	-	-	N
NAFTRAC MM	iShares Naftrac	4,950	↑ 24	0.12	0.25	-	-	-	-	L
MEXTRAC MM	MEXTRAC 09	894	2	0.23	0.25	-	-	-	-	L
ESGMEX MM	iShares ESG MSCI Mexico ETF	735	↓ 5	0.26	0.20	-	-	Y	-	N
ANGELD MM	ANGELD 10	-	0	2.09	1.90	+2x	-	-	-	N
SMARTRC MM	SMARTRC 14	-	0	-	0.65	-	-	-	-	N
Multi Cap										
VMEX MM	Vanguard FTSE BIVA Mexico Equity ETF	277	↑ 1	0.16	0.20	-	-	-	-	N
Equity Style										
QVGMEX MM	QVGMEX 18	-	0	0.36	0.40	-	-	-	-	N
Equity Sector										
FIBRATC MM	BBVA BMV FIBRAS TRAC	32	↑ 0	0.26	0.50	-	-	-	-	N
International Equity										
Global										
VEA* MM	Vanguard FTSE Dev Markets ETF	134,497	0	0.68	0.06	-	-	-	-	N
EFA* MM	iShares MSCI EAFE ETF	54,361	0	-	0.33	-	-	-	-	N
VEU* MM	Vanguard FTSE AllWorld ex US ETF	39,139	0	-	0.07	-	-	-	-	N
ACWI* MM	iShares MSCI ACWI ETF	18,539	8	1.57	0.32	-	-	-	-	N
WSRUSN MM	UBS Lux Fund MSCI World SR UCITS	5,569	0	-	0.30	-	-	-	-	N
IDV* MM	iShares International Select Div ETF	4,288	0	-	0.51	-	-	-	-	N
AWESGN MM	UBS Irl MSCI ACWI ESG Uni Low Carb	3,624	0	-	0.30	-	-	-	-	N
AWSRIN MM	UBS Irl MSCI ACWI SR UCITS ETF	2,837	0	-	0.25	-	-	-	-	N
WSRIAN MM	UBS Irl ETF PLC MSCI World SR UCITS	1,432	0	-	0.12	-	-	-	-	N
WRDUSAN MM	UBS Lux Fund MSCI World UCITS ETF	1,262	0	-	0.30	-	-	-	-	N
WRDUSWN MM	UBS Irl MSCI World UCITS ETF	1,212	0	-	0.29	-	-	-	-	N
Emerging Markets										
WVO* MM	Vanguard FTSE EM ETF	77,649	0	0.93	0.08	-	-	-	-	N
EEM* MM	iShares MSCI EM ETF	18,599	0	-	0.70	-	-	-	-	N
DGS* MM	WisdomTree EM SmallCap Div Fund	2,469	0	-	0.58	-	-	-	-	N
MSRUSBN MM	UBS Lux Fund MSCI EM SR UCITS ETF	1,668	0	-	0.24	-	-	-	-	N
GMF* MM	SPDR S&P Emerging Asia Pac ETF	361	0	1.02	0.49	-	-	-	-	N
EDC* MM	Direxion Daily MSCI EM Bull 3X Shares	83	0	1.20	1.17	+3x	-	-	-	N
BKF* MM	iShares MSCI BIC ETF	74	0	-	0.70	-	-	-	-	N
EDZ* MM	Direxion Daily MSCI EM Bear 3X Shares	20	0	1.81	1.35	-3x	-	-	-	N
Regional										
VGK* MM	Vanguard FTSE Europe ETF	20,142	1	1.35	0.09	-	-	-	-	N
EZU* MM	iShares MSCI Eurozone ETF	7,949	1	-	0.51	-	-	-	-	N
VPL* MM	Vanguard FTSE Pac ETF	7,055	0	-	0.08	-	-	-	-	N
EUE MM	iShares Core EURO STOXX 50 UCITS	4,608	0	-	0.10	-	-	-	-	N
FEZ* MM	SPDR EURO STOXX 50 ETF	3,845	0	1.51	0.29	-	-	-	-	N
AAJ* MM	iShares MSCI All Country Asia ex Japan	2,426	0	-	0.70	-	-	-	-	N
EPP* MM	iShares MSCI Pac ex Japan ETF	1,964	0	-	0.48	-	-	-	-	N
IEV* MM	iShares Europe ETF	1,758	0	-	0.67	-	-	-	-	N
EMUSRIN MM	UBS Lux Fund MSCI EMU SR UCITS	1,560	↓ 0	-	0.22	-	-	Y	-	N
ILF* MM	iShares Latin America 40 ETF	1,522	0	-	0.48	-	-	-	-	N
Country										
SPY* MM	SPDR S&P 500 ETF Trust	534,558	2	0.21	0.09	-	-	-	-	N
VOO* MM	Vanguard S&P 500 ETF	454,931	11	0.21	0.03	-	-	-	-	N
VTI* MM	Vanguard Total Stock Market ETF	394,928	0	1.56	0.03	-	-	-	-	N
QQQ* MM	Invesco QQQ Trust Series 1	267,469	9	0.19	0.15	-	-	-	-	N
VUG* MM	Vanguard Growth ETF	124,915	1	-	0.04	-	-	-	-	N
VTV* MM	Vanguard Value ETF	115,979	0	-	0.04	-	-	-	-	N
IJH* MM	iShares Core S&P MidCap ETF	84,102	0	0.80	0.05	-	-	-	-	N
JUR* MM	iShares Core S&P SmallCap ETF	79,408	0	-	0.06	-	-	-	-	N
VIG* MM	Vanguard Div Appreciation ETF	78,098	0	2.60	0.06	-	-	-	-	N
IWM* MM	iShares Russell 2000 ETF	59,816	0	0.45	0.19	-	-	-	-	N
VB* MM	Vanguard SmallCap ETF	55,245	3	-	0.05	-	-	-	-	N
ITOT* MM	iShares Core S&P Total US Stock Mkt	55,084	0	-	0.03	-	-	-	-	N
VYM* MM	Vanguard High Div Yield	54,296	0	1.96	0.06	-	-	-	-	N
IWM* MM	iShares S&P 500 Growth ETF	45,551	1	-	0.18	-	-	-	-	N
VT* MM	Vanguard Total World Stock ETF	36,277	2	0.72	0.07	-	-	-	-	N
IVE* MM	iShares S&P 500 Value ETF	32,860	1	-	0.18	-	-	-	-	N
VBR* MM	Vanguard SmallCap Value ETF	28,379	0	-	0.07	-	-	-	-	N
DVY* MM	iShares Select Div ETF	18,650	0	-	0.38	-	-	-	-	N
EWJ* MM	iShares MSCI Japan ETF	16,123	1	1.16	0.50	-	-	-	-	N
PFF* MM	iShares Pref and Inc Securities ETF	14,407	0	-	0.46	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active Transparent, (Blank) = Passive

4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Country (Continued)										
OEF* MM	iShares S&P 100 ETF	12,246	1	-	0.20	-	-	-	-	N
IJK* MM	iShares S&P MidCap 400 Growth ETF	9,686	0	-	0.17	-	-	-	-	N
QLD* MM	ProShares Ultra QQQ	6,316	0	0.68	0.95	+2x	-	-	-	N
IJT* MM	iShares S&P SmallCap 600 Growth ETF	5,936	0	-	0.18	-	-	-	-	N
MCHI* MM	iShares MSCI China ETF	5,628	1	1.69	0.59	-	-	-	-	N
EWY* MM	iShares MSCI South Korea ETF	5,258	0	1.90	0.59	-	-	-	-	N
EWY* MM	iShares MSCI Taiwan ETF	4,907	0	2.89	0.59	-	-	-	-	N
FXI* MM	iShares China LargeCap ETF	4,731	0	-	0.74	-	-	-	-	N
EWZ* MM	iShares MSCI Brazil ETF	4,637	1	0.55	0.59	-	-	-	-	N
UKUSDN MM	UBS Lux Fund MSCI UK UCITS ETF	3,905	0	-	0.26	-	-	-	-	N
SSESGN MM	UBS Irl S&P 500 ESG UCITS ETF	3,537	0	-	0.12	-	-	-	-	N
EPI* MM	WisdomTree India Earnings Fund	3,411	0	-	0.85	-	-	-	-	N
EWU* MM	iShares MSCI United Kingdom ETF	2,835	1	2.58	0.50	-	-	-	-	N
EWG* MM	iShares MSCI Canada ETF	2,555	0	2.15	0.50	-	-	-	-	N
SW2CHBN MM	UBS Lux Fund MSCI Switz 20/35 UCITS	2,552	0	-	0.20	-	-	-	-	N
IYY* MM	iShares DJ US ETF	1,912	0	-	0.20	-	-	-	-	N
USSRIN MM	UBS Irl ETF MSCI USA SR UCITS ETF	1,704	0	-	0.22	-	-	-	-	N
UQLTDN MM	UBS Irl Factor MSCI USA Quality ESG	1,675	0	-	0.28	-	-	-	-	N
EWA* MM	iShares MSCI Australia ETF	1,653	1	-	0.50	-	-	-	-	N
FXH* MM	First Trust Health Care AlphaDEX Fund	1,251	0	-	0.62	-	-	-	-	N
FEX* MM	First Trust Large Cap Core AlphaDEX	1,206	0	-	0.60	-	-	-	-	N
EWL* MM	iShares MSCI Switzerland ETF	1,152	0	-	0.50	-	-	-	-	N
EWY* MM	iShares MSCI Spain ETF	1,050	1	-	0.50	-	-	-	-	N
SP5USYN MM	UBS Irl S&P 500 UCITS ETF	1,007	0	-	0.20	-	-	-	-	N
EWG* MM	iShares MSCI Germany ETF	955	0	0.90	0.50	-	-	-	-	N
IYT* MM	iShares US Transportation ETF	873	0	-	0.40	-	-	-	-	N
INDY* MM	iShares India 50 ETF	863	0	-	0.89	-	-	-	-	N
EWQ* MM	iShares MSCI France ETF	652	0	-	0.50	-	-	-	-	N
USVUSYN MM	UBS Irl MSCI USA Value UCITS ETF	634	0	-	0.20	-	-	-	-	N
ECH* MM	iShares MSCI Chile ETF	607	0	-	0.59	-	-	-	-	N
PSQ* MM	ProShares Short QQQ	559	0	-	0.95	-1x	-	-	-	N
EWY* MM	iShares MSCI Hong Kong ETF	527	0	-	0.50	-	-	-	-	N
VNM* MM	VanEck Vietnam ETF	519	0	-	0.70	-	-	-	-	N
GXC* MM	SPDR S&P China ETF	491	0	0.95	0.59	-	-	-	-	N
EWI* MM	iShares MSCI Italy ETF	461	0	-	0.50	-	-	-	-	N
EWS* MM	iShares MSCI Singapore ETF	433	0	-	0.50	-	-	-	-	N
DDM* MM	ProShares Ultra Dow30	384	0	0.84	0.95	+2x	-	-	-	N
EDW* MM	iShares MSCI Sweden ETF	371	1	-	0.54	-	-	-	-	N
EIDO* MM	iShares MSCI Indonesia ETF	363	0	-	0.59	-	-	-	-	N
UPLVDN MM	UBS Irl MSCI USA Prime Value ESG	347	0	-	0.25	-	-	-	-	N
EPOL* MM	iShares MSCI Poland ETF	341	0	-	0.59	-	-	-	-	N
IWPESO MM	iShares S&P 500 Peso HDG Trac	318	2	0.09	0.49	-	-	-	Y	N
EWN* MM	iShares MSCI Netherlands ETF	274	0	-	0.50	-	-	-	-	N
EWM* MM	iShares MSCI Malaysia ETF	273	0	-	0.50	-	-	-	-	N
TUR* MM	iShares MSCI Turkey ETF	254	0	-	0.59	-	-	-	-	N
EZA* MM	iShares MSCI South Africa ETF	243	0	-	0.59	-	-	-	-	N
THD* MM	iShares MSCI Thailand ETF	239	0	-	0.59	-	-	-	-	N
UWM* MM	ProShares Ultra Russell2000	203	0	-	0.95	+2x	-	-	-	N
DOG* MM	ProShares Short Dow30	182	0	-	0.95	-1x	-	-	-	N
PGJ* MM	Invesco Golden Dragon China ETF	157	0	-	0.74	-	-	-	-	N
EIS* MM	iShares MSCI Israel ETF	155	0	-	0.59	-	-	-	-	N
EPY* MM	iShares MSCI Peru and Global Expo	127	0	-	0.59	-	-	-	-	N
EPHE* MM	iShares MSCI Philippines ETF	108	0	-	0.59	-	-	-	-	N
DXD* MM	ProShares UltraShort Dow30	74	0	-	0.95	-2x	-	-	-	N
TWM* MM	ProShares UltraShort Russell2000	72	0	-	0.95	-2x	-	-	-	N
EWO* MM	iShares MSCI Austria ETF	65	0	-	0.50	-	-	-	-	N
GXG* MM	Global X MSCI Colombia ETF	47	0	-	0.63	-	-	-	-	N
CHNTRAC MM	CHNTRAC 11	1	0	-	0.50	-	-	-	-	N
Sector/Theme										
VGX* MM	Vanguard Information Technology ETF	68,340	2	1.89	0.10	-	-	-	-	N
XLK* MM	Technology Select Sector SPDR Fund	65,691	1	1.34	0.09	-	-	-	-	N
XLF* MM	Financial Select Sector SPDR Fund	38,655	1	0.81	0.09	-	-	-	-	N
XLV* MM	Health Care Select Sector SPDR Fund	38,624	1	1.85	0.09	-	-	-	-	N
XLE* MM	Energy Select Sector SPDR Fund	37,682	1	2.96	0.09	-	-	-	-	

LATIN AMERICA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Sector/Theme (Continued)										
VFH* MM	Vanguard Financials ETF	9,224	0	-	0.10	-	-	-	-	N
VDE* MM	Vanguard Energy ETF	9,115	0	-	0.10	-	-	-	-	N
IBB* MM	iShares Biotechnology ETF	7,110	0	-	0.45	-	-	-	-	N
VDC* MM	Vanguard Cons Staples ETF	6,756	1	-	0.10	-	-	-	-	N
ITA* MM	iShares US Aerospace & Defense ETF	6,390	0	-	0.40	-	-	-	-	N
VPU* MM	Vanguard Utilities ETF	5,732	0	-	0.10	-	-	-	-	N
XLB* MM	Materials Select Sector SPDR Fund	5,502	0	1.58	0.09	-	-	-	-	N
VCR* MM	Vanguard Cons Dis ETF	5,468	0	-	0.10	-	-	-	-	N
VIS* MM	Vanguard Industrials ETF	5,266	0	-	0.10	-	-	-	-	N
GDXJ* MM	VanEck Junior Gold Miners ETF	5,248	0	-	0.52	-	-	-	-	N
IXN* MM	iShares Global Tech ETF	4,578	0	-	0.41	-	-	-	-	N
IXJ* MM	iShares Global Healthcare ETF	3,976	0	-	0.42	-	-	-	-	N
IGF* MM	iShares Global Infra ETF	3,790	0	-	0.41	-	-	-	-	N
IXC* MM	iShares Global Energy ETF	3,576	0	-	0.44	-	-	-	-	N
XOP* MM	SPDR S&P Oil & Gas Explor & Prod	3,532	0	-	0.35	-	-	-	-	N
IYH* MM	iShares US Healthcare ETF	3,298	0	-	0.40	-	-	-	-	N
VAW* MM	Vanguard Materials ETF	3,069	0	-	0.10	-	-	-	-	N
IYR* MM	iShares US Real Estate ETF	2,880	0	-	0.40	-	-	-	-	N
ITB* MM	iShares US Home Construction ETF	2,841	0	-	0.40	-	-	-	-	N
IYF* MM	iShares US Financials ETF	2,666	0	-	0.40	-	-	-	-	N
ICLN* MM	iShares Global Clean Energy ETF	2,445	0	1.31	0.41	-	-	Y	-	N
FAS* MM	Direxion Daily Financial Bull 3X Shares	2,089	0	0.68	0.94	+3x	-	-	-	N
IYJ* MM	iShares US Industrials ETF	1,578	0	-	0.40	-	-	-	-	N
IYE* MM	iShares US Energy ETF	1,450	0	-	0.40	-	-	-	-	N
IYG* MM	iShares US Financial Services ETF	1,325	0	-	0.40	-	-	-	-	N
SIL* MM	Global X Silver Miners ETF	1,232	0	-	0.65	-	-	-	-	N
IAI* MM	iShares US Broker/Dealers & Secur Exch	1,119	0	-	0.40	-	-	-	-	N
SX7EEXN MM	iShares EURO STOXX Banks 3015	1,118	0	-	0.52	-	-	-	-	N
IYC* MM	iShares US Cons Dis ETF	904	0	-	0.40	-	-	-	-	N
FXO* MM	First Trust Financial AlphaDEX Fund	882	0	-	0.62	-	-	-	-	N
IEO* MM	iShares US Oil & Gas Explor & Prod	805	0	-	0.40	-	-	-	-	N
GENDERN MM	UBS Irf Global Gen Eq UCITS ETF	725	0	-	0.23	-	-	-	-	N
UYG* MM	ProShares Ultra Financials	681	0	-	0.95	+2x	-	-	-	N
IAT* MM	iShares US Regional Banks ETF	586	0	-	0.40	-	-	-	-	N
MXI* MM	iShares Global Materials ETF	260	0	-	0.41	-	-	-	-	N
IYZ* MM	iShares US Telecommunications ETF	220	0	-	0.40	-	-	-	-	N
SMOG* MM	VanEck Low Carbon Energy ETF	145	0	-	0.61	-	-	Y	-	N
FAZ* MM	Direxion Daily Financial Bear 3X Shares	135	0	2.30	1.08	-3x	-	-	-	N
DIG* MM	ProShares Ultra Energy	119	0	-	0.95	+2x	-	-	-	N
IFGL* MM	iShares Internl Dev Real Estate ETF	111	0	-	0.48	-	-	-	-	N
DUG* MM	ProShares UltraShort Energy	20	0	-	0.95	-2x	-	-	-	N
GENIUS21 MM	Ingenius ETF	0	0	0.37	0.60	-	-	-	Y	N

Fixed Income										
AGG* MM	iShares Core US Aggregate Bond	107,895	0	-	0.03	-	-	-	-	N
TLT* MM	iShares 20+ Yr Treas Bond	47,765	1	2.16	0.15	-	-	-	-	N
VCSH* MM	Vanguard ShortTerm Corp Bond	34,076	0	1.78	0.04	-	-	-	-	N
BSV* MM	Vanguard ShortTerm Bond	32,090	0	-	0.04	-	-	-	-	N
BIL* MM	SPDR Bloomberg 13 Month TBill	32,066	8	2.81	0.14	-	-	-	-	N
MBB* MM	iShares MBS ETF	30,498	0	-	0.04	-	-	-	-	N
IEF* MM	iShares 710 Yr Treas Bond	29,180	2	-	0.15	-	-	-	-	N
LQD* MM	iShares iBoxx \$ Inv Grade Corp Bond	28,238	0	-	0.14	-	-	-	-	N
SHY* MM	iShares 13 Yr Treas Bond	24,360	3	0.46	0.15	-	-	-	-	N
IGSB* MM	iShares 15 Yr Inv Grade Corp Bond	20,535	0	2.36	0.04	-	-	-	-	N
SHV* MM	iShares Short Treas Bond	19,088	38	0.07	0.15	-	-	-	-	N
TIP* MM	iShares TIPS Bond	18,260	0	-	0.19	-	-	-	-	N
BIV* MM	Vanguard IntermediateTerm Bond	17,677	0	-	0.07	-	-	-	-	N
HYG* MM	iShares iBoxx \$ High Yld Corp Bond	16,964	0	-	0.49	-	-	-	-	N
EMB* MM	iShares J.P. Morgan USD EM Bond	14,759	0	-	0.39	-	-	-	-	N
IGIB* MM	iShares 510 Yr Inv Grade Corp Bond	13,334	0	-	0.04	-	-	-	-	N
IEI* MM	iShares 37 Yr Treas Bond	13,251	2	-	0.15	-	-	-	-	N
IBTSN MM	iShares USD Treas Bond 13yr UCITS	10,558	1	1.80	0.07	-	-	-	-	N
JNK* MM	SPDR Bloomberg High Yld Bond	8,283	0	1.99	0.40	-	-	-	-	N
TLH* MM	iShares 1020 Yr Treas Bond ETF	7,579	0	-	0.15	-	-	-	-	N
IBGSN MM	iShares EUR Govt Bond 13yr UCITS	1,663	0	2.61	0.15	-	-	-	-	N
ESGEMDN MM	UBS Lux JPM USD EM IG ESG Div Bond	681	0	-	0.45	-	-	-	-	N
SS1EUAN MM	UBS Lux Bbg EUR Treas 110	615	0	-	0.09	-	-	-	-	N
CBSUSAN MM	UBS Lux Bbg MSCI US Liq Corps Sus	577	0	-	0.13	-	-	-	-	N
JT13N MM	UBS Lux Bbg Japan Treas 13 Yr Bond	551	0	-	0.18	-	-	-	-	N
SHEMBN MM	UBS Lux JPM EM Div Bond 15	434	0	-	0.35	-	-	-	-	N
CBEUSN MM	UBS Lux Bbg Euro Area Liquid	413	0	-	0.13	-	-	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, (Blank) = Passive

⁴ Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
UT7USN MM	UBS Lux Bbg US 710 Yr Treas Bond	152	↑	0	1.67	0.07	-	-	-	N
UDITRAC MM	iShares S&P Valmer Mexico UDITRAC	5	1	0.83	0.30	-	-	-	-	N
M10TRAC MM	iShares S&P VALMER Mexico M10TRAC	4	0	1.15	0.30	-	-	-	-	N
M5TRAC MM	iShares S&P VALMER Mexico M5TRAC	2	0	1.04	0.30	-	-	-	-	N
CETETRAC MM	iShares S&P VALMER Mex CETETRAC	-	1	0.34	0.30	-	-	-	-	N

Currency										
Fiat currency										
FXY* MM	Invesco CurShares Japan Yen Trust	339	0	-	0.40	-	-	-	-	N
FXE* MM	Invesco CurShares Euro Currency Trust	186	0	-	0.40	-	-	-	-	N
DLRTRAC MM	Dolar Trac	153	0	0.19	1.90	-	-	-	-	N
FXB* MM	Invesco CurShares Pound Sterl Trust	61	0	-	0.40	-	-	-	-	N
FXC* MM	Invesco CurShares CAN Dollar Trust	57	0	-	0.40	-	-	-	-	N
PSOTRAC MM	Peso Trac	1	0	0.38	1.90	-	-	-	Y	N

Commodity										
GLD* MM	SPDR Gold Shares	62,810	0	0.43	0.40	-	-	-	-	N
IAU* MM	iShares Gold Trust	28,774	0	0.52	0.25	-	-	-	-	N
SLV* MM	iShares Silver Trust	12,932	0	0.38	0.50	-	-	-	-	N
PPLT* MM	ABRDN Physical Platinum Shares	1,091	0	-	0.60	-	-	-	-	N

LATIN AMERICA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Brazil										
BAGG39 BZ	iShares Core US Agg Bond	107,895	-	0.46	0.03	-	-	-	-	N
BMBB39 BZ	iShares MBS	30,498	-	1.03	0.04	-	-	-	-	N
BIUS39 BZ	iShares Core Total USD Bond Market	28,338	-	1.61	0.06	-	-	-	-	N
BIGS39 BZ	iShares 15 Year Inv Grade Corp Bond	20,535	-	1.53	0.04	-	-	-	-	N
BTIP39 BZ	iShares TIPS Bond	18,260	0	0.69	0.19	-	-	-	-	N
BSTI39 BZ	iShares 05 Yr TIPS Bond	7,967	-	0.75	0.03	-	-	-	-	N
BFLQ39 BZ	iShares Float Rate Bond	7,416	-	0.71	0.15	-	-	-	-	N
BTFL39 BZ	iShares Treas Float Rate Bond	7,000	0	0.83	0.15	-	-	-	-	N
BHYC39 BZ	iShares 05 Yr High Yld Corp Bond	6,107	-	1.84	0.30	-	-	-	-	N
BEAG39 BZ	iShares ESG Aware US Agg Bond	3,656	-	-	0.10	-	-	-	-	N
BIXC39 BZ	iShares Global Energy	3,576	0	1.16	0.44	-	-	-	-	N
BITB39 BZ	iShares US Home Construction	2,841	-	0.49	0.40	-	-	-	-	N
BOVA11 BZ	iShares Ibovespa	2,155	↓ 114	0.01	0.10	-	-	-	-	H
BAOR39 BZ	iShares Core Growth Alloc	2,033	-	1.88	0.15	-	-	-	-	N
BEPP39 BZ	iShares MSCI Pac ex Japan	1,964	-	0.58	0.48	-	-	-	-	N
BICV39 BZ	iShares Convertible Bond	1,960	-	1.77	0.20	-	-	-	-	N
BIPC39 BZ	iShares Core MSCI Pac	1,925	-	0.78	0.09	-	-	-	-	N
BAOQ39 BZ	iShares Core Agg Alloc	1,902	-	0.91	0.15	-	-	-	-	N
BFAL39 BZ	iShares Fallen Angels USD Bond	1,670	-	-	0.25	-	-	-	-	N
BIYJ39 BZ	iShares US Industrials	1,578	-	1.22	0.40	-	-	-	-	N
BAOM39 BZ	iShares Core Moderate Alloc	1,383	-	-	0.15	-	-	-	-	N
BQLT39 BZ	iShares Aaa A Rated Corp Bond	1,042	0	-	0.15	-	-	-	-	N
BCOM39 BZ	iShares GSCI Com Dyn Roll Strategy	972	-	0.79	0.48	-	-	-	-	N
BOVW11 BZ	IT NOW Ibovespa Fudo	928	↑ 39	0.01	0.10	-	-	-	-	L
BIYP39 BZ	iShares US Transportation	873	-	0.66	0.40	-	-	-	-	N
BIEO39 BZ	iShares US Oil & Gas Explor & Prod	805	-	0.61	0.40	-	-	-	-	N
BIHF39 BZ	iShares US Healthcare Providers	766	-	1.26	0.40	-	-	-	-	N
BIHE39 BZ	iShares US Pharmaceuticals	677	-	1.19	0.40	-	-	-	-	N
BIYM39 BZ	iShares US Basic Materials	664	-	0.96	0.40	-	-	-	-	N
IVVB11 BZ	iShares S&P 500 FIC FI	606	8	0.04	0.23	-	-	-	-	L
BAOK39 BZ	iShares Core Cons Alloc	589	0	-	0.15	-	-	-	-	N
BIGE39 BZ	iShares North Am Nat Resources	580	-	0.84	0.41	-	-	-	-	N
SMAL11 BZ	iShares BM&FBovespa Small Cap	569	↓ 51	0.03	0.50	-	-	-	-	N
HASH11 BZ	Hashdex NASDAQ Crypto Index	534	7	0.07	1.30	-	-	-	-	N
BHEZ39 BZ	iShares Currency HDG MSCI Eurozone	458	-	0.75	0.35	-	-	-	-	Y
IMAB11 BZ	IT NOW ID ETF IMAB Fudo	391	1	0.13	0.25	-	-	-	-	N
BHEW39 BZ	iShares Currency HDG MSCI Japan	377	-	1.22	0.35	-	-	-	-	Y
BBGR39 BZ	iShares USD Green Bond	352	0	-	0.20	-	-	-	-	N
BSP211 BZ	IT NOW IMAB5 P2 Fudo	304	↑ 1	0.04	0.20	-	-	-	-	N
BBOV11 BZ	BB ETF Ibovespa Fudo	298	1	0.06	0.02	-	-	-	-	N
PIBB11 BZ	IT NOW PIBB IBRX50 Fudo	269	0	0.14	0.06	-	-	-	-	L
IB5M11 BZ	IT NOW ETF IMAB5 Fudo	255	0	0.34	0.25	-	-	-	-	N
BITH11 BZ	Hashdex NASDAQ Bitcoin RefRate Index	159	↑ 1	0.12	0.70	-	-	-	-	Y
SPX11 BZ	IT NOW S&P500 TRN Fudo	149	1	0.05	0.21	-	-	-	-	L
DIVO11 BZ	IT NOW IDIV Fudo	141	↑ 1	0.05	0.50	-	-	-	-	N
BVEG39 BZ	iShares MSCI Agr Producers	128	-	1.07	0.39	-	-	-	-	N
LFTS11 BZ	INVESTO Teva Tesouro Selic ETF	95	↓ 2	0.01	0.19	-	-	-	-	N
QBTC11 BZ	QR CME CF Bitcoin Reference Rate	90	1	0.13	0.70	-	-	-	-	N
NASD11 BZ	Trend ETF NASDAQ 100 Index Inv Fudo	86	3	0.11	0.50	-	-	-	-	N
ETHE11 BZ	Hashdex NASDAQ Ether Ref Price	74	↑ 1	0.17	0.70	-	-	-	-	N
FIND11 BZ	IT NOW IFNC Fudo	74	↓ 2	0.13	0.60	-	-	-	-	N
USAL11 BZ	Trend ETF Crsp US Large Cap Fdo	66	0	0.44	0.20	-	-	-	-	N
IRFM11 BZ	IT NOW IRFM P2 Fudo	63	↑ 0	0.10	0.20	-	-	-	-	N
TECK11 BZ	IT NOW NYSE FANG+ Fudo	53	↑ 0	0.13	0.25	-	-	-	-	N
SMAC11 BZ	IT NOW Small Cap Fudo	43	↑ 1	0.08	0.50	-	-	-	-	N
WRLD11 BZ	INVESTO FTSE Global Equities	42	↑ 0	0.14	0.38	-	-	-	-	N
CXC11 BZ	Fdo Inv Imob Caixa Carteira Imobiliaria	37	0	0.59	0.07	-	-	-	-	Y
UTEC11 BZ	Trend ETFMSCI US Technology	37	0	0.41	0.40	-	-	-	-	N
BITH11 BZ	IT NOW Bloomberg Galaxy Bitcoin ETF	37	↑ 0	0.47	0.70	-	-	-	-	N
WEB311 BZ	Hashdex Smart Contract Platforms	35	↑ 0	0.17	1.00	-	-	-	-	N
FIXA11 BZ	BB ETF Renda Fixa Pre Indice Futuro	29	0	0.26	0.30	-	-	-	-	N
CRPT11 BZ	Empiricus Teva Cripto FIe	23	0	0.84	0.75	-	-	-	-	N
BCIC11 BZ	Bindex Morningstar Selores Cidl Brasil	22	0	0.12	0.20	-	-	-	-	N
BDAP11 BZ	BB ETF Indice Dap6 B3 Fudo	19	0	0.20	0.20	-	-	-	-	N
BDEF11 BZ	Bindex Morningstar Selores Def Brasil	18	0	0.10	0.20	-	-	-	-	N
ELAS11 BZ	Safra ETF Mulheres Na Lideranca	15	0	0.13	0.50	-	-	-	-	N
BREW11 BZ	Bindex Morningstar Brasil Pesos Iguais	14	0	0.12	0.20	-	-	-	-	N
DVER11 BZ	BB ETF Indice Div B3 Invest Sustentavel	14	0	1.08	0.20	-	-	-	-	N
XBOV11 BZ	Caixa ETF Ibovespa Fudo	14	0	0.11	0.83	-	-	-	-	L
USTK11 BZ	INVESTO ETF MSCI US Technology	11	↑ 0	0.36	0.40	-	-	-	-	N
BMMT11 BZ	Bindex Morningstar Brasil Momento	11	0	0.09	0.30	-	-	-	-	N
DEBB11 BZ	BTG Pactual Teva Deb	10	0	0.12	0.60	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Actively Managed: Y = Active Transparent, (Blank) = Passive

4 Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Brazil (Continued)										
DEFI11 BZ	Hashdex DEFI Fundo	10	↑ 0	0.91	1.30	-	-	-	-	N
BRAX11 BZ	iShares Bovespa IBX Fundo	10	0	0.10	0.20	-	-	-	-	L
BBOI11 BZ	BB ETF Indice Futuro De Bot Gordo B3	9	0	0.56	0.45	-	-	-	-	Y
NTNS11 BZ	INVESTO Teva Tesouro IPCA 0 a 4 Anos	8	0	0.13	0.19	-	-	-	-	N
ECOO11 BZ	iShares Carbono Eficiente ICO2 Brasil	8	↑ 0	0.13	0.10	-	-	-	-	Y
NDIV11 BZ	Nu Renda Ibov Smart Divos Fundo	8	0	0.05	0.50	-	-	-	-	N
SPYI11 BZ	Buena Vista US High Inc	7	0	0.09	0.83	-	-	-	-	N
ALUG11 BZ	INVESTO MSCI US Real Estate ETF	7	↑ 0	0.34	0.42	-	-	-	-	N
NSDV11 BZ	Nu Ibov Smart Divos Fundo	7	0	0.05	0.50	-	-	-	-	N
GOVE11 BZ	IT NOW IGCT Fundo	6	↑ 0	0.15	0.50	-	-	-	-	N
MATB11 BZ	IT NOW IMAT Fundo	6	↓ 0	0.16	0.50	-	-	-	-	N
CORN11 BZ	BB ETF Milho	5	0	0.76	0.45	-	-	-	-	Y
BLOK11 BZ	INVESTO Vaneck Crypto Smart Contracts	4	0	2.19	0.75	-	-	-	-	N
ISUS11 BZ	IT NOW ISE Fundo	3	0	0.16	0.40	-	-	-	-	N
USDB11 BZ	INVESTO Bloomberg US Bond	3	0	0.33	0.25	-	-	-	-	N
QDFI11 BZ	QR Bdg Def Investimento No Exterior	2	0	1.21	0.90	-	-	-	-	N
JOGO11 BZ	INVESTO Global Video Gaming & Esports	2	↓ 0	0.36	0.85	-	-	-	-	N
BBS11 BZ	BB ETF S&P Divos Brasil Fudo	2	0	0.20	0.50	-	-	-	-	N
BNDX11 BZ	Invsto Blombrg Glb Bnd Investimto	2	↑ 0	0.52	0.25	-	-	-	-	Y
SVAL11 BZ	INVESTO ETFS&P Smallcap 600 Value	2	↑ 0	0.66	0.30	-	-	-	-	N
URET11 BZ	Trend ETFFse US Reistst	2	0	0.66	0.44	-	-	-	-	N
YDRO11 BZ	IT NOW S&P Kensho Hydrogen Fundo	1	0	0.69	0.50	-	-	-	-	N
BLUR11 BZ	Fi Blue Rec	1	-	-	0.15	-	-	-	-	Y
5GTK11 BZ	INVESTO ETF Bluestar 5G Com Index Fdo	1	↓ 0	0.24	0.30	-	-	-	-	N
MILL11 BZ	IT NOW MSCI USA IMI Millenials Select 50	1	↓ 0	0.69	0.50	-	-	-	-	N
META11 BZ	Hashdex Crypto Metaverse Fundo	1	↑ 0	1.78	1.30	-	-	-	-	N
REVE11 BZ	IT NOW Russell 1000 Green Revenues 50	1	↓ 0	0.52	0.50	-	-	-	-	N
HTEK11 BZ	IT NOW Morningstar XT US Healthcare	1	↓ 0	0.62	0.50	-	-	-	-	N
AGRI11 BZ	BB ETF Agro FFS B3 Fudo	1	0	0.24	0.35	-	-	-	-	N
NFTS11 BZ	Vaneck ETF Crypto Comp Media & Ent	1	0	1.42	0.75	-	-	-	-	N
SHOT11 BZ	IT NOW S&P Kensho Moonshots	1	0	0.72	0.50	-	-	-	-	N
BTEK11 BZ	INVESTO S&P Biotechnology Select Ind	1	↑ 0	0.62	0.65	-	-	-	-	N
DNAI11 BZ	IT NOW MSCI USA IMI Gen Innov Select 50	1	↓ 0	0.72	0.50	-	-	-	-	N
PEVC11 BZ	INVESTO Bluestar Top10 US Alt Asset Man	1	0	0.71	0.70	-	-	-	-	N
FOOD11 BZ	INVESTO ETF Global Agribusiness Fundo	1	↓ 0	0.75	0.30	-	-	-	-	N
SCVB11 BZ	INVESTO Brazil Small Cap Value ETF	0	↑ 0	0.50	0.30	-	-	-	-	N
BXPO11 BZ	INVESTO Brazil Global Exposure ETF	0	0	0.15	0.30	-	-	-	-	N
BDOM11 BZ	INVESTO Brazil Domestic Exposure ETF FI	0	0	0.16	0.30	-	-	-	-	N
IBOB11 BZ	BTG Pactual B3 Ibovespa Fudo	-	0	0.11	0.03	-	-	-	-	N
ESGB11 BZ	BTG Esq Fdo Indice S&P/ B3	-	0	0.26	0.50	-	-	-	-	N
SPXB11 BZ	BTG Pactual S&P 500	-	0	0.41	0.20	-	-	-	-	N
GENB11 BZ	BTG Pactual S&P/B3 Ingenius	-	0	0.77	0.25	-	-	-	-	N
SMAB11 BZ	BTG Small Cap	-	0	0.44	0.40	-	-	-	-	N
CMDB11 BZ	BTG Teva Access Commodities	-	0	0.43	0.50	-	-	-	-	N
BOVB11 BZ	Bradesco Ibovespa Fudo	-	1	0.06	0.20	-	-	-	-	N
IMBB11 BZ	Bradesco IMAB Fudo	-	0	-	0.20	-	-	-	-	N
B5MB11 BZ	Bradesco IMAB5+ Fudo	-	0	0.84	0.20	-	-	-	-	N
GURU11 BZ	Inter Eq Teva Gdes Gurus	-	0	0.62	0.70	-	-			

LATIN AMERICA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Chile (Continued)										
EWY CI	iShares MSCI South Korea ETF	5,258	0	-	0.59	-	-	-	-	N
EWT CI	iShares MSCI Taiwan ETF	4,907	0	-	0.59	-	-	-	-	N
FXI CI	iShares China LargeCap ETF	4,731	0	-	0.74	-	-	-	-	N
EWZ CI	iShares MSCI Brazil ETF	4,637	0	-	0.59	-	-	-	-	N
EWU CI	iShares MSCI United Kingdom ETF	2,835	0	-	0.50	-	-	-	-	N
AAXJ CI	iShares MSCI All Country Asia ex Japan	2,426	0	-	0.70	-	-	-	-	N
EWW CI	iShares MSCI Mexico ETF	2,008	0	-	0.50	-	-	-	-	N
EPP CI	iShares MSCI Pac ex Japan ETF	1,964	0	-	0.48	-	-	-	-	N
IEV CI	iShares Europe ETF	1,758	0	0.32	0.67	-	-	-	-	N
EWA CI	iShares MSCI Australia ETF	1,653	0	-	0.50	-	-	-	-	N
ILF CI	iShares Latin America 40 ETF	1,522	0	-	0.48	-	-	-	-	N
EWG CI	iShares MSCI Germany ETF	955	0	-	0.50	-	-	-	-	N
INDY CI	iShares India 50 ETF	863	0	-	0.89	-	-	-	-	N
ECH CI	iShares MSCI Chile ETF	607	0	-	0.59	-	-	-	-	N
EWK CI	iShares MSCI Hong Kong ETF	527	0	-	0.50	-	-	-	-	N
EWS CI	iShares MSCI Singapore ETF	433	0	-	0.50	-	-	-	-	N
EIDO CI	iShares MSCI Indonesia ETF	363	0	-	0.59	-	-	-	-	N
CFIETFCC CI	Fondo Singular Chile Corporativo	131	1	0.09	0.20	-	-	-	-	N
EPU CI	iShares MSCI Peru and Global Exposure	127	0	-	0.59	-	-	-	-	N
CFIETFGE CI	Fondo Singular Global Equities	104	0	0.20	0.25	-	Y	-	-	N
CFMITNIP CI	ETF IT NOW S&P IPSA	75	0	0.38	0.58	-	-	-	-	N
BKF CI	iShares MSCI BIC ETF	74	0	-	0.70	-	-	-	-	N
ECNS CI	iShares MSCI China SmallCap ETF	56	0	-	0.59	-	-	-	-	N
CFIETFCD CI	ETF Singular Chile Corta Dur	26	0	0.06	0.20	-	-	-	-	N
CFIGC CI	Singular Global Corporatesi	22	0	0.20	0.30	-	-	-	-	N
CFIUSRE CI	Fondo Singular S&P 500	11	0	0.16	0.30	-	-	-	-	N
CFMDIVO CI	ETF IT NOW S&P/CLX Chile Div Ind	9	↑	0	0.19	0.56	-	-	-	N
CFINASDA CI	Fondo Singular NASDAQ 100	5	0	0.24	0.40	-	-	-	-	N
CFMESGIP CI	ETF IT NOW S&P IPSA ESG	1	↓	0	0.45	0.40	-	Y	-	N
Colombia										
ICOLCAP CB	iShares MSCI COLCAP	1,580	1	0.33	0.48	-	-	-	-	N
HCOLSEL CB	Global X Colombia Select ETF	471	0	0.55	0.50	-	-	-	-	N
GXTESCOL CE	Global X TES Columbia GBI EM ETF	-	-	1.00	0.30	-	-	-	-	N
Peru										
ETPPERUD PE	Fondo Bursatil Van Eck El Dorado Peru	109	0	-	0.55	-	-	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None

² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

³ Actively Managed: Y = Active Transparent, (Blank) = Passive

⁴ Currency Hedged: U = USD Version Available, H = Hedged and Unhedged, Y = Hedged, Blank: Unhedged

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Large Cap										
IMEU LN	iShares Core MSCI Europe UCITS	8,087	1	0.05	0.12	-	-	-	-	N
XESX GR	Xtrackers Euro Stoxx 50 UCITS	7,771	↑	0	0.10	0.09	-	-	-	N
SMEA LN	iShares Core MSCI Europe UCITS	7,518	2	0.05	0.12	-	-	-	-	N
SX5EEX GR	iShares Core Euro Stoxx 50 UC	6,751	0	0.03	0.10	-	-	-	-	N
CSEMU SW	iShares Core MSCI EMU UCITS ET	5,100	1	0.09	0.12	-	-	-	-	N
IUSK GR	iShares MSCI Europe SRI UCITS	4,687	0	0.10	0.20	-	-	Y	-	N
XMEU GR	Xtrackers MSCI Europe UCITS ET	4,598	0	0.09	0.12	-	-	-	-	L
EEUD LN	iShares MSCI Europe ESG Enhanc	4,593	↑	0	0.10	0.12	-	-	Y	-
CSSX5E SW	iShares Core Euro Stoxx 50 UC	4,497	1	0.07	0.10	-	-	-	-	N
CEUZ FP	Amundi Index MSCI Europe UCITS	4,204	1	0.08	0.15	-	-	-	-	N
EUN2 GR	iShares Euro Stoxx 50 UC	3,848	0	0.06	0.10	-	-	-	-	M
VEJR LN	Vanguard FTSE Developed Europe	3,741	0	0.09	0.10	-	-	-	-	N
SYGEU SJ	Sygnia ITRIX Euro Stoxx50	3,534	0	0.56	0.86	-	-	-	-	N
SAEU LN	iShares MSCI Europe ESG Screen	3,325	0	0.09	0.12	-	-	Y	-	N
EMUEJA GR	UBS Lux Fund Solutions - MSCI	3,011	0	0.07	0.17	-	-	-	-	N
MSE FP	Amundi Euro Stoxx 50 II UCITS	2,910	3	0.08	0.20	-	-	-	-	N
C50 FP	Amundi Euro Stoxx 50 UCITS ETF	2,888	↑	2	0.07	0.15	-	-	-	N
VERX LN	Vanguard FTSE Developed Europe	2,673	2	0.07	0.10	-	-	-	-	N
EMUD LN	iShares MSCI EMU ESG Enhanced	2,582	↑	0	0.09	0.12	-	-	Y	-
XACTVINK SS	XACT Norden	2,491	4	0.13	0.15	-	-	Y	-	N
SXXEEX GR	iShares Euro Stoxx UCITS ETF D	2,160	0	0.13	0.20	-	-	-	-	N
XZEU GR	Xtrackers MSCI Europe ESG UCIT	1,899	↑	0	0.11	0.20	-	-	Y	-
XDGE GR	Xtrackers MSCI EMU UCITS ETF	1,797	0	0.26	0.12	-	-	-	-	N
JREE LN	JPMorgan Europe Research Enhanc	1,640	↑	0	0.11	0.25	-	Y	Y	-
SAUM LN	iShares MSCI EMU ESG Screened	1,546	0	0.08	0.12	-	-	Y	-	N
LCEUD FP	BNP Paribas Easy Low Carbon 10	1,454	-	0.15	0.30	-	-	-	-	N
UIMR GR	UBS Lux Fund Solutions - MSCI	1,439	↓	0	0.18	0.22	-	Y	-	N
ETFELAC GR	Deka MSCI Europe UCITS ETF	1,072	↑	0	0.32	0.30	-	-	-	N
IEUX LN	iShares MSCI Europe ex-UK UCIT	1,037	0	0.08	0.40	-	-	-	-	N
EEUE FP	BNP Paribas Easy MSCI Europe E	997	↑	0	0.08	0.15	-	Y	-	N
H50E LN	HSBC Euro Stoxx 50 UCITS ETF	995	↑	0	0.09	0.05	-	-	-	N
UETS GR	UBS Lux Fund Solutions - EURO	857	↑	0	0.10	0.15	-	-	-	N
ETFSX5E GR	Deka Euro Stoxx 50 UCITS ETF	857	0	0.10	0.15	-	-	-	-	N
MEU FP	Amundi MSCI Europe II UCITS ET	782	1	0.06	0.25	-	-	-	-	N
SDJ50 GR	Invesco Euro Stoxx 50 UCITS ET	707	↑	0	0.03	0.05	-	-	-	N
EUN LN	iShares Stoxx Europe 50 UCITS	650	0	0.09	0.35	-	-	-	-	N
ETDD FP	BNP Paribas Easy Euro Stoxx 50	594	↑	1	0.09	0.18	-	-	-	N
SRIE FP	BNP Paribas Easy MSCI Europe S	569	↓	0	0.07	0.25	-	Y	-	N
CSE FP	Amundi ETF Stoxx Europe 50 UC	542	0	0.09	0.15	-	-	-	-	N
E50EUA SW	UBS Lux Fund Solutions - EURO	502	0	0.10	0.15	-	-	-	-	N
MFE FP	Amundi MSCI EMU UCITS ETF	475	1	0.07	0.12	-	-	-	-	N
EEEM FP	BNP Paribas Easy MSCI EMU ESG	471	↑	0	0.11	0.15	-	Y	-	N
D6RR GR	Deka MSCI Europe Climate Chang	465	↓	0	0.12	0.25	-	-	Y	-
MFFD FP	Amundi MSCI EMU ESG C1B Net Zē	421	↑	0	0.09	0.12	-	-	Y	-
ELREJA SW	UBS Lux Fund Solutions - MSCI	382	0	0.15	0.20	-	-	-	-	N
CU9 FP	Amundi ETF MSCI Europe Ex Emu	326	↑	0	0.18	0.30	-	-	-	N
ERO FP	SPDR MSCI Europe UCITS ETF	259	↓	0	0.13	0.25	-	-	Y	-
D6RS GR	Deka MSCI EMU Climate Change E	245	0	0.27	0.20	-	-	Y	-	N
ELFB GR	Deka Oekom Euro Nachhaltigkēit	239	↑	0	0.14	0.40	-	-	Y	-
EUESG SW	UBS Irl ETF plc - MSCI EMU ESG	230	↑	0	0.34	0.15	-	-	Y	-
ELFA GR	DEKA Euro Stoxx 50 ESG Filtrē	230	↑	0	0.13	0.15	-	-	Y	-
UW1 GR	UBS Lux Fund Solutions - MSCI	222	↑	0	0.46	0.18	-	-	Y	-
BSX FP	Amundi Euro Stoxx 50 Daily -1X	218	↑	0	0.07	0.40	-1x	-	-	-
SRHE GR	Amundi Index MSCI EMU SRI PAB	209	0	0.11	0.18	-	-	Y	-	N
HMEU LN	HSBC MSCI Europe UCITS ETF	192	↑	0	0.19	0.10	-	-	-	N
CEBP GR	iShares MSCI EMU USD Hedged UC	178	0	0.21	0.38	-	-	-	-	N
MUSR FP	BNP Paribas Easy MSCI EMU SRI	161	↓	0	0.17	0.25	-	-	Y	-
SUBBEX GR	iShares Dow Jones Eurozone Sus	138	0	0.11	0.41	-	-	Y	-	N
PCEU FP	Amundi ETF PEA MSCI Europe UC	135	↓	0	0.13	0.15	-	-	-	N
BBVAE SM	BBVA Accion Dow Jones Euro STO	134	0	0.11	0.24	-	-	-	-	N
IS3G GR	iShares MSCI EMU Large Cap UC	134	↓	0	0.23	0.49	-	-	-	N
LVE FP	Amundi Euro Stoxx 50 Daily 2X	127	1	0.09	0.40	+2x	-	-	-	N
SX5PEX GR	iShares Stoxx Europe 50 UCITS	121	0	0.10	0.52	-	-	-	-	N
PRIZ GR	Amundi Prime EUROZONE UCITS ET	116	↑	0	0.22	0.05	-	-	-	N
EMUC SW	iShares MSCI EMU CHF Hedged UC	97	0	0.32	0.38	-	-	-	-	N
LXPEX GR	iShares Stoxx Europe Large 200	92	0	0.18	0.20	-	-	-	-	N
FEUZ LN	First Trust Eurozone AlphaDEX	87	↓	0	0.45	0.65	-	-	-	N
ETFSTX5 GR	Deka Stoxx Europe 50 UCITS ETF	87	↑	0	0.12	0.19	-	-	-	N
HEDJ LN	WisdomTree Europe Equity UCITS	79	0	0.27	0.58	-	-	Y	-	N
MKUK LN	Invesco MSCI Europe ex-UK UCIT	61	0	0.20	0.20	-	-	-	-	N
SMUA NA	iShares MSCI EMU SRI UCITS ETF	60	0	0.17	0.20	-	-	Y	-	N
EMAD NA	iShares MSCI Europe Paris-Alig	57	0	0.34	0.15	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Large Cap (Continued)										
XSSX GR	Xtrackers Euro Stoxx 50 Short	52	↓	0	0.07	0.40	-1x	-	-	N
BIODV FP	BNP Paribas Easy ESG Eurozone	52	↓	0	0.25	0.36	-	-	Y	-
PAES LN	Invesco MSCI Europe ESG Climat	46	0	0.29	0.16	-	-	-	Y	-
FLXP GR	Franklin Stoxx Europe 600 Pari	45	↑	0	0.20	0.15	-	-	Y	-
BXX FP	Amundi Euro Stoxx 50 Daily -2X	45	1	0.09	0.60	-2x	-	-	-	N
XZEZ GR	Xtrackers MSCI EMU ESG UCITS E	44	↓	0	0.28	0.20	-	-	Y	-
SMSEUR GR	Invesco MSCI Europe UCITS ETF	42	↓	0	0.27	0.19	-	-	-	N
USSIEPA LX	UBS Lux Strategy Fund - Income	41	↓	-	1.41	-	-	Y	Y	-
AIME GR	AXA IM MSCI Europe Equity PAB	35	-	0.42	1.14	-	-	-	-	N
HSEU LN	HSBC Europe Sustainable Equity	28	↓	0	0.21	0.15	-	-	Y	-
LEQ IR	Landsbref - LEQ	24	0	0.53	0.65	-	-	-	-	N
SX5E3L IM	SG ETC Euro Stoxx 50 +3x Daily	22	0	0.69	0.69	+3x	-	-	-	N
HPAE LN	HSBC MSCI Europe Climate Paris	21	↑	0	0.21	0.15	-	-	Y	-
EUGD LN	European Green Deal UCITS ETF	21	0	0.52	0.60	-	-	-	-	N
3EUL LN	WisdomTree Euro Stoxx 50 3x Da	20	0	0.26	0.75	+3x	-	-	-	N
LCEZ FP	BNP PARIBAS EASY Low Carbon 10	18	↑	0	0.24	0.30	-	-	Y	-
ES50 GR	iShares Euro Stoxx 50 ESG UCIT	16	0	0.22	0.10	-	-	-	Y	-
3EUS LN	WisdomTree Euro Stoxx 50 3x Da	14	↑	0	0.47	0.80	-3x	-	-	N
EUFM IM	UBS Lux Fund Solutions - MSCI	13	↓	0	0.16	0.34	-	-	-	N
W5SX IM	WisdomTree Euro Stoxx 50	12	↑	0	0.13	0.05	-	-	-	N
XBEE GR	Xtrackers Europe Biodiversity	8	0	0.47	0.30	-	-	Y	-	N
ETFCEOTPHB	Investment Units of OTP CETOP	7	-	0.41	0.50	-	-	-	-	N
AW13 GR	UBS Irl ETF plc-MSCI Europe Cl	5	0	0.56	0.18	-	-	Y	-	N
AW1Z GR	UBS Irl ETF plc-MSCI EMU Clima	4	0	0.59	0.18	-	-	Y	-	N
BUNDL5 IM	SG ETN Daily Long +5X BUND FUT	4	0	0.22	0.45	-	-	-	-	N
SX5E3S IM	SG ETC Euro Stoxx 50 -3x Daily	2	↑	0	0.69	0.69	-3x	-	-	N
5EUL IM	WisdomTree Euro Stoxx 50 5x Da	0	-	1.49	0.95	+5x	-	-	-	N
5EUS IM	WisdomTree Euro Stoxx 50 5x Da	0	-	0.94	0.95	-5x	-	-	-	N
KSMF17 IT	KSM ETF 4A Euro Stoxx 50 Cure	-	-	-	0.71	-	-	-	Y	-
TCHF100 IT	Tachit SAL 4D Stoxx Europe 60	-	-	-	-	-	-	-	-	N
TCHF7 IT	Tachit SAL 4A Euro Stoxx 50 C	-	-	-	-	-	-	-	Y	-
KSMF76 IT	KSM ETF 4D Euro Stoxx 50	-	-	-	0.83	-	-	-	-	N
KSMF125 IT	KSM ETF 4A Composite Euro Equi	-	-	-	0.01	-	-	-	Y	-
HLRF65 IT	Harel Sal 4D Euro Stoxx 50	-	-	-	0.48	-	-	-	-	N
KSMF186 IT	KSM ETF 60 Short TA-90	-	-	-	0.43	-	-	-	-	N
KSMF188 IT	KSM ETF 60 Short TA-125 2610	-	-	-	0.53	-1x	-	-	-	N
MTFF40 IT	MTF SAL 4A Stoxx Europe 600 Cu	-	-	-	0.25	-	-	-	Y	-
TCHF157 IT	Tachit SAL 60 Short TA 90	-	-	-	-	-	-	-	-	N
MAGIB SW	Magic Europe 8 CHF Index	-	-	1.01	0.50	+1x	Y	-	-	N
Multi Cap										
MEUD LN	Amundi Stoxx Europe 600 UCITS	7,702	0	0.12	0.07	-	-	-	-	N
SXXPEX GR	iShares Stoxx Europe 600 UCITS	6,805	1	0.05	0.20	-	-	-	-	M
EUSRI FP	Amundi Index MSCI Europe SRI P	3,286	↓	1	0.07	0.18	-	-	Y	-
XSX6 GR	Xtrackers Stoxx Europe 600 UC	2,693	↑	0	0.04	0.20	-	-	-	N
CMU FP	Amundi MSCI EMU ESG LEADERS	1,973	2	0.07	0.25	-	-	-	Y	-
EPAB FP	Amundi S&P Eurozone PAB Net Zē	1,847	0	0.18	0.20	-	-	Y	-	N
CEU FP	Amundi Index MSCI Europe ESG B	1,663	0	0.08	0.12	-	-	-	Y	-
ECN FP	BNP Paribas Easy Low Carbon 10	1,454	↑	0	0.06	0.31	-	-	Y	-
ESGE FP	Amundi MSCI Europe ESG Leaders	1,311	↓	1	0.11	0.20	-	-	Y	-
ETZ FP	BN									

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Broad Based										
Multi Cap (Continued)										
HSXU LN	HSBC Europe EX UK Sustainable	49	↑	0	0.22	0.15	-	-	Y	-
5HEJ GR	Ossiam ESG Shiller Barclays CA	34	↓	0	0.32	0.75	-	Y	Y	-
ICFP GR	Invesco MSCI Europe ESG Leader	29	↓	0	0.31	0.30	-	-	Y	-
XNZE GR	Xtrackers EMU Net Zero Pathway	18	-	0	0.66	0.15	-	-	Y	-
XECT GR	Xtrackers MSCI Europe Climate	11	↑	0	0.41	0.12	-	-	Y	-
XCEJ GR	Xtrackers MSCI EMU Climate Tra	9	-	0	0.31	0.12	-	-	Y	-
ESEJ LN	Invesco MSCI Europe Ex UK ESG	6	-	0	0.29	0.16	-	-	Y	-
XEPA GR	Xtrackers Europe Net Zero Path	6	↓	0	0.59	0.15	-	-	Y	-
PIFETF SJ	Prescient Income Provider Feed	5	-	-	0.31	-	-	Y	-	-
IQMU FP	Indexiq-Factors Sustainable Em	2	↓	0	1.70	0.25	-	-	Y	-
FPXELN	First Trust IPOX Europe Equity	2	-	0	0.64	0.65	-	-	-	-
EEMJ GR	Invesco MSCI EMU ESG Universal	1	-	0	0.33	0.16	-	-	Y	-
SPF5 GR	SPDR MSCI Europe Climate Paris	1	-	0	0.43	0.15	-	-	Y	-
ADASI SW	Exchange Traded Product on Ada	0	-	-	0.98	1.00	-	Y	-	-
KSMF121 IT	KSM ETF 4A Stox Europe 600 Eu	-	-	-	-	0.96	-	-	Y	-
KSMF122 IT	KSM ETF 4D Stox Europe 600	-	-	-	-	0.76	-	-	-	-
TCHF101 IT	Tachit SAL 4A Stox Europe 600	-	-	-	-	-	-	-	Y	-
HRLF77 IT	Harel Sal 4D Stox Europe 600	-	-	-	-	0.48	-	-	-	-
HRLF80 IT	Harel Sal 4A Stox Europe 600	-	-	-	-	0.53	-	-	Y	-
MTFF31 IT	MTF SAL 4D Stox Europe 600	-	-	-	-	0.25	-	-	-	-
ESGEU SW	Exchange Traded Product on GGX	-	-	0	0.77	0.95	-	Y	Y	-
Small Cap										
XXSC GR	Xtrackers MSCI Europe Small Ca	1,806	↑	0	0.25	0.30	-	-	-	-
CSEMUS SW	iShares MSCI EMU Small Cap UCI	887	↑	0	0.18	0.58	-	-	-	-
SCXPEX GR	iShares Stox Europe Small 200	868	↑	0	0.17	0.20	-	-	-	-
DJSC LN	iShares Euro Stox Small UCITS	619	↑	0	0.15	0.40	-	-	-	-
LGWU GR	Amundi MSCI EMU Small Cap ESG	409	-	-	0.40	0.40	-	-	Y	-
UEFD GR	UBS Lux Fund Solutions - MSCI	231	↑	0	0.66	0.33	-	-	-	-
EESM FP	BNP PARIBAS MSCI Europe SMALL	224	-	0	0.34	0.26	-	-	Y	-
SMC FP	SPDR MSCI Europe Small Cap UCI	179	-	0	0.28	0.30	-	-	-	-
X026 GR	Amundi MSCI Europe Small Cap E	132	↑	0	0.67	0.35	+1x	-	Y	-
Mid Cap										
MCXPEX GR	iShares Stox Europe Mid 200 U	490	↑	0	0.19	0.20	-	-	-	-
DJMC LN	iShares Euro Stox Mid UCITS E	459	↑	0	0.14	0.40	-	-	-	-
IS3H GR	iShares MSCI EMU Mid Cap UCITS	139	-	0	0.26	0.49	-	-	-	-
EUMD LN	iShares MSCI Europe Mid Cap UC	88	-	0	0.21	0.15	-	-	-	-
XELUM GR	Xtrackers MSCI Europe ESG Scre	62	-	0	0.33	0.12	-	-	Y	-
ETFELUM GR	Deka MSCI Europe MC UCITS ETF	18	-	0	0.39	0.30	-	-	-	-
IEFS LN	iShares Edge MSCI Europe Size	17	↓	0	0.52	0.25	-	-	-	-
KSMF22 IT	KSM ETF 4D Stox Europe MID 20	-	-	-	-	0.93	-	-	-	-
KSMF124 IT	KSM ETF 4A Stox Europe MID 20	-	-	-	-	0.93	-	-	Y	-
Equity Country										
Austria										
ATXEX GR	iShares ATX UCITS ETF DE	141	↑	0	0.29	0.32	-	-	-	-
XB4A GR	Xtrackers ATX UCITS ETF	54	-	0	0.39	0.25	-	-	-	-
Belgium										
BEL BB	Amundi BEL 20 UCITS ETF	43	-	0	0.18	0.50	-	-	-	-
Denmark										
XACTC25 DC	XACT OMXC25 ESG	694	↑	4	0.13	0.20	-	-	Y	-
Eastern Europe										
IFOL LN	iShares MSCI Poland UCITS ETF	157	↑	0	0.32	0.74	-	-	-	-
CEC FP	Amundi MSCI Eastern Europe Ex	154	↓	0	0.18	0.50	-	-	-	-
BETAM40T PW	Beta ETF mWIG40TR Portfolio CI	61	-	0	0.18	1.00	-	-	-	-
7CRO CZ	InterCapital CROBEX10tr UCITS	29	-	0	0.13	0.91	-	-	-	-
BETAW20T PW	Beta ETF WIG20TR Portfolio Clo	28	-	0	0.16	0.70	-	-	-	-
ETFBS80T PW	Beta ETF sWIG80TR Portfolio CI	19	↑	0	0.35	1.30	-	-	-	-
TVBETIF RO	ETF BET Patria-Tradeville	13	-	0	0.09	1.80	-	-	-	-
BETAW20S PW	Beta ETF WIG20short Portfolio	12	↑	0	0.23	1.60	-1x	-	-	-
BETAW20L PW	Beta ETF WIG20lev Portfolio CI	10	↓	0	0.22	1.50	-	-	-	-
BUXEIF HB	OTP BUX Index Tracking Exchang	9	-	0	0.70	0.69	-	-	-	-
7SLO CZ	InterCapital SBI TOP UCITS ETF	5	-	0	0.18	0.91	-	-	-	-
BGX BU	Expat Bulgaria SOFIX UCITS ETF	3	-	-	-	1.00	-	-	-	-
ROX BU	Expat Romania BET UCITS ETF	1	-	-	-	1.38	-	-	-	-
CZX BU	Expat Czech PX UCITS ETF	0	-	-	-	1.38	-	-	-	-
MKK1 BU	Expat Macedonia MBI10 UCITS ET	0	-	-	-	1.38	-	-	-	-
7BET CZ	InterCapital BET-TR UCITS ETF	-	-	0	-	0.98	-	-	-	-
Finland										
H25ETF FH	Selgson & Co OMX Helsinki 25	493	↑	1	0.15	0.16	-	-	-	-
BEARH15 FH	BEAR OMXH15 X2 H	-	-	-	-	-	-	-	-2x	-
BEARH153 FH	BEAR OMXH15 X3 H	-	-	-	-	-	-	-	-3x	-

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
Finland (Continued)										
BULLH15 FH	BULL OMXH15 X2 H	-	-	-	0.60	+2x	-	-	-	-
BULLH153 FH	BULL OMXH15 X3 H	-	-	-	0.60	+3x	-	-	-	-
France										
CAC FP	Amundi CAC 40 UCITS ETF	3,815	-	3	0.06	0.25	-	-	-	-
C40 FP	Amundi CAC 40 ESG	1,026	↑	2	0.07	0.25	-	-	Y	-
E40 FP	BNP Paribas EASY CAC 40 R ESG	313	-	0	0.11	0.25	-	-	Y	-
BX4 FP	Amundi CAC 40 Daily -2X Invers	287	-	8	0.07	0.60	-2x	-	-	-
LVC FP	Amundi CAC 40 Daily 2X Leverag	241	-	7	0.06	0.40	+2x	-	-	-
SHC FP	Amundi CAC 40 Daily -1X Invers	163	↓	1	0.06	0.40	-1x	-	-	-
XCAC GR	Xtrackers CAC 40 UCITS ETF	133	↓	0	0.29	0.20	-	-	-	-
ISFR LN	iShares MSCI France UCITS ETF	105	-	0	0.11	0.25	-	-	-	-
CACM FP	Amundi CAC MID 60 UCITS ETF	16	-	0	0.27	0.50	-	-	-	-
CF1 FP	Amundi ETF MSCI France UCITS E	9	↓	0	0.15	0.25	-	-	-	-
3CAS FP	WisdomTree CAC 40 3x Daily Sho	1	-	0	0.76	0.80	-3x	-	-	-
3CAC FP	WisdomTree CAC 40 3x Daily Lev	1	-	0	0.95	0.75	+3x	-	-	-
TBND186 IT	Tachit France CAC 40 NTR NIS	-	-	-	-	0.82	-	-	-	-
Germany										
DAXEX GR	iShares Core DAX UCITS ETF DE	6,301	2	0.02	0.16	-	-	-	-	L
XDAX GR	Xtrackers DAX UCITS ETF	4,442	1	0.04	0.09	-	-	-	-	-
ETFDAK GR	Deka DAX UCITS ETF	1,285	1	0.03	0.15	-	-	-	-	-
CBDAK SW	Amundi DAX UCITS ETF	1,078	0	0.09	0.08	-	-	-	-	-
MDAXEX GR	iShares MDAX UCITS ETF DE	1,076	0	0.13	0.51	-	-	-	-	-
ETFDAKX GR	Deka DAX ausschuetend UCITS E	819	0	0.04	0.15	-	-	-	-	-
LYXDAX GR	Amundi DAX III UCITS ETF	715	0	0.03	0.15	-	-	-	-	-
CG1 FP	Amundi ETF DAX UCITS ETF DR	648	-	0	0.06	0.10	-	-	-	-
XDDX GR	Xtrackers DAX ESG Screened UCI	427	-	0	0.06	0.09	-	-	Y	-
BLF1 GR	Deka MDAX UCITS ETF	332	↓	0	0.17	0.30	-	-	-	-
E909 GR	Amundi - Amundi DAX 50 ESG II	303	-	0	0.14	0.15	-	-	Y	-
D6RT GR	Deka MSCI Germany Climate Chan	233	-	0	0.15	0.20	-	-	Y	-
DEAM GR	Invesco MDAX UCITS ETF	229	-	0	0.25	0.19	-	-	-	-
XSDX GR	Xtrackers ShortDAX Daily Swap	204	↓	0	0.07	0.40	-1x	-	-	-
VGER GR	Vanguard Germany All Cap UCITS	168	-	0	0.14	0.10	-	-	-	-
DBPD GR	Xtrackers ShortDAX x2 Daily Sw	138	-	0	0.06	0.60	-2x	-	-	-
CO05 GR	Amundi SDAX UCITS ETF	136	-	0	0.44	0.70	-	-	-	-
LYXLEDAX GR	Amundi LevDax Daily 2x Leverag	126	↓	1	0.09	0.35	+2x	-	-	-
E907 GR	Amundi - Amundi MDAX ESG II U	114	-	0	0.20	0.30	-	-	Y	-
CO06 GR	Amundi FAZ 100 UCITS ETF	87	-	0	0.24	0.15	-	-	-	-
XDGM GR	Xtrackers MDAX ESG Screened UC	87	-	0	0.24	0.40	-	-	Y	-
EXIA GR	iShares DAX ESG UCITS ETF DE	81	-	0	0.21	0.12	-	-	Y	-
MD4X GR	Amundi MDAX UCITS ETF	58	-	0	0.34	0.20	-	-	-	-
DBPE GR	Xtrackers LevDAX Daily Swap UC	47	↓	0	0.05	0.35	+2x	-	-	-
DSD FP	Amundi ShortDAX Daily -2x Inve	43	-	0	0.10	0.60	-2x	-	-	-
AHYK GR	Amundi ShortDAX Daily -1x Inve	41	↓	0	0.12	0.30	-1x	-	-	-
DES2 LN	L&G DAX Daily 2x Short UCITS E	39	-	0	0.25	0.60	-2x	-	-	-
3DES LN	WisdomTree DAX 3x Daily Short	25	-	0	0.49	0.80	-3x	-	-	-
ELFO GR	Deka DAX ex Financials 30 UCIT	25	-	0	0.17	0.30	-	-	-	-
DEL2 LN	L&G DAX Daily 2x Long UCITS ET	22	↓	0	0.36	0.40	+2x	-	-	-
DAX3L IM	SG ETC DAX +3X Daily Leveraged	20	-	0	0.70	0.69	+3x	-	-	-
DECD GR	Amundi DAX 50 ESG UCITS ETF DR	20	-	0	0.12	0.15	-	-	Y	-
3DEL LN	WisdomTree DAX 3x Daily Levera	18	↓	0	0.29	0.75	+3x	-	-	-
FTGG GR	First Trust Germany AlphaDEX U	7	-	0	0.65	0.75	-	-	-	-
DAX3S IM	SG ETC DAX -3x Daily Short Ccl	2	↑	0	0.70	0.69	-3x	-	-	-
SGYE LN	Leverage Shares -3x Short Germ	0	↑	0	2.44	0.75	-3x	-	-	-
3DXE LN	Leverage Shares 3x Long German	0	↓	0	1.99	0.75	+3x	-	-	-
TMKDX83 IT	Tachit Germany Mid-Cap MDAK 4	-	-	-	-	0.52	-	-	-	-
TOMKD86 IT	Tachit Germany Mid-Cap MDAK I	-	-	-	-	0.37	-	-	-	Y
TCHF113 IT	Tachit SAL 4D DAX 30	-	-	-	-	-	-	-	-	-
KSMF53 IT	KSM ETF 4D DAX	-	-	-	-	0.56	-	-	-	-
KSMF92 IT	KSM ETF 4A DAX Currency Hedged	-	-	-	-	1.03	-	-	-	-
KSMF113 IT	KSM ETF 6D Leveraged DAX X3 Mo	-	-	-	-	2.78	+3x	-	-	-
KSMF116 IT										

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Greece (Continued)										
AETF GA	ALPHA ETF FTSE Athens Large Cap	33	0	0.16	0.38	-	-	-	-	N
Italy										
ETFMIB IM	Amundi FTSE MIB UCITS ETF Dist	476	2	0.04	0.35	-	-	-	-	N
CSMB SW	iShares FTSE MIB UCITS ETF EUR	242	↑	0	0.11	0.33	-	-	-	N
IMB LN	iShares FTSE MIB UCITS ETF EUR	186	0	0.09	0.35	-	-	-	-	N
ITAMID IM	Amundi FTSE Italia PMI PIR 202	148	0	0.12	0.40	-	-	-	-	N
LEVIMB IM	Amundi FTSE MIB Daily 2X Lever	104	↓	3	0.07	0.60	+2x	-	-	N
MB3L IM	SG ETC FTSE MIB +3x Daily Leve	86	0	0.30	0.69	+3x	-	-	-	N
FM FP	Amundi Italy MIB ESG	72	0	0.11	0.18	-	-	Y	-	N
XMIB GR	Xtrackers FTSE MIB UCITS ETF	58	0	0.11	0.30	-	-	-	-	N
XBRMB IM	Amundi FTSE MIB Daily -2X Inve	51	↑	2	0.07	0.60	-2x	-	-	N
3ITL IM	WisdomTree FTSE MIB 3x Daily L	37	↓	5	0.10	0.75	+3x	-	-	N
3ITS IM	WisdomTree FTSE MIB 3x Daily S	34	↑	2	0.15	0.80	-3x	-	-	N
BERMB IM	Amundi FTSE MIB Daily -1X Inve	32	1	0.06	0.60	-1x	-	-	-	N
IFR IM	iShares FTSE Italia Mid-Small	30	↓	0	0.17	0.33	-	-	-	N
MB3S IM	SG ETC FTSE MIB -3X Daily Shor	26	↑	0	0.25	0.69	-3x	-	-	N
ITAPR IM	Amundi FTSE Italia All Cap PIR	12	0	0.16	0.35	-	-	-	-	N
MBESG IM	SG ETN MIB ESG	7	↓	0	0.79	0.50	+1x	-	Y	-
WMIB IM	WisdomTree FTSE MIB	3	↑	0	0.08	0.18	-	-	-	N
5MB IM	GraniteShares 5x Long FTSE MIB	1	0	0.87	1.50	+5x	-	-	-	N
3MB IM	GraniteShares 3x Long FTSE MIB	1	0	0.66	0.99	+3x	-	-	-	N
5SIT IM	GraniteShares 5x Short FTSE MI	1	0	0.98	1.50	-5x	-	-	-	N
5ITL IM	WisdomTree FTSE MIB 5x Daily L	0	-	2.35	0.95	+5x	-	-	-	N
3SIT IM	GraniteShares 3x Short FTSE MI	0	0	0.63	0.99	-3x	-	-	-	N
5ITS IM	WisdomTree FTSE MIB 5x Daily S	0	-	0.88	0.95	-5x	-	-	-	N
Middle East & Africa										
KSA LN	iShares MSCI Saudi Arabia Capp	379	0	0.26	0.60	-	-	-	-	N
QATR QD	Al Rayan Qatar ETF	111	-	2.10	0.50	-	-	Y	-	N
QEIF QD	QE Index ETF	94	-	-	0.50	-	-	-	-	N
CTOP50 SJ	10X S&P SA Top 50 ETF	69	↑	0	0.60	0.25	-	-	-	N
MSAU LN	Invesco MSCI Saudi Arabia UCIT	47	↓	0	0.78	0.50	-	-	-	N
LQGM GR	Amundi Pan Africa UCITS ETF	34	0	1.55	0.85	-	-	Y	-	N
CHAEIN UH	Chimera S&P UAE UCITS ETF	29	0	-	1.00	-	-	-	-	N
XMKA GR	Xtrackers MSCI Africa Top 50 S	25	0	1.22	0.65	-	-	-	-	N
XGLF GR	Xtrackers MSCI GCC Select Swap	18	↓	0	1.08	0.65	-	-	-	N
MKUW LN	Invesco MSCI Kuwait UCITS ETF	10	↓	0	0.96	0.50	-	-	-	N
ALBLADMB	Albilad MSCI Saudi Growth ETF	4	-	0.22	-	-	-	-	-	N
SAUD20 AB	SAB Invest MSCI Tadawul 30 Sau	4	-	0.73	0.75	-	-	Y	-	N
VETGRIF3 NL	Vetiva Griffin 30 Exchange TRA	2	0	-	0.76	-	-	-	-	N
EGX30ETF EY	EGX 30 IndexETF	1	-	0.39	1.00	-	-	-	-	N
GRENWETF NL	Greenwich Alpha ETF Fund	0	0	-	1.90	-	-	-	-	N
STANBICENL	Stanbic IBTC ETF 30	-	0	-	-	-	-	-	-	N
VETGOODS NL	Vetiva Consumer Goods ETF	-	0	-	-	-	-	-	-	N
PSGF42 IT	IBI SAL 4A TA-125 IL	-	-	-	0.15	-	-	-	-	N
PSGF46 IT	IBI SAL 4A TA-MidCap150 IL	-	-	-	0.50	-	-	-	-	N
KSMF13 IT	KSM ETF 4A Tel-Div	-	-	-	0.56	-	-	-	-	N
KSMF27 IT	KSM ETF 6A Short Leveraged TA-	-	-	-	2.78	-2x	-	-	-	N
TCHF120 IT	Tachit SAL 60 Short TA 35	-	-	-	-	-2x	-	-	-	N
KSMF96 IT	KSM ETF 6A Short TA-35	-	-	-	0.78	-3x	-	-	-	N
KSMF55 IT	KSM ETF 4A TA-SME60	-	-	-	1.01	-	-	-	-	N
KSMF59 IT	KSM ETF 4A TA-35	-	-	-	0.27	-	-	-	-	N
KSMF72 IT	KSM ETF 4A TA-90	-	-	-	0.56	-	-	-	-	N
KSMF73 IT	KSM KTF 4A TA-Maala IL	-	-	-	0.27	-	-	-	L	N
KSMF74 IT	KSM ETF 4A TA-125	-	-	-	0.28	-	-	-	-	N
KSMF75 IT	KSM ETF 4A TA Global-BlueTech	-	-	-	0.43	-	-	-	-	N
KSMF46 IT	KSM ETF 6A Leveraged TA-35 x3	-	-	-	2.78	+3x	-	-	-	N
KSMF162 IT	KSM ETF 4D BlueStar Israel Glo	-	-	-	0.63	-	-	-	-	N
KSMF169 IT	KSM ETF 6A Short TA-SME60	-	-	-	2.38	-	-	-	-	N
PSGF161 IT	IBI SAL 6A Short TA-90 2579584	-	-	-	0.50	-1x	-	-	-	N
HRLF2 IT	Harel Sal 4A TA 125	-	-	-	0.17	-	-	-	-	N
HRLF7 IT	Harel Sal 4A TA 35	-	-	-	0.12	-	-	-	-	N
HRLF11 IT	Harel Sal 4A TA 90	-	-	-	0.52	-	-	-	-	N
HRLF14 IT	Harel Sal 4A TA-SME60	-	-	-	0.47	-	-	-	-	N
TCHF21 IT	Tachit SAL 40 SME60	-	-	-	-	-	-	-	-	N
MTFF16 IT	MTF SAL 4A TA-35	-	-	-	0.10	-	-	-	-	N
MTFF17 IT	MTF SAL 4A TA-90	-	-	-	0.40	-	-	-	-	N
MTFF19 IT	MTF SAL 4A TA-125	-	-	-	0.10	-	-	-	-	N
TCHF9 IT	Tachit SAL 40 TA 90	-	-	-	-	-	-	-	-	N
TCHF2 IT	Tachit TA 125	-	-	-	-	-	-	-	-	N
TCHF93 IT	Tachit SAL 60 Leveraged*2 TA	-	-	-	-	+2x	-	-	-	N
TCHF98 IT	Tachit SAL 60 Long Leveraged*	-	-	-	-	+3x	-	-	-	N
TCHF99 IT	Tachit SAL 60 Short Leveraged	-	-	-	-	-2x	-	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Middle East & Africa (Continued)										
KSMF192 IT	KSM ETF 4A TA Sector-Balance	-	-	-	0.33	-	-	-	-	N
MTFF75 IT	MTF Sal 6A Short TA-90	-	-	-	-	-1x	-	-	-	N
MTFF78 IT	MTF BSCCHINA	-	-	-	-	-	-	-	-	N
MTFF84 IT	MTF Sal 4A TA-125 Fossil Free	-	-	-	0.11	-	-	Y	-	N
HAVEII IT	Harel Hif 4A Index Israel Valu	-	-	-	-	-	-	-	-	L
MORE88 IT	MORE SAL 4A TA-90 IL	-	-	-	0.37	-	-	-	-	N
MORE89 IT	MORE SAL 4A TA-125 IL	-	-	-	0.12	-	-	-	-	N
TCHF172 IT	Tachit SAL 40 TA-Insurance	-	-	-	0.43	-	-	-	-	N
MTFF120 IT	MTF SAL 4A Index Israel-120 IL	-	-	-	0.19	-	-	-	-	N
Netherlands										
XDNO GR	Xtrackers MSCI Nordic UCITS ET	1,097	↑	0	0.15	0.30	-	-	-	N
IAEX LN	iShares AEX UCITS ETF	679	0	0.06	0.30	-	-	-	-	N
TDT NA	VanEck AEX UCITS ETF	342	1	0.10	0.30	-	-	-	-	N
TMX NA	VanEck AMX UCITS ETF	22	0	0.47	0.35	-	-	-	-	N
Norway										
OBXD NO	DNB OBX	156	↓	0	-	0.31	-	-	-	N
South Africa										
STX40 SJ	Satrix 40	662	1	0.45	0.10	-	-	-	-	N
ETFSWX SJ	Invest SWIX 40 ETF	77	0	0.71	0.29	-	-	-	-	N
STXRAF SJ	Satrix RAFI 40 Index Portfolio	55	0	0.91	0.51	-	-	-	-	N
SRSA LN	iShares MSCI South Africa UCIT	52	↓	0	0.30	0.65	-	-	-	N
ETFT40 SJ	Invest TOP 40 ETF	31	0	1.10	0.22	-	-	-	-	N
SYGT40 SJ	Sygnia Itrix Top 40 ETF	28	↑	0	0.63	0.28	-	-	-	N
STXSWX SJ	Satrix SWIX	20	0	0.90	0.36	-	-	-	-	N
STXCAP SJ	Satrix Capped All Share ETF	18	0	0.96	0.15	-	-	-	-	N
SMART SJ	10X Scientific Beta Multi-Fact	5	0	0.59	0.55	-	-	-	-	N
Spain										
LYXIB SM	Amundi IBEX 35 UCITS ETF	274	↓	1	0.12	0.30	-	-	-	N
XESP GR	Xtrackers Spain UCITS ETF	239	0	0.17	0.30	-	-	-	-	N
BBVAI SM	Accion Ibox 35 ETF FI Cotizado	110	1	0.34	0.39	-	-	-	-	N
2INVE SM	Amundi IBEX 35 Doble Inverso D	39	↑	1	0.16	0.60	-2x	-	-	N
IBEXA SM	Amundi IBEX 35 Doble Apalancad	38	↓	2	0.27	0.40	+2x	-	-	N
Sweden										
XACTOMX SS	XACT OMXS30 ESG UCITS ETF	801	8	0.06	0.10	-	-	Y	-	L
OMXS LN	iShares OMX Stockholm Capped U	372	↑	0	0.18	0.10	-	-	-	N
XACTSBX SS	XACT Sverige UCITS ETF	262	1	0.13	0.15	-	-	Y	-	N
XACTSMAC SS	XACT Svenska Smabolag UCITS ET	199	2	1.14	0.30	-	-	Y	-	N
XABULL2 SS	XACT Bull 2	90	6	0.08	0.60	+2x	-	-	-	N
XACBULL SS	XACT Bull	44	1	0.07	0.60	+1.5x	-	-	-	N
XABEAR2 SS	XACT Bear 2	36	↓	7	0.07	0.60	-2x	-	-	N
XACBEAR SS	XACT Bear	17	↓	1	0.07	0.60	-1.5x	-	-	N
Switzerland										
CHSPI SW	iShares Core SPI ETF CH	3,292	↑	7	0.05	0.10	-	-	-	N
SMICHA SW	UBS ETF CH-SMI	2,537	3	0.08	0.20	-	-	-	-	N
SWZCHB SW	UBS Lux Fund Solutions - MSCI	2,353	2	0.09	0.20	-	-	-	-	N
CSSMI SW	iShares SMI ETF CH	2,109	3	0.06	0.35	-	-	-	-	L
XSMI GR	Xtrackers Switzerland UCITS ET	1,736	0	0.09	0.30	-	-	-	-	N
SPSI SW	UBS ETF CH - SPI ESG	1,417	↑	1	0.12	0.15	-	-	Y	-
SMICHA SW	UBS ETF CH-SMIM	1,333	2	0.09	0.25	-	-	-	-	N
SPICHA SW	UBS ETF CH-SPI	1,324	2	0.03	0.10	-	-	-	-	N
CSSMIM SW	iShares SMIM ETF CH	1,096	1	0.05	0.45	-	-	-	-	N
SLICHA SW	UBS ETF CH-SLI	1,055	↑	4	0.07	0.20	-	-	-	N
CHSRI SW	UBS ETF CH - MSCI Switzerland	920	0	0.08	0.28	-	-	Y	-	N
CSSLI SW	iShares SLI ETF CH	593	1	0.09	0.35	-	-	-	-	N
SWICHA SW	UBS ETF CH - MSCI Switzerland	572	1	0.09	0.20	-	-	-	-	N
SPMCHA SW	UBS ETF CH-SPI Mid	437	↑	1	0.10	0.25	-	-	-	N
SMIEK GR	iShares SLI UCITS ETF DE	391	0	0.09	0.51	-	-	-	-	N
SWUSAH SW	UBS ETF CH - MSCI Switzerland	365	↑	0	0.14	0.23	-	-	Y	N
CSW FP	Amundi Msci Switzerland UCITS	324	0	0.12	0.25	-	-	-	-	N
XSLI GR	Xtrackers SLI									

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Turkey (Continued)										
TUR FP	Amundi MSCI Turkey UCITS ETF	143	↑	0	0.50	0.45	-	-	-	N
ITKY LN	iShares MSCI Turkey UCITS ETF	114	0	0.44	0.74	-	-	-	-	N
ZPBDL TI	Ziraat Portfoy BIST Liquid 10	22	↓	1	0.25	2.19	-	-	-	N
ZELOT TI	Ziraat Portfoy BIST 50-30 Inde	6	0	0.36	2.19	-	-	-	-	N
Z30EA TI	Ziraat Portfoy BIST-30 Equal W	6	↓	0	0.29	2.19	-	-	-	N
QTEMZ TI	DOW JONES Istanbul 20	3	1	0.19	-	-	-	-	-	N
ZRE20 TI	Ziraat Portfoy Risk Parity Equ	3	↓	0	0.33	2.19	-	-	-	N
APLB TI	Ak Asset Management BIST LIQUI	-	0	0.34	-	-	-	-	-	N
APX30 TI	Ak Asset Management BIST 30 IN	-	0	0.30	-	-	-	-	-	N
APBDL TI	Ak Asset Management BIST LIQUI	-	0	0.37	-	-	-	-	-	N
UK										
ISF LN	iShares plc - iShares Core FTS	14,388	23	0.03	0.07	-	-	-	-	H
VUKE LN	Vanguard FTSE 100 UCITS ETF	6,054	8	0.05	0.09	-	-	-	-	N
UKGBPB SW	UBS Lux. Fund Solutions - MSCI	3,600	↓	3	0.12	0.20	-	-	-	N
CSUKX SW	iShares Core FTSE 100 UCITS ET	2,632	1	0.13	0.07	-	-	-	-	N
VMD LN	Vanguard FTSE 250 UCITS ETF	2,621	4	0.08	0.10	-	-	-	-	N
SYGLK SJ	Sygnia ITRIX FTSE 100 ETF	1,383	↓	0	0.59	0.86	-	-	-	N
UKRSL LN	UBS Irl ETF plc - MSCI United	963	↓	1	0.10	0.23	-	-	Y	N
MDD LN	iShares FTSE 250 UCITS ETF	959	9	0.10	0.40	-	-	-	-	L
L100 LN	Amundi FTSE 100 UCITS ETF	777	0	0.07	0.14	-	-	-	-	N
HUKX LN	HSBC FTSE 100 UCITS ETF	660	2	0.07	0.07	-	-	-	-	N
FTAL LN	SPDR FTSE UK All Share UCITS E	575	↓	1	0.09	0.20	-	-	-	N
LQJK GR	Lyxor Core UK Equity All Cap D	476	0	0.34	0.04	-	-	-	-	N
XASX GR	Xtrackers MSCI UK ESG UCITS ET	439	0	0.32	0.18	-	-	Y	-	N
JUKC LN	JPMorgan UK Equity Core UCITS	254	↑	0	0.27	0.26	-	Y	-	N
CSUKS SW	iShares MSCI UK Small Cap UCIT	210	0	0.45	0.58	-	-	-	-	N
PRUK LN	Amundi Prime UK Mid & Small Ca	191	↑	0	0.35	0.05	-	-	-	N
FASEL LN	Invesco FTSE All Share ESG Cli	163	↑	0	0.38	0.12	-	-	Y	N
C1U FP	Amundi MSCI UK IMI SRI PAB ETF	155	↑	0	0.24	0.18	-	-	Y	N
LQJK LN	L&G UK Equity UCITS ETF	125	0	0.72	0.05	-	-	Y	-	N
CSUK SW	iShares MSCI UK UCITS ETF	116	↓	0	0.20	0.33	-	-	-	N
100CHA SW	UBS Lux. Fund Solutions - FTSE	79	0	0.20	0.20	-	-	-	-	N
XUKX GR	Xtrackers FTSE 100 Income UCIT	71	0	0.13	0.09	-	-	-	-	N
XDUK GR	Xtrackers FTSE 100 UCITS ETF	62	0	0.07	0.09	-	-	-	-	N
XMCX GR	Xtrackers FTSE 250 UCITS ETF	36	0	0.30	0.15	-	-	-	-	N
UKEL LN	iShares MSCI UK IMI ESG Leader	33	0	0.23	0.15	-	-	Y	-	N
3UKS LN	WisdomTree FTSE 100 3x Daily S	32	↑	3	0.31	0.80	-3x	-	-	N
S250 LN	Invesco FTSE 250 UCITS ETF	30	0	0.17	0.12	-	-	-	-	N
HSUK LN	HSBC UK Sustainable Equity UCI	26	0	0.24	0.12	-	-	Y	-	N
S100 LN	Invesco FTSE 100 UCITS ETF	24	0	0.07	0.09	-	-	-	-	N
3UKL LN	WisdomTree FTSE 100 3x Daily L	23	4	0.22	0.75	+3x	-	-	-	N
1MCS LN	WisdomTree FTSE 250 1x Daily S	22	↓	0	1.85	0.65	-1x	-	-	N
LUK2 LN	L&G FTSE 100 Leveraged Daily 2	17	1	0.18	0.50	+2x	-	-	-	N
SUK2 LN	L&G FTSE 100 Super Short Strat	15	1	0.17	0.60	-2x	-	-	-	N
FKU LN	First Trust United Kingdom Alp	11	↓	0	0.64	0.75	-	-	-	N
XUKS GR	Xtrackers FTSE 100 Short Daily	9	↓	0	0.06	0.50	-1x	-	-	N
2MCL LN	WisdomTree FTSE 250 2x Daily L	6	0	2.29	0.60	+2x	-	-	-	N
2UKL LN	WisdomTree FTSE 100 2x Daily L	2	↑	0	0.20	0.49	+2x	-	-	N
SUK1 LN	WisdomTree FTSE 100 1x Daily S	2	0	0.24	0.49	-1x	-	-	-	N
2UKS LN	WisdomTree FTSE 100 2x Daily S	2	0	0.28	0.55	-2x	-	-	-	N
IF10048 IT	Tachit FTSE 100 ILS 40a	-	-	-	0.82	-	-	-	-	N
TOFT102 IT	Tachit FTSE 250 Midcap ILS	-	-	-	0.37	-	-	-	Y	N
KSMF51 IT	KSM ETF 4D FTSE 100	-	-	-	0.43	-	-	-	-	N
KSMF136 IT	KSM ETF 4A FTSE 250 Currency H	-	-	-	0.53	-	-	-	Y	N
KSMF138 IT	KSM ETF 4A FTSE 100 Currency H	-	-	-	0.83	-	-	-	Y	N
Equity Style										
Dividend										
VHYD LN	Vanguard FTSE All-World High D	4,884	1	0.09	0.29	-	-	-	-	N
UDVD LN	SPDR S&P US Dividend Aristocr	3,321	↓	2	0.13	0.35	-	-	-	N
CHDVID SW	iShares Swiss Dividend ETF CH	2,536	↑	4	0.04	0.15	-	-	-	N
SDGPEX GR	iShares Stoxx Global Select Di	2,382	1	0.25	0.46	-	-	-	-	N
GGRA LN	WisdomTree Global Quality Divi	1,510	0	0.17	0.38	-	-	Y	-	N
IUKD LN	iShares UK Dividend UCITS ETF	1,002	1	0.08	0.40	-	-	-	-	N
SPYW GR	SPDR S&P Euro Dividend Aristoc	983	↓	0	0.13	0.30	-	-	-	N
GLDV LN	SPDR S&P Global Dividend Arist	964	0	0.17	0.45	-	-	-	-	N
IDVY LN	iShares Euro Dividend UCITS ET	786	0	0.11	0.40	-	-	-	-	N
QDIV LN	iShares MSCI USA Quality Divid	763	0	0.13	0.35	-	-	Y	-	N
TDIV NA	VanEck Morningstar Developed M	754	↑	1	0.15	0.38	-	-	Y	N
QDIVX GR	iShares MSCI Europe Quality Di	695	0	0.17	0.28	-	-	Y	-	N
XGSD GR	Xtrackers Stoxx Global Select	624	0	0.19	0.50	-	-	-	-	N
Growth										
RUSG LN	Amundi Russell 1000 Growth UCI	662	1	0.35	0.19	-	-	-	-	N
ETFSG2PGR	Deka Stoxx Europe Strong Growt	259	0	0.12	0.65	-	-	-	-	N
CG9 FP	Amundi Msci Europe Growth UCIT	180	↓	0	0.17	0.35	-	-	-	N
GEPL LN	Lloyd Growth Equity UCITS ETF	118	-	0.65	0.85	-	-	-	Y	N
EGRO FP	BNP Paribas Easy ESG Growth Eu	72	0	0.23	0.31	-	-	-	Y	N
R1GR LN	iShares Russell 1000 Growth UC	44	0	0.26	0.18	-	-	-	-	N
JGRO LN	JPMorgan Active US Growth UCIT	12	-	0.43	0.49	-	-	Y	-	N
PSGF40 IT	IBI MEHAKA 4A TA-Growth IIL	-	-	-	0.80	-	-	-	-	L
KSMF21 IT	KSM ETF 4A TA-Growth	-	-	-	1.17	-	-	-	-	N
KSMF145 IT	KSM ETF 4A DJ US Dividend Curr	-	-	-	0.96	-	-	-	Y	N
KSMF146 IT	KSM ETF 4A Euro Stoxx Dividend	-	-	-	0.83	-	-	-	Y	N
TCHF146 IT	Tachit SAL 4D S&P 500 Dividen	-	-	-	-	-	-	-	-	N
MTFF20 IT	MTF SAL 4A TEL-DIV	-	-	-	0.60	-	-	-	-	L
TCHF20 IT	Tachit SAL 4A Tel Div	-	-	-	-	-	-	-	-	N
Low Volatility										
MVOL LN	iShares Edge MSCI World Minimu	2,432	↓	1	0.10	0.30	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Dividend (Continued)										
IEDY LN	iShares EM Dividend UCITS ETF	569	0	0.29	0.65	-	-	-	-	N
DDAXXEX GR	iShares DivDAX UCITS ETF DE	558	0	0.10	0.31	-	-	-	-	L
DGRA LN	WisdomTree US Quality Dividend	539	0	0.20	0.33	-	-	-	Y	N
SD3EEX GR	iShares Euro Stoxx Select Divi	500	0	0.11	0.31	-	-	-	-	N
SD3PEX GR	iShares Stoxx Europe Select Di	374	0	0.11	0.31	-	-	-	-	N
IAPD LN	iShares Asia Pacific Dividend	373	0	0.22	0.59	-	-	-	-	N
ELFC GR	Deka EURO iStoxx ex Fin Divide	338	0	0.22	0.30	-	-	-	-	N
DJVDVPEX GR	iShares Dow Jones U.S. Select	330	0	0.17	0.31	-	-	-	-	N
APSDX GR	iShares Dow Jones Asia Pacific	291	0	0.33	0.31	-	-	-	-	N
ETFDXMD GR	Deka DAXplus Maximum Dividend	281	0	0.11	0.30	-	-	-	-	N
XD3E GR	Xtrackers Euro Stoxx Quality D	265	↓	0	0.14	0.30	-	-	-	N
UBUM LN	UBS Irl ETF plc - S&P Dividend	224	0	0.22	0.30	-	-	-	Y	N
CD8 FP	Amundi ETF MSCI Emu High Divid	221	0	0.10	0.30	-	-	-	-	N
ETFSDB3E GR	Deka Euro Stoxx Select Dividend	169	0	0.16	0.30	-	-	-	-	N
SELD GR	Amundi Stoxx Europe Select Div	165	0	0.17	0.30	-	-	-	-	N
ASDV LN	SPDR S&P Pan Asia Dividend Ari	163	0	0.34	0.55	-	-	-	-	N
CO07 GR	Amundi MDAX ESG UCITS ETF	155	0	0.75	0.30	-	-	-	Y	N
UKDV LN	SPDR S&P UK Dividend Aristocr	126	0	0.24	0.30	-	-	-	-	N
CD9 FP	Amundi MSCI Europe High Divide	122	0	0.17	0.23	-	-	-	-	N
EUDIV FP	Amundi S&P Eurozone Dividend A	117	0	0.18	0.30	-	-	-	Y	N
XDND GR	Xtrackers MSCI North America H	111	↓	0	0.18	0.39	-	-	-	N
GLODV SJ	10X S&P Global Dividend Aristoc	108	↑	0	0.70	0.67	-	Y	-	N
EDVD LN	SPDR S&P Emerging Markets Divi	105	0	0.72	0.55	-	-	-	-	N
SDV LN	Global X Superdividend UCITS E	93	↑	0	0.84	0.45	-	-	-	N
STXDM SJ	Satrix Dividend Plus ETF	79	0	0.87	0.41	-	-	-	-	N
CO03 GR	Amundi DivDAX UCITS ETF	78	0	0.33	0.25	-	-	-	-	N
DHS LN	WisdomTree US Equity Income UC	74	0	0.36	0.29	-	-	-	Y	N
EGRA LN	WisdomTree Eurozone Quality Di	73	0	0.57	0.29	-	-	-	Y	N
FLXD GR	Franklin European Quality Divi	65	0	0.34	0.25	-	-	-	-	N
DPE LN	WisdomTree Europe SmallCap Div	60	0	0.64	0.38	-	-	-	Y	N
E903 GR	Amundi - Amundi DivDAX II UCIT	59	0	0.26	0.25	-	-	-	-	N
CHDIV SW	UBS ETF CH - MSCI Switzerland	57	↑	0	0.16	0.20	-	-	Y	N
FLXX GR	Franklin Global Quality Divide	40	0	0.80	0.30	-	-	-	-	N
DGSE LN	WisdomTree Emerging Markets Sm	33	0	1.18	0.54	-	-	-	Y	N
EE LN	WisdomTree Europe Equity Incom	31	0	0.49	0.29	-	-	-	Y	N
FGBL FP	First Trust Global Equity Inco	28	↑	0	1.34	0.70	-	-	-	N
ZPD6 GR	SPDR S&P US Dividend Aristocr	23	0	0.37	0.35	-	-	-	Y	N
LDEM LN	L&G Quality Equity Dividends E	19	0	0.93	0.45	-	-	-	Y	N
EDEU FP	BNP Paribas Easy ESG Dividend	17	0	0.32	0.31	-	-	-	Y</	

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Low Volatility (Continued)										
SPMV LN	iShares Edge S&P 500 Minimum V	1,906	1	0.08	0.20	-	-	-	-	N
MVEU LN	iShares Edge MSCI Europe Minim	732	↓	0	0.10	0.25	-	-	-	N
MVEV NA	iShares Edge MSCI World Minimu	727	↓	0	0.19	0.30	-	-	-	N
XDEB GR	Xtrackers MSCI World Minimum V	431	0	0.15	0.25	-	-	-	-	N
MVEA NA	iShares MSCI USA Minimum Volat	275	↓	0	0.17	0.20	-	-	Y	N
MVU FP	Amundi MSCI USA Minimum Volat	264	↓	0	0.35	0.18	-	-	-	N
EMVJ LN	iShares Edge MSCI EM Minimum V	260	0	0.56	0.40	-	-	-	-	N
EMHD LN	Invesco FTSE Emerging Markets	144	0	0.88	0.49	-	-	-	-	N
MVA GR	Amundi Msci Europe Minimum Vol	133	0	0.14	0.23	-	-	-	-	N
LOWV LN	SPDR S&P 500 Low Volatility UC	112	↓	0	0.17	0.35	-	-	-	N
MVEE GR	iShares Edge MSCI Europe Minimum V	103	0	0.21	0.25	-	-	-	Y	N
EVOE FP	BNP Paribas Easy ESG Low Vol E	63	↓	0	0.08	0.31	-	-	Y	N
OSX4 GR	OSSIAM Europe ESG MACHINE LEAR	57	↓	0	0.35	0.65	-	Y	Y	N
UIMY GR	UBS Lux Fund Solutions - Facto	51	↓	0	0.37	0.28	-	-	-	N
UBUR GR	UBS Iri ETF plc - Factor MSCI	38	↓	0	0.30	0.25	-	-	-	N
ZPRL GR	SPDR Euro Stoxx Low Volatility	24	↓	0	0.29	0.30	-	-	-	N
SPMV IM	Ossiam US Minimum Variance ESG	19	↓	0	0.57	-	-	-	Y	N
MVMNA	iShares Edge MSCI EM Minimum V	17	↑	0	0.57	0.40	-	-	-	N
GNOV LN	First Trust Vest US Equity Mod	15	0	0.62	0.85	-	Y	-	-	N
SPLW LN	Invesco S&P 500 Low Volatility	15	↓	0	0.42	0.25	-	-	-	N
WINC NA	iShares World Equity High Inco	13	-	0.73	0.35	-	-	Y	-	N
XWEB GR	Xtrackers MSCI World Minimum V	12	0	0.49	0.25	-	-	Y	-	N
GMAY LN	First Trust Vest US Equity Mod	12	-	0.57	0.85	-	Y	-	-	N
XMVE GR	Xtrackers MSCI EMU ESG Screene	11	↓	0	0.18	0.12	-	-	Y	N
EVOU FP	BNP Paribas Easy ESG Low Vol U	11	↓	0	0.35	0.32	-	-	Y	N
INCU NA	iShares US Equity High Income	9	-	0.87	0.35	-	Y	-	-	N
GFEV LN	First Trust Vest US Equity Mod	9	-	0.63	0.85	-	Y	-	-	N
XMVU LN	Xtrackers MSCI USA Minimum Vol	4	↓	0	0.20	0.20	-	-	-	N
GAUG LN	First Trust Vest US Equity Mod	1	0	0.65	0.85	-	Y	-	-	N
SPAB LN	Global X S&P 500 Annual Buffer	1	0	0.84	0.50	-	-	-	-	N
SPAHL LN	Global X S&P 500 Annual Tail H	1	0	0.85	0.50	-	-	-	-	N
STXLVL SJ	Satrix Low Volatility ETF	1	0	1.21	0.51	-	-	-	-	N
ADWI SW	Exchange Traded Product on Ada	-	0	0.49	0.95	-	-	-	-	N
ADCO2 SW	Exchange Traded Product on Ada	-	-	-	1.00	-	Y	-	-	N
Momentum										
MMO LN	iShares Edge MSCI World Moment	1,802	1	0.10	0.30	-	-	-	-	N
XDEM GR	Xtrackers MSCI World Momentum	1,215	↑	0	0.16	0.25	-	-	-	N
IUMO LN	iShares Edge MSCI USA Momentum	349	1	0.13	0.20	-	-	-	-	N
IEFM LN	iShares Edge MSCI Europe Momen	342	↓	0	0.11	0.25	-	-	-	N
CBUH GR	iShares MSCI World Momentum Fa	270	0	0.26	0.30	-	-	Y	-	N
MCEU FP	Amundi Msci Europe Momentum Fa	80	0	0.17	0.23	-	-	-	-	N
XIVEM GR	Xtrackers MSCI World Momentum	45	0	0.57	0.25	-	-	Y	-	N
STXMMT SJ	Satrix Momentum Portfolio	6	↑	0	1.31	0.40	-	-	-	N
IUME NA	iShares MSCI USA Momentum Fact	4	↓	0	0.21	0.20	-	-	Y	N
EMOM FP	BNP Paribas Easy ESG Momentum	3	0	0.24	0.31	-	-	Y	-	N
HRLF288 IT	Harel Sal 4D Index US Momentum	-	-	-	0.51	-	-	-	-	N
Multi-factor										
WQDV LN	iShares MSCI World Quality Div	779	↓	0	0.18	0.38	-	-	Y	N
XACTHDV SS	XACT Nordic High Dividend Low	664	↓	9	0.09	0.30	-	-	Y	N
IFSW LN	iShares Edge MSCI World Multif	505	0	0.17	0.50	-	-	-	-	N
PSRF LN	Invesco FTSE RAFI US 1000 UCIT	488	0	0.62	0.39	-	-	-	-	N
IQSA LN	Invesco Quantitative Strategie	475	↑	0	0.18	0.30	-	Y	Quantitative	N
HDLV LN	Invesco S&P 500 High Dividend	322	↑	1	0.13	0.30	-	-	-	N
FSEU LN	iShares Edge MSCI Europe Multi	269	↑	0	0.16	0.45	-	-	-	N
GERD GR	L&G Gerd Kommer Multifactor Eq	263	0	0.42	0.50	-	-	Y	-	N
FLXU GR	Franklin US Equity UCITS ETF	168	↑	0	0.23	0.25	-	-	-	N
USFM LN	UBS Iri ETF plc - MSCI USA Sel	135	0	0.27	0.25	-	-	-	-	N
FEX LN	First Trust US Large Cap Core	78	↓	0	0.47	0.75	-	-	-	N
IFSU LN	iShares Edge MSCI USA Multifac	72	0	0.21	0.35	-	-	-	-	N
LDEU LN	L&G Quality Equity Dividends E	61	↑	0	0.42	0.25	-	-	Y	N
PSRW LN	Invesco FTSE RAFI All World 30	59	0	0.58	0.39	-	-	-	-	N
LDJK LN	L&G Quality Equity Dividends E	54	0	0.34	0.25	-	-	Y	-	N
ETFSS4P GR	Deka Stoxx Europe Strong Style	43	0	0.53	0.66	-	-	-	-	N
SMBT GR	Amundi Index Eq Global Multi S	37	↓	0	0.62	0.40	-	-	-	N
PSRM LN	Invesco FTSE RAFI Emerging Mar	35	↑	0	1.08	0.49	-	-	-	N
EUHD LN	Invesco Euro Stoxx High Divide	30	↑	0	0.36	0.30	-	-	-	N
POVM LN	Invesco S&P 500 QVM UCITS ETF	25	↓	0	0.48	0.35	-	-	-	N
LDAF LN	L&G Quality Equity Dividends E	23	0	0.71	0.40	-	-	Y	-	N
FVD LN	First Trust Value Line Dividend	18	0	0.60	0.70	-	-	-	-	N
PSRU LN	Invesco FTSE RAFI UK 100 UCITS	13	0	0.28	0.39	-	-	-	-	N
PSRE LN	Invesco FTSE RAFI Europe UCITS	9	0	0.42	0.39	-	-	-	-	N
USHF LN	SciBeta HFE US Equity 6F EW UC	3	↓	0	1.98	0.00	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Multi-factor (Continued)										
EHFE LN	SciBeta HFE Europe Equity 6F E	2	↓	0	0.97	0.00	-	-	-	N
EMHF LN	SciBeta HFE EM Equity 6F EW UC	1	↓	0	1.90	0.30	-	-	-	N
Quality										
IWQU LN	iShares Edge MSCI World Qualit	3,367	3	0.08	0.30	-	-	-	-	N
IUQA LN	iShares Edge MSCI USA Quality	2,655	1	0.10	0.20	-	-	-	-	N
UBUT GR	UBS Iri ETF plc - Factor MSCI	1,544	0	0.12	0.25	-	-	-	Y	N
XDEQ GR	Xtrackers MSCI World Quality U	1,543	0	0.19	0.25	-	-	-	-	N
FUSA LN	Fidelity US Quality Income UCI	1,375	0	0.24	0.30	-	-	-	-	N
FGOJ LN	Fidelity Global Quality Income	671	↑	0	0.22	0.40	-	-	-	N
IEFQ LN	iShares Edge MSCI Europe Quali	516	↑	0	0.11	0.25	-	-	-	N
IWQENA	iShares MSCI World Quality Fac	481	↑	0	0.23	0.30	-	-	Y	N
QCEU FP	Amundi Msci Europe Quality Fac	467	0	0.14	0.23	-	-	-	-	N
XWEQ GR	Xtrackers MSCI World Quality E	285	0	0.54	0.25	-	-	-	Y	N
UIM2 GR	UBS Lux Fund Solutions - Facto	184	0	0.10	0.28	-	-	-	Y	N
FEP LN	Lloyd Focused Equity UCITS ETF	168	-	0.67	0.85	-	-	-	-	N
EQUA FP	BNP Paribas Easy ESG Quality E	96	0	0.09	0.32	-	-	-	Y	N
JPMQ IM	Finco AM Market/Vector Japan Q	73	0	0.42	0.38	-	-	-	Y	N
FEOD LN	Fidelity Europe Quality Income	35	0	0.36	0.30	-	-	-	-	N
AMAL LN	Satuma AI-Kawthar Global Focu	13	↑	0	0.85	0.75	-	Y	Y	N
STXQUA SJ	Satrix Quality South Africa ET	8	↑	0	1.51	0.39	-	-	-	N
UGRW LN	WisdomTree UK Quality Dividend	4	0	0.61	0.29	-	-	-	-	N
QGRW LN	WisdomTree US Quality Growth U	1	-	0.19	0.33	-	-	-	-	N
Single Stock										
TSL3 LN	Leverage Shares 3x Tesla ETP	146	↑	4	0.23	0.75	+3x	-	-	N
NVD3 LN	Leverage Shares 3x NVIDIA ETP	106	↓	3	0.31	0.75	+3x	-	-	N
3LRR LN	GraniteShares 3x Long Rolls-Ro	56	↓	1	1.54	0.99	+3x	-	-	N
3LNV LN	GraniteShares 3x Long NVIDIA D	53	↓	2	1.12	0.99	+3x	-	-	N
CON3 LN	Leverage Shares 3x Long Coirba	29	↑	1	1.02	0.75	+3x	-	-	N
3LTS LN	GraniteShares 3x Long Tesla Da	18	↑	0	1.18	0.99	+3x	-	-	N
NVD2 LN	Leverage Shares 2x NVIDIA ETP	18	↓	0	0.54	0.75	+2x	-	-	N
3LIM IM	GraniteShares 3x Long MicroStr	14	↑	0	2.78	0.99	+3x	-	-	N
FB3 LN	Leverage Shares 3x Facebook ET	12	↓	0	0.72	0.75	+3x	-	-	N
3STS LN	GraniteShares 3x Short Tesla D	8	↑	1	1.17	0.99	-3x	-	-	N
TSL2 LN	Leverage Shares 2x Tesla ETP	8	↑	0	0.62	0.75	+2x	-	-	N
MSF3 LN	Leverage Shares 3x Microsoft E	8	0	0.55	0.75	+3x	-	-	-	N
AMD3 LN	Leverage Shares 3x AMD ETP	7	0	0.79	0.75	+3x	-	-	-	N
AMZ2 LN	Leverage Shares 2x Amazon ETP	5	↓	0	0.49	0.75	+2x	-	-	N
3SNV LN	GraniteShares 3x Short NVIDIA	5	↑	0	1.82	0.99	-3x	-	-	N
GOO2 LN	Leverage Shares 2x Alphabet ET	5	0	0.70	0.75	+2x	-	-	-	N
PLT3 LN	Leverage Shares 3x Palantir ET	4	↑	0	1.97	0.75	+3x	-	-	N
TS3S LN	Leverage Shares -3x Short Tesl	4	↑	1	0.56	0.75	-3x	-	-	N
GOO3 LN	Leverage Shares 3x Alphabet ET	4	0	0.59	0.75	+3x	-	-	-	N
3LBC LN	GraniteShares 3x Long Barclays	4	↑	0	1.34	0.99	+3x	-	-	N
3LFB LN	GraniteShares 3x Long Facebook	3	↓	0	1.55	0.99	+3x	-	-	N
AAF2 LN	Leverage Shares 2x Apple ETP	3	↓	0	0.63	0.75	+2x	-	-	N
AMZ3 LN	Leverage Shares 3x Amazon ETP	3	↓	0	0.67	0.75	+3x	-	-	N
MSF2 LN	Leverage Shares 2x Microsoft E	3	0	0.73	0.75	+2x	-	-	-	N
NV3S LN	Leverage Shares -3x Short Nvid	3	↑	0	0.51	0.75	-3x	-	-	N
AAP3 LN	Leverage Shares 3x Apple ETP	3	↑	0	0.67	0.75	+3x	-	-	N
3LCO LN	GraniteShares 3x Long Coirbase	3	↓	0	2.81	0.99	+3x	-	-	N
3LMS LN	GraniteShares 3x Long Microsof	3	↓	0	1.42	0.99	+3x	-	-	N
NO3 LN	Leverage Shares 3x Long NIO ET	3	↑	0	2.16	0.75	+3x	-	-	N
PYP3 LN	Leverage Shares 3x Pay Pal ETP	2	↑	0	2.04	0.75	+3x	-	-	N
3LZN LN	GraniteShares 3x Long Amazon D	2	↓	0	1.64	0.9				

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Single Stock (Continued)										
FB2 LN	Leverage Shares 2x Facebook ET	1	↓	0	0.54	0.75	+2x	-	-	N
3LPA FP	GraniteShares 3x Long Palantir	1	↑	0	2.11	0.99	+3x	-	-	N
3LVO LN	GraniteShares 3x Long Vodafone	1	↑	0	1.55	0.99	+3x	-	-	N
ARM3 LN	Leverage Shares 3x Long ARM ET	1	0	0	1.31	0.75	+3x	-	-	N
3SAP LN	GraniteShares 3x Short Apple D	1	↑	0	1.68	0.99	-3x	-	-	N
3LUB LN	GraniteShares 3x Long Uber Dai	1	↓	0	2.44	0.99	+3x	-	-	N
3LAX FP	GraniteShares 3x Long AXA Dai	1	0	0	1.56	0.99	+3x	-	-	N
3LBA LN	GraniteShares 3x Long BAE Syst	1	↓	0	2.45	0.99	+3x	-	-	N
GS2 LN	Leverage Shares 2x Goldman Sac	1	↑	0	2.92	0.75	+2x	-	-	N
3LSA FP	GraniteShares 3x Long Safran D	1	0	0	2.25	0.99	+3x	-	-	N
BA3 LN	Leverage Shares 3x Boeing ETP	1	↑	0	1.83	0.75	+3x	-	-	N
3LRD LN	GraniteShares 3x Long Royal Du	1	↓	0	2.50	0.99	+3x	-	-	N
3LSE FP	GraniteShares 3x Long Schneide	1	0	0	2.29	0.99	+3x	-	-	N
3SSQ IM	GraniteShares 3x Short Square	1	↑	0	-	0.99	-3x	-	-	N
3LAR FP	GraniteShares 3x Long Airbus D	1	0	0	1.62	0.99	+3x	-	-	N
TS2S LN	Leverage Shares -2x Short Tesl	1	↑	0	0.67	0.75	-2x	-	-	N
3SPA FP	GraniteShares 3x Short Palantir	1	↑	0	-	0.99	-3x	-	-	N
3SFB LN	GraniteShares 3x Short Facebook	1	↑	0	1.52	0.99	-3x	-	-	N
3SGL LN	GraniteShares 3x Short Glencor	1	↑	0	1.32	0.99	-3x	-	-	N
SMCI LN	Leverage Shares 2x Long Super	1	-	0	1.25	0.75	+2x	-	-	N
3SFR LN	GraniteShares 3x Short Rolls-R	1	↑	0	1.78	0.99	-3x	-	-	N
JD3 LN	Leverage Shares 3x JD.Com ETP	1	↑	0	1.54	0.75	+3x	-	-	N
BID3 LN	Leverage Shares 3x Baidu ETP	1	↑	0	1.81	0.75	+3x	-	-	N
3SAM FP	GraniteShares 3x Short AMD Dai	1	↑	0	2.40	0.99	-3x	-	-	N
3SZN LN	GraniteShares 3x Short Amazon	1	↑	0	1.53	0.99	-3x	-	-	N
3LAZ LN	GraniteShares 3x Long AstraZen	1	0	0	2.33	0.99	+3x	-	-	N
3SMS LN	GraniteShares 3x Short Microso	1	↑	0	1.41	0.99	-3x	-	-	N
3LSQ IM	GraniteShares 3x Long Square D	1	↑	0	2.85	0.99	+3x	-	-	N
FB3S LN	Leverage Shares -3x Short Face	1	↑	0	0.95	0.75	-3x	-	-	N
3SNF LN	GraniteShares 3x Short Netlix	1	↑	0	2.15	0.99	-3x	-	-	N
3SUB LN	GraniteShares 3x Short Uber Da	1	↑	0	2.60	0.99	-3x	-	-	N
3SVW FP	GraniteShares 3x Short Volkswa	1	0	0	2.22	0.99	-3x	-	-	N
BAB2 LN	Leverage Shares 2x Alibaba ETP	1	↓	0	0.53	0.75	+2x	-	-	N
3SNI LN	GraniteShares 3x Short NIO Dai	1	↑	0	-	0.99	-3x	-	-	N
1TSL LN	LS 1x Tesla Tracker ETP	0	↓	0	2.42	0.15	-	-	-	N
AAPS LN	Leverage Shares -3x Short Appl	0	↑	0	0.67	0.75	-3x	-	-	N
RAC3 LN	Leverage Shares 3x Long Ferrar	0	0	0	0.92	0.75	+3x	-	-	N
3SBC LN	GraniteShares 3x Short Barclay	0	↑	0	1.50	0.99	-3x	-	-	N
XPE3 LN	Leverage Shares 3x Long Xpeng	0	↑	0	2.21	0.75	+3x	-	-	N
1MSF LN	LS 1x Microsoft Tracker ETP	0	↑	0	1.17	0.15	-	-	-	N
3SRD LN	GraniteShares 3x Short Royal D	0	0	0	-	0.99	-3x	-	-	N
3SVO LN	GraniteShares 3x Short Vodafon	0	0	0	1.39	0.99	-3x	-	-	N
1NIO LN	LS 1x NIO Tracker ETP	0	↑	0	1.48	0.15	-	-	-	N
SQ3 LN	Leverage Shares 3x Square ETP	0	↑	0	1.73	0.75	+3x	-	-	N
2SZM IM	GraniteShares 2x Short Zoom Da	0	↑	0	-	0.99	-2x	-	-	N
BA3S LN	Leverage Shares -3x Short Alib	0	↑	0	0.85	0.75	-3x	-	-	N
MRN3 LN	Leverage Shares 3x Long Modem	0	↑	0	-	0.75	+3x	-	-	N
AM3S LN	Leverage Shares -3x Short Amaz	0	↑	0	0.69	0.75	-3x	-	-	N
3SDO LN	GraniteShares 3x Short Diageo	0	0	0	1.67	0.99	-3x	-	-	N
3SLL LN	GraniteShares 3x Short Lloyds	0	↑	0	1.35	0.99	-3x	-	-	N
AMDS LN	Leverage Shares -1x Advanced M	0	↑	0	0.95	0.75	-1x	-	-	N
JPM2 LN	Leverage Shares 2x JPMorgan ET	0	0	0	2.20	0.75	+2x	-	-	N
3SAL LN	GraniteShares 3x Short Alphan	0	↑	0	1.52	0.99	-3x	-	-	N
3LVV FP	GraniteShares 3x Long Volkswag	0	0	0	2.12	0.99	+3x	-	-	N
1GOO LN	LS 1x Alphabet Tracker ETP	0	0	0	2.42	0.15	-	-	-	N
3LBN FP	GraniteShares 3x Long BNP Dai	0	0	0	2.57	0.99	+3x	-	-	N
NVDS LN	Leverage Shares -1x NVIDIA ETP	0	↑	0	1.06	0.75	-1x	-	-	N
AMD2 LN	Leverage Shares 2x Advanced Mi	0	↓	0	1.52	0.75	+2x	-	-	N
CRM3 LN	Leverage Shares 3x Salesforce.	0	↓	0	-	0.75	+3x	-	-	N
3SRI LN	GraniteShares 3x Short Rio Tin	0	0	0	1.35	0.99	-3x	-	-	N
GG3S LN	Leverage Shares -3x Short Alph	0	↑	0	0.77	0.75	-3x	-	-	N
3SST FP	GraniteShares 3x Short STMicr	0	0	0	1.68	0.99	-3x	-	-	N
3SBP LN	GraniteShares 3x Short BP Dai	0	0	0	1.30	0.99	-3x	-	-	N
IONQ LN	Leverage Shares 3x Long IONQ E	0	-	0	2.03	0.75	+3x	-	-	N
3SLV FP	GraniteShares 3x Short LVMH Da	0	↑	0	1.53	0.99	-3x	-	-	N
SQS LN	Leverage Shares -1x Short Squa	0	0	0	2.77	0.75	-1x	-	-	N
3LDO LN	GraniteShares 3x Long Diageo D	0	0	0	2.38	0.99	+3x	-	-	N
NFLS LN	Leverage Shares -1x Netflix ET	0	↑	0	0.90	0.75	-1x	-	-	N
3LTO FP	GraniteShares 3x Long TotalEne	0	0	0	2.56	0.99	+3x	-	-	N
3LOR FP	GraniteShares 3x Long L'Oreal	0	0	0	2.32	0.99	+3x	-	-	N
JD1S LN	Leverage Shares -1x Short JD.C	0	0	0	1.41	0.75	-1x	-	-	N
SNO LN	Leverage Shares -3x Short NIO	0	↑	0	2.23	0.75	-3x	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Single Stock (Continued)										
PYPS LN	Leverage Shares -1x Short PayP	0	↑	0	1.62	0.75	-1x	-	-	N
MSFS LN	Leverage Shares -1x Microsoft	0	↑	0	1.00	0.75	-1x	-	-	N
XOM3 LN	Leverage Shares 3x Long Exxon	0	0	0	1.56	0.75	+3x	-	-	N
3SAZ LN	GraniteShares 3x Short AstraZe	0	0	0	2.64	0.99	-3x	-	-	N
3LLV FP	GraniteShares 3x Long LVMH Dai	0	0	0	2.48	0.99	+3x	-	-	N
3SPP IM	GraniteShares 3x Short PayPal	0	0	0	-	0.99	-3x	-	-	N
GPT3 LN	Leverage Shares 3x Long Artif	0	-	0	1.10	0.75	+3x	-	-	N
1AMZ LN	LS 1x Amazon Tracker ETP	0	↓	0	2.41	0.15	-	-	-	N
WRRN LN	LS Berkshire Hathaway BRK-B Tr	0	↓	0	1.16	0.35	-	-	-	N
3LSN FP	GraniteShares 3x Long Sanofi D	0	0	0	1.52	0.99	+3x	-	-	N
3LDA FP	GraniteShares 3x Long Danone D	0	0	0	2.00	0.99	+3x	-	-	N
2LZM IM	GraniteShares 2x Long Zoom Dai	0	0	0	-	0.99	+2x	-	-	N
MS3S LN	Leverage Shares -3x Short Micr	0	↑	0	0.65	0.75	-3x	-	-	N
APLS LN	Leverage Shares -1x Apple ETP	0	↓	0	0.46	0.75	-1x	-	-	N
SGS LN	Leverage Shares -1x Short Gold	0	↑	0	2.44	0.75	-1x	-	-	N
1AAP LN	LS 1x Apple Tracker ETP	0	0	0	1.92	0.15	-	-	-	N
UBRS LN	Leverage Shares -1x Uber ETP	0	0	0	1.56	0.75	-1x	-	-	N
GOOS LN	Leverage Shares -1x Alphabet E	0	0	0	2.30	0.75	-1x	-	-	N
BIUS LN	Leverage Shares -1x Short Baid	0	0	0	1.90	0.75	-1x	-	-	N
3SBA LN	GraniteShares 3x Short BAE Sys	0	↑	0	1.71	0.99	-3x	-	-	N
XP3S LN	Leverage Shares -3x Short Xpen	0	0	0	2.31	0.75	-3x	-	-	N
PLTS LN	Leverage Shares -1x Short Pala	0	↑	0	0.97	0.75	-1x	-	-	N
DISS LN	Leverage Shares -1x Short Disn	0	0	0	0.95	0.75	-1x	-	-	N
UB3S LN	Leverage Shares -3x Short UBS	0	0	0	2.79	0.75	-3x	-	-	N
3SAR FP	GraniteShares 3x Short Airbus	0	↑	0	1.64	0.99	-3x	-	-	N
RA3S LN	Leverage Shares -3x Short Ferr	0	↑	0	0.88	0.75	-3x	-	-	N
3MBEL LN	Leverage Shares 3x Long Mercad	0	↓	0	0.32	0.75	+3x	-	-	N
1PLU LN	LS 1x Plug Power Tracker ETP	0	0	0	2.94	0.15	-	-	-	N
1FB LN	LS 1x Facebook Tracker ETP	0	↓	0	1.46	0.15	-	-	-	N
XO3S LN	Leverage Shares -3x Short Exxco	0	0	0	1.38	0.75	-3x	-	-	N
3LST FP	GraniteShares 3x Long STMicr	0	0	0	2.00	0.99	+3x	-	-	N
MRNS LN	Leverage Shares -3x Short Mode	0	↑	0	-	0.75	-3x	-	-	N
3SBN FP	GraniteShares 3x Short BNP Dai	0	↑	0	1.52	0.99	-3x	-	-	N
3SSN FP	GraniteShares 3x Short Sanofi	0	0	0	1.52	0.99	-3x	-	-	N
UBS3 LN	Leverage Shares 3x Long UBS ET	0	0	0	2.29	0.75	+3x	-	-	N
3SDA FP	GraniteShares 3x Short Danone	0	0	0	1.55	0.99	-3x	-	-	N
3SPO IM	GraniteShares 3x Short Spotify	0	↑	0	-	0.99	-3x	-	-	N
3SAX FP	GraniteShares 3x Short AXA Dai	0	↑	0	1.55	0.99	-3x	-	-	N
3SOR FP	GraniteShares 3x Short L'Oreal	0	0	0	1.52	0.99	-3x	-	-	N
3SMO FP	GraniteShares 3x Short Modema	0	↑	0	-	0.99	-3x	-	-	N
3SSA FP	GraniteShares 3x Short Safran	0	↑	0	1.68	0.99	-3x	-	-	N
SMBEL LN	Leverage Shares -3x Short Merc	0	0	0	0.31	0.75	-3x	-	-	N
3SSE FP	GraniteShares 3x Short Schneid	0	0	0	1.63	0.99	-3x	-	-	N
3STO FP	GraniteShares 3x Short TotalEne	0	0	0	1.59	0.99	-3x	-	-	N
APETNC SJ	Firststrand Compo ETN on Apple I	-	0	0	1.21	1.00	-	-	-	N
APETNQ SJ	Firststrand Quanto ETN on Apple	-	0	0	1.59	1.00	-	-	-	N
MSETNC SJ	Firststrand Compo ETN on Microso	-	0	0	1.19	1.00	-	-	-	N
MSETNQ SJ	Firststrand Quanto ETN on Micros	-	0	0	1.26	1.00	-	-	-	N
ADETNC SJ	Firststrand Compo ETN on Adobe	-	0	0	1.50	1.00	-	-	-	N
ADET										

EMEA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Theme (Continued)										
WTAIL LN	WisdomTree Artificial Intellig	797	↑	0.17	0.40	-	-	Y	-	N
ROBO LN	L&G ROBO Global Robotics and A	751	0	0.18	0.80	-	-	Y	-	N
DFNS LN	VanEck Defense UCITS ETF	728	↑	0.38	0.55	-	-	-	-	N
IFRV LN	iShares Listed Private Equity	725	↓	0.17	0.75	-	-	-	-	N
CIBR LN	First Trust Nasdaq Cybersecuri	689	1	0.26	0.60	-	-	-	-	N
IGDA LN	Invesco Dow Jones Islamic Glob	672	↑	0.28	0.40	-	-	Y	-	N
GENDER SW	UBS Iri ETF plc - Global Gende	668	↓	0.28	0.20	-	-	Y	-	N
BATT LN	L&G Battery Value-Chain UCITS	635	↓	0.19	0.49	-	-	Y	-	N
AIAIL LN	L&G Artificial Intelligence UC	630	↑	0.24	0.49	-	-	Y	-	N
ECAR LN	iShares Electric Vehicles & Dr	612	0	0.15	0.40	-	-	Y	-	N
AEBB GR	Amundi MSCI Europe Climate Act	552	↑	0.37	0.09	-	-	-	-	N
BOHNLN	Invesco CoinShares Global Bloc	542	0	0.40	0.65	-	-	-	-	N
ISWD LN	iShares MSCI World Islamic UCI	540	↑	0.11	0.30	-	-	Y	-	N
ESPO LN	VanEck Video Gaming and eSport	477	↓	0.29	0.55	-	-	Y	-	N
RIEU LN	L&G Europe ESG Exclusions Pari	476	↑	0.18	0.16	-	-	Y	-	N
AGED LN	iShares Ageing Population UCIT	436	↓	0.14	0.40	-	-	Y	-	N
HTWO LN	L&G Hydrogen Economy UCITS ETF	423	0	0.56	0.49	-	-	Y	-	N
GLUG LN	L&G Clean Water UCITS ETF	422	0	0.22	0.49	-	-	Y	-	N
ACLT GR	AXA IM ACT Climate Equity UCIT	399	0	0.37	0.50	-	Y	Y	-	N
ABIT GR	AXA IM ACT Biodiversity Equity	375	0	1.25	0.50	-	Y	Y	-	N
XLPE GR	Xtrackers LPX Private Equity S	365	0	0.24	0.70	-	-	-	-	N
NATO LN	Future of Defence UCITS ETF	356	0	0.24	0.49	-	-	-	-	N
FSKY LN	First Trust Cloud Computing UC	319	0	0.27	0.60	-	-	-	-	N
CITY NA	iShares Smart City Infrastruct	317	0	0.22	0.40	-	-	Y	-	N
URNMLN	Sprott Uranium Miners UCITS ET	310	↑	0.61	0.85	-	-	-	-	N
WCLD LN	WisdomTree Cloud Computing UC	294	0	0.23	0.40	-	-	Y	-	N
PAVELN	Global X US Infrastructure Dev	281	↑	1	0.20	0.47	-	-	-	N
ISDELN	iShares MSCI EM Islamic UCITS	238	0	0.87	0.35	-	-	Y	-	N
REWW IM	L&G Clean Energy UCITS ETF	235	0	0.32	0.49	-	-	Y	-	N
BLUE FP	BNP Paribas Easy ECPI Global E	226	↓	0.27	0.30	-	-	Y	-	N
XSGI GR	Xtrackers S&P Global Infrastru	207	↓	0.33	0.60	-	-	-	-	N
URNULN	Global X Uranium UCITS ETF	201	↑	0.51	0.65	-	-	-	-	N
ISUS LN	iShares MSCI USA Islamic UCITS	199	0	0.12	0.30	-	-	Y	-	N
EBUY FP	Amundi MSCI Digital Economy an	183	0	0.34	0.45	-	-	Y	-	N
CATH IM	Lycor MSCI World Catholic Prin	170	0	0.28	0.30	-	-	Y	-	N
COFX LN	Global X Copper Miners UCITS E	158	↑	0.25	0.55	-	-	-	-	N
WQBR LN	WisdomTree Cybersecurity UCITS	156	↑	0.28	0.45	-	-	Y	-	N
AUCO LN	L&G Gold Mining UCITS ETF	147	0	0.65	0.65	-	-	-	-	N
UNIC FP	Lycor MSCI Disruptive Technolo	145	0	0.24	0.45	-	-	Y	-	N
XMOV GR	Xtrackers Future Mobility UCIT	145	0	0.31	0.35	-	-	Y	-	N
ECOM LN	L&G Ecommerce Logistics UCITS	143	↓	0.34	0.49	-	-	Y	-	N
XDG3 GR	Xtrackers MSCI Global SDG 3 Go	139	↑	0.45	0.35	-	-	Y	-	N
EMQQ LN	EMQQ Emerging Markets Internet	132	↓	0.41	0.86	-	-	-	-	N
RIZF GR	Rize Sustainable Future of Foo	131	↓	0.50	0.45	-	-	Y	-	N
DAFP LN	VanEck Crypto and Blockchain I	125	↑	0.86	0.65	-	-	-	-	N
XG11 GR	Xtrackers MSCI Global SDG 11 S	122	↑	0.87	0.35	-	-	Y	-	N
XDG6 GR	Xtrackers MSCI Global SDG 6 CI	110	↑	0.51	0.35	-	-	Y	-	N
CYBR LN	Rize Cybersecurity & Data Priv	106	0	0.47	0.45	-	-	Y	-	N
JEPG LN	JPMorgan Global Equity Premium	103	-	0.56	0.35	-	Y	-	-	N
AWAT FP	Amundi PEA Eau (MSCI Water) UC	101	↑	0.13	0.60	-	-	Y	-	N
NFRA LN	Rize Global Sustainable Infras	101	0	0.97	0.45	-	-	-	-	N
LUSA LN	Rize USA Environmental Impact	98	0	0.66	0.45	-	-	-	-	N
SYG4IR SJ	Sygnia Itrix 4th Industrial Re	95	0	0.59	0.62	-	-	-	-	N
BYBE FP	Amundi S&P 500 Buyback UCITS E	92	0	0.28	0.15	-	-	-	-	N
REMX LN	VanEck Rare Earth and Strategi	87	0	0.80	0.59	-	-	-	-	N
ITEK LN	HAN-GINS Tech Megatrend Equal	86	0	0.44	0.59	-	-	-	-	N
MTAV NA	iShares Metaverse UCITS ETF	82	↑	0.40	0.50	-	-	Y	-	N
SILV LN	Global X Silver Miners UCITS E	82	↑	0.89	0.65	-	-	-	-	N
RIEMLN	L&G Emerging Markets ESG Exclu	82	0	1.11	0.25	-	-	Y	-	N
LIFE LN	Rize Environmental Impact 100	80	↑	0.61	0.01	-	-	Y	-	N
SCITY FP	Amundi MSCI Smart Cities ESG S	79	↑	0.34	0.35	-	-	Y	-	N
CHTRSHN UH	Chimera S&P Turkey Shariah ETF	66	↓	0	1.00	-	-	Y	-	N
ASRS GR	BNP Paribas Easy ECPI Global E	61	↑	0.96	0.30	-	-	-	-	N
BOTZ LN	Global X Robotics & Artificial	56	↑	0.29	0.50	-	-	-	-	N
HNSCLN	HSBC Nasdaq Global Semiconduct	54	↑	0.31	0.35	-	-	-	-	N
Z30KPTI	Ziraat Portfoy Islamic Equity	52	0	0.29	2.19	-	-	Y	-	N
ELLE FP	Lycor Global Gender Equality D	50	↓	0.35	0.20	-	-	Y	-	N
ESGO LN	Auag ESG Gold Mining UCITS ETF	50	↑	0.62	0.60	-	-	Y	-	N
BUYB LN	Invesco Global Buyback Achieve	47	0	0.35	0.39	-	-	-	-	N
WMGT LN	WisdomTree Megatrends UCITS ET	47	-	0.74	0.50	-	-	-	-	N
BLKC NA	iShares Blockchain Technology	45	↑	1.01	0.50	-	-	-	-	N
BLOK LN	First Trust Indxx Innovative T	45	↓	0.49	0.65	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Theme (Continued)										
HWO LN	HSBC MSCI World Islamic ESG UC	43	↑	0.22	0.30	-	-	Y	-	N
FTEK LN	Invesco KBW NASDAQ FinTech UCI	43	↓	0.21	0.49	-	-	-	-	N
PLAY NA	iShares Digital Entertainment	36	↑	0.65	0.40	-	-	Y	-	N
FAMMWS IM	Fineco AM MSCI World Semicondu	34	0	0.33	0.38	-	-	-	-	N
AI4U IM	Fineco AM Market/Vector Actif	32	0	0.41	-	-	-	Y	-	N
E50PW SW	UBS Iri Fund Solutions plc - E	31	↑	0.89	0.26	-	-	-	-	N
LITU LN	Global X Lithium & Battery Tec	31	0	0.47	0.60	-	-	-	-	N
META A IM	Fineco AM Market/Vector Global	31	0	0.41	0.38	-	-	Y	-	N
QLO LN	Global X Cloud Computing UCITS	31	0	0.71	0.55	-	-	-	-	N
BUG LN	Global X Cybersecurity UCITS E	30	0	0.75	0.50	-	-	-	-	N
CHAESH UH	Chimera S&P UAE Shariah ETF	28	0	0.66	1.00	-	-	Y	-	N
HJUA LN	HSBC MSCI USA Islamic ESG UCIT	28	↑	0.23	0.30	-	-	Y	-	N
IEIM LN	iShares EM Infrastructure UCIT	27	↓	0.65	0.74	-	-	-	-	N
CHASHASH UH	Chimera S&P KSA Shariah ETF	26	0	-	1.00	-	-	Y	-	N
FADE GR	Ossiam Iri Icaav-Ossiam Food Fo	24	↓	2.04	0.75	-	Y	Y	-	N
CLMA LN	iClima Global Decarbonisation	24	↓	0.55	0.65	-	-	Y	-	N
HLA1 LN	Wahed FTSE USA Shariah ETP	22	↑	0.47	0.05	-	-	Y	-	N
TRYP LN	The Travel UCITS ETF	19	↓	0.73	0.69	-	-	Y	-	N
DIGILN	Digital Infrastructure & Conne	18	↓	0.67	0.69	-	-	Y	-	N
540S GR	Amundi Smart Factory UCITS ETF	17	↓	0.94	0.35	-	-	-	-	N
OHV LN	VanEck Oil Services UCITS ETF	17	↑	1.55	0.35	-	-	-	-	N
DPAY LN	L&G Digital Payments UCITS ETF	16	↓	0.89	0.49	-	-	Y	-	N
BKCH LN	Global X Blockchain UCITS ETF	16	↑	1.38	0.50	-	-	-	-	N
STXIFR SJ	Satrix Global Infrastructure F	15	↑	1.11	0.77	-	-	-	-	N
FAMMA IM	Fineco AM MSCI ACWI IMI Cyber	15	0	0.39	0.38	-	-	-	-	N
AQWA LN	Global X Clean Water UCITS ETF	13	↑	0.31	0.50	-	-	Y	-	N
Z30KE TI	Ziraat Portfoy Islamic Equal W	12	0	0.35	2.19	-	-	Y	-	N
METR LN	ETC Group Global Metaverse UCI	12	↑	0.89	0.65	-	-	-	-	N
HEU LN	HSBC MSCI Europe Islamic ESG U	12	0	0.25	0.30	-	-	Y	-	N
CAVELN	VanEck Smart Home Active UCITS	12	0	0.83	0.85	-	Y	Y	-	N
XDG7 GR	Xtrackers MSCI Global SDG 7 Af	11	↑	0.43	0.35	-	-	Y	-	N
DRVELN	Global X Autonomous & Electric	10	0	0.39	0.50	-	-	-	-	N
PMNT LN	Rize Digital Payments Economy	10	0	0.88	0.45	-	-	Y	-	N
URAM IM	SG ETN Uranium Mining	10	↓	1.45	0.80	+1x	-	-	-	N
METAV IM	SG ETN Metaverse	8	0	0.50	0.80	+1x	-	-	-	N
XBUZ GR	Xtrackers USA Biodiversity Foc	8	0	0.38	0.30	-	-	Y	-	N
NXTU LN	First Trust Indxx NextG UCITS	8	0	0.39	0.70	-	-	-	-	N
ESPY LN	L&G Emerging Cyber Security ES	7	0	0.84	0.49	-	-	Y	-	N
FOLD LN	Fidelity Cloud Computing UCITS	7	0	0.70	0.50	-	-	-	-	N
XNNV GR	Xtrackers MSCI Innovation UCIT	7	0	0.77	0.30	-	-	Y	-	N
JEDI LN	VanEck Space Innovators UCITS	7	0	1.42	0.55	-	-	Y	-	N
XFNT GR	Xtrackers MSCI Fintech Innovat	7	↑	0.94	0.30	-	-	Y	-	N
H1DRO IM	SG ETN World Hydrogen	7	0	0.45	0.80	+1x	-	-	-	N
MTVR LN	L&G Metaverse ESG Exclusions U	7	↑	0.82	0.39	-	-	Y	-	N
VEGI LN	VanEck Sustainable Future of F	6	0	1.05	0.45	-	-	Y	-	N
CHKWASH UH	Chimera S&P Kuwait Shariah ETF	6	0	-	1.00	-	-	Y	-	N
CURE LN	VanEck Genomics And Healthcare	6	0	1.18	0.35	-	-	Y	-	N
REUS LN	VanEck Circular Economy UCITS	6	0	0.81	0.40	-	-	Y	-	N
JCCT LN	JPMorgan Carbon Transition Chi	6	↑	0.73	0.36	-	-	Y	-	N
E50CC SW	UBS Iri Fund Solutions plc - E	6	0	0.85	0.26	-	-	-	-	N
INFLA IM	SG ETN Inflation Proxy	6	↓	1.01	0.80	+1x	-	-	-	N
CYBO LN	VanEck Bionic Engineering Ucit	6	0	1.24	0.55	-	-			

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Theme (Continued)											
XGEN GR	Xtrackers MSCI Genomic Healthc	3	0	0.83	0.30	-	-	Y	-	N	
FNX LN	Global X Fintech UCITS ETF	3	0	0.38	0.60	-	-	-	-	N	
CHUSHINV UH	Chimera S&P US Shariah Value E	3	3	1.26	1.00	-	-	-	-	N	
WDNA LN	Wisdomtree Biorevolution UCITS	3	0	1.04	0.45	-	-	Y	-	N	
LAZR LN	L&G Optical Technology & Photo	3	0	1.11	0.49	-	-	Y	-	N	
AAKI GR	ARK Artificial Intelligence &	2	-	1.01	0.75	-	-	Y	-	N	
FOFD GR	Franklin Future of Food UCITS	2	0	1.41	0.30	-	-	-	-	N	
WRCY LN	WisdomTree Recycling Decarboni	2	0	0.77	0.45	-	-	Y	-	N	
SMSR LN	Global X Internet of Things UC	2	↓	0.36	0.60	-	-	-	-	N	
STXSHA SJ	Satrix Shariah Top 40 ETF	2	0	1.55	0.40	-	-	Y	-	N	
KSTR LN	KraneShares ICBCCS SSE Star Ma	2	0	0.99	0.89	-	-	-	-	N	
KROPL LN	Global X Agtech & Food Innovat	2	↑	0.90	0.50	-	-	-	-	N	
AAKG GR	ARK Genomic Revolution UCITS E	1	-	1.00	-	-	-	Y	-	N	
EBIZ LN	Global X E-Commerce UCITS ETF	1	0	0.40	0.50	-	-	-	-	N	
COLD GR	Global X China Cloud Computing	1	↓	0.11	0.68	-	-	-	-	N	
WRNW LN	WisdomTree Renewable Energy UC	1	0	1.14	0.45	-	-	-	-	N	
SCAR LN	First Trust Bloomberg Scarce R	1	-	0.48	0.65	-	-	-	-	N	
KGRN LN	Kraneshares MSCI China Clean T	1	0	0.78	0.79	-	-	Y	-	N	
GOOW NA	Pacer Global Cash Cows Dividen	1	-	0.54	0.60	-	-	-	-	N	
1ARG LN	LS ARK Genomic Revolution Trac	1	↑	0.11	0.35	-	-	-	-	N	
1ARW LN	LS ARK NextGen Internet Trac	1	↑	0.134	0.35	-	-	-	-	N	
STXD SJ	Satrix Inclusion & Diversity E	0	0	1.02	0.46	-	-	Y	-	N	
KSMF10 IT	KSM ETF 4D ISE Clean Edge Wate	-	-	-	0.83	-	-	Y	-	N	
TCHF69 IT	Tachit SAL 4D S&P Aerospace &	-	-	-	-	-	-	-	-	N	
KSMF109 IT	KSM ETF 4D S&P Homebuilders	-	-	-	0.63	-	-	-	-	N	
KSMF118 IT	KSM ETF 4D Morningstar Wide Mo	-	-	-	0.68	-	-	-	-	N	
KSMF120 IT	KSM ETF 4A NASDAQ US BuyBack A	-	-	-	1.11	-	-	-	Y	N	
KSMF123 IT	KSM ETF 4D NASDAQ US BuyBack A	-	-	-	0.81	-	-	-	-	N	
KSMF3 IT	KSM ETF 4A Kosher TA-125	-	-	-	0.00	-	-	Y	-	N	
PSGFK4 IT	IBI SAL 4A Kosher TA-125 IL	-	-	-	-	-	-	Y	-	N	
HLRF207 IT	Harel Sal 4D ISE Cyber Secur	-	-	-	0.63	-	-	-	-	N	
HLRF204 IT	Harel Sal 4A ISE Cyber Secur	-	-	-	0.63	-	-	-	Y	N	
HLRF43 IT	Harel Sal 4A Kosher TA 125	-	-	-	0.01	-	-	Y	-	N	
TCHF63 IT	Tachit SAL 4D ISE Cyber Secur	-	-	-	-	-	-	-	-	N	
MTFFK56 IT	MTF SAL 4A Kosher TA-125	-	-	-	-	-	-	Y	-	N	
TCHF4 IT	Tachit SAL 4D Kosher TA 125	-	-	-	-	-	-	Y	-	N	
HLRF214 IT	Harel Sal 4A Kosher TA 90	-	-	-	-	-	-	Y	-	N	
MTFF63 IT	MTF SAL 4A Index Pure Cyber	-	-	-	-	-	-	-	-	N	
TCHF2 IT	Tachit SAL 00 Kosher Tel Bond	-	-	-	-	-	-	Y	-	N	
KSMF194 IT	KSM ETF 4D Indxx Climate Chang	-	-	-	0.53	-	-	-	-	N	
MTFF69 IT	MTF SAL 4D Bluestar Travel and	-	-	-	0.80	-	-	-	-	N	
KSMF195 IT	KSM ETF 4D ISE Cyber Security	-	-	-	0.48	-	-	-	-	N	
KSMF199 IT	KSM ETF 4D Indxx China Intern	-	-	-	0.83	-	-	-	-	N	
TCHF161 IT	Tachit SAL 4D NASDAQ Clean Ed	-	-	-	-	-	-	Y	-	N	
TCHF164 IT	Tachit SAL 4D PHILX Semiconduc	-	-	-	-	-	-	-	-	N	
HLRF223 IT	Harel Hf4A TA - CleanTech IL	-	-	-	-	-	-	-	-	L	
KSMF203 IT	KSM MVSMTHT	-	-	-	0.38	-	-	-	-	N	
TCHF166 IT	Tachit SAL 4D Index Pets Care	-	-	-	0.28	-	-	-	-	N	
KSMF231 IT	KSM KTF 4A Index Construction	-	-	-	0.52	-	-	-	-	L	
VITAC SW	Exchange Traded Product on Sol	-	-	-	0.77	0.50	-	-	-	N	
MTFF126 IT	MTF SAL 4D Bloomberg US Analys	-	-	-	0.83	-	-	-	-	N	
Value											
UCAP SW	OSSIAM SHILLER Barclays CAPE U	3,671	0	0.72	0.65	-	-	-	-	N	
WVVL LN	iShares Edge MSCI World Value	3,664	2	0.09	0.30	-	-	-	-	N	
IJVL LN	iShares Edge MSCI USA Value Fa	1,939	1	0.10	0.20	-	-	-	-	N	
XDEV GR	Xtrackers MSCI World Value UC1	1,639	0	0.17	0.25	-	-	-	-	N	
IEVL LN	iShares Edge MSCI Europe Value	1,538	↓	0.08	0.25	-	-	-	-	N	
UBUS GR	UBS Iri ETF plc - MSCI USA Val	585	0	0.16	0.20	-	-	-	-	N	
USSC LN	SPDR MSCI USA Small Cap Value	457	↑	0.12	0.30	-	-	-	-	N	
IJVENA	iShares MSCI USA Value Factor	427	↑	0.22	0.20	-	-	Y	-	N	
MOAT LN	VanEck Morningstar US Sustaina	408	↓	0.15	0.49	-	-	Y	-	N	
CV9 FP	Amundi MSCI Europe Value Facto	363	↓	0.14	0.23	-	-	-	-	N	
UBUS GR	UBS Iri ETF plc - Factor MSCI	320	↓	0.14	0.25	-	-	Y	-	N	
CBUI GR	iShares MSCI World Value Facto	236	↓	0.32	0.30	-	-	Y	-	N	
ZPRX GR	SPDR MSCI Europe Small Cap Val	224	↑	0.40	0.30	-	-	-	-	N	
EMVL GR	iShares Edge MSCI EM Value Fac	202	0	0.36	0.40	-	-	-	-	N	
EMVEUA SW	UBS Lux Fund Solutions - MSCI	181	↓	0.17	0.25	-	-	-	-	N	
CAPE FP	Ossiam Shiller Barclays Cape E	170	0	0.31	0.65	-	-	-	-	N	
HWVL LN	HSBC MSCI World Value ESG UCIT	169	0	0.34	0.25	-	-	Y	-	N	
VAL FP	Lyxor MSCI EMU Value DR UCITS	164	↓	0.13	0.40	-	-	-	-	N	
UMW GR	UBS Lux Fund Solutions - Facto	143	↓	0.15	0.28	-	-	Y	-	N	
USVL LN	SPDR MSCI USA Value UCITS ETF	115	0	0.18	0.20	-	-	-	-	N	

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Value (Continued)											
EVAE FP	BNP Paribas Easy ESG Value Eur	71	↓	0.12	0.32	-	-	Y	-	N	
CO51 GR	Amundi Euro Stoxx Select Divid	67	0	0.37	0.25	-	-	-	-	N	
WVAL NA	SPDR MSCI World Value UCITS ET	57	0	0.24	0.25	-	-	-	-	N	
D6BL GR	Xtrackers MSCI Europe Value UC	56	0	0.17	0.15	-	-	-	-	N	
XZDZ GR	Xtrackers MSCI EMU High Divide	55	0	0.58	0.25	-	-	Y	-	N	
C9DF GR	Frankfurter UCITS ETF - Modern	49	↑	0.59	0.52	-	-	-	-	N	
MOTU LN	VanEck Morningstar US Wide Moa	36	-	1.38	0.46	-	-	-	-	N	
HEMV LN	HSBC MSCI Emerging Markets Val	34	0	0.53	0.35	-	-	Y	-	N	
ETFSV2P GR	Deka Stoxx Europe Strong Value	30	0	0.28	0.66	-	-	-	-	N	
USVE FP	Amundi PEA MSCI USA Value ESG	28	-	0.12	0.50	-	-	Y	-	N	
ZPRW GR	SPDR MSCI Europe Value UCITS E	25	↓	0.26	0.20	-	-	-	-	N	
R1VL LN	iShares Russell 1000 Value UC1	16	0	0.23	0.18	-	-	-	-	N	
JAVA LN	JPMorgan Active US Value UCITS	11	-	0.51	0.49	-	-	Y	-	N	
XZDE GR	Xtrackers MSCI Europe High Div	8	0	0.55	0.25	-	-	Y	-	N	
XWEV GR	Xtrackers MSCI World Value ESG	6	0	0.48	0.25	-	-	Y	-	N	
STXVEQ SJ	Satrix Value Equity ETF	4	0	1.04	0.51	-	-	-	-	N	
MERVALUE NL	Meristem Value ETF	-	0	-	-	-	-	-	-	N	
TCHF173 IT	Tachit SAL 4D Index World Val	-	-	-	0.83	-	-	-	Y	N	
FUWVP SW	Exchange Traded Product on FuW	-	0	0.69	0.92	-	-	Y	-	N	
Volatility											
LVO NA	Amundi S&P 500 VIX Futures Enh	99	↑	0.52	0.60	-	-	-	-	N	
VIX1S IM	SG ETN Daily Short -1X VIX FUT	27	↓	0.108	0.95	-1x	-	-	-	N	
VIXL IM	WisdomTree S&P 500 VIX Short-T	15	↑	0.160	0.99	+2.25x	-	-	-	N	
VIX1L IM	SG ETN VIX Future	1	0	1.08	0.80	+1x	-	-	-	N	
Equity Sector											
Communication Services											
XUCM GR	Xtrackers MSCI USA Communicati	507	↑	0.45	0.12	-	-	-	-	N	
XWTS GR	Xtrackers MSCI World Communica	313	↑	0.23	0.25	-	-	-	-	N	
IUCM LN	iShares S&P 500 Communication	268	↑	1.14	0.15	-	-	-	-	N	
WELX GR	Amundi S&P Global Communicati	251	↑	0.46	0.18	-	-	Y	-	N	
ZPKD GR	SPDR S&P U.S. Communication Se	163	0	0.25	0.15	-	-	-	-	N	
XLCS LN	Invesco Communications S&P US	129	0	0.16	0.14	-	-	-	-	N	
SXKPEX GR	iShares Stoxx Europe 600 Telec	105	↓	0.12	0.47	-	-	-	-	N	
STT FP	SPDR MSCI Europe Communication	75	↓	0.15	0.18	-	-	-	-	N	
WTEL LN	SPDR MSCI World Communications	58	↑	0.37	0.30	-	-	-	-	N	
WCMS NA	iShares MSCI World Communicati	53	↑	1.07	0.18	-	-	Y	-	N	
TELE FP	Amundi Stoxx Europe 600 Teleco	38	0	0.14	0.30	-	-	-	-	N	
SXMPX GR	iShares Stoxx Europe 600 Media	17	↑	0.24	0.46	-	-	-	-	N	
XKPS GR	Invesco Stoxx Europe 600 Optim	8	↑	0.43	0.20	-	-	-	-	L	
XSKR GR	Xtrackers MSCI Europe Commun	5	↓	0.47	0.17	-	-	Y	-	N	
TLCO NA	iShares MSCI Global Telecommun	5	-	0.19	0.35	-	-	-	-	N	
XMPFS GR	Invesco Stoxx Europe 600 Optim	3	0	0.46	0.20	-	-	-	-	N	
ZPT10 TI	Ziraat Portfoy Star Market Tec	1	↑	0.34	2.19	-	-	-	-	N	
DISJ LN	Leverage Shares 3x Disney ETP	1	↑	0.90	0.75	+3x	-	-	-	N	
ALETNC SJ	Firstrand Compo ETN on Alphabe	-	0	1.17	1.00	-	-	-	-	N	
ALETNQ SJ	Firstrand Quanto ETN on Alphab	-	0	1.17	0.00	-	-	-	-	N	
FAETNC SJ	Firstrand Compo ETN on Faceboo	-	0	1.41	1.00	-	-	-	-	N	
FAETNQ SJ	Firstrand Quanto ETN on Facebo	-	0	1.36	0.00	-	-	-	-	N	
NFETNC SJ	Firstrand Compo ETN on Netflix	-	0	1.56	1.00	-	-	-	-	N	
NFETNQ SJ	Firstrand Quanto ETN on Netfli	-	0	1.51	0.00	-	-	-	-	N	
Consumer Discretionary											
GLUX FP	Amundi S&P Global Luxury UCITS	514	0	0.20	0.25	-	-	-	-	N	
XUCD GR	Xtrackers MSCI USA Consumer Di	387	↑	0.20	0.12	-	-	-	-	N	
IUCD LN	iShares S&P 500 Consumer Discr	384	0	0.16	0.15	-	-	-	-	N	
ESIC GR	iShares Msci Europe Consumer D	287	0	0.11	0.18	-	-	-	-	N	
WELJ GR	Amundi S&P Global Consumer Dis	259	↑	0.45	0.18	-	-	Y	-	N	
WELW GR	Amundi S&P Global Consumer Sla	228	↑	0.51	0.18	-	-	Y	-	N	
SXAPE											

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Consumer Discretionary (Continued)										
WCDS NA	iShares MSCI World Consumer Di	10	↓	0	0.56	0.18	-	-	Y	-
XZEC GR	Xtrackers MSCI Europe Consumer	7	0	0.17	0.17	-	-	Y	-	-
XQFS GR	Invesco Stoxx Europe 600 Optim	6	0	0.30	0.20	-	-	-	-	-
XTPS GR	Invesco Stoxx Europe 600 Optim	6	↓	0	0.27	0.20	-	-	-	-
BAB3 LN	Leverage Shares 3x Alibaba ETP	5	↑	0	0.74	0.75	+3x	-	-	-
XRFS GR	Invesco Stoxx Europe 600 Optim	2	↓	0	0.29	0.20	-	-	-	-
3LAA IM	GraniteShares 3x Long Alibaba	2	↑	0	2.29	0.99	+3x	-	-	-
WCAR LN	WisdomTree Global Automotive I	1	↓	0	1.29	0.45	-	-	Y	-
2STR LN	WisdomTree Stoxx Europe Travel	1	↑	0	0.70	0.85	-2x	-	-	-
3SAA IM	GraniteShares 3x Short Alibaba	1	0	2.28	0.99	-3x	-	-	-	-
2CAR LN	WisdomTree Stoxx Europe Auto	0	↓	0	1.21	0.80	+2x	-	-	-
2TRV LN	WisdomTree Stoxx Europe Travel	0	0	1.15	0.80	+2x	-	-	-	-
ABN3 LN	Leverage Shares 3x AirBNB ETP	0	↓	0	-	0.75	+3x	-	-	-
KSMF134 IT	KSM ETF 4D S&P Consumer Discr	-	-	-	-	0.79	-	-	-	-
KSMF229 IT	KSM ETF 4A S&P Consumer Discr	-	-	-	-	0.82	-	-	Y	-
TCHF55 IT	Tachit SAL 4D S&P Consumer Di	-	-	-	-	-	-	-	-	-
MTFF25 IT	MTF SAL 4D S&P Consumer Discr	-	-	-	-	0.15	-	-	-	-
MTFF42 IT	MTF SAL 4A S&P Consumer Discr	-	-	-	-	-	-	-	-	-
MTFF53 IT	MTF SAL 4D Indx U.S. E-Commerce	-	-	-	-	0.80	-	-	-	-
AMETNC SJ	Firststrand Compo ETN on Amazon	-	0	1.73	1.00	-	-	-	-	-
AMETNQ SJ	Firststrand Quanto ETN on Amazon	-	0	1.89	0.00	-	-	-	-	-
MCETNC SJ	Firststrand Compo ETN on McDonal	-	0	1.43	1.00	-	-	-	-	-
MCETNQ SJ	Firststrand Quanto ETN on McDonal	-	0	1.88	0.00	-	-	-	-	-
TSETNC SJ	Firststrand Compo ETN on Tesla I	-	0	1.82	1.00	-	-	-	-	-
TSETNQ SJ	Firststrand Quanto ETN on Tesla	-	0	1.79	0.00	-	-	-	-	-
FDETNC SJ	Firststrand Compo ETN on Ford Mo	-	0	1.47	1.00	-	-	-	-	-
FDETNO SJ	Firststrand Quanto ETN on Ford M	-	0	1.67	0.00	-	-	-	-	-
MTFF72 IT	MTF Sal 4A Index Consumer Disc	-	-	-	-	-	-	-	-	-
Consumer Staples										
XDWS GR	Xtrackers MSCI World Consumer	821	0	0.17	0.25	-	-	-	-	-
ESIS GR	iShares MSCI Europe Consumer S	799	↑	0	0.14	0.18	-	-	-	-
IUCS LN	iShares S&P 500 Consumer Stapl	395	↓	1	0.17	0.15	-	-	-	-
SX3PEX GR	iShares Stoxx Europe 600 Food	235	0	0.10	0.46	-	-	-	-	-
SXLP LN	SPDR S&P U.S. Consumer Staples	193	↓	0	0.11	0.15	-	-	-	-
STS FP	SPDR MSCI Europe Consumer Stap	162	↓	1	0.11	0.18	-	-	-	-
FOO FP	Lyxor Stoxx Europe 600 Food &	151	0	0.12	0.30	-	-	-	-	-
WCSS NA	iShares MSCI World Consumer St	97	0	0.37	0.18	-	-	Y	-	-
WCOS LN	SPDR MSCI World Consumer Stapl	88	0	0.25	0.30	-	-	-	-	-
XUCS GR	Xtrackers MSCI USA Consumer St	79	0	0.18	0.12	-	-	-	-	-
CEMG LN	iShares MSCI EM Consumer Growt	73	0	0.48	0.60	-	-	-	-	-
X53R GR	Xtrackers MSCI Europe Consumer	68	0	0.18	0.17	-	-	Y	-	-
COSE FP	Amundi PEA S&P US Consumer Sta	33	-	0.20	0.50	-	-	Y	-	-
XLPS LN	Invesco Consumer Staples S&P U	29	↓	0	0.21	0.14	-	-	-	-
FAMWCS IM	Fineco AM MSCI World Consumer	19	0	0.45	0.38	-	-	Y	-	-
X3PS GR	Invesco Stoxx Europe 600 Optim	7	↓	0	0.34	0.20	-	-	-	-
TCHF57 IT	Tachit SAL 4D S&P Consumer St	-	-	-	-	-	-	-	-	-
KSMF236 IT	KSM ETF 4D S&P Cons Staples	-	-	-	-	0.72	-	-	-	-
HRLF76 IT	Harel Sal 4D S&P Consumer Stap	-	-	-	-	0.53	-	-	-	-
MTFF26 IT	MTF SAL 4D S&P Consumer Staple	-	-	-	-	0.15	-	-	-	-
MTFF43 IT	MTF SAL 4A S&P Consumer Staple	-	-	-	-	0.15	-	-	Y	-
COETNC SJ	Firststrand Compo ETN on The Coc	-	0	1.57	0.00	-	-	-	-	-
COETNQ SJ	Firststrand Quanto ETN on The Co	-	0	1.78	0.00	-	-	-	-	-
Energy										
STN FP	SPDR MSCI Europe Energy UCITS	1,119	1	0.15	0.18	-	-	-	-	-
XDWO GR	Xtrackers MSCI World Energy UC	1,081	0	0.13	0.25	-	-	-	-	-
IUES LN	iShares S&P 500 Energy Sector	1,003	↓	1	0.21	0.15	-	-	-	-
SXLE LN	SPDR S&P U.S. Energy Select Se	785	↑	2	0.20	0.15	-	-	-	-
WENS NA	iShares MSCI World Energy Sect	674	↑	0	0.20	0.18	-	-	-	-
WNRG LN	SPDR MSCI World Energy UCITS E	548	1	0.17	0.30	-	-	-	-	-
SXPEX GR	iShares Stoxx Europe 600 Oil &	516	↓	0	0.23	0.47	-	-	-	-
MLPD LN	Invesco Markets plc - Invesco	279	↑	0	0.44	0.50	-	-	-	-
ENRG FP	Amundi Stoxx Europe 600 Energy	183	↓	0	0.12	0.30	-	-	Y	-
ESIE GR	iShares MSCI Europe Energy Sec	164	0	0.17	0.18	-	-	-	-	-
WENE NA	iShares MSCI World Energy ESG	96	↑	0	0.38	0.18	-	-	Y	-
XLES LN	Invesco Energy S&P US Select S	84	0	0.26	0.14	-	-	-	-	-
XUEN GR	Xtrackers MSCI USA Energy UCIT	74	0	0.22	0.12	-	-	-	-	-
CWE FP	Amundi Global BioEnergy ESG Sc	42	↓	0	0.26	0.35	-	-	Y	-
ANRJ FP	Amundi Global Hydrogen ESG Scr	38	0	0.20	0.45	-	-	Y	-	-
KEPS GR	Invesco Stoxx Europe 600 Optim	16	0	0.41	0.20	-	-	-	-	-
ERIX IM	SG ETN European Renewable Ener	8	0	1.01	0.50	+1x	-	Y	-	-
WDEE LN	Invesco S&P World Energy ESG U	1	↓	0	0.33	0.18	-	-	Y	-
3LEN IM	GraniteShares 3x Long Eni Dai	0	0	2.85	0.99	+3x	-	-	-	-

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Energy (Continued)										
3LNL IM	GraniteShares 3x Long Eni Dai	0	0	-	0.99	+3x	-	-	-	-
2OIG LN	WisdomTree Stoxx Europe Oil &	0	0	1.22	0.85	-2x	-	-	-	-
BP3L LN	Leverage Shares 3x BP ETP	0	↓	0	1.98	0.75	+3x	-	-	-
XLGS LN	Leverage Shares -3x Short Oil	0	0	2.49	0.75	-3x	-	-	-	-
3SEN IM	GraniteShares 3x Short Eni Dai	0	0	2.71	0.99	-3x	-	-	-	-
3SNL IM	GraniteShares 3x Short Eni Da	0	0	2.68	0.99	-3x	-	-	-	-
KSMF12 IT	KSM ETF 4D S&P Energy	-	-	-	-	0.31	-	-	-	-
TCHF65 IT	Tachit SAL 4D S&P Energy	-	-	-	-	-	-	-	-	-
KSMF103 IT	KSM ETF 4A TA-Oil&Gas	-	-	-	-	0.63	-	-	-	-
HRLF96 IT	Harel Sal 4D S&P Energy	-	-	-	-	0.43	-	-	-	-
TCHF136 IT	Tachit SAL 40 TA Oil & GAS	-	-	-	-	-	-	-	-	-
MTFF44 IT	MTF SAL 4A S&P Energy Currency	-	-	-	-	0.80	-	-	-	Y
Financials										
SX7PEX GR	iShares Stoxx Europe 600 Banks	1,921	0	0.15	0.47	-	-	-	-	-
BNKE FP	Amundi Euro Stoxx Banks UCITS	1,341	↓	2	0.10	0.30	-	-	-	-
IUFS LN	iShares S&P 500 Financials Sec	1,085	1	0.17	0.15	-	-	-	-	L
MPAB NA	iShares MSCI EMU Paris-Aligned	1,076	↑	0	0.23	0.15	-	-	Y	-
XUFN GR	Xtrackers MSCI USA Financials	1,058	0	0.32	0.12	-	-	-	-	-
SX7EEX GR	iShares Euro Stoxx Banks 30-15	1,041	↓	0	0.11	0.52	-	-	-	L
BNK FP	Amundi Stoxx Europe 600 Banks	788	↓	1	0.08	0.30	-	-	-	-
XDFW GR	Xtrackers MSCI World Financial	581	↑	0	0.25	0.25	-	-	-	-
FINSW IM	Amundi MSCI World Financials U	551	↑	0	0.41	0.30	-	-	-	-
ESIF GR	iShares MSCI Europe Financials	515	↑	0	0.13	0.18	-	-	-	-
WELK GR	Amundi S&P Global Financials E	424	↑	0	0.49	0.18	-	-	Y	-
STZ FP	SPDR MSCI Europe Financials UC	352	0	0.10	0.18	-	-	-	-	-
SXLF LN	SPDR S&P U.S. Financials Selec	341	0	0.23	0.15	-	-	-	-	-
WFIN LN	SPDR MSCI World Financials UC1	303	0	0.22	0.30	-	-	-	-	-
SXIFEX GR	iShares Stoxx Europe 600 Insur	299	0	0.14	0.46	-	-	-	-	-
BNKS LN	iShares S&P US Banks UCITS ETF	262	↓	1	0.22	0.35	-	-	-	-
XIPS GR	Invesco Stoxx Europe 600 Optim	242	↑	0	0.22	0.20	-	-	-	L
ZPLB TR	Ziraat Portfoly BIST Liquid UCITS	201	↓	5	0.18	2.19	-	-	-	-
SX7E GR	Invesco Markets plc - EURO STO	194	↓	0	0.12	0.30	-	-	-	-
INSU LN	Invesco Dow Jones US Insurance	192	0	0.49	0.35	-	-	-	-	-
XLFS LN	Invesco Financials S&P US Sele	146	0	0.22	0.14	-	-	-	-	-
3BAL IM	WisdomTree Euro Stoxx Banks 3x	76	↓	3	0.24	0.89	+3x	-	-	-
SXFPX GR	iShares Stoxx Europe 600 Finan	63	0	0.15	0.46	-	-	-	-	-
INS FP	Amundi Stoxx Europe 600 Insura	61	↓	0	0.12	0.30	-	-	-	-
XS7R GR	Xtrackers MSCI Europe Financia	61	↓	0	0.13	0.17	-	-	Y	-
STXFIN SJ	Satrix FINI	60	0	0.81	0.43	-	-	-	-	-
WFNS NA	iShares MSCI World Financials	36	↑	0	0.35	0.18	-	-	Y	-
6FIN GR	Lyxor Stoxx Europe 600 Financi	28	-	-	0.30	-	-	-	-	-
FAMMMV IM	Fineco AM MSCI World Financial	27	0	0.40	0.38	-	-	-	Y	-
X7PS GR	Invesco Stoxx Europe 600 Optim	22	↓	0	0.26	0.20	-	-	-	L
XUFB LN	Xtrackers MSCI USA Banks UCITS	18	↓	0	0.33	0.12	-	-	-	-
ITBL IM	WisdomTree FTSE MIB Banks	14	↓	0	0.47	0.35	-	-	-	-
XFPS GR	Invesco Stoxx Europe 600 Optim	5	↓	0	0.46	0.20	-	-	-	-
3LCR IM	GraniteShares 3x Long UniCredi	3	↓	0	2.16	0.99	+3x	-	-	-
WDFE LN	Invesco S&P World Financials E	2	0	0.43	0.18	-	-	-	Y	-
3LSP IM	GraniteShares 3x Long Intesa S	2	0	2.43	0.99	+3x	-	-	-	-
GFOF LN	Gray scale Future of Finance UC	2	↓	0	1.20	0.70	-	-	-	-
3BAS IM	WisdomTree Euro Stoxx banks 3x	1	0	0.41	0.89	-3x	-	-	-	-
VIS2 LN	Leverage Shares 2x Visa ETP	1	↓	0	1.82	0.75	+2x	-	-	-
1COI LN	LS 1X Coinbase Tracker ETP	0	↓	0	2.02	0.15	-	-	-	-
3SCR IM	GraniteShares 3x Short UniCredi	0								

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Financials (Continued)										
HRFL16 IT	Harel Sal 4A TA-Finance	-	-	-	0.47	-	-	-	-	N
HRFL75 IT	Harel Sal 4D S&P Financial	-	-	-	0.48	-	-	-	-	N
HRFL81 IT	Harel Sal 4A S&P Financial Cur	-	-	-	0.53	-	-	-	Y	N
TCHF50 IT	Tachit SAL 4D S&P Financial	-	-	-	-	-	-	-	-	N
MTFF45 IT	MTF SAL 4A S&P Financial Curre	-	-	-	0.80	-	-	-	Y	N
MTFF27 IT	MTF SAL 4D S&P Financial	-	-	-	0.80	-	-	-	-	N
TCHF118 IT	Tachit Sal 4D TA Finance	-	-	-	-	-	-	-	-	N
BHETNC SJ	Firststrand Compo ETN on Berkshi	-	0	1.06	1.00	-	-	-	-	N
GSETNC SJ	Firststrand Compo ETN on Goldman	-	0	1.16	1.00	-	-	-	-	N
JPETNC SJ	Firststrand Compo ETN on JP Morg	-	0	1.20	1.00	-	-	-	-	N
PFETNC SJ	Firststrand Compo ETN on PayPal	-	0	1.87	1.00	-	-	-	-	N
VSETNC SJ	Firststrand Compo ETN on Visa CI	-	0	1.37	1.00	-	-	-	-	N
BHETNQ SJ	Firststrand Quanto ETN on Berksh	-	0	1.60	0.00	-	-	-	-	N
GSETNQ SJ	Firststrand Quanto ETN on Goldma	-	0	1.31	0.00	-	-	-	-	N
JPETNQ SJ	Firststrand Quanto ETN on JP Mor	-	0	1.30	0.00	-	-	-	-	N
PFETNQ SJ	Firststrand Quanto ETN on PayPal	-	0	2.05	0.00	-	-	-	-	N
VSETNQ SJ	Firststrand Quanto ETN on Visa C	-	0	1.45	0.00	-	-	-	-	N
MTFF68 IT	MTF Sal 4D Bluestar Top 10 US	-	-	-	-	-	-	-	-	N
MORES6 IT	MORE SAL 4A Index Banks EW IL	-	-	-	-	-	-	-	-	N
KSMF224 IT	KSM ETF 4A S&P Financial Curre	-	-	-	0.52	-	-	-	-	N
Health Care										
XDWH GR	Xtrackers MSCI World Health Ca	2,341	↑	0	0.16	0.25	-	-	-	N
IUHC LN	iShares S&P 500 Health Care Se	2,192		2	0.16	0.15	-	-	-	L
HBLGSJH SS	Long SJUKV H	1,304		0	0.25	0.75	-	-	-	N
HEAL LN	iShares Healthcare Innovation	959	↓	0	0.15	0.40	-	-	Y	N
HLT FP	Amundi Stoxx Europe 600 Health	861		1	0.10	0.30	-	-	-	N
WHCS NA	iShares MSCI World Health Care	849		0	0.18	0.18	-	-	Y	N
HLTW IM	Amundi MSCI World Health Care	791		0	0.24	0.30	-	-	-	N
XUHC GR	Xtrackers MSCI USA Health Care	741		0	0.17	0.12	-	-	-	N
SXDPEX GR	iShares Stoxx Europe 600 Healt	707		0	0.11	0.46	-	-	-	N
STW FP	SPDR MSCI Europe Health Care U	673		0	0.16	0.18	-	-	-	N
ESH GR	iShares MSCI Europe Health Car	629		0	0.17	0.18	-	-	-	N
WHEA LN	SPDR MSCI World Health Care UC	531		0	0.15	0.30	-	-	-	N
BTEC LN	iShares Nasdaq US Biotechnolog	471		0	0.26	0.35	-	-	-	N
SXLV LN	SPDR S&P U.S. Health Care Sele	363	↓	1	0.22	0.15	-	-	-	N
SBIO LN	Invesco NASDAQ Biotech UCITS E	312	↓	1	0.23	0.40	-	-	-	N
XLVS LN	Invesco Health Care S&P US Sel	281		0	0.18	0.14	-	-	-	N
UMDV NA	iShares US Medical Devices UCIT	220	↑	0	0.32	0.25	-	-	-	N
DXSE GR	Xtrackers MSCI Europe Health C	155		0	0.20	0.17	-	-	Y	N
DOCT LN	L&G Healthcare Breakthrough UC	65	↓	0	0.51	0.49	-	-	Y	N
BIOT LN	L&G Pharma Breakthrough UCITS	17	↓	0	0.60	0.49	-	-	Y	N
WELL LN	HAN-GINS Indxx Healthcare Mega	15	↑	0	0.72	0.59	-	-	Y	N
FBTU LN	First Trust NYSE Arca Biotech	5	0	0	0.68	0.60	-	-	-	N
FOHW GR	Franklin Future of Health and	2	0	1.38	0.30	-	-	-	-	N
WHCE LN	Invesco S&P World Health Care	2	0	0.38	0.18	-	-	-	Y	N
XDPS GR	Invesco Stoxx Europe 600 Optim	2	↓	0	0.31	0.20	-	-	-	N
KURE LN	KransShares MSCI All China Hea	1	↓	0	1.67	0.79	-	-	-	N
SYGH SJ	Sygnia Irix Solactive Healthc	0	↑	0	0.84	0.00	-	-	-	N
TCSP100 IT	Tachit S&P Health Care Select	-	-	-	0.52	-	-	-	-	N
KSMF9 IT	KSM ETF 4D DJ Health Care Tita	-	-	-	1.03	-	-	-	-	N
TCHF58 IT	Tachit SAL 4D S&P Health Care	-	-	-	-	-	-	-	-	N
KSMF104 IT	KSM ETF 4A TA-Biomed	-	-	-	0.43	-	-	-	-	N
KSMF130 IT	KSM ETF 4D Stoxx Europe 600 He	-	-	-	0.83	-	-	-	-	N
KSMF152 IT	KSM ETF 4D S&P Health Care	-	-	-	0.73	-	-	-	-	N
KSMF167 IT	KSM KTF4A S&P Health Care Curr	-	-	-	0.63	-	-	-	Y	L
PSGF126 IT	IBI SAL 4A S&P Health Care Cur	-	-	-	0.80	-	-	-	Y	N
HRFL74 IT	Harel Sal 4D S&P Health Care	-	-	-	0.53	-	-	-	-	N
HRFL93 IT	Harel HIF4A S&P Health Care C	-	-	-	0.53	-	-	-	Y	L
TCHF80 IT	Tachit SAL 4D NASDAQ Biotech	-	-	-	-	-	-	-	-	N
MTFF46 IT	MTF SAL 4A S&P Health Care Cur	-	-	-	0.80	-	-	-	Y	N
MTFF47 IT	MTF SAL 4A S&P Industrial Curr	-	-	-	0.80	-	-	-	Y	N
MTFF28 IT	MTF SAL 4D S&P Health Care	-	-	-	0.15	-	-	-	-	N
HRFL218 IT	Harel Sal 4A Dow Jones U.S. Se	-	-	-	-	-	-	-	-	N
Industrials										
BULLVOLV SS	BULL VOLV H	2,191	-	0.52	-	+2x	-	-	-	N
INFR LN	iShares Global Infrastructure	1,377		1	0.15	0.65	-	-	-	N
XDWI GR	Xtrackers MSCI World Industria	499	↑	0	0.23	0.25	-	-	-	N
STQ FP	SPDR MSCI Europe Industrials U	359		0	0.11	0.18	-	-	-	N
XUIN GR	Xtrackers MSCI USA Industrials	286	↑	0	0.35	0.12	-	-	-	N
IUIS LN	iShares S&P 500 Industrials Se	277	↑	0	0.19	0.15	-	-	-	N
INDUEX GR	iShares Dow Jones Industrial A	267		0	0.12	0.51	-	-	-	N
SXLI LN	SPDR S&P U.S. Industrials Sele	251		0	0.18	0.15	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Industrials (Continued)										
WELH GR	Amundi S&P Global Industrials	249	↑	0	0.53	0.18	-	-	Y	N
SXNPEX GR	iShares Stoxx Europe 600 Indus	206	↓	0	0.15	0.46	-	-	-	N
ESIN GR	iShares MSCI Europe Industrial	206	↑	0	0.33	0.18	-	-	-	N
ENG FP	BNP Paribas Easy ECPI Global E	185	↓	0	0.49	0.30	-	-	Y	N
WNDU LN	SPDR MSCI World Industrials UC	162	↑	0	0.28	0.30	-	-	-	N
XLIS LN	Invesco Industrials S&P US Sel	109	↑	0	0.19	0.14	-	-	-	N
STXIND SJ	Satrix INDI	105		0	0.79	0.44	-	-	-	N
DFND NA	iShares Global Aerospace & Def	68		-	0.25	0.35	-	-	-	N
MMLP LN	Alerian Midstream Energy Divid	52	↑	0	0.59	0.40	-	-	-	N
WINS NA	iShares MSCI World Industrials	42	↑	0	0.58	0.18	-	-	Y	N
IND FP	Lyxor Stoxx Europe 600 Industr	34	↓	0	0.14	0.30	-	-	-	N
XSNR GR	Xtrackers MSCI Europe Industri	26		0	0.21	0.17	-	-	Y	N
XNPS GR	Invesco Stoxx Europe 600 Optim	16	↑	0	0.26	0.20	-	-	-	L
WNXT40 SJ	10X Wealth Next40 Equal Weight	9	↑	0	0.74	-	-	-	-	N
XDG9 LN	Xtrackers MSCI Global SDG 9 In	2	↑	0	0.42	0.35	-	-	Y	N
UBR3 LN	Leverage Shares 3x UBER ETP	0	↓	0	2.65	0.75	+3x	-	-	N
BAS LN	Leverage Shares -1x Short Boei	0		0	1.86	0.75	-1x	-	-	N
PLGS LN	Leverage Shares -1x Short Plug	0	↓	0	-	0.75	-1x	-	-	N
BEARVOLV SS	BEAR VOLV H	-	-	-	-	-	-2x	-	-	N
HBLGTHP SS	Long TRANSP H	-	-	-	0.38	0.75	-	-	-	N
TCSP104 IT	Tachit S&P Industrials Select	-	-	-	0.52	-	-	-	-	N
VETINDET NL	Vetiva Industrial ETF	-	0	-	-	-	-	-	-	N
KSMF78 IT	KSM ETF 4D DJ Industrial Avera	-	-	-	0.63	-	-	-	-	N
KSMF133 IT	KSM ETF 4D S&P Industrial	-	-	-	0.83	-	-	-	-	N
HRFL68 IT	Harel Sal 4D S&P Industrial	-	-	-	0.48	-	-	-	-	N
MTFF39 IT	MTF SAL 4A S&P Aerospace & Def	-	-	-	0.00	-	-	-	Y	N
MTFF24 IT	MTF SAL 4D S&P Aerospace & Def	-	-	-	0.80	-	-	-	-	N
MTFF29 IT	MTF SAL 4D S&P Industrial	-	-	-	0.15	-	-	-	-	N
TCHF171 IT	TCHF171 IT	-	-	-	-	-	-	-	-	N
Materials										
GDJ LN	VanEck Gold Miners UCITS ETF	843		2	0.22	0.53	-	-	-	N
GDG LN	VanEck Global Mining UCITS ETF	744	↑	0	0.45	0.50	-	-	-	N
SXPPEX GR	iShares Stoxx Europe 600 Basic	522	↑	0	0.25	0.46	-	-	-	N
GDJ LN	VanEck Junior Gold Miners UCIT	424		1	0.32	0.55	-	-	-	N
STP FP	SPDR MSCI Europe Materials UC1	422	↑	0	0.15	0.18	-	-	-	N
CD91 GR	Amundi NYSE Arca Gold BUGS UC1	307		0	0.38	0.65	-	-	-	N
XDWM GR	Xtrackers MSCI World Materials	281		0	0.24	0.25	-	-	-	N
BRES FP	Amundi Stoxx Europe 600 Basic	200	↓	1	0.13	0.30	-	-	-	N
WOOD LN	iShares Global Timber & Forest	180		0	0.20	0.65	-	-	Y	N
VOLT LN	WisdomTree Battery Solutions U	171	↓	0	0.20	0.40	-	-	Y	N
IUMS LN	iShares S&P 500 Materials Sect	159		0	0.25	0.15	-	-	-	N
UBUD GR	UBS Inr ETF plc - Solactive GI	154	↑	0	0.43	0.43	-	-	-	N
WELI GR	Amundi S&P Global Materials Es	131	↑	0	0.54	0.18	-	-	Y	N
SXOPEX GR	iShares Stoxx Europe 600 Const	110		0	0.16	0.46	-	-	-	N
WMAT LN	SPDR MSCI World Materials UCIT	103		0	0.18	0.30	-	-	-	N
SX4PEX GR	iShares Stoxx Europe 600 Chemi	92		0	0.15	0.46	-	-	-	N
STXRES SJ	Satrix RESI	52		0	0.81	0.44	-	-	-	N
XSPR GR	Xtrackers MSCI Europe Material	45	↓	0	0.26	0.17	-	-	Y	N
XPPS GR	Invesco Stoxx Europe 600 Optim	38		0	0.26	0.20	-	-	-	L
SXLB LN	SPDR S&P U.S. Materials Select	35	↓	0	0.23	0.15	-	-	-	N
COPM NA	iShares Copper Miners UCITS ET	35		0	0.51	0.55	-	-	-	N
CHM FP	Lyxor Stoxx Europe 600 Chemica	30		0	0.12	0.30	-	-	-	N
WMTS NA	iShares MSCI World Materials S	28	↑	0	0.35	0.18	-	-	Y	N
CST FP	Lyxor Stoxx Europe 600 Constr	27	↓	0	0.16	0.30	-	-	-	N
X4PS GR	Invesco Stoxx Europe 600 Optim	23	↑	0	0.25	0.20	-	-	-	N

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Real Estate (Continued)										
IUKP LN	iShares UK Property UCITS ETF	789	↑	2	0.11	0.40	-	-	-	N
EPRA FP	Amundi Index FTSE EPRA NAREIT	756	0	0.16	0.24	-	-	-	-	N
D6BK GR	Xtrackers FTSE Developed Europ	732	0	0.13	0.33	-	-	-	-	N
HBLGBGH SS	Long BYGG H	638	-	0.42	0.75	-	-	-	-	N
IASPL LN	iShares Asia Property Yield UC	530	0	0.46	0.59	-	-	-	-	N
IUSPL LN	iShares US Property Yield UCIT	446	0	0.19	0.40	-	-	-	-	N
SRFCHA SW	UBS ETF CH-SXI Real Estate	286	↑	1	0.22	0.79	-	-	-	N
EEF FP	BNP Paribas Easy FTSE EPRA/NAR	276	↑	0	0.10	0.41	-	-	-	N
TRET NA	VanEck Global Real Estate UCIT	255	0	0.21	0.25	-	-	Y	-	N
GLREL LN	SPDR Dow Jones Global Real Est	245	0	0.19	0.40	-	-	-	-	N
DIB SJ	Dipula Income Fund Ltd	171	0	1.50	-	-	-	-	-	N
REWLD IM	Amundi FTSE EPRA NAREIT Global	122	0	0.27	0.45	-	-	-	-	N
GREIT SW	CSIF IE FTSE EPRA NAREIT Devel	120	↓	0	0.48	0.25	-	-	Y	-
SREEX GR	iShares Stoxx Europe 600 Real	95	↑	0	0.19	0.46	-	-	-	N
GREAL FP	BNP Paribas Easy FTSE EPRA Nar	85	↓	0	0.22	0.41	-	-	Y	-
MEH FP	Amundi FTSE EPRA Europe Real E	75	↑	0	0.30	0.30	-	-	-	N
HPNA LN	HSBC FTSE EPRA NAREIT Developo	71	-	0.51	0.30	-	-	-	-	N
XRES LN	Invesco Real Estate S&P US Sel	70	↑	0	0.28	0.14	-	-	-	N
ETFSAP SJ	Invest SA Property ETF	37	↑	0	0.89	0.29	-	-	-	N
EEP FP	BNP Paribas Easy FTSE EPRA/NAR	37	↓	0	0.17	0.43	-	-	-	N
SYGP SJ	Sygnia Itrix Global Property E	35	↑	0	0.60	0.23	-	-	-	N
GRCTB FP	BNP Paribas Easy FTSE EPRA Nar	25	↓	0	0.36	0.41	-	-	Y	-
FMEH FP	Lyxor PEA FTSE EPRA/NAREIT Dev	25	↑	0	0.21	0.40	-	-	-	N
XREA GR	Xtrackers FTSE Developed Europ	22	0	0.24	0.33	-	-	-	-	N
GLPROP SJ	10X S&P Global Property ETF	20	0	1.10	0.66	-	-	-	-	N
CSFPROP SJ	10X South African Property Inc	19	0	0.61	0.46	-	-	-	-	N
STXPRO SJ	Satrix Property Portfolio	16	0	1.13	0.33	-	-	-	-	N
R8T GR	Abrdn Global Real Estate Activ	10	0	1.00	0.40	-	Y	-	-	N
HIND LN	HSBC FTSE EPRA Nareit Developo	7	0	0.32	0.35	-	-	-	-	N
ETFGRE SJ	Invest Global REIT Index Feede	5	↑	0	1.05	0.34	-	-	-	N
TREL LN	First Trust Alerian Disruptive	4	↑	0	0.80	0.60	-	-	-	N
RWDV F SJ	Reitway Global Property Divers	3	0	0.75	0.60	-	-	-	-	N
RWESG SJ	Reitway Global Property ESG Pr	3	0	0.71	0.60	-	-	-	-	N
RWGR SJ	Reitway Global Property Presci	3	0	0.66	-	-	-	-	-	N
WTRE LN	WisdomTree New Economy Real Es	3	↑	0	0.73	0.45	-	-	Y	-
RWAGP SJ	Reitway Global Property Active	1	0	0.75	0.95	-	Y	-	-	N
KSMF56 IT	KSM ETF 4A TA-RealEstate	-	-	-	0.56	-	-	-	-	N
HRLF15 IT	Harel Sal 4A TA-RealEstate	-	-	-	0.47	-	-	-	-	N
KSMF187 IT	KSM ETF 4D BlueStar Data Cente	-	-	-	0.43	-	-	-	-	N
TCHF155 IT	Tachit SAL 4D Indxx US Real E	-	-	-	-	-	-	-	-	N
TCHF83 IT	Tachit SAL 40 TA Real Estate	-	-	-	-	-	-	-	-	N
MTFF65 IT	MTF SAL 4A TA - Construction	-	-	-	-	-	-	-	-	N
MTFF66 IT	MTF SAL 4A TA - Israel Commere	-	-	-	-	-	-	-	-	N
KSMF206 IT	KSM ETF 4A TA-Construction	-	-	-	0.03	-	-	-	-	N
MTFF100 IT	MTF Sal 4A TA Real Estate IL	-	-	-	0.27	-	-	-	-	N
KSMF208 IT	KSM ETF 60 Short TA-RealEstate	-	-	-	1.03	-1x	-	-	-	N
Technology (Continued)										
X8PS GR	Invesco Stoxx Europe 600 Optim	20	↑	0	0.28	0.20	-	-	-	N
XNGI GR	Xtrackers MSCI Next Generation	18	↑	0	0.48	0.30	-	-	Y	-
QCLU LN	First Trust Nasdaq Clean Edge	13	0	0.76	0.60	-	-	-	Y	-
SYFANG SJ	Sygnia Itrix FANG.AI Actively	8	0	0.79	0.00	-	-	-	Y	-
SVLT LN	LS Short Volatility Long Tech	5	↑	0	0.41	1.00	-	-	-	N
WDE LN	Invesco S&P World Information	5	↑	0	0.41	1.08	-	-	Y	-
HITC LN	HSBC S&P India Tech UCITS ETF	4	-	0.92	0.65	-	-	-	-	N
ETFBWTEC.FW	Beta ETF WIGTech Portfolio Clo	4	0	0.10	0.64	-	-	-	-	N
FDUI LN	First Trust Dow Jones Internat	4	↓	0	0.51	0.65	-	-	-	N
ALBIJSTEAB	Albiad MSCI US Tech ETF	3	-	0.12	0.75	-	-	-	-	N
SOXL LN	Leverage Shares 4x Long Semico	2	-	0.76	0.75	-	-	-	+4x	-
3FNG LN	GraniteShares 3x Long FAANG Da	2	↑	0	-	0.99	-	-	+3x	-
SOXS LN	Leverage Shares -4x Short Semi	1	-	1.05	0.75	-	-	-	-4x	-
FANG LN	GraniteShares FAANG ETP	1	↑	0	2.68	0.69	-	-	-	N
SFNG LN	GraniteShares 1x Short FAANG D	1	↑	0	2.62	0.99	-1x	-	-	N
3FTG LN	GraniteShares 3x Long FATANG D	1	0	-	0.99	-	-	-	+3x	-
GFAM LN	GraniteShares GAFAM ETP	1	0	1.49	0.69	-	-	-	-	N
FTNG LN	GraniteShares FATANG ETP	1	↑	0	2.69	0.69	-	-	-	N
3GFM LN	GraniteShares 3x Long GAFAM Da	1	↓	0	1.90	0.99	-	-	+3x	-
QSSS LN	WisdomTree Qs100 5x Daily Shor	0	-	1.62	0.70	-	-	-	-5x	-
SFTG LN	GraniteShares 1x Short FATANG	0	0	2.71	0.99	-1x	-	-	-	N
SGFM LN	GraniteShares 1x Short GAFAM D	0	0	1.48	0.99	-1x	-	-	-	N
3SFT LN	GraniteShares 3x Short FATANG	0	↑	0	-	0.99	-	-	-3x	-
3SFG LN	GraniteShares 3x Short FAANG D	0	↑	0	-	0.99	-	-	-3x	-
3SGF LN	GraniteShares 3x Short GAFAM D	0	↑	0	1.88	0.99	-	-	-3x	-
GPTS LN	Leverage Shares -3x Short Arti	0	-	1.11	0.75	-	-	-	-3x	-
TCIN100 IT	Tachit TA-125 series 2 40A	-	-	-	0.52	-	-	-	-	Y
TCSP105 IT	Tachit S&P Technology Select	-	-	-	0.32	-	-	-	-	N
KSMF139 IT	KSM ETF 4A DJ Internet Composi	-	-	-	2.01	-	-	-	-	Y
KSMF158 IT	KSM ETF 4D S&P Technology	-	-	-	0.67	-	-	-	-	N
KSMF225 IT	KSM ETF 4A S&P Technology Curr	-	-	-	0.82	-	-	-	-	Y
HRLF87 IT	Harel Sal 4D S&P Technology	-	-	-	0.53	-	-	-	-	N
TCHF153 IT	Tachit SAL 4D TecDAX	-	-	-	-	-	-	-	-	N
MTFF18 IT	MTF SAL 4A TA Tech - Elite	-	-	-	0.25	-	-	-	-	N
HRLF220 IT	Harel Sal 4A TA-Technology	-	-	-	-	-	-	-	-	N
MTFF48 IT	MTF SAL 4A S&P Technology Curr	-	-	-	0.80	-	-	-	-	Y
MTFF30 IT	MTF SAL 4D S&P Technology	-	-	-	0.40	-	-	-	-	N
MTFF74 IT	MTF Sal 4A TA-Technology	-	-	-	-	-	-	-	-	N
TCHF159 IT	Tachit SAL 4D Index Big Tech	-	-	-	-	-	-	-	-	N
HRLF222 IT	Harel Sal 4D S&P Kensho CleanT	-	-	-	-	-	-	-	-	Y
MTFF81 IT	MTF Sal 4D Index Israeli High-	-	-	-	-	-	-	-	-	N
MTFF122 IT	MTF Sal 4D Index Top10 Tech	-	-	-	0.53	-	-	-	-	N
AQUST SW	Exchange Traded Product on Leo	-	-	-	0.47	0.85	-	-	-	N
ADTIC SW	Exchange Traded Product on Ada	-	-	-	0.47	0.75	-	-	Y	-
Utilities										
SX6PEX GR	iShares Stoxx Europe 600 Utili	300	0	0.09	0.47	-	-	-	-	N
IILUS LN	iShares V PLC-Ishares S&P 500	267	↓	1	0.20	0.15	-	-	-	L
XDWU GR	Xtrackers MSCI World Utilities	198	↑	0	0.21	0.25	-	-	-	N
STU FP	SPDR MSCI Europe Utilities UCI	110	↓	0	0.12	0.18	-	-	-	N
WELD GR	Amundi S&P Global Utilities Es	103	↑	0	0.54	0.18	-	-	Y	-
XLUS LN	Invesco Utilities S&P US Sele	84	↑	0	0.21	0.14	-	-	-	N
UTI FP	Amundi Stoxx Europe 600 Utilit	61	0	0.12	0.30	-	-	-	-	N
SXLU LN	SPDR S&P U.S. Utilities Select	42	↑	0	0.21	0.15	-	-	-	N
XS6R GR	Xtrackers MSCI Europe Utilite	26	↓	0	0.20	0.17	-	-	Y	-
WUTI LN	SPDR MSCI World Utilities UCIT	23	0	0.54	0.30	-	-	-	-	N
X6PS GR	Invesco Stoxx Europe 600 Optim	8	0	0.21	0.20	-	-	-	-	L
BEARFUM.FH	BEAR FORTUM X2 H	-	-	-	-	-	-	-	-2x	-
MTFF49 IT	MTF SAL 4A S&P Utilities Curre	-	-	-	0.80	-	-	-	-	Y

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Technology (Continued)										
X8PS GR	Invesco Stoxx Europe 600 Optim	20	↑	0	0.28	0.20	-	-	-	N
XNGI GR	Xtrackers MSCI Next Generation	18	↑	0	0.48	0.30	-	-	Y	-
QCLU LN	First Trust Nasdaq Clean Edge	13	0	0.76	0.60	-	-	-	Y	-
SYFANG SJ	Sygnia Itrix FANG.AI Actively	8	0	0.79	0.00	-	-	-	Y	-
SVLT LN	LS Short Volatility Long Tech	5	↑	0	0.41	1.00	-	-	-	N
WDE LN	Invesco S&P World Information	5	↑	0	0.41	1.08	-	-	Y	-
HITC LN	HSBC S&P India Tech UCITS ETF	4	-	0.92	0.65	-	-	-	-	N
ETFBWTEC.FW	Beta ETF WIGTech Portfolio Clo	4	0	0.10	0.64	-	-	-	-	N
FDUI LN	First Trust Dow Jones Internat	4	↓	0	0.51	0.65	-	-	-	N
ALBIJSTEAB	Albiad MSCI US Tech ETF	3	-	0.12	0.75	-	-	-	-	N
SOXL LN	Leverage Shares 4x Long Semico	2	-	0.76	0.75	-	-	-	+4x	-
3FNG LN	GraniteShares 3x Long FAANG Da	2	↑	0	-	0.99	-	-	+3x	-
SOXS LN	Leverage Shares -4x Short Semi	1	-	1.05	0.75	-	-	-	-4x	-
FANG LN	GraniteShares FAANG ETP	1	↑	0	2.68	0.69	-	-	-	N
SFNG LN	GraniteShares 1x Short FAANG D	1	↑	0	2.62	0.99	-1x	-	-	N
3FTG LN	GraniteShares 3x Long FATANG D	1	0	-	0.99	-	-	-	+3x	-
GFAM LN	GraniteShares GAFAM ETP	1	0	1.49	0.69	-	-	-	-	N
FTNG LN	GraniteShares FATANG ETP	1	↑	0	2.69	0.69	-	-	-	N
3GFM LN	GraniteShares 3x Long GAFAM Da	1	↓	0	1.90	0.99	-	-	+3x	-
QSSS LN	WisdomTree Qs100 5x Daily Shor	0	-	1.62	0.70	-	-	-	-5x	-
SFTG LN	GraniteShares 1x Short FATANG	0	0	2.71	0.99	-1x	-	-	-	N
SGFM LN	GraniteShares 1x Short GAFAM D	0	0	1.48	0.99	-1x	-	-	-	N

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Global (Broad Based) (Continued)										
SPPW GR	SPDR MSCI World UCITS ETF	6,078	↑ 0	0.07	0.12	-	-	-	-	N
XMWO GR	Xtrackers MSCI World Swap UCIT	5,841	0	0.06	0.45	-	-	-	-	L
JREG LN	JPMorgan Global Research Enhanc	5,102	↑ 1	0.07	0.25	-	-	-	-	N
VDEV LN	Vanguard FTSE Developed World	5,017	↑ 0	0.09	0.12	-	-	-	-	N
LQUV GR	Amundi MSCI World V UCITS ETF	4,860	↑ 0	0.05	0.12	-	-	-	-	N
SMSWLD GR	Invesco MSCI World UCITS ETF	4,550	0	0.06	0.19	-	-	-	-	N
MVSH GR	Amundi MSCI World SRI Climate	4,311	0	0.26	0.20	-	-	-	-	N
AHYQ GR	Amundi MSCI World III	4,235	0	0.08	0.20	-	-	-	-	N
EEWD LN	iShares MSCI World ESG Enhance	4,013	↑ 0	0.12	0.20	-	-	-	-	L
XMAW GR	Xtrackers MSCI AC World ESG Sc	3,818	↑ 0	0.06	0.25	-	-	-	-	N
CW8 FP	Amundi MSCI World UCITS ETF	3,701	3	0.07	0.38	-	-	-	-	N
WSML LN	iShares III PLC - iShares MSCI	3,609	2	0.11	0.35	-	-	-	-	N
AWESGS SW	UBS Irt ETF PLC - MSCI ACWI ES	3,341	0	0.11	0.30	-	-	-	-	N
WDE LN	iShares MSCI World EUR Hedged	3,238	1	0.05	0.55	-	-	-	-	N
ACWD LN	SPDR MSCI ACWI ETF	3,139	1	0.06	0.40	-	-	-	-	N
SAWD LN	iShares MSCI World ESG Screene	2,822	1	0.07	0.20	-	-	-	-	N
AWSRIS SW	UBS Irt ETF plc - MSCI ACWI So	2,816	↑ 0	0.24	0.33	-	-	-	-	N
ELFW GR	Deka MSCI World UCITS ETF	2,532	↑ 0	0.09	0.31	-	-	-	-	N
MWOE GR	Amundi ETF ICAV - Amundi MSCI	2,383	↑ 0	0.15	0.12	-	-	-	-	N
DJGTDEX GR	iShares Dow Jones Global Titan	1,848	↑ 0	0.12	0.51	-	-	-	-	N
IMD LN	SPDR MSCI ACWI IMI ETF	1,411	↑ 0	0.08	0.17	-	-	-	-	N
MWOP GR	Amundi MSCI World ESG Leaders	1,369	0	0.09	0.18	-	-	-	-	N
WSRIA SW	UBS Irt ETF PLC - MSCI World S	1,320	↑ 0	0.13	0.22	-	-	-	-	N
FEMR LN	Fidelity Sustainable Research	1,299	↑ 0	0.98	0.50	-	-	-	-	N
ACWI FP	Amundi MSCI All Country World	1,290	0	0.12	0.45	-	-	-	-	N
LWCR GR	Amundi MSCI World ESG Climate	1,206	-	0.22	0.25	-	-	-	-	N
IGSU LN	iShares Dow Jones Global Susta	1,163	0	0.13	0.60	-	-	-	-	N
WRDCHA SW	UBS Lux Fund Solutions - MSCI	1,163	0	0.10	0.30	-	-	-	-	N
EWRD FP	BNP Paribas Easy MSCI World SR	1,129	↓ 0	0.16	0.26	-	-	-	-	N
UBU7 GR	UBS Irt ETF plc - MSCI World U	1,117	↑ 0	0.18	0.29	-	-	-	-	N
WDC SW	iShares MSCI World CHF Hedged	1,092	↑ 2	0.09	0.55	-	-	-	-	N
PR1W GR	Amundi Prime GLOBAL UCITS ETF	1,076	↑ 0	0.15	0.05	-	-	-	-	N
REUSE FP	BNP Paribas Easy ECPI Circular	951	0	0.17	0.30	-	-	-	-	N
MWOJ GR	Amundi MSCI USA ESG Leaders Ex	910	↑ 0	0.26	0.10	-	-	-	-	N
SYGWD SJ	Sygnia Irtx MSCI World ETF	891	1	0.56	0.69	-	-	-	-	N
D6RP GR	Deka MSCI World Climate Change	839	↑ 0	0.24	0.26	-	-	-	-	N
WDCS LN	SPDR MSCI World Small Cap UCIT	775	0	0.17	0.45	-	-	-	-	N
TSWE NA	VanEck Sustainable World Equal	749	1	0.19	0.20	-	-	-	-	N
WEBG SW	Amundi Prime All Country World	734	-	0.24	0.07	-	-	-	-	N
STXWDM SJ	Satix MSCI World ETF	673	↑ 1	0.55	0.35	-	-	-	-	N
CM9 FP	Amundi ETF MSCI World Ex Emu U	628	0	0.26	0.35	-	-	-	-	N
V3AB LN	Vanguard ESG Global All Cap UC	613	↑ 0	0.20	0.24	-	-	-	-	N
CEB FP	Amundi MSCI World EX Europe UC	578	0	0.26	0.35	-	-	-	-	N
WSCSRI SW	UBS Irt ETF plc - MSCI World S	519	↑ 0	0.71	0.23	-	-	-	-	N
PABW FP	Amundi MSCI World Climate Net	497	0	0.14	0.20	-	-	-	-	N
PABV GR	Amundi Msci World Climate Pari	492	↑ 0	0.19	0.25	-	-	-	-	N
HBAW LN	HSBC MSCI World Climate Paris	451	0	0.16	0.18	-	-	-	-	N
IGWD LN	iShares MSCI World GBP Hedged	334	1	0.08	0.55	-	-	-	-	N
FWRA LN	Invesco FTSE All-World UCITS E	261	0	0.17	0.15	-	-	-	-	N
WPAB NA	iShares MSCI World Paris-Align	252	↑ 0	0.12	0.20	-	-	-	-	N
ELCR FP	Lyxor MSCI Future Mobility ESG	243	0	0.32	0.45	-	-	-	-	N
MSZ LN	iShares IV plc - iShares Edge	219	0	0.16	0.30	-	-	-	-	N
MGT FP	Lyxor DJ Global Titans 50 UCIT	208	↑ 0	0.20	0.40	-	-	-	-	N
JPGL LN	JPMorgan Global Equity Multi-F	206	↑ 0	0.21	0.19	-	-	-	-	N
EXUS GR	Xtrackers MSCI World ex USA UC	199	-	0.44	0.15	-	-	-	-	N
WEMTE FP	BNP PARIBAS EASY ICAV-BNP Pari	199	↓ 0	0.27	0.15	-	-	-	-	N
HSWD LN	HSBC Developed World Sustainab	193	↑ 0	0.16	0.18	-	-	-	-	N
LNXC IM	Investix Capital Apprecio	161	0	0.38	0.85	-	-	-	-	N
JSEG LN	JPMorgan Global Research Enhanc	144	0	0.16	0.25	-	-	-	-	N
ESGW LN	Invesco MSCI World ESG Univers	137	0	0.22	0.19	-	-	-	-	N
LGGL LN	L&G Global Equity UCITS ETF	125	↑ 0	0.28	0.10	-	-	-	-	N
EWSA NA	iShares MSCI World Small Cap E	118	↑ 0	0.41	0.35	-	-	-	-	N
HWSC LN	HSBC MSCI World Small Cap ESG	101	↑ 0	0.36	0.25	-	-	-	-	N
MILL FP	Lyxor MSCI Millennials ESG Fil	99	↑ 0	0.98	0.45	-	-	-	-	N
XSFR GR	Xtrackers S&P Select Frontier	90	0	0.73	0.95	-	-	-	-	N
BQGE GR	Barclays Quantic Global e NR	85	0	1.15	0.70	-	-	-	-	N
XDWY GR	Xtrackers MSCI World ESG Scree	84	0	0.23	0.19	-	-	-	-	N
WELA GR	Amundi ETF ICAV-Amundi MSCI AC	68	↑ 0	0.45	0.20	-	-	-	-	N
WFEA FP	iShare MSCI World Swap PEA UCI	64	-	0.09	0.25	-	-	-	-	N
OPEN LN	iShares IV PLC - iShares Refin	57	↓ 0	0.18	0.25	-	-	-	-	N
LVLCL LN	Invesco Quantitative Strategie	55	0	0.46	0.25	-	-	-	-	N
XDEX LN	Xtrackers MSCI Emerging Market	51	0	0.53	0.18	-	-	-	-	N

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Global (Broad Based) (Continued)										
SAWI NA	iShares MSCI ACWI SRI UCITS ET	50	↑ 0	0.24	0.20	-	-	-	-	N
FGLR LN	Fidelity Sustainable Research	45	0	0.53	0.35	-	-	-	-	N
GLOBAL SJ	10X Total World Stock ETF	37	↑ 0	0.77	0.29	-	-	-	-	N
XCTW GR	Xtrackers MSCI World Climate T	32	↑ 0	0.23	0.19	-	-	-	-	N
EMOVE IM	Fineco AM Market/ector Global	30	0	0.44	0.38	-	-	-	-	N
XEMN GR	Xtrackers Emerging Markets Net	28	↑ 0	0.95	0.20	-	-	-	-	N
50GU SW	Ossiam Shiller Barclays Cape G	28	0	0.67	0.65	-	-	-	-	N
XNZW GR	Xtrackers World Net Zero Pathw	27	0	0.49	0.19	-	-	-	-	N
T3MP LN	JPMorgan Climate Change Soluif	26	↑ 0	0.61	0.55	-	-	-	-	N
FCSG LN	First Trust Global Capital Str	26	↓ 0	1.17	0.75	-	-	-	-	N
ETFWLD SJ	1invest MSCI World Index Feeder	25	↑ 0	0.65	0.40	-	-	-	-	N
INFBN NA	Horizon Kinetics Inflation Ben	20	↑ 0	0.49	0.85	-	-	-	-	N
PAACU FP	BNP Paribas Easy MSCI ACWI SRI	19	-	0.36	0.25	-	-	-	-	N
PAACE FP	BNP Paribas Easy MSCI ACWI SRI	19	-	0.38	0.20	-	-	-	-	N
FLXG GR	Franklin Global Equity SRI UCI	18	↓ 0	0.53	0.30	-	-	-	-	N
XDGI GR	Xtrackers MSCI Global SDGs UCI	14	↑ 0	0.49	0.35	-	-	-	-	N
STXESG SJ	Satix MSCI World ESG Enhanced	13	0	1.51	0.34	-	-	-	-	N
AW11 GR	UBS Irt ETF plc-UBS Climate Aw	12	↓ 0	0.57	0.19	-	-	-	-	N
5HGE IM	Ossiam ESG Shiller Barclays CA	12	0	1.01	0.75	-	-	-	-	N
STXACW SJ	Satix MSCI ACWI Feeder ETF	11	-	1.10	0.35	-	-	-	-	N
WTOP20 SJ	10X Wealth Top20 Capped ETF	11	↑ 0	0.76	-	-	-	-	-	N
XBIO GR	Xtrackers World Biodiversity F	10	0	0.67	0.30	-	-	-	-	N
ACPA SW	UBS Irt ETF plc - MSCI ACWI CI	10	↑ 0	0.50	0.22	-	-	-	-	N
AW10 GR	UBS Irt ETF plc-MSCI World Cii	8	0	0.74	0.20	-	-	-	-	N
WRLD LN	Goldman Sachs Paris-Aligned CI	6	0	0.73	0.24	-	-	-	-	N
C5KELN	CIRCA5000 Social & Economic Em	5	0	0.67	0.49	-	-	-	-	N
C5KGLN	CIRCA5000 Green Energy & Techn	5	0	0.58	0.49	-	-	-	-	N
WLDX IM	Amundi MSCI World Ex EMU SRI P	5	↓ 0	0.89	0.35	-	-	-	-	N
SPPW GR	SPDR MSCI World Climate Paris	4	↓ 0	0.60	0.15	-	-	-	-	N
CSKH LN	CIRCA5000 Health & Wellbeing U	4	0	0.59	0.49	-	-	-	-	N
C5KF LN	CIRCA5000 Sustainable Food & B	4	0	0.62	0.49	-	-	-	-	N
IMDS NA	iShares MSCI World Swap UCITS	4	-	0.19	0.20	-	-	-	-	N
SPP8 GR	SPDR MSCI ACWI Climate Paris A	4	↓ 0	0.91	0.20	-	-	-	-	N
CSE GR	CASE Invest Sustainable Future	4	0	0.34	0.23	-	-	-	-	N
THMZ LN	L&G Global Thematic ESG Excluc	4	0	1.10	0.60	-	-	-	-	N
XDGS GR	Xtrackers MSCI Global SDGs Soc	3	-	0.75	0.35	-	-	-	-	N
ABMSCIE AB	Altiad MSCI US Equity ETF	3	-	0.17	-	-	-	-	-	N
CY CL LN	Rize Circular Economy Enablers	2	↑ 0	0.90	0.45	-	-	-	-	N
STXCTY SJ	Satix Smart City Infrastructu	1	0	1.47	0.60	-	-	-	-	N
SYGESG SJ	Sygnia Irtx S&P Global 1200 E	1	0	0.67	0.00	-	-	-	-	N
FNBWDM SJ	FNB MSCI World Feeder ETF	1	-	-	0.13	-	-	-	-	N
VT3 LN	Leverage Shares 3x Long Total	0	0	1.73	0.75	+3x	-	-	-	N
ETFSRI SJ	1invest MSCI World Socially Res	0	0	0.66	0.41	-	-	-	-	N
KSMF67 IT	KSM ETF 4D MSCI World	-	-	-	0.86	-	-	-	-	N
KSMF89 IT	KSM ETF 4D MSCI AC World	-	-	-	0.98	-	-	-	-	N
KSMF143 IT	KSM ETF 4A MSCI World Dollar H	-	-	-	1.03	-	-	-	-	N
KSMF171 IT	KSM ETF 4A MSCI AC World Dolla	-	-	-	0.25	-	-	-	-	N
PSGF106 IT	IBI SAL 4D MSCI AC World	-	-	-	0.80	-	-	-	-	N
HRLF73 IT	Harel Sal 4D MSCI AC World	-	-	-	0.83	-	-	-	-	N
HRLF205 IT	Harel Sal 4A MSCI AC World Dol	-	-	-	0.43	-	-	-	-	N
TCHF71 IT	Tachit SAL 4A MSCI AC World U	-	-	-	-					

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Global (Style) (Continued)										
NUCL LN	VanEck Uranium and Nuclear Tec	91	↑	0.62	0.55	-	-	-	-	N
HDRO LN	VanEck Hydrogen Economy UCITS	79	0	0.68	0.55	-	-	-	Y	N
ISUN LN	Invesco Solar Energy UCITS ETF	66	↑	0.31	0.69	-	-	-	Y	N
GOAT LN	VanEck Morningstar Global Wide	60	↓	0.42	0.52	-	-	-	-	N
LOWLD FP	BNP Paribas Easy Low Carbon 30	49	↑	0.33	0.31	-	-	-	Y	N
MEDTE FP	BNP Paribas Easy ECPI Global E	47	↑	0.44	0.30	-	-	-	Y	N
GCLE LN	Invesco Global Clean Energy UC	42	0	0.30	0.60	-	-	-	Y	N
D6RD GR	Deka Future Energy ESG UCITS E	22	0	0.59	0.55	-	-	-	Y	N
XSOE LN	WisdomTree Emerging Markets ex	14	↑	0.85	0.32	-	-	-	Y	N
LAB2 LN	L&G Global Brands UCITS ETF	13	0	0.59	0.39	-	-	-	-	N
GINF FP	Amundi Global Infrastructure U	12	↓	0.44	0.55	-	-	-	-	N
FRNW LN	Fidelity Clean Energy UCITS ET	9	↑	0.72	0.39	-	-	-	Y	N
PAWD LN	Invesco MSCI World ESG Climate	7	↑	0.30	0.19	-	-	-	Y	N
HYGN LN	Global X Hydrogen UCITS ETF	6	↑	1.96	0.50	-	-	-	-	N
GNOM LN	Global X Genomics & Biotechol	6	0	0.54	0.50	-	-	-	-	N
LITM NA	iShares Lithium & Battery Prod	4	0	0.55	0.55	-	-	-	-	N
EDOC LN	Global X Telemedicine & Digita	4	0	0.41	0.68	-	-	-	-	N
WNDE LN	Invesco Wind Energy UCITS ETF	4	↑	0.39	0.60	-	-	-	Y	N
HYDE LN	Invesco Hydrogen Economy UCITS	4	↑	0.41	0.60	-	-	-	Y	N
RAYZ LN	Global X Solar UCITS ETF	3	↑	0.59	0.50	-	-	-	Y	N
RNRG LN	Global X Renewable Energy Prod	3	0	0.43	0.50	-	-	-	Y	N
WNDY LN	Global X Wind Energy UCITS ETF	3	0	0.51	0.50	-	-	-	Y	N
MTFF71 IT	MTF Sal 4A Index Renewable Ene	-	-	-	-	-	-	-	Y	N
MTFF73 IT	MTF SAL 4D Index Renewable Ene	-	-	-	-	-	-	-	Y	N
TCHF174 IT	Tchitit SAL 4D Index World Gro	-	-	-	0.83	-	-	-	-	N
KSMF211 IT	KSM ETF 4D Index World Growth	-	-	-	0.43	-	-	-	-	N
KSMF210 IT	KSM ETF 4D Index World Value	-	-	-	0.43	-	-	-	-	N
PSGF177 IT	IBI SAL 4D Index Global Value	-	-	-	0.42	-	-	-	-	N
MTFF106 IT	MTF Sal 4D Index World Value	-	-	-	0.53	-	-	-	-	N
Emerging Markets (Broad Based)										
EMIM LN	iShares Core MSCI EM IMI UCITS	19,140	4	0.07	0.18	-	-	-	-	N
UIMM GR	UBS Lux Fund Solutions - MSCI	5,134	0	0.10	0.22	-	-	-	Y	N
XIME GR	Xtrackers MSCI Emerging Market	5,102	0	0.11	0.18	-	-	-	-	N
AEME FP	Amundi Index MSCI Emerging Mar	5,049	1	0.07	0.20	-	-	-	-	N
EEDM LN	iShares MSCI EM ESG Enhanced U	4,663	↑	0.17	0.18	-	-	-	Y	L
IEEM LN	iShares MSCI EM UCITS ETF USD	4,196	1	0.06	0.18	-	-	-	-	N
EMMUSA SW	UBS Lux Fund Solutions - MSCI	3,968	0	0.21	0.22	-	-	-	-	N
SAEM LN	iShares MSCI EM IMI ESG Sreen	3,234	1	0.14	0.18	-	-	-	Y	N
SUSM LN	iShares MSCI EM SRI UCITS ETF	3,075	↓	0.13	0.25	-	-	-	Y	N
AEMF FP	Amundi MSCI Emerging Markets U	2,984	1	0.08	0.20	-	-	-	-	N
CBMEM SW	Amundi MSCI Emerging Markets I	2,918	0	0.36	0.14	-	-	-	-	N
SEMA LN	iShares MSCI EM UCITS ETF USD	2,782	↑	0.09	0.18	-	-	-	-	N
VDEM LN	Vanguard FTSE Emerging Markets	2,578	0	0.08	0.22	-	-	-	-	N
HMEM LN	HSBC MSCI Emerging Markets UC	2,374	0	0.11	0.15	-	-	-	-	N
MSRUSA SW	UBS Lux Fund Solutions - MSCI	1,537	↓	0.26	0.27	-	-	-	Y	N
XZEM GR	Xtrackers MSCI Emerging Market	1,369	0	0.22	0.25	-	-	-	Y	N
JREM LN	JPMorgan Global Emerging Marke	1,180	0	0.18	0.36	-	-	-	Y	N
SADM GR	Amundi Msci Emerging ESG Leade	1,056	↓	0.18	0.18	-	-	-	Y	N
LEM FP	Amundi MSCI Emerging Markets I	948	0	0.10	0.55	-	-	-	-	N
EXCH NA	iShares MSCI EM EX-China UCITS	920	↑	0.15	0.18	-	-	-	-	N
XMEM GR	Xtrackers MSCI Emerging Market	670	0	0.14	0.49	-	-	-	-	L
EMRD LN	SPDR MSCI Emerging Markets UC	535	↑	0.11	0.18	-	-	-	-	N
EBMK FP	BNP Paribas Easy MSCI Emerging	512	↑	0.37	0.27	-	-	-	Y	N
EMSR FP	BNP Paribas Easy MSCI Emerging	489	↓	0.40	0.31	-	-	-	Y	N
IEMS LN	iShares MSCI EM Small Cap UCIT	464	↑	0.34	0.74	-	-	-	-	N
SBIM GR	Amundi Index MSCI EMERGING ESG	451	↑	0.30	0.20	-	-	-	Y	N
EMXG LN	Amundi MSCI EMERGING EX CHINA	448	↑	0.38	0.35	-	-	-	Y	N
PAASIF FP	Amundi PEA MSCI Emerging Asia	387	↓	0.26	0.30	-	-	-	Y	N
MXFS LN	Invesco MSCI Emerging Markets	320	↓	0.15	0.19	-	-	-	-	N
EMSD LN	SPDR MSCI Emerging Markets Sma	317	↑	0.70	0.55	-	-	-	-	N
PAEEM FP	Amundi PEA MSCI Emerging Marke	310	0	0.30	0.30	-	-	-	Y	N
HSEM LN	HSBC Emerging Market Sustainab	171	↓	0.49	0.18	-	-	-	Y	N
STXEMG SJ	Satrix MSCI Emerging Markets E	117	0	0.70	0.40	-	-	-	-	N
PAEM LN	Invesco MSCI Emerging Markets	103	↑	0.40	0.19	-	-	-	Y	N
BRIC LN	iShares BIC 50 UCITS ETF	103	0	0.24	0.74	-	-	-	-	N
HESC LN	HSBC MSCI Emerging Markets Sma	95	↑	0.53	0.35	-	-	-	Y	N
ETEFMMA GR	Deka MSCI Emerging Markets UC	85	0	0.70	0.66	-	-	-	-	N
EGUSA SW	UBS Irf Fund Solutions plc - M	82	0	0.48	0.14	-	-	-	-	N
CHADX15 UH	Chimera FTSE ADX 15 ETF	60	↑	0	1.00	-	-	-	-	N
HIEM LN	HSBC MSCI Emerging Markets Isl	39	↑	0.91	0.35	-	-	-	Y	N
V3MA LN	Vanguard ESG Emerging Market A	36	↑	0.33	0.24	-	-	-	Y	N
PRAM LN	Amundi Prime Emerging Markets	29	↑	0.59	0.10	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Emerging Markets (Broad Based) (Continued)										
EMPA SW	UBS Irf ETF plc - MSCI Emergin	26	0	1.29	0.23	-	-	-	Y	N
PLEM FP	Amundi PEA MSCI Emerging EMEA	24	0	0.30	0.55	-	-	-	Y	N
HFEM LN	HSBC MSCI Emerging Markets Cii	21	0	0.48	0.18	-	-	-	Y	N
XMEA GR	Xtrackers MSCI EM Europe Middl	20	↓	0.55	0.65	-	-	-	Y	N
EMXCN SW	UBS Lux Fund Solutions - MSCI	18	0	0.80	0.16	-	-	-	-	N
XEMC GR	Xtrackers MSCI Emerging Market	16	0	0.86	0.19	-	-	-	-	N
FEM LN	First Trust Emerging Markets A	14	0	1.28	0.80	-	-	-	-	N
3EML IM	WisdomTree Emerging Markets 3x	13	0	0.21	0.99	+3x	-	-	-	N
EMXCN SW	UBS Irf ETF plc - MSCI Emergin	8	-	0.89	0.20	-	-	-	-	N
STXEME SJ	Satrix MSCI EM ESG Enhanced Fe	7	0	1.88	0.39	-	-	-	Y	N
FVEM GR	Franklin MSCI Emerging Markets	5	0	0.61	0.18	-	-	-	Y	N
SPF7 GR	SPDR MSCI Emerging Markets Cii	4	↓	0.122	0.23	-	-	-	Y	N
3EIMS IM	WisdomTree Emerging Markets 3x	1	↓	0.126	0.99	-3x	-	-	-	N
FNBEMG SJ	FNB MSCI EM Feeder ETF	1	-	-	0.13	-	-	-	-	N
KOR3 LN	Leverage Shares 3x Long South	0	↑	0.143	0.75	+3x	-	-	-	N
KORS LN	Leverage Shares -3x Short Sout	0	↓	0.131	0.75	-3x	-	-	-	N
SYGEMF SJ	Sygnia Itrix MSCI Emerging Mar	0	↓	0.102	0.00	-	-	-	-	N
TAIS LN	Leverage Shares -3x Short Taiw	0	↑	0.200	0.75	-3x	-	-	-	N
ETFEMA SJ	Invest MSCI EM Asia Index Feed	0	↑	0.79	0.41	-	-	-	-	N
TCHF128 IT	Tchitit SAL 4D MSCI Emerging M	-	-	-	-	-	-	-	-	N
KSMF68 IT	KSM ETF 4D MSCI Emerging Marke	-	-	-	1.17	-	-	-	-	N
KSMF95 IT	KSM ETF 4A MSCI Emerging Marke	-	-	-	1.43	-	-	-	Y	N
HRLF72 IT	Harel Sal 4D MSCI Emerging Mar	-	-	-	0.58	-	-	-	-	N
MTFF34 IT	MTF SAL 4D MSCI Emerging Marke	-	-	-	0.80	-	-	-	-	N
Emerging Markets (Style)										
BMSRI FP	Amundi Index MSCI EMERGING MAR	1,797	0	0.21	0.25	-	-	-	Y	N
DEM LN	WisdomTree Emerging Markets Eq	111	↑	0.52	0.46	-	-	-	Y	N
FEM LN	Fidelity Emerging Markets Qual	92	↑	0.80	0.50	-	-	-	-	N
ESBM LN	Invesco MSCI Emerging Markets	44	↑	0.57	0.19	-	-	-	Y	N
FLXEL LN	Franklin Emerging Markets UCIT	38	0	2.60	0.45	-	-	-	-	N
North America (Broad Based)										
CSPX LN	iShares Core S&P 500 UCITS ETF	81,192	23	0.03	0.07	-	-	-	-	M
VUSA LN	Vanguard S&P 500 UCITS ETF	48,007	16	0.03	0.07	-	-	-	-	N
SPXS LN	Invesco S&P 500 UCITS ETF	24,430	↑	7	0.04	0.05	-	-	-	N
IUSA LN	iShares Core S&P 500 UCITS ETF	15,606	4	0.04	0.07	-	-	-	-	N
EEDS LN	iShares MSCI USA ESG Enhanced	15,072	1	0.07	0.07	-	-	-	Y	L
SPY5 LN	SPDR S&P 500 UCITS ETF	13,424	↑	2	0.03	0.03	-	-	-	N
CSNDX SW	iShares NASDAQ 100 UCITS ETF	13,194	3	0.12	0.33	-	-	-	-	N
SP5 FP	Amundi S&P 500 II UCITS ETF	10,872	2	0.05	0.07	-	-	-	-	N
EQQQ IM	Invesco EQQQ Nasdaq 100 UCITS	9,104	2	0.05	0.30	-	-	-	-	N
D6BM GR	Xtrackers S&P 500 Swap UCITS E	8,725	0	0.04	0.15	-	-	-	-	N
XZMJ GR	Xtrackers MSCI USA ESG UCITS E	8,063	0	0.19	0.15	-	-	-	Y	N
XD9U GR	Xtrackers MSCI USA UCITS ETF	7,590	0	0.07	0.07	-	-	-	-	N
SYGUS SJ	Sygnia Itrix MSCI USA ETF	7,366	0	0.59	0.86	-	-	-	-	N
SASU LN	iShares MSCI USA ESG Screened	7,219	1	0.10	0.07	-	-	-	Y	N
JREU LN	JPMorgan US Research Enhanced	7,151	↑	1	0.07	0.20	-	-	Y	N
500 FP	Amundi S&P 500 UCITS ETF	7,082	1	0.06	0.15	-	-	-	-	N
SUAS LN	iShares MSCI USA SRI UCITS ETF	6,319	↓	2	0.09	0.20	-	-	Y	N
HSPX LN	HSBC S&P 500 UCITS ETF	6,295	1	0.05	0.09	-	-	-	-	N
ESD FP	BNP Paribas Easy S&P 500 UCITS	5,898	1	0.06	0.15	-	-	-	-	N
XDEW GR	Xtrackers S&P 500 Equal Weight	5,770	↑	0.13	0.20	-	-	-	-	N
IUSELN	iShares V plc - iShares S&P 50	5,617	3	0.05	0.20	-	-	-	Y	N
XIMUS GR	Xtrackers MSCI USA Swap UCITS	5,247	0	0.07	0.15</					

EMEA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
North America (Broad Based) (Continued)										
IDP6 LN	iShares S&P Small Cap 600 UCIT	1,575	↑ 1	0.15	0.30	-	-	-	-	N
USSRI SW	UBS Irl ETF PLC - MSCI USA Soc	1,571	↑ 6	0.16	0.22	-	-	Y	-	N
UIMP GR	UBS Lux Fund Solutions - MSCI	1,565	0	0.07	0.22	-	-	Y	-	N
EKLD FP	BNP Paribas Easy MSCI USA SRI	1,516	↓ 0	0.20	0.26	-	-	Y	-	N
CSUSS SW	iShares MSCI USA Small Cap ESG	1,505	0	0.25	0.43	-	-	Y	-	N
SADU FP	Amundi Msci USA ESG Leaders Uc	1,401	↓ 0	0.11	0.15	-	-	Y	-	N
CSUS SW	iShares MSCI USA UCITS ETF	1,345	↑ 1	0.12	0.07	-	-	-	-	N
CANODA SW	UBS Lux Fund Solutions - MSCI	1,290	3	0.12	0.33	-	-	-	-	N
NESG LN	Invesco Nasdaq-100 ESG UCITS E	1,203	↑ 0	0.09	0.25	-	-	Y	-	N
INAA LN	iShares MSCI North America UCI	1,062	1	0.13	0.40	-	-	-	-	N
PE500 FP	Amundi PEA S&P 500 ESG UCITS E	1,057	1	0.11	0.25	-	-	Y	-	N
XDPE GR	Xtrackers S&P 500 UCITS ETF	1,035	↓ 0	0.10	0.20	-	-	-	Y	N
CSINDU SW	iShares Dow Jones Industrial A	1,023	0	0.19	0.33	-	-	-	-	N
D6RO GR	Deka MSCI USA Climate Change E	990	0	0.20	0.25	-	-	Y	-	N
CU2 FP	Amundi PEA MSCI USA ESG Leader	988	0	0.22	0.35	-	-	Y	-	N
XRS2 GR	Xtrackers Russell 2000 UCITS E	978	0	0.07	0.30	-	-	-	-	N
SPEUS FP	BNP Paribas Easy S&P 500 ESG U	952	↑ 0	0.20	0.12	-	-	Y	-	N
WDESG SW	Credit Suisse Index Fund IE ET	949	↓ 1	0.57	0.15	-	-	Y	-	N
CSCA SW	iShares MSCI Canada UCITS ETF	945	0	0.19	0.48	-	-	-	-	N
UBU9 GR	UBS Irl ETF plc - S&P 500 UCIT	928	0	0.11	0.12	-	-	-	-	N
HSUD LN	HSBC USA Sustainable Equity UC	884	0	0.20	0.12	-	-	Y	-	N
ANAU SW	AXA IM Nasdaq 100 UCITS ETF	859	↑ 0	0.33	0.14	-	-	-	-	N
OP7E SW	Ossiam Bloomberg USA PAB UCITS	826	↑ 0	0.40	0.12	-	-	Y	-	N
IGUS LN	iShares S&P 500 GBP Hedged UCI	824	2	0.05	0.20	-	-	-	-	N
WELE GR	Amundi ETF ICAV-Amundi S&P 500	765	↑ 0	0.30	0.18	-	-	Y	-	N
XNAS GR	Xtrackers NASDAQ 100 UCITS ETF	673	↑ 0	0.07	0.20	-	-	-	-	N
LGUS LN	L&G US Equity UCITS ETF	619	0	0.37	0.05	-	-	Y	-	N
LOQP FP	Amundi NASDAQ-100 Daily 2X Lev	618	5	0.12	0.60	+2x	-	-	-	N
EQQS LN	Invesco Nasdaq-100 Swap UCITS	596	↑ 1	0.06	0.20	-	-	-	-	N
MUSD NA	iShares MSCI USA Swap UCITS ET	569	0	0.37	0.07	-	-	-	-	N
XZEW GR	Xtrackers S&P 500 Equal Weight	558	↑ 0	0.34	0.17	-	-	Y	-	N
CL2 FP	Amundi ETF Leveraged MSCI Usa	521	1	0.16	0.50	+2x	-	-	-	N
PSF5 FP	Lyxor PEA S&P 500 UCITS ETF	511	1	0.06	0.15	-	-	-	-	N
IJSC SW	iShares S&P 500 CHF Hedged UCI	508	1	0.07	0.20	-	-	-	-	N
NRAM FP	Amundi MSCI North America ESG	507	0	0.19	0.15	-	-	Y	-	N
UPAB NA	iShares S&P 500 Paris-Aligned	477	↑ 0	0.13	0.07	-	-	Y	-	N
RIS LN	L&G US ESG Exclusions Paris Al	457	↓ 1	0.22	0.12	-	-	Y	-	N
PANX FP	Amundi PEA US Tech UCITS ETF	441	↑ 1	0.09	0.30	-	-	-	-	N
USACHA SW	UBS Lux Fund Solutions - MSCI	428	0	0.06	0.14	-	-	-	-	N
USEUWH SW	UBS Irl ETF plc - MSCI USA hed	418	0	0.10	0.19	-	-	-	Y	N
USMCM SW	CSIF IE MSCI USA Small Cap ESG	415	0	0.60	0.20	-	-	-	-	N
MJUSAS SW	UBS Irl Fund Solutions plc - M	405	↓ 0	0.49	0.15	-	-	-	-	N
ENAM FP	BNP Paribas Easy MSCI North Am	350	↓ 0	0.35	0.15	-	-	Y	-	N
D6BH GR	Xtrackers MSCI Canada ESG Scre	331	0	0.14	0.35	-	-	Y	-	N
PUST FP	Lyxor PEA NASDAQ-100 UCITS ETF	328	↑ 2	0.07	0.30	-	-	-	-	N
PAUS LN	Invesco MSCI USA ESG Climate P	318	0	0.15	0.09	-	-	Y	-	N
STX500 SJ	Satrix S&P 500 ETF	314	↑ 1	0.49	0.25	-	-	-	-	N
QQQ3 LN	WisdomTree NASDAQ 100 3x Daily	301	↓ 2	0.21	0.75	+3x	-	-	-	N
ESPX NA	iShares S&P 500 ESG UCITS ETF	299	↑ 0	0.08	0.07	-	-	Y	-	N
ETFUSAC GR	Deka MSCI USA UCITS ETF	299	0	0.27	0.30	-	-	-	-	N
DJEF FP	Lyxor Dow Jones Industrial Ave	294	0	0.11	0.50	-	-	-	-	N
DBPG GR	Xtrackers S&P 500 2x Leveraged	292	0	0.07	0.60	+2x	-	-	-	N
FLX5 GR	Franklin S&P 500 Paris Aligned	289	↑ 0	0.21	0.07	-	-	Y	-	N
SPESGE SW	UBS Irl ETF plc - S&P 500 ESG	288	0	0.24	0.15	-	-	Y	-	N
FUSR LN	Fidelity Sustainable Research	284	↓ 0	0.26	0.30	-	-	Y	-	N
SYG500 SJ	Sygnia Itrix S&P 500 ETF	279	0	0.59	0.19	-	-	-	-	N
STXNDQ SJ	Satrix NASDAQ 100 Feeder Portf	278	1	0.45	0.48	-	-	-	-	N
SFEG LN	Invesco S&P 500 Equal Weight U	260	↑ 0	0.17	0.20	-	-	-	-	N
RS2K FP	Amundi Russell 2000 UCITS ETF	260	↑ 1	0.11	0.35	-	-	-	-	N
WDMVO SW	CSIF IE MSCI World ESG Leaders	252	0	0.50	0.25	-	-	Y	-	N
USCHWH SW	UBS Irl ETF plc - MSCI USA hed	233	0	0.11	0.19	-	-	-	Y	N
JSEU LN	JPMorgan US Research Enhanced	197	0	0.14	0.20	-	-	Y	Y	N
IUSZ LN	iShares Edge MSCI USA Size Fac	168	↑ 0	0.21	0.20	-	-	-	-	N
BBSC LN	JPMorgan Betabuilders US Small	153	↑ 0	0.26	0.14	-	-	-	-	N
SSUSAS SW	UBS Irl Fund Solutions plc - S	150	0	0.30	0.19	-	-	-	-	N
V3NA LN	Vanguard ESG North America All	132	↑ 0	0.22	0.12	-	-	Y	-	N
XRSM GR	Xtrackers MSCI USA ESG Screen	131	↑ 0	0.14	0.07	-	-	Y	-	N
DXS3 GR	Xtrackers S&P 500 Inverse Dal	130	↓ 0	0.12	0.50	-1x	-	-	-	N
ETFUSA IM	Amundi Prime USA UCITS ETF	128	0	0.20	0.05	-	-	-	-	N
OPBE SW	Ossiam Bloomberg Canada Pab Uc	119	↑ 0	0.33	0.29	-	-	Y	-	N
MWON GR	Amundi S&P SmallCap 600 ESG UC	117	↑ 0	0.34	0.35	-	-	Y	-	N
AW16 GR	UBS Irl ETF plc-MSCI USA Clima	113	0	0.30	0.12	-	-	Y	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
North America (Broad Based) (Continued)										
IBWQ LN	Invesco NASDAQ-100 Equal Weigh	105	0	0.36	0.20	-	-	-	-	N
3JUL LN	WisdomTree S&P 500 3x Daily Le	99	1	0.13	0.75	+3x	-	-	-	N
ETFUSLC GR	Deka MSCI USA LC UCITS ETF	96	0	0.23	0.30	-	-	-	-	N
AHY1 GR	Amundi PEA Dow Jones Industria	93	0	0.28	0.45	+1x	-	-	-	N
CSP500 SJ	10X S&P 500 ETF	91	0	0.52	0.50	-	-	-	-	N
PDJE FP	Amundi PEA S&P US Industrials	87	↑ 0	0.26	0.50	-	-	Y	-	N
RTW0 LN	L&G Russell 2000 Small CAP Qua	80	↑ 0	0.55	0.30	-	-	-	-	N
USML LN	Invesco S&P SmallCap 600 UCITS	76	0	0.25	0.14	-	-	-	-	N
SR2000 GR	Invesco Russell 2000 UCITS ETF	69	↑ 0	0.12	0.25	-	-	-	-	N
QQQS LN	WisdomTree NASDAQ 100 3x Daily	66	↑ 1	0.28	0.80	-3x	-	-	-	N
M8SD GR	Market Access NYSE Arca Gold B	62	0	0.66	0.65	-	-	-	-	N
GLSL LN	Goldman Sachs ActiveBeta US La	51	↓ 0	0.25	0.14	-	-	-	-	N
XZSP GR	Xtrackers S&P 500 ESG UCITS ET	50	↑ 0	0.35	0.08	-	-	Y	-	N
DBPK GR	Xtrackers S&P 500 2x Inverse D	42	0	0.22	0.70	-2x	-	-	-	N
EQJQ LN	Invesco NASDAQ Next Generation	41	0	0.30	0.25	-	-	-	-	N
D6RI GR	Deka S&P 500 UCITS ETF	41	-	0.34	0.12	-	-	-	-	N
D6RH GR	Deka Nasdaq-100 UCITS ETF	39	0	0.40	0.25	-	-	-	-	N
DSP5 FP	Amundi MSCI USA Daily -1x Inve	38	0	0.18	0.60	-2x	-	-	-	N
ETFUSMC GR	Deka MSCI USA MC UCITS ETF	36	0	0.33	0.30	-	-	-	-	N
HMUS LN	HSBC MSCI USA UCITS ETF	35	0	0.12	0.30	-	-	-	-	N
OUFU LN	Ossiam US ESG Low Carbon Equit	35	↓ 0	0.46	0.45	-	Y	Y	-	N
FLXA GR	Franklin MSCI World Catholic P	34	-	0.96	0.27	-	-	Y	-	N
3USS LN	WisdomTree S&P 500 3x Daily Sh	32	0	0.20	0.80	-3x	-	-	-	N
WSPX IM	WisdomTree S&P 500	29	↑ 0	0.17	0.05	-	-	-	-	N
HCAN LN	HSBC MSCI Canada UCITS ETF	29	0	0.20	0.35	-	-	-	-	N
HPAU LN	HSBC MSCI USA Climate Paris Al	27	0	0.26	0.12	-	-	Y	-	N
LCUS GR	Lyxor Core US Equity DR UCITS	25	0	0.27	0.04	-	-	-	-	N
SPXFW SW	UBS Irl Fund Solutions plc - U	21	0	-	0.29	-	-	-	-	N
BBUS LN	JPMorgan Betabuilders US Equit	19	↓ 0	0.14	0.04	-	-	-	-	N
FTCS LN	First Trust Capital Strength U	15	↓ 0	0.93	0.60	-	-	-	-	N
ETF500 SJ	Invest S&P500 Index Feeder ETF	14	↑ 0	0.64	0.27	-	-	-	-	N
AUI7 GR	AXA IM MSCI USA Equity PAB UCI	13	0	0.37	0.13	-	-	-	-	N
SPX3L IM	SG ETN Daily Long +3X S&P 500	12	0	0.70	0.70	+3x	-	-	-	N
XNUS GR	Xtrackers USA Net Zero Pathway	12	↑ 0	0.51	0.10	-	-	Y	-	N
XCDU GR	Xtrackers MSCI USA Climate Tra	10	↑ 0	0.24	0.09	-	-	Y	-	N
NTSX LN	WisdomTree US Efficient Core U	10	0	0.97	0.20	+1.5x	-	-	-	N
NDQ3L IM	SG ETN Daily Long +3X NASDAQ 1	9	↓ 0	0.70	0.70	+3x	-	-	-	N
BETANDXP PW	Beta ETF Nasdaq-100 PLN-Hedged	9	↑ 0	0.23	0.80	-	-	-	Y	N
JUSE LN	JPMorgan Active US Equity UCIT	8	-	0.45	0.39	-	Y	-	-	N
USESGA SW	UBS Irl ETF plc - MSCI USA ESG	7	0	0.10	0.12	-	-	Y	-	N
SMOT LN	VanEck Morningstar US SMID Moa	7	-	0.53	0.49	-	-	-	-	N
SPX3S IM	SG ETN Daily Short -3X S&P 500	4	0	0.69	0.70	-3x	-	-	-	N
USUF LN	SoiBeta HFI US Equity 6F EW US	4	↓ 0	1.02	0.30	-	-	-	-	N
BCFG GR	UBS Irl ETF plc - S&P 500 Clim	2	-	1.71	0.10	-	-	Y	Y	N
SP5Y LN	Leverage Shares 5x Long US 500	2	0	0.80	0.75	+5x	-	-	-	N
NDQ3S IM	SG ETN Daily Short -3X NASDAQ	2	0	0.70	0.70	-3x	-	-	-	N
VPCU LN	Vanilla Blue Chip Portfolio ET	2	-	1.30	1.30	-	-	Y	-	

EMEA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
North America (Broad Based) (Continued)										
TCHF39 IT	Tachit SAL 4A Russell 2000 Cu	-	-	-	-	-	-	-	Y	N
KSMF52 IT	KSM ETF 4D NASDAQ 100	-	-	-	0.62	-	-	-	-	N
KSMF60 IT	KSM ETF 4D Russell 2000	-	-	-	0.50	-	-	-	-	N
KSMF80 IT	KSM ETF 4D S&P 500	-	-	-	0.63	-	-	-	-	N
KSMF82 IT	KSM ETF 4A S&P 500 Currency He	-	-	-	0.93	-	-	-	Y	N
KSMF83 IT	KSM ETF 4A NASDAQ 100 Currency	-	-	-	0.92	-	-	-	Y	N
KSMF94 IT	KSM ETF 4A Russell 2000 Curren	-	-	-	0.38	-	-	-	Y	N
KSMF111 IT	KSM ETF 6D Leveraged S&P 500 x	-	-	-	2.78	+3x	-	-	-	N
KSMF112 IT	KSM ETF 6D Leveraged NASDAQ 10	-	-	-	2.78	+3x	-	-	-	N
KSMF114 IT	KSM ETF 6D Short Leveraged S&P	-	-	-	2.78	-2x	-	-	-	N
KSMF115 IT	KSM ETF 6D Short Leveraged NAS	-	-	-	2.78	-2x	-	-	-	N
KSMF117 IT	KSM ETF 4A S&P SmallCap 600 Cu	-	-	-	0.83	-	-	-	Y	N
KSMF119 IT	KSM ETF 4A Composite US Equity	-	-	-	0.02	-	-	-	Y	N
KSMF150 IT	KSM ETF 4D Composite US Equity	-	-	-	0.01	-	-	-	-	N
KSMF5 IT	KSM ETF 4D S&P MidCap 400	-	-	-	0.13	-	-	-	-	N
PSGF181 IT	IBI SAL 4D Nasdaq 100	-	-	-	0.01	-	-	-	-	N
PSGF65 IT	IBI SAL 4D S&P 500	-	-	-	0.60	-	-	-	-	N
PSGF180 IT	IBI SAL 4A Nasdaq 100 Currency	-	-	-	0.01	-	-	-	Y	N
KSMF228 IT	KSM ETF 4A S&P MidCap 400 Curr	-	-	-	0.62	-	-	-	Y	N
PSGF179 IT	IBI SAL 4A S&P 500 Currency-He	-	-	-	0.01	-	-	-	Y	N
HRLF26 IT	Harel Sal 4D NASDAQ 100	-	-	-	0.53	-	-	-	-	N
HRLF25 IT	Harel Sal 4D S&P 500	-	-	-	0.53	-	-	-	-	N
HRLF64 IT	Harel Sal 4D DJ Industrial Ave	-	-	-	0.48	-	-	-	-	N
HRLF50 IT	Harel Sal 4A S&P 500 Currency-	-	-	-	0.53	-	-	-	Y	N
HRLF49 IT	Harel Sal 4A NASDAQ 100 Curren	-	-	-	0.53	-	-	-	Y	N
HRLF95 IT	Harel Sal 4A S&P 500 Equal Wei	-	-	-	0.43	-	-	-	Y	N
MTFF52 IT	MTF SAL 4A S&P 500 Currency-He	-	-	-	0.25	-	-	-	Y	N
MTFF51 IT	MTF SAL 4A RUSSELL 2000 Curren	-	-	-	0.25	-	-	-	Y	N
MTFF33 IT	MTF SAL 4D RUSSELL 2000	-	-	-	0.55	-	-	-	-	N
MTFF23 IT	MTF SAL 4D S&P 500	-	-	-	0.25	-	-	-	-	N
MORES1 IT	MORE SAL 4D S&P 500	-	-	-	-	-	-	-	-	N
MORES2 IT	MORE SAL 4A S&P 500 Currency H	-	-	-	-	-	-	-	Y	N
MORES3 IT	MORE SAL 4D Nasdaq 100	-	-	-	-	-	-	-	-	N
MORES4 IT	MORE SAL 4A Nasdaq 100 Currenc	-	-	-	-	-	-	-	Y	N
HRLF216 IT	Harel Sal 6D 2 Time Short Leve	-	-	-	-	-2x	-	-	-	N
HRLF217 IT	Harel Sal 6A 3 Time Leverage N	-	-	-	-	+3x	-	-	Y	N
MTFF95 IT	MTF Sal 4D Nasdaq 100	-	-	-	0.02	-	-	-	-	N
MTFF96 IT	MTF Sal 4A Nasdaq 100 Currency	-	-	-	-	-	-	-	-	N
HRLF224 IT	Harel Sal 4A S&P North America	-	-	-	0.53	-	-	-	-	N
MTFF104 IT	MTF Sal 6D Leveraged Nasdaq 10	-	-	-	0.03	-	-	-	-	N
MTFF103 IT	MTF Sal 6D Short Leveraged Nas	-	-	-	0.03	-1x	-	-	-	N
MTFF121 IT	MTF Sal 4D Indxx US Airlines T	-	-	-	0.53	-	-	-	-	N
KSMF233 IT	KSM ETF 4A S&P	-	-	-	0.28	-	-	-	-	N
YELNF1 IT	YLETF 4D S&P 500	-	-	-	0.02	-	-	-	-	N
YELNF2 IT	YLETF 4A S&P 500 Currency Hedg	-	-	-	0.02	-	-	-	Y	N
YELNF3 IT	YLETF 4D Nasdaq 100	-	-	-	0.02	-	-	-	-	N
YELNF4 IT	YLETF 4A Nasdaq 100 Currency H	-	-	-	0.02	-	-	-	Y	N
AQLS SW	Exchange Traded Product on Leo	-	-	-	0.47	1.00	-	-	-	N
AQUS SW	Exchange Traded Product on Leo	-	-	-	0.49	0.85	-	-	-	N
KSMF237 IT	KSM ETF 4D S&P 500 Equal Weigh	-	-	-	0.23	-	-	-	-	N
North America (Style)										
UINC LN	First Trust US Equity Income U	281	1	0.28	0.65	-	Y	-	-	N
5HED LN	Ossiam ESG Low Carbon Shiller	169	↓	0	0.20	0.75	-	Y	Y	-
QYLD LN	Global X Nasdaq 100 Covered Ca	127	↑	0	0.36	0.45	-	-	-	-
SPOB LN	Global X S&P 500 Quarterly Buf	72	↑	0	0.35	0.50	-	-	-	-
SPQH LN	Global X S&P 500 Quarterly Tai	49	↑	0	0.29	0.50	-	-	-	-
QQQS LN	Leverage Shares 5x Long US Tec	20	0	0.44	0.75	+5x	-	-	-	-
XYLU LN	Global X S&P 500 Covered Call	17	0	0.49	0.45	-	-	-	-	-
SPXCC SW	UBS Iri Fund Solutions plc - U	14	↑	0	2.67	0.29	-	-	-	-
FPXU FP	First Trust US Equity Opportun	6	↓	0	0.71	0.65	-	-	-	-
QO3S LN	Leverage Shares -3x Short US T	3	↑	0	0.63	0.75	-3x	-	-	-
MAG7 LN	Leverage Shares 5x Long Magnif	2	-	-	0.94	0.75	+5x	-	-	-
SMH3 LN	Leverage Shares 3x Long Semico	2	↑	0	2.00	0.75	+3x	-	-	-
BUFD LN	Buffetteq Growth ETP	1	↑	0	1.65	1.00	-	Y	-	-
ARK3 LN	Leverage Shares 3x Long ARK In	1	0	1.44	0.75	+3x	-	-	-	-
FANI LN	LS FAANG+ ETP	1	↑	0	1.50	0.35	-	-	-	-
SARK LN	Leverage Shares -3x Short ARK	1	0	-	0.75	-3x	-	-	-	-
MAGS LN	Leverage Shares -3x Short Magn	0	-	-	0.98	0.75	-3x	-	-	-
SMHS LN	Leverage Shares -3x Short Semi	0	↑	0	1.54	0.75	-3x	-	-	-
XL3E LN	Leverage Shares 3x Long Oil &	0	↓	0	1.88	0.75	+3x	-	-	-
XL3S LN	Leverage Shares -3x Short Fina	0	0	2.26	0.75	-3x	-	-	-	-
XL3F LN	Leverage Shares 3x Long Financ	0	0	2.51	0.75	+3x	-	-	-	-

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
North America (Style) (Continued)										
KSMF142 IT	KSM ETF 4D S&P 500 Low Volatit	-	-	-	1.01	-	-	-	-	N
HRLF82 IT	Harel Sal 4A S&P 500 Low Volat	-	-	-	0.53	-	-	-	Y	N
TCHF68 IT	Tachit SAL 4D S&P 500 Low Vol	-	-	-	-	-	-	-	-	N
MTFF54 IT	MTF SAL 4D Indxx USA Cloud Com	-	-	-	0.80	-	-	-	-	N
MTFF76 IT	MTF Sal 4D Index Shopping Cent	-	-	-	-	-	-	-	-	N
PSGF176 IT	IBI SAL 4A Index US Momentum C	-	-	-	0.42	-	-	-	Y	N
MTFF123 IT	MTF Sal 4D Indxx US Healthcare	-	-	-	0.53	-	-	-	-	N
MAG7U SW	Magnificent 7 USD Index	-	-	-	1.04	0.50	+1x	Y	-	N
MAG7C SW	Magnificent 7 CHF Index	-	-	-	1.19	0.50	+1x	Y	-	N
Latin America (Broad Based)										
4BRZ SW	iShares MSCI Brazil UCITS ETF	2,497	↑	0	0.73	0.31	-	-	-	N
ALAT FP	Amundi Msci EM Latin America U	499	0	0.41	0.20	-	-	-	-	N
LTAM LN	iShares MSCI EM Latin America	313	↑	0	0.59	0.20	-	-	-	N
IBZL LN	iShares MSCI Brazil UCITS ETF	271	↑	0	0.48	0.74	-	-	-	N
D5BI GR	Xtrackers MSCI Mexico UCITS ET	257	↑	0	0.65	0.65	-	-	-	N
RIO FP	Amundi MSCI Brazil UCITS ETF	154	↓	0	0.36	0.65	-	-	-	N
XMLA GR	Xtrackers MSCI EM Latin Americ	105	↓	0	0.57	0.40	-	-	Y	-
CSMXCP SW	iShares MSCI Mexico Capped UC1	78	0	0.73	0.65	-	-	-	-	N
XMBR GR	Xtrackers MSCI Brazil UCITS ET	62	0	0.37	0.25	-	-	-	-	N
PALAT FP	Amundi ETF PEA MSCI Emerging L	40	↓	0	0.74	0.30	-	-	Y	-
FLXB GR	Franklin FTSE Brazil UCITS ETF	27	0	0.66	0.19	-	-	-	-	N
BRZ FP	Amundi MSCI BRAZIL	6	0	0.76	0.55	-	-	-	-	N
KSMF31 IT	KSM ETF 4D I BOVESPA	-	-	-	1.03	-	-	-	-	N
Asia Pacific (Broad Based)										
SJPA LN	iShares Core MSCI Japan IMI UC	5,354	↑	1	0.07	0.12	-	-	-	N
NDIA LN	iShares MSCI India UCITS ETF	4,361	↑	4	0.10	0.65	-	-	-	N
LCUJ GR	Amundi MSCI Japan UCITS ETF	3,829	↑	0	0.11	0.12	-	-	-	N
JPNCHA SW	UBS Lux. Fund Solutions - MSCI	3,766	0	0.11	0.19	-	-	-	-	N
VDJPN LN	Vanguard FTSE Japan UCITS ETF	3,032	1	0.06	0.15	-	-	-	-	N
XIJP GR	Xtrackers MSCI Japan UCITS ETF	2,929	0	0.07	0.12	-	-	-	-	N
CSPXJ SW	iShares Core MSCI Pacific ex-J	2,480	0	0.33	0.20	-	-	-	-	N
CNYA LN	iShares MSCI China A UCITS ETF	2,459	2	0.11	0.40	-	-	-	-	L
XDJP GR	Xtrackers Nikkei 225 UCITS ETF	2,238	0	0.14	0.09	-	-	-	-	N
CSEMAS SW	iShares MSCI EM Asia UCITS ETF	2,179	0	0.30	0.20	-	-	-	-	N
XZMJ GR	Xtrackers MSCI Japan ESG UCITS	2,064	0	0.17	0.20	-	-	Y	-	N
EJAP FP	BNP Paribas Easy MSCI Japan ES	1,907	↑	0	0.15	0.16	-	-	Y	-
SAJPN LN	iShares MSCI Japan ESG Screene	1,837	1	0.11	0.15	-	-	Y	-	N
EJJD LN	iShares MSCI Japan ESG Enhance	1,721	0	0.11	0.15	-	-	Y	-	N
PR1J GR	Amundi Prime JAPAN UCITS ETF D	1,373	↑	0	0.17	0.05	-	-	-	N
AA5I FP	Amundi Msci EM Asia UCITS ETF	1,360	↓	0	0.14	0.20	-	-	-	N
VDPX LN	Vanguard FTSE Developed Asia P	1,351	0	0.13	0.15	-	-	-	-	N
INR FP	Amundi MSCI India II UCITS ETF	1,271	↑	2	0.12	0.85	-	-	-	N
CJ1 FP	Amundi MSCI Japan ESG Climate	1,228	↑	0	0.16	0.45	-	-	Y	-
XCS6 GR	Xtrackers MSCI China UCITS ETF	1,168	↓	0	0.38	0.65	-	-	-	N
ICHNA LN	iShares MSCI China UCITS ETF	1,027	1	0.15	0.28	-	-	-	-	N
IJPN LN	iShares MSCI Japan UCITS ETF U	1,019	1	0.09	0.12	-	-	-	-	N
EMXC LN	Amundi MSCI Emerging Ex China	1,006	↑	1	0.22	0.15	-	-	-	N
XCHA GR	Xtrackers CSI300 Swap UCITS ET	977	↓	0	0.37	0.50	-	-	-	N
UMT GR	UBS Lux. Fund Solutions - MSCI	958	0	0.18	0.37	-	-	Y	-	N
SUJP LN	iShares IV Public Limited Comp	826	↓	1	0.14	0.20	-	-	Y	-
EMAD LN	SPDR MSCI EM Asia ETF	776	↓	0	0.16	0.55	-	-	-	N
IFFF LN	iShares plc - iShares MSCI AC	766	↓	1	0.11	0.74	-	-	-	N
TPXH FP	Amundi Japan Topix UCITS ETF	765	↓	0	0.13	0.48	-</			

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Asia Pacific (Broad Based) (Continued)										
ITWN LN	iShares MSCI Taiwan UCITS ETF	398	0	0.15	0.74	-	-	-	-	N
XDNY GR	Xtrackers MSCI Japan ESG Scree	396	↑	0	0.35	0.15	-	-	Y	-
LGAP LN	L&G Asia Pacific ex Japan Equi	393	0	0.30	0.10	-	-	Y	-	-
UPD LN	iShares MSCI Japan USD Hedged	392	1	0.08	0.64	-	-	-	-	-
XMAS GR	Xtrackers MSCI EM Asia ESG Scr	392	↓	0	0.19	0.65	-	-	Y	-
FFXR LN	Fidelity Sustainable Research	373	↑	0	0.38	0.30	-	Y	Y	-
SAUS LN	iShares MSCI Australia UCITS E	360	↓	0	0.11	0.50	-	-	-	-
KOR LN	iShares MSCI Korea UCITS ETF U	356	0	0.24	0.74	-	-	-	-	-
AEJ FP	Amundi MSCI AC Asia Pacific Ex	344	↓	0	0.17	0.60	-	-	-	-
JREJ LN	JPMorgan Japan Research Enhanc	333	↑	0	0.28	0.25	-	Y	Y	-
XAXJ GR	Xtrackers MSCI AC Asia ex Japa	331	0	0.50	0.65	-	-	Y	-	-
CSNKY SW	iShares Nikkei 225 UCITS ETF	327	↑	0	0.26	0.48	-	-	-	-
DXJ LN	WisdomTree Japan Equity UCITS	319	↑	0	0.26	0.48	-	-	Y	Y
OP5E GR	Ossiam Bloomberg Japan PAB NR	309	↑	0	0.93	0.19	-	-	-	-
ROFI GR	Xtrackers Harvest CSI300 UCITS	300	↓	0	0.37	0.65	-	-	-	-
AW15 GR	UBS Iri ETF plc-MSCI Japan Clf	290	↓	0	1.08	0.16	-	-	Y	-
XFVT GR	Xtrackers FTSE Vietnam Swap UC	290	0	0.59	0.85	-	-	-	-	-
LC0N LN	Amundi MSCI China UCITS ETF	288	↓	0	0.19	0.29	-	-	-	-
FJPR LN	Fidelity Sustainable Research	286	↑	0	0.31	0.30	-	Y	Y	-
XPXJ GR	Xtrackers MSCI Pacific ex Japa	281	0	0.28	0.25	-	-	Y	-	-
HSJD LN	HSBC Japan Sustainable Equity	260	↑	0	0.14	0.18	-	-	Y	-
UIQI GR	UBS Iri Fund Solutions plc - M	246	0	0.39	0.23	-	-	-	-	-
C2 FP	Amundi Msci India UCITS ETF	240	↑	0	0.55	0.80	-	-	-	-
JPNK FP	Amundi Jpx-Nikkei 400 UCITS ET	237	0	0.25	0.18	-	-	-	-	-
JPAN1 UH	Chimera S&P Japan UCITS ETF	236	-	0.83	1.00	-	-	-	-	-
PAJPL LN	Invesco MSCI Japan ESG Climate	235	0	0.28	0.19	-	-	Y	-	-
SRU FP	BNP Paribas Easy MSCI Japan SR	221	↓	0	0.21	0.26	-	-	Y	-
AFPX FP	Amundi MSCI AC Asia Ex Japan U	221	↓	0	0.31	0.50	-	-	-	-
ISJP LN	iShares MSCI Japan Small Cap U	218	0	0.30	0.58	-	-	-	-	-
XNIF GR	Xtrackers Nifty 50 Swap UCITS	199	↑	0	0.24	0.85	-	-	-	-
CSKR SW	iShares MSCI Korea UCITS ETF U	197	↑	0	0.38	0.65	-	-	-	-
UETC GR	UBS Lux Fund Solutions - MSCI	196	0	0.41	0.44	-	-	-	-	-
LCUA GR	Amundi MSCI Emerging Asia II U	186	0	0.34	0.12	-	-	-	-	-
UPC SW	iShares MSCI Japan CHF Hedged	181	↓	0	0.16	0.64	-	-	-	-
HMJP LN	HSBC MSCI Japan UCITS ETF	179	0	0.11	0.12	-	-	-	-	-
IFXJ LN	iShares Illi plc - iShares MSCI	178	0	0.21	0.60	-	-	-	-	-
CNAA FP	Amundi MSCI China A UCITS ETF	174	0	0.30	0.35	-	-	-	-	-
CO24 GR	Amundi Msci China A II	174	0	0.60	0.25	-	-	-	-	-
CNEG LN	Amundi MSCI CHINA ESG LEADERS	168	0	0.36	0.35	+1x	-	Y	-	-
NKYEX GR	iShares Nikkei 225 UCITS ETF D	159	0	0.14	0.51	-	-	-	-	-
XO14 GR	Amundi MSCI Pacific ESG Climat	158	0	0.80	0.45	+1x	-	Y	-	-
XCSS GR	Xtrackers MSCI India Swap UCIT	156	↑	0	0.21	0.19	-	-	-	-
XX25 GR	Xtrackers FTSE China 50 UCITS	151	↑	0	0.40	0.60	-	-	-	-
KRW FP	Amundi MSCI Korea UCITS ETF	151	↑	0	0.24	0.45	-	-	-	-
UPH LN	iShares MSCI Japan GBP Hedged	143	0	0.17	0.64	-	-	-	-	-
H411 GR	HSBC MSCI AC Far East Ex Japan	140	↓	0	0.35	0.45	-	-	-	-
OP6E GR	Ossiam Bloomberg Asia Pacific	126	0	1.44	0.29	-	-	Y	-	-
ETFJPMC GR	Deka MSCI Japan Climate Change	125	0	0.39	0.25	-	-	Y	-	-
HTWN LN	HSBC MSCI Taiwan Capped UCITS	124	↑	0	0.24	0.50	-	-	-	-
S400 LN	Invesco JPX-Nikkei 400 UCITS E	121	0	0.35	0.19	-	-	-	-	-
SADA GR	Amundi Index MSCI EM ASIA SRI	110	↓	0	0.31	0.25	-	-	Y	-
QOVN GR	iShares MSCI Japan SRI EUR Hed	106	↓	0	0.15	0.25	-	-	Y	-
IQJP FP	IndexIQ Factors Sustainable Ja	105	↓	0	1.84	0.30	-	-	Y	-
PTPXE FP	Amundi PEA JAPAN TOPIX UCITS E	100	↑	0	0.13	0.20	-	-	-	-
XMTW GR	Xtrackers MSCI Taiwan UCITS ET	98	0	0.13	0.65	-	-	-	-	-
PACUSA SW	UBS Lux Fund Solutions - MSCI	89	↓	0	0.36	0.29	-	-	-	-
HKOR LN	HSBC MSCI Korea Capped UCITS E	87	↑	0	0.29	0.50	-	-	-	-
PNR FP	Lyxor PEA MSCI India UCITS ETF	85	↑	0	0.18	0.85	-	-	-	-
CNUA GR	UBS Iri Fund Solutions plc - M	85	0	0.76	0.24	-	-	-	-	-
CHINU FP	BNP Paribas Easy MSCI China Se	84	↑	0	0.91	0.31	-	-	Y	-
LYPU GR	Amundi Australia S&P/ASX 200 U	79	0	0.24	0.40	-	-	-	-	-
HIDR LN	HSBC MSCI INDONESIA UCITS ETF	75	0	0.56	0.50	-	-	-	-	-
POEL NA	iShares MSCI Pacific EX-Japan	72	0	0.67	0.20	-	-	-	-	-
HMCA LN	HSBC MSCI China A UCITS ETF	71	0	0.34	0.30	-	-	-	-	-
ETFCHINA GR	Deka MSCI China ex A Shares UC	66	0	1.30	0.66	-	-	-	-	-
DJCHOEX GR	iShares Dow Jones China Offsho	58	0	0.26	0.61	-	-	-	-	-
XCS4 GR	Xtrackers MSCI Thailand UCITS	58	0	0.60	0.50	-	-	-	-	-
XAUS GR	Xtrackers S&P ASX 200 UCITS ET	56	0	0.24	0.50	-	-	-	-	-
ISFE LN	iShares MSCI AC Far East ex-Ja	56	0	0.80	0.74	-	-	-	-	-
AUESG SW	UBS Iri ETF plc - MSCI Austral	55	↑	1	0.26	0.43	-	-	Y	-
ETFJPAC GR	Deka MSCI Japan UCITS ETF	53	0	0.28	0.50	-	-	-	-	-
MCHN LN	Invesco MSCI China All Shares	49	↑	0	0.59	0.35	-	-	-	-

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

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International Equity										
Asia Pacific (Broad Based) (Continued)										
XQNA GR	Xtrackers MSCI China A ESG Scr	49	↑	0	1.24	0.29	-	-	Y	-
XMKO GR	Xtrackers MSCI Korea UCITS ETF	48	0	0.26	0.45	-	-	-	-	-
INDO FP	Amundi MSCI Indonesia UCITS ET	47	↑	0	0.39	0.45	-	-	-	-
CC1 FP	Amundi MSCI China Tech ESG Scr	46	↓	0	0.29	0.55	-	-	Y	-
STXCHN SJ	Satrix MSCI China Feeder Portf	46	↓	0	0.79	0.63	-	-	-	-
XMID LN	Xtrackers MSCI Indonesia Swap	43	↓	0	0.68	0.65	-	-	-	-
XBAS GR	Xtrackers MSCI Singapore UCITS	42	0	0.33	0.50	-	-	-	-	-
PASI FP	Amundi PEA MSCI China ESG Lead	41	↑	0	0.24	0.65	-	-	Y	-
MCHT LN	Invesco MSCI China Technology	39	0	0.63	0.49	-	-	-	-	-
V3PA LN	Vanguard ESG Developed Asia-Pa	37	↑	0	0.35	0.17	-	-	Y	-
PAEJ FP	Lyxor PEA MSCI AC Asia Pacific	35	0	0.26	0.60	-	-	-	-	-
HKDU SW	UBS Lux Fund Solutions - MSCI	35	↑	0	0.59	0.45	-	-	-	-
STXNDA SJ	Satrix MSCI India Feeder ETF	34	↑	0	0.77	0.80	-	-	-	-
APACXJ SJ	10X All Asia AMETF	34	0	0.85	-	-	Y	-	-	-
CHIN LN	KraneShares ICBCCS S&P China 5	32	0	1.73	0.55	-	-	-	-	-
JREC LN	JPMorgan China A Research Enha	27	↑	0	0.44	0.40	-	Y	Y	-
XPOP GR	Xtrackers MSCI Philippines UCI	26	0	0.71	0.65	-	-	-	-	-
SGFDU SW	UBS Lux Fund Solutions - MSCI	25	0	0.34	0.45	-	-	-	-	-
JREA LN	JPMorgan AC Asia Pacific ex Ja	24	0	1.66	0.30	-	Y	Y	-	-
XCS3 GR	Xtrackers MSCI Malaysia UCITS	19	↓	0	0.57	0.50	-	-	-	-
ESPU LN	Invesco MSCI Pacific ex Japan	18	↑	0	0.43	0.19	-	-	Y	-
XNUP GR	Xtrackers Japan Net Zero Pathw	17	↑	0	0.64	0.15	-	-	Y	-
XBAK GR	Xtrackers MSCI Pakistan Swap U	16	↑	0	1.00	0.85	-	-	-	-
HPAJ LN	HSBC MSCI AC Asia Pacific EX J	15	0	0.54	0.25	-	-	Y	-	-
LGOK GR	Amundi MSCI Pacific Ex Japan U	15	0	0.87	0.12	-	-	-	-	-
JFESG SW	UBS Iri ETF plc - MSCI Japan E	14	↑	0	0.39	0.17	-	-	Y	-
CASH LN	L&G E Fund MSCI China A UCITS	13	↓	0	1.41	0.88	-	-	-	-
C500 LN	Invesco S&P China A Midcap 500	11	↓	0	0.56	0.35	-	-	-	-
XCTE GR	Xtrackers Harvest MSCI China T	11	0	0.86	0.44	-	-	Y	-	-
CHINDSHI UH	Chimera S&P India Shariah ETF	11	-	0.81	1.00	-	-	-	-	-
C300 LN	Invesco S&P China A 300 Swap U	10	↓	0	0.51	0.35	-	-	-	-
HUP LN	HSBC MSCI Japan Islamic ESG UC	10	0	0.29	0.30	-	-	Y	-	-
SMSJPN GR	Invesco MSCI Japan UCITS ETF	10	↑	0	0.33	0.12	-	-	-	-
AH50 GR	Xtrackers Harvest FTSE China A	9	0	0.38	0.65	-	-	-	-	-
HPJLP LN	HSBC MSCI Japan Climate Paris	9	↓	0	0.31	0.18	-	-	Y	-
ESGJ LN	Invesco MSCI Japan ESG Univers	8	↑	0	0.17	0.19	-	-	Y	-
FLXT GR	Franklin FTSE Taiwan UCITS ETF	8	↑	0	0.52	0.19	-	-	-	-
PXJSRI SW	UBS Iri ETF plc - MSCI Pacific	7	0	0.64	0.37	-	-	Y	-	-
AAJJSI SW	UBS Iri ETF plc - MSCI AC Asia	7	0	0.50	0.30	-	-	Y	-	-
SYGJJP SJ	Sygnia Itrix MSCI Japan ETF	5	↓	0	0.54	0.86	-	-	-	-
FVCH GR	Franklin MSCI China Paris Allg	5	↓	0	0.81	0.22	-	-	Y	-
CNEW LN	VanEck New China ESG UCITS ETF	5	0	0.91	0.60	-	-	Y	-	-
CHHKSHIN UH	Chimera S&P China HK Shariah E	4	0	-	1.00	-	-	-	-	-
XQJD GR	Xtrackers MSCI Japan Climate T	4	0	0.33	0.15	-	-	-	-	-
RIAP LN	L&G Asia Pacific Ex Japan ESG	4	↑	0	0.58	0.16	-	-	Y	-
TSM3 LN	Leverage Shares 3x Long Taiwan	4	↑	0	1.30	0.75	+3x	-	-	-
SPF6 GR	SPDR MSCI Japan Climate Paris	3	↑	0	0.72	0.12	-	-	Y	-
RUP LN	L&G Japan ESG Exclusions Paris	3	↑	0	1.06	0.16	-	-	Y	-
KESG LN	KraneShares MSCI China ESG Lea	2	↓	0	0.82	0.40	-	-	Y	-
KA50 IM	KraneShares MSCI China A 50 Co	2	-	-	0.40	-	-	-	-	-
KWE3 LN	Leverage Shares 3x Long China									

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Asia Pacific (Broad Based) (Continued)										
KSMF79 IT	KSM KTF4D NIKKEI 225	-	-	-	0.58	-	-	-	-	L
KSMF90 IT	KSM ETF 4A Hang Seng China Cur	-	-	-	1.03	-	-	-	-	N
HRLF29 IT	Harel Sal 4D Hang Seng	-	-	-	0.83	-	-	-	-	L
HRLF30 IT	Harel Sal 4D NIKKEI INDIA	-	-	-	1.03	-	-	-	-	L
HRLF67 IT	Harel Sal 4A NIKKEI 225 Curren	-	-	-	0.88	-	-	-	Y	N
KSMF181 IT	KSM ETF 4D NIFTY 25	-	-	-	0.83	-	-	-	-	N
MTFF50 IT	MTF SAL 4A NIKKEI 225 Currency	-	-	-	0.80	-	-	-	Y	N
KSMF191 IT	KSM ETF 4D CSI300	-	-	-	0.53	-	-	-	-	N
KSMF200 IT	KSM ETF 4A CSI300 Currency Hed	-	-	-	0.83	-	-	-	Y	N
MTFF93 IT	MTF ChinaA50	-	-	-	0.83	-	-	-	-	N
Asia Pacific (Style)										
HSXD LN	HSBC Asia Pacific ex Japan Sus	255	↓	0	0.39	0.25	-	-	Y	-
ACUU GR	Amundi MSCI AC FAR EAST EX JAP	56	↓	0	0.67	0.25	-	-	Y	-
FVSI GR	Franklin FTSE Asia ex China ex	49	↑	0	0.59	0.14	-	-	-	-
CTEC NA	iShares MSCI China Tech UCITS	43	↑	0	0.75	0.45	-	-	Y	-
MBSV GR	Market Access Stoxx China A Mi	27	0	0	0.78	0.65	-	-	-	-
GSEM LN	Goldman Sachs ActiveBeta Emerg	11	0	0	0.61	0.49	-	-	-	-
INQJ LN	INQQ India Internet & Ecommerc	3	0	0	1.22	0.86	-	-	Y	-
OCLN GR	Global X China Clean Energy UC	2	0	0	2.11	0.68	-	-	-	-
CBIO GR	Global X China Biotech UCITS E	1	↓	0	1.55	0.68	-	-	-	-
INHSE7 IT	Tachit China HSCEI ILS 40a	-	-	-	1.52	-	-	-	-	-

Multi-asset										
Asset Allocation										
XQUI GR	Xtrackers Portfolio UCITS ETF	564	0	0.42	0.70	-	-	-	-	-
V80A GR	Vanguard LifeStrategy 80 Perce	451	↑	0	0.16	0.25	-	Y	-	-
V60A GR	Vanguard LifeStrategy 60 Perce	364	↑	0	0.18	0.25	-	Y	-	-
F701 GR	Amundi Multi-Asset Portfolio U	183	0	0.71	0.45	-	Y	-	-	-
UKRE LN	iShares MSCI Target UK Real Es	136	0	0.53	0.40	-	-	-	-	-
V40A GR	Vanguard LifeStrategy 40 Perce	121	0	0.19	0.25	-	Y	-	-	-
X57W GR	Xtrackers Portfolio Income UC1	65	0	0.65	0.65	-	-	-	-	-
V20A GR	Vanguard LifeStrategy 20 Perce	62	↑	0	0.37	0.25	-	Y	-	-
MAGR GR	iShares Growth Portfolio UCITS	55	0	0.45	0.25	-	-	Y	-	-
NTM NA	VanEck Multi-Asset Balanced AI	36	0	0.75	0.30	-	-	-	Y	-
MODR GR	iShares Moderate Portfolio UC1	35	0	0.62	0.25	-	-	Y	Y	-
TOF NA	VanEck Multi-Asset Growth Allo	26	0	0.71	0.32	-	-	Y	-	-
F702 GR	Amundi Multi-Asset Portfolio D	25	0	0.77	0.40	-	Y	-	-	-
CODL LN	Cordillera Core Balanced Strat	24	0	0.85	0.85	-	-	-	-	-
DTM NA	VanEck Multi-Asset Conservativ	20	0	0.86	0.28	-	-	Y	-	-
F703 GR	Amundi Multi-Asset Portfolio O	20	0	0.60	0.52	-	-	Y	-	-
MACV GR	iShares Conservative Portfolio	16	0	0.69	0.25	-	-	-	Y	-
AQUA SJ	Numoro AQUA Global Multi-Asset	4	-	0.24	-	-	-	Y	-	-
STXMAP SJ	Satrix Multi Asset Passive Por	2	0	2.35	0.40	-	-	-	-	-
STXMAG SJ	Satrix Multi Asset Passive Por	2	0	2.13	0.41	-	-	-	-	-
PMKINC SJ	PortfolioMetrix Active Income	0	-	0.48	-	-	-	Y	-	-
LOTCHLAL NL	Lotus Capital Halal Fund	-	0	-	2.14	-	-	-	Y	-
TCHF16 IT	Tachit SAL 4D Composite Gover	-	-	-	-	-	-	-	-	-

Fixed Income										
Corporates (Broad)										
EMCR LN	iShares JP Morgan USD EM Corp	2,026	1	0.22	0.50	-	-	-	-	-
UEF7 GR	UBS Lux Fund Solutions - Bloom	1,901	0	0.27	0.18	-	-	-	-	-
IS15 LN	iShares GBP Corp Bond 0-5yr UC	1,893	2	0.20	0.20	-	-	-	-	-
CHCORP SW	iShares Core CHF Corporate Bon	1,562	4	0.12	0.15	-	-	-	-	-
SYBD GR	SPDR Bloomberg 0-3 Year Euro C	1,254	↓	0	0.14	0.20	-	-	-	-
GCVB LN	SPDR Refinitiv Global Convent	1,211	↑	0	0.29	0.50	-	-	-	-
IBOQ GR	iShares Global Corp Bond EUR H	1,163	0	0.08	0.25	-	-	-	-	-
AT1 LN	Invesco AT1 Capital Bond UCITS	972	↓	1	0.24	0.39	-	-	Y	-
XACTBOND SS	XACT Obligation UCITS ETF	522	↑	1	0.24	0.10	-	-	-	-
UEF9 GR	UBS Lux Fund Solutions - Bloom	436	0	0.32	0.18	-	-	-	-	-
IGCB LN	Invesco GBP Corporate Bond UC1	382	↑	1	0.52	0.10	-	-	-	-
IS3B GR	iShares EUR Corp Bond Financia	306	0	0.13	0.20	-	-	-	-	-
EMUS LN	L&G ESG Emerging Markets Corpo	265	↓	0	0.52	0.35	-	-	Y	-
IRCP LN	iShares EUR Corp Bond Interest	247	↓	0	0.22	0.25	-	-	Y	-
COCB LN	WisdomTree AT1 CoCo Bond UCITS	210	↓	0	1.02	0.39	-	-	Y	-
EHBD GR	Invesco Euro Corporate Hybrid	188	↑	0	0.50	0.39	-	-	-	-
SUSC LN	SPDR Bloomberg 0-3 Year U.S. C	180	0	0.44	0.12	-	-	-	-	-
PRFD LN	Invesco Preferred Shares UCITS	167	0	0.64	0.50	-	-	-	-	-
ISXF LN	iShares GBP Corp Bond ex-Finan	105	0	0.37	0.20	-	-	-	-	-
USC8 FP	BNPP Easy - USD Corp Bond SRI	76	0	0.48	0.20	-	-	-	-	-

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Corporates (Broad) (Continued)										
TCBT NA	VanEck iBoxx EUR Corporates UC	35	0	0.15	0.15	-	-	Y	-	N
COVR GR	PIMCO Covered Bond UCITS ETF	30	↑	0	0.29	0.43	-	Y	Y	-
30IG GR	iShares iBonds Dec 2030 Term E	25	-	0.24	0.12	-	-	-	-	-
29GI GR	iShares iBonds Dec 2029 Term E	22	-	0.27	0.12	-	-	-	-	-
30ID NA	iShares iBonds Dec 2030 Term \$	15	-	0.30	0.12	-	-	-	-	-
VRPS LN	Invesco Variable Rate Prefere	11	0	0.70	0.50	-	-	-	-	-
BONDAE UH	Chimera JP Morgan UAE Bond UC1	5	-	0.57	0.50	-	-	-	-	-
PSGF13 IT	IBI SAL 00 Tel-Bond 40 IL	-	-	-	0.20	-	-	-	-	-
PSGF14 IT	IBI SAL 00 Tel-Bond 60 IL	-	-	-	0.20	-	-	-	-	-
KSMF223 IT	KSM ETF 00 Tel-Bond-Shekel 1-	-	-	-	0.22	-	-	-	-	-
KSMF144 IT	KSM ETF 0A Tel-Bond-Composite	-	-	-	0.27	-	-	-	-	-
KSMF174 IT	KSM ETF 00 Tel-Bond-Shekel 3-5	-	-	-	0.14	-	-	-	-	-
KSMF2 IT	KSM ETF 00 Tel-Bond-Shekel-50	-	-	-	0.28	-	-	-	-	-
KSMF3 IT	KSM ETF 00 Tel-Bond-Global	-	-	-	0.19	-	-	-	-	-
KSMFK1 IT	KSM ETF 00 Koshar Tel-Bond-60	-	-	-	0.00	-	-	-	Y	-
KSMFK2 IT	KSM ETF 00 Koshar Tel-Bond-She	-	-	-	0.00	-	-	-	Y	-
KSMF151 IT	KSM KTF 0A iBoxx US Liquid Inv	-	-	-	0.03	-	-	-	-	Y
PSGFK1 IT	Psagot ETF 00 Koshar Tel-Bond	-	-	-	0.10	-	-	-	Y	-
HRLF4 IT	Harel Sal 00 Tel-Bond 60	-	-	-	0.22	-	-	-	-	-
HRLF303 IT	Harel Sal 00 Tel-Bond - Shekel	-	-	-	0.14	-	-	-	-	-
HRLF209 IT	Harel Sal 00 iBoxx \$ Corps Liq	-	-	-	0.23	-	-	-	-	L
HRLF41 IT	Harel Sal 00 Koshar Tel-Bond 6	-	-	-	0.11	-	-	-	Y	-
HRLF42 IT	Harel Sal 00 Koshar Tel-Bond -	-	-	-	0.01	-	-	-	Y	-
KSMF175 IT	KSM ETF 0D Tel-Bond-Dollar	-	-	-	0.23	-	-	-	-	-
HRLF13 IT	Harel Sal 00 Tel-Bond 40	-	-	-	0.22	-	-	-	-	-
HRLF109 IT	Harel Sal 00 Tel-Bond Yields S	-	-	-	0.22	-	-	-	-	-
HRLF300 IT	Harel Sal 00 Tel-Bond-Shekel -	-	-	-	0.17	-	-	-	-	-
HRLF301 IT	Harel Sal 00 Tel-Bond - Global	-	-	-	0.02	-	-	-	-	-
MTFF5 IT	MTF SAL 00 Tel-Bond-Shekel	-	-	-	0.20	-	-	-	-	-
MTFF13 IT	MTF SAL 00 Tel-Bond - Goba	-	-	-	0.00	-	-	-	-	-
KSMF190 IT	KSM ETF 00 Short Tel-Bond-Glob	-	-	-	0.53	-1x	-	-	-	-
MTFFK55 IT	MTF Sal 00 Koshar Tel-Bond 60	-	-	-	-	-	-	-	Y	-
MTFFK57 IT	MTF Sal Koshar Tel-Bond-Shekel	-	-	-	-	-	-	-	Y	-
TCHF1 IT	Tachit SAL 00 Koshar Tel-Bond	-	-	-	-	-	-	-	Y	-
TCHF10 IT	Tachit SAL 00 Tel-Bond 20	-	-	-	-	-	-	-	-	-
TCHF26 IT	Tachit SAL 00 Tel-Bond 40	-	-	-	-	-	-	-	-	-
TCHF110 IT	Tachit SAL 00 Tel-Bond Floati	-	-	-	-	-	-	-	-	-
TCHF75 IT	Tachit SAL 00 Tel-Bond Global	-	-	-	-	-	-	-	-	-
TCHF3 IT	Tachit SAL 00 Koshar Tel-Bond	-	-	-	-	-	-	-	Y	-
TCHF104 IT	Tachit SAL 0B Tel-Bond-Compos	-	-	-	-	-	-	-	-	-
HRLF221 IT	Harel Sal 0A Tel-Bond-Composit	-	-	-	-	-	-	-	-	-
TCHF158 IT	Tachit SAL 00 Tel-Bond-Shekel	-	-	-	-	-	-	-	-	-
MTFF80 IT	Migdal MTF Sal 00 Tel-Bond - S	-	-	-	-	-	-	-	-	-
EGETNQ SJ	Firststrand Quanto ETN on iShare	-	0	2.28	0.00	-	-	-	Y	-
WWETNQ SJ	Firststrand Quanto ETN on iShare	-	0	1.66	-	-	-	-	Y	-
SRETNQ SJ	Firststrand Quanto ETN on UBS MS	-	0	1.60	-	-	-	-	Y	-
EGETNC SJ	Firststrand Compo ETN on iShares	-	0	1.79	-	-	-	-	Y	-
SRETNC SJ	Firststrand Compo ETN on UBS MSC	-	0	1.61	-	-	-	-	Y	-
KSMF207 IT	KSM ETF Tel-Bond-Shekel 5-151	-	-	-	0.03	-	-	-	-	-
MTFF109 IT	MTF Sal 00 iBoxx US Liquid Inv	-	-	-	0.28	-	-	-	-	-
MTFF113 IT	MTF SAL 00 Tel-Bond-Shekel 1-3	-	-	-	0.01	-	-	-	-	-
MTFF114 IT	MTF Sal 00 Tel-Bond-Shekel 5-1	-	-	-	0.01	-	-	-	-	-
MTFF116 IT	MTF SAL 0A Tel-Bond-Composite	-	-	-	0.01	-	-	-	-	-

Corporates (Investment Grade)										
IEACL LN	iShares Core EUR Corp Bond UC1	14,052	9	0.06	0.20	-	-	-	-	L
LQDE LN	iShares USD Corp Bond UCITS ET	7,751	5	0.11	0.20	-	-	-	-	M
SPPU GR	SPDR Bloomberg SASB US Corpora	6,548	0	0.22	0.15	-	-	-	Y	-
SDIG LN	iShares USD Short Duration Cor	5,914	2	0.10	0.20	-	-	-	-	-
SUOE LN	iShares EUR Corp Bond ESG UCIT	5,262	1	0.18	0.15	-	-	-	Y	-
ECRP FP	Amundi Index Euro Corporate Sr	5,252	↑	1	0.07	0.14	-	-	Y	-
SE15 LN	iShares EUR Corp Bond 1-5yr UC	4,057	↓	0						

EMEA LISTED ETFS

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Fixed Income										
Corporates (Investment Grade) (Continued)										
SLXX LN	iShares Core GBP Corp Bond UCI	2,457	2	0.17	0.20	-	-	-	-	N
SUOU NA	iShares USD Corp Bond ESG UCIT	2,284	0	0.21	0.15	-	-	Y	-	N
H41R GR	HSBC Global Funds ICAV - Globa	2,113	0	0.43	0.25	-	-	-	Y	N
SRIC3 FP	BNPP EASY Corp Bond SRI PAB 1-	1,997	0	0.12	0.20	-	-	Y	-	N
VDUC LN	Vanguard USD Corporate 1-3 Yea	1,735	0	0.35	0.09	-	-	-	-	N
ERND LN	iShares USD Ultrashort Bond UC	1,702	↑	0.22	0.09	-	-	-	-	N
SRIC5 FP	BNPP EASY Corp Bond SRI PAB 3-	1,645	0	0.14	0.20	-	-	Y	-	N
IPAB GR	iShares EUR Corp Bond ESG Pari	1,532	↑	0.17	0.15	-	-	Y	-	N
IUS6 GR	iShares EUR Covered Bond UCITS	1,411	↑	0.06	0.20	-	-	-	-	N
UIMC GR	UBS Lux Fund Solutions - Bloom	1,372	0	0.08	0.20	-	-	Y	-	N
ERN5 LN	iShares GBP Ultrashort Bond UC	1,281	3	0.19	0.09	-	-	-	-	N
PR1C GR	Amundi EUR Corporate Bond UCI	1,233	0	0.09	0.07	-	-	-	-	N
CRP FP	Amundi EUR Corporate Bond PAB	1,219	1	0.12	0.14	-	-	Y	-	N
UCRFP FP	Amundi Index US Corp SRI UCITS	1,195	↑	0.36	0.14	-	-	Y	-	N
ELUNS GR	iShares EUR Corp Bond ex-Finan	1,061	0	0.06	0.20	-	-	Y	-	N
EUNR GR	iShares EUR Corp Bond ex-Finan	1,030	0	0.10	0.20	-	-	-	-	N
IB28 GR	iShares Bonds Dec 2028 Term E	1,014	0	0.11	0.12	-	-	Y	-	N
XDGL GR	Xtrackers USD Corporate Bond UC	991	↑	0.24	0.12	-	-	-	-	N
SUSU LN	iShares USD Corp Bond 0-3yr ES	953	0	0.18	0.12	-	-	Y	-	N
AFRN FP	Amundi Floating Rate Euro Corp	943	0	0.13	0.18	-	-	Y	-	N
XZES GR	Xtrackers II EUR Corporate Bon	927	0	0.06	0.16	-	-	Y	-	N
V3GU LN	Vanguard ESG Global Corporate	882	↑	0.26	0.15	-	-	Y	Y	N
SPPS GR	SPDR Bloomberg SASB 0-3 Year E	819	↑	0.48	0.12	-	-	Y	-	N
EBBB FP	Amundi EUR Corporate Bond 1-5Y	787	↑	0.11	0.20	-	-	Y	-	N
SYBC GR	SPDR Bloomberg Euro Corporate	783	↑	0.15	0.12	-	-	-	-	N
FSMF LN	Fidelity Sustainable Global Co	682	↑	0.53	0.25	-	Y	Y	-	N
IB26 GR	iShares Bonds Dec 2026 Term E	680	0	0.07	0.12	-	-	Y	-	N
CBSUS IM	UBS Lux Fund Solutions - Bloom	532	0	0.20	0.20	-	-	Y	-	N
AFLT FP	Amundi USD Floating Rate Corpo	529	0	0.26	0.18	-	-	Y	-	N
EFRN LN	iShares Euro Floating Rate Bon	521	↑	0.23	0.10	-	-	Y	-	N
UKCO LN	SPDR Bloomberg Sterling Corpor	521	0	0.34	0.20	-	-	-	-	N
ID28 LN	iShares iBonds Dec 2028 Term \$	455	0	0.21	0.12	-	-	Y	-	N
RIJKEJ GR	iShares Plandbriefe UCITS ETF	448	↓	0.10	0.10	-	-	-	-	N
IS06 GR	iShares EUR Corp Bond BBB-BB U	442	0	0.15	0.25	-	-	-	-	N
EJED GR	iShares EUR Ultrashort Bond ES	387	0	0.17	0.09	-	-	Y	-	N
UEF6 GR	UBS Lux Fund Solutions - Bloom	381	↓	0.14	0.18	-	-	-	-	N
XDEP GR	Xtrackers iBoxx EUR Corporate	367	0	0.14	0.25	-	-	-	-	N
JREB GR	JPMorgan EUR Corporate Bond Re	335	↑	0.11	0.04	-	Y	Y	-	N
ETFLCD GR	Deka iBoxx EUR Liquid Corporat	333	0	0.16	0.20	-	-	-	-	N
IB27 GR	iShares iBonds Dec 2027 Term E	332	0	0.13	0.12	-	-	Y	-	N
SUKCL LN	SPDR Bloomberg 0-5 Year Sterli	318	↑	0.50	0.20	-	-	-	-	N
IB25 GR	iShares iBonds Dec 2025 Term E	318	0	0.14	0.12	-	-	Y	-	N
ECR1 GR	Amundi Euro Corp 0-1Y ESG UCIT	301	↑	0.05	0.08	-	-	Y	-	N
UBBB FP	Amundi Global Corp SRI 1-5Y UC	295	↑	0.35	0.20	-	-	Y	-	N
D6RA GR	DEKA MSCI EUR Corporates Clima	293	0	0.21	0.18	-	-	Y	-	N
D26A LN	iShares iBonds Dec 2026 Term \$	263	0	0.23	0.12	-	-	Y	-	N
SYBR GR	SPDR Bloomberg 1-10 Year U.S.	248	↑	0.23	0.12	-	-	-	-	N
PSFE GR	Invesco EUR IG Corporate Bond	226	↑	0.13	0.10	-	-	Y	-	N
ID25 LN	iShares iBonds Dec 2025 Term U	206	0	0.14	0.12	-	-	Y	-	N
USIG LN	Amundi USD Corporate Bond PAB	196	-	0.61	0.14	-	-	Y	-	N
ASIG NA	iShares Asia Investment Grade	196	↓	0.51	0.20	-	-	Y	-	N
XGBE GR	Xtrackers EUR Corporate Green	190	↓	0.15	0.25	-	-	Y	-	N
HYDP NA	iShares USD High Yield Corp Bo	189	-	0.38	0.25	-	-	Y	-	N
AIEP GR	AXA IM Euro Credit PAB UCITS E	188	0	0.32	0.20	-	Y	-	-	N
UESD LN	iShares GBP Ultrashort Bond ES	183	↑	0.25	0.09	-	-	Y	-	N
GBPC LN	L&G ESG GBP Corporate Bond UC	179	↑	0.93	0.09	-	-	Y	-	N
SRUC FP	BNPP Easy - EUR Corp Bond SRI	169	0	0.22	0.12	-	-	-	-	N
XZBU GR	Xtrackers USD Corporate Bond S	166	↑	0.18	0.16	-	-	Y	-	N
TABC GR	Tabula EUR IG Bond Paris-Align	161	↓	0.23	0.25	-	-	Y	-	N
CBSUS SW	UBS Lux Fund Solutions - Bloom	146	↓	0.42	0.20	-	-	Y	-	N
LQDHL LN	iShares USD Corp Bond Interest	146	↓	0.24	0.25	-	-	-	-	N
ID27 LN	iShares iBonds Dec 2027 Term U	144	0	0.25	0.12	-	-	Y	-	N
JR15 LN	JPMorgan EUR Corporate Bond 1-	138	↑	0.18	0.04	-	Y	Y	-	N
FAMSF3 IM	Fineco AM MSCI EUR IG SRI Sust	134	↑	0.44	0.30	-	-	Y	-	N
USDC LN	L&G ESG USD Corporate Bond UC	118	0	0.39	0.09	-	-	Y	-	N
JCAG LN	JPMorgan Betabuilders China Ag	116	↓	0.44	0.25	-	-	-	-	N
GBP5 LN	L&G ESG GBP Corporate Bond 0-5	115	0	0.50	0.09	-	-	Y	-	N
XGUE GR	Xtrackers USD Corporate Green	110	0	0.14	0.25	-	-	Y	Y	N
XYLD GR	Xtrackers ESG USD Corporate Bo	101	↑	0.38	0.16	-	-	Y	-	N
AIPT GR	AXA IM USD Credit PAB UCITS ET	100	0	0.29	0.18	-	Y	-	-	N
LDCE GR	PIMCO Euro Low Duration Corpor	94	↓	0.20	0.49	-	Y	Y	-	N
V3RF LN	Vanguard ESG EUR Corporate Bon	84	↓	0.20	0.11	-	-	Y	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Corporates (Investment Grade) (Continued)										
LUSC LN	SPDR Bloomberg 10+ Year U.S. C	83	↑	0.40	0.12	-	-	-	-	N
LDCU LN	PIMCO US Low Duration Corporat	82	0	0.47	0.49	-	Y	-	-	N
PR1P GR	Amundi Index Solutions - Amund	77	0	0.21	0.05	-	-	-	-	N
FAMLS3 IM	Fineco AM MSCI USD IG Liquid S	77	↑	0.43	0.30	-	-	Y	-	N
XCO2 GR	Amundi Global Aggregate Green	76	0	0.46	0.15	-	-	Y	-	N
IOEQ FP	IndexIQ Factors Sustainable Co	69	0	1.09	0.30	-	-	Y	-	N
FAMSF3 IM	Fineco AM MSCI EUR IG SRI Sust	68	↑	0.45	0.30	-	-	Y	-	N
GCBEL LN	Invesco Global Corporate Bond	63	-	0.75	0.15	-	-	Y	-	N
CNB FP	Amundi EUR Corporate Bond ex-F	63	↑	0.46	0.14	-	-	Y	-	N
SHORT IM	UBS Int ETF plc - EUR Ultra-Sh	60	-	0.17	0.08	-	-	Y	-	N
XB31 GR	Xtrackers II Target Maturity S	59	0	0.18	0.12	-	-	Y	-	N
XB33 GR	Xtrackers II Target Maturity S	59	0	0.21	0.12	-	-	-	-	N
ECMS GR	Invesco EUR Corporate Bond ESG	58	0	0.23	0.15	-	Y	Y	-	N
ELFF GR	Deka Euro Corporates 0-3 Liqui	57	↓	0.12	0.15	-	-	-	-	N
IGBEL LN	Invesco GBP Corporate Bond ESG	54	↑	0.40	0.10	-	-	Y	-	N
XB29 GR	Xtrackers II Target Maturity S	54	0	0.17	0.12	-	-	Y	-	N
BULP GR	BNP PARIBAS EASY Sustainable E	52	-	0.31	0.25	-	Y	Y	-	N
XB27 GR	Xtrackers II Target Maturity S	51	0	0.13	0.12	-	-	Y	-	N
JRUB LN	JPMorgan USD Corporate Bond Re	51	↑	0.37	0.19	-	Y	Y	-	N
LINXB IM	Investix Balanced Income UCI	41	0	0.63	0.85	-	Y	-	-	N
D6RE GR	Deka iBoxx MSCI ESG EUR Corpor	39	0	0.56	0.25	-	-	Y	-	N
V3SP LN	Vanguard ESG USD Corporate Bon	35	↓	0.28	0.16	-	-	Y	Y	N
HBKU LN	HSBC Global Funds ICAV - Globa	34	0	0.49	0.40	-	-	-	-	N
HDBA LN	HSBC Global Funds ICAV - Susta	30	-	0.27	0.15	-	-	Y	-	N
GCOR GR	Franklin Sustainable Euro Gree	27	0	0.22	0.18	-	Y	-	-	N
PLAN FP	Amundi Corporate Green Bond UC	27	0	0.52	0.20	-	-	Y	-	N
FEG LN	Fidelity Sustainable EUR Corpo	26	0	0.48	0.20	-	Y	-	-	N
ECMF GR	Invesco EUR Corporate Bond ESG	25	0	0.23	0.19	-	Y	Y	-	N
FUIG LN	Fidelity Sustainable USD Corpo	24	0	0.63	0.20	-	Y	-	-	N
PUG LN	Invesco USD IG Corporate Bond	24	0	0.42	0.10	-	-	Y	-	N
XBCT GR	Xtrackers II iBoxx Germany Cov	23	↓	0.46	0.15	-	-	-	-	N
TJUC GR	Tabula EUR Ultrashort IG Bond	21	0	0.13	0.15	-	-	Y	-	N
GREENE SW	UBS Lux Fund Solutions - Globa	20	0	0.26	0.15	-	-	Y	-	N
UEDD NA	iShares USD Ultrashort Bond ES	16	0	0.25	0.09	-	-	Y	-	N
EGC GR	Franklin Euro IG Corporate UCI	9	0	0.19	0.15	-	-	Y	-	N
FVUI GR	Franklin USD Investment Grade	9	↓	0.31	0.35	-	Y	-	-	N
BS8A LN	Invesco BulletShares 2028 USD	7	-	0.49	0.10	-	-	-	-	N
BS6A LN	Invesco BulletShares 2026 USD	7	-	0.39	0.10	-	-	-	-	N
BS7A LN	Invesco BulletShares 2027 USD	6	-	0.49	0.10	-	-	-	-	N
COUK LN	Lyxor iBoxx GBP Liquid Corpora	6	0	0.54	0.09	-	-	-	-	N
BS0A LN	Invesco BulletShares 2030 USD	5	-	0.52	0.10	-	-	-	-	N
BS9A LN	Invesco BulletShares 2029 USD	5	-	0.51	0.10	-	-	-	-	N
XLIQ GR	Xtrackers II EUR Covered Bond	2	0	0.55	0.20	-	-	-	-	N
XU10 GR	Xtrackers II US Treasuries 7-1	2	-	0.19	0.06	-	-	-	-	N
KSMF219 IT	KSM ETF 00 Tel Bond-Shekel A I	-	-	-	0.22	-	-	-	-	N
KSMF220 IT	KSM ETF 00 Tel Bond-Shekel AA-	-	-	-	0.22	-	-	-	-	N
KSMF18 IT	KSM ETF 00 Tel Bond-20	-	-	-	0.27	-	-	-	-	N
KSMF26 IT	KSM ETF 00 Short Tel Bond-20	-	-	-	0.53	-1x	-	-	-	N
KSMF40 IT	KSM ETF 00 Tel Bond-40	-	-	-	0.27	-	-	-	-	N
KSMF41 IT	KSM ETF 00 Tel Bond-60	-	-	-	0.27	-	-	-	-	N
KSMF48 IT	KSM ETF 00 Tel Bond-Shekel	-	-	-	0.27					

EMEA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Corporates (High Yield) (Continued)										
XHYG GR	Xtrackers II EUR High Yield Co	1,333	0	0.15	0.20	-	-	-	-	N
STHY LN	PIMCO US Short-Term High Yield	1,306	↑	0.23	0.55	-	-	-	-	N
WING LN	iShares Fallen Angels High Yie	912	0	0.34	0.50	-	-	-	-	N
HYUS LN	iShares Broad USD High Yield C	756	↑	0.32	0.20	-	-	-	-	N
SYBJ GR	SPDR Bloomberg Euro High Yield	524	0	0.14	0.40	-	-	-	-	N
XUHY GR	Xtrackers USD High Yield Corpo	460	0	0.20	0.20	-	-	-	-	N
FGHY LN	Fidelity Sustainable Global Hi	442	↑	0.68	0.35	-	Y	Y	-	N
HYSRF GR	BNP Paribas Easy EUR High Yie	368	↑	0.25	0.25	-	-	Y	-	N
AHYE FP	Amundi Euro High Yield Bond ES	363	↑	0.28	0.40	-	-	Y	-	N
YIEL FP	Amundi EUR High Yield Corporat	307	↑	0.22	0.25	-	-	Y	-	N
SJNK LN	SPDR Bloomberg SASB U.S. High	296	0	0.31	0.30	-	-	Y	-	N
XZHY GR	Xtrackers ESG USD High Yield C	289	↑	0.44	0.25	-	-	Y	-	N
HYFE GR	iShares EUR High Yield Corp Bo	249	-	0.35	0.25	-	-	Y	-	N
JGHY LN	JPMorgan Global High Yield Cor	218	↑	0.42	0.35	-	Y	-	-	N
HYFA LN	Invesco US High Yield Fallen A	215	0	0.56	0.45	-	-	-	-	N
USHY FP	Amundi USD High Yield Corporat	149	0	0.45	0.25	-	-	Y	-	N
GHYS LN	iShares Global High Yield Corp	133	↓	0.24	0.55	-	-	-	-	N
EUHA GR	PIMCO Euro Short-Term High Yie	127	0	0.16	0.50	-	-	-	-	N
GBHY LN	Invesco Global High Yield Corp	118	↑	0.77	0.25	-	-	Y	-	N
HYS IM	Amundi EUR Short Term High Yie	115	-	0.14	0.30	-	-	Y	-	N
TAHY LN	Tabula Haitong Asia ex-Japan H	98	↓	2.39	0.60	-	-	Y	-	N
XHY1 GR	Xtrackers II EUR High Yield Co	88	0	0.27	0.25	-	-	-	-	N
FAMJSS IM	Fineco AM MSCI USD HY SRI Sust	61	↑	0.43	0.30	-	-	Y	-	N
THFSX I2	Tabula Global High Yield Falle	54	0	1.51	0.55	-	-	Y	Y	N
AHYT GR	AXA IM US High Yield Opportuni	51	-	0.77	0.35	-	Y	-	-	N
THEP GR	Tabula EUR HY Bond Paris-Align	49	↓	0.44	0.25	-	-	Y	-	N
XZHE GR	Xtrackers ESG EUR High Yield C	47	↑	0.35	0.25	-	-	Y	-	N
GHYULN	Lyxor Global High Yield Sustai	45	0	0.47	0.25	-	-	Y	-	N
BH1Y GR	iShares Broad EUR High Yield C	39	0	0.28	0.20	-	-	-	-	N
FAMEJUS IM	Fineco AM MSCI EUR HY SRI Sust	37	0	0.46	0.30	-	-	Y	-	N
BTECH IM	Fineco AM MarketVector Bioprod	28	0	0.44	0.38	-	-	Y	-	N
UHYD LN	Invesco USD High Yield Corpora	12	↑	0.48	0.25	-	-	Y	-	N
USFA LN	VanEck US Fallen Angel High Yi	8	0	0.81	0.35	-	-	-	-	N
Government (Broad)										
HGVULN	HSBC Global Funds ICAV - Globa	5,829	0	0.28	0.22	-	-	-	Y	N
EUNH GR	iShares Core EUR Govt Bond UCI	4,736	0	0.04	0.07	-	-	-	-	N
XGLE GR	Xtrackers II Eurozone Governme	2,864	0	0.04	0.09	-	-	-	-	N
VETY LN	Vanguard EUR Eurozone Govern	2,847	↑	0.19	0.07	-	-	-	-	N
CB3 FP	Amundi Euro Government Titled	2,761	↑	0.09	0.14	-	-	-	-	N
JBEM FP	BNP PARIBAS EASY JPM ESG EMU G	2,427	↑	0.07	0.15	-	-	Y	-	N
EGOV FP	Amundi Euro Government Bond -	2,211	↑	0.11	0.14	-	-	-	-	N
GBMJ FP	BNP Paribas Easy JPM ESG EMU G	2,172	↑	0.08	0.15	-	-	Y	-	N
IBGX LN	iShares EUR Govt Bond 3-5yr UC	2,119	0	0.09	0.15	-	-	-	-	N
PJ51 GR	PIMCO Euro Short Maturity UCIT	1,975	↓	0.12	0.35	-	Y	-	-	N
SECD GR	iShares Euro Govt Bond Climate	1,709	0	0.06	0.09	-	-	Y	-	N
MTA FP	Amundi Euro Government Bond 1-	1,540	1	0.05	0.17	-	-	-	-	N
PR1R GR	Amundi Prime EURO GOVIES UCITS	1,482	0	0.11	0.05	-	-	-	-	N
MTB FP	Amundi Euro Government Bond 3-	1,462	↑	0.05	0.17	-	-	-	-	N
MTD FP	Amundi Euro Government Bond 7-	1,418	↑	0.07	0.17	-	-	-	-	N
CSBGE3 SW	iShares EUR Govt Bond 1-3yr UC	1,386	0	0.08	0.15	-	-	-	-	N
IBGS LN	iShares EUR Govt Bond 1-3yr UC	1,350	0	0.06	0.15	-	-	-	-	N
SYBB GR	SPDR Bloomberg Euro Government	1,289	0	0.13	0.10	-	-	-	-	N
X710 GR	Xtrackers II Eurozone Governme	1,269	↑	0.07	0.15	-	-	-	-	N
DBXP GR	Xtrackers II Eurozone Governme	1,226	↓	0.06	0.15	-	-	-	-	N
IBGMLN	iShares II plc - iShares EUR G	1,150	↑	0.10	0.15	-	-	-	-	N
MTE FP	Amundi Euro Government Bond 10	1,135	↑	0.07	0.17	-	-	-	-	N
XY4P GR	Xtrackers II iBoxx Eurozone Go	979	0	0.05	0.15	-	-	-	-	N
IBGL LN	iShares EUR Govt Bond 15-30yr	978	↑	0.13	0.15	-	-	-	-	N
X57E GR	Xtrackers II Eurozone Governme	928	↑	0.04	0.15	-	-	-	-	N
CSBGE7 SW	iShares EUR Govt Bond 3-7yr UC	835	↑	0.08	0.15	-	-	-	-	N
AMBA FP	Amundi Govt Bond Highest Rated	685	↑	0.16	0.14	-	-	-	-	N
IBGELN	iShares III PLC - iShares EUR	650	0	0.08	0.07	-	-	-	-	N
SS1EUA SW	UBS Lux Fund Solutions - Bloom	567	0	0.10	0.17	-	-	-	-	N
HSGG LN	HSBC Global Funds ICAV - HSBC	556	0	0.23	0.23	-	Y	Y	-	N
X1G FP	Amundi Govt Bond Lowest Rated	532	↑	0.09	0.14	-	-	-	-	N
SYB3 GR	SPDR Bloomberg 1-3 Year Euro G	519	0	0.04	0.15	-	-	-	-	N
CSBGE5 SW	iShares EUR Govt Bond 7-10yr U	511	↑	0.31	0.15	-	-	-	-	N
EUN9 GR	iShares EUR Govt Bond 5-7yr UC	492	0	0.05	0.15	-	-	-	-	N
MTC FP	Amundi Euro Government Bond 5-	444	↑	0.05	0.17	-	-	-	-	N
EB3 GR	Invesco Euro Government Bond 1	416	↑	0.05	0.10	-	-	-	-	N
C3M FP	Amundi ETF GOVIES 0-6 MONTHS E	407	↑	0.08	0.14	-	-	-	-	N
IS05 GR	iShares EUR Govt Bond 20yr Tar	379	↑	0.14	0.15	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Government (Broad) (Continued)										
OG35 GR	Ossiam Euro Government Bonds 3	376	0	0.18	0.17	-	-	Y	-	N
PRAB GR	Amundi Prime Euro Gov Bonds 0-	360	↑	0.07	0.05	-	-	-	-	N
X35E GR	Xtrackers II Eurozone Governme	331	0	0.06	0.15	-	-	-	-	N
XYP1 GR	Xtrackers II iBoxx Eurozone Go	320	↓	0.04	0.15	-	-	-	-	N
MAA FP	Amundi Euro Highest Rated Macr	288	↓	0.08	0.17	-	-	-	-	N
MA13 FP	Amundi Euro Highest Rated Macr	268	0	0.06	0.17	-	-	-	-	N
MTH FP	Amundi Euro Government Bond 25	238	1	0.13	0.07	-	-	-	-	N
IB83EX GR	iShares Euro Government Bond C	175	0	0.09	0.15	-	-	-	-	N
BSRC FP	BNP PARIBAS EASY EUR Aggregate	165	↑	0.30	0.15	-	-	Y	-	N
EUN8 GR	iShares EUR Govt Bond 10-15yr	153	↑	0.13	0.15	-	-	-	-	N
GEU3C FP	BNPP EASY ESG EMU GovtIG 1-3Y	145	↑	0.20	0.16	-	-	Y	-	N
X25E GR	Xtrackers II Eurozone Governme	139	↑	0.11	0.15	-	-	-	-	N
ERTH FP	Amundi Euro Government Green B	138	↓	0.10	0.20	-	-	Y	-	N
IOEG FP	Indexiq-Factors Sustainable So	128	0	0.38	0.20	-	-	Y	-	N
MTF FP	Amundi Euro Government Bond 15	123	↑	0.15	0.17	-	-	-	-	N
XEZB GR	Xtrackers II Eurozone Governme	119	0	0.07	0.12	-	-	Y	-	N
EB5 GR	Invesco Euro Government Bond 3	109	↓	0.06	0.10	-	-	-	-	N
XZEB GR	Xtrackers II ESG Eurozone Gove	100	0	0.15	0.15	-	-	Y	-	N
ETFES57 GR	Deka iBoxx EUR Liquid SOV DIV	92	↑	0.14	0.15	-	-	-	-	N
JAGG LN	JPMorgan Active Global Aggrega	61	0	0.28	0.30	-	Y	-	-	N
TAT NA	VanEck iBoxx EUR Sovereign Cap	58	0	0.18	0.15	-	-	-	-	N
SYBV GR	SPDR Bloomberg 10+ Year Euro G	56	↑	0.18	0.15	-	-	-	-	N
GSOV GR	Franklin Sustainable Euro Gree	53	0	0.13	0.18	-	-	Y	-	N
BULM GR	BNP PARIBAS EASY Sustainable E	51	-	0.20	0.18	-	Y	Y	-	N
ETFES11 GR	Deka iBoxx EUR Liquid SOV DIV	51	↑	0.12	0.15	-	-	-	-	N
GEB IM	Ubs Lux Fund Solutions - J.P.	51	↑	0.09	0.17	-	-	Y	-	N
MA35 FP	Amundi Euro Highest Rated Macr	50	↓	0.07	0.17	-	-	-	-	N
X15E GR	Xtrackers II Eurozone Governme	50	0	0.16	0.15	-	-	-	-	N
X13G FP	Amundi Govt Bond Lowest Rated	48	↓	0.10	0.14	-	-	-	-	N
PEU IM	Invesco Euro Cash 3 Months UCI	47	0	0.12	0.09	-	-	-	-	N
EGVD GR	Invesco EUR Government and Rel	42	↓	0.20	0.15	-	-	Y	-	N
EBB GR	Invesco Euro Government Bond U	32	↑	0.14	0.07	-	-	-	-	N
OBLI FP	Amundi PEA Government Bonds Eu	31	↑	0.19	0.40	-	-	-	-	N
ETFES13 GR	Deka iBoxx EUR Liquid SOV DIV	28	↓	0.18	0.15	-	-	-	-	N
TGBT NA	VanEck iBoxx EUR Sovereign Div	27	0	0.12	0.15	-	-	-	-	N
JE13 GR	JPMorgan BetaBuilders EUR Govt	26	↓	0.14	0.10	-	-	-	-	N
SYB4 GR	SPDR Bloomberg 3-5 Year Euro G	25	↓	0.13	0.15	-	-	-	-	N
BBEG GR	JPMorgan BetaBuilders EUR Govt	19	0	0.07	0.10	-	-	-	-	N
29ID NA	iShares iBonds Dec 2029 Term \$	16	-	0.32	0.12	-	-	-	-	N
UST55 IM	SG ETN Daily Short-5X US TREA	15	↓	0.64	0.45	-5x	-	-	-	N
ETFES71 GR	Deka iBoxx EUR Liquid SOV DIV	13	0	0.17	0.15	-	-	-	-	N
ELFD GR	Deka Eurozone Rendite Plus 1-1	13	↓	0.26	0.15	-	-	-	-	N
BUND55 IM	SG ETN Daily Short-5X BUND FU	13	↓	0.19	0.45	-5x	-	-	-	N
ETFES10 GR	Deka iBoxx EUR Liquid SOV DIV	12	0	0.20	0.15	-	-	-	-	N
XSLG GR	Xtrackers II Eurozone Governme	12	↓	0.32	0.15	-1x	-	-	-	N
EBX GR	Invesco Euro Government Bond 7	11	0	0.08	0.10	-	-	-	-	N
XBAT GR	Xtrackers II Eurozone AAA Gove	11	↓	0.16	0.15	-	-	-	-	N
ETFES35 GR	Deka iBoxx EUR Liquid SOV DIV	8	↑	0.23	0.15	-	-	-	-	N
EB7 GR	Invesco Euro Government Bond 5	8	↑	0.09	0.10	-	-	-	-	N
XE01 GR	Xtrackers II Eurozone Governme	7	0	0.29	0.07	-	-	-	-	N
XGEZ GR	Xtrackers II Eurozone Governme	7	↑	0.						

EMEA LISTED ETFS

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Fixed Income										
Aggregate/Multi-sector (Continued)										
UEFY GR	UBS Lux Fund Solutions - SBI F	507	0	0.30	0.20	-	-	Y	-	N
CLIM FP	Amundi Global Aggregate Green	482	↓	0.21	0.25	-	-	Y	-	N
UEFZ GR	UBS Lux Fund Solutions - SBI F	428	0	0.62	0.20	-	-	Y	-	N
FVSH GR	Franklin Euro Short Maturity U	338	↓	0.32	0.15	-	Y	Y	-	N
FLRG GR	Franklin Sustainable Euro Gree	294	↑	0.19	0.18	-	Y	Y	-	N
GSSBD FP	BNP Paribas Easy JPM ESG Green	266	0	0.34	0.25	-	-	Y	-	N
AHYF GR	Amundi GLOBAL AGG SRI 1-5 UCIT	265	↑	0.22	0.14	-	-	Y	-	N
JPST LN	JPMorgan USD Ultra-Short Incom	252	0	0.09	0.18	-	Y	Y	-	N
JGST LN	JPMorgan GBP Ultra-Short Incom	220	↑	0.07	0.18	-	Y	Y	-	N
ICBU LN	iShares \$ Intermediate Credit	214	↑	0.21	0.15	-	-	-	-	N
80UU GR	Amundi GLOBAL AGG SRI UCITS ET	198	↓	0.25	0.14	-	-	Y	-	N
GHYC SW	iShares Global High Yield Corp	139	0	0.33	0.55	-	-	-	-	N
EFQ8 GR	Deka iBoxx EUR Liquid Non-Fina	135	↓	0.17	0.20	-	-	-	-	N
USA G LN	SPDR Bloomberg U.S. Aggregate	117	↑	0.32	0.17	-	-	-	-	N
GRON GR	iShares EUR Green Bond UCITS E	101	↑	0.21	0.20	-	-	Y	-	N
HAGG LN	HSBC Bloomberg Global Sustaina	85	0	0.23	0.18	-	-	Y	-	N
ETFB0XGR	Deka iBoxx EUR Liquid Germany	59	↓	0.18	0.09	-	-	-	-	N
AK8C GR	Amundi US Agg SRI	53	0	0.41	0.16	-	-	-	-	N
GSXG GR	Goldman Sachs Global Green Bon	53	-	0.38	0.22	-	-	-	Y	N
GFA LN	VanEck Global Fallen Angel Hig	51	↑	0.77	0.40	-	-	-	-	N
UIQL GR	UBS Lux Fund Solutions - Bloom	41	↑	0.13	0.20	-	-	Y	-	N
JGRN LN	JPMorgan Green Social Sustaina	36	0	0.32	0.32	-	Y	Y	-	N
SKUK NA	iShares \$ Sukuk UCITS ETF	32	-	0.63	0.40	-	-	-	-	N
STXGBD SJ	Satrix Global Aggregate Bond F	31	↑	0.13	0.40	-	-	-	-	N
XTCS GR	Xtrackers II iTraxx Crossover	27	↓	0.41	0.24	-1x	-	-	-	N
TCRS GR	Tabula Global IG Credit Curve	20	↓	0.76	0.40	-	-	-	-	N
KSMF154 IT	KSM ETF 00 All-Bond-Floating	-	-	-	0.25	-	-	-	-	N
TCHF36 IT	Tachit SAL 00 Composite Gover	-	-	-	-	-	-	-	-	N
TCHF11 IT	Tachit SAL 00 Composite Gover	-	-	-	-	-	-	-	-	N
TCHF112 IT	Tachit SAL 4D Composite Gover	-	-	-	-	-	-	-	-	N
TCHF22 IT	Tachit SAL 00 Composite Gov B	-	-	-	-	-	-	-	-	N
TCHF35 IT	Tachit SAL 00 Composite Gov B	-	-	-	-	-	-	-	-	N
Government (International)										
IBTU LN	iShares USD Treasury Bond 0-1y	14,422	1	0.04	0.07	-	-	-	-	N
IBTS LN	iShares USD Treasury Bond 1-3y	9,623	1	0.07	0.07	-	-	-	-	L
IBTMLN	iShares USD Treasury Bond 7-10	8,093	0	0.07	0.07	-	-	-	-	N
IDTL LN	iShares USD Treasury Bond 20+y	7,060	↑	3	0.07	0.07	-	-	-	L
CSBGU7 SW	iShares USD Treasury Bond 3-7y	6,611	↑	1	0.18	0.07	-	-	-	N
CSBGU0 SW	iShares USD Treasury Bond 7-10	4,133	↑	1	0.10	0.07	-	-	-	N
VDST LN	Vanguard US Treasury 0-1 Year	3,325	↑	1	0.04	0.05	-	-	-	N
BBIL LN	JPMorgan BetaBuilders US Treas	3,279	0	0.14	0.07	-	-	-	-	N
XUTD LN	Xtrackers II US Treasuries UCI	2,729	↑	0.10	0.06	-	-	-	-	N
GGOV FP	Amundi Index JP MORGAN GBI GLO	2,721	0	0.11	0.20	-	-	-	-	N
SGLO LN	iShares Global Govt Bond UCITS	2,672	0	0.23	0.20	-	-	-	-	N
DBZB GR	Xtrackers II Global Government	2,546	↑	0.08	0.25	-	-	-	Y	N
XU01 GR	Xtrackers US Treasuries Ultras	2,107	↑	0.04	0.06	-	-	-	-	N
VUTY LN	Vanguard USD Treasury Bond UCI	1,956	0	0.09	0.07	-	-	-	-	N
MDBA GR	UBS Lux Fund Solutions - Susta	1,812	↓	0.17	0.18	-	-	Y	-	N
TREL LN	Invesco US Treasury 7-10 Year	1,553	↓	0.17	0.06	-	-	-	-	N
TRXA LN	Invesco US Treasury Bond 7-10	1,553	-	0.08	0.06	-	-	-	-	N
U71G LN	Amundi US Treasury Bond 7-10Y	1,449	0	0.10	0.05	-	-	-	-	N
TRES LN	Invesco Markets II plc - Inves	962	0	0.07	0.06	-	-	-	-	N
STPU LN	Amundi US Curve steepening 2-1	921	↓	1	0.08	0.30	-	-	-	N
US10 LN	Amundi US Treasury Bond Long D	843	0	0.09	0.07	-	-	-	-	N
ESGGB SW	UBS Lux Fund Solutions - J.P.	710	0	0.24	0.15	-	-	Y	-	N
BB3M LN	JPMorgan BetaBuilders US Treas	567	↑	1	0.03	0.07	-	-	-	N
CSBGU0 SW	iShares USD Treasury Bond 1-3y	549	0	0.08	0.07	-	-	-	-	N
GOVT NA	iShares USD Treasury Bond UCIT	544	↑	0.09	0.07	-	-	-	-	N
TRSY LN	SPDR Bloomberg U.S. Treasury B	494	0	0.13	0.15	-	-	-	-	N
US13 LN	Amundi US Treasury Bond 1-3Y U	471	↓	0.19	0.07	-	-	-	-	N
DOBB NA	iShares USD Development Bank B	467	0	0.28	0.15	-	-	Y	-	N
TBIL SW	SPDR Bloomberg 1-3 Month T-Bil	461	↑	1	0.06	0.10	-	-	-	N
TRE7 LN	Invesco US Treasury 3-7 Year U	338	↑	0.08	0.06	-	-	-	-	N
KSMF176 IT	WisdomTree USD Floating Rate T	289	0	0.22	0.15	-	-	-	-	N
TRE3 LN	Invesco US Treasury 1-3 Year U	216	↓	0.08	0.06	-	-	-	-	N
XUT3 LN	Xtrackers II US Treasuries 1-3	204	↑	0.29	0.06	-	-	-	-	N
ELFE GR	Deka US Treasury 7-10 UCITS ET	198	0	0.10	0.07	-	-	-	-	N
US37 LN	Amundi US Treasury Bond 3-7Y U	191	0	0.08	0.07	-	-	-	-	N
BBTR LN	JPMorgan BetaBuilders US Treas	176	↓	0.10	0.07	-	-	-	-	N
USTP GR	Ossiam US Steepener UCITS ETF	164	↓	0.27	0.30	-	-	-	-	N
CORPSI SW	UBS Lux Fund Solutions - Bloom	155	↓	0.43	0.20	-	-	Y	-	N
UEFI GR	UBS Lux Fund Solutions - Bloom	140	↓	0.14	0.12	-	-	-	-	N

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Government (International) (Continued)										
IAAA LN	iShares Global AAA-AA Govt Bon	132	↑	0.30	0.20	-	-	-	-	N
UEFF GR	UBS Lux Fund Solutions - Bloom	132	0	0.07	0.12	-	-	-	-	N
GOVG IM	Amundi Global Government Bond	113	↑	0.19	0.15	-	-	-	-	Y
TREL LN	Invesco US Treasury Bond 10+ Y	96	↑	0.18	0.06	-	-	-	-	N
TREI LN	Invesco US Treasury Bond 0-1 Y	84	↑	0.63	0.06	-	-	-	-	N
PR1G GR	Amundi Prime Global Government	83	↑	0.103	0.05	-	-	-	-	N
PR1S GR	Amundi Prime US Treasury UCITS	74	↑	0.24	0.05	-	-	-	-	N
PR1T GR	Amundi US Treasury BOND 0-1Y U	73	0	0.06	0.05	-	-	-	-	N
SPFX GR	SPDR Bloomberg 10+ Year U.S. T	72	↑	0.11	0.15	-	-	-	-	N
JU13 LN	JPMorgan BetaBuilders US Treas	71	0	0.21	0.07	-	-	-	-	N
XZWG GR	Xtrackers II ESG Global Govern	65	0	0.21	0.20	-	-	-	Y	N
TR33 LN	SPDR Bloomberg 1-3 Year U.S. T	47	↓	0.17	0.15	-	-	-	-	N
INCOME SJ	10X Income AMETF	47	↑	0.164	-	-	-	-	-	N
SP3 GR	SPDR Bloomberg 3-7 Year U.S. T	46	0	0.08	0.15	-	-	-	-	N
STXGOV SJ	Satrix SA Bond Portfolio	39	0	0.87	0.25	-	-	-	-	N
MUN LN	Invesco US Municipal Bond UCIT	31	↑	0.88	0.28	-	-	-	-	N
ADBF MP	African Domestic Bond Fund	29	0	-	0.60	-	-	Y	-	N
IT25 LN	iShares iBonds Dec 2025 Term U	28	0	0.08	0.10	-	-	-	-	N
STXNAM SJ	Satrix S&P Namibia Bond ETF	26	0	2.20	0.15	-	-	-	-	N
XCS2 GR	Xtrackers II Australia Governm	26	↓	0.102	0.25	-	-	-	-	N
CLIP LN	Global X 1-3 Month T-Bill UCIT	26	-	0.10	0.07	-	-	-	-	N
USDTR TI	US Treasury USDTRY EXCHANGE TR	23	↓	2	0.08	0.04	-	-	-	N
ETFGBB SJ	Invest Global Government Bond	19	↑	0.76	0.40	-	-	-	-	N
UST10F SW	UBS Lux Fund Solutions - Bloom	17	↓	0.18	0.24	-	-	-	-	Y
3TYL IM	WisdomTree US Treasuries 10Y 3	15	↑	0.22	0.30	+3x	-	-	-	N
DSUS FP	Amundi US Treasury 10Y Daily (14	↓	0.20	0.20	-2x	-	-	-	N
FGGB LN	Fidelity Global Government Bon	14	0	0.47	0.20	-	-	-	Y	N
SP7 GR	SPDR Bloomberg 7-10 Year U.S.	11	0	0.07	0.15	-	-	-	-	N
FSOV NA	First Trust Low Duration Globa	10	↓	0.98	0.45	-	-	Y	-	N
TLT5 LN	Leverage Shares 5x Long 20+ Ye	7	↑	0.67	0.75	+5x	-	-	-	N
XUTL GR	Xtrackers II US Treasuries 10+	7	-	0.24	0.06	-	-	-	-	N
271T NA	iShares iBonds Dec 2027 Term \$	5	-	0.13	0.10	-	-	-	-	N
CGGD NA	iShares Global Govt Bond Clima	3	↓	0.53	0.20	-	-	-	Y	N
JGBUX I2	iShares Japan Govt Bond UCITS	3	-	0.52	0.09	-	-	-	-	Y
291T NA	iShares iBonds Dec 2029 Term U	3	-	0.12	0.10	-	-	-	-	N
XUT7 GR	Xtrackers II US Treasuries 3-7	2	-	0.18	0.06	-	-	-	-	N
UL3S IM	WisdomTree US Treasuries 30Y 3	1	0	0.37	0.30	-3x	-	-	-	N
3TYS IM	WisdomTree US Treasuries 10Y 3	1	↓	0.27	0.30	-3x	-	-	-	N
5TYS IM	WisdomTree US Treasuries 10Y 5	1	↓	0.28	0.50	-5x	-	-	-	N
IEF5 LN	Leverage Shares 5x Long 7-10 Y	0	↑	1.70	0.75	+5x	-	-	-	N
T6S LN	Leverage Shares -5x Short TIPS	0	↓	1.56	0.75	-5x	-	-	-	N
IES LN	Leverage Shares -5x Short 7-10	0	↓	2.48	0.75	-5x	-	-	-	N
DCCUSD SJ	Dollar Custodial Certificates	-	0	0.54	-	-	-	-	-	N
DCCUSD SJ	2YR Dollar Custodial Certifica	-	0	0.52	-	-	-	-	-	N
PSGF6 IT	IBI SAL 00 Tel Gov-Non Linked	-	-	-	0.15	-	-	-	-	N
PSGF11 IT	IBI SAL 00 Tel Gov-Shekel IL	-	-	-	0.20	-	-	-	-	N
KSMF153 IT	KSM ETF 00 Short Non-Linked Fi	-	-	-	0.33	-1x	-	-	-	N
KSMF23 IT	KSM ETF 00 Tel Gov -Floating	-	-	-	0.03	-	-	-	-	N
KSMF58 IT	KSM ETF 00 Tel Gov-Shekel	-	-	-	0.18	-	-	-	-	N
KSMF85 IT	KSM ETF 00 Comp Tel-Gov 65% Co	-	-	-	0.01	-	-	-	-	N
KSMF86 IT	KSM ETF 0A Tel-Gov	-	-	-	0.18	-	-	-	-	N
KSMF88 IT	KSM ETF 2A Composite Gen Bond	-	-	-	0.01					

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Government (International) (Continued)											
TCHF91 IT	Tachit SAL 00 Short Term Trea	-	-	-	-	-	-	-	-	N	
TCHF27 IT	Tachit SAL 00 Tel Bond 60	-	-	-	-	-	-	-	-	N	
TCHF34 IT	Tachit SAL 00 Tel Bond Shekel	-	-	-	-	-	-	-	-	N	
MTFF2 IT	MTF Sal 00 Non-Linked Fixed In	-	-	-	-	-	-	-	-	N	
TCHF132 IT	Tachit SAL 00 Composite Fixed	-	-	-	-	-	-	-	-	N	
TCHF30 IT	Tachit SAL 00 Non-Linked Fixe	-	-	-	-	-	-	-	-	N	
MTFF115 IT	MTF Sal 0A Tel - Gov IL	-	-	-	0.01	-	-	-	-	N	
KSMF214 IT	KSM ETF 00 Index Israeli Gov N	-	-	-	0.13	-	-	-	-	N	
MORES10 IT	MORE SAL 00 Tel Bond 60 IL	-	-	-	0.17	-	-	-	-	N	
MORES11 IT	MORE SAL 0ATel Bond Composite	-	-	-	0.12	-	-	-	-	N	
MORES12 IT	MORE SAL 00 Tel Gov- Shekel IL	-	-	-	0.17	-	-	-	-	N	
Government (EM)											
IEMB LN	iShares J.P. Morgan USD EM Bon	6,444	6	0.15	0.45	-	-	-	-	L	
IEML LN	iShares JP Morgan EM Local Gov	3,670	↓	1	0.17	0.50	-	-	-	N	
CNYB NA	iShares China CNY Bond UCITS E	2,438	↓	1	0.21	0.35	-	-	-	N	
EMES LN	iShares JP Morgan ESG USD EM B	2,218	↓	0	0.24	0.45	-	-	Y	N	
EMBEL LN	iShares J.P. Morgan USD EM Bon	2,055	1	0.16	0.50	-	-	-	Y	N	
EMDD LN	SPDR Bloomberg Emerging Market	1,435	↓	0	0.31	0.55	-	-	-	N	
EMBI FP	BNP Paribas Easy JPM ESG EMBI	876	↑	0	0.44	0.26	-	-	Y	N	
VEMT LN	Vanguard USD Emerging Markets	870	↑	0	0.27	0.25	-	-	-	N	
TIGR LN	L&G India INR Government Bond	644	↑	0	0.54	0.39	-	-	-	N	
JPMB LN	JPMorgan USD Emerging Markets	566	↑	0	0.59	0.40	-	-	-	N	
JT13 IM	UBS Lux Fund Solutions - Bloom	508	↓	1	0.08	0.15	-	-	-	N	
UEFS GR	UBS Lux Fund Solutions - Bloom	440	0	0.32	0.41	-	-	-	-	N	
SEAA GR	UBS Lux Fund Solutions - J.P.	400	↓	0	0.35	0.42	-	-	-	N	
EMDS LN	L&G ESG Emerging Markets Gover	348	0	0.55	0.25	-	-	-	Y	N	
IEMV NA	iShares JP Morgan ESG USD EM I	333	↓	0	0.44	0.30	-	-	-	N	
XEMB GR	Xtrackers II USD Emerging Mark	315	0	0.25	0.40	-	-	-	Y	N	
XQUA GR	Xtrackers ESG USD Emerging Mar	254	↓	0	0.25	0.45	-	-	Y	N	
XJSE GR	Xtrackers II Japan Government	245	0	0.31	0.15	-	-	-	-	N	
HCGG LN	HSBC Global Funds ICAV - China	241	0	0.41	0.23	-	-	-	Y	N	
EMBC SW	iShares VI PLC - iShares JP Mo	201	0	0.37	0.50	-	-	-	-	N	
AGEB FP	Amundi ETF Global Emerging Bon	192	↑	0	0.58	0.30	-	-	-	N	
EMHS LN	SPDR ICE BofA 0-5 Year EM USD	179	↓	0	2.18	0.42	-	-	-	N	
EMLB LN	PIMCO Emerging Markets Advanta	156	↑	0	0.48	0.60	-	-	-	N	
FSEM LN	Fidelity Sustainable USD EM Bo	140	↓	0	0.66	0.45	-	-	Y	N	
CBND LN	Goldman Sachs Access China Gov	129	↓	0	0.60	0.24	-	-	-	N	
DRGN LN	L&G China CNY Bond UCITS ETF	124	0	0.45	0.30	-	-	-	-	N	
STXGV1 SJ	Satrix GOVI ETF	94	0	1.06	0.32	-	-	-	-	N	
IGEA LN	iShares Emerging Asia Local Go	90	↓	0	0.71	0.50	-	-	-	N	
CSGOV1 SJ	10X Wealth Govi Bond ETF	86	↑	0	0.84	0.27	-	-	-	N	
LEMB EU	Lyxor iBOXX \$ Liquid Emerging	85	-	0.49	0.30	-	-	-	-	N	
EMLC LN	VanEck J.P. Morgan EM Local Cu	80	↓	0	0.61	0.30	-	-	-	N	
XIGB GR	Xtrackers India Government Bon	70	0	0.86	0.33	-	-	-	-	N	
EMLC SW	UBS Lux Fund Solutions - J.P.	67	↑	0	0.93	0.47	-	-	-	N	
FLOC GR	Franklin Catholic Principles E	47	↓	0	0.63	0.35	-	-	-	N	
XEML GR	Xtrackers II JP Morgan EM Loca	38	↓	0	0.45	0.25	-	-	-	N	
COB GR	Xtrackers II Harvest China Gov	28	↓	0	0.62	0.20	-	-	-	N	
EB3M GR	iShares JP Morgan EUR EM Bond	27	0	1.15	0.35	-	-	-	-	N	
INGB NA	iShares India INR Govt Bond UC	27	-	0.42	0.35	-	-	-	-	N	
MEXS LN	Finamex Mexico S&P/BMV Intern	26	0	0.71	0.55	-	-	-	-	N	
PEMD LN	Invesco Emerging Markets USD B	25	↓	0	0.38	0.25	-	-	-	N	
TGCC LN	Tabula GCC Sovereign USD Bonds	24	↓	0	0.45	0.45	-	-	-	N	
HYEM LN	VanEck Emerging Markets High Y	23	0	1.33	0.40	-	-	-	-	N	
BLADETFAB	Albilad Saudi Sovereign Sukuk	21	-	0.12	0.30	-	-	-	Y	N	
JC11 GR	UBS Lux Fund Solutions - J.P.	16	↓	0	0.46	0.33	-	-	-	N	
UIGB NA	UTI India Sovereign Bond UCITS	12	↑	0	2.52	0.50	-	-	-	N	
SFPB GR	SPDR Bloomberg China Treasury	12	↓	0	0.47	0.19	-	-	-	N	
STXTRA SJ	Satrix TRACI 3 Month ETF	12	0	0.44	0.35	-	-	-	-	N	
ETFBND SJ	Invest SA Bond ETF	9	↑	0	0.83	0.29	-	-	-	N	
COBI NA	iShares China CNY Govt Bond UC	8	↓	0	0.49	0.25	-	-	-	N	
MISB MP	MCB India Sovereign Bond ETF	6	0	-	0.99	-	-	-	-	N	
TIND LN	Tabula FTSE Indian Government	1	-	0.89	0.39	-	-	-	-	N	
VSPBOND NL	Vetiva S&P Nigerian Sovereign	-	0	-	-	-	-	-	-	N	
ALINMETFAB	Alinma Saudi Government Sukuk	-	-	0.22	-	-	-	-	Y	N	
Government (Peripheral)											
ISOM GR	iShares Italy Govt Bond UCITS	1,003	0	0.06	0.20	-	-	-	-	N	
BTP10 IM	Amundi Italy BTP Government Bo	502	↑	2	0.06	0.17	-	-	-	N	
ISOP GR	iShares Spain Govt Bond UCITS	334	↑	0	0.11	0.20	-	-	-	N	
BTP13 IM	Amundi Italy BTP Government Bo	142	0	0.08	0.17	-	-	-	-	N	
BTPS FP	Amundi Italy BTP Daily -2x Inv	55	0	0.12	0.40	-2x	-	-	-	N	
XBO2 GR	Xtrackers II Italy Government	54	↓	0	0.17	0.15	-	-	-	N	

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Government (Peripheral) (Continued)											
BTPS1 IM	SG ETN Daily Short -1X BTP FUT	14	0	0.12	0.95	-	-	-	-	N	
ETFBTBSPPW	Beta ETF TBSP Portfolio Closed	13	↑	0	0.11	0.69	-	-	-	N	
3BTL IM	WisdomTree BTP 10Y 3x Daily Le	10	↑	0	0.20	0.60	+3x	-	-	N	
5BTS IM	WisdomTree BTP 10Y 5x Daily Sh	4	↓	0	0.27	0.99	-5x	-	-	N	
BT27 IM	Amundi Fixed Maturity 2027 Ita	4	-	0.16	0.09	-	-	-	-	N	
26TP GR	iShares iBonds Dec 2026 Term E	4	-	0.16	0.12	-	-	-	-	N	
3BTS IM	WisdomTree BTP 10Y 3x Daily Sh	3	0	0.32	0.60	-3x	-	-	-	N	
28Y GR	iShares iBonds Dec 2028 Term E	3	-	0.15	0.12	-	-	-	-	N	
Government (Non-Euro)											
IGLS LN	iShares UK Gilts 0-5yr UCITS E	3,721	5	0.05	0.07	-	-	-	-	N	
IGLT LN	iShares Core UK Gilts UCITS ET	2,913	↑	4	0.15	0.07	-	-	-	N	
GLS LN	Amundi UK Government Bond UCIT	961	0	0.11	0.05	-	-	-	-	N	
GLTY LN	SPDR Bloomberg UK Gilt UCITS	533	↑	0	0.13	0.15	-	-	-	N	
CSBGC7 SW	iShares Swiss Domestic Governm	478	1	0.19	0.15	-	-	-	-	N	
GLTS LN	SPDR Bloomberg 1-5 Year Gilt	455	0	0.13	0.15	-	-	-	-	N	
CSBGC0 SW	iShares Swiss Domestic Governm	446	↑	1	0.26	0.15	-	-	-	N	
GLT LN	SPDR Bloomberg Barclays 15+ Ye	411	↑	1	0.20	0.15	-	-	-	N	
GBPG LN	Goldman Sachs Access UK Gilts	387	↑	1	0.12	0.07	-	-	-	N	
GIL5 LN	Amundi UK Government Bond 0-5Y	369	↓	0	0.19	0.05	-	-	-	N	
VGOV LN	Vanguard U.K. Gilt UCITS ETF	350	↑	1	0.10	0.07	-	-	-	N	
CSBGC3 SW	iShares Swiss Domestic Governm	251	↓	1	0.12	0.15	-	-	-	N	
UKG5 LN	L&G UK Gilt 0-5 Year UCITS ETF	159	0	0.18	0.06	-	-	-	-	N	
GLTP LN	Invesco UK Gilts UCITS ETF	146	↑	0	0.19	0.06	-	-	-	N	
GLT5 LN	Invesco UK Gilt 1-5 Year UCITS	95	↑	0	0.15	0.06	-	-	-	N	
JG15 LN	JPMorgan BetaBuilders UK Gilt	69	0	0.15	0.07	-	-	-	-	N	
3GIL LN	WisdomTree Gilts 10Y 3x Daily	24	↑	1	0.29	0.30	+3x	-	-	N	
3GIS LN	WisdomTree Gilts 10Y 3x Daily	8	↓	0	0.26	0.30	-3x	-	-	N	
1GIS LN	WisdomTree Gilts 10Y 1x Daily	0	↓	0	0.19	0.25	-1x	-	-	N	
Government (Core)											
EBMEX GR	iShares eb.rexx Government Ger	1,579	1	0.02	0.13	-	-	-	-	N	
X03G GR	Xtrackers II Germany Governmen	1,213	↑	0	0.04	0.15	-	-	-	N	
IFRB LN	iShares France Govt Bond UCITS	436	↑	0	0.09	0.20	-	-	-	N	
ETFGS13 GR	Deka DB EUROGOV Germany 1-3 UC	320	↑	0	0.09	0.15	-	-	-	N	
RXP5EX GR	iShares eb.rexx Government Ger	298	↑	0	0.07	0.16	-	-	-	N	
RXP1EX GR	iShares eb.rexx Government Ger	286	↑	0	0.11	0.16	-	-	-	N	
RXR6EX GR	iShares eb.rexx Government Ger	217	0	0.07	0.16	-	-	-	-	N	
RXP2EX GR	iShares eb.rexx Government Ger	185	0	0.06	0.16	-	-	-	-	N	
ETFGS51 GR	Deka DB EUROGOV Germany 5-10 U	176	0	0.07	0.15	-	-	-	-	N	
ISOL GR	iShares Germany Govt Bond UCIT	170	0	0.20	0.20	-	-	-	-	N	
ETFGSMV GR	Deka Deutsche Boerse Eurogov G	161	↑	0	0.12	0.12	-	-	-	N	
ETFGS11 GR	Deka DB EUROGOV Germany UCITS	95	0	0.08	0.15	-	-	-	-	N	
XG01 GR	Xtrackers II Germany Governmen	76	0	0.12	0.07	-	-	-	-	N	
ETFGS35 GR	Deka Deutsche Boerse Eurogov G	69	0	0.08	0.15	-	-	-	-	N	
RXPXEX GR	iShares eb.rexx Government Ger	44	↑	0	0.12	0.16	-	-	-	N	
ETFGS10 GR	Deka DB EUROGOV Germany 10+ UC	39	0	0.19	0.15	-	-	-	-	N	
DSB FP	Amundi German Bund Daily -2x I	30	↓	0	0.11	0.20	-2x	-	-	N	
XB13 GR	Xtrackers II Germany Governmen	26	↓	0	0.14	0.15	-	-	-	N	
AHYJ GR	Amundi German Bund Daily -1x I	18	↓	0	0.21	0.20	-1x	-	-	N	
OATL5 IM	SG ETN Daily Long +5X OAT FUTU	9	0	0.38	0.95	+5x	-	-	-	N	
OATS5 IM	SG ETN Daily Short -5X OAT FUT	8	↓	0	0.36	0.95	-5x	-	-	N	
3BUL IM	WisdomTree Bund 10Y 3x Daily L	6	↑	0	0.23	0.30	+3x	-	-	N	
AK8G GR	Amundi Fixed Maturity 2027 Ger	5	-	0.15	0.09	-	-	-	-	N	
3UBS IM	WisdomTree Bund 30Y 3x Daily S	1	↓	0	0.32	0.30	-3x	-	-	N	
5BUS IM	WisdomTree Bund 10Y 5x Daily S	1	↓	0	0.29	0.49	-5x	-	-	N	

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Mortgage-backed										
IMBS LN	iShares US Mortgage Backed Sec	2,038	0	0.15	0.28	-	-	-	-	N
Inflation										
ITPS LN	iShares USD TIPS UCITS ETF	4,999	1	0.19	0.10	-	-	-	-	N
IBCI LN	iShares EUR Inflation Linked G	1,556	0	0.21	0.09	-	-	-	-	N
TIFU LN	Amundi US TIPS Government Infl	1,462	↓	0.22	0.09	-	-	-	-	N
SGIL LN	iShares Global Inflation Linke	1,100	0	0.38	0.20	-	-	-	-	N
MTI FP	Amundi Euro Government Inflati	1,065	0	0.16	0.09	-	-	-	-	N
TIPS LN	iShares II plc - iShares \$ Tip	1,037	↓	0.1	0.13	0.10	-	-	-	N
XGIN GR	Xtrackers II Global Inflation-	1,018	↓	0.23	0.25	-	-	-	Y	N
TIPD SW	UBS Lux Fund Solutions - Bloom	1,000	↑	0.20	0.15	-	-	-	-	N
INXG LN	iShares GBP Index-Linked Gilts	809	1	0.28	0.10	-	-	-	-	N
XEIN GR	Xtrackers II Eurozone Inflation	530	0	0.10	0.15	-	-	-	-	N
INFU FP	Amundi US Inflation Expectatio	402	↑	0.39	0.25	-	-	-	-	N
TIP0D SW	UBS Lux Fund Solutions - Bloom	297	↓	0.37	0.20	-	-	-	-	N
TIPS LN	SPDR Bloomberg U.S. TIPS UCIT	288	0	0.61	0.17	-	-	-	-	N
INFU FP	Amundi Euro Inflation Expectat	219	↓	0.19	0.25	-	-	-	-	N
FR3C GR	UBS Lux Fund Solutions - Bloom	188	0	0.25	0.20	-	-	-	-	N
GIST LN	Amundi Global Government Infla	124	↑	0.57	0.09	-	-	-	-	N
GILI LN	Amundi UK Government Inflation	86	0	0.38	0.07	-	-	-	-	N
UIFL FP	Amundi Index US Gov Inflation-	21	↓	0.32	0.09	-	-	-	-	N
STXLB SJ	Satrix iLBI Portfolio	20	0	1.25	0.25	-	-	-	-	N
FR34 GR	UBS Lux Fund Solutions - Bloom	19	0	0.20	0.19	-	-	-	-	N
TINF LN	Tabula US Enhanced Inflation U	17	↓	0.29	0.29	-	-	-	-	N
XTIP GR	Xtrackers II TIPS US Inflation	4	0	0.24	0.07	-	-	-	-	N
UINE GR	Amundi US Inverse Inflation Ex	3	↓	0.23	0.35	-	-	-	-	N
TIB5 LN	Leverage Shares 5x Long TIPS I	0	0	1.46	0.75	+5x	-	-	-	N
PSGF10 IT	IBI SAL 00 Tel Gov-CPI Linked	-	-	-	0.20	-	-	-	-	N
PSGF16 IT	IBI SAL 00 Tel Bond-CPI Linked	-	-	-	0.20	-	-	-	-	N
KSMF221 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.02	-	-	-	-	N
PSGF22 IT	IBI SAL 00 Tel Bond-CPI Linked	-	-	-	0.00	-	-	-	-	N
KSMF218 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.22	-	-	-	-	N
KSMF62 IT	KSM ETF 00 Tel Gov-CPI-Linked	-	-	-	0.18	-	-	-	-	N
KSMF35 IT	KSM ETF 00 Tel Gov-CPI-Linked	-	-	-	0.18	-	-	-	-	N
KSMF36 IT	KSM ETF 00 Tel Gov-CPI-Linked	-	-	-	0.17	-	-	-	-	N
KSMF42 IT	KSM ETF 00 Tel Gov-CPI Linked	-	-	-	0.18	-	-	-	-	N
KSMF107 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.28	-	-	-	-	N
KSMF108 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.24	-	-	-	-	N
KSMF126 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.26	-	-	-	-	N
KSMF148 IT	KSM ETF 00 Short Tel Bond-Yield	-	-	-	0.53	-1x	-	-	Y	N
KSMF1 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.28	-	-	-	-	N
HRLF61 IT	Harel Sal 00 Tel Bond CPI Link	-	-	-	0.22	-	-	-	-	N
TCHF33 IT	Tachit SAL 00 CPI-Linked Gove	-	-	-	-	-	-	-	-	N
KSMF183 IT	KSM ETF 00 Index Bullet CPI Li	-	-	-	0.23	-	-	-	-	N
MTFF6 IT	MTF SAL 00 CPI-Linked Gov Bond	-	-	-	0.15	-	-	-	-	N
MTFF9 IT	MTF SAL 00 CPI-Linked Gov Bond	-	-	-	0.15	-	-	-	-	N
MTFF11 IT	MTF SAL 00 Tel Bond - CPI Link	-	-	-	0.20	-	-	-	-	N
TCHF87 IT	Tachit SAL 00 CPI Linked Gove	-	-	-	-	-	-	-	-	N
TCHF25 IT	Tachit SAL 00 CPI Linked Gove	-	-	-	-	-	-	-	-	N
TCHF138 IT	Tachit SAL 00 Tel Bond CPI Li	-	-	-	-	-	-	-	-	N
TCHF97 IT	Tachit SAL 00 Tel Bond CPI Li	-	-	-	-	-	-	-	-	N
MTFF79 IT	MTF Sal 00 Tel Bond CPI-Linked	-	-	-	-	-	-	-	-	N
KSMF205 IT	KSM ETF 00 Tel Bond-CPI Linked	-	-	-	0.23	-	-	-	-	N
HRLF227 IT	Harel Sal 00 Tel Bond - CPI Li	-	-	-	0.22	-	-	-	-	N
MTFF117 IT	MTF Sal 00 Tel Bond-CPI Linked	-	-	-	0.01	-	-	-	-	N
MTFF112 IT	MTF SAL 00 Tel Bond-CPI Linked	-	-	-	0.01	-	-	-	-	N
KSMF213 IT	KSM ETF 00 Index Israeli Gov C	-	-	-	0.13	-	-	-	-	N
MORES13 IT	MORE SAL 00 Tel Gov - CPI-Linke	-	-	-	-	-	-	-	-	N
KSMF227 IT	KSM ETF 00 KOSHER Tel Bond-Yie	-	-	-	0.00	-	-	-	-	N

Currency										
Fiat										
FEDF IM	Amundi Fed Funds US Dollar Cas	371	↑	0	0.05	0.10	-	-	-	N
USE3 IM	WisdomTree Short USD Long EUR	56	0	0.14	0.98	-3x	-	-	-	N
SJPS GR	WisdomTree Long JPY Short EUR	51	↓	0.42	0.39	-	-	-	-	N
XBJQ GR	WisdomTree Short USD Long EUR	43	0	0.23	0.39	-	-	-	-	N
LJPY LN	WisdomTree Long JPY Short USD	10	↑	0.15	0.39	-	-	-	-	N
USE5 IM	WisdomTree Short USD Long EUR	10	0	0.14	0.98	-5x	-	-	-	N
LNOE GR	WisdomTree Long NOK Short EUR	7	0	0.79	0.39	-	-	-	-	N
EPJ3 IM	WisdomTree Long JPY Short EUR	7	↑	0.30	0.98	+3x	-	-	-	N
EUGB IM	WisdomTree Long GBP Short EUR	6	↓	0.12	0.39	-	-	-	-	N
XBJD GR	WisdomTree Long SEK Short EUR	5	↓	0.37	0.39	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Currency										
Fiat (Continued)										
GBJP LN	WisdomTree Long JPY Short GBP	5	0	0.17	0.39	-	-	-	-	N
LJP3 LN	WisdomTree Long JPY Short USD	4	↑	0.106	0.98	+3x	-	-	-	N
URGB LN	WisdomTree Short EUR Long GBP	4	0	0.10	0.39	-	-	-	-	N
EUS3 IM	WisdomTree Long USD Short EUR	4	↓	0.14	0.98	+3x	-	-	-	N
XBJP GR	WisdomTree Long USD Short EUR	4	↓	0.32	0.39	-	-	-	-	N
SEUS LN	WisdomTree Short EUR Long USD	3	0	0.09	0.98	+3x	-	-	-	N
EUS5 IM	WisdomTree Long USD Short EUR	2	0	0.09	0.98	+5x	-	-	-	N
LGBP LN	WisdomTree Long GBP Short USD	2	0	0.20	0.39	-	-	-	-	N
USP3 LN	WisdomTree Long USD Short GBP	2	0	0.14	0.98	+3x	-	-	-	N
XBJA GR	WisdomTree Long CHF Short EUR	2	↓	0.54	0.39	-	-	-	-	N
GBUS LN	WisdomTree Long USD Short GBP	1	↓	0.07	0.39	-	-	-	-	N
PUS3 LN	WisdomTree Short USD Long GBP	1	0	0.27	0.98	-3x	-	-	-	N
CHE3 IM	WisdomTree Short CHF Long EUR	1	↓	0.17	0.98	+3x	-	-	-	N
GBCH LN	WisdomTree Long CHF Short GBP	1	↓	0.08	0.39	-	-	-	-	N
SEUR LN	WisdomTree Short EUR Long USD	1	0	0.07	0.39	-	-	-	-	N
LGB3 LN	WisdomTree Long GBP Short USD	1	↓	0.21	0.98	+3x	-	-	-	N
SGBP LN	WisdomTree Short GBP Long USD	1	↓	0.08	0.39	-	-	-	-	N
SJPS LN	WisdomTree Short JPY Long USD	1	↓	0.14	0.98	+3x	-	-	-	N
SGB3 LN	WisdomTree Short GBP Long USD	1	↓	0.08	0.98	-3x	-	-	-	N
USGB LN	WisdomTree Short USD Long GBP	1	↓	0.13	0.39	-	-	-	-	N
NEWUSD SJ	NewWave US Dollar ETN	1	0	0.40	0.00	-	-	-	-	N
ECB3 IM	WisdomTree Long GBP Short EUR	1	↓	0.14	0.98	+3x	-	-	-	N
GBEU IM	WisdomTree Short GBP Long EUR	0	0	0.08	0.39	-	-	-	-	N
XBJJ GR	WisdomTree Long AUD Short EUR	0	↓	1.13	0.39	-	-	-	-	N
EUP3 LN	WisdomTree Long EUR Short GBP	0	0	0.22	0.98	+3x	-	-	-	N
LEU3 LN	WisdomTree Long EUR Short USD	0	↓	0.25	0.98	+3x	-	-	-	N
SONY LN	WisdomTree Short CNY Long USD	0	↓	1.10	0.59	-	-	-	-	N
SUP3 LN	WisdomTree Short EUR Long GBP	0	↓	0.17	0.98	-3x	-	-	-	N
ECH3 IM	WisdomTree Long CHF Short EUR	0	↓	0.14	0.98	+3x	-	-	-	N
GBUR LN	WisdomTree Long EUR Short GBP	0	↓	0.11	0.39	-	-	-	-	N
SCHE GR	WisdomTree Short CHF Long EUR	0	↓	0.41	0.39	-	-	-	-	N
LCNY LN	WisdomTree Long CNY Short USD	0	0	1.19	0.59	-	-	-	-	N
EGB5 IM	WisdomTree Long GBP Short EUR	0	↓	0.19	0.98	+5x	-	-	-	N
SJPY LN	WisdomTree Short JPY Long USD	0	↓	0.07	0.39	-	-	-	-	N
JPE3 IM	WisdomTree Short JPY Long EUR	0	↓	0.14	0.98	+3x	-	-	-	N
GBE3 IM	WisdomTree Short GBP Long EUR	0	↓	0.17	0.98	+3x	-	-	-	N
NEWGBP SJ	NewWave Pound Sterling ETN	0	0	0.32	0.00	-	-	-	-	N
NEWEUR SJ	NewWave Euro ETN	0	0	0.37	0.00	-	-	-	-	N
JFGB LN	WisdomTree Short JPY Long GBP	0	↓	0.08	0.39	-	-	-	-	N
GBE5 IM	WisdomTree Short GBP Long EUR	0	↓	0.24	0.98	+5x	-	-	-	N
SJPL GR	WisdomTree Short JPY Long EUR	0	↓	0.47	0.39	-	-	-	-	N
AUEJ IM	WisdomTree Short AUD Long EUR	0	↓	0.19	0.39	-	-	-	-	N
CHGB LN	WisdomTree Short CHF Long GBP	0	0	0.13	0.39	-	-	-	-	N
LEUR LN	WisdomTree Long EUR Short USD	0	↓	0.11	0.39	-	-	-	-	N
SEEU IM	WisdomTree Short SEK Long EUR	0	↓	0.10	0.39	-	-	-	-	N
NOEU IM	WisdomTree Short NOK Long EUR	0	↓	0.09	0.39	-	-	-	-	N
Crypto										
BTCE GR	ETC Group Physical Bitcoin	1,288	↑	16	0.35	2.00	-	-	-	N
COINBE SS	Bitcoin Tracker EUR	1,108	4	0.41	2.50	-	-	-	-	N
COINBT SS	Bitcoin Tracker One - SEK	906	6	0.32	2.50	-	-	-	-	N
ASOL SW	21Shares Solana Staking ETP	879	↑	2	0.87	2.50	-	-	-	N
BITC SW	CoinShares Physical Bitcoin	873	↑	1	0.33	0.35	-	-	-	N
COINETHE SS	ETHER Tracker ONE - EUR	769	2	0.53	2.50	-	-	-	-	N
ABTC SW	21Shares Bitcoin ETP	692	↑	2	0.10	1.49	-	-	-	N
BTOW SW	WisdomTree Physical Bitcoin	598	↑	1	0.24	0.35	-	-	-	N
ABNB SW	21Shares Binance BNB ETP	551	0	0.66	2.50	-	-	-	-	N
AETH SW	21Shares Ethereum Staking ETP	510	1	0.13	1.49	-	-	-	-	N
COINETH SS	ETHER Tracker ONE - SEK	452	3	0.35	2.50	-	-	-	-	N
VBTC GR	VanEck Bitcoin ETN	430	4	0.41	1.00	-	-	-	-	N
ETHE SW	CoinShares Physical Staked Eth									

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Crypto (Continued)											
TONN SW	21Shares Toncoin Staking ETP	52	-	0.99	2.50	-	-	-	-	N	
AXRP SW	21Shares Ripple XRP ETP	49	↑	0.54	2.50	-	-	-	-	N	
SOLW SW	WisdomTree Physical Solana	40	↑	0.97	0.50	-	-	-	-	N	
ABBA SW	21Shares Bitcoin Suisse ETP	39	↓	0.67	2.50	-	-	-	-	N	
AMINAX SW	AMINA Crypto Asset Select Inde	38	↓	0.59	1.50	-	-	-	-	N	
AADA SW	21Shares Cardano ETP	37	↑	0.57	2.50	-	-	-	-	N	
VTOP GR	VanEck Crypto Leaders ETN	33	↑	1.11	1.50	-	-	-	-	N	
VTRX GR	VanEck TRON ETN	30	↓	0.15	1.50	-	-	-	-	N	
VBTC SS	Virtuone Bitcoin ETP	27	↑	0.31	1.49	-	-	-	-	N	
KEYS SW	21Shares Bitwise Select 10 Lar	26	↓	0.82	2.50	-	-	-	-	N	
ADOT SW	21Shares Polkadot ETP	26	↑	0.33	2.50	-	-	-	-	N	
SLCT GR	DDA Crypto Select 10 ETP	25	0	1.15	1.69	-	-	-	-	N	
HASH SW	Hashdex Nasdaq Crypto Index Eu	22	0	0.67	1.49	-	-	-	-	N	
XRPL SW	CoinShares Physical XRP	21	↑	0.66	1.50	-	-	-	-	N	
ET32 GR	ETC Group Ethereum Staking ETP	19	-	0.26	0.65	-	-	-	-	N	
VRSETHS SS	Virtuone Staked Ethereum ETP	17	0	0.35	1.40	-	-	-	-	N	
XBTI GR	DDA Funds Physical Bitcoin ETP	16	0	0.52	0.95	-	-	-	-	N	
AVAX SW	21Shares Avalanche ETP	16	↑	0.43	2.50	-	-	-	-	N	
ESOL GR	ETC Group Physical Solana	16	↑	1.25	1.95	-	-	-	-	N	
VAVA SW	VanEck Avalanche ETN	16	↑	0.76	1.50	-	-	-	-	N	
ETHC SW	21Shares Core Ethereum ETP	15	↑	0.17	0.21	-	-	-	-	N	
SETH SW	AMINA Ethereum ETP	15	0	0.39	0.75	-	-	-	-	N	
HODLX SW	21Shares Crypto Basket 10 ETP	14	0	0.36	2.50	-	-	-	-	N	
LINK SW	21Shares Chainlink ETP	14	↑	0.71	2.50	-	-	-	-	N	
CSDA GR	CoinShares Physical Staked Car	12	↑	0.10	0.00	-	-	-	-	N	
SBTCC SW	AMINA Bitcoin ETP (CHF - hedge	12	↑	0.67	1.50	-	-	-	-	Y	
POLY SW	21Shares Polygon ETP	12	↓	0.82	2.50	-	-	-	-	N	
ABCH SW	21Shares Bitcoin Cash ETP	11	0	0.61	2.50	-	-	-	-	N	
AFTM SW	21Shares Fantom ETP	11	↑	2.07	2.50	-	-	-	-	N	
WALT SW	WisdomTree Physical Crypto Alt	11	↑	0.90	0.70	-	-	-	-	N	
MEGA SW	WisdomTree Physical Crypto Meg	10	↑	0.46	0.40	-	-	-	-	N	
1VIC GR	1Valour Internet Computer Phys	10	-	0.77	1.90	-	-	-	-	N	
BLOC SW	WisdomTree Physical Crypto Mar	10	↑	0.78	0.70	-	-	-	-	N	
CCHA GR	CoinShares Physical Chainlink	10	↑	0.64	1.50	-	-	-	-	N	
RAND GR	CoinShares Physical Staked Alg	9	↑	0.69	0.00	-	-	-	-	N	
CDOT GR	CoinShares Physical Staked Pol	9	↑	0.80	0.00	-	-	-	-	N	
BOLD SW	21Shares Bytetre BOLD ETP	9	↑	0.35	1.49	-	-	-	-	N	
VIRLINK SS	Virtuone Chainlink ETP	8	0	0.61	1.49	-	-	-	-	N	
DA20 GR	ETC Group MSC1 Digital Assets	8	↑	0.60	1.49	-	-	-	-	N	
HODLV SW	21Shares Crypto Basket Equal W	8	0	0.60	2.50	-	-	-	-	N	
LITE SW	CoinShares Physical Litecoin	7	↑	0.73	1.50	-	-	-	-	N	
CPYG GR	CoinShares Physical Staked Mat	7	↑	0.71	0.00	-	-	-	-	N	
BTC FP	Melanion Bitcoin Equities UCIT	6	0	1.20	0.75	-	-	-	-	N	
VDOT GR	VanEck Polkadot ETN	5	↑	0.73	1.50	-	-	-	-	N	
XXBU GR	Xtrackers Galaxy Physical Bitc	5	-	0.39	0.35	-	-	-	-	N	
ELTC GR	ETC Group Physical Litecoin	5	0	0.56	2.00	-	-	-	-	N	
ALTS SW	21Shares Crypto Mid-Cap Index	5	↑	0.80	2.50	-	-	-	-	N	
ALGO SW	21Shares Algorand ETP	5	↑	1.06	2.50	-	-	-	-	N	
SBTC SW	21Shares Short Bitcoin ETP	5	↑	0.44	2.50	-1x	-	-	-	N	
ASTX SW	21Shares Stacks Staking ETP	5	↑	1.85	2.50	-	-	-	-	N	
ETOX GR	Global X Ethereum ETP	5	↑	0.24	0.65	-	-	-	-	N	
VLNK GR	VanEck Chainlink ETN	5	↑	0.95	1.50	-	-	-	-	N	
AUNI SW	21Shares Uniswap ETP	5	↑	0.47	2.50	-	-	-	-	N	
BTCI GR	ETC Group Core Bitcoin ETP	4	-	0.27	0.30	-	-	-	-	N	
VIRARB SS	Virtuone Arbitrum ETP	4	-	1.52	1.95	-	-	-	-	N	
AXLM SW	21Shares Stellar ETP	4	↑	0.80	2.50	-	-	-	-	N	
BTGX GR	Global X Bitcoin ETP	4	↓	0.26	0.65	-	-	-	-	N	
IETH GR	DDA Physical Ethereum ETP	4	↑	1.11	0.95	-	-	-	-	N	
XTZS GR	CoinShares Physical Staked Tez	4	↑	0.56	0.00	-	-	-	-	N	
CMWP GR	CoinShares Physical Uniswap	3	↑	0.61	1.50	-	-	-	-	N	
AAVE SW	21Shares Aave ETP	3	↑	1.91	2.50	-	-	-	-	N	
BTOD SW	FICAS Dynamic Crypto ETP	3	0	0.74	2.00	-	Y	-	-	N	
LIDO SW	21Shares Lido DAO ETP	3	-	1.90	2.50	-	-	-	-	N	
AARB NA	21Shares Arbitrum ETP	3	0	0.77	2.50	-	-	-	-	N	
BOON NA	Jacobi FT Wiltshire Bitcoin ETF	3	0	0.36	1.50	-	-	-	-	N	
AMKR SW	21Shares Maker ETP	3	-	1.88	2.50	-	-	-	-	N	
CFMOM SW	CF Crypto Momentum ETP	3	-	0.64	1.59	-	-	-	-	N	
AXTZ SW	21Shares Tezos Staking ETP	2	↓	0.62	2.50	-	-	-	-	N	
VSMA GR	VanEck Smart Contract Leaders	2	0	0.81	1.50	-	-	-	-	N	
ADAW SW	WisdomTree Physical Cardano	2	↑	0.64	0.50	-	-	-	-	N	
STAKE SW	21Shares Staking Basket Index	2	↑	1.15	2.50	-	-	-	-	N	
VVOL SW	VanEck Polygon ETN	2	↑	0.70	1.50	-	-	-	-	N	

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Crypto (Continued)											
CSSC GR	CoinShares Physical Smart Cont	2	↑	1.03	0.00	-	-	-	-	N	
ATOM SW	21Shares Cosmos ETP	2	↑	0.112	2.50	-	-	-	-	N	
COMS GR	CoinShares Physical Staked Cos	2	↑	0.48	0.00	-	-	-	-	N	
MANA SW	21Shares Decentraland ETP	2	↑	1.73	2.50	-	-	-	-	N	
GXRP GR	ETC Group Physical XRP	2	↑	0.90	1.95	-	-	-	-	N	
AOPT NA	21Shares Optimism ETP	2	0	0.87	2.50	-	-	-	-	N	
HAMO SW	Hashdex Crypto Momentum Factr	2	↓	0.57	1.49	-	-	-	-	N	
CTEN GR	CoinShares Physical Top 10 Cry	2	↑	1.37	0.00	-	-	-	-	N	
VIRDOT SS	Virtuone Staked Polkadot ETP	2	-	0.64	1.49	-	-	-	-	N	
RDAN GR	ETC Group Physical Cardano	1	↑	1.47	1.95	-	-	-	-	N	
ATIA NA	21Shares Celestia Staking ETP	1	-	0.82	2.50	-	-	-	-	N	
XETU GR	Xtrackers Galaxy Physical Ethe	1	-	0.36	0.35	-	-	-	-	N	
SAND SW	21Shares The Sandbox ETP	1	↑	1.73	2.50	-	-	-	-	N	
VGND GR	VanEck Algorand ETN	1	↑	1.29	1.50	-	-	-	-	N	
CASL SW	Cardano ADA Staking by Liqwid	1	-	0.60	1.50	-	-	-	-	N	
DOTW SW	WisdomTree Physical Polkadot	1	↑	0.56	0.50	-	-	-	-	N	
BCX GR	1Valour Stoxx Bitcoin Suisse D	1	-	0.83	1.90	-	-	-	-	N	
CFWB3 SW	CF Crypto Web 3.0 ETP	1	-	0.66	1.50	-	-	-	-	N	
SDOT SW	AMINA Polkadot ETP	1	0	1.04	1.25	-	-	-	-	N	
1VBT GR	1Valour Bitcoin Physical Carbo	0	0	0.64	1.49	-	-	-	-	N	
SHETH SW	21Shares Short Ethereum ETP	0	0	0.60	2.50	-1x	-	-	-	N	
1VET GR	1Valour Ethereum Physical Stak	0	0	0.73	1.49	-	-	-	-	N	
LIX GR	Global X Chainlink ETP	0	0	0.76	0.99	-	-	-	-	N	
UNIX GR	Global X Uniswap ETP	0	0	0.66	0.99	-	-	-	-	N	
AVMX GR	Global X AAVE ETP	0	0	0.61	0.99	-	-	-	-	N	
SOLVA FP	Valour Solana	0	0	0.83	1.90	-	-	-	-	N	
ADAVE FP	Valour Cardano	0	0	0.68	1.90	-	-	-	-	N	
DOTVA FP	Valour Polkadot	0	0	0.72	1.90	-	-	-	-	N	
PNDS SW	Pando Asset Crypto 6 ETP	-	0	0.71	2.00	-	-	-	-	N	
PBTC SW	Pando Asset Crypto Bitcoin ETP	-	0	0.36	2.00	-	-	-	-	N	
PETH SW	Pando Asset Crypto Ethereum ET	-	0	0.33	2.00	-	-	-	-	N	
XBTO SW	Exchange Traded Product on Ris	-	-	0.42	0.95	-	-	-	-	N	
ADBI SW	Exchange Traded Product on Ada	-	-	0.95	0.75	-	Y	-	-	N	
BTCL SW	Exchange Traded Product on Leo	-	-	0.98	0.35	-	-	-	-	N	
ETHF SW	Figment Ethereum Plus Staking	-	-	0.32	1.50	-	-	-	-	N	
SOLF SW	Figment Solana Plus Staking Re	-	-	0.76	1.50	-	-	-	-	N	
VIRADA SS	Virtuone Staked Cardano ETP	-	-	1.01	1.79	-	-	-	-	N	

Commodity											
Broad Commodities											
CMOD LN	Invesco Bloomberg Commodity UC	2,629	↑	0.06	0.19	-	-	-	-	N	
ENCO LN	L&G Multi-Strategy Enhanced Co	1,844	0	0.19	0.30	-	-	-	-	N	
COMO FP	Amundi Bloomberg Equal-weight	1,729	0	0.14	0.30	-	-	-	-	N	
CCUSAS SW	UBS Irf Fund Solutions plc - C	1,593	0	0.33	0.34	-	-	-	-	N	
ICOM LN	iShares Diversified Commodity	1,407	2	0.10	0.19	-	-	-	-	L	
ROLL LN	iShares Bloomberg Enhanced Rol	1,364	0	0.13	0.28	-	-	-	-	N	
EMOCUI SW	UBS ETC on UBS Bloomberg CMCI	680	0	-	0.41	-	-	-	-	N	
UD07 LN	UBS Irf Fund Solutions plc - B	629	0	0.04	0.34	-	-	-	-	N	
GSCE NA	BNP Paribas Easy Energy & Meta	470	0	0.52	0.40	-	-	-	-	N	
CCXAA SW	UBS Irf Fund Solutions plc - C	439	↑	0.46	0.34	-	-	-	-	N	
WCOG LN	Wisdomtree Enhanced Commodity	420	↓	0.23	0.35	-	-	-	-	N	
COMF LN	L&G Longer Dated All Commodit	395	0	0.16	0.30	-	-	-	-	N	
DJCOMEX GR	iShares Diversified Commodity	295	0	0.24	0.46	-	-	-	-	N	
XDBC GR	Xtrackers Bloomberg Commodity	267	↓	0.41	0.39	-	-	-	-	Y	
POOM LN	Wisdomtree Broad Commodities U	249	0	0.15	0.19	-	-	-	-	N	
XAAG GR	Invesco Bloomberg Commodity ex	189	↓	0.21	0.19	-	-	-	-	N	
EXAG GR	Wisdomtree Enhanced Commodity	177	↑	0.16	0.35	-	-	-	-	Y	
DCCHAS SW	UBS Irf Fund Solutions plc - B	162									

EMEA LISTED ETFS

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Broad Commodities (Continued)											
XAGZ LN	L&G Multi-Strategy Enhanced Co	9	-	0.41	0.30	-	-	-	-	N	
CCMCI SW	UBS ETC on UBS Bloomberg CMC1	8	0	-	0.81	-	-	-	-	N	
TDJCMU SW	UBS ETC on UBS Bloomberg BCOM	8	0	-	0.38	-	-	-	-	N	
BCEXUU SW	UBS ETC linked to the Bloomber	7	↑	0	-	0.16	-	-	-	N	
SALL LN	WisdomTree Broad Commodities 1	4	0	0.84	0.98	-1x	-	-	-	N	
GCMCI SW	UBS ETC on UBS Bloomberg SPGSC	4	0	-	0.50	-	-	-	-	N	
FAIG LN	WisdomTree Broad Commodities L	3	↓	0	0.65	0.49	-	-	-	N	
ECMCI SW	UBS ETC on UBS Bloomberg CMC1	2	0	-	0.50	-	-	-	-	N	
00XK GR	WisdomTree Broad Commodities -	1	↓	0	0.34	0.49	-	-	-	Y N	
CCMCI SW	UBS ETC on UBS Bloomberg CMC1	1	↑	0	-	0.50	-	-	-	Y N	
EECMCI SW	UBS ETC on UBS Bloomberg CMC1	1	0	-	0.50	-	-	-	-	Y N	
CMCI LN	UBS ETC linked to the UBS Bloo	1	0	0.51	0.38	-	-	-	-	N	
BCOMUJ SW	UBS ETC linked to the Bloomber	0	0	-	0.16	-	-	-	-	N	
BCOMEU SW	UBS ETC linked to the Bloomber	0	0	-	0.28	-	-	-	-	Y N	
CMGU LN	UBS ETC linked to the UBS Bloo	0	0	0.51	0.38	-	-	-	-	N	
COSLNU SW	UBS ETC Linked to UBS Bloomber	0	0	-	0.85	+2.5x	-	-	-	N	
ECMCI SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.50	-	-	-	Y N	
TCM3MU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.38	-	-	-	-	N	
TGM1Y SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.38	-	-	-	-	N	
RENEW SW	UBS If Fund Solutions plc - C	0	↓	0	0.52	0.34	-	-	-	N	
CDJCMU SW	UBS ETC on UBS Bloomberg BCOM	0	0	-	0.50	-	-	-	-	Y N	
TCMSIU SW	UBS ETC linked to UBS CMC1 Sus	0	0	-	0.41	-	-	-	-	N	
CEMCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.50	-	-	-	-	Y N	
TEMCU SW	UBS ETC on UBS Bloomberg ex Ag	0	0	-	0.38	-	-	-	-	N	
BCOMCU SW	UBS ETC linked to the Bloomber	0	0	-	0.28	-	-	-	-	Y N	
GCMCI SW	UBS ETC on UBS Bloomberg SPGSC	0	0	-	0.38	-	-	-	-	N	
CMBU LN	UBS ETC linked to the UBS Bloo	0	0	0.51	0.38	-	-	-	-	N	
CKAD LN	UBS ETC linked to UBS Bloomber	0	0	0.51	0.38	-	-	-	-	N	
CMGG LN	UBS ETC linked to UBS Bloomber	0	0	0.51	0.50	-	-	-	-	Y N	
CMGB LN	UBS ETC linked to the UBS Bloo	0	0	0.51	0.50	-	-	-	-	Y N	
CMVB LN	UBS ETC linked to UBS Bloomber	0	0	0.51	0.50	-	-	-	-	Y N	
CXAS LN	UBS ETC linked to UBS Bloomber	0	0	0.51	0.50	-	-	-	-	Y N	
TGM1YU SW	UBS ETC on UBS Bloomberg CMC1	-	0	-	0.38	-	-	-	-	N	
TCM6MU SW	UBS ETC on UBS Bloomberg CMC1	-	0	-	0.38	-	-	-	-	N	
EDJCMU SW	UBS ETC on UBS Bloomberg BCOM	-	0	-	0.50	-	-	-	-	Y N	
BCEXCU SW	UBS ETC linked to the Bloomber	-	0	-	0.28	-	-	-	-	Y N	
BCAICU SW	UBS ETC linked to the Bloomber	-	0	-	0.35	-	-	-	-	Y N	
BCEXEU SW	UBS ETC linked to the Bloomber	-	0	-	0.28	-	-	-	-	Y N	
Energy											
CRUD LN	WisdomTree WTI Crude Oil	600	2	0.13	0.49	-	-	-	-	M	
BRNT LN	WisdomTree Brent Crude Oil	508	↓	1	0.14	0.49	-	-	-	L	
WENT LN	WisdomTree Energy Transition M	216	↑	0	0.78	0.45	-	-	-	Y N	
CO2 LN	SparkChange Physical Carbon EU	172	↑	0	0.72	0.89	-	-	-	N	
CARB LN	WisdomTree Carbon	146	↓	0	0.29	0.35	-	-	-	N	
NGAS LN	WisdomTree Natural Gas	112	↑	0	0.31	0.49	-	-	-	N	
OILUSA SW	UBS CH Fund Solutions - CMC1 O	101	0	0.54	0.26	-	-	-	-	N	
BENE LN	WisdomTree Energy Enhanced	99	↑	0	0.19	0.40	-	-	-	N	
LOIL LN	WisdomTree WTI Crude Oil 2x Da	97	↓	1	0.22	0.98	+2x	-	-	N	
ALGE LN	WisdomTree Energy	51	0	0.09	0.49	-	-	-	-	N	
3NGL LN	WisdomTree Natural Gas 3x Dail	48	↑	0	1.22	0.99	+3x	-	-	N	
OLCHA SW	UBS CH Fund Solutions - CMC1 O	40	0	0.51	0.26	-	-	-	-	Y N	
3OIS LN	WisdomTree WTI Crude Oil 3x Da	36	↑	0	0.46	0.99	-3x	-	-	N	
EEINCI SW	UBS ETC on UBS Bloomberg CMC1	31	0	-	0.52	-	-	-	-	N	
3NGS LN	WisdomTree Natural Gas 3x Dail	29	↓	1	0.70	0.99	-3x	-	-	N	
3OIL LN	WisdomTree WTI Crude Oil 3x Da	28	↓	1	0.22	0.99	+3x	-	-	N	
GAS2S IM	SG ETC Daily Short-2X NATURAL	25	↓	0	1.06	0.95	-2x	-	-	N	
00XM GR	WisdomTree WTI Crude Oil - EUR	21	0	0.51	0.49	-	-	-	-	Y N	
GAS1S IM	SG ETC Daily Short-1X NATURAL	21	↓	0	0.55	0.95	-1x	-	-	N	
BNQ9 GR	Natural Gas ETC von BNPP	20	↑	0	1.13	0.90	-	-	-	N	
WITD IM	WisdomTree Bloomberg WTI Crude	19	↑	0	0.15	0.25	-	-	-	N	
TENCI SW	UBS ETC on UBS Bloomberg CMC1	19	↑	0	-	0.40	-	-	-	N	
SOIL LN	WisdomTree WTI Crude Oil 1x Da	17	0	0.34	0.98	-1x	-	-	-	N	
LNGA LN	WisdomTree Natural Gas 2x Dail	17	↑	0	0.92	0.98	+2x	-	-	N	
BCBREU SW	UBS ETC linked to the Bloomber	16	0	-	0.27	-	-	-	-	Y N	
3BRS IM	WisdomTree Brent Crude Oil 3x	16	↑	1	0.38	0.99	-3x	-	-	N	
BNQA GR	Collateralized ETC on Brent Cr	15	↓	0	0.51	0.90	-	-	-	N	
TENCIU SW	UBS ETC on UBS Bloomberg CMC1	15	0	-	0.38	-	-	-	-	N	
LBRT LN	WisdomTree Brent Crude Oil 2x	15	↓	1	0.45	0.98	+2x	-	-	N	
BNQB GR	BNP Paribas WTI Crude Oil ETC	14	↓	0	0.63	0.90	-	-	-	N	
BRE2L IM	SG ETC Daily Long +2X BRENT OI	13	0	0.38	0.95	+2x	-	-	-	N	
00XT GR	WisdomTree Brent Crude Oil - E	13	↓	0	0.55	0.49	-	-	-	Y N	
WITL IM	SG ETC WTI Oil Future	13	0	0.29	0.45	-	-	-	-	N	

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 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

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Energy (Continued)											
BCBRUU SW	UBS ETC linked to the Bloomber	12	↓	0	-	0.15	-	-	-	N	
WITS1 IM	SG ETC Daily Short-1X WTI OIL	11	0	0.28	0.95	-1x	-	-	-	N	
3BRL LN	WisdomTree Brent Crude Oil 3x	11	↑	0	0.35	0.99	+3x	-	-	N	
TCL4YU SW	UBS ETC Linked to UBS Bloomber	11	0	-	0.45	-	-	-	-	N	
WT2L IM	SG ETC Daily Long +2X WTI Oil	10	0	0.39	0.65	+2x	-	-	-	N	
BRES1 IM	SG ETC Daily Short-1X BRENT O	10	0	0.29	0.95	-1x	-	-	-	N	
BRE1L IM	SG ETC Brent Oil Future	9	↓	0	0.28	0.45	+1x	-	-	N	
BRND IM	WisdomTree Bloomberg Brent Cru	8	↓	0	0.37	0.25	-	-	-	N	
BRE2S IM	SG ETC Daily Short-2X BRENT O	8	0	0.38	0.95	-2x	-	-	-	N	
WIT2S IM	SG ETC Daily Short-2X WTI OIL	8	0	0.38	0.95	-2x	-	-	-	N	
BRES3 IM	SG ETC Daily Long +3X BRENT OI	8	0	0.54	0.95	+3x	-	-	-	N	
00XP GR	WisdomTree Natural Gas - EUR D	7	↑	0	0.69	0.49	-	-	-	Y N	
THOCU SW	UBS ETC on UBS Bloomberg CMC1	7	0	-	0.40	-	-	-	-	N	
TCOCU SW	UBS ETC on UBS Bloomberg CMC1	7	↑	0	-	0.30	-	-	-	N	
NGA3S IM	SG ETC Daily Short-3X Natural	6	↓	0	2.28	0.95	-3x	-	-	N	
PBRT LN	WisdomTree Brent Crude Oil - G	5	0	0.32	0.49	-	-	-	-	Y N	
CO2L1 IM	SG ETC CARBON Future	5	↓	0	0.45	0.30	+1x	-	-	N	
UGAS LN	WisdomTree Gasoline	5	0	0.31	0.49	-	-	-	-	N	
BNQC GR	Collateralized ETC on RIC1 Enh	5	0	0.99	1.00	-	-	-	-	N	
WT3L IM	SG ETC Daily Long +3X WTI OIL	5	0	0.56	0.95	+3x	-	-	-	N	
HEAT LN	WisdomTree Heating Oil	5	↓	0	1.31	0.49	-	-	-	N	
SBRT LN	WisdomTree Brent Crude Oil 1x	4	↓	0	0.23	0.98	-1x	-	-	N	
TCLCI SW	UBS ETC on UBS Bloomberg CMC1	4	↓	0	-	0.30	-	-	-	N	
B4NY GR	RIC1 Enhanced Brent Crude Oil	4	↑	0	1.00	1.17	-	-	-	Y N	
NGA2L IM	SG ETC Daily Long +2X Natural	4	↑	0	1.01	0.65	+2x	-	-	N	
AIGO LN	WisdomTree Petroleum	4	↓	0	0.28	0.49	-	-	-	N	
TNGCIU SW	UBS ETC linked to the UBS Bloo	4	↑	0	-	0.40	-	-	-	N	
NGA3L IM	SG ETC Daily Long +3X Natural	3	↑	0	2.83	0.95	+3x	-	-	N	
PCRD LN	WisdomTree WTI Crude Oil - GBP	3	↓	0	0.50	0.49	-	-	-	Y N	
NGA1L IM	SG ETC Natural Gas Future	3	0	0.55	0.45	-	-	-	-	N	
CCLCI SW	UBS ETC on UBS Bloomberg CMC1	3	↓	0	-	0.72	-	-	-	N	
XEAL GR	Xtrackers Physical Carbon EUA	3	0	0.50	0.79	-	-	-	-	N	
CCOCI SW	UBS ETC on UBS Bloomberg CMC1	3	↓	0	-	0.72	-	-	-	N	
WNRG GR	WisdomTree Energy Enhanced - E	3	0	1.27	0.40	-	-	-	-	Y N	
FCRU LN	WisdomTree WTI Crude Oil Longe	3	0	0.31	0.49	-	-	-	-	N	
LPET LN	WisdomTree Petroleum 2x Daily	2	0	0.88	0.98	+2x	-	-	-	N	
SNGA LN	WisdomTree Natural Gas 1x Dail	2	↓	0	0.31	0.98	-1x	-	-	N	
BNQD GR	Collateralized ETC on RIC1 Enh	2	0	0.98	1.00	-	-	-	-	N	
WITS3 IM	SG ETC Daily Short-3X WTI OIL	2	0	0.54	0.95	-3x	-	-	-	N	
ECOCU SW	UBS ETC on UBS Bloomberg CMC1	2	↑	0	-	0.42	-	-	-	Y N	
CCOCU SW	UBS ETC on UBS Bloomberg CMC1	2	↓	0	-	0.42	-	-	-	Y N	
ECLCI SW	UBS ETC on UBS Bloomberg CMC1	2	0	-	0.42	-	-	-	-	N	
BRE3S IM	SG ETC Daily Short-3X BRENT O	2	0	0.54	0.95	-3x	-	-	-	N	
TCOCI SW	UBS ETC on UBS Bloomberg CMC1	1	0	-	0.30	-	-	-	-	N	
PTENGEIF RO	ETF Energie Patria - Tradvill	1	0	0.31	1.80	-	-	-	-	N	
TNGCI SW	UBS ETC on UBS Bloomberg CMC1	1	↑	0	-	0.40	-	-	-	N	
TCL1YU SW	UBS ETC on UBS Bloomberg CMC1	1	0	-	0.30	-	-	-	-	N	
WCCA LN	WisdomTree California Carbon	1	↓	0	1.68	0.49	-	-	-	N	
BNFE LN	WisdomTree Energy Longer Dated	1	↓	0	0.28	0.49	-	-	-	N	
BNQE GR	Collateralized ETC on RIC1 Enh	1	↑	0	1.33	1.00	-	-	-	N	
FBRT LN	WisdomTree Brent Crude Oil Lon	1	↓	0	0.34	0.49	-	-	-	N	
CCLCU SW	UBS ETC on UBS Bloomberg CMC1	1	0	-	0.42	-	-	-	-	Y N	
BONG											

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Energy (Continued)											
B4N3 GR	Heating Oil ETC v on BNPP B.V.	0	↓	0	0.56	0.90	-	-	-	N	
BCZIUU SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.15	-	-	-	N	
ECLCIU SW	UBS ETC on UBS Bloomberg CMCI	0	↓	0	-	0.42	-	-	-	Y	
BNQG GR	Collateralized ETC on RIC1 Enh	0	0	0	1.25	1.00	-	-	-	N	
TOO1YU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.30	-	-	-	N	
OLU LN	UBS ETC linked to UBS Bloomber	0	↓	0	0.36	0.30	-	-	-	N	
BNQH GR	Collateralized ETC on RIC1 Enh	0	0	0	1.27	1.00	-	-	-	N	
B4N2 GR	Gasoline Benzin ETC v on	0	↓	0	0.55	0.90	-	-	-	N	
1BRN LN	LS Brent Oil ETC	0	0	0	0.48	0.35	-	-	-	N	
WTL LN	LS WTI Oil ETC	0	0	0	0.50	0.35	-	-	-	N	
NGLS LN	LS Natural Gas ETC	0	0	0	0.51	0.35	-	-	-	N	
BNQF GR	Collateralized ETC on RIC1 Enh	0	↓	0	1.32	1.00	-	-	-	N	
BCWTCU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.27	-	-	-	Y	
BNQ7 GR	Collateralized ETC on RIC1 Enh	0	↓	0	0.90	0.99	-	-	-	N	
TOO6MU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.30	-	-	-	N	
BCBRCU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.27	-	-	-	Y	
OGZG GR	RIC1 Enhanced Heating Oil Exce	0	0	0	1.41	1.17	-	-	-	Y	
EEGCIU SW	UBS ETC on UBS Bloomberg CMCI	0	↓	0	-	0.50	-	-	-	Y	
TCL6MU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.30	-	-	-	N	
BCNGEU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.30	-	-	-	Y	
OGZF GR	RIC1 Enhanced Gasoline Excess	0	0	0	1.27	1.20	-	-	-	Y	
NGAG LN	UBS ETC linked to the UBS Bloo	0	0	0	0.75	0.52	-	-	-	Y	
TGL3MU SW	UBS ETC on UBS Bloomberg CMCI	0	↓	0	-	0.30	-	-	-	N	
BCENEU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.28	-	-	-	Y	
BCUGCU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.30	-	-	-	Y	
NGAU LN	UBS ETC linked to the UBS Bloo	0	0	0	0.91	0.40	-	-	-	N	
BCWTEU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.27	-	-	-	Y	
BCUGUU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.18	-	-	-	N	
OL3 LN	UBS ETC linked to the UBS Bloo	0	0	0	0.36	0.30	-	-	-	N	
CXBCIU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.52	-	-	-	Y	
TOQCIU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.40	-	-	-	N	
OGZE GR	RIC1 Enhanced Gas Oil Excess R	0	0	0	1.45	1.20	-	-	-	Y	
BRT3 LN	UBS ETC linked to UBS Bloomber	0	0	0	0.36	0.30	-	-	-	N	
ENGCIU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.52	-	-	-	Y	
TOO3MU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.30	-	-	-	N	
BCENCU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.28	-	-	-	Y	
ENRU LN	UBS ETC linked to the UBS Bloo	0	↓	0	0.31	0.38	-	-	-	N	
BRTU LN	UBS ETC linked to the UBS Bloo	0	↓	0	0.36	0.30	-	-	-	N	
ENGB LN	UBS ETC linked to the UBS Bloo	0	0	0	0.31	0.50	-	-	-	Y	
EXBCIU SW	UBS ETC on UBS Bloomberg CMCI	0	0	0	-	0.52	-	-	-	Y	
OLG LN	UBS ETC linked to the UBS Bloo	0	0	0	0.35	0.42	-	-	-	Y	
BCGOUU SW	UBS ETC linked to the Bloomber	0	↓	0	-	0.18	-	-	-	N	
BCHOUU SW	UBS ETC linked to the Bloomber	0	0	0	-	0.18	-	-	-	N	
OL2S SW	UBS ETC 2x Short CMCI WTI Crud	0	0	0	-	0.98	-2x	-	-	N	
BCUGEU SW	UBS ETC linked to the Bloomber	-	0	0	-	0.30	-	-	-	Y	
KSMF14 IT	KSM ETF 4D Bloomberg Brent Cru	-	-	-	-	1.53	-	-	-	N	
KSMF84 IT	KSM ETF 4A Bloomberg Brent Cru	-	-	-	-	1.53	-	-	-	N	
TCHF81 IT	Tachit SAL 4D Future Bloomber	-	-	-	-	-	-	-	-	N	
SBOL SJ	Standard Bank Oil ETN	-	0	0	1.93	0.35	-	-	-	N	
KSMF209 IT	KSM ETF 6D Short Leveraged Fut	-	-	-	-	1.53	-2x	-	-	N	
SGS1 GR	Societe Generale ETC EUA Futur	-	0	0	0.18	4.00	-	-	-	N	
SGS2 GR	Societe Generale ETC Brent Oil	-	0	0	0.12	9.00	-	-	-	N	
SGS3 GR	Societe Generale ETC Natural G	-	0	0	0.54	0.90	-	-	-	N	
42GG GR	SG ETC WTI Light Crude Oil FUT	-	0	0	0.18	0.90	-	-	-	N	
42G3 GR	SG ETC Unleaded Gasoline Futur	-	0	0	0.19	0.80	-	-	-	N	
42G4 GR	SG ETC Heating Oil Future	-	0	0	0.26	0.80	-	-	-	N	
42GL GR	SG ETC Gas Oil Future	-	0	0	0.25	0.80	-	-	-	N	
BRENT SW	Exchange Traded Product on Leo	-	-	-	-	0.68	0.45	-	-	N	
Precious Metals											
IGLD LN	Invesco Physical Gold ETC	14,059	4	0.06	0.12	-	-	-	-	N	
IGLN LN	iShares Physical Gold ETC	13,721	↓	7	0.04	0.12	-	-	-	H	
4GLD GR	Xetra-Gold	12,066	↓	15	0.05	0.36	-	-	-	N	
ZGLD SW	ZKB Gold ETF	11,121	6	0.08	0.40	-	-	-	-	N	
PHAU LN	WisdomTree Physical Gold	4,420	3	0.08	0.39	-	-	-	-	L	
GOLD FP	Amundi Physical Gold ETC	4,001	↓	1	0.06	0.12	-	-	-	N	
XGDU LN	Xtrackers IE Physical Gold ETC	3,195	0	0.37	0.11	-	-	-	-	N	
GBS LN	Gold Bullion Securifies Ltd	2,644	1	0.11	0.40	-	-	-	-	N	
ZSIL SW	ZKB Silver ETF	2,514	3	0.14	0.60	-	-	-	-	N	
SGBS LN	WisdomTree Physical Swiss Gold	2,444	0	0.07	0.15	-	-	-	-	N	
PHAU LN	WisdomTree Physical Silver	2,133	↑	16	0.10	0.49	-	-	-	N	
XAD6 GR	Xtrackers Physical Gold ETC EU	2,111	1	0.09	0.25	-	-	-	-	N	
AUUSI SW	UBS ETF CH-Gold	1,945	2	0.35	0.23	-	-	-	-	N	

1 Option Liquidity: H / M / L / N - High / Medium / Low / None

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Precious Metals (Continued)											
EWG2 GR	EUWAX Gold II	1,445	2	0.80	0.00	-	-	-	-	N	
AUHAH SW	UBS ETF CH-Gold CHF hedged	1,344	1	0.35	0.23	-	-	-	-	Y	
GBSP LN	WisdomTree Physical Gold - GBP	1,266	↓	1	0.10	0.15	-	-	-	Y	
XAD1 GR	Xtrackers Physical Gold EUR He	1,218	↓	2	0.11	0.59	-	-	-	Y	
GLD SJ	New Gold Issuer Ltd	977	2	0.36	0.30	-	-	-	-	N	
ISLN LN	iShares Physical Silver ETC	886	↑	3	0.13	0.20	-	-	-	M	
RMAU LN	Royal Mint Responsibly Sourced	793	0	0.36	0.25	-	-	-	-	N	
PHFT LN	WisdomTree Physical Platinum	728	↑	4	0.19	0.49	-	-	-	N	
ZGOLD TI	Ziraat Portfoy Gold Participat	714	2	0.12	2.19	-	-	-	-	N	
WGLD LN	WisdomTree Core Physical Gold	714	0	0.04	0.12	-	-	-	-	N	
RGRF SW	Raiffeisen ETF - Solid Gold Re	637	↑	0	0.12	0.29	-	-	-	N	
ISGLS LN	Invesco Physical Gold GBP Hedg	635	↑	0	0.17	0.27	-	-	-	Y	
XGDE GR	Xtrackers IE Physical Gold EUR	617	1	0.18	0.24	-	-	-	-	Y	
8PSE GR	Invesco Physical Gold EUR Hedg	519	0	0.17	0.27	-	-	-	-	Y	
CSGOLD SW	iShares Gold ETF CH	513	↓	1	0.17	0.19	-	-	-	N	
GOLD GR	EUWAX Gold	505	0	0.85	0.00	-	-	-	-	N	
AUEU AH SW	UBS ETF CH-Gold EUR hedged	476	0	0.50	0.23	-	-	-	-	Y	
ZPLA SW	ZKB Platinum ETF	449	1	0.32	0.50	-	-	-	-	N	
CSGLDC SW	iShares Gold CHF Hedged ETF CH	406	↓	0	0.14	0.22	-	-	-	N	
RGLDO SW	Raiffeisen ETF - Solid Gold Ou	394	0	0.15	0.26	-	-	-	-	N	
XGLD LN	Xtrackers Physical Gold ETC	391	0	0.07	0.25	-	-	-	-	N	
NGFLT SJ	New Gold Platinum ETF	381	1	0.57	0.35	-	-	-	-	N	
GBSE GR	WisdomTree Physical Gold - EUR	317	↓	0	0.12	0.15	-	-	-	Y	
XAD6 GR	Xtrackers Physical Silver ETC	242	1	0.16	0.40	-	-	-	-	N	
XGDG LN	Xtrackers IE Physical Gold GBP	225	↓	0	0.32	0.24	-	-	-	Y	
SVUSA SW	UBS ETF CH-Silver	204	0	0.62	0.45	-	-	-	-	N	
CSGLDE SW	iShares Gold EUR Hedged ETF CH	201	0	0.24	0.22	-	-	-	-	N	
IFLT LN	iShares Physical Platinum ETC	196	↑	1	0.47	0.20	-	-	-	N	
GMSTR TI	Istanbul Silver Type B Exchang	187	6	0.06	0.05	-	-	-	-	N	
SSLV LN	Invesco Physical Silver ETC	180	↓	0	0.12	0.19	-	-	-	N	
GLDTR TI	Istanbul Gold Exchange Traded	179	↓	2	0.06	0.47	-	-	-	N	
XAD2 GR	Xtrackers Physical Silver EUR	142	↓	1	0.16	0.75	-	-	-	Y	
PHFM LN	WisdomTree Physical Precious M	126	↓	0	0.30	0.44	-	-	-	N	
XSLR LN	Xtrackers IE Physical Silver E	124	0	0.21	0.20	-	-	-	-	N	
ETFFLT SJ	Invest Platinum ETF	122	↓	0	1.30	0.30	-	-	-	N	
PHPD LN	WisdomTree Physical Palladium	90	0	0.55	0.49	-	-	-	-	N	
3SIL LN	WisdomTree Silver 3x Daily Lev	77	1	0.34	0.99	+3x	-	-	-	N	
ETFGLD SJ	1invest Gold ETF	74	↑	1	0.32	0.25	-	-	-	N	
ZPAL SW	ZKB Palladium ETF	69	↑	0	0.98	0.50	-	-	-	N	
XAD3 GR	Xtrackers Physical Platinum EU	67	↑	0	0.45	0.75	-	-	-	Y	
AIGPL LN	WisdomTree Precious Metals	67	↑	0	0.13	0.49	-	-	-	N	
BULL LN	WisdomTree Gold	62	↓	0	0.31	0.49	-	-	-	N	
PLUSA SW	UBS ETF CH-Platinum	56	0	0.60	0.35	-	-	-	-	N	
SLVR LN	WisdomTree Silver	55	↓	0	0.44	0.49	-	-	-	N	
LSIL LN	WisdomTree Silver 2x Daily Lev	48	0	0.23	0.98	+2x	-	-	-	N	
TMGD GR	boerse.de Gold GmbH	47	0	2.35	0.00	-	-	-	-	N	
RGLDS SW	Raiffeisen ETF - Solid Gold	46	↓	0	0.13	0.28	-	-	-	N	
EFMCI SW	UBS ETC on UBS Bloomberg CMCI	38	0	-	0.61	-	-	-	-	N	
XSLE GR	Xtrackers IE Physical Silver E	34	↓	0	0.26	0.73	-	-	-	Y	
IGLD GR	iShares Physical Gold EUR Hedg	32	↑	0	0.10	0.25	-	-	-	Y	
3GOL LN	WisdomTree Gold 3x Daily Lever	31	0	0.43	0.99	+3x	-	-	-	N	
XGLS LN	Xtrackers Physical Gold GBP He	31	0	0.32	0.69	-	-	-	-	Y	
GLDCO2 SW	UBS CH Fund Solutions - Carbon	25	0	0.70	0.30	-	-	-	-	N	

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Precious Metals (Continued)											
SPAL LN	Invesco Physical Palladium ETC	9	↑	0	0.79	0.19	-	-	-	N	
GOL1L IM	SG ETC GOLD Future	9	↓	0	0.04	0.29	+1x	-	-	N	
ALBGLD ^A B	Albilar Gold ETF	8	-	0	0.16	0.26	-	-	-	N	
GOL3S IM	SG ETC Daily Short-3X GOLD FU	8	0	0	0.09	0.95	-3x	-	-	N	
CGCCI SW	UBS ETC on UBS Bloomberg CMC1	7	0	0	-0.66	-	-	-	-	N	
GOL1S IM	SG ETC Daily Short-1X GOLD FU	7	↓	0	0.05	0.95	-1x	-	-	N	
PLUSA SW	UBS ETF CH-Palladium	6	0	0	1.08	0.35	-	-	-	N	
BNQJ GR	Collateralized ETC on Gold	5	0	0	0.35	0.99	-	-	-	N	
TGCCU SW	UBS ETC on UBS Bloomberg CMC1	5	↓	0	-0.26	-	-	-	-	N	
TGCCJ SW	UBS ETC on UBS Bloomberg CMC1	5	0	0	-0.26	-	-	-	-	N	
SBUL LN	WisdomTree Gold 1x Daily Short	4	0	0	0.89	0.98	-1x	-	-	N	
TFMCI SW	UBS ETC on UBS Bloomberg CMC1	4	↓	0	-0.49	-	-	-	-	N	
SIL3S IM	SG ETC Daily Short-3X SILVER	3	0	0	0.27	0.95	-3x	-	-	N	
SSL LN	WisdomTree Silver 1x Daily Sho	3	0	0	0.37	0.98	-1x	-	-	N	
1PAS LN	WisdomTree Palladium 1x Daily	3	↑	0	0.54	0.95	-1x	-	-	N	
TSICIU SW	UBS ETC on UBS Bloomberg CMC1	2	0	0	-0.30	-	-	-	-	N	
TFMCIU SW	UBS ETC on UBS Bloomberg CMC1	2	0	0	-0.27	-	-	-	-	N	
BNQL GR	Collateralized ETC on Palladiu	2	↑	0	0.80	0.99	-	-	-	N	
00XQ GR	WisdomTree Precious Metals - E	1	0	0	0.71	0.49	-	-	-	Y	
CPLCI SW	UBS ETC on UBS Bloomberg CMC1	1	↓	0	-0.92	-	-	-	-	N	
GLD3 LN	Leverage Shares 3x Long Gold E	1	↑	0	2.82	0.75	+3x	-	-	N	
SLV3 LN	Leverage Shares 3x Long Silver	1	↑	0	0.72	0.75	+3x	-	-	N	
BEARGUL3 SS	BEAR GULD X3 H	1	0	0	0.81	-	-3x	-	-	N	
TRLCI SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-0.49	-	-	-	-	N	
B4NV GR	BNP Paribas EUR Hedged Gold ET	0	↓	0	-1.20	-	-	-	-	N	
EPLCI SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-0.61	-	-	-	-	N	
BCSIU SW	UBS ETC linked to the Bloomer	0	0	0	-0.15	-	-	-	-	N	
CGCCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.38	-	-	-	-	Y	
NEWSLV SJ	NewWave Silver ETN	0	0	0	1.11	0.40	-	-	-	N	
BCPLU SW	UBS ETC linked to the Bloomer	0	↓	0	-0.27	-	-	-	-	N	
GL3S LN	Leverage Shares -3x Short Gold	0	0	0	2.56	0.75	-3x	-	-	N	
SLVS LN	Leverage Shares -3x Short Silv	0	↑	0	1.08	0.75	-3x	-	-	N	
SIL2L SW	UBS ETC 2x Long Linked to the	0	0	0	-1.05	+2x	-	-	-	N	
TRLCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.49	-	-	-	-	N	
CFMCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.39	-	-	-	-	Y	
SIL2S SW	UBS ETC 2x Short Linked to the	0	0	0	-1.05	-2x	-	-	-	N	
CSICIU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-0.42	-	-	-	-	Y	
BCSIU SW	UBS ETC linked to the Bloomer	0	0	0	-0.27	-	-	-	-	Y	
ESICIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.42	-	-	-	-	Y	
GLD2S SW	UBS ETC 2x Short Linked to the	0	0	0	-0.94	-2x	-	-	-	N	
BCSIU SW	UBS ETC linked to the Bloomer	0	0	0	-0.27	-	-	-	-	Y	
B4NV GR	BNP Paribas EUR Hedged Palladi	0	0	0	-1.20	-	-	-	-	N	
BCFMU SW	UBS ETC linked to the Bloomer	0	0	0	-0.27	-	-	-	-	Y	
BCPALU SW	Bloomberg Palladium Subindex T	0	0	0	-0.35	-	-	-	-	N	
GLD2L SW	UBS ETC 2x Long Linked to the	0	0	0	-0.94	+2x	-	-	-	N	
EGCCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.38	-	-	-	-	Y	
CPLCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.61	-	-	-	-	Y	
BCXAEU SW	UBS ETC linked to the Bloomer	0	0	0	-0.27	-	-	-	-	Y	
BCFMU SW	UBS ETC linked to the Bloomer	0	0	0	-0.27	-	-	-	-	Y	
PRMUJ LN	UBS ETC linked to the UBS Bloo	0	0	0	0.32	0.27	-	-	-	N	
BCXACU SW	UBS ETC linked to the Bloomer	0	0	0	-0.27	-	-	-	-	Y	
SIBS LN	UBS ETC linked to UBS Bloomer	0	0	0	0.51	0.30	-	-	-	N	
GLDU LN	UBS ETC linked to the UBS Bloo	0	0	0	0.32	0.26	-	-	-	N	
BCPMUJ SW	UBS ETC linked to the Bloomer	0	0	0	-0.15	-	-	-	-	N	
PLTU LN	UBS ETC linked to the UBS Bloo	0	0	0	0.61	0.49	-	-	-	N	
GCGB LN	UBS ETC linked to the UBS Bloo	0	0	0	0.31	0.38	-	-	-	Y	
PRMG LN	UBS ETC linked to the UBS Bloo	0	0	0	0.31	0.39	-	-	-	Y	
BCXALU SW	UBS ETC linked to the Bloomer	0	0	0	-0.15	-	-	-	-	N	
BEARKULT FH	BEAR KULTA X2 H	-	-	-	-	-2x	-	-	-	N	
KCCGLD SJ	Krugerrand Custodial Certifica	-	0	0	0.12	-	-	-	-	N	
SILP LN	UBS ETC linked to the UBS Bloo	-	0	0	0.51	0.42	-	-	-	Y	
EPLCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	0	-0.61	-	-	-	-	Y	
EPMCIU SW	UBS ETC on UBS Bloomberg CMC1	-	0	0	-0.39	-	-	-	-	Y	
BCPLCI SW	UBS ETC linked to the Bloomer	-	0	0	-0.35	-	-	-	-	Y	
KSMF6 IT	KSM ETF 4D LBMA Gold Price PM	-	-	-	-1.51	-	-	-	-	N	
KSMF49 IT	KSM ETF 4A LBMA Gold Price PM	-	-	-	-1.51	-	-	-	-	Y	
PSGF61 IT	IBI SAL 4D LBMA Gold Price AM	-	-	-	-0.80	-	-	-	-	N	
TCHF82 IT	Tachit SAL 4D Future Bloomer	-	-	-	-	-	-	-	-	N	
TCHF94 IT	Tachit SAL 4D LBMA Gold Price	-	-	-	-	-	-	-	-	N	
GLDX BU	Expat Gold ETF	-	-	-	-1.00	-	-	-	-	N	
SGS4 GR	Societe Generale ETC Gold Futu	-	0	0	0.09	1.00	-	-	-	N	
SGS5 GR	Societe Generale ETC Silver Fu	-	0	0	0.09	1.00	-	-	-	N	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None
² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Precious Metals (Continued)											
COGLD NA	EDR Certified Origin Physical	-	0	2.59	0.95	-	-	-	-	N	
AUCO2 SW	Helvetiq Swiss Green Gold ETP	-	0	-	0.50	-	-	-	-	N	
Base Metals											
COPA LN	WisdomTree Copper	1,114	↓	4	0.11	0.49	-	-	-	H	
AIGL LN	WisdomTree Industrial Metals	567	0	0	0.14	0.49	-	-	-	N	
UEQC GR	UBS Int Fund Solutions plc - C	167	↑	0	0.57	0.34	-	-	-	N	
NICK LN	WisdomTree Nickel	124	0	0	0.27	0.49	-	-	-	L	
ALUM LN	WisdomTree Aluminium	103	↓	0	0.27	0.49	-	-	-	N	
EMCI SW	UBS ETC on UBS Bloomberg CMC1	40	↑	0	-0.49	-	-	-	-	N	
00XL GR	WisdomTree Copper - EUR Daily	39	0	0	0.43	0.49	-	-	-	Y	
META LN	WisdomTree Industrial Metals E	36	0	0	0.22	0.40	-	-	-	N	
EALU IM	WisdomTree Aluminium - EUR Dai	29	↑	0	1.47	0.49	-	-	-	Y	
XRHO LN	Xtrackers Physical Rhodium ETC	28	0	0	-0.95	-	-	-	-	N	
ZINC LN	WisdomTree Zinc	24	↑	0	0.31	0.49	-	-	-	N	
BCCOEJ SW	UBS ETC linked to the Bloomer	23	↓	0	-0.27	-	-	-	-	Y	
3HCL LN	WisdomTree Copper 3x Daily Lev	21	0	0	0.52	0.99	+3x	-	-	N	
TMCU SW	UBS ETC on UBS Bloomberg CMC1	19	↑	0	-0.37	-	-	-	-	N	
TMCI SW	UBS ETC on UBS Bloomberg CMC1	15	0	0	-0.37	-	-	-	-	N	
EMT IM	WisdomTree Industrial Metals -	11	↓	0	0.22	0.49	-	-	-	Y	
TLPCIU SW	UBS ETC on UBS Bloomberg CMC1	11	0	0	-0.37	-	-	-	-	N	
LCOP LN	WisdomTree Copper 2x Daily Lev	10	0	0	0.25	0.98	+2x	-	-	N	
XFRD GR	Xtrackers Physical Rhodium ETC	10	0	0	-0.95	-	-	-	-	N	
RAMBL IM	SG ETC Daily Long +3X COPPER F	9	0	0	0.26	0.95	+3x	-	-	N	
LNK LN	WisdomTree Nickel 2x Daily Lev	9	↑	0	0.51	0.98	+2x	-	-	N	
ETFRHO SJ	Invest Rhodium ETF	8	0	0	-0.75	-	-	-	-	N	
TIN LN	WisdomTree Tin	8	0	0	0.56	0.49	-	-	-	N	
RAMBS IM	SG ETC Daily Short-3X COPPER	7	0	0	0.46	0.95	-3x	-	-	N	
B4NQ GR	BNP Paribas Copper ETC	7	0	0	1.01	0.90	-	-	-	N	
EMCIU SW	UBS ETC on UBS Bloomberg CMC1	6	↓	0	-0.49	-	-	-	-	Y	
PIMT LN	WisdomTree Industrial Metals -	5	↓	0	0.33	0.49	-	-	-	Y	
LALU LN	WisdomTree Aluminium 2x Daily	4	↓	0	0.52	0.98	+2x	-	-	N	
CMCIU SW	UBS ETC on UBS Bloomberg CMC1	4	↓	0	-0.49	-	-	-	-	Y	
3HCS LN	WisdomTree Copper 3x Daily Sho	4	↑	0	0.37	0.99	-3x	-	-	N	
B4NP GR	BNP Paribas Aluminium ETC	3	↑	0	0.92	0.90	-	-	-	N	
TLACU SW	UBS ETC on UBS Bloomberg CMC1	3	↓	0	-0.37	-	-	-	-	N	
BNQP GR	Collateralized ETC on RICI Enh	2	↑	0	1.07	1.00	-	-	-	N	
EFCM IM	WisdomTree Broad Commodities L	2	0	0	0.26	0.49	-	-	-	Y	
WATT LN	WisdomTree Battery Metals	2	0	0	0.85	0.45	-	-	-	N	
SCOPLN	WisdomTree Copper 1x Daily Sho	2	0	0	0.26	0.98	-1x	-	-	N	
SNK LN	WisdomTree Nickel 1x Daily Sho	2	↓	0	0.85	0.98	-1x	-	-	N	
BNQV GR	Collateralized ETC on RICI Enh	2	0	0	1.67	1.00	-	-	-	N	
CLPCIU SW	UBS ETC on UBS Bloomberg CMC1	1	↑	0	-0.49	-	-	-	-	Y	
ELPCIU SW	UBS ETC on UBS Bloomberg CMC1	1	↑	0	-0.49	-	-	-	-	Y	
B4NR GR	BNP Paribas Nickel Futures ETC	1	↑	0	2.02	0.90	-	-	-	N	
LEED LN	WisdomTree Lead	1	↓	0	0.33	0.49	-	-	-	N	
INMU LN	UBS ETC linked to the UBS Bloo	1	↓	0	0.51	0.37	-	-	-	N	
TLPCI SW	UBS ETC on UBS Bloomberg CMC1	1	0	0	-0.37	-	-	-	-	N	
COFR LN	WisdomTree Copper IE	1	0	0	0.17	0.49	-	-	-	N	
OGZB GR	RICI Enhanced Copper Excess Re	1	0	0	1.09	1.20	-	-	-	Y	
FIND LN	WisdomTree Industrial Metals L	1	↓	0	0.30	0.49	-	-	-	N	
ENIK IM	WisdomTree Nickel - EUR Daily	1	0	0	0.41	0.49	-	-	-	Y	
CMCI SW	UBS ETC on UBS Bloomberg CMC1	1	0	0	-0.81	-	-	-	-	N	
BCCOUJ SW	UBS ETC linked to the Bloomer	1	↓	0	-0.15	-	-	-	-	N	
B4NT GR	BNP Paribas Tin ETC	1	0	0</							

EMEA LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Commodity										
Base Metals (Continued)										
TLXCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.37	-	-	-	-	N
BNQS GR	Collateralized ETC on RICI Enh	0	0	1.80	1.00	-	-	-	-	N
B4NS GR	Collateralized EUR Hedged RICI	0	0	-	1.20	-	-	-	-	Y
CULS LN	LS Copper ETC	0	0	0.46	0.35	-	-	-	-	N
BNQN GR	Collateralized ETC on RICI Enh	0	0	1.52	1.00	-	-	-	-	N
OGZC GR	RICI Enhanced Nickel Excess Re	0	0	1.93	1.20	-	-	-	-	Y
BNQR GR	Collateralized ETC on RICI Enh	0	↑	1.59	1.00	-	-	-	-	N
TLNGI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.37	-	-	-	-	N
BQIMEU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
ELNGU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.49	-	-	-	-	Y
ELACIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.49	-	-	-	-	Y
BCNICU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
CLACIU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.49	-	-	-	Y
BOCCOU SW	UBS ETC linked to the Bloomber	0	↓	0	-	0.27	-	-	-	Y
CLXCIU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.49	-	-	-	Y
CLLCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.49	-	-	-	-	Y
BALCALU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
BOIMCU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
TLLCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.37	-	-	-	-	N
0GZI GR	RICI Enhanced Zinc Excess Retu	0	0	1.33	1.18	-	-	-	-	Y
B4NS GR	Collateralized EUR Hedged RICI	0	0	-	1.20	-	-	-	-	Y
BCNIIU SW	UBS ETC linked to the Bloomber	0	↓	0	-	0.15	-	-	-	N
BCZIEU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
OGZK GR	RICI Enhanced Lead Excess Retu	0	0	-	1.17	-	-	-	-	Y
BCZICU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
BCLECU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
BCNIEU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
B4N7 GR	Collateralized EUR Hedged RICI	0	0	-	1.20	-	-	-	-	Y
BQLEEU SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.15	-	-	-	N
INMG LN	UBS ETC linked to the UBS Bloo	0	↓	0	0.51	0.49	-	-	-	Y
BCALEU SW	UBS ETC linked to the Bloomber	0	0	-	0.27	-	-	-	-	Y
ELLCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.49	-	-	-	-	Y
ELXCIU SW	UBS ETC on UBS Bloomberg CMC1	-	0	-	0.49	-	-	-	-	Y
BCLEEU SW	UBS ETC linked to the Bloomber	-	0	-	0.27	-	-	-	-	Y
42GI GR	SG ETC Copper Future	-	0	0.27	0.90	-	-	-	-	N
SC24 GR	SteelCoin ETP	-	0	-	3.00	-	-	-	-	N
Soft Commodities										
ISAG LN	iShares Agribusiness UCITS ETF	390	↓	1	0.17	0.55	-	-	-	Y
AIGA LN	WisdomTree Agriculture	205	0	0	0.14	0.49	-	-	-	N
WEAT LN	WisdomTree Wheat	83	0	0	0.45	0.49	-	-	-	N
COFF LN	WisdomTree Coffee	30	↓	0	0.44	0.49	-	-	-	N
AIGG LN	WisdomTree Grains	21	0	0	0.16	0.49	-	-	-	N
CORN LN	WisdomTree Corn	18	0	0	0.24	0.49	-	-	-	N
3WHL IM	WisdomTree Wheat 3x Daily Leve	18	↑	1	0.74	0.98	+3x	-	-	N
COCO LN	WisdomTree Cocoa	18	↓	0	0.75	0.49	-	-	-	N
TAGCIU SW	UBS ETC on UBS Bloomberg CMC1	17	0	-	0.45	-	-	-	-	N
LOOCL LN	WisdomTree Cocoa 2x Daily Leve	16	↓	1	0.93	0.98	+2x	-	-	N
3CFL IM	WisdomTree Coffee 3x Daily Lev	13	↓	2	0.70	0.98	+3x	-	-	N
SOYB LN	WisdomTree Soybeans	10	0	0	0.35	0.49	-	-	-	N
SUGA LN	WisdomTree Sugar	9	0	0	0.63	0.49	-	-	-	N
TAGCIU SW	UBS ETC on UBS Bloomberg CMC1	8	0	-	0.47	-	-	-	-	N
LWEA LN	WisdomTree Wheat 2x Daily Leve	8	↑	0	0.43	0.98	+2x	-	-	N
LQFE LN	WisdomTree Coffee 2x Daily Lev	6	↓	0	1.29	0.98	+2x	-	-	N
XFRM LN	WisdomTree Broad Commodities E	5	↑	0	0.36	0.49	-	-	-	N
COTN LN	WisdomTree Cotton	5	0	0	2.27	0.49	-	-	-	N
TAG1YU SW	UBS ETC on UBS Bloomberg CMC1	5	↑	0	-	0.45	-	-	-	N
LCOR LN	WisdomTree Corn 2x Daily Leve	4	↑	0	0.31	0.98	+2x	-	-	N
00XS GR	WisdomTree Wheat - EUR Daily H	4	0	0	1.23	0.49	-	-	-	Y
3SUL IM	WisdomTree Sugar 3x Daily Leve	4	↑	0	0.95	0.98	+3x	-	-	N
HOGS LN	WisdomTree Lean Hogs	3	↓	0	0.50	0.49	-	-	-	N
TFOCI SW	UBS ETC on UBS Bloomberg CMC1	3	0	-	0.55	-	-	-	-	N
FAGR LN	WisdomTree Agriculture Longer	2	↓	0	0.21	0.49	-	-	-	N
AIGS LN	WisdomTree Soils	2	0	0	0.25	0.49	-	-	-	N
SOYO LN	WisdomTree Soybean Oil	2	0	0	0.37	0.49	-	-	-	N
ESBCIU SW	UBS ETC on UBS Bloomberg CMC1	2	0	-	0.57	-	-	-	-	Y
LAGR LN	WisdomTree Agriculture 2x Dail	2	↓	0	0.66	0.98	+2x	-	-	N
LSUG LN	WisdomTree Sugar 2x Daily Leve	2	↑	0	1.06	0.98	+2x	-	-	N
00XJ GR	WisdomTree Agriculture - EUR D	2	↓	0	0.60	0.49	-	-	-	Y
CATL LN	WisdomTree Live Cattle	1	↓	0	1.19	0.49	-	-	-	N
EOOF IM	WisdomTree Coffee - EUR Daily	1	↓	0	1.28	0.49	-	-	-	Y
TWVCIU SW	UBS ETC on UBS Bloomberg CMC1	1	↓	0	-	0.45	-	-	-	N
EORN IM	WisdomTree Corn - EUR Daily He	1	0	0	0.61	0.49	-	-	-	Y

1 Option Liquidity: H / M / L / N - High / Medium / Low / None
 2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Commodity										
Soft Commodities (Continued)										
CAGCI SW	UBS ETC on UBS Bloomberg CMC1	1	0	-	0.84	-	-	-	-	N
CWVCIU SW	UBS ETC on UBS Bloomberg CMC1	1	↑	0	-	0.57	-	-	-	Y
AIGL LN	WisdomTree Livestock	1	↓	0	2.00	0.49	-	-	-	N
EAGCI SW	UBS ETC on UBS Bloomberg CMC1	1	↓	0	-	0.55	-	-	-	N
COFU LN	UBS ETC linked to UBS Bloomber	0	0	0.62	0.45	-	-	-	-	N
BCWHUJ SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.18	-	-	-	N
TQCCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
ESQY IM	WisdomTree Soybeans - EUR Dail	0	0	0.88	0.49	-	-	-	-	Y
TWVCI SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.47	-	-	-	N
TLCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
TKCCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	N
TQNCI SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.47	-	-	-	N
BCNNUJ SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.18	-	-	-	N
TFOCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
BCAGEU SW	UBS ETC linked to the Bloomber	0	0	-	0.35	-	-	-	-	N
ECTN IM	WisdomTree Cotton - EUR Daily	0	0	2.33	0.49	-	-	-	-	Y
CAGCIU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.57	-	-	-	Y
ELHCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
CCTCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
EFOCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
TSBCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.63	-	-	-	-	N
BCCTUJ SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.21	-	-	-	N
QLHCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
TBOCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
CKCUI SW	UBS ETC on UBS Bloomberg CMC1	0	↑	0	-	0.57	-	-	-	Y
BSCBUJ SW	UBS ETC linked to the Bloomber	0	0	-	0.18	-	-	-	-	N
ENCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
TSBCU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.45	-	-	-	N
ESUG IM	WisdomTree Sugar - EUR Daily H	0	↓	0	1.03	0.49	-	-	-	Y
BCFCU SW	UBS ETC linked to the Bloomber	0	0	-	0.30	-	-	-	-	Y
CSYCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
TQNCU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.45	-	-	-	N
CORU LN	UBS ETC linked to the UBS Bloo	0	0	0.53	0.45	-	-	-	-	N
EQCUI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
WWTU LN	UBS ETC linked to the UBS Bloo	0	↓	0	0.54	0.45	-	-	-	N
TKCUI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
CSBCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
BCAGUJ SW	UBS ETC linked to the Bloomber	0	0	-	0.35	-	-	-	-	Y
TSYCIU SW	UBS ETC on UBS Bloomberg CMC1	0	↓	0	-	0.45	-	-	-	N
TCTCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
CFOCI SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
EWVCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
BCAGUJ SW	UBS ETC linked to the Bloomber	0	0	-	0.23	-	-	-	-	N
TSMCIU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.45	-	-	-	-	N
CCNCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
BCCTCU SW	UBS ETC linked to the Bloomber	0	0	-	0.33	-	-	-	-	Y
BSCUCU SW	UBS ETC linked to the Bloomber	0	0	-	0.33	-	-	-	-	Y
BCAIUJ SW	UBS ETC linked to the Bloomber	0	0	-	0.23	-	-	-	-	N
BCCCEU SW	UBS ETC linked to the Bloomber	0	0	-	0.33	-	-	-	-	Y
EKOCU SW	UBS ETC on UBS Bloomberg CMC1	0	0	-	0.57	-	-	-	-	Y
BCLSCU SW	UBS ETC linked to the Bloomber	0	0	-	0.35	-	-	-	-	Y
BCSUEJ SW	UBS ETC linked to the Bloomber	0	0	-	0.33	-	-	-	-	Y
BCLCOU SW	UBS ETC linked to the Bloomber	0	0	-	0.34	-	-	-	-	Y
BCLHEU SW	UBS ETC linked to the Bloomber	0	0	-	0.34	-	-	-	-	Y
ECTCIU SW	UBS ETC on									

EMEA LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
Soft Commodities (Continued)											
LIVU LN	UBS ETC linked to the UBS Bloo	0	↓	0	0.54	0.45	-	-	-	N	
BSSBCU SW	UBS ETC linked to the Bloomber	0		0	-	0.30	-	-	-	Y N	
BCLSUU SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.23	-	-	-	N	
BCCFUU SW	UBS ETC linked to the Bloomber	0	↑	0	-	0.18	-	-	-	N	
BCSOUU SW	UBS ETC linked to the Bloomber	0		0	-	0.18	-	-	-	N	
CLCCU SW	UBS ETC on UBS Bloomberg CMCI	0		0	-	0.57	-	-	-	Y N	
CQCCU SW	UBS ETC on UBS Bloomberg CMCI	0		0	-	0.57	-	-	-	Y N	
BCSUUU SW	UBS ETC linked to the Bloomber	0	↓	0	-	0.21	-	-	-	N	
BULLVEH-N FH	BULLVEHNA X2 H	-		-	-	-	+3x	-	-	N	
ELCCU SW	UBS ETC on UBS Bloomberg CMCI	-		0	-	0.57	-	-	-	Y N	
ESYCU SW	UBS ETC on UBS Bloomberg CMCI	-		0	-	0.57	-	-	-	Y N	
BCLSEJ SW	UBS ETC linked to the Bloomber	-		0	-	0.35	-	-	-	Y N	
BCSBEU SW	UBS ETC linked to the Bloomber	-		0	-	0.30	-	-	-	Y N	
BCCTEU SW	UBS ETC linked to the Bloomber	-		0	-	0.33	-	-	-	Y N	
BCLCEU SW	UBS ETC linked to the Bloomber	-		0	-	0.34	-	-	-	Y N	
BCAEU SW	UBS ETC linked to the Bloomber	-		0	-	0.35	-	-	-	Y N	

¹ Option Liquidity: H / M / L / N - High / Medium / Low / None

² ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Regional										
3010 HK	iShares Core MSCI Asia ex Japan ETF	3,238	↑	0.84	0.28	-	-	-	U,C	N
IAA AU	iShares Asia 50 ETF/AU	489	1	0.22	0.50	-	-	-	-	N
ICM SP	iShares MSCI Asia ex Japan CII	453	0	0.93	0.18	-	-	Y	U	N
VAE AU	Vanguard FTSE Asia ex-Japan Shares Idx	229	1	0.25	0.40	-	-	-	-	N
APA NZ	SmartShares Asia Pacific ETF	89	0	0.76	0.55	-	-	-	-	N
2810 HK	Premia DJ Emerging Asean Titans 100	78	0	0.63	0.50	-	-	-	U	N
IMPQ AU	eInvest Better Future Fund	30	0	0.95	0.99	-	Y	Y	-	N
277540 KS	KIM ACE S&P ASIA TOP50 ETF	16	0	0.40	0.84	-	-	-	-	N
ASEANS SP	CIMB FTSE ASEAN 40	7	0	1.74	0.65	-	-	-	U	N
FASIAU	Fidelity Asia Active ETF	0	-	-	1.16	-	Y	-	-	N

Equity Country										
Australia										
VAS AU	Vanguard Australian Shares Index ETF	9,818	23	0.03	0.10	-	-	-	Y	N
IOZ AU	iShares CORE S&P/ASX 200 ETF	3,592	12	0.04	0.05	-	-	-	-	N
STW AU	SPDR S&P/ASX 200 Fund	3,363	6	0.04	0.13	-	-	-	Y	N
A200 AU	BetaShares Australia 200 ETF	3,339	↑	11	0.03	0.04	-	-	-	N
MWV AU	VanEck Australian Equal Weight	1,514	3	0.06	0.35	-	-	-	-	N
AMVE AU	Alliancebernstein Managed Vol Eq	871	0	1.07	0.55	-	Y	-	-	N
FAIR AU	BetaShares Aus Sustainability Leaders	783	3	0.14	0.49	-	-	Y	-	N
VSO AU	Vanguard MSCI Aus Small Cmpny	616	1	0.08	0.30	-	-	-	-	N
SFY AU	SPDR S&P/ASX 50 Fund	529	1	0.07	0.29	-	-	-	-	N
ILCAU	iShares S&P/ASX 20 ETF	414	1	0.08	0.24	-	-	-	-	N
AASF AU	Airlie Australian Share Fund – ETF Feeder	369	↑	0	0.41	0.78	-	Y	-	N
QOZ AU	BetaShares FTSE RAFI Australia 200 ETF	352	1	0.16	0.40	-	-	-	-	N
YMAX AU	BetaShares Aus Top 20 Eq Yield Max Fund	320	1	0.31	0.76	-	Y	-	-	N
GEAR AU	BetaShares Geared Australian Equity Fund	281	6	0.08	0.80	+0.58x	Y	-	-	N
VETH AU	Vanguard Ethically Conscious Aus Shares	274	1	0.09	0.17	-	-	Y	-	N
BHYB AU	BetaShares Aus Major Bank Hybrids Idx	262	↑	1	0.19	0.35	-	-	-	N
BBODA AU	BetaShares Australian Equities	242	↑	7	0.35	1.38	-2.04x	Y	-	N
EX20 AU	BetaShares Aus Ex-20 Portfolio Diversifer	178	0	0.22	0.25	-	-	-	-	N
VLCAU	Vanguard MSCI Aus Large Cmpny	154	0	0.06	0.20	-	-	-	-	N
IESG AU	iShares Core MSCI Australia ESG ETF	141	↑	0	0.15	0.09	-	Y	-	N
AUS NZ	SmartShares S&P/ASX 200 ETF	125	↑	0	0.71	0.30	-	-	-	N
GRNV AU	VanEck MSCI Australian Sustain	112	↑	0	0.17	0.35	-	Y	-	N
ISO AU	iShares S&P/ASX Small Ordinaries ETF	110	↑	0	0.38	0.55	-	-	-	N
OZY NZ	SmartShares Australian Top 20 ETF	106	0	0.63	0.60	-	-	-	-	N
MZY NZ	SmartShares Australian Mid Cap ETF	97	0	0.57	0.75	-	-	-	-	N
AUENZ	SmartShares Australian Equities ESG ETF	70	0	1.00	0.50	-	-	Y	-	N
SMML AU	BetaShares Aus Small Cmpny Select	59	0	0.59	0.39	-	Y	-	-	N
INF AU	Intelligent Investor Aus Equity Income Fund	53	0	0.78	0.97	-	Y	-	-	N
ZYAU AU	Global X S&P/ASX 200 High Dividend ETF	46	0	0.20	0.35	-	-	-	-	N
RINC AU	BetaShares Marlin Curie Real Income Fund	36	0	0.39	0.85	-	Y	-	-	N
E200 AU	SPDR S&P/ASX 200 ESG Fund	32	0	0.38	0.13	-	-	Y	-	N
BEAR AU	BetaShares Aus Eq Bear Hedge Fund	29	↓	1	0.14	1.48	-0.96x	Y	-	N
EIGA AU	eInvest Income Generator Fund	22	0	0.59	0.80	-	Y	-	-	N
AUST AU	BetaShares Managed Risk Aus Share Fund	21	0	0.18	0.49	-	Y	-	-	N
SSO AU	SPDR S&P/ASX Small Ordinaries Fund	18	0	0.30	0.50	-	-	-	-	N
ENCAU	BetaShares Legg Mason Eq Income Fund	14	0	0.30	0.85	-	Y	-	-	N
KSM AU	K2 Australian Small Cap Fund	9	↑	0	1.77	1.31	-	Y	-	N
GMWV AU	VanEck Geared Australian Equal	5	-	0.20	0.35	+0.55x	-	Y	-	N
GVE AU	Perpetual Ethical SRI Fund EQMF	4	↑	0	0.54	0.65	-	Y	Y	-
IMLC AU	INVESTORS MUTUAL CONCENTRATED	2	0	0.51	0.99	-	Y	-	-	N
G200 AU	BetaShares Wealth Builder Aust	2	-	0.27	0.35	+1.54x	Y	-	-	N
MQAE AU	Macquarie Core Australian Equity Active Etf	0	-	0.20	0.03	-	Y	-	-	N

China										
510300 CH	Huatai-Pinebridge CSI 300 ETF	26,955	↑	599	0.03	1.60	-	-	-	N
510310 CH	E Fund CSI 300 ETF	18,783	↑	230	0.06	0.25	-	-	-	N
510050 CH	China AMC SSE 50 ETF	15,527	↑	392	0.04	0.60	-	-	-	N
159919 CH	Harvest CSI 300 Index ETF	14,548	↑	234	0.03	0.60	-	-	-	N
510330 CH	China AMC CSI 300 Index ETF	13,547	↑	182	0.03	0.60	-	-	-	N
510500 CH	China CSI 500 ETF	10,800	↑	281	0.02	1.60	-	-	-	N
159915 CH	E Fund ChiNext Price Index ETF	7,601	↑	266	0.06	0.65	-	-	-	N
512880 CH	Guotai CSI All Share Sec Cmpny	4,163	130	0.12	1.63	-	-	-	-	N
511360 CH	HFT CSI Commercial Paper ETF	3,561	↑	1,144	0.00	0.62	-	-	-	N
512100 CH	China Southern CSI 1000 ETF	3,555	↑	155	0.05	1.60	-	-	-	N
2828 HK	Hang Seng Invest Idx Ent Idx	2,885	↓	380	0.04	0.67	-	-	C	H
512000 CH	Fortune SG CSI All Share Sec Cmpny	2,772	67	0.12	1.40	-	-	-	-	N
510180 CH	Shanghai SSE180 ETF	2,687	11	0.08	0.60	-	-	-	-	N
2823 HK	iShares FTSE China A50 ETF	2,226	11	0.11	0.35	-	-	-	C	L
159949 CH	Huan ChiNext150 ETF Fund	2,206	91	0.13	0.60	-	-	-	-	N
159845 CH	ChinaAMC CSI 1000 ETF	2,027	↑	115	0.05	-	-	-	-	N

¹ Option Liquidity (H / M / L / N - High / Medium / Low / None)

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³ Currency Hedged: Y = Currency Hedged, U = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
China (Continued)										
3188 HK	ChinaAMC Series - ChinaAMC CSI 300 Idx	1,863	12	0.10	0.70	-	-	-	C	H
512500 CH	China AMC CSI 500 ETF	1,817	↑	60	0.06	0.60	-	-	-	N
159922 CH	Harvest CSI 500 ETF	1,765	↑	75	0.03	0.20	-	-	-	N
2801 HK	iShares Asia Trust - iShares Core MSCI China	1,478	↑	1	0.23	0.20	-	-	-	N
9801 HK	iShares Asia Trust - iShares Core MSCI	1,478	0	0.31	0.20	-	-	-	-	N
2822 HK	CSOP FTSE China A50 ETF	1,149	7	0.12	1.14	-	-	-	C	H
515330 CH	Tianhong CSI 300 ETF	1,116	↑	4	0.15	1.40	-	-	-	N
159977 CH	Tianhong ChiNext Board ETF	1,050	↑	9	0.09	1.40	-	-	-	N
159781 CH	E Fund CSI STAR and CHINEXT 50 ETF	974	↑	9	0.22	1.10	-	-	-	N
515800 CH	China Universal CSI 800 ETF	942	↑	22	0.12	-	-	-	-	N
510210 CH	Fullgal Shanghai Composite Index ETF	910	↑	39	0.13	0.60	-	-	-	N
159901 CH	E FUND SZSE100 INDEX FUND	887	16	0.05	0.50	-	-	-	-	N
3040 HK	Global X MSCI China	857	↑	0	0.40	0.18	-	-	-	U
117690 KS	Mirae Asset TIGER China Hangseng25 ETF	856	0	0.41	0.49	-	-	-	-	N
159629 CH	Fullgal CSI 1000 ETF	855	↑	37	0.07	-	-	-	-	N
159952 CH	GF the ChiNext Board ETF Index Fund	846	↑	28	0.10	1.00	-	-	-	N
512890 CH	Huatai-PB CSI Bonus Low Fluctuation ETF	818	↑	33	0.10	1.13	-	-	-	N
560050 CH	China Universal MSCI China A 50 Connect	810	22	0.14	-	-	-	-	-	N
515180 CH	E Fund CSI Bonus ETF	805	↑	11	0.09	0.70	-	-	-	N
00637L TT	Yuan/P-shares CSI 300 2X Bull ETF	787	31	0.09	1.22	+2x	-	-	-	N
512950 CH	China AMC CSI Central Ent Structure	740	4	0.12	0.20	-	-	-	C	N
515660 CH	GTJA Allianz CSI 300 ETF	738	↑	0	0.48	0.85	-	-	-	N
512960 CH	Bosera CSI Central Ent Structure Adjust	714	3	0.11	1.00	-	-	-	C	N
563000 CH	E Fund MSCI China A 50 Connect ETF	660	9	0.15	1.10	-	-	-	-	N
159783 CH	ChinaAMC CSI STAR and CHINEXT 50 ETF	626	↑	7	0.22	-	-	-	-	N
510100 CH	E Fund SSE 50 ETF	586	↑	36	0.09	0.70	-	-	-	N
159601 CH	ChinaAMC MSCI China A 50 Connect ETF	572	12	0.14	-	-	-	-	-	N
512980 CH	Guangfa CSI Media Index Investment Fund	540	18	0.16	1.40	-	-	-	-	N
159925 CH	China Southern Kaiyuan CSI 300 Index ETF	523	↑	20	0.04	1.60	-	-	-	N
159933 CH	Ping An CSI A50 ETF	521	-	0.10	1.00	-	-	-	-	N
159841 CH	Tianhong CSI All Share Sec Cmpny	517	18	0.13	1.10	-	-	-	-	N
560350 CH	JPMorgan CSI A50 ETF	512	-	0.10	-	-	-	-	-	N
510360 CH	GF SSE-SZSE 300 Tradable Open-end	508	↑	13	0.09	1.40	-	-	-	N
515380 CH	Taikang CSI 300 ETF	489	14	0.05	-	-	-	-	-	N
159780 CH	China Southern CSI STAR and CHINEXT 50	458	↑	5	0.22	1.40	-	-	-	N
2846 HK	iShares Core CSI 300 ETF	454	↑	1	0.27	0.40	-	-	-	U,C
159623 CH	Bosera CSI Chengdu-Chongqing Eco Circle Comp	440	1	0.17	1.25	-	-	-	-	N
510350 CH	ICBC Credit Suisse CSI300 ETF	425	↑	3	0.10	1.35	-	-	-	N
510510 CH	Guangfa CSI 500 ETF	408	13	0.11	1.40	-	-	-	-	N
159999 CH	Yinhua CSI Central Ent Structure Adjustment	394	2	0.12	1.00	-	-	-	C	N
563080 CH	E Fund CSI A50 ETF	366	-	0.11	-	-	-	-	-	N
159591 CH	Fullgal CSI A50 ETF	348	-	0.11	-	-	-	-	-	N
510580 CH	E Fund CSI 500 ETF	342	↑	4	0.18	0.25	-	-	-	N
00633L TT	Fubon SSE180 Leveraged 2X Index ETF	333	9	0.10	1.22	+2x	-	-	-	N
YYY SP	Lion-OBCB Securities China Leaders ETF	332	0	0.91	0.62	-	-	-	-	N
159820 CH	Tianhong CSI 500 ETF	298	1	0.16	1.40	-	-	-	-	N
159971 CH	Fullgal ChiNext ETF Launched Fund	297	↑	1	0.12	0.40	-	-	-	N
159595 CH	Dacheng									

ASIA-PACIFIC LISTED ETFS



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China (Continued)										
563300 CH	Huatai-PineBridge CSI 2000 ETF	163	46	0.12	1.10	-	-	-	-	N
006205 TT	Fubon SSE 180 Index ETF	154	1	0.16	1.09	-	-	-	C	N
159673 CH	Penghua CSI 300 ETF	152	1	0.14	-	-	-	-	-	N
00636 TT	Cathay FTSE China A50 ETF	140	1	0.13	1.05	-	-	-	U	N
588330 CH	Hwabao WP CSI STAR and CHINEXT 50	128	4	0.25	1.40	-	-	-	-	N
561230 CH	ICBC Credit Suisse CSI A50 ETF	115	-	0.12	0.15	-	-	-	-	N
510590 CH	Ping An UOB CSI 500 ETF	111	↑	0.18	1.40	-	-	-	-	N
00655L TT	Cathay FTSE China A50 Daily Lvlgd 2X	108	4	0.11	1.16	+2x	-	-	-	N
3173 HK	Premia CSI Caixin China New Economy ETF	108	↓	0.76	0.50	-	-	-	U	N
159982 CH	Penghua CSI 500 ETF	107	↑	0.10	1.00	-	-	-	-	N
159968 CH	Bosera CSI 500 ETF	105	1	0.06	0.50	-	-	-	-	N
562000 CH	Hwabao WP CSI 100 ETF	105	7	0.16	1.40	-	-	-	-	N
515010 CH	ChinaAMC CSI All Share Sec Cmpny	100	3	0.13	-	-	-	-	-	N
159842 CH	Yinhua CSI All Share Sec Cmpny	100	↑	0.13	-	-	-	-	-	N
515160 CH	China Merchants MSCI China A Inclusion	99	1	0.14	1.10	-	-	-	-	N
2827 HK	BOCI-Prudential - W.I.S.E. - CSI Tracker	95	0	0.30	1.02	-	-	-	-	N
159902 CH	SZSE SME 100 ETF	95	2	0.07	-	-	-	-	-	N
561550 CH	Huatai-PineBridge CSI 500 Strengthened	93	↑	0.16	1.30	-	-	-	-	N
562890 CH	Harvest CSI A50 ETF	92	-	0.13	0.15	-	-	-	-	N
159782 CH	Yinhua CSI STAR and CHINEXT 50 ETF	92	1	0.26	1.40	-	-	-	-	N
560070 CH	China Universal CSI Guoxin Cen	91	3	0.17	-	-	-	-	-	N
512910 CH	GF CSI 100 ETF	91	↑	0.15	1.40	-	-	-	-	N
159350 CH	Fullgoal Shenzhen 50 ETF	90	-	0.11	0.60	-	-	-	-	N
510800 CH	CCB Principal SSE 50 Idx. Invst Fund	88	2	0.12	1.60	-	-	-	-	N
159610 CH	Invesco Great Wall CSI 500 Strengthened	86	↑	0.17	1.40	-	-	-	-	N
510710 CH	Bosera SSE 50 ETF	83	2	0.07	0.90	-	-	-	-	N
168580 KS	Korea Invst Kidx China Main L& CSI300 Deriv	81	↓	0.33	0.70	-	-	-	-	N
414780 KS	Mirae Asset TIGER Synth-China STAR 50	80	0	0.37	0.90	-	-	-	-	N
512510 CH	Huatai-PB CSI 500 ETF	78	2	0.16	1.20	-	-	-	-	N
510390 CH	Ping'an-UOB CSI 300 Idx. Launched Fund	77	1	0.17	1.40	-	-	-	-	N
159531 CH	China Southern CSI 2000 ETF	75	13	0.13	-	-	-	-	-	N
2803 HK	Premia CSI Caixin China Bedrock Economy	72	0	1.04	0.50	-	-	-	-	N
0061 TT	W.I.S.E. Yuaner P-shares CSI 300 ETF	71	0	0.47	0.40	-	-	-	-	N
159964 CH	Ping An ChiNext ETF	69	↑	0.12	-	-	-	-	-	N
588360 CH	Guotai CSI STAR and CHINEXT 50 ETF	69	4	0.22	1.40	-	-	-	-	N
159957 CH	China Asset GEM Index Investment Fund	68	↑	0.14	-	-	-	-	-	N
159814 CH	Western Leadbank ChiNext Large Cap ETF	67	↑	0.31	-	-	-	-	-	N
283580 KS	Samsung KODEX China CSI300 ETF	67	0	0.12	0.12	-	-	-	-	N
159961 CH	Founder Fubon SZSE 100 ETF	67	1	0.11	1.13	-	-	-	-	N
517080 CH	China Universal CSI SH-HK-SZ 500 ETF	64	1	0.18	-	-	-	-	-	N
204480 KS	Mirae Asset TIGER Synth Lvlg Balance-Deriv	64	↑	0.24	0.59	+2x	-	-	-	N
159150 CH	E Fund Shenzhen 50 ETF	64	-	0.12	0.50	-	-	-	-	N
561990 CH	China Merchants CSI 300 Strengthened Strgy	62	↓	0.14	1.40	-	-	-	-	N
512090 CH	E Fund MSCI China A Inclusion Index ETF	61	2	0.11	0.70	-	-	-	-	N
3167 HK	ICBC CSOP S&P New China Sectors ETF	61	↓	0.39	1.24	-	-	-	U,C	N
159676 CH	Fullgoal ChiNext Enhanced Strategy ETF	60	1	0.18	-	-	-	-	-	N
204450 KS	Samsung KODEX China H Lvlg-Derivatives	56	↑	0.15	0.64	+2x	-	-	Y	N
517000 CH	Yinhua CSI SH-HK-SZ 500 ETF	55	0	0.27	1.40	-	-	-	-	N
159573 CH	ChinaAMC ChiNext Mid-cap 200 ETF	54	-	0.14	-	-	-	-	-	N
159916 CH	CCB Shenzhen F80 Index ETF	52	0	0.10	1.10	-	-	-	-	N
159903 CH	SZSE COMPONENT INDEX FUND/ETF	52	↑	0.12	1.60	-	-	-	-	N
2839 HK	ChinaAMC MSCI China A 50 Connect ETF/HK	52	0	0.17	0.30	-	-	-	U,C	N
515390 CH	HuaAn CSI 300 ETF	51	↑	0.14	0.20	-	-	-	-	N
159960 CH	Ping An-UOB HK China Int.Fund	51	1	0.17	1.60	-	-	-	-	N
174360 KS	KB KBSTAR China Mainl& CSI100 Feeder	51	0	0.30	0.72	-	-	-	-	N
159974 CH	Fullgoal CSI Central-SOEs' Innov Driven	49	↓	0.11	0.20	-	-	-	-	N
512990 CH	MSCI China A-share ETF Fund	48	1	0.18	-	-	-	-	-	N
516200 CH	HuaAn CSI All Share Sec Cmpny	48	↑	0.21	0.60	-	-	-	-	N
00639 TT	Fubon SZSE 100 ETF	46	0	0.24	1.09	-	-	-	-	N
159910 CH	Harvest Shenzhen F120 Index ETF	45	0	0.18	0.60	-	-	-	-	N
560110 CH	China Universal CSI 1000 ETF	44	↓	0.16	-	-	-	-	-	N
159909 CH	China Merchants SZSE TM750 TR Idx	43	↑	0.24	1.60	-	-	-	-	N
512160 CH	China Southern MSCI China A Inclusion ETF	43	1	0.14	0.60	-	-	-	-	N
515310 CH	China Universal CSI 300 ETF	42	↑	0.13	-	-	-	-	-	N
159679 CH	Guotai CSI 1000 Enhanced Strategy ETF	40	↓	0.17	1.60	-	-	-	-	N
517100 CH	Fullgoal CSI SH-HK-SZ 500 ETF	39	0	0.47	0.60	-	-	-	-	N
099140 KS	Samsung KODEX China H ETF	39	2	0.15	-	-	-	-	-	N
MCNA50 SP	Phillip-China Universal Msci C	38	-	0.54	0.13	-	-	-	U	N
7288 HK	CSOP Hang Seng China Int.Idx. Daily 2x	38	2	0.14	1.50	+2x	-	-	-	N
00643 TT	Capital SZSE SME Price Idx	38	0	0.21	1.08	-	-	-	C	N
512550 CH	Harvest FTSE China A50 ETF Index Fund	38	1	0.15	0.60	-	-	-	-	N
245360 KS	Mirae Asset Tiger China H-Share ETF	37	↓	0.31	0.35	-	-	-	-	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

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China (Continued)										
006206 TT	Yuantai SSE50 Sec Invst Trust Fund	37	↓	0.37	1.09	-	-	-	-	N
515910 CH	CICC MSCI China A International Quality ETF	36	2	0.31	-	-	-	-	-	N
510530 CH	ICBC Credit Suisse CSI 500 ETF	36	1	0.16	1.32	-	-	-	-	N
588390 CH	Bosera CSI STAR and CHINEXT 50 ETF	35	1	0.23	1.40	-	-	-	-	N
510010 CH	Bank of Comm Schroder SSE180	34	↑	0.56	-	-	-	-	-	N
563030 CH	E Fund CSI 500 Strengthened Strategy ETF	34	↓	1	0.31	1.40	-	-	-	N
515850 CH	Fullgoal CSI All Share Securities Cos ETF	34	↓	2	0.13	0.60	-	-	-	N
510130 CH	E Fund SSE Mid-cap ETF	34	↑	0.62	0.65	-	-	-	-	N
159680 CH	Chi Merchants CSI 1000 Enhanced Strgy	33	4	0.13	0.60	-	-	-	-	N
3147 HK	CSOP SZSE ChiNext ETF	32	0	0.42	1.17	-	-	-	C	N
159973 CH	Hony Horizon CNI Leading Private-owned	31	↓	0.20	-	-	-	-	-	N
159843 CH	China Merchants CNI Food & Beverage	30	2	0.16	1.10	-	-	-	-	N
512770 CH	Strategic Emerging Component Idx Fund	29	0	0.23	-	-	-	-	-	N
7233 HK	CSOP CSI 300 Idx Daily 2X	28	↑	1	0.23	1.92	+2x	-	-	N
561130 CH	Fullgoal CSI National Brands Prjct of Xinhua	27	2	0.19	0.60	-	-	-	-	N
159958 CH	ICBC Credit Suisse GEM Idx. Invst Fund	27	0	0.20	0.68	-	-	-	-	N
515810 CH	E Fund CSI 800 ETF	27	↑	2	0.15	0.70	-	-	-	N
159907 CH	GF CNI 2000 ETF	26	↑	2	0.19	1.40	-	-	-	N
483300 KS	KB KBSTAR China Mainland CSI300 ETF	25	0	0.35	0.01	-	-	-	-	N
563330 CH	Huatai-PineBridge CSI China A Share ETF	25	5	0.13	1.10	-	-	-	-	N
516830 CH	Fullgoal CSI 300 ESG ETF	24	1	0.24	0.60	-	-	-	Y	N
561350 CH	Guotai CSI 500 ETF	24	↓	6	0.17	1.40	-	-	-	N
510290 CH	China Southern SSE 380 Index ETF	24	0	0.29	1.60	-	-	-	-	N
006207 TT	Fuh Hwa CSI 300 A Shares ETF	23	0	0.22	0.85	-	-	-	-	N
250730 KS	KB KBSTAR China HSCIE H ETF	23	↑	0.28	0.02	-	-	-	-	Y
510850 CH	ICBC Credit Suisse SSE 50 ETF	23	1	0.11	1.40	-	-	-	-	N
530023 KS	Samsung Sec Samsung Lvlg Fir H 23	23	0	0.10	1.50	+2x	-	-	Y	N
00739 TT	Yuantai MSCI China A ETF	22	0	0.41	0.80	-	-	-	-	N
530014 KS	Samsung Sec Samsung China A50 Fir H 14	22	0	0.11	0.70	-	-	-	Y	N
515200 CH	SWS MU CSI Innovation 100 ETF	22	0	0.22	0.68	-	-	-	-	N
510560 CH	China Life AMP CSI 500 ETF	22	0	0.37	1.40	-	-	-	-	N
159943 CH	Dacheng SZSE Component ETF	21	↑	1	0.12	0.60	-	-	-	N
513900 CH	HuaAn CES HK Stock Through Selected 100	21	3	0.21	0.70	-	-	-	-	N
512750 CH	Harvest CSI Ruilian Fundamental 50 ETF	21	1	0.19	0.60	-	-	-	-	N
159528 CH	Fullgoal CSI State-Owned Ent	21	-	0.17	-	-	-	-	-	N
512380 CH	Yinhua MSCI China A Share ETF	20	1	0.35	1.40	-	-	-	-	N
510190 CH	HuaAn SSE 50 ETF	20	↑	1	0.15	0.20	-	-	-	N
159556 CH	Ping An CSI 2000 Enhanced Strategy ETF	20	-	0.21	-	-	-	-	-	N
510980 CH	China Universal SSE Composite ETF	20	4	0.11	-	-	-	-	-	N
159622 CH	Tibet Eastmoney CSI SH-HK-SZ Drug Indus	19	1	0.20	-	-	-	-	-	N
515360 CH	Founder Fubon CSI 300 ETF	19	0	0.56	1.13	-	-	-	-	N
1572 JP	China Bull 2x HSCIE ETF	19	↑	1	0.43	0.85	+2x	-	-	N
590018 KS	MiraeAsset Sec China Shenzhen 100 18	19	0	1.08	1.20	-	-	-	-	N
3128 HK	Hang Seng China A Share Index Top Idx	18	0	1.80	0.63	-	-	-	C	N
516300 CH	Huatai-PineBridge CSI 1000 ETF	18	↓	3	0.18	1.10	-	-	-	N
5106										

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
China (Continued)										
560180 CH	China Southern CSI 300 ESG ETF	12	↓	1	0.26	1.40	-	-	Y	-
580049 KS	KB Securities KB CSI 500 ETN 49	12	0	0.43	-	-	-	-	-	N
510950 CH	GF SSE 50 ETF	12	-	0.12	-	-	-	-	-	N
159677 CH	Yinhua CSI 1000 Enhanced Strategy ETF	12	4	0.13	-	-	-	-	-	N
159848 CH	CPIC CSI All Share Sec Cmpny	12	1	0.22	-	-	-	-	-	N
159965 CH	Guolian CCTV Finance 50 ETF	12	0	0.25	0.63	-	-	-	-	N
159555 CH	Yinhua CSI 2000 Enhanced Strategy ETF	11	-	0.15	-	-	-	-	-	N
217780 KS	Mirae Asset Tiger Synth-China A Inv	11	↓	0	0.52	0.59	-1x	-	-	N
159836 CH	Tianhong ChiNext 300 ETF	11	↑	0	0.21	1.40	-	-	-	N
2838 HK	Hang Seng Invest Idx Funds Series III China 50	11	0	0.89	1.22	-	-	-	-	N
159956 CH	CCB Principal ChiNext ETF Fund	11	0	0.37	1.60	-	-	-	-	N
159521 CH	Ping An CNI 2000 ETF	11	2	0.13	-	-	-	-	-	N
415340 KS	Samsung KODEX China STAR 50 ETF Synth	11	↓	0	0.59	0.09	-	-	-	N
512530 CH	CCB Principal CSI 300 Bonus ETF	10	↑	1	0.21	1.40	-	-	-	N
515770 CH	CIFM MSCI China A ETF	10	2	0.18	1.70	-	-	-	-	N
159808 CH	Ronglong ChiNext ETF	10	0	0.29	1.40	-	-	-	-	N
159532 CH	E Fund CSI 2000 ETF	10	2	0.14	0.15	-	-	-	-	N
512360 CH	Ping An-UOB MSCI China A-share Intern	10	0	1.28	-	-	-	-	-	N
515190 CH	BOC International CSI 500 ETF	10	0	0.70	-	-	-	-	-	N
CHNMYR MK	Tradeplus S&P New China Tracker	10	0	1.58	0.54	-	-	-	-	N
GRU SP	CGS Fulgoal CSI 1000 ETF	10	0	1.92	-	-	-	-	-	N
159572 CH	E Fund ChiNext Mid-cap 200 ETF	10	-	0.17	0.15	-	-	-	-	N
561500 CH	Huatai-PineBridge CSI Enterprise Core	10	0	0.48	1.10	-	-	-	-	N
CHINA TB	W.I.S.E. KTAM CSI 300 China Tracker	10	0	0.33	1.02	-	-	-	-	N
512150 CH	Fushi China A50 ETF Fund	10	0	0.16	0.60	-	-	-	-	N
510200 CH	Horizon SSE ETF	9	0	0.23	0.60	-	-	-	-	N
159975 CH	China Merchants SZSE 100 ETF	9	1	0.22	1.10	-	-	-	-	N
512190 CH	Zheshang Huijin CSI Zhejiang Phoenix Action 50	9	↓	0	1.21	-	-	-	-	N
561000 CH	HuaAn CSI 300 Enhanced Strategy ETF	9	↓	1	0.22	0.60	-	-	-	N
563200 CH	Fulgoal CSI 2000 ETF	9	3	0.22	0.60	-	-	-	-	N
474920 KS	ASSETPLUS Assetplus China Lead	8	-	0.42	-	-	-	Y	-	N
159575 CH	Yinhua ChiNext Mid-cap 200 ETF	8	-	0.18	-	-	-	-	-	N
515530 CH	Taikang CSI 500 ETF	8	1	0.14	-	-	-	-	-	N
3111 HK	E Fund ETFs Trust - E Fund HK MSCI China	8	↑	0	0.18	2.55	-	-	-	C
510370 CH	CIB CSI 300 ETF	8	↑	0	0.44	-	-	-	-	N
159918 CH	Harvest SME-ChiNext 400 Index ETF R	8	0	0.29	0.60	-	-	-	-	N
159617 CH	ChiAMC CSI Smart Sel 500 Val Stable	8	0	0.15	-	-	-	-	-	N
310080 KS	KB KBSTAR MSCI China Futures ETF H	8	0	0.48	0.78	-	-	-	Y	N
512280 CH	Invesco Great Wall MSCI China Guojilong	8	1	0.46	0.68	-	-	-	-	N
159721 CH	Maxwealth SZSE Innovation 100 ETF	8	0	0.22	-	-	-	-	-	N
610072 KS	MERITZ SECURITIES MERITZ KAP L	8	0	0.07	-	-	-	-	-	N
561900 CH	China Merchants CSI 300 Benchmark ESG	8	1	0.19	1.40	-	-	-	Y	-
561590 CH	Huatai-PineBridge CSI 1000 Enh Stgy	8	↓	2	0.45	1.30	-	-	-	C
610071 KS	MERITZ SECURITIES MERITZ KAP C	8	0	0.10	-	-	-	-	-	N
159653 CH	CPIC CNI ESG 300 ETF	8	↑	0	0.28	-	-	-	Y	-
159728 CH	China Southern CNI Online Consumption	7	↑	0	0.19	1.40	-	-	-	N
510600 CH	SWS MU SSE 50 ETF Launched Fund	7	1	0.31	0.68	-	-	-	-	N
159913 CH	Bank of Comm Schroder SZSE 300 Value	7	0	0.45	-	-	-	-	-	N
530002 KS	Samsung Sec Samsung Inv China A50 Fr H	7	0	0.12	0.70	-1x	-	-	-	Y
159505 CH	Bosera CNI 2000 ETF	7	0	0.23	-	-	-	-	-	N
517010 CH	E Fund CSI SH-HK-SZ 500 ETF	7	0	0.75	0.70	-	-	-	-	N
513990 CH	China Merchants SSE HK Stock Connect	7	1	0.20	0.65	-	-	-	-	N
00638R TT	YuantaiP-shares CSI 300 1X Bear ETF	7	↓	0	0.22	1.20	-1x	-	-	N
159712 CH	Guotai CSI HK Connect 50 ETF	7	0	0.20	1.40	-	-	-	-	N
159630 CH	China Universal CSI 100 ETF	7	1	0.14	-	-	-	-	-	N
1573 JP	China Bear -1x HSCEI ETF	7	↑	0	0.58	0.85	-1x	-	-	N
159773 CH	Huatai-PineBridge ChiNext Technology ETF	7	0	0.22	1.10	-	-	-	-	N
560220 CH	GF CSI 2000 ETF	7	1	0.22	1.40	-	-	-	-	N
560950 CH	500 Enhanced	7	0	0.42	-	-	-	-	-	N
00634R TT	Fubon SSE180 Inversed Index ETF	7	↓	0	0.44	1.22	-1x	-	-	N
2815 HK	Global X China Little Giant ETF	7	0	0.57	0.68	-	-	-	-	N
3130 HK	Hang Seng Harvest CSI 300 Index ETF	7	0	0.51	1.15	-	-	-	-	C
159935 CH	Invesco Great Wall CSI 500 Index ETF	7	0	0.15	1.40	-	-	-	-	N
159621 CH	Guotai MSCI China A ESG Universal ETF	7	1	0.17	1.40	-	-	-	Y	-
3031 HK	Haitong MSCI China A ESG ETF	7	0	0.44	0.60	-	-	-	Y	U
159571 CH	Fulgoal ChiNext Mid-cap 200 ETF	7	-	0.21	0.60	-	-	-	-	N
610073 KS	MERITZ SECURITIES MERITZ KAP I	7	0	0.08	-	-2x	-	-	-	N
516730 CH	AXA-SPDB CSI Securities House 30 ETF	7	↓	1	0.21	1.40	-	-	-	N
510990 CH	ICBC Credit Suisse CSI 180 ESG ETF	7	1	0.18	1.35	-	-	-	Y	-
441330 KS	Kiwoom KOSEF China A50 Connect MSCI ETF	7	↓	0	1.11	0.20	-	-	-	N
159717 CH	Penghua CNI ESG 300 ETF	7	0	0.24	1.40	-	-	-	Y	-
517030 CH	E Fund CSI SH-HK-SZ 300 ETF	7	↑	0	0.56	0.70	-	-	-	N

1 Option Liquidity (H/M/L/N - High/Medium/Low/None)

2 ↑/↓ - Significant increase/decrease in shares outstanding in last one year

3 Currency Hedged: Y = Currency Hedged, U = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
China (Continued)										
159706 CH	HuaAn Shenzhen 100 ETF	6	↓	0	0.25	0.20	-	-	-	N
159788 CH	E Fund CSI HK Connect China 100 ETF	6	↑	1	0.17	0.70	-	-	-	N
159810 CH	AXA-SPDB ChiNext ETF	6	↑	1	0.22	1.00	-	-	-	N
159522 CH	Invesco Great Wall CNI 2000 ETF	6	0	0.20	1.40	-	-	-	-	N
561280 CH	ICBC Credit Suisse CSI 1000 En	6	1	0.21	-	-	-	-	-	N
159685 CH	Tianhong CSI 1000 Enhanced Strategy ETF	6	↓	2	0.17	-	-	-	-	N
3108 HK	Harvest CSI 300 ESG Leaders Index ETF	6	0	0.98	0.85	-	-	-	Y	C
3109 HK	CSOP STAR 50 INDEX ETF	6	0	0.51	1.80	-	-	-	-	N
159987 CH	Yinhua CSI Research Innovation 100 ETF	6	0	0.16	1.18	-	-	-	-	N
610032 KS	Meritz Securities Meritz CSI 300 ETN 32	6	0	0.60	-	-	-	-	-	N
CH100RM MK	VP-DJ Shariah China A-Shares 100 ETF	6	0	3.30	-	-	-	-	-	N
159503 CH	Pengyang CNI Wealth Management ETF	6	1	0.13	-	-	-	-	-	N
7588 HK	CSOP Hang Seng China Ent Idx Daily -2x	5	1	0.12	1.75	-2x	-	-	-	N
159711 CH	ChinaAMC CSI HK Connect 50 ETF	5	0	0.19	-	-	-	-	-	N
00783 TT	Fubon Multiple Income II Umbrella	5	0	0.33	1.09	-	-	-	-	N
2530 JP	Maxis Huan China Eq SSE 180 Idx	5	0	1.33	0.78	-	-	-	-	N
159535 CH	Harvest CSI 2000 ETF	5	2	0.17	0.60	-	-	-	-	N
00703 TT	Taishin MSCI China ETF	5	0	0.49	1.10	-	-	-	-	N
598310 CH	Founder Fubon CSI STAR and CHINEXT 50	5	0	0.57	1.10	-	-	-	-	N
512870 CH	Nanhua CSI Hangzhou Bay Area ETF	5	0	0.44	0.63	-	-	-	-	N
800050 KS	KB Securities KB STAR 50 ETN 50	5	0	0.49	-	-	-	-	-	N
516720 CH	AXA-SPDB CSI ESG 120 Strategy ETF	5	↓	1	0.32	1.40	-	-	Y	-
159969 CH	Yinhua SZSE 100 Price Index ETF	5	0	0.25	1.10	-	-	-	-	N
415760 KS	Shinhan SOL China Fostering Ind Active	5	0	0.59	0.72	-	-	-	Y	-
3118 HK	Harvest MSCI China A Index ETF	5	0	1.36	2.21	-	-	-	-	C
219900 KS	KIM Kidx China Main L& Lvg CSI300 Deriv	4	0	0.69	0.76	+2x	-	-	-	N
517170 CH	ChinaAMC CSI SH-HK-SZ 500 ETF	4	↓	0	0.28	-	-	-	-	N
515550 CH	Guolian CSI 500 ETF	4	0	0.94	0.43	-	-	-	-	N
3003 HK	CSOP MSCI China A 50 Connect ETF	4	↓	0	0.12	1.56	-	-	-	N
00656R TT	Cathay FTSE China A50 Daily Inversed ETF	4	0	0.20	1.13	-1x	-	-	-	N
SCY SP	CSOP CSI STAR and CHINEXT 50 Index ETF	4	0	0.84	2.70	-	-	-	-	N
159576 CH	GF Shenzhen 100 ETF	4	-	0.11	1.40	-	-	-	-	N
159661 CH	Harvest CSI 100 ETF	4	1	0.17	0.60	-	-	-	-	N
610033 KS	Meritz Securities Meritz STAR 50 ETN 33	4	0	0.91	-	-	-	-	-	N
515590 CH	One ETF Southern China A-Shares CSI 500	4	0	2.57	0.84	-	-	-	-	N
00666R TT	Fubon Hang Seng China Ent Inv Idx	4	0	0.24	1.02	-1x	-	-	-	N
7234 HK	Bosera SZSE ChiNext Daily 2X Lev Product	4	↑	0	0.74	1.90	+2x	-	-	N
515590 CH	First Seafont CSI 500 Equal Weight ETF	4	↓	0	0.18	-	-	-	-	N
445950 KS	Kiwoom KOSEF Chi A50 Connect Inv MSCI	4	↓	0	0.48	0.35	-1x	-	-	Y
159517 CH	Yinhua CSI 800 Enhanced Strategy ETF	4	1	0.14	-	-	-	-	Y	-
561780 CH	Bosera CSI 1000 Enhanced Strategy ETF	3	1	0.36	-	-	-	-	-	N
159686 CH	E Fund CSI 100 ETF	3	0	0.28	-	-	-	-	-	N
2811 HK	Haitong CSI300 Index ETF	3	↓	0	0.48	0.85	-	-	-	C
413220 KS	Shinhan SOL China Photovoltaic CSI	3	0	0.41	0.54	-	-	-	-	N
516980 CH	Harfor CSI Securities House Pioneer Stgy	3	0	0.36	-	-	-	-	-	N
159923 CH	Dacheng CSI 100 ETF	3	0	0.28	0.60	-	-	-	-	N

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
China (Continued)										
2843 HK	Amundi FTSE China A50 Index ETF	1	0	1.41	0.48	-	-	-	C	N
2832 HK	BOSERA STAR 50 INDEX ETF	1	0	1.63	0.90	-	-	-	C	N
Hong Kong										
2800 HK	Tracker Fund of Hong Kong Ltd	16,787	947	0.06	0.08	-	-	-	-	L
82800 HK	Tracker Fund of Hong Kong Ltd	16,787	1	0.10	0.08	-	-	-	-	U
159920 CH	China AMC Hang Seng Index ETF	2,114	85	0.09	-	-	-	-	-	N
510900 CH	E Fund Hang Seng China Ent Idx	1,305	64	0.13	1.25	-	-	-	-	N
3403 HK	ChinaAMC HSI ESG ETF	944	↑	0.31	0.15	-	-	Y	U,C	N
7200 HK	CSOP Hang Seng Idx Daily 2x	540	50	0.07	1.22	+2x	-	-	-	N
513660 CH	CH AMC Shanghai-HK Connect Hang Seng	468	25	0.07	-	-	-	-	-	N
513550 CH	Huatai-PineBridge CSI HK Connect 50 ETF	398	14	0.15	1.13	-	-	-	-	N
7500 HK	CSOP Hang Seng Idx Daily -2x	271	↑	0.35	0.08	-1.57	-2x	-	-	N
3115 HK	iShares Asia Trust -iShares Core Hang Seng	196	↑	0.15	0.09	-	-	-	U,C	N
3037 HK	CSOP Hang Seng Index ETF	180	↑	0.11	0.10	-	-	-	-	N
00650L TT	Fuh Hwa Daily Hang Seng Lvlgd 2X	137	↑	0.9	0.14	1.12	+2x	-	-	N
513600 CH	China Southern Hang Seng Idx	135	↑	0.07	0.60	-	-	-	-	N
159850 CH	ChinaAMC Hang Seng China Ent QDII	89	6	0.18	-	-	-	-	-	N
3039 HK	E Fund HK HSI ESG Enhanced Index ETF	69	↑	0.21	0.20	-	-	Y	-	N
HSBEE5 IN	NIPPON INDIA ETF HANG SENG BEE	60	1	0.12	0.93	-	-	-	-	N
520067 KS	MiraAsset Securities Miraass	38	0	0.20	-	-	-	-	-	N
159954 CH	China Southern Hang Seng China Ent	36	1	0.22	1.10	-	-	-	-	N
2031 JP	NEXT NOTES HSI Leveraged ETN	22	0	0.57	0.80	+2x	-	-	-	N
159822 CH	Yinhua ICBC CSOP S&P New CH QDII	21	0	0.23	1.15	-	-	-	-	N
520068 KS	MiraAsset Securities Miraass	16	0	0.25	-	+2x	-	-	-	N
7300 HK	CSOP Hang Seng Idx Daily -1x	15	↓	0.13	1.08	-1x	-	-	-	N
520069 KS	MiraAsset Securities Miraass	12	0	0.25	-	-	-	-	-	N
530082 KS	Samsung Securities Samsung Inv Tech	12	0	0.30	1.05	-2x	-	-	-	N
159519 CH	Guotai CSI Hong Kong State-own	11	4	0.13	-	-	-	-	-	N
2835 HK	Phillip HK Newly Listed Equities Index ETF	9	0	0.191	-	-	-	-	-	N
580019 KS	KB Securities KB Inverse 2X Hang Seng tech	9	0	0.24	-	-2x	-	-	-	N
00651R TT	Fuh Hwa Daily Hang Seng Inversed ETF	6	↓	0.22	1.12	-1x	-	-	-	N
159823 CH	Harvest Hang Seng China Ent Idx QDII	5	0	0.28	0.20	-	-	-	-	N
513810 CH	China AMC CSI Hong Kong State-	5	0	0.21	-	-	-	-	-	N
513320 CH	E Fund Hang Seng SCHK New Economy	4	↑	0.31	1.10	-	-	-	-	N
3416 HK	Global XHSCEI Components Cove	4	-	0.48	0.75	-	Y	-	-	N
2032 JP	NEXT NOTES HSI Short ETN	4	0	0.60	0.80	-1x	-	-	-	N
3419 HK	Global XHSI Components Covere	3	-	0.56	0.75	-	Y	-	-	N
3136 HK	HSI ESG Enhanced Select Index ETF	2	↓	0.21	0.20	-	-	Y	-	N
3029 HK	Global X Hang Seng ESG ETF	2	↓	0.63	0.29	-	-	Y	-	N
3012 HK	Amundi Hang Seng HK 35 Index ETF	1	0	0.85	0.28	-	-	-	C	N
India										
SBINIFT IN	SBI-ETF Nifty 50	21,629	3	0.05	0.04	-	-	-	-	N
SBISENX IN	SBI Sensex ETF	13,213	0	0.22	0.04	-	-	-	-	N
UTINIFTY IN	UTI Nifty 50 ETF	6,183	0	0.16	0.30	-	-	-	-	N
UTISENX IN	UTI S&P BSE Sensex ETF	4,738	0	0.30	0.30	-	-	-	-	N
CPSEBE IN	CPSE ETF	4,716	6	0.04	0.05	-	-	-	-	N
NBEES IN	Nippon India ETF Nifty 50 BEES	2,983	12	0.03	0.04	-	-	-	-	N
ICIB22 IN	BHARAT 22 ETF	2,159	2	0.05	0.07	-	-	-	-	N
NIFTYET IN	ICICI Prudential Nifty 50 ETF	1,797	1	0.05	0.05	-	-	-	-	N
INR SP	Amundi MSCI India II UCITS ETF	1,379	↑	0.109	0.85	-	-	-	-	N
SENSEXIE IN	ICICI Prudential S&P BSE Sensex ETF	977	0	0.22	0.03	-	-	-	-	N
RSENSEX IN	Nippon India ETF S&P BSE Sensex	880	0	0.22	0.04	-	-	-	-	N
JBEES IN	Nippon India ETF Nifty Next 50 Junior BEES	513	2	0.05	0.17	-	-	-	-	N
2836 HK	iShares Core SENSEX India ETF	497	↑	0.36	0.40	-	-	-	U,C	N
1678 JP	NEXT FUNDS Nifty 50 Linked	434	↑	0.05	1.05	-	-	-	-	N
HNIFTY IN	HDFC NIFTY 50 ETF	396	0	0.12	0.05	-	-	-	-	N
SBINIFTY IN	SBI Mutual Fund-Sbi-Ef Nifty Next 50	302	0	0.17	0.15	-	-	-	-	N
NIFTYETF IN	Mira Asset NIFTY 50 ETF	286	↑	0.12	0.05	-	-	-	-	N
NIFTY1 IN	Kotak Nifty 50	277	0	0.11	0.04	-	-	-	-	N
BSLNIFT IN	Aditya Birla SL Nifty 50 ETF	272	0	0.13	0.05	-	-	-	-	N
NIPNIFT IN	Nippon India ETF Nifty IT	269	3	0.04	0.22	-	-	-	-	N
UTIN50 IN	UTI Nifty Next 50 ETF	246	0	0.22	0.14	-	-	-	-	N
453870 KS	MIRAE ASSET TIGER INDIA NIFTY 50 ETF	241	↑	4	0.05	-	-	-	-	N
453810 KS	SAMSUNG KODEX India Nifty 50 ETF	240	↑	4	0.05	0.19	-	-	-	N
3015 HK	Xtrackers Nifty 50 Swap UCITS ETF	216	↑	0.173	0.85	-	-	-	-	N
RENMI50 IN	NIPPON INDIA ETF NIFTY MIDCAP	166	1	0.07	0.21	-	-	-	-	N
200250 KS	Kiwoom KOSEF CNX NIFTY IN Synth H Deriv	159	2	0.07	0.29	-	-	Y	-	N
IND AU	Betashares India Quality ETF	108	↑	0.42	0.80	-	-	-	-	N
LICSENS IN	LIC MF Exchange Traded Fund - SENSEX	92	0	0.70	1.08	-	-	-	-	N
LICNIFT IN	LIC MF Exchange Traded Fund - NIFTY 50	92	0	0.25	1.00	-	-	-	-	N
INDIA AU	Global X India Nifty 50 ETF	87	↑	0.46	0.69	-	-	-	-	N
INDAS SP	iShares MSCI India Climate Transition ETF	86	0	0.43	1.03	-	-	-	U	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: Y = Currency Hedged; U = USD version exists for the fund; C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
India (Continued)										
AXSNIFT IN	Axis NIFTY 50 ETF	84	0	0.25	0.07	-	-	-	-	N
LICN100 IN	LIC MF Exchange Traded Fund - Nifty 100	81	0	0.75	0.28	-	-	-	-	N
TATNETF IN	Tata Nifty 50 Exchange Traded Fund	76	0	0.32	0.52	-	-	-	-	N
2046 JP	NEXT NOTES Nifty PR 2x Lvg Idx	69	1	0.21	0.85	+2x	-	-	-	N
NEXT50IE IN	ICICI Prudential Nifty Next 50 ETF	67	0	0.11	0.10	-	-	-	-	N
HSBSENSE IN	HDFC S&P BSE SENSEX ETF	61	0	0.15	0.05	-	-	-	-	N
00652 TT	Fubon NIFTY ETF	60	↑	0.14	1.25	-	-	-	-	Y
BSLSENEX IN	Aditya Birla SL S&P BSE Sensex ETF	57	0	0.41	0.09	-	-	-	-	N
MOST100 IN	Motilal Oswal Midcap 100 ETF	49	0	0.10	0.20	-	-	-	-	N
MANIDRL IN	Mira Asset Nifty 1D Rate Liquid ETF	46	3	0.16	0.26	-	-	-	-	N
236350 KS	Mira Asset Tiger Synth-India Lvg	43	↑	0.20	0.59	+2x	-	-	-	N
MIDCAPIE IN	ICICI Prudential Nifty Midcap 150 ETF	39	0	0.18	0.15	-	-	-	-	N
453820 KS	Smsng KODEX India Nifty 50 Lvg SYNTH	35	0	0.24	0.39	-	-	-	-	N
HSM1250 IN	HDFC NIFTY Smallcap 250 ETF	30	1	0.06	0.20	-	-	-	-	N
RCNX100 IN	NIPPON INDIA ETF NIFTY 100	28	0	0.15	0.50	-	-	-	-	N
BSE500IE IN	ICICI Prudential S&P BSE 500 ETF	27	0	0.19	0.32	-	-	-	-	N
00653L TT	Fubon NIFTY 2X Leveraged Index ETF	26	↓	0.21	1.22	+2x	-	-	-	Y
NEXT50 IN	Mira Asset Nifty Next 50 ETF	24	0	0.23	0.15	-	-	-	-	N
DNEVETF IN	DSP Nifty 50 Equal Weight ETF	22	0	0.19	0.10	-	-	-	-	N
NV20IETF IN	ICICI Prudential Nifty 50 Value 20 ETF	15	0	0.14	0.25	-	-	-	-	N
RELNV20 IN	Nippon India ETF Nifty 50 Value 20	15	0	0.25	0.34	-	-	-	-	N
ASPSNSX IN	Axis S&P BSE SENSEX ETF	14	0	0.43	0.20	-	-	-	-	N
MABNKTF IN	Mira Asset Nifty Bank ETF	13	0	0.25	0.09	-	-	-	-	N
RGNIFTY IN	Invesco India Nifty Exchange Traded Fund	10	0	0.97	0.10	-	-	-	-	N
SBIFETF IN	SBI ETF IT	10	0	0.21	0.22	-	-	-	-	N
NIF100IE IN	ICICI Prudential Nifty 100 ETF Fund	9	0	0.21	0.48	-	-	-	-	N
188A JP	Global X India Top 10+ ETF	9	-	-	0.72	-	-	-	-	N
ABITETF IN	Aditya Birla Sun Life Nifty IT ETF	9	0	0.20	0.22	-	-	-	-	N
ABSLN50 IN	Aditya Birla Sun Life Nifty Next 50 ETF	8	0	0.29	0.17	-	-	-	-	N
NV20 IN	Kotak Nifty 50 value 20 ETF	8	0	0.31	0.14	-	-	-	-	N
AUTOIETF IN	ICICI Prudential Nifty Auto ETF	7	0	0.10	0.20	-	-	-	-	N
EDNIFTY IN	Edelweiss Nifty 50 Index	7	-	-	0.62	-	-	-	-	N
MIDSELIE IN	ICICI Prudential S&P BSE Midcap Select ETF	6	0	0.18	0.15	-	-	-	-	N
QINDEX IN	Quantum Nifty 50 ETF	6	0	0.09	0.09	-	-	-	-	N
MOSTM50 IN	Motilal Oswal M50 ETF	5	0	0.29	0.05	-	-	-	-	N
00654R TT	Fubon NIFTY -1 Inverse Index ETF	5	0	0.24	1.22	-1x	-	-	-	Y
MIRANAL IN	Mira Asset Nifty 200 Alpha 30 ETF	5	0	0.19	0.30	-	-	-	-	N
RESEN50 IN	Nippon India ETF S&P BSE Sensex Next 50	4	0	0.36	0.23	-	-	-	-	N
SENSEX1 IN	Kotak S&P BSE Sensex ETF	3	0	0.70	0.28	-	-	-	-	N
KOMID50 IN	Kotak Nifty Midcap 50 ETF	3	0	0.19	0.15	-	-	-	-	N
HMID150 IN	HDFC NIFTY Midcap 150 ETF	3	0	0.15	0.20	-	-	-	-	N
IDNIFTY IN	Bandhan Nifty 50 ETF	3	0	0.76	0.08	-	-	-	-	N
UTISXN50 IN	UTI S&P BSE Sensex Next 50 ETF	2	0	0.42	0.20	-	-	-	-	N
KNMNCTF IN	Kotak Nifty MNC ETF	2	0	0.40	0.30	-	-	-	-	N
SBISN50 IN	SBI-ETF Sensex Next 50	2	0	0.53	0.12	-	-	-	-	N
MBSENSEX IN	Mira Asset S&P BSE Sensex ETF	2	0	0.29	0.05	-	-	-	-	N
2047 JP	NEXT NOTES Nifty TrsTr Daily Inv Idx	2	0	1.11	0.85	-1x	-	-	-	N
HN100TF IN	HDFC NIFTY 100 ETF	1	0	0.33						

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Country											
Indonesia (Continued)											
520061 KS	MiraeAst Sec MiraeAst Ind. Top5 Etn 76	9	0	0.60	0.70	-	-	-	-	N	
XBES U	BNI-AM ETF MSCI ESG Leaders Indonesia	9	0	0.44	3.20	-	-	Y	-	N	
XPLQ U	Pinnacle Enhanced Liquid ETF	3	0	1.46	3.75	-	Y	-	-	N	
XBID U	Batavia IDX30 ETF	3	0	0.47	3.20	-	-	-	-	N	
XMIG U	Majoris PEFINDO i-Grade ETF Indonesia	1	0	1.07	3.20	-	-	-	-	N	
XIFI U	Premier ETF PEFINDO i-Grade	1	↑	0	2.00	1.20	-	-	-	N	
XPTD U	Panin ETF IDX30 Dinamis	1	0	-	2.25	-	-	-	-	N	
XSSI U	Simas ETF JII	1	0	10.22	3.68	-	-	Y	-	N	
XBIN U	Bahana ETF Bisnis-27	0	0	1.40	-	-	-	-	-	N	
XBSK U	Batavia Sri-Kehati ETF	0	0	1.38	3.20	-	-	-	-	N	
XIML U	Premier ETF MSCI Indonesia Large Cap	0	↓	0	2.47	1.20	-	-	-	N	
XIID U	PREMIER ETF INDEKX IDX30	0	↑	0	1.42	1.20	-	-	-	N	
XAQA U	Ashmore ETF LQ45 Alpha	0	0	0.86	1.25	-	-	-	-	N	
XMLF U	Reksa Dana Indeks ETF Mandiri LQ45	-	0	0.78	1.15	-	-	-	-	N	
XSSK U	SAM ETF Sri-Kehati	-	0	1.42	3.18	-	-	-	-	N	
XCLQ U	Cipla ETF Index LQ45	-	0	3.56	1.18	-	-	-	-	N	
XCEG U	Reksa Dana Indeks Capital ETF IDX ESG	-	0	1.86	-	-	-	Y	-	N	
Japan											
1306 JP	NEXT FUNDS TOPIX Exchange Traded Fund	150,713	37	0.02	0.06	-	-	-	-	N	
1308 JP	Listed Index Fund TOPIX	71,612	17	0.05	0.12	-	-	-	-	N	
1305 JP	iFree ETF TOPIX	67,874	3	0.05	0.06	-	-	-	-	N	
1321 JP	NEXT FUNDS NKY 225	67,468	95	0.03	0.13	-	-	-	-	N	
1330 JP	Listed Index Fund 225	32,268	8	0.04	0.28	-	-	-	-	N	
1320 JP	iFree ETF-Nikkei 225	30,448	11	0.04	0.12	-	-	-	-	N	
1348 JP	MAXIS TOPIX ETF	21,442	3	0.06	0.08	-	-	-	-	N	
1346 JP	MAXIS NIKKEI225 ETF	15,869	7	0.04	0.17	-	-	-	-	N	
1475 JP	iShares Core TOPIX ETF	11,665	↑	7	0.05	0.05	-	-	-	N	
1591 JP	NEXT FUNDS JPX-NKY Idx 400	10,598	0	0.24	0.11	-	-	-	-	N	
1329 JP	iShares Core Nikkei 225 ETF	8,400	11	0.04	0.05	-	-	-	-	N	
1593 JP	MAXIS JPX-Nikkei Index 400 ETF	5,352	0	0.19	0.25	-	-	-	-	N	
1473 JP	One ETF TOPIX	3,952	1	0.06	0.08	-	-	-	-	N	
1599 JP	iFree ETF JPX-Nikkei 400	2,967	0	0.70	0.18	-	-	-	-	N	
1369 JP	One ETF Nikkei 225	2,940	1	0.06	0.16	-	-	-	-	N	
1592 JP	Listed Index Fund JPX-Nikkei 400	2,766	0	0.16	0.16	-	-	-	-	N	
1570 JP	NEXT FUNDS NKY 225 Lygd Idx	2,550	↑	1,026	0.02	0.88	+2x	-	-	N	
1364 JP	iShares JPX-Nikkei 400 ETF /JP	2,510	0	0.37	0.05	-	-	-	-	N	
1474 JP	One ETF JPX-Nikkei 400	1,814	0	0.35	0.17	-	-	-	-	N	
2524 JP	NZAM ETF TOPIX	1,562	1	0.09	0.08	-	-	-	-	N	
1357 JP	NEXT FUNDS NKY 225 Double Inv Idx	815	61	0.68	0.88	-2x	-	-	-	N	
1397 JP	SDAM NIKKEI225 ETF	751	↑	2	0.06	0.14	-	-	-	N	
2250 JP	iShares MSCI Japan Climate Action ETF	644	0	0.43	0.09	-	-	Y	-	N	
2525 JP	NZAM ETF Nikkei 225	526	↓	1	0.06	0.14	-	-	-	N	
2557 JP	SDAM TOPIX ETF	387	↑	2	0.06	0.07	-	-	-	N	
UP AU	iShares MSCI Japan ETF/AU	368	2	0.13	0.47	-	-	-	-	N	
3160 HK	ChinaAMC MSCI Japan Hedged to USD ETF	350	↑	2	0.18	0.50	-	-	Y	N	
2526 JP	NZAM ETF JPX-Nikkei400	331	↓	0	1.29	0.12	-	-	-	N	
513800 CH	HuaAn Mitsubishi UFJ Nikkei 225 ETF	283	↑	21	0.08	0.25	-	-	-	N	
1360 JP	Nikkei225 Bear -2x ETF	261	62	0.04	0.75	-2x	-	-	-	N	
2850 JP	NEXT FUNDS Solactive Japan ESG Core Idx	260	↓	0	0.27	0.13	-	-	Y	N	
2641 JP	Global X Japan Global Leaders ETF	260	↑	0	0.21	0.28	-	-	Y	N	
1579 JP	Nikkei 225 Bull 2x ETF	251	↑	85	0.03	0.75	+2x	-	-	N	
241180 KS	Mirae Asset Tiger NIKKEI225 ETF	213	4	0.08	0.35	-	-	-	-	N	
1459 JP	Rakuten-NKY 225 Double Inv Idx	188	43	0.17	0.35	-2x	-	-	-	N	
1458 JP	Rakuten ETF-Nikkei 225 Leveraged Index	177	↑	76	0.04	0.35	+2x	-	-	N	
1571 JP	NEXT FUNDS NKY 225 Inv Idx	160	↓	13	0.17	0.88	-1x	-	-	N	
513800 CH	China Southern Dingfeng TOPIX ETF	158	↑	6	0.08	0.25	-	-	-	N	
513520 CH	China AMC Nomura Nikkei 225 ETF QDII	127	↑	79	0.07	-	-	-	-	N	
2516 JP	TSE Growth 250 ETF	124	6	0.07	0.50	-	-	-	-	N	
1457 JP	iFree ETF TOPIX Inverse -1x Index	122	↑	0	0.22	0.75	-1x	-	-	N	
00645 TT	Fubon TOPIX Index ETF	112	↑	2	0.09	0.70	-	-	Y	N	
1568 JP	TOPIX Bull 2x ETF	112	33	0.05	0.75	+2x	-	-	-	N	
00661 TT	Yuanta NIKKEI 225 ETF	108	↑	1	0.11	0.70	-	-	Y	N	
513000 CH	E Fund Nikko Asset Mgmt NKY 225	106	↑	11	0.08	0.75	-	-	-	N	
HJFN AU	BetaShares Japan ETF - Currency Hedged	97	↑	1	0.17	0.56	-	-	Y	N	
2017 JP	iFreeETF JPX Prime 150	88	-	0.11	0.17	-	-	-	-	N	
1653 JP	Daiwa MSCI Japan ESG Select Leaders Idx	86	↓	0	0.13	0.15	-	-	Y	N	
2080 JP	PBR Improvement over 1x ETF	82	3	0.10	0.90	-	Y	-	-	N	
159866 CH	ICBC Credit Suisse Daiwa - NKY 225 QDII	78	↑	40	0.10	1.05	-	-	-	N	
1578 JP	Listed Index Fund Nikkei 225 Mini	75	0	0.21	0.29	-	-	-	-	N	
1366 JP	iFree ETF Nikkei 225 Double Inverse Index	65	↑	4	0.28	0.75	-2x	-	-	N	
1311 JP	NEXT FUNDS TOPIX Core 30	63	↑	0	0.12	0.21	-	-	-	N	
1365 JP	iFree Nikkei 225 Leveraged Index	59	↑	13	0.05	0.75	+2x	-	-	N	

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

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Equity Country											
Japan (Continued)											
1580 JP	Nikkei 225 Bear -1x ETF	53	↓	2	0.05	0.75	-1x	-	-	N	
2071 JP	Smart ESG 30 Net Return ETN	48	↓	0	0.51	0.85	-	-	Y	N	
1498 JP	One ETF ESG	44	0	0.15	0.13	-	-	Y	-	N	
1456 JP	iFree ETF Nikkei225 Inverse Index	44	↓	2	0.05	0.75	-1x	-	-	N	
1563 JP	MAXIS S&P Tokai ETF	43	0	0.21	0.50	-	-	-	-	N	
464920 KS	Hanwha ARIRANG Japan Semicondu	37	1	0.15	0.46	-	-	-	-	N	
00640L TT	Fubon TOPIX Leveraged 2X Index ETF	37	↑	2	0.16	1.20	+2x	-	Y	N	
1493 JP	One ETF JPX-Nikkei Mid Small	36	↑	0	0.13	0.50	-	-	-	N	
JALUSD SP	Lion-Nomura Japan Active ETF P	35	-	0.64	0.70	-	Y	-	-	N	
1358 JP	Listed Index Fund Nikkei Leveraged Index	34	↑	7	0.07	0.85	+2x	-	-	N	
1585 JP	iFree ETF TOPIX Ex-Financials	28	0	0.32	0.18	-	-	-	-	N	
1319 JP	NEXT FUNDS NKY 300 Idx	27	0	1.93	0.55	-	-	-	-	N	
1563 JP	TSE Growth Core ETF	26	↑	1	0.13	0.50	-	-	-	N	
2042 JP	NEXT NOTES Tokyo Stock Exch Mothers	25	0	0.51	0.50	-	-	-	-	N	
1569 JP	TOPIX Bear -1x ETF	23	↓	0	0.08	0.75	-1x	-	-	N	
1356 JP	TOPIX Bear -2x ETF	22	4	0.06	0.75	-2x	-	-	-	N	
101280 KS	Samsung KODEX Nippon TOPIX 100 ETF	22	↑	1	0.16	0.19	-	-	-	N	
238720 KS	KIM Kidx Japan NKY225 H - Eq-Derivatives	21	↑	1	0.11	0.39	-	-	Y	N	
00657 TT	Cathay Nikkei 225 Currency-hedged ETF	21	↑	1	0.12	0.65	-	-	Y,U	N	
2837 JP	Global X Japan Mid & Small Cap Leaders	20	↑	0	0.24	0.28	-	-	Y	N	
JPN NZ	Smartshares Japan Equities ESG ETF	19	0	0.83	0.55	-	-	Y	-	N	
1596 JP	NZAM ETF TOPIX Ex-Financials	19	↓	0	0.51	0.11	-	-	-	N	
1367 JP	iFree ETF TOPIX Leveraged 2x Index	18	2	0.08	0.75	+2x	-	-	-	N	
1586 JP	Listed Index Fund TOPIX Ex-Financials	17	0	0.67	0.20	-	-	-	-	N	
2072 JP	Market Share Leaders Net Return ETN	16	↓	0	0.56	-	-	-	-	N	
2523 JP	MAXIS TOPIX Ex-Financials ETF	16	0	1.54	0.11	-	-	-	-	N	
196030 KS	Korea Invst Kidx Japan Lvlg H Derivatives	16	0	0.30	0.50	+2x	-	-	Y	N	
2643 JP	NEXT FUNDS MSCI Japan Country ESG	16	0	0.12	0.13	-	-	Y	-	N	
159A JP	NF JPX PRIME 150 ETF	15	-	0.18	0.17	-	-	-	-	N	
1654 JP	iFree ETF FTSE Blossom Japan Index	15	↑	0	0.21	0.15	-	-	-	N	
3153 HK	CSOP Nikkei 225 Index ETF	14	-	0.19	1.40	-	-	-	U	N	
1464 JP	Daiwa Japan JPX-NKY 400 Lygd 2x Idx	12	0	0.24	0.75	+2x	-	-	-	N	
7515 HK	CSOP Nikkei 225 Daily -2x Inverse Product	11	-	-	1.99	-2x	-	-	-	N	
7262 HK	CSOP Nikkei 225 Daily 2x Lever	11	-	-	1.99	+2x	-	-	-	N	
2851 JP	iShares MSCI Japan SRI ETF	11	0	0.88	0.11	-	-	Y	-	N	
570100 KS	Korea Investment & Securities	10	-	0.11	-	-	-	-	-	N	
1368 JP	iFree ETF TOPIX Double Inverse -2x Index	10	0	0.22	0.75	-2x	-	-	-	N	
195920 KS	Mirae Asset Tiger Synth-Japan ETF	9	0	0.30	0.25	-	-	-	Y	N	
00641R TT	Fubon TOPIX Inversed 1X Index ETF	9	0	0.23	1.17	-1x	-	-	Y	N	
2081 JP	Strategic Shareholding Disposa	8	0	0.15	0.90	-	Y	-	-	N	
610070 KS	MERITZ SECURITIES MERITZ KAP I	8	0	0.04	-	-2x	-	-	-	N	
610068 KS	MERITZ SECURITIES MERITZ KAP J	7	0	0.07	-	-	-	-	-	N	
205720 KS	KIM Kidx SYNTH-Japan Inv H - Derivatives	5	↑	0	0.25	0.50	-1x	-	Y	N	
3150 HK	Global X Japan Global Leaders	4	0	0.54	0.68	-	-	Y	-	N	
1551 JP	TSE Standard TOP20 ETF	4	0	0.31	0.50	-	-	-	-	N	
2082 JP	Investor-Management Unite as One ETF	3	0	0.17	0.90	-	Y				

ASIA-PACIFIC LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
Singapore (Continued)										
SINGINC SP	Phillip SING Income ETF	43	0	0.49	0.73	-	-	-	-	N
BEARSG1X SP	Phillip MSCI Singapore Daily -1x Inv Product	1	↓	0	0.56	2.83	-1x	-	-	U N
BULLSG2X SP	Phillip Msci Singapore Daily 2X Lev Product	1	↓	0	0.74	5.94	+2x	-	-	U N
South Korea										
069500 KS	SAMSUNG KODEX 200 Sec	4,395	178	0.02	-	-	-	-	-	N
423160 KS	Samsung KODEX KOFr Active ETF Synth	3,851	↑	24	0.00	0.05	-	Y	-	N
102110 KS	Mirae Asset TIGER 200 ETF	1,574	38	0.02	0.05	-	-	-	-	N
278530 KS	Samsung KODEX 200 Total Return ETF	1,532	3	0.06	0.05	-	-	-	-	N
122630 KS	Samsung KODEX Lvg Eq-Derivatives FoF	1,504	259	0.03	0.64	+2x	-	-	-	N
252670 KS	Samsung KODEX 200 Fr Inv 2X	1,025	209	0.22	0.64	-2x	-	-	-	N
315930 KS	Samsung KODEX Top5Plus TR - Eq	938	0	0.10	0.15	-	-	-	-	N
233740 KS	Samsung Kdex KOSDAQ150 Lvg	902	↑	167	0.05	0.64	+2x	-	-	N
102780 KS	Samsung KODEX Samsung Trust Share	866	↑	3	0.09	0.25	-	-	-	N
148020 KS	KB KBSTAR 200 Securities ETF - Equity	853	17	0.03	0.04	-	-	-	-	N
292150 KS	Mirae Asset Tiger Top 10 ETF	819	2	0.08	0.15	-	-	-	-	N
310970 KS	MIRAE ASSET TIGER MSCI Korea TR	809	2	0.15	0.12	-	-	-	-	N
229200 KS	SAMSUNG KODEX KOSDAQ150 ETF	614	↑	96	0.04	0.25	-	-	-	N
396500 KS	Mirae Asset TIGER Fn Semiconductor	574	↑	31	0.06	0.49	-	-	-	N
294400 KS	Kiwoom KOSEF 200 Total Return ETF	490	27	0.06	0.01	-	-	-	-	N
462010 KS	MIRAE ASSET TIGER Secondary Ba	463	10	0.09	0.34	-	-	-	-	N
152100 KS	Hanwha Arirang 200 ETF - Equity	456	5	0.03	0.06	-	-	-	-	N
114800 KS	SAMSUNG KODEX Inverse ETF	423	↓	59	0.12	0.64	-1x	-	-	N
293180 KS	NH-Amundi HANARO 200 ETF	364	3	0.07	0.04	-	-	-	-	N
105190 KS	KIM ACE 200 ETF	347	2	0.05	0.11	-	-	-	-	N
278540 KS	Samsung KODEX MSCI Korea TR	290	↓	0	0.19	0.09	-	-	-	N
251340 KS	Samsung Kdex KOSDAQ150 Inverse ETF	268	↓	109	0.14	0.64	-1x	-	-	N
126490 KS	Samsung KODEX KOSPI ETF	263	4	0.05	0.15	-	-	-	-	N
388420 KS	KB KBSTAR Non-Memory Semiconductor	224	↑	13	0.10	0.57	-	Y	-	N
069660 KS	Kiwoom KOSEF 200 ETF	217	↓	2	0.04	0.13	-	-	-	N
361580 KS	KB KBSTAR 200 Total Return ETF	195	1	0.08	0.05	-	-	-	-	N
530107 KS	SmsngSec Smsg Lvg 2x KOSDAQ150 Fr Eth	194	↑	23	0.10	-	-2x	-	-	N
290130 KS	KB KBSTAR ESG SRI ETF	168	0	0.16	0.33	-	-	Y	-	N
295040 KS	Shinhan SOL 200 Total Return ETF	157	1	0.09	0.08	-	-	-	-	N
328370 KS	Hanwha ARIRANG KOSPI TR ETF	131	0	0.38	0.18	-	-	-	-	N
332940 KS	NH-Amundi HANARO MSCI Korea TR	130	0	0.23	0.12	-	-	-	-	N
364960 KS	Mirae Asset TIGER KRX BBIG K-New Deal	109	1	0.14	0.43	-	-	-	-	N
451060 KS	Hana 1Q K200 Active ETF	105	0	0.13	0.18	-	Y	-	-	N
570082 KS	Korea Invst&Sec True Inv2x KOSDAQ150 Fr Eth	98	↑	5	0.15	-	-2x	-	-	N
453010 KS	Hanwha ARIRANG KOFr ETF	90	1	0.01	0.05	-	-	-	-	N
332930 KS	NH-Amundi HANARO 200 Total Return ETF	84	↓	1	0.11	0.03	-	-	-	N
472150 KS	MIRAE ASSET TIGER DIVIDEND PRE	83	-	0.10	0.45	-	Y	-	-	N
232080 KS	Mirae Asset Tiger KOSDAQ150 ETF	82	3	0.05	0.19	-	-	-	-	N
IKO AU	iShares MSCI South Korea ETF/AU	82	1	0.34	0.57	-	-	-	-	N
302450 KS	KB KBSTAR KOSPI ETF	78	↓	0	0.15	0.16	-	-	-	N
277630 KS	Mirae Asset Tiger KOSPI ETF	77	1	0.10	0.16	-	-	-	-	N
520057 KS	MiraeAsset Securities MiraeAss	73	↑	8	0.13	-	-2x	-	-	N
363580 KS	Samsung KODEX 200IT Total Return ETF	71	↑	0	0.13	0.15	-	-	-	N
270810 KS	KB KBSTAR KOSDAQ150 ETF	70	↓	1	0.09	0.22	-	-	-	N
278240 KS	KB KBSTAR F-KOSDAQ150 Leverage ETF	70	0	0.12	0.64	+2x	-	-	-	N
465350 KS	KBSTAR Secondary Cell TOP10 Inv SYNTH	68	23	0.04	0.44	-1x	-	-	-	N
252710 KS	Mirae Asset TIGER 200 Futures Inverse 2X	64	4	0.24	0.09	-2x	-	-	-	N
267770 KS	Mirae Asset Tiger 200 Fr Lvg	61	2	0.07	0.09	+2x	-	-	-	N
500071 KS	Shin Sec Shin Lvg KOSDAQ 150 Fr Eth 71	61	0	0.67	-	+2x	-	-	-	N
475720 KS	KB KBSTAR 200 Weekly Covered Call ETF	58	-	0.05	0.30	-	-	-	-	N
395170 KS	Samsung KODEX Fn Top10 Equal Weight	52	0	0.15	0.15	-	-	-	-	N
2848 HK	Xtrackers MSCI Korea UCITS ETF	52	0	1.58	0.45	-	-	-	-	N
500072 KS	Shin Sec Shin Inv 2x KOSDAQ 150 Fr Eth 72	49	↑	2	0.18	-	-2x	-	-	N
520056 KS	MiraeAst Sec MiraeAst Lvg KOSDAQ150 Fr Eth	49	0	0.37	-	+2x	-	-	-	N
580010 KS	KB Securities Wise Average Dow	48	0	0.09	0.70	-	-	-	-	N
412570 KS	Mirae Asset TIGER KRX Secondary Battery	44	↑	2	0.20	0.60	+2x	-	-	N
520054 KS	MiraeAst Sec MiraeAst Lvg KOSPI200 Fr Eth 69	43	0	0.15	-	+2x	-	-	-	N
520070 KS	MiraeAsset Securities MiraeAss	38	-	0.08	-	-	-	-	-	N
520071 KS	MiraeAsset Securities MiraeAss	37	-	0.08	-	-	-	-	-	N
233160 KS	Mirae Asset Tiger KOSDAQ150 Lvg	37	2	0.08	0.32	+2x	-	-	-	N
403790 KS	Midas MIDAS KoreaStock Active ETF	35	↑	0	0.21	0.29	-	Y	-	N
760007 KS	Kiwoom Securities Kiwoom KOSPI	31	-	0.25	-	-	-	-	-	N
152870 KS	Kyobo AXA Power K200 ETF	30	0	0.07	0.17	-	-	-	-	N
332500 KS	KIM KINDEX 200 Total Return ETF	29	↑	0	0.09	0.07	-	-	-	N
469170 KS	KIM ACE POSCO Group Focus ETF	28	1	0.14	0.27	-	-	-	-	N
304780 KS	NH-Amundi HANARO 200 Fr Lvg	28	0	0.13	0.45	+2x	-	-	-	N
123310 KS	Mirae Asset TIGER Inverse ETF	27	1	0.13	0.09	-1x	-	-	-	N
465330 KS	KB KBSTAR Secondary Cell TOP10 ETF	27	3	0.09	0.04	-	-	-	-	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: Y = Currency Hedged, U = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
South Korea (Continued)										
388280 KS	KB KBSTAR Contact Leader ETF	27	0	0.23	0.51	-	-	-	-	N
123320 KS	Mirae Asset TIGER Leverage ETF	26	↓	2	0.08	0.04	+2x	-	-	N
434960 KS	Daishin DAISHIN 343 K200 ETF	26	0	0.10	0.10	-	-	-	-	N
337160 KS	SAMSUNG KODEX 200ESG ETF	26	0	0.29	0.09	-	-	Y	-	N
395150 KS	Samsung KODEX Fn Webtoon and Drama	25	↑	0	0.26	0.45	-	-	-	N
570081 KS	Korea Invst&Sec True Lvg KOSDAQ150 Fr Eth	24	0	0.27	-	+2x	-	-	-	N
700017 KS	Hana Sec Hana Lvg F-KOSDAQ150 Eth 17	24	0	0.49	-	+2x	-	-	-	N
510026 KS	Daishin Sec Daishin Lvg KOSDAQ 150 Fr Eth 26	24	0	0.42	0.05	+2x	-	-	-	N
530106 KS	SmsngSec Smsg Lvg KOSDAQ150 Fr Eth 106	24	0	0.25	-	+2x	-	-	-	N
530118 KS	Samsung Securities Samsung KOS	22	-	0.08	-	-	-	-	-	N
530104 KS	SmsngSec Smsg Lvg KOSPI200 Fr Eth 104	22	0	0.15	-	+2x	-	-	-	N
500069 KS	Shin Sec Shin Lvg KOSPI 200 Fr Eth 69	22	0	0.45	-	+2x	-	-	-	N
450910 KS	Shinhan SOL KOSDAQ 150 ETF	20	↑	0	0.33	0.11	-	-	-	N
385720 KS	Timefolio TIMEFOLIO Kstock Active ETF	20	↓	0	0.26	0.84	-	Y	-	N
580025 KS	KB Securities KB Leverage KRX Sec-battery	20	↑	0	0.71	-	+2x	-	-	N
385590 KS	KIM ACE ESG Active ETF	19	0	0.32	0.54	-	Y	Y	-	N
359210 KS	Samsung KODEX KOSPI TotalReturn ETF	19	↓	1	0.17	0.07	-	-	-	N
289480 KS	Mirae Asset TIGER 200 Covered Call ATM	18	↑	0	0.09	0.42	-	-	-	N
360140 KS	Samsung KODEX 200 Long KSTM SHORT Fr	18	0	0.24	0.64	-	-	-	-	N
520005 KS	MiraeAst Sec MiraeAst Inv 2x KOSPI200 Fr Eth	17	1	0.11	-	-2x	-	-	-	N
237350 KS	SAMSUNG KODEX KOSPI 100 ETF	16	0	0.09	0.15	-	-	-	-	N
442260 KS	DB Mighty Dynamic Quant Active ETF	16	0	0.20	0.30	-	Y	-	-	N
345400 KS	KIM ACE KOSDAQ150 ETF	16	0	0.18	0.06	-	-	-	-	N
550059 KS	NH QV iSelect Global EMP ETN H 59	16	0	0.22	-	-	-	-	-	N
500061 KS	Shinhan Investment Shinhan Inv KOSPI 200	15	0	0.30	-	-1x	-	-	-	N
550084 KS	NH QV KOSPI 200 TR ETN 84	15	-	0.18	-	-	-	-	-	N
252420 KS	KB KBSTAR 200 Futures Inverse 2X ETF	15	0	0.25	0.64	-2x	-	-	-	N
292190 KS	Samsung KODEX KRX300 ETF	15	↓	0	0.12	0.05	-	-	-	N
510027 KS	Daishin Sec Daishin -2x KOSDAQ 150 Fr Eth 27	15	↑	0	0.40	0.05	-2x	-	-	N
550089 KS	NH QV Monthly Leverage F-KOSPI	15	-	0.16	-	-	-	-	-	N
580044 KS	KB Sec KB Inv 2x KOSDAQ 150 Fr Eth 44	15	↑	0	0.22	-	-2x	-	-	N
510041 KS	Daishin Securities Daishin KAP	15	-	-	0.03	-	-	-	-	N
510042 KS	Daishin Securities Daishin KAP	15	-	-	0.03	-	-	-	-	N
411540 KS	Shinhan SOL 200 TOP10 ETF	14	↓	0	0.32	0.19	-	-	-	N
500001 KS	Shinhan Invst Shinhan K200 USD Fr BuySell	14	0	0.11	1.30	-	-	-	-	N
550085 KS	NH QV KOSDAQ 150 TR ETN 85	14	-	0.17	-	-	-	-	-	N
760008 KS	Kiwoom Securities Kiwoom KOSDA	14	-	0.30	-	-	-	-	-	N
310960 KS	MIRAE ASSET TIGER 200 Total Return ETF	13	↓	0	0.11	0.09	-	-	-	N
550090 KS	NH QV Monthly Leverage F-KOSDA	13	-	0.13	-	-	-	-	-	N
304770 KS	NH-Amundi HANARO KOSDAQ150 ETF	13	0	0.28	0.20	-	-	-	-	N
475050 KS	KIM ACE KPOP Focus ETF	13	-	0.13	-	-	-	-	-	N
289260 KS	Mirae Asset TIGER MSCI Korea ESG Leaders	13	0	0.18	0.46	-	-	Y	-	N
252400 KS	KB KBSTAR 200 Futures Leverage ETF	12	↓	0	0.07	0.63	+2x	-	-	N
580043 KS	KB Sec KB Lvg K									

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
South Korea (Continued)										
530092 KS	Samsung Securities Samsung InvckKOSPI	8	0	0.12	-	-1x	-	-	-	N
292730 KS	VI FOCUS KR300 ETF	8	↓	0.44	0.10	-	-	-	-	N
500086 KS	Shinhan Securities Shinhan KOS	8	0	0.21	-	-	-	-	-	N
461580 KS	MIRAE ASSET TIGER KOSDAQ GLOBAL	7	0	0.31	-	-	-	-	-	N
104520 KS	Kiwoom KOSEF Blue Chip ETF	7	0	0.26	0.40	-	-	-	-	N
152500 KS	KIM ACE LEVERAGE ETF	7	0	0.15	0.30	+2x	-	-	-	N
292050 KS	KB KBSTAR KR300 ETF	7	0	0.27	0.10	-	-	-	-	N
472720 KS	TRUSTON TRUSTON Shareholder Va	7	-	0.37	0.70	-	Y	-	-	N
285690 KS	VI FOCUS ESG Leaders 150 ETF	6	↓	0.31	0.10	-	-	Y	-	N
442090 KS	AsPLUS Asplus Korea Blacksmith Actv	6	0	0.26	0.98	-	Y	-	-	N
292160 KS	MIRAE ASSET TIGER KR300 ETF	6	↓	0.30	0.12	-	-	-	-	N
253150 KS	Hanwha ARIRANG 200 Ftr Lvg	6	0	0.12	0.10	+2x	-	-	-	N
253250 KS	Kiwoom KOSEF 200 Futures Leverage ETF	6	0	0.10	0.46	+2x	-	-	-	N
530094 KS	Samsung Securities Samsung Inv KOSDAQ	6	0	0.16	-	-1x	-	-	-	N
229720 KS	Samsung KODEX KTOP30 ETF - Equity	6	↓	0.18	0.25	-	-	-	-	N
438740 KS	MIDAS MIDAS KoreaStock Mid/Small-Cap Actv	6	0	0.29	-	-	Y	-	-	N
467540 KS	KIWOOM KOSEF KOSDAQ Global Ftr	6	0	0.30	0.03	-	-	-	-	N
360150 KS	Samsung KODEXKSTM LONG SHORT Ftr	6	↓	0.19	0.64	-	-	-	-	N
457990 KS	Hanwha ARIRANG Solar&ESS Fn ETF	6	0	0.27	0.42	-	-	-	-	N
331910 KS	Kiwoom KOSEF Fn Mid Small Cap ETF	6	0	0.30	0.30	-	-	-	-	N
413930 KS	Woori WOORI AI ESG Active ETF	5	0	0.17	0.31	-	Y	Y	-	N
580029 KS	KB Securities KB Inverse KOSPI 200 Ftrs	5	0	0.22	-	-1x	-	-	-	N
448100 KS	Woori WOORI KS200 ETF	5	0	0.08	0.05	-	-	-	-	N
261140 KS	Mirae Asset TIGER Preferred Stock ETF	5	↓	1	0.16	0.33	-	-	-	N
108590 KS	Yurie TREX200 ETF	5	0	0.10	0.33	-	-	-	-	N
228820 KS	Mirae Asset Tiger KTOP30 ETF - Equity	5	0	0.21	0.29	-	-	-	-	N
2033 JP	NEXT NOTES KOSPI200 Leverage ETN	5	0	1.76	0.80	+2x	-	-	-	N
153270 KS	KIWOOM KOSEF KOSPI 100 ETF	5	0	0.24	0.20	-	-	-	-	N
226980 KS	Samsung KODEX200 Mid & Small - Eq	5	0	0.24	0.30	-	-	-	-	N
580030 KS	KB Securities KB KOSDAQ 150 Futures	5	0	0.21	-	-	-	-	-	N
227830 KS	Hanwha ARIRANG KOSPI ETF-Equity	5	0	0.23	0.25	-	-	-	-	N
450120 KS	Kiwoom KOSEF SK Group Leaders ETF	5	0	0.20	0.14	-	-	-	-	N
253160 KS	Hanwha Arirang 200 Ftr Inv 2X	5	0	0.26	0.10	-2x	-	-	-	N
305050 KS	KIM ACE KOSPI ETF	5	0	0.20	0.06	-	-	-	-	N
700018 KS	Hana Sec Hana Inv 2x F-KOSDAQ150 Etn	5	0	0.64	-	-2x	-	-	-	N
252650 KS	Samsung KODEX 200 Equalweight ETF	5	↓	0.21	0.25	-	-	-	-	N
304760 KS	NH-Amundi HANARO KR300 ETF	5	0	0.29	0.05	-	-	-	-	N
166400 KS	MIRAE ASSET TIGER COVERED C200 ETF	5	0	0.15	0.40	-	-	-	-	N
252000 KS	Mirae Asset Tiger 200 EW ETF	5	↓	0.21	0.29	-	-	-	-	N
319870 KS	KB KBSTAR KR300 USD Ftr Balanced	5	↓	0.25	0.35	-	-	-	-	N
289250 KS	Mirae Asset TIGER MSCI Korea ESG	5	0	0.22	0.46	-	-	Y	-	N
226380 KS	KIM ACE Korea Culture ETF	4	0	0.31	0.57	-	-	-	Y	N
580040 KS	KB Sec KB Inv 2x KOSPI 200 Ftr Etn 40	4	0	0.24	-	-2x	-	-	-	N
140580 KS	KB KBSTAR Prime Indus Sec - Eq	4	0	0.34	0.52	-	-	-	-	N
307520 KS	MIRAE ASSET TIGER HOLDINGS Cmpny	4	1	0.18	0.56	-	-	-	-	N
580031 KS	KB Securities KB Inverse KOSDAQ 150 ftrs	4	0	0.22	-	-1x	-	-	-	N
277640 KS	Mirae Asset Tiger KOSPI Larege Cap ETF	4	0	0.18	0.31	-	-	-	-	N
253230 KS	Kiwoom KOSEF 200 Ftr Inv 2X	4	0	0.31	0.46	-2x	-	-	-	N
280920 KS	ARIRANG Leading Industry ETF	4	↑	0.34	0.23	-	-	-	-	N
436180 KS	Hanwha Arirang K-Unicom Invst Company Actv	4	0	0.35	0.59	-	Y	-	-	N
277650 KS	Mirae Asset Tiger KOSPI MIDCAP ETF	4	↓	0.21	0.31	-	-	-	-	N
105780 KS	KB KBSTAR Top5 Group ETF	4	↓	0.25	0.44	-	-	-	-	N
301400 KS	Hanwha ARIRANG KOSDAQ150	3	↑	0.23	0.25	-	-	-	-	N
433250 KS	Hyundai UNICORN R&D Active ETF	3	↓	0.30	0.35	-	Y	-	-	N
306520 KS	NH-Amundi HANARO 200 Ftr Inv	3	0	0.11	0.45	-1x	-	-	-	N
391680 KS	Heungkuk HK HighVol Active ETF	3	0	0.34	0.38	-	Y	-	-	N
402520 KS	VI FOCUS Innovation Active ETF	3	↓	0.40	0.66	-	Y	-	-	N
291620 KS	Kiwoom KOSEF KOSDAQ 150 Ftr Inv	3	0	0.19	0.09	-1x	-	-	-	N
301410 KS	Hanwha ARIRANG KOSDAQ150 F-Inverse	2	↓	0.27	0.35	-1x	-	-	-	N
253240 KS	Kiwoom KOSEF 200 Futures Inverse ETF	2	0	0.15	0.46	-1x	-	-	-	N
145670 KS	KIM ACE INVERSE ETF	2	0	0.19	0.15	-1x	-	-	-	N
322150 KS	KIM ACE Smart High Beta ETF	2	↓	0.25	0.31	-	-	-	-	N
306530 KS	NH-Amundi HANARO KOSDAQ150 Ftr Lvg	2	↓	0.24	0.45	+2x	-	-	-	N
291630 KS	Kiwoom KOSEF KOSDAQ 150 Ftr Lvg	2	↓	0.21	0.09	+2x	-	-	-	N
275750 KS	KB KBSTAR F-KOSDAQ150 Inverse ETF	2	↓	0.21	0.67	-1x	-	-	-	N
292750 KS	Hanwha ARIRANG KR300 ETF	1	↓	0.26	0.20	-	-	-	-	N
412560 KS	Mirae Asset TIGER KR300 BBIG K-New Deal	1	0	0.55	0.43	+2x	-	-	-	N
295820 KS	Hanwha ARIRANG 200 EW ETF	1	↓	0.39	0.29	-	-	-	-	N
Taiwan										
0050 TT	Yuantai/P-shares Taiwan Top 50 ETF	9,795	↓	59	0.05	0.36	-	-	-	N
000878 TT	Cathay Taiwan Select ESG Sustainability HY	8,695	↓	46	0.05	0.34	-	-	Y	N
006280 TT	Fubon Taiwan 50 Index ETF	2,821	↑	15	0.07	0.19	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Country										
Taiwan (Continued)										
00632R TT	YUANTA/P-shares Taiwan Top 50 1X Bear	947	13	0.27	1.04	-1x	-	-	-	N
00850 TT	Yuantai FTSE4Good TIP Taiwan ESG ETF	509	2	0.08	0.49	-	-	Y	-	N
00631L TT	YUANTA/P-shares Taiwan Top 50 2X Bull	468	↑	19	0.08	1.04	+2x	-	-	N
00922 TT	Cathay MSCI Taiwan Leaders 50 Select ETF	315	3	0.07	0.29	-	-	Y	-	N
00733 TT	Fubon Taiwan Small-Mid Cap Alpha Mom 50	262	↑	5	0.12	0.44	-	-	-	N
00888 TT	SinoPac Taiwan Target Exposure ESG ETF	227	↓	2	0.09	0.70	-	-	Y	N
00675L TT	Fubon TAIEX Daily 2X Leveraged ETF	183	↑	4	0.11	0.69	+2x	-	-	N
3036 HK	Xtrackers MSCI Taiwan UCITS ETF	106	0	1.44	0.65	-	-	-	-	N
00664R TT	Cathay TAIEX Daily Inversed ETF	61	1	0.31	0.79	-1x	-	-	-	N
00728 TT	FSITC Taiwan Industry Elite 30 ETF	54	↓	1	0.12	0.44	-	-	-	N
3074 HK	iShares Core MSCI Taiwan ETF	50	↓	0	0.37	0.30	-	-	-	U,C
0051 TT	Yuantai/P-shares Taiwan Mid-Cap 100 ETF	48	↑	0	0.30	0.44	-	-	-	N
00690 TT	Mega Taiwan Blue Chip 30 ETF	45	1	0.09	0.36	-	-	-	-	N
00676R TT	Fubon TAIEX Daily -1X Inverse ETF	33	0	0.49	0.69	-1x	-	-	-	N
006203 TT	Yuantai/P-shares MSCI Taiwan ETF	25	0	0.47	0.34	-	-	-	-	N
00685L TT	Capital TAIEX Daily Leveraged 2X ETF	18	↑	1	0.15	0.34	+2x	-	-	N
00928 TT	CTBC TIP Customized TPEx ESG 30 ETF	13	1	0.13	0.44	-	-	Y	-	N
006201 TT	Yuantai/P-shares Taiwan GreTai 50 ETF	10	↓	0	0.57	0.44	-	-	-	N
00663L TT	Cathay TAIEX Daily Leveraged 2X ETF	8	↓	1	0.16	0.79	+2x	-	-	N
0057 TT	Fubon MSCI Taiwan ETF	6	0	0.32	0.19	-	-	-	-	N
006204 TT	Sinopac TAIEX ETF	5	↓	0	0.28	0.60	-	-	-	N
00686R TT	Capital TAIEX Daily Inversed -1X ETF	4	0	0.42	0.34	-1x	-	-	-	N
7232 HK	Fubon Lvgd & Inv FTSE Taiwan Daily 2x	2	↓	0	0.70	2.29	+2x	-	-	N
3021 HK	Fubon FTSE Taiwan RIC Capped Index ETF	1	0	0.90	1.60	-	-	-	-	N
7332 HK	Fubon Lvgd & Inv FTSE Taiwan Daily -1x	0	↓	0	1.08	2.19	-1x	-	-	N
02001L TT	Fubon Big Apple TR Idx Daily Return 2X	-	0	1.21	1.90	+2x	-	-	-	N
020020 TT	Yuantai Taiwan Stock Market Leaders ETN	-	0	0.59	0.90	-	-	-	-	N
02001R TT	Fubon Big Apple TR Idx Daily Return Inv -1X	-	0	0.97	1.50	-1x	-	-	-	N
020000 TT	Fubon Big Apple Total Return Index ETN	-	0	0.42	1.34	-	Y	-	-	N
02001S TT	Yuantai TAIFEX TAIEX Cov Call OTM 5% ETN	-	0	0.22	-	-	-	-	-	N
020001 TT	Fubon 20 Equal Weight TR Idx	-	0	0.87	0.90	-	-	-	-	N
020040 TT	Yuantai TPEX ESG LDR ETN	-	-	1.32	-	-	-	-	Y	N
Thailand										
TDEX TB	ThaiDEX SET50 ETF	94	0	0.16	0.47	-	-	-	-	N
BSET100 TB	BCAP SET100 ETF	31	0	0.36	1.61	-	-	-	-	N
BMSC10 TB	BCAP MSCI Thailand ETF	24	0	0.29	2.00	-	-	-	-	N
BMSCG TB	BCAP Mid Small CG ETF	8	0	0.61	1.34	-	-	Y	-	N
1559 JP	NEXT FUNDS Thai Eq SET50	4	0	0.57	0.61	-	-	-	-	N
Vietnam										
00885 TT	Fubon FTSE Vietnam ETF	779	4	0.12	1.22	-	-	-	-	N
FUEVFNVD VN	DCVFMVN Diamond ETF	559	↓	3	0.15	0.95	-	-	-	N
3087 HK	Xtrackers FTSE Vietnam Swap UCITS ETF	314	0	0.76	0.85	-	-	-	-	N
E1VFN30 VN	DCVFMVN30 ETF Fund	278	↓	1	0.15	0.80	-	-	-	N
245710 KS	KIM KINDEX Vietnam VN30 ETF Synth	206	↑	3	0.06	0.77	-	-	-	N
VND SP	CGS Fullgoal Vietnam 30 Sector Cap ETF	21	0	1.24	0.99	-	-	-	-	N
FUEMVDVN VN	MAFM VNDIAMOND ETF	16	↑	0	1.64	-	-	-	-	N
FUEMVDVN VN	MAFM VND30 ETF	15	0	0.75	0.70	-	-	-	-	N
570066 KS	Korea Investment & Secur Inv Vietnam ftrs	12	0	0.66	1.20	-2x	-	-	-</	

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Country (Continued)										
360750 KS	MIRAE ASSET TIGER S&P500 ETF	2,546	↑ 20	0.03	0.15	-	-	-	-	N
133690 KS	Mirae Asset TIGER USA NASDAQ100 ETF	2,405	12	0.01	0.19	-	-	-	-	N
513500 CH	Bosera Standard And Poor's 500 ETF QDII	1,685	↑ 36	0.06	1.65	-	-	-	-	N
513100 CH	Guotai Nasdaq 100 Exchange Traded Fund	1,643	↑ 84	0.08	1.66	-	-	-	-	N
IHVV AU	iShares S&P 500 AUD Hedged ETF	1,122	↑ 3	0.05	0.10	-	-	-	Y	N
159632 CH	HuaAn NASDAQ 100 ETF QDII	1,052	24	0.07	0.80	-	-	-	-	N
2830 HK	CSOP Saudi Arabia ETF	1,021	0	0.35	1.20	-	-	-	C	N
379800 KS	Samsung KODEX S&P500 Total Return ETF	926	↑ 8	0.03	0.01	-	-	-	-	N
MOAT AU	VanEck Morningstar Wide Moat E	885	↑ 2	0.25	0.49	-	-	-	-	N
MOSTNDX IN	Motilal Oswal NASDAQ 100 ETF	874	1	0.04	0.58	-	-	-	-	N
00662 TT	Fubon NASDAQ-100 ETF	799	↑ 7	0.13	0.51	-	-	-	-	N
360200 KS	KIM ACE S&P500 ETF	745	↑ 4	0.03	0.14	-	-	-	-	N
458730 KS	MIRAE ASSET TIGER U.S. Dividen	694	6	0.04	0.00	-	-	-	-	N
00646 TT	Yuanfa S&P 500 ETF	638	6	0.13	0.71	-	-	-	-	N
379810 KS	Samsung KODEX US NASDAQ100 TR	627	↑ 4	0.03	0.01	-	-	-	-	N
159513 CH	Dacheng NASDAQ-100 ETF QDII	603	8	0.09	-	-	-	-	-	N
367380 KS	KIM ACE US NASDAQ 100 ETF	598	↑ 3	0.03	0.17	-	-	-	-	N
1655 JP	iShares S&P 500 ETF	578	↑ 8	0.02	0.08	-	-	-	-	N
513300 CH	ChinaAMC NASDAQ 100 ETF/China	563	↑ 34	0.06	-	-	-	-	-	N
458760 KS	MIRAE ASSET TIGER US Dividend	539	7	0.05	0.34	-	-	-	-	N
USF NZ	Smartshares US 500 ETF	480	1	0.36	0.34	-	-	-	-	N
1545 JP	NEXT FUNDS NASDAQ-100 R	425	11	0.03	0.22	-	-	-	-	N
159501 CH	Harvest NASDAQ-100 ETF QDII	424	12	0.08	-	-	-	-	-	N
2558 JP	MAXIS S&P500 US Equity ETF	392	6	0.04	0.08	-	-	-	-	N
2563 JP	iShares S&P 500 JPY Hedged ETF	369	3	0.04	0.08	-	-	-	Y	N
UR AU	iShares Core S&P Small-Cap ETF/Australia	361	1	0.20	0.07	-	-	-	-	N
368590 KS	KB KBSTAR US NASDAQ100 ETF	360	↑ 2	0.03	0.14	-	-	-	-	N
1547 JP	Listed Index Fund US Equity S&P500	308	4	0.03	0.23	-	-	-	-	N
441680 KS	Mirae Ast Tiger Synth-NASDAQ100 Cov Call	301	↑ 4	0.05	0.37	-	-	-	-	N
390390 KS	SS KODEX US SEMICONDUCTOR	296	↑ 8	0.03	0.09	-	-	-	-	N
379780 KS	KB KBSTAR S&P500 ETF	292	↑ 2	0.04	0.11	-	-	-	-	N
HNDQ AU	BetaShares Nasdaq 100 - Cur Hdg	285	↑ 1	0.07	0.51	-	-	-	Y	N
QUS AU	BetaShares S&P 500 Equal Weight ETF	258	↑ 1	0.16	0.29	-	-	-	-	N
2521 JP	Listed Idx Fund US Eq S&P500 Cur Hdg	254	↓ 1	0.05	0.22	-	-	-	Y	N
USG NZ	Smartshares US Large Growth ETF	247	↑ 0	0.71	0.51	-	-	-	-	N
MFANGETF IN	Mirae Asset NYSE FANG+ ETF	243	1	0.07	0.65	-	-	-	-	N
402970 KS	KIM ACE S&P US Dividend 100 ET	242	↑ 2	0.05	0.19	-	-	-	-	N
2630 JP	MAXIS S&P500 US Eq - JPY Hgd	226	1	0.07	0.08	-	-	-	-	N
UH AU	iShares Core S&P Mid-Cap ETF/Australia	213	1	0.13	0.07	-	-	-	-	N
F100 AU	BetaShares FTSE 100 ETF	209	↓ 1	0.28	0.45	-	-	-	-	N
7568 HK	CSOP NASDAQ - 100 Idx Daily -2x	206	↑ 2	0.08	1.79	-2x	-	-	-	N
2044 JP	NEXT NOTES S&P Div Aristocrats Net TR	187	0	0.24	0.85	-	-	-	-	N
00670L TT	Fubon NASDAQ-100 2X Lvgd Idx	186	↓ 4	0.07	1.09	+2x	-	-	Y	N
449180 KS	SAMSUNG KODEX S&P500 ETF H	178	↑ 1	0.05	0.01	-	-	-	-	N
513390 CH	Bosera NASDAQ100 ETF QDII	165	↑ 6	0.07	-	-	-	-	-	N
448290 KS	Mirae Asset TIGER S&P500 Total Return ETF H	161	↑ 1	0.05	0.07	-	-	-	Y	N
449190 KS	SAMSUNG KODEX US NASDAQ100 ETF H	155	↑ 2	0.04	0.01	-	-	-	Y	N
570043 KS	Korea Invst & Sec TRUE Lvg Nasdaq 100 43	150	0	0.04	0.87	+2x	-	-	Y	N
2562 JP	Listed Idx Fund US Eq Dow Avg Cur Hdg	147	↓ 1	0.04	0.37	-	-	-	Y	N
2634 JP	NEXT FUNDS S&P 500 Yen-Hgd	143	↓ 1	0.07	0.08	-	-	-	Y	N
GGUS AU	BetaShares Geared US Eq Fund - Cur Hdg	142	↑ 1	0.23	0.80	+0.57x	-	-	-	N
2569 JP	Listed Idx Fund US NASDAQ100 Cur Hdg	142	2	0.03	0.37	-	-	-	Y	N
409820 KS	Samsung KODEX US NASDAQ100 Lev	136	↓ 2	0.07	0.30	+2x	-	-	Y	N
2631 JP	MAXIS NASDAQ100 ETF	135	4	0.04	0.20	-	-	-	-	N
513650 CH	Chi Southern Standard and Poor's 500 QDII	134	↑ 5	0.08	1.55	-	-	-	-	N
143850 KS	Mirae Asset TIGER S&P500 Futures ETF	133	↓ 4	0.02	0.36	-	-	-	Y	N
UMAX AU	BetaShares S&P 500 Yield Maximiser Fund	124	↑ 0	0.29	0.79	-	-	-	Y	N
1546 JP	NEXT FUNDS DJIA Avg	123	1	0.03	0.33	-	-	-	-	N
159696 CH	E Fund NASDAQ-100 ETF QDII	123	2	0.10	-	-	-	-	-	N
513030 CH	HuaAn International Leading DAX Index ETF	118	↑ 14	0.07	1.00	-	-	-	-	N
BBUS AU	BetaShares US Bear Hedge Fund - Cur Hdg	115	2	0.19	1.38	-2.27x	Y	-	Y	N
570022 KS	Korea Invst & Sec TRUE Lvg S&P Fr H 22	114	0	0.04	0.89	+2x	-	-	Y	N
513110 CH	Huatai-PineBridge NASDAQ-100 ETF QDII	114	↑ 7	0.07	1.80	-	-	-	-	N
513850 CH	E Fund MSCI USA 50 ETF QDII	108	30	0.09	0.50	-	-	-	-	N
448300 KS	Mirae Ast Tiger NASDAQ 100 Total Return H	105	↑ 2	0.05	0.07	-	-	-	Y	N
219480 KS	SAMSUNG KODEX S&P500 Futures ETF H	102	0	0.03	0.05	-	-	-	-	N
2248 JP	iFreeETF S&P500 JPY HEDGED	93	↑ 0	0.06	0.07	-	-	-	Y	N
00717 TT	Fubon S&P US Preferred Stock ETF	91	0	0.26	0.80	-	-	-	-	N
304940 KS	Samsung KODEX US Nasdaq100 Fr H	90	1	0.04	0.05	-	-	-	Y	N
2040 JP	NEXT NOTES DJIA PR JPY Hgd Lvgd x2	81	0	0.22	0.80	+2x	-	-	-	N
MA500TF IN	Mirae Asset S&P 500 Top 50 ETF	79	0	0.13	0.64	-	-	-	-	N
2846 JP	NEXT FUNDS Dow Jones Ind Avg30 Stocks	76	0	0.08	0.33	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Country (Continued)										
513400 CH	Penghua Dow Jones Industrial A	74	-	0.10	-	-	-	-	-	N
3086 HK	ChinaAMC NASDAQ 100 ETF/HK	70	0	0.20	0.30	-	-	-	-	U
570051 KS	Korea Invst & Sec TRUE Nasdaq100 51	70	0	0.06	0.85	-	-	-	-	N
2568 JP	Listed Idx Fund US NASDAQ100 No Cur Hdg	69	↑ 3	0.04	0.37	-	-	-	-	N
245340 KS	Mirae Asset Tiger Dow Jones 30 ETF	69	0	0.05	0.43	-	-	-	-	N
570050 KS	Korea Invst & Sec TRUE S&P500 Fr 50	67	0	0.05	0.85	-	-	-	-	N
2633 JP	NEXT FUNDS S&P 500 UnHgd -	66	↑ 1	0.04	0.08	-	-	-	-	N
159659 CH	China Merchants NASDAQ-100 ETF QDII	65	↑ 6	0.08	0.65	-	-	-	-	N
159660 CH	China Universal NASDAQ 100 ETF QDII	64	↑ 2	0.08	-	-	-	-	-	N
433330 KS	Shinhan SOL S&P500 ETF	63	↑ 0	0.05	0.22	-	-	-	-	N
USS NZ	Smartshares US Small Cap ETF	62	0	0.92	0.51	-	-	-	-	N
2834 HK	iShares NASDAQ 100 ETF	59	0	0.30	0.28	-	-	-	-	U
USV NZ	Smartshares US Large Value ETF	57	0	0.87	0.51	-	-	-	-	N
2841 JP	iFreeETF NASDAQ100 JPY HEDGED	57	2	0.07	0.20	-	-	-	-	Y
00669R TT	Cathay DJI Avg Daily Inv	56	↓ 1	0.39	1.03	-1x	-	-	-	N
513870 CH	Fullgoal NASDAQ-100 ETF QDII	56	9	0.09	0.60	-	-	-	-	N
550044 KS	NH QV 2X S&P500 ETN 44	55	0	0.18	0.85	+2x	-	-	-	N
2865 JP	Gibl X Nasdaq 100 Cov Call / Gibl X Japan	53	↑ 1	0.12	0.63	-	-	-	-	N
LNAS AU	ETFs Ultra Long Nasdaq 100 Hedge Fund	53	4	0.11	1.00	+2x	Y	-	Y	N
USM NZ	Smartshares US Mid Cap ETF	53	0	0.91	0.51	-	-	-	-	N
2869 JP	iFreeETF NASDAQ100 Leveraged 2x	51	↑ 4	0.05	0.75	+2x	-	-	-	N
2632 JP	MAXIS NASDAQ100 ETF - JPY Hedged	50	↓ 1	0.06	0.20	-	-	-	-	Y
418660 KS	Mirae Asset TIGER Synth-NASDAQ 100 Lev	48	1	0.06	0.26	+1x	-	-	-	N
426030 KS	Timefolio TIMEFOLIO US NASDAQ100 Active	48	↑ 1	0.11	1.01	-	Y	-	-	N
00671R TT	Fubon NASDAQ-100 -1X Inverse Index ETF	47	↓ 1	0.29	1.07	-1x	-	-	-	Y
269540 KS	Hanwha ARIRANG S&P500 ETF H	46	0	0.04	0.40	-	-	-	-	Y
580015 KS	KB Sec KB Lvgd NASDAQ 100	46	0	0.11	-	+2x	-	-	-	N
482730 KS	MIRAE ASSET TIGER US S&P500 +1	46	-	0.05	0.25	-	-	-	-	N
225040 KS	MiraeAsset TIGER S&P500 Leverage ETF H	44	↓ 0	0.04	0.32	+2x	-	-	-	Y
2866 JP	Global X U.S. Preferred Security ETF	43	↑ 0	0.13	0.03	-	-	-	-	N
513080 CH	Huan CAC-40 ETF	43	↑ 6	0.07	0.65	-	-	-	-	N
USH NZ	Smartshares US 500 NZD Hedged ETF	42	0	0.63	0.38	-	-	-	Y	Y
USA NZ	Smartshares US Equities ESG ETF	41	0	0.81	0.34	-	-	-	Y	N
2041 JP	NEXT NOTES DJIA TR JPY Hgd Inv x1	41	0	0.10	0.80	-1x	-	-	-	N
500050 KS	Shinhan Invst Shinhan Lvg S&P500 Fr 50	41	0	0.05	0.80	+2x	-	-	-	N
580016 KS	KB Sec KB Lvgd S&P 500 Fr H	41	0	0.09	-	-	-	-	-	Y
458750 KS	MIRAE ASSET TIGER US Dividend	40	1	0.07	0.34	-	-	-	-	N
2086 JP	NZAM ETF S&P500 JPY Hedged	39	0	0.42	0.07	-	-	-	-	Y
SNAS AU	ETFs Ultra Short Nasdaq 100 Hedge Fund	39	↑ 3	0.31	1.00	-2x	Y	-	Y	N
159655 CH	ChinaAMC Standard and Poor's 500 ETF QDII	39	↑ 9	0.09	-	-	-	-	-	N
00648R TT	Yuanfa Daily S&P 500 Bear 1X ETF	34	↓ 0	0.27	1.17	-1x	-	-	-	N
2014 JP	iShares US Dividend Growth ETF	32	-	0.08	1.12	-	-	-	-	N
7522 HK	Chinaamc Direxion Nasdaq-100									

ASIA-PACIFIC LISTED ETFS



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International Equity										
Country (Continued)										
391600 KS	KIM KINDEX US Green Theme INDDX ETF	15	0	0.46	0.81	-	-	Y	-	N
1679 JP	Simple-X NY Dow Jones Index ETF	15	↑	0.29	0.50	-	-	-	-	N
159529 CH	Invesco Great Wall S and P Con	15	-	0.12	0.50	-	-	-	-	N
465670 KS	MIRAE ASSET TIGER U.S. Cash Co	15	0	0.11	0.20	-	-	-	-	N
426020 KS	Timeflio TIMEFOLIO US S&P500 Active ETF	15	↑	1	0.10	1.08	-	Y	-	N
1325 JP	NEXT FUNDS Ibovespa Linked	15	0	0.36	1.05	-	-	-	-	N
2013 JP	iShares US High Dividend ETF	15	-	0.09	0.12	-	-	-	-	N
2860 JP	NEXT FndS German Eq DAX Yen-Hdgd Ex Fnd	14	0	0.26	0.20	-	-	-	Y	N
570047 KS	Korea Invst & Sec TRUE FTSE100 47	14	0	0.18	0.90	-	-	-	-	N
460960 KS	KIM ACE Solactive Global Incom	13	0	0.09	-	-	-	-	-	N
500028 KS	Shinhan Invst Shinhan Inv 2X DJIA Ftr H 28	13	0	0.10	1.05	-2x	-	-	Y	N
409810 KS	Samsung KODEX US NASDAQ100 Ftrs Inv	12	↑	1	0.07	0.30	-1x	-	-	Y
2247 JP	iFreeETF S&P500 NON HEDGED	12	↑	1	0.06	0.07	-	-	-	N
530114 KS	Samsung Securities Samsung Inv	12	0	0.13	-	-	-	-	-	N
550076 KS	NH QV US Leader 500 Monthly Lvg Etn H 76	12	0	0.19	-	-	-	-	-	N
2089 JP	NZAM ETF DAX JPY Hedged	12	0	0.17	0.18	-	-	-	Y	N
MHOT AU	VanEck Morningstar Wide Moat A	12	0	0.31	0.52	-	-	-	Y	N
7261 HK	Chinaamc Direxion Nasdaq-100 Dly Daily 2X	11	0	0.23	2.60	+2x	-	-	-	N
580014 KS	KB Sec KB Inv 2X NASDAQ100	11	↑	0	0.16	-	-2x	-	-	N
2868 JP	Gbl X S&P 500 Cov Call / Gbl X Japan	11	↑	0	0.16	0.64	-	-	-	N
476030 KS	Shinhan SOL NASDAQ100 ETF	11	-	0.07	-	-	-	-	-	N
444490 KS	Woori WOORI US S&P500 ETF	11	↑	0	0.12	0.05	-	-	-	N
2087 JP	NZAM ETF NASDAQ100 JPY Hedged	11	0	0.10	0.20	-	-	-	Y	N
291130 KS	KIM KINDEX MSCI Mexico ETF - Synth	10	0	0.15	0.59	-	-	-	-	N
530077 KS	Samsung Securities Samsung Nasdaq 100	10	0	0.13	-	-	-	-	Y	N
530112 KS	Samsung Securities Samsung S&P	9	0	0.13	-	-	-	-	-	N
473590 KS	KIM ACE US Equity Best Seller ETF	9	-	0.26	0.27	-	-	-	-	N
550078 KS	NH QV S&P500 Buffer 10% June ETN H 78	9	0	0.19	-	-	-	-	-	N
473460 KS	Samsung KODEX U.S. Seohak Ant	9	-	0.27	0.22	-	-	-	-	N
7266 HK	CSOP NASDAQ - 100 Dly Daily 2x	9	↓	0	0.11	3.00	+2x	-	-	N
550079 KS	NH QV S&P500 Buffer 10% Dec ETN H 79	9	0	0.23	-	-	-	-	-	N
181480 KS	KIM Kidx SYNTH-DJ US Real Estate H	9	0	0.34	0.30	-	-	-	Y	N
550077 KS	NH QV S&P500 Buffer 10% March ETN H 77	9	0	0.23	-	-	-	-	-	N
500056 KS	Shinhan Invst Shinhan Lvg Russell 2000 56	9	0	0.07	-	+2x	-	-	-	N
461340 KS	NH-Amundi HANARO Global Growth	8	0	0.15	0.55	-	Y	-	-	N
00668 TT	Cathay Dow Jones Industrial Average ETF	8	0	0.24	0.63	-	-	-	U	N
433220 KS	AsiPLUS Astipus Gbl Blacksmith Actv	8	↓	0	0.24	0.99	-	Y	-	N
449780 KS	Kiwom KOSEF S&P500 ETF H	8	0	0.08	0.04	-	-	-	Y	N
2241 JP	MAXIS NY Dow Industrial Average ETF	8	↑	0	0.31	0.20	-	-	-	N
QMAX AU	Belashares Nasdaq 100 Yield Maximiser Fund	8	↑	0	0.30	0.68	-	Y	-	N
2237 JP	iFree ETF S&P500 Leveraged 2x	8	1	0.04	0.73	+2x	-	-	-	N
00852L TT	Cathay DJI Avg Daily Lvgd 2X	8	↓	0	0.16	1.03	+2x	-	-	N
500055 KS	Shinhan Invst Shinhan Inv Russell 2000 55	7	0	0.08	-	-	-	-	-	N
429010 KS	Mirae Asset TIGER NASDAQ Next 100 ETF	7	0	0.53	0.57	-	-	-	-	N
2240 JP	Listed Index Fund S&P500 Futures Inverse	7	↑	0	0.04	0.46	-1x	-	-	Y
459790 KS	KIWOOM HEROES US Growth 30 Act	7	0	0.34	0.76	-	Y	-	-	N
550080 KS	NH QV US 500 ETN H 80	7	0	0.29	-	-	-	-	-	N
460660 KS	KB KBSTAR US Dividend Kings ETF	6	0	0.19	0.03	-	-	-	-	N
570097 KS	Korea Investment & Securities	6	0	0.09	-	-	-	-	-	N
428560 KS	KODEX US ETF Industry Top10 Indx ETF	6	↓	0	0.20	0.50	-	-	-	N
432840 KS	NH-Amundi HANARO US S&P500 ETF	6	0	0.48	0.05	-	-	-	-	N
500010 KS	Shinhan Invst Shinhan Inv DJI Avg Ftr H 10	5	0	0.20	0.75	-1x	-	-	Y	N
225030 KS	MiraeAsset TIGER S&P500 Inverse ETF H	5	0	0.16	0.66	-1x	-	-	Y	N
530078 KS	Samsung Secur Samsung Inv Nasdaq 100	5	0	0.20	-	-1x	-	-	Y	N
2235 JP	Listed Idx Fnd US Eq Dow Avg No Curr Hdgd	5	↑	0	0.08	0.37	-	-	-	N
JNDQ AU	Belashares Nasdaq Next Gen 100 Etf	5	-	0.32	0.48	-	-	-	-	N
580017 KS	KB Sec KB Inv 2X S&P 500 Ftr	5	0	0.13	-	-	-	-	-	N
570023 KS	Korea Invst & Sec TRUE Inv 2X S&P Ftr H 23	5	0	0.11	0.89	-2x	-	-	Y	N
451150 KS	AsiPLUS Astipus Gbl Young Age Actv	5	↓	0	0.35	0.99	-	Y	-	N
500057 KS	Shinhan Invst Shinhan Inv 2K RTY 57	5	0	0.11	-	-2x	-	-	-	N
2253 JP	Global X SuperDividend U.S. ET	5	0	0.15	0.48	-	-	-	-	N
411860 KS	Kiwom KOSEF Germany DAX ETF	4	↓	0	0.38	0.25	-	-	-	N
QNDQ AU	Belashares Nasdaq 100 Equal Weight ETF	4	-	0.33	0.48	-	-	-	-	N
419170 KS	NH-Amundi HANARO US Metaverse iSelect	4	0	0.63	0.49	-	-	-	-	N
2239 JP	Listed Idx Fnd S&P500 Ftr Lvgd Two Times	4	↓	0	0.06	0.46	+2x	-	-	Y
321410 KS	Samsung KODEX Morningstar High Income	3	0	0.76	0.25	-	-	-	-	Y
500051 KS	Shinhan Invst Shinhan Inv 2X S&P500 Ftr 51	3	0	0.44	0.80	-2x	-	-	-	N
2095 JP	Global X S&P 500 Dividend Aris	3	0	0.18	0.28	-	-	-	Y	N
2252 JP	Global X Morningstar US Small Mid Moat ETF	3	0	0.22	0.38	-	-	-	-	N
QYLD AU	Gbl X NASDAQ 100 Cov Call /Aus	3	↑	0	0.64	0.60	-	-	-	N
570042 KS	Korea Invst & Sec TRUE Inv Nasdaq 100 42	3	0	0.18	0.92	-1x	-	-	-	N
JHPI AU	Jpmorgan Equity Premium Income	3	↑	0	0.57	0.40	-	Y	-	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: U = USD v version exists for the fund, C = CNY v version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Country (Continued)										
H100 AU	Belashares FTSE 100 Currency H	3	0	0.44	0.48	-	-	-	Y	N
426410 KS	Hanwha ARIRANG Top10 US Listed Alt asst	2	0	0.51	0.80	-	-	-	-	N
2249 JP	iFreeETF S&P500 Double Inverse -2x	2	0	0.07	0.73	-2x	-	-	-	N
550045 KS	NH QV -2X S&P500 ETN 45	2	0	0.79	0.85	-2x	-	-	-	N
510025 KS	Daishin Sec Daishin S&P500 VIX S/T Ftr Eth 25	2	0	0.69	1.10	-	-	-	-	N
KX KZ	iX US 500 Equities ETN	2	0	-	0.50	-	-	-	-	N
UYLD AU	Gbl X S & P 500 Cov Call /Aus	2	↑	0	0.50	0.60	-	-	-	N
JPHQ AU	JPMORGAN US100 EQ PI ACT ETF M	2	↑	0	0.72	0.40	-	-	-	Y
KX KZ	iX NASDAQ 100 Equities ETN	1	0	-	0.50	-	-	-	-	N
391590 KS	KIM KINDEX US SPAC&IPO INDDX ETF	1	↓	0	0.70	1.09	-	-	-	N
IDX KZ	iX US High Dividend ETN	1	0	-	0.50	-	-	-	-	N
020015 TT	President MSCI USA Min Vol net TR Idx	-	0	-	0.99	-	-	-	-	N
Global										
VEU AU	Vanguard FTSE All-World ex-US ETF	39,139	3	0.20	0.08	-	-	-	-	N
VGS AU	Vanguard MSCI Idx International Shares	5,023	9	0.04	0.18	-	-	-	-	N
MGOC AU	Magellan Global Fund/Open Class	4,151	↓	1	0.44	1.35	-	Y	-	N
MQWS AU	Macquarie Walter Scott Global	3,093	0	0.44	1.28	-	Y	-	-	N
IOO AU	iShares Global 100 ETF/AU	2,376	3	0.07	0.40	-	-	-	-	N
VGAD AU	Vanguard MSCI Idx International Shares Hgd	1,976	5	0.04	0.21	-	-	-	Y	N
ETHI AU	BetaShares Global Sustainability Leaders	1,947	5	0.12	0.59	-	-	Y	-	N
WLD AU	iShares Core MSCI World All Cap	593	1	0.10	0.09	-	-	Y	-	N
BGBL AU	Belashares Global Shares Etf	580	↑	3	0.12	0.08	-	-	-	N
IEU AU	iShares Europe ETF/AU	504	1	0.17	0.58	-	-	-	-	N
HGBL AU	Belashares Gbl Shares - Curr Hdgd	419	↑	2	0.09	0.11	-	-	-	Y
VDBA AU	Vanguard Diversified Balanced Index ETF	411	1	0.12	0.27	-	-	-	-	Y
QSMU AU	Vanek Vectors MSCI Intrn S. Cmpry Quality	409	↑	4	0.17	0.59	-	-	-	N
HYGG AU	Hyperion Global Growth Cmpry Manage	403	1	0.33	0.70	-	Y	-	-	N
GLIN AU	iShares Core Fise Gbl Infra Aud Hdgd	381	↑	3	0.39	0.15	-	-	-	Y
QLTY AU	BetaShares Global Quality Leaders ETF	353	↑	1	0.21	0.35	-	-	-	N
2559 JP	MAXIS World Equity - MSCI ACWI- ETF	329	↑	3	0.06	0.08	-	-	-	N
2513 JP	NEXT FUNDS Intern MSCI-KOKUSAI UniHgd	312	0	0.15	0.19	-	-	-	-	N
IVE AU	iShares MSCI EAFE ETF/AU	311	1	0.16	0.33	-	-	-	-	N
IHWL AU	iShares Core MSCI World All Cap AUD Hgd	303	↑	1	0.20	0.12	-	-	-	Y
LPGD AU	Loftus Peak Global Disruption Fund/ETF	302	↑	1	0.45	-	-	Y	-	N
HETH AU	Belashares Global Sustainability - Cur Hdg	295	1	0.24	0.62	-	-	-	-	Y
BAOR AU	Aoris Int Fnd ClassB UnHdgd Managed Fnd/	290	↑	0	0.75	1.86	-	Y	-	N
IHOO AU	iShares Global 100 AUD Hedged ETF	286	0	0.23	0.43	-	-	-	-	Y
DHFF AU	BetaShares Diversified All Growth ETF	264	↑	1	0.21	0.19	-	Y	-	N
WXOZ AU	SPDR S&P World ex Aus Fund	251	0	0.43	0.18	-	-	-	-	N
251350 KS	Samsung KODEX MSCI World	249	1	0.07	0.30	-	-	-	-	N
VISM AU	Vanguard MSCI International Small Cmpry Idx	210	1	0.19	0.33	-	-	-	-	N
GLOB AU	Barrow Hanley Gbl Share Fnd Managed Fnd	204	↑	0	0.31	0.99	-	Y	-	N
PIXX AU	Platinum International Fund ETF	199	0	0.40	1.31	-	-	Y	-	N
TWF NZ	Smartshares Total World ETF	194	0	0.69	0.40	-	-	-	-	N
MSTRA AU	Morningstar International Shares Active ETF	176	↑	1	0.63	0.39	-			

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Global (Continued)										
MKAX AU	Montaka Global Ext Quoted Managed Hedge	31	↑	0	0.74	1.25	+1.6x	Y	-	N
LSGE AU	Loomis Sayles Global Equity Fund Quoted	31	0	0.95	0.99	-	-	-	-	N
407830 KS	ASSETPLUS Assetplus Global Platform Act	30	↓	0	0.18	0.99	-	Y	-	N
DGGF AU	Betashares Ethical Diversified Growth ETF	29	↑	0	0.26	0.39	-	Y	-	N
GOAT AU	VanEck Morningstar Internation	27	↑	0	0.38	0.55	-	-	-	N
2514 JP	NEXT FUNDS Intern MSCI-KOKUSAI Yen-Hgd	23	↓	0	0.21	0.19	-	-	-	Y
387270 KS	Mirae Asset TIGER Global BBIG Active ETF	19	↓	0	0.15	0.60	-	Y	-	N
475070 KS	SAMSUNGACTIVE KoAct Global Cli	19	-	0.31	-	-	-	Y	Y	-
INCM AU	BetaShares Global Income Leaders ETF	19	0	1.04	0.45	-	-	-	-	N
DBBF AU	Betashares Ethical Diversified Balanced	19	↑	0	0.24	0.39	-	Y	-	N
00926 TT	KGI Global Industry Elite 55 ETF	18	↓	0	0.16	0.83	-	-	-	N
MSCG AU	Magellan Core Global Fund Managed Fund	18	0	0.63	0.51	-	Y	-	-	N
GFQ AU	Vaneck Global Listed Private Equity Etf	17	↑	0	0.30	0.65	-	-	-	N
550088 KS	NH QV Monthly Leverage Develop	16	-	0.20	-	-	-	-	-	N
550087 KS	NH QV Developed Countries 1st ETN 87	15	-	0.44	-	-	-	-	-	N
EQ8US50 MK	EQ8 Dow Jones US Titans 50 ETF	14	0	-	0.48	-	-	-	-	N
429760 KS	Hanwha ARIRANG S&P 500 ETF	13	↑	0	0.08	0.55	-	-	-	N
ADEF AU	Apostle Dundas Global Equity Fund/ETF	11	0	-	0.90	-	Y	-	-	N
MCSE AU	Magellan Core ESG Fund Managed Fund	11	0	0.59	0.51	-	Y	Y	-	N
3184 HK	Global X India Select Top 10 ETF	11	-	0.76	0.68	-	-	-	-	N
475350 KS	KB KBSTAR Berkshire Portfolio TOP10 ETF	11	-	0.11	-	-	-	-	-	N
195970 KS	Hanwha ARIRANG MSCI EAFE SYNTH H	11	0	0.36	0.56	-	-	-	-	Y
CFO AU	Betashares Global Cash Flow Kings ETF	11	0	0.34	0.40	-	-	-	-	N
00771 TT	Yuanta S&P U.S. HY Preferred Stock	10	0	0.69	0.75	-	-	-	-	N
435040 KS	KIM KINDEX Bloomberg Global Brand TOP10	10	0	0.17	0.73	-	-	-	-	N
MLU AU	iShares Msci World EX Australia Value Etf	9	-	0.39	0.25	-	-	-	-	N
QLT AU	iShares Msci World EX Australia Quality Etf	8	-	0.21	0.25	-	-	-	-	N
IMT AU	iShares Msci World EX Australi	8	-	0.30	0.25	-	-	-	-	N
3422 HK	Global X Innovative Bluechip Top 10 ETF	7	0	0.46	0.68	-	-	-	-	N
459750 KS	KB KBSTAR Global Equity Alloca	7	0	0.19	0.16	-	Y	-	-	N
478150 KS	TIMEFOLIO TIMEFOLIO Global Spa	6	-	0.16	-	-	-	-	-	N
477490 KS	ASSETPLUS Assetplus Global Lea	6	-	0.25	0.99	-	Y	-	-	N
424460 KS	NH-Amundi HANARO MSCI Global Water	6	↓	0	0.36	0.50	-	Y	-	N
189400 KS	Hanwha ARIRANG SYNTH-MSCI AC Deriv	5	0	0.62	0.47	-	-	-	-	Y
435550 KS	Kiwoom HEROES TDF 2030 Active ETF	5	↓	0	0.25	0.38	-	Y	-	N
435540 KS	Kiwoom HEROES TDF 2040 Active ETF	5	↓	0	0.33	0.34	-	Y	-	N
462340 KS	ASSETPLUS Assetplus Global Dyn	4	0	0.40	0.94	-	Y	-	-	N
435530 KS	Kiwoom HEROES TDF 2030 Active ETF	4	↓	0	0.38	0.30	-	Y	-	N
394340 KS	Kiwoom KOSEF Lyxor Global Digital Econ	4	0	0.86	0.31	-	-	Y	-	N
432850 KS	NH-Amundi HAN. MSCI World IMI Virology	3	0	0.57	0.63	-	-	-	-	N
GHHF AU	Betashares Wealth Builder Dive	3	-	0.33	0.35	+1.54x	Y	-	-	N
S3GO AU	Firetrail S3 Global Opps Fund Managed Fund	3	↑	0	0.34	0.15	-	Y	Y	-
HVLU AU	VanEck MSCI International Valu	3	0	0.67	0.43	-	-	-	-	Y
3050 HK	Global X China Global Leaders ETF	2	↓	0	0.52	0.68	-	-	-	Y
3058 HK	Global X China Innovator Active ETF	2	↓	0	0.57	0.75	-	Y	-	N
433860 KS	Hanwha ARIRANG TDF2040 Active ETF	2	0	1.06	0.59	-	Y	-	-	N
JRHG AU	JPMorgan Global Research Enhan	2	0	0.53	0.30	-	Y	-	-	Y
FUTR AU	Janus Henderson Global Sustainable Eqty	1	0	0.58	0.80	-	Y	Y	-	N
JGLO AU	JPMorgan Global Select Equity Active ETF	1	-	0.66	0.55	-	Y	-	-	N
JHLO AU	Jpmorgan Global Select Equity Fund	1	-	0.66	0.55	-	Y	-	-	N
FCAP AU	Fidelity Global Future Leaders Active ETF	0	-	1.10	-	-	Y	-	-	N
AGX1 AU	Antipodes Global Shares EQMF ETF	0	0	0.51	1.10	-	Y	-	-	N
020038 TT	Yuanta ESG HD Payout ETN	-	0	0.70	-	-	-	Y	-	N
MOEG AU	Macquarie Core Global Equity Active ETF	0	-	0.20	0.08	-	Y	-	-	N
Regional										
LEM SP	Lyxor MSCI EM UCITS	1,028	0	0.83	0.55	-	-	-	-	N
IEMA AU	iShares MSCI Emerging Markets ETF/AU	636	1	0.22	0.68	-	-	-	-	N
VGE AU	Vanguard FTSE EM/Aus	558	1	0.33	0.48	-	-	-	-	N
VEQ AU	Vanguard FTSE Europe Shares ETF	145	0	0.24	0.35	-	-	-	-	N
EUJ NZ	Smartshares Europe ETF	142	0	0.74	0.55	-	-	-	-	N
FEMX AU	Fidelity Global Emerging Markets Fund/ETF	140	0	0.36	1.00	-	Y	-	-	N
EMMG AU	Betashares Legg Mason EM Fund	93	0	0.49	1.00	-	Y	-	-	N
EMF NZ	Smartshares Emerging Markets ETF	89	0	0.91	0.59	-	-	-	-	N
ESTX AU	Global X EURO STOXX 50 ETF	85	↑	0	0.67	0.35	-	-	-	N
PAXX AU	Platinum Asia Fund ETF	61	0	0.63	1.19	-	Y	-	-	N
1658 JP	iShares Core MSCI EM IMI	53	0	0.19	0.25	-	-	-	-	N
195980 KS	Hanwha ARIRANG MSCI EM Synth H	51	0	0.19	0.55	-	-	-	-	Y
1681 JP	Nikko Listed Idx Fund International EM MSCI	50	0	0.58	0.32	-	-	-	-	N
HEUR AU	BetaShares Europe ETF - Currency Hedged	35	0	0.38	0.56	-	-	-	-	Y
195930 KS	Mirae Asset Tiger Synth-Euro Stocks 50 H	31	↓	0	0.16	0.32	-	-	-	Y
EUG NZ	Smartshares Europe Equities EUG ETF	29	0	0.63	0.55	-	-	-	-	N
2520 JP	NEXT FUNDS EM Eq MSCI-EM UnHgd	16	0	0.54	0.21	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Regional (Continued)										
570054 KS	Korea Invst & Sec TRUE Lvg SXSE H B 54	13	0	0.13	1.50	+2x	-	-	-	N
WEMG AU	SPDR S&P EM Fund	12	0	0.48	0.65	-	-	-	-	N
2859 JP	NEXT FndS Eur STOXX 50 Yen-Hgd Ex Fnd	12	↑	0	0.22	0.20	-	-	-	Y
00709 TT	Fubon FTSE Developed Europe ETF	9	↓	0	0.45	0.79	-	-	-	N
570092 KS	Korea Invst&Sec True Inv 2x Eur STOXX 50 Etn	9	0	0.18	-	-	-	-	-	N
00660 TT	Yuanta EURO STOXX 50 ETF	8	0	0.65	0.74	-	-	-	-	Y
3022 HK	iShares MSCI Emerging Markets ETF HK	8	↓	0	0.49	0.18	-	-	-	U
500079 KS	Shinhan Securities Shinhan S&P	8	0	0.22	-	-	-	-	-	N
500081 KS	Shinhan Securities Shinhan S&P	8	0	0.13	-	-	-	-	-	N
500078 KS	Shinhan Securities Shinhan S&P	8	0	0.07	-	-	-	-	-	N
500080 KS	Shinhan Securities Shinhan S&P	7	0	0.07	-	-	-	-	-	N
225050 KS	MiraeAsset TIGER Synth-SXSE Lvg H	7	0	0.40	0.65	+2x	-	-	-	Y
379790 KS	KB KBSTAR EURO STOXX 50 H ETF	6	0	0.41	0.58	-	-	-	-	N
580035 KS	KB Securities KB S&P European Union	6	0	1.57	-	-	-	-	-	Y
225060 KS	MiraeAsset TIGER Synth-MSCI EM Lvg H	6	0	0.70	0.65	+2x	-	-	-	Y
570091 KS	Korea Invst&Sec True Inv Eur STOXX 50 Etn H	6	0	0.22	-	-	-	-	-	N
00736 TT	Cathay Fse Emerging Markets Etf	5	0	0.65	0.66	-	-	-	-	N
373530 KS	Hanwha ARIRANG EM MSCI Inv - Synth H	4	0	0.71	0.61	-1x	-	-	-	N
291890 KS	Samsung KODEX SGX MSCI EM Fr H	4	0	0.44	0.45	-	-	-	-	Y
105010 KS	Mirae Asset TIGER Latin35 ETF	4	0	0.17	0.73	-	-	-	-	N
IXE KZ	IX Global Emerging Markets Equities ETN	0	0	-	0.50	-	-	-	-	N
Sector										
007248 TT	Capital Bofa Merrill Lynch 10 + Y US Banking	3,188	9	0.05	0.67	-	-	-	-	N
381180 KS	Mirae Asset TIGER US Semicon Nasdaq	1,795	30	0.03	0.64	-	-	-	-	N
007228 TT	Capital Bofa Merrill Lynch 15+ Y US Telecom	1,686	↑	6	0.05	0.67	-	-	-	N
381170 KS	Mirae Asset TIGER US Tech Top10 INDX	1,639	20	0.03	0.57	-	-	-	-	N
007238 TT	Capital Bofa Merrill Lynch 15+ US Tech& Elec	1,608	↑	0	0.27	0.67	-	-	-	N
00712 TT	Fuh Hwa FTSE Mortgage REITs ETF	995	↑	7	0.12	0.51	-	-	-	N
159590 CH	Invesco Great Wall NASDAQ-100	994	103	0.08	-	-	-	-	-	N
IXJ AU	iShares Global Healthcare ETF/AU	887	2	0.12	0.40	-	-	-	-	N
00941 TT	CTBC Selected Upstream Semicon	745	-	0.08	1.10	-	-	-	-	N
GDX AU	VanEck Gold Miners ETF	500	1	0.27	0.53	-	-	-	-	N
DJRE AU	SPDR DJ Global Real Estate Fund	272	0	0.20	0.50	-	-	-	-	Y
2244 JP	Global X US Tech Top 20 ETF	264	↑	6	0.06	0.38	-	-	-	N
TECH AU	ETFS Morningstar Global Tech	220	0	0.47	0.45	-	-	-	-	N
474220 KS	MIRAE ASSET TIGER US Tech Top1	218	-	0.05	0.22	-	-	-	-	N
465580 KS	KIM ACE US Big Tech TOP 7 Plus ETF	186	4	0.05	0.55	-	-	-	-	N
513290 CH	Chi Uni NASDAQ BioTech QDII	183	↑	10	0.09	-	-	-	-	N
423920 KS	MIRAE ASSET TIGER SYNTH-US PHLX	173	↑	5	0.06	0.65	+2x	-	-	N
760005 KS	Kiwoom Sec Kiwoom INDX US Tech Top10 Etn	154	0	0.44	-	-	-	-	-	N
2515 JP	NEXT FUNDS Intern REIT S&P RE ex JP UHgd	150	↑	0	0.19	0.19	-	-	-	N
159502 CH	Harvest Standard and Poor's Bi	143	-	0.11	0.60	-	-	-	-	N
00861 TT	Yuanta Global Fr Telecom	134	↓	1	0.15	1.13	-	-	-	N
GLPR AU	iShares Core Fse Global Prope	132	↑	1	0.41	1.15	-	-	-	Y
2243 JP	Global X Semiconductor ETF/Japan	121	↑	6	0.07	0.41	-	-	-	N
476070 KS	SAMSUNG KODEX Global Obesity T	106	-	0.07	0.45	-	-	-	-	N
IXI AU	iShares Global Consumer Staples ETF/AU	94	↓	0	0.25	0.47	-	-	-	N
182480 KS	MiraeAsset Tiger Synth-MSCI US REITH	86	0	0.08	0.33	-	-	-	-	Y
GFR NZ	Smartshares Global Property Etf	84	0	0.99	0.54	-	-	-	-	Y
00770 TT	Cathay S&P North American Tech	70	↑	4	0.11	0.50	-	-		

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
International Equity										
Sector (Continued)										
LEND AU	Vaneck Global Listed Private C	23	-	0.68	0.65	-	-	-	Y	N
520074 KS	MiraeAsset Securities MiraeAss	22	-	0.10	-	-	-	-	-	N
463640 KS	SS KODEX S&P500 Utilities ETF	22	0	0.39	0.25	-	-	-	-	N
00714 TT	Capital DJ U.S. Real Estate Id	22	↓	0.31	1.03	-	-	-	-	N
480040 KS	KIM ACE US Semiconductor 15% P	21	-	0.08	-	-	-	-	-	N
550041 KS	NH QV US IT TOP5 ETN H 41	21	0	0.29	1.20	-	-	-	Y	N
287180 KS	Hanwha Arirang NASDAQ ETF	21	↓	0.16	0.61	-	-	-	-	N
3171 HK	Samsung Blockchain Technologies ETF	18	0	0.45	0.85	-	Y	-	-	N
00908 TT	Fubon Global Dividend REITs and Infra	18	0	0.28	0.83	-	-	-	-	N
520073 KS	MiraeAsset Securities MiraeAss	17	-	0.05	-	-	-	-	-	N
352560 KS	SAMSUNG KODEX DJI US REITs ETF H	15	↑	0.09	0.09	-	-	-	-	N
580034 KS	KB Securities KB Leverage FANG Plus	15	0	1.29	-	+2x	-	-	Y	N
520075 KS	MiraeAsset Securities MiraeAss	15	-	0.08	-	-	-	-	-	N
3072 HK	Nikko AM Global Internet ETF	15	0	0.49	0.88	-	-	-	-	N
159518 CH	Harvest S and P Oil and Gas Ex	14	2	0.10	0.60	-	-	-	-	N
200030 KS	SS KODEX S & P500 Industrial ETF	13	0	0.21	0.25	-	-	-	-	N
481190 KS	Shinhan SOL US Tech Top 10 ETF	13	-	0.06	-	-	-	-	-	N
219390 KS	KB KBSTAR SYNTH-US Oil&Gas E&P H	13	↓	1.31	0.34	-	-	-	Y	N
185680 KS	SS KODEX US BIOTECH ETF	13	↑	0.21	0.25	-	-	-	-	N
474800 KS	KIWOOM KOSEF US Oil&Energy ETF	13	-	0.16	-	-	-	-	-	N
513350 CH	Fulgoal S and P Oil and Gas E	12	1	0.10	0.60	-	-	-	-	N
453640 KS	SAMSUNG KODEX S&P500 Health Care ETF	12	↑	0.24	0.25	-	-	-	-	N
418670 KS	Mirae Asset TIGER Global Cybersecurity	11	↑	0.27	0.51	-	-	-	-	N
463680 KS	SS KODEX S&P500 Technology ETF	11	0	0.16	0.25	-	-	-	-	N
00911 TT	Mega ICE Semiconductor ETF	10	↑	0.27	1.05	-	-	-	-	N
453650 KS	SAMSUNG KODEX S&P500 Financial ETF	10	0	0.37	0.25	-	-	-	-	N
463690 KS	SS KODEX S&P500 Communication ETF	9	0	0.48	0.25	-	-	-	-	N
550061 KS	NH QV Inverse US IT TOP5 ETN H 61	8	0	0.56	-	-1x	-	-	Y	N
GXAI AU	Global X Artificial Intelligence ETF	8	-	0.39	0.57	-	-	-	-	N
476310 KS	KB KBSTAR Global Obesity Care	8	-	0.24	0.35	-	-	-	-	N
453630 KS	SAMSUNG KODEX S&P500 Consumer Staples	8	0	0.34	0.25	-	-	-	-	N
453660 KS	Smsng KODEX S&P500 Consumer Discretionary	8	0	0.38	0.25	-	-	-	-	N
399580 KS	KB KBSTAR Global Clean Energy S&P ETF	7	0	0.52	0.70	-	-	Y	-	N
00678 TT	Capital NASDAQ BioTech Idx	7	0	0.19	1.01	-	-	-	-	N
461910 KS	Hanwha ARIRANG US Tech 10 Leve	7	0	0.26	0.75	-	-	-	-	N
459560 KS	SAMSUNG KODEX Tesla Value Chai	7	0	0.28	0.18	-	-	-	-	N
464060 KS	NH-Amundi HANARO Global Semico	6	0	0.33	0.40	-	-	-	-	N
481200 KS	Shinhan SOL US Tech Top 10 Inv	6	-	0.40	-	-	-	-	-	N
473640 KS	NH-Amundi HANARO Global Gold Miner ETF	5	-	0.45	-	-	-	-	-	N
440910 KS	Woori WOORI US S&P Aerospace&Defense ETF	5	0	0.31	0.35	-	-	-	-	N
429990 KS	Shinhan SOL Korea-Global Platf	5	0	0.52	0.71	-	Y	-	-	N
442580 KS	Hanwha ARIRANG Global DRAM iSelect ETF	4	↓	0.27	0.68	-	-	-	-	N
429980 KS	Shinhan SOL Korea-Global Elect	4	↓	0.45	0.72	-	Y	-	-	N
437550 KS	Kiwoom HEROES Global REITs IGIS Active ETF	4	0	0.72	0.73	-	Y	-	-	N
00925 TT	Shin Kong S&P Electric Vehicles ETF	4	↓	0.30	1.10	-	-	-	-	N
461900 KS	Hanwha ARIRANG US Tech 10 iSelect ETF	4	0	0.41	0.46	-	-	-	-	N
448510 KS	NH-Amundi HAN. MSCI Gbl New Enrg Synth	3	↓	0.43	0.50	-	-	Y	-	N
426330 KS	Kiwoom KOSEF USA ETF Industry STOXX	3	↓	0.47	0.52	-	-	-	-	N
465620 KS	KIM ACE US Big Tech TOP 7 PLUS	3	0	0.28	0.55	-	-	-	-	N
472490 KS	NH-Amundi HANARO US Aglech iSe	2	0	0.51	0.40	-	-	-	-	N
473500 KS	KIWOOM KOSEF Global Power Semi	2	-	0.36	0.35	-	-	-	-	N
7204 HK	CSOP US Oil&Gas Comp Daily 2x Lvgd Product	2	↓	0.93	2.00	+2x	-	-	-	N
2018 JP	Global X US REIT Top 20 ETF	2	-	0.26	0.41	-	-	-	-	N
3158 HK	GLOBAL X K-POP AND CULTURE ETF	1	-	1.00	0.68	-	-	-	-	N
2864 JP	Global X Logistics REIT ETF	1	0	0.68	0.38	-	-	-	-	N
3139 HK	Global X Electric Vehicle and Battery Active	1	↓	0.61	0.75	-	Y	Y	-	N
JSGBETF PA	JS Global Banking Sector ETF	-	0	0.64	-	-	-	-	-	N
020016 TT	President MSCI USA IMI IT net TR Idx	-	0	-	0.99	-	-	-	-	N
T8EV AU	T8 Energy Vision Active Eff Managed Fund	-	-	2.37	-	-	Y	Y	Y	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: Y = Currency Hedged, U = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Growth (Continued)										
159597 CH	E Fund ChiNext Growth ETF	58	-	-	-	-	-	-	-	N
159606 CH	E Fund CSI 500 Quality and Growth ETF	58	↓	1	0.15	1.10	-	-	-	N
FUEKIV30 VN	KIM Growth VN30 ETF	45	↑	0	0.85	1.13	-	-	-	N
530019 KS	Samsung Sec Samsung US L Cap Gwth 19	37	0	0.10	0.60	-	-	-	-	N
530015 KS	Samsung Sec Samsung US L Cap Growth	31	0	0.10	0.70	-	-	-	-	N
EAFZ AU	Ellerston Asia Growth Fund Hedge Fund	28	0	0.35	0.58	-	Y	-	-	N
MCGG AU	Munro Concentrated Global Growth Fund	23	↑	0	0.53	0.70	-	Y	-	N
588110 CH	GF SSE STAR Growth ETF	22	4	0.17	-	-	-	-	-	N
588020 CH	E Fund SSE STAR Growth ETF	21	2	0.19	-	-	-	-	-	N
159675 CH	Harvest ChiNext Board Enhanced Strategy ETF	21	1	0.16	1.40	-	-	-	-	N
159896 CH	Dacheng SZSE Growth 40 Index ETF	19	↑	0	0.16	0.60	-	-	-	N
2083 JP	NEXT FUNDS Japan Growth Equity	18	0	0.10	0.69	-	Y	-	-	N
ESG IN	Mirae Asset Nifty 100 ESG Sect	16	0	0.15	0.58	-	-	Y	-	N
FUEKIVFS VN	KIM Growth VNFINSELECT ETF	13	↑	0	0.81	0.60	-	-	-	N
159991 CH	China Merchants ChiNext Large Cap ETF	13	1	0.31	1.10	-	-	-	-	N
JREG AU	JPMorgan Gbl Res Enh Idx Eq Actv ManagedFnd	11	↑	0	0.49	0.30	-	Y	-	N
562520 CH	ChinaAMC CSI Smart Selected 1000 Gr Innov	8	↑	1	0.25	-	-	-	-	N
365040 KS	Mirae Asset TIGER AI Korea Growth Active	8	↓	0	0.16	0.41	-	Y	-	N
MEVALTF IN	Motilal Oswal S&P BSE Enhanced Value ETF	7	0	0.14	0.29	-	-	-	-	N
159523 CH	ChinaAMC CSI Smart Selected 30	7	0	0.21	-	-	-	-	-	N
391670 KS	Heungkook HK Best11 Active ETF	3	↓	0	0.34	0.36	-	Y	-	N
159620 CH	ChiAMC CSI Smart Sel 500 Gwth Innov	3	0	0.24	-	-	-	-	-	N
HNXT50F IN	HDFC NIFTY Next 50 ETF	2	0	0.28	0.15	-	-	-	-	N
395760 KS	Hanwha ARIRANG ESG Growth Active ETF	2	↓	0	0.25	0.14	-	Y	Y	N
CXS SP	UOBAM Ping An ChiNext ETF	1	↓	0	1.43	1.25	-	-	-	U
XBIG UJ	BNP Paribas IDX Growth30 ETF	1	0	1.35	1.20	-	-	-	-	N
XPSG UJ	Pinnacle Indonesia ESG ETF	1	0	1.95	3.75	-	Y	Y	-	N
020027 TT	Yuantai TPEX ESG Growth ETN	-	0	1.05	0.99	-	-	Y	-	N
020035 TT	Yuantai TPEX ESG HD ETN	-	0	0.33	1.19	-	-	Y	-	N
Value										
VVLU AU	Vanguard Global Value Equity Active ETF	396	↓	1	0.12	0.29	-	Y	-	N
512040 CH	Fulgoal CSI Value ETF	89	↑	6	0.12	0.73	-	-	-	N
1480 JP	NEXT FUNDS Nomura Ent Value Allocation	75	0	1.15	0.25	-	-	-	-	N
213610 KS	Samsung KODEX SAMSUNG Group Value	63	↓	1	0.15	0.09	-	-	-	N
530020 KS	Samsung Sec Samsung US L Cap Value 20	31	0	0.09	0.50	-	-	-	-	N
530016 KS	Samsung Sec Samsung US L Cap Value H	26	0	0.08	0.60	-	-	-	-	N
159510 CH	ChinaAMC CSI Smart Selected 30	20	1	0.15	-	-	-	-	-	N
510030 CH	SSE 180 Value ETF	19	0	0.21	1.40	-	-	-	-	N
VNGS AU	Vaughan Nel Gbl Eq Smid Fnd Quoted MGD Fnd	15	↑	0	0.67	1.12	-	Y	-	N
447430 KS	KIM ACE Next level Value Active ETF	12	↑	0	0.14	1.14	-	Y	-	N
223190 KS	Samsung KODEX 200 Value Low Vol - Eq	9	↓	0	0.16	0.30	-	-	-	N
560030 CH	China Universal CSI 800 Value ETF	7	1	0.74	-	-	-	-	-	N
560330 CH	SWS MU CSI 300 Value ETF	7	↓	2	0.22	-	-	-	-	N
452440 KS	KIVAM VITA Value Alpha Active ETF	7	0	0.36	0.60	-	Y	-	-	N
143460 KS	KIM ACE Value Large ETF	6	0	0.33	0.24	-	-	-	-	N
333970 KS	Hanwha ARIRANG KS Value Tilt TR	6	0	0.38	0.33	-	-	-	-	N
275290 KS	SAMSUNG KODEX MSCI Enhanced Value	6	0	0.19	0.30	-	-	-	-	N
562330 CH	Yinhua CSI 500 Value ETF	5	↓	2	0.29	-	-	-	-	N
227570 KS	Mirae Asset TIGER Quality Value EETF	5	↓	0	0.20	0.45	-	-	-	N
234310 KS	KB KBSTAR V&S Select Value ETF	5	0	0.27	0.66	-	-	-	-	N
159990 CH	Yinhua CNI Small-cap Value ETF	5	↓	1	0.14	1.40	-	-	-	N
244670 KS	Samsung KODEX Value PLUS ETF	4	↓	0	0.28	0.30	-	-	-	N
HN50V20 IN	HDFC Nifty 50 Value 20 ETF	3	0	0.33	0.15	-	-	-	-	N
272230 KS	KIM ACE Smart Value ETF	2	0	0.27	0.29	-	-	-	-	N
IVHG AU	Ishares Msci World EX Australi	0	-	0.29	0.28	-	-	-	Y	N
020034 TT	Yuantai Taiwan IC Design Rep Total Return Etn	-	0	0.88	0.90	-	-	-	-	N
XKIV UJ	KISI IDX Value30 ETF Equity Index Fund	-	0	0.48	1.18	-	-	-	-	N
XNVEU	Nusadana ETF IDX Value30	-	0	1.29	-	-	-	-	-	N
Dividend										
0056 TT	Yuantai/P-shares Taiwan Dividend Plus ETF	8,906	38	0.04	0.44	-	-	-	-	N
00929 TT	Fuh Hwa Taiwan Technology Divi	6,520	↑	85	0.05	0.33	-	-	-	N

ASIA-PACIFIC LISTED ETFS



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Equity Style										
Dividend (Continued)										
2564 JP	Global X MSCI SuperDividend Japan ETF	489	1	0.08	0.39	-	-	-	-	N
00915 TT	KG1 Taiwan Prem Selection High Div 30	467	↑ 10	0.05	0.34	-	-	-	-	N
2625 JP	iFree ETF-TOPIX Quarterly Dividend Type	446	1	0.08	0.06	-	-	-	-	N
159905 CH	ICBC Credit Suisse Shenzhen Div Price	417	↑ 6	0.07	1.40	-	-	-	-	N
446720 KS	Shinhan SOL US Dividend Equity ETF	399	↑ 3	0.05	0.19	-	-	-	-	N
2529 JP	NEXT FUNDS Nomura Shareholder Yield 70	335	↑ 0	0.11	0.31	-	-	-	-	N
1651 JP	Daiwa TOPIX High Div Yield 40 Idx	315	0	0.09	0.19	-	-	-	-	N
SV1AU	SPDR MSCI Aus Select High Div Yield Fund	299	1	0.08	0.35	-	-	-	-	N
1698 JP	Listed JP High Div TSE Div Focus 100	285	↑ 0	0.14	0.38	-	-	-	-	N
3110 HK	Global XHS High Div Yield	282	↑ 1	0.22	0.68	-	-	-	-	N
RARI AU	Russell Invest Aust Responsible Inv ETF	235	0	0.12	0.45	-	-	Y	-	N
161510 KS	Hanwha ARIRANG High Dividend ETF	229	↑ 5	0.05	0.29	-	-	-	-	N
1494 JP	One ETF High Dividend Japan Equity	219	↑ 0	0.13	0.28	-	-	-	-	N
2624 JP	iFree-NKY 225 Quarterly Div Type	214	↑ 1	0.15	0.12	-	-	-	-	N
IHD AU	iShares S&P/ASX Div Opportunities	198	0	0.16	0.23	-	-	Y	-	N
466940 KS	MIRAE ASSET TIGER Bank High Di	192	4	0.05	0.27	-	-	-	-	N
WDV AU	SPDR S&P Global Dividend Fund	168	↓ 1	0.20	0.50	-	-	-	-	N
RDV AU	Russell Invest High Div Aust Shares ETF	163	0	0.14	0.34	-	-	-	-	N
513690 CH	Bosera Hang Seng SCHK High Div Yield	162	↑ 10	0.14	1.40	-	-	-	-	N
00936 TT	Taishin TIP Customized Taiwan	141	4	0.08	0.40	-	-	Y	-	N
HVST AU	BetaShares Aus Div Harvester Fund	135	0	0.21	0.72	-	Y	-	-	N
3070 HK	Ping An of China CSI HK Dividend ETF	133	0	0.38	0.76	-	-	-	-	N
00932 TT	Mega Taiwan ESG High Dividend	125	2	0.09	-	-	-	Y	-	N
452360 KS	Shinhan SOL US Dividend Equity ETF H	116	↑ 1	0.05	0.03	-	-	-	Y	N
00930 TT	SinoPac Taiwan ESG Low Carbon	95	3	0.08	-	-	-	Y	-	N
515890 CH	Bosera CSI Dividend ETF	92	↑ 3	0.11	0.50	-	-	-	-	N
00907 TT	SinoPac Taiwan Superior Div Highlight Stcks	88	↑ 2	0.09	0.49	-	-	-	-	N
476850 KS	SAMSUNGACTIV KCoAct Dividend G	83	-	0.13	-	-	Y	-	-	N
2849 JP	Global X Morningstar Japan High Div ESG	76	↑ 0	0.21	0.28	-	-	Y	-	N
159691 CH	ICBC Credit Suisse CSI HK Connect HighDiv Yld	72	↑ 12	0.10	1.32	-	-	-	-	N
1499 JP	MAXIS Japan Eq High Div 70 Market Neutral	71	0	0.18	0.40	-	-	-	-	N
2084 JP	NEXT FUNDS Japan High Dividend	62	1	0.08	0.52	-	Y	-	-	N
561580 CH	Huatai-PineBridge CSI Central	61	↓ 8	0.13	-	-	-	-	-	N
00921 TT	Mega Taiwan Mkt Leader Div Equal Weight	56	1	0.10	0.49	-	-	-	-	N
315960 KS	KB KBSTAR Large Cap High Div 10TR - Eq	50	0	0.13	0.21	-	-	-	-	N
441640 KS	Smsng KODEX US Div Prem S&P Actv	47	↑ 3	0.05	0.19	-	Y	-	-	N
DV NZ	Smartshares NZ Dividend ETF	47	0	0.53	0.54	-	-	-	-	N
DVDY AU	VanEck Morningstar Australian	46	0	0.19	0.35	-	-	-	-	N
2085 JP	MAXIS High Dividend Japan Equi	45	1	0.07	0.38	-	Y	-	-	N
562060 CH	Hwabao WP Standard and Poor's	43	-	0.13	1.40	-	-	-	-	N
429000 KS	Mirae Asset TIGER S&P500 Dividend	41	↑ 0	0.06	0.36	-	-	-	-	N
2048 JP	NEXT NOTES JP High Div Net TR USD H	40	0	1.13	0.85	-	-	-	-	N
MVS AU	VanEck Small Companies Masters	38	0	0.22	0.49	-	-	-	-	N
513530 CH	Huatai-PineBridge CSI HK Connect High DY	36	↑ 7	0.10	1.10	-	-	-	-	N
FINSGD SP	Lion-OCBC Securities APAC Fina	34	-	0.27	0.50	-	-	-	U	N
266160 KS	KB KBSTAR High Dividend ETF	30	↓ 0	0.11	0.26	-	-	-	-	N
513820 CH	China Universal CSI Hong Kong	29	-	0.11	-	-	-	-	-	N
2236 JP	Global X S&P 500 Dividend Aristocrats ETF	28	↑ 0	0.11	0.30	-	-	-	-	N
513910 CH	ChinaAMC CSI Hong Kong Connect	28	-	0.16	0.50	-	-	-	-	N
276970 KS	Samsung KODEX US S&P Div Cov Call H	28	0	0.12	0.30	-	-	Y	-	N
159708 CH	Western Leadbank SZSE Dividend ETF	28	3	0.15	-	-	-	-	-	N
510720 CH	Guotai SSE State-Owned Enterpr	28	-	0.11	-	-	-	-	-	N
441800 KS	Timefolio TIMEFOLIO Korea Plus Div Actv	25	↑ 1	0.12	0.81	-	Y	-	-	N
QMDVDS SP	Principal S&P Ethical Asia Pacific Div	23	0	1.80	0.65	-	-	Y	U	N
ASD NZ	Smartshares Australian Dividend ETF	23	0	0.88	0.54	-	-	-	-	N
2011 JP	SMDAM Active ETF Japan High Di	22	0	0.09	0.53	-	Y	-	-	N
279530 KS	Samsung KODEX High Dividend ETF	19	0	0.09	0.30	-	-	-	-	N
251600 KS	Hanwha ARIRANG High Div Conser Balance	19	↑ 0	0.11	0.25	-	-	-	-	N
210780 KS	Mirae Asset TIGER High Div Sec Invst Trust	18	0	0.10	0.32	-	-	-	-	N
513920 CH	HuaAn Hang Seng SCHK China Cen	17	-	0.14	0.60	-	-	-	-	N
237370 KS	Samsung KODEX Growth Div Balanced	17	0	0.10	0.19	-	-	-	-	N
EQ8SID MK	EQ8 MSCI SEA Islamic Dividend ETF	15	0	3.39	0.78	-	-	-	-	N
211900 KS	Samsung KODEX Div Growth - Eq	15	0	0.15	0.15	-	-	-	-	N
159726 CH	ChinaAMC Hang Seng Mainland China Comp	15	↑ 3	0.13	-	-	-	-	-	N
211560 KS	Mirae Asset TIGER Div Growth - Eq	14	↑ 0	0.11	0.18	-	-	-	-	N
3190 HK	FubonHS Shen-Shen-HK Corp HighDiv Yld Idx	12	↑ 0	0.34	0.66	-	-	-	-	N
2065 JP	NEXT NOTES S&P/JPX Div Aristocrats USD	11	0	1.09	0.85	-	-	-	-	N
245350 KS	Mirae Asset Tiger Euro Stoxx Div 30	11	0	0.19	0.46	-	-	-	-	N
445910 KS	Mirae Ast Tiger MKF Div Aristocrats	11	↓ 0	0.16	0.20	-	-	-	-	N
213630 KS	Hanwha ARIRANG DJ US Div SYNTH H Deriv	10	0	0.26	0.48	-	-	Y	-	N
159581 CH	Wanji CSI Dividend ETF	10	-	0.11	1.40	-	-	-	-	N
EQ8MID MK	EQ8 MSCI Malaysia Islamic Dividend ETF	9	0	5.81	0.51	-	-	-	-	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: Y = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Dividend (Continued)										
104530 KS	Kiwoom KOSEF High Dividend ETF	9	0	0.15	0.40	-	-	-	-	N
3145 HK	ChinaAMC Asia High Dividend ET	8	0	0.58	0.45	-	-	-	-	N
2043 JP	NEXT NOTES STOXX ASEANFive Div	7	0	1.08	0.80	-	-	-	-	N
560020 CH	China Universal CSI Dividend ETF	7	1	0.18	-	-	-	-	-	N
563180 CH	Yinhua CSI High Dividend Yield	7	-	0.17	-	-	-	-	-	N
159589 CH	GF CSI Dividend ETF	6	-	0.12	1.40	-	-	-	-	N
RDV/OPP IN	NIPPON INDIA Div OPPO	6	0	0.18	0.37	-	-	-	-	N
SHD SP	CSOP Huatai-PineBridge SSE Div	6	0	1.33	1.53	-	-	-	-	N
561060 CH	HuaAn CSI State-Owned Enterpr	5	1	0.28	0.60	-	-	-	-	N
270800 KS	KB KBSTAR KQ High Dividend ETF	5	0	0.25	0.06	-	-	-	-	N
120V TB	ThaiDEX SET High Dividend ETF	5	↑ 0	0.23	1.12	-	-	-	-	N
3116 HK	Gbl X Asia Pacific High Div Yld	5	↓ 0	1.20	0.68	-	-	-	-	N
159515 CH	Pengyang CSI State-Owned Enter	4	0	0.13	-	-	-	-	-	N
HUJI AU	Hejaz High Income Active ETF	3	-	1.21	1.10	-	Y	-	-	N
281990 KS	KB KBSTAR Mid Small Cap High Div	3	0	0.28	0.48	-	-	-	-	N
322410 KS	NH-Amundi HANARO High Dividend ETF	3	↓ 0	0.17	0.25	-	-	-	-	N
170A JP	SMT ETF Japan Equity Income St	2	-	0.16	0.45	-	Y	-	-	N
XPDV U	Pinnacle CORE High Dividend ETF	1	0	1.39	3.75	-	-	-	-	N
XIHD U	Premier ETF IDX High Dividend 20	0	↑ 0	1.12	1.20	-	-	-	-	N
020029 TT	Yuantai Taiwan ESG High Dividend Total ret	0	0	0.67	0.70	-	-	Y	-	N
Low Vol										
LOWVOLIE IN	ICICI Prudential Nifty 100 Low	330	0	0.59	0.61	-	-	-	-	N
515300 CH	Harvest CSI 300 Bonus Low Volatility ETF	184	↑ 4	0.11	0.60	-	-	-	-	N
00701 TT	Cathay TIP TAIEX+ Low Vol Select 30	164	↓ 1	0.09	0.34	-	-	-	-	N
ALP30IE IN	ICICI Prudential Alpha Low - Volatility 30 ETF	112	0	0.14	0.63	-	-	-	-	N
159966 CH	ChinaAMC ChiNext Low Vol Blue-chip	62	1	0.31	-	-	-	-	-	N
1477 JP	iShares MSCI Japan Min Vol ex-REITs	60	0	0.16	0.21	-	-	-	-	N
159307 CH	Bosera CSI Dividend Low Volatility 100 ETF	33	-	0.14	-	-	-	-	-	N
512390 CH	Ping An UOB MSCI China A Min Vol Idx	27	0	0.68	-	-	-	-	-	N
512260 CH	HuaAn CSI 500 Sector Neutral Low Vol	15	0	0.31	0.60	-	-	-	-	N
LOWVOL1 IN	Kotak Nifty 100 Low Volatility 30	13	0	0.30	0.20	-	-	-	-	N
MVOL AU	iShares Edge MSCI Aus Min Vol	12	↓ 0	0.20	0.30	-	-	-	-	N
VMIN AU	Vanguard Global Min Vol Active	7	↓ 0	0.43	0.28	-	Y	-	Y	N
174350 KS	MIRAE ASSET TIGER LOW VOLATILITY ETF	6	↑ 0	0.19	0.46	-	-	-	-	N
333940 KS	Hanwha ARIRANG KS Low Vol Titl TR	5	0	0.29	0.34	-	-	-	-	N
279540 KS	Samsung KODEX Min Vol ETF	5	↓ 0	0.26	0.30	-	-	-	-	N
215620 KS	Heungkuk HK S&P Korea Low Volatility ETF	3	↓ 0	0.28	0.46	-	-	-	-	N
322130 KS	KIM ACE Smart Low Volatility E	2	↓ 0	0.28	0.30	-	-	-	-	N
266550 KS	Hanwha ARIRANG MidCap LowVol50 ETF	2	0	0.26	0.33	-	-	-	-	N
HLOVO30 IN	HFDC NIFTY 100 Low Volatility 30 ETF	1	0	0.41	0.30	-	-	-	-	N
XILV U	INDEKS INSIGHT FTSE INDONESIA Low Vol	0	0	4.66	-	-	-	-	-	N
Momentum										
MON30IE IN	ICICI Prudential Nifty 200 Momentum 30 ETF	9	0	0.11	0.30	-	-	-	-	N
ANQ30IE IN	Aditya Birla Sun Life Nifty 200 Momentum 30	6	0	0.22	0.32	-	-	-	-	N
333960 KS	Hanwha ARIRANG KS Mom Titl TR	6	0	0.36	0.34	-	-	-	-	N
244620 KS	Samsung KODEX Momentum PLUS ETF	6	0	0.20	0.30	-	-	-	-	N
147970 KS	Mirae Asset TIGER Momentum ETF	6	0	0.24	0.35	-	-	-	-	N
MFIFMON IN	Motilal Oswal									

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Multi-factor (Continued)										
00939 TT	UPAMC Taiwan High Dividend Mom	1,790	-	0.08	0.30	-	-	-	-	N
515100 CH	Invesco Great Wall CSI Div Low Vol 100	1,025	↑	19	0.08	0.68	-	-	-	N
159967 CH	China AMC ChiNext Momentum Growth ETF	589	↑	17	0.25	0.60	-	-	-	N
159549 CH	Tianhong CSI Dividend Low Vol	357	-	0.15	0.60	-	-	-	-	N
00934 TT	CTBC TIP Customized Taiwan Gro	301	↑	7	0.08	0.34	-	-	-	N
515450 CH	China Southern S&P Ch Large Cap Div LV	235	↑	7	0.09	0.68	-	-	-	N
WCMQ AU	WCM Quality Global Growth Fund	210	0	0.53	1.35	-	Y	-	-	N
513630 CH	JPMorgan Standard and Poors' H	181	-	0.11	0.50	-	-	-	-	N
325020 KS	Samsung KODEX Dividend Value ETF	91	1	0.10	0.30	-	-	-	-	N
560500 CH	Pengyang CSI 500 Quality and Growth ETF	91	1	0.15	-	-	-	-	-	N
560150 CH	Taikang CSI Dividend Low Volatility ETF	81	-	0.13	0.40	-	-	-	-	N
EMKT AU	VanEck MSCI Multifactor Emergi	79	↑	0	0.27	0.69	-	-	-	N
00905 TT	Franklin Templeton SinoAm Taiwan Smart	71	1	0.12	0.49	-	-	-	-	N
00731 TT	Fuh Hwa FTSE Taiwan High Div Low Vol	66	↑	2	0.14	0.49	-	-	-	N
00730 TT	Fubon DJ Taiwan High-Quality Div 30	53	0	0.20	0.49	-	-	-	-	N
563020 CH	E Fund CSI Dividend Low Volatility ETF	51	-	0.14	0.15	-	-	-	-	N
159525 CH	Fullgoal CSI Dividend Low Volatility ETF	51	-	0.12	-	-	-	-	-	N
AUMF AU	iShares Edge MSCI Australia Multifactor ETF	45	↑	0	0.40	0.30	-	-	-	N
ZYUS AU	ETFS S&P 500 HY Low Vol	44	0	0.64	0.35	-	-	-	-	N
159545 CH	E Fund Hang Seng SCHK High Div	44	-	0.11	-	-	-	-	-	N
SWITZ AU	Switzer Dividend Growth Fund	43	0	0.81	0.89	-	Y	-	-	N
159758 CH	ChinaAMC CSI Dividend Quality ETF	38	↑	1	0.13	-	-	-	-	N
1399 JP	Nikko Listed MSCI Japan High Div Low Vol	38	↑	0	0.27	0.49	-	-	-	N
513950 CH	Fullgoal Hang Seng SCHK High Div Low Vol QDII	34	↑	3	0.12	0.60	-	-	-	N
00912 TT	CTBC TIP Customized Taiwan Smart Factor 50	22	↓	0	0.14	0.44	-	-	-	N
MAS250MQ IN	Mirae Asset Nifty Smallcap 250	21	-	0.09	0.36	-	-	-	-	N
1490 JP	Nikko Listed MSCI JP High Div Low Vol Beta	17	0	5.47	0.60	-	-	-	-	N
562340 CH	Yinhua CSI 500 Quality and Growth ETF	10	-	0.29	-	-	-	-	-	N
290080 KS	KB KBSTAR 200 High Div Covered Call ATM	7	↑	0	0.09	0.46	-	-	-	N
333950 KS	Hanwha ARIRANG KS Low-Size Tilt TR	6	0	0.39	0.33	-	-	-	-	N
337120 KS	SAMSUNG KODEX Fm Multi Factor ETF	6	0	0.21	0.30	-	-	-	-	N
192720 KS	Kyobo Axa Power LVHD ETF	5	0	0.18	0.33	-	-	-	-	N
373790 KS	Kiwoom KOSEF US Low Vol Div Achievers	5	0	0.36	0.66	-	-	-	-	N
251590 KS	Hanwha ARIRANG High Div Low Vol 50	5	↓	0	0.18	0.28	-	-	-	N
00702 TT	Cathay S&P 500 Low Vol High Div	5	0	0.48	0.50	-	-	-	-	N
2068 JP	NEXT NOTES Japan Eq High Beta 30 Net TR	3	0	0.91	0.85	-	-	-	-	N
2069 JP	NEXT NOTES Japan Eq Low Beta 50 Net TR	2	0	0.99	0.85	-	-	-	-	N
252720 KS	KB KBSTAR Momentum Value ETF	2	↓	0	0.24	0.67	-	-	-	N
159547 CH	ChinaAMC CSI Dividend Low Volatility ETF	2	-	0.19	0.50	-	-	-	-	N
252730 KS	KB KBSTAR Momentum LowVol ETF	1	↓	0	0.31	0.58	-	-	-	N
020018 TT	President TIP Customized Value Growth TR	-	0	0.34	-	-	-	-	-	N
020011 TT	President TIP Enhanced Low Vol High Div TR	-	0	1.34	0.88	-	-	-	-	N
00944 TT	NEXT FUNDS Nomura Taiwan Momen	-	-	0.08	0.54	-	-	-	-	N
Volatility										
550057 KS	NH QV KOSPI Vol Matching Strangle 57	448	0	0.17	0.80	+1x	-	-	-	N
500077 KS	Shin Sec ShinInv 0.5X S&P500 VIX S/T Ftr Etn 77	176	0	0.17	-	-	-	-	-	N
570019 KS	Korea Invst & Sec TRUE S.Strangle 5% OTM	102	0	0.08	0.80	-	-	-	-	N
520026 KS	MiraeAssetSec KOSPI S.Strangle 5% OTM 43	99	0	0.14	0.60	+1x	-	-	-	N
520063 KS	MiraeAsset Securities Miraeass	68	0	0.13	-	-	-	-	-	N
570029 KS	Korea Invst & Sec TRUE KOSPI S.Strgle 3%	31	0	0.08	0.80	-	-	-	-	N
530110 KS	SmsngSec Smsgng Inv 0.5X S&P500 VIX Ftr Etn	29	0	0.12	-	-	-	-	-	N
570089 KS	Korea Investment & Securities	29	0	0.03	-	-	-	-	-	N
700024 KS	Hana Sec Hana Inv 0.5X S&P500 VIX Ftr Etn H24	27	0	0.65	-	-	-	-	-	N
500076 KS	Shin Sec Shin S&P500 VIX S/T Ftr Etn D 76	22	0	0.19	-	-	-	-	-	N
530109 KS	SmsngSec Smsgng S&P500 VIX S/T Ftr Etn 109	7	↑	0	0.17	-	-	-	-	N
550081 KS	NH QV S&P500 VIX S/T Futures Etn D 81	7	0	0.44	-	-	-	-	-	N
530060 KS	Samsung Sec Samsung KOSPI S.Strngle OTM	7	0	0.08	0.60	+1x	-	-	-	N
MOLOVOL IN	Motilal Oswal S&P BSE Low Volatility ETF	5	0	0.42	0.29	-	-	-	-	N
570088 KS	Korea Invst & Sec True S&P500 VIX Ftr Etn 88 H	3	0	0.29	-	-	-	-	-	N
Theme										
371460 KS	Mirae Asset TIGER China EV Selective	1,431	18	0.08	0.57	-	-	-	-	N
00881 TT	Cathay Taiwan 5G PlusComm	1,379	↓	10	0.07	0.44	-	-	-	N
512690 CH	Penghua CSI Alcohol ETF	1,292	51	0.15	1.40	-	-	-	-	N
515050 CH	ChinaAMC CSI 5GComm Theme	987	10	0.13	0.60	-	-	-	-	N
510810 CH	CSI Shanghai SOE ETF	879	2	0.22	-	-	-	-	-	N
159869 CH	ChinaAMC CSI Anime Comic and Game ETF	854	↑	50	0.12	-	-	-	-	N
515030 CH	ChinaAMC CSI New Energy Automobile ETF	852	↓	21	0.11	0.60	-	-	-	N
305540 KS	MIRAE ASSET TIGER SECONDARY CELL	851	↑	15	0.04	0.55	-	-	-	N
516160 CH	China Southern CSI New Energy ETF	806	↑	23	0.17	0.28	-	-	-	N
159819 CH	E Fund CSI Artificial Intelligence ETF	803	↑	50	0.14	0.70	-	-	-	N
00692 TT	Fubon TWSE Corp Governance 100	798	5	0.06	0.19	-	-	Y	-	N
588030 CH	Bosera SSE Science and Technol	758	103	0.13	-	-	-	-	-	N

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Equity Style										
Theme (Continued)										
515900 CH	Bosera CSI Central-SOEs' Innov Driven	742	13	0.08	0.50	-	-	-	-	N
588220 CH	Penghua SSE Science and Techno	688	100	0.13	1.40	-	-	-	-	N
00757 TT	UPAMC NYSE FANG+ ETF	671	↑	6	0.09	1.03	-	-	-	N
159865 CH	Guobai CSI Livestock Breeding ETF	665	17	0.16	1.60	-	-	-	-	N
IFRA AU	VanEck FTSE Global Infrastruct	599	2	0.34	0.20	-	-	-	-	Y
HACK AU	BetaShares Global Cybersecurity ETF	594	1	0.19	0.67	-	-	-	-	N
VESG AU	Vanguard Ethically Conscious International	583	1	0.09	0.18	-	-	Y	-	N
588800 CH	ChinaAMC SSE Science and Techn	581	98	0.13	-	-	-	-	-	N
00983 TT	Cathay Global Autonomous and Electric Veh	490	↓	5	0.08	1.10	-	-	-	N
1479 JP	Daiwa MSCI Japan Human & Physical	464	0	2.15	0.15	-	-	Y	-	N
1484 JP	One JPIX/S&P CAPEX & Human Capital Idx	453	0	0.21	0.17	-	-	Y	-	N
00923 TT	Capital TIP Customized Taiwan	434	↑	4	0.06	0.36	-	-	-	N
159755 CH	GF CNI NEV Battery ETF	430	↓	15	0.18	1.40	-	-	-	N
MCH AU	Magellan Infra Fund - Cur Hdg	425	1	0.45	1.06	-	Y	-	-	Y
ACDC AU	Global X Battery Tech & Lithium ETF	395	1	0.31	0.69	-	-	-	-	N
FANG AU	Global X FANG+ ETF	388	↑	2	0.11	0.35	-	-	-	N
314250 KS	Samsung KODEX FANG Plus ETF H	381	6	0.03	0.45	-	-	-	-	Y
513090 CH	E FundSI HK Sec Invst Theme	352	↑	84	0.11	0.70	-	-	-	N
515070 CH	ChinaAMC CSI AI Theme	336	↑	12	0.12	-	-	-	-	N
329200 KS	Mirae Asset TIGER Real Estate Infra High Div	333	↑	3	0.11	0.35	-	-	-	N
159790 CH	ChinaAMC CSI China Mainland Low Carbon	330	5	0.19	0.60	-	-	Y	-	N
515600 CH	GF CSI Central-SOEs' Innovation Driven ETF	315	↓	5	0.13	0.50	-	-	-	N
515680 CH	Harvest CSI Central-SOEs' Innov Driven	302	2	0.14	0.60	-	-	-	-	N
159825 CH	Fullgoal CSI Agriculture Thematic ETF	297	↓	7	0.15	0.63	-	-	-	N
516010 CH	Guobai CSI Anime Comic and Game ETF	295	↑	17	0.13	1.40	-	-	-	N
560170 CH	China Southern CSI Guoxin Cent	259	12	0.14	-	-	-	-	-	N
588190 CH	Yinhua SSE Science and Technol	253	29	0.14	-	-	-	-	-	N
394660 KS	Mirae Asset TIGER Global Electric Veh	242	1	0.16	0.55	-	-	-	-	N
2567 JP	NZAM ETF S&P/JPX Carbon Efficient Index	242	0	1.37	0.12	-	-	Y	-	N
159994 CH	Yinhua CSI 5G Communications Theme ETF	226	4	0.16	1.40	-	-	-	-	N
364980 KS	Mirae Asset TIGER KRX Sec Battery K	226	↑	7	0.07	0.43	-	-	-	N
VBLD AU	Vanguard Global Infrastructure Index ETF	225	1	0.25	0.47	-	-	-	-	N
394670 KS	Mirae Asset TIGER Synth-Global Lithium	217	1	0.13	0.54	-	-	-	-	N
515980 CH	Harfor CSI Artificial Intelligence Industry ETF	217	↑	14	0.14	-	-	-	-	N
588120 CH	Guobai SSE Science and Technol	213	37	0.13	1.40	-	-	-	-	N
MCSI AU	Magellan Financial Group Core Infra	205	0	1.02	0.50	-	Y	-	-	Y
457480 KS	KIM ACE Tesla Value Chain Active ETF	202	↑	4	0.06	0.29	-	Y	-	N
562990 CH	E Fund CSI SEEE Carbon Neutral ETF	200	↓	3	0.17	-	-	Y	-	N
512580 CH	GF CSI Environment Protection Indus	195	↑	2	0.18	1.40	-	-	Y	-
00902 TT	CTBC Battery and Energy Storage Tech	192	1	0.14	1.10	-	-	-	-	N
515400 CH	Fullgoal CSI Big Data Industry ETF	190	10	0.17	0.63	-	-	-	-	N
517160 CH	China Southern CSI Yangtze River Protection	184	0	0.61	0.28	-	-	Y	-	N
517330 CH	E Fund CSI Yangtze River Protection ETF	184	0	0.65	0.70	-	-	Y	-	N
516510 CH	E Fund CSI Cloud Computing & Big Data	178	↑	14	0.13	0.70	-	-	-	N
159806 CH	Guobai CSI New Energy Vehicles ETF	176	4	0.23	1.63	-	-	-	-	N
517180 CH	China Southern FTSE China SOE Sustainable	174	11	0.09	0.38	-	-	Y	-	N
367770 KS	KB KBSTAR Fm Hydrogen Economy ETF	173	0	0.17	0.51	-	-	-	-	N
RBZT AU	BetaShares Global Robotics & AI	170	↑							

ASIA-PACIFIC LISTED ETFS



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Equity Style										
Theme (Continued)										
159770 CH	Tianhong CSI Robot ETF	94	↑	3	0.16	0.60	-	-	-	N
562510 CH	ChinaAMC CSI Tourism Thematic ETF	93	↑	6	0.15	-	-	-	-	N
CRYP AU	Belashares Crypto Innovators Etf	91	1	0.44	0.67	-	-	-	-	N
412770 KS	Mirae Asset TIGER Global Metaverse Active	91	↓	1	0.25	0.82	-	Y	-	N
515150 CH	Fulgoal CSI SOE The Belt and Road ETF	91	2	0.13	0.23	-	-	-	-	N
228800 KS	MIRAE ASSET TIGER TOUR LEISURE ETF	90	1	0.18	0.55	-	-	-	-	N
516670 CH	China Merchants CSI Livestock Breeding	89	↓	4	0.16	0.30	-	-	-	N
00903 TT	Fubon Solactive Eurus ETF	85	↓	1	0.26	1.00	-	-	-	N
517090 CH	Guotai FTSE China SOE Sust Prosperity	84	↓	5	0.10	0.38	-	-	Y	N
401170 KS	KB KBSTAR iSelect METAVERSE ETF	84	0	0.15	0.52	-	-	-	-	N
00762 TT	Yuantia STOXX Global AI	83	↑	1	0.17	1.16	-	-	-	N
560550 CH	GF CSI SEEE Carbon Neutral ETF	80	↓	0	0.26	1.40	-	-	Y	N
513360 CH	Bosera CSI Global China Education Thematic	80	↑	16	0.18	1.45	-	-	-	N
515250 CH	Fulgoal CSI Intelligent Vehicle Theme ETF	79	↑	7	0.15	0.63	-	-	-	N
400970 KS	Mirae Asset TIGER Fr Metaverse ETF	78	↓	1	0.12	0.48	-	-	-	N
ERTH AU	Climate Change Innovation ETF	73	↓	0	0.58	0.65	-	-	Y	N
584640 CH	Penghua SSE Sci&Tech Innov Enh Stgy	68	5	0.18	1.90	-	-	-	-	N
2809 HK	Global X China Clean Energy	68	↓	0	0.34	0.68	-	-	Y	U
510410 CH	Bosera SSE Natural Resource Index ETF	67	↑	4	0.12	1.40	-	-	-	N
2518 JP	NEXT FUNDS MSCI JIP Empowering Women	62	0	0.18	0.17	-	-	-	Y	N
EQ8MY25 MK	EQ8 Dow Jones Islamic Market M	62	0	5.55	0.49	-	-	-	-	N
00897 TT	Fubon NYSE FactSet Global Genomics	60	↓	0	0.30	1.05	-	-	-	N
512650 CH	China Universal CSI Yangtze River Delta Dvlp	57	1	0.25	-	-	-	-	-	N
00898 TT	Cathay Global Genomics Immunology & Med	57	↓	0	0.63	1.05	-	-	-	N
516390 CH	China Universal CSI New Energy Veh Ind	57	2	0.20	-	-	-	-	-	N
FOOD AU	BetaShares Global Agri Cmpry - Cur Hdg	55	↓	0	0.47	0.57	-	-	-	Y
00901 TT	SinoPac Taiwan Electric Veh Supply Chain	54	↓	1	0.12	0.44	-	-	-	N
561910 CH	China Merchants CSI Battery Thematic ETF	53	3	0.24	0.60	-	-	-	-	N
588880 CH	Huatai-PineBridge SSE Science	53	6	0.18	1.40	-	-	-	-	N
138540 KS	Mirae Asset TIGER Hyundai Motor Group+	52	↓	1	0.11	0.20	-	-	-	N
159641 CH	China Merchants CSI SEEE Carbon Neutral ETF	50	↓	2	0.16	0.60	-	-	Y	N
INES AU	Intelligent Investor Ethical Share Fund	50	0	1.06	0.97	-	Y	Y	-	N
00894 TT	CTBC TIP Customized Investor Movemnt	49	↓	1	0.12	0.44	-	-	-	N
470310 KS	HYUNDAI UNICORN GENERATIVE AI	48	1	0.18	0.50	-	Y	-	-	N
367760 KS	KB KBSTAR Fm5G Tech ETF	48	↓	1	0.24	0.51	-	-	-	N
00909 TT	Cathay Global Digital Payment Services ETF	47	1	0.07	0.95	-	-	-	-	N
589900 CH	China Southern SSE Science and	47	-	0.18	-	-	-	-	-	N
414270 KS	KIM KINDEX US-China Next EV&AV Active	47	0	0.09	0.44	-	Y	-	-	N
563050 CH	E Fund CSI Guoxin Central-SOEs	46	1	0.17	-	-	-	-	-	N
159757 CH	Invesco Great Wall CNI NEV Battery ETF	46	3	0.24	0.68	-	-	-	-	N
159885 CH	Penghua CSI China Main& Low Carbon Econ	46	1	0.22	1.40	-	-	Y	-	N
ESGSG SP	Lion-OCBC Securities Singapore Low Carbon	45	0	0.41	0.45	-	-	Y	U	N
516660 CH	HuaAn CSI New Energy Vehicles ETF	45	1	0.21	0.60	-	-	-	-	N
00916 TT	Cathay Global Top 50 Brands ETF	44	0	0.12	0.76	-	-	-	-	N
516070 CH	E Fund CSI Main & Low Carbon Economy	43	2	0.27	0.70	-	-	Y	-	N
421320 KS	Hanwha ARIRANG iSelect Aerospace&UAM	43	↑	1	0.12	0.51	-	-	-	N
ESPO AU	VanEck Video Gaming and Esport	42	↓	0	0.46	0.55	-	-	-	N
300640 KS	KB KBSTAR Game Industry ETF	41	↑	1	0.19	0.35	-	-	-	N
560060 CH	China Universal CSI SEEE Carbon Neutral ETF	41	↓	1	0.24	-	-	-	Y	N
411420 KS	Samsung KODEX US Metaverse Nasdaq	41	↓	0	0.10	0.50	-	Y	-	N
159851 CH	Hwabao CSI Fintech Theme ETF	41	↑	3	0.13	1.40	-	-	-	N
XISC U	Premier Indonesia State-Owned Cmpry	39	0	1.89	3.25	-	Y	-	-	N
159640 CH	ICBC Credit Suisse CSI SEEE Carbon Neu	39	↓	2	0.17	1.35	-	-	Y	N
515110 CH	E Fund CSI SOE The Belt and Road ETF	38	1	0.13	0.70	-	-	-	-	N
BOT NZ	Smartshares Automation and Robotics ETF	36	0	0.61	0.75	-	-	-	-	N
322400 KS	NH-Amundi HANARO e-Commerce ETF	35	0	0.22	0.45	-	-	-	-	N
510160 CH	China Sec Southern Well-off Indus Idx	34	0	0.37	1.60	-	-	-	-	N
159739 CH	Penghua CSI Cloud Computing & Big data	33	↑	2	0.17	0.60	-	-	-	N
159824 CH	Bosera CSI New Energy Vehicles ETF	32	2	0.17	1.40	-	-	-	-	N
2826 HK	Global X China Cloud Computing	32	↓	0	0.42	0.68	-	-	-	U
159619 CH	Guotai CSI Infrastructure ETF	32	↓	4	0.13	1.40	-	-	-	N
159861 CH	Guotai CSI Environmental Protection Indus 50	31	↓	2	0.14	1.40	-	-	Y	N
562880 CH	Harvest CSI Battery Thematic ETF	31	1	0.27	0.60	-	-	-	-	Y
434730 KS	NH-Amundi HANARO Nuclear Power ETF	31	↑	1	0.14	0.45	-	-	-	N
469070 KS	KB KBSTAR AI Robotics ETF	30	1	0.09	0.40	-	-	-	-	N
562380 CH	Yinhua CSI Guoxin Central-SOEs	30	2	0.21	-	-	-	-	-	N
588210 CH	E Fund SSE Science and Technol	30	2	0.22	0.15	-	-	-	-	N
371450 KS	Mirae Asset TIGER Global Cloud Computing	30	↓	0	0.29	0.55	-	-	-	N
CLDD AU	BetaShares Cloud Computing ETF	29	0	0.44	0.67	-	-	-	-	N
159625 CH	Harvest CNI Green Electricity ETF	29	↓	4	0.10	0.60	-	-	Y	N
108450 KS	KIM ACE SAMSUNG GROUP SW ETF	29	0	0.19	0.20	-	-	-	-	N
515760 CH	ChinaAMC CSI Zhejiang SOEs Innov	29	0	0.46	-	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Theme (Continued)										
456680 KS	MIRAE Ast Tiger SYNTH-Chi Ev Lvg	29	↑	0	0.42	-	+2x	-	Y	N
1481 JP	Listed Japanese Economy Contributor	28	0	1.20	0.45	-	-	-	Y	N
159811 CH	Bosera CSI 5G Industry 50 ETF	27	1	0.13	1.35	-	-	-	-	N
354350 KS	NH-Amundi HANARO Luxury S&P-Synth	26	↓	0	0.18	0.50	-	-	-	N
515920 CH	Bosera CSI Intelligent Consumer Theme ETF	26	1	0.18	1.40	-	-	-	-	N
561960 CH	China Merchants CSI Guoxin Cen	25	1	0.22	-	-	-	-	-	N
516550 CH	Harvest CSI Grand Agriculture ETF	25	1	0.21	0.60	-	-	-	-	N
159719 CH	Ping An FTSE China SOE Sustainable	24	3	0.10	-	-	-	-	Y	N
1485 JP	MAXIS JAPAN Proactive Physical & Human	23	↓	0	7.78	0.22	-	-	-	N
442320 KS	KB KBSTAR Global Nuclear Power ETF	23	↑	1	0.15	0.40	-	-	-	N
588150 CH	China Southern SSE Science and Tech Innov	23	↑	2	0.28	1.40	-	-	-	N
00899 TT	Franklin Temp SinoAm Global Clean Energy	23	↑	0	0.46	1.10	-	-	Y	N
516760 CH	Ping An CSI Livestock Breeding ETF	23	↓	1	0.21	-	-	-	-	N
394350 KS	Kiwoom KOSEF Lyxor Global Future Mobility	22	0	0.62	0.31	-	-	-	Y	N
516630 CH	ChinaAMC CSI Cloud Computing and Big Data	22	↑	2	0.17	-	-	-	-	N
516770 CH	Huatai-PineBridge CSI Anime Comic & Game	21	↑	3	0.15	1.13	-	-	-	N
588370 CH	Chi Southern SSE Sci&Tech Innov Enh Stgy	21	↑	3	0.20	-	-	-	-	N
3091 HK	NikkoAM Metaverse Theme Active	20	0	0.58	0.75	-	Y	-	U	N
276990 KS	Samsung KODEX Global Robo & Automation	20	0	0.21	0.30	-	-	-	-	N
516520 CH	Huatai-PineBridge CSI Intelligent Vehicle ETF	20	↑	1	0.20	1.10	-	-	-	N
159786 CH	Yinhua CSI Virtual Reality ETF	20	↓	1	0.17	1.40	-	-	-	N
00737 TT	Cathay Nasdaq AI& Robotics Etf	20	↓	0	0.23	1.10	-	-	-	N
516000 CH	ChinaAMC CSI Big Data Industry ETF	20	↑	1	0.20	-	-	-	-	N
375770 KS	Samsung KODEX Carbon Efficient Green	20	0	0.15	0.09	-	-	Y	-	N
138520 KS	Mirae Asset TIGER Samsung Group ETF	20	1	0.14	0.20	-	-	-	-	N
LCU SP	CSOP CGS-CIMB FTSE APac Low Carbon Idx	20	↓	0	0.91	0.82	-	-	Y	N
2560 JP	MAXIS Carbon Efficient Japan Equity ETF	19	↓	0	1.78	0.13	-	-	Y	N
2067 JP	NEXT NOTES AI Cmpry 70 Net TR	19	0	0.85	0.85	-	-	-	-	N
385520 KS	Samsung KODEX K-Future Car Active ETF	19	0	0.14	0.50	-	Y	-	-	N
269420 KS	Samsung KODEX S&P Global Infra-Synth	19	0	0.26	0.26	-	-	-	-	N
1628 JP	NEXT FUNDS TOPIX-17 TRANSPORTATION	19	↑	0	0.12	0.35	-	-	-	N
516810 CH	ChinaAMC CSI Agriculture Thematic ETF	18	↓	1	0.19	-	-	-	-	N
580056 KS	KB Securities KB Japan Robotic	18	-	0.20	-	-	-	-	-	N
00875 TT	Cathay Cyber Security ETF	18	↓	0	0.26	1.10	-	-	-	N
159306 CH	Ping An CSI Auto Components Th	18	-	0.16	1.40	-	-	-	-	N
404260 KS	Samsung KODEX KRX Climate Change	18	↓	0	0.18	0.09	-	-	Y	N
159743 CH	Bosera CSI Hubei Trans of Eco Drivers	18	0	0.21	1.10	-	-	-	-	N
159767 CH	Xingyin CNI NEV Battery ETF	18	0	0.27	-	-	-	-	-	N
EVS SP	NIKKOAM-STRAITSTRADING MSCI CHINA	17	0	1.16	0.20	-	-	-	-	U
159642 CH	Da Cheng CSI SEEE Carbon Neutral ETF	17	↓	1	0.19	0.60	-	-	Y	N
419430 KS	Samsung KODEX MSCI China All Shares	17	↓	0	0.33	0.25	-	-	-	N
159888 CH	ChinaAMC CSI Intelligent Vehicle ETF	17	3	0.15	-	-	-	-	-	N
417630 KS	Mirae Asset TIGER Innovator ESG30 ETF	16	↓	0	0.14	0.56	-	-	Y	N
471040 KS	SAMSUNG ACTIVE KoAct Global AI&	16	0	0.19	0.45	-	Y	-	-	N
159890 CH	China Merchants CSI Cloud Comp & Big Data	16	↑	3	0.15	0.25	-	-	-	N
387280 KS	Mirae Asset TIGER Fr Mobility Active	16	↓	0	0.29	0.82	-	-	Y	N
517800 CH	Founder Fubon CSI SH-HK-SZ AI 50	16	↑	1	0.23	1.10	-	-	-	N
515990 CH	China Universal CSI SOE The Belt & Road	16	1	0.23	-					

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Theme (Continued)											
404540 KS	Mirae Asset TIGER KRX Climate Change	13	↓	0	0.23	0.12	-	-	Y	-	N
560660 CH	New China CSI Cloud Computing 50 ETF	13	↑	1	0.18	1.40	-	-	-	-	N
561310 CH	Guotai CSI Consumer Electronics Thematic	13	↑	1	0.25	1.60	-	-	-	-	N
162A JP	AI Select Megatrend Japan Equi	13	-	-	0.65	0.95	-	-	-	-	N
IBEES IN	NIPPON INDIA INFRA BEES	13	0	0	0.14	1.03	-	-	-	-	N
159687 CH	CSCSOP CGS-CIMB APac LowCarbon QDII	12	↓	1	0.11	1.05	-	-	Y	-	N
1516850 CH	ChinaAMC CSI New Energy ETF	12	↑	1	0.21	-	-	-	-	-	N
159709 CH	ICBC Credit Suisse SZSE IoT 50	12	0	0	0.27	1.32	-	-	-	-	N
3129 HK	BOCHK Greater Bay Area Climate Transition	12	↑	0	0.83	2.54	-	-	Y	C	N
562300 CH	Yinhua CSI China Mainland Low Carbon	12	0	0	0.33	1.35	-	-	Y	-	N
376410 KS	Mirae Asset TIGER Carbon Efficient Newdeal	12	↓	0	0.17	1.14	-	-	Y	-	N
560560 CH	Taikang CSI China Mainland Low Carbon	11	↑	1	0.31	-	-	-	Y	-	N
00851 TT	Taishin Global AI ETF	11	↑	0	0.24	1.00	-	-	-	-	N
3030 HK	Value Partners EMQQ Emerging M	11	↓	0	0.63	1.49	-	-	-	-	N
2636 JP	Global X MSCI Governance-Quality Japan	11	↑	0	0.22	0.28	-	-	Y	-	N
159775 CH	CCB Principal CNI NEV Battery ETF	11	0	0	0.27	0.60	-	-	-	-	N
2070 JP	Smart ESG 30 Empowering Women Net Rtr	11	↓	0	0.60	0.85	-	-	Y	-	N
159616 CH	CCB Principal CSI Agri&Animal Hus Thematic	10	↓	1	0.18	2.40	-	-	-	-	N
433500 KS	KIM KINDEX Nuclear Power Theme ETF	10	0	0	0.17	0.40	-	-	-	-	N
PGTX AU	Platinum GB Transition Quoted	10	0	0	0.77	1.04	-	Y	Y	-	N
300610 KS	MIRAE ASSET TIGER K-GAME ETF	10	0	0	0.18	0.55	-	-	-	-	N
516530 CH	Yinhua CSI Modern Logistics ETF	10	0	0	0.25	1.40	-	-	-	-	N
159889 CH	Guotai CSI Intelligent Vehicle ETF	10	0	0	0.20	1.40	-	-	-	-	N
562700 CH	ChinaAMC CSI Auto Components T	10	-	-	0.26	-	-	-	-	-	N
276000 KS	Mirae Asset TIGER Synth Natural Resources	10	0	0	0.27	0.49	-	-	-	Y	N
3595280 KS	NH-Amundi HANARO Frn K-Game ETF	10	0	0	0.28	0.45	-	-	-	-	N
550073 KS	NH QV iSelect-WG GreenEnergy ESG ETN 73	9	0	0	0.41	-	-	-	Y	-	N
562360 CH	Yinhua CSI Robot ETF	9	0	0	0.27	1.40	-	-	-	-	N
510090 CH	CCB Social Responsibility Open Index ETF	9	0	0	0.31	1.10	-	-	Y	-	N
562900 CH	E Fund CSI Modern Agriculture ETF	9	↓	2	0.18	0.70	-	-	-	-	N
159720 CH	Taikang CSI Intelligent Electric Vehicles ETF	9	↑	1	0.24	-	-	-	-	-	N
512970 CH	Ping An CSI Guangdong-HK-Macao Grt Bay	9	0	0	0.92	1.00	-	-	-	-	N
138530 KS	Mirae Asset TIGER LG Group+ Fundamental	9	0	0	0.16	0.20	-	-	-	-	N
DRV AU	Betashares Electric Veh and FTR Mobility	8	0	0	0.61	0.67	-	-	-	-	N
00886 TT	SinoPac US Tech Breakthrough ETF	8	↓	0	0.52	0.56	-	-	-	-	N
560280 CH	GF CSI Construction Machinery Theme ETF	8	↑	1	0.12	1.40	-	-	-	-	N
2522 JP	iShares Automation & Robot ETF	8	↓	0	0.29	0.53	-	-	-	-	N
159795 CH	China Universal CSI Intelligent Vehicle ETF	8	0	0	0.18	-	-	-	-	-	N
560960 CH	CIFM CSI Carbon Neutral 60 ETF	8	↑	2	0.18	-	-	-	Y	-	N
159896 CH	China Southern CSI Internet of Things ETF	8	0	0	0.18	1.40	-	-	-	-	N
410870 KS	Timefolio TIMEFOLIO Kulture Active ETF	7	0	0	0.29	0.80	-	Y	-	-	N
159872 CH	Penghua CSI Internet of Vehicle ETF	7	0	0	0.18	1.40	-	-	-	-	N
159669 CH	Guotai CNI Green Electricity ETF	7	2	0	0.13	1.40	-	-	Y	-	N
145850 KS	Yurie TREX Fundamental 200 ETF	7	0	0	0.38	0.34	-	-	-	-	N
417450 KS	KB KBSTAR Global Hydrogen Economy Indx	7	↑	0	0.27	0.76	-	-	Y	-	N
159559 CH	Invesco Great Wall CNI Robot Industry ETF	7	-	-	0.24	1.40	-	-	-	-	N
419420 KS	Samsung KODEX US Clean energy Nasdaq	7	0	0	0.32	0.45	-	-	Y	-	N
517390 CH	Tianhong CSI SH-HK-SZ Cloud Computing	7	↑	1	0.29	1.10	-	-	-	-	N
159778 CH	Penghua CSI Industrial Internet Thematic	7	0	0	0.19	1.40	-	-	-	-	N
390400 KS	Samsung KODEX US Smart Mobility S&P	7	0	0	0.43	0.09	-	-	-	-	N
515090 CH	Bosera CSI Sustainable Dvlp 100	7	↓	1	0.18	0.90	-	-	Y	-	N
385710 KS	Timefolio Timefolio Innovation Active ETF	7	↓	0	0.28	0.80	-	Y	-	-	N
2626 JP	Global X Digital Innov - Japan Eq	6	0	0	0.15	0.59	-	-	-	-	N
375760 KS	NH-Amundi HANARO Green-Newdeal ETF	6	0	0	0.20	0.20	-	-	Y	-	N
3034 HK	CSOP NASDAQ 100 ETF	6	0	0	0.31	1.91	-	-	-	-	N
131890 KS	Kidx Samsung Group Equal Weighted	6	0	0	0.22	0.20	-	-	-	-	N
516100 CH	ChinaAMC CSI Fintech Theme ETF	6	↑	0	0.28	-	-	-	-	-	N
269370 KS	Mirae Asset TIGER Synth-S&P Global Infra	6	0	0	0.36	0.48	-	-	-	-	N
404120 KS	Timefolio TIMEFOLIO CarbonZero Active	6	0	0	0.34	0.80	-	Y	Y	-	N
2814 HK	Samsung NYSE FANG+ ETF	6	0	0	0.26	1.80	-	-	-	U	N
00920 TT	Fubon Global ESG Green Energy ETF	6	0	0	0.25	1.10	-	-	Y	-	N
364690 KS	Samsung KODEX Innovative Tech Active	6	0	0	0.32	0.30	-	Y	-	-	N
449680 KS	Mirae Asset TIGER Synth Korea-China EV ETF	6	0	0	0.59	0.35	-	-	-	-	N
516330 CH	Huatai-PineBridge CSI IoT	6	0	0	0.35	1.10	-	-	-	-	N
550083 KS	NH QV iSelect Battery Recyclin	6	0	0	0.42	-	-	-	Y	-	N
269530 KS	Hanwha ARIRANG S&P Global Infra ETF	6	↓	0	0.46	0.55	-	-	-	-	N
516700 CH	Hwabao WP CSI Big Data Industry ETF	6	0	0	0.29	1.40	-	-	-	-	N
411720 KS	KB KBSTAR Global Metaverse Moorgate	6	↓	0	0.26	0.74	-	-	-	-	N
380340 KS	KIM ACE Fr5G Plus ETF	5	0	0	0.26	0.50	-	-	-	-	N
404650 KS	Shinhan SOL KRX Climate Change Solution	5	0	0	0.33	0.32	-	-	Y	-	N
UHRO TB	United Hero ETF	5	↓	0	1.65	2.00	-	-	-	-	N
159738 CH	Huatai-PineBridge CSI SH-HK-SZ Cloud	5	↑	1	0.17	1.10	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Equity Style											
Theme (Continued)											
AEAE AU	Australian Ethical High Conviction Fund	5	0	0.69	0.69	-	Y	Y	-	N	
402460 KS	NH-Amundi HANARO K-Metaverse MZ ETF	5	0	0.22	0.45	-	-	-	-	N	
517280 CH	Tianhong CSI SH-HK-SZ Online Consumptn	5	↓	1	0.59	1.10	-	-	-	N	
404470 KS	NH-Amundi HANARO KRX Climate Change	5	0	0.29	0.25	-	-	Y	-	N	
2640 JP	Global X Japan Games & Animation ETF	5	↓	0	0.13	0.59	-	-	-	N	
MTAV AU	Betashares Metaverse ETF	5	↑	0	0.62	0.69	-	-	-	N	
159530 CH	E Fund CNI Robot Industry ETF	5	-	-	0.20	0.50	-	-	-	N	
563010 CH	E Fund CSI Telecom Thematic ETF	5	0	0.34	-	-	-	-	-	N	
1652 JP	Daiwa MSCI Japan Empowering Women	5	↓	0	0.13	0.15	-	-	Y	-	N
437370 KS	KB KBSTAR Global Agribusiness MV ETF	5	0	0.39	0.85	-	-	-	-	N	
159526 CH	Harvest CSI Robot ETF	5	-	-	0.14	-	-	-	-	N	
159769 CH	Yinhua CSI Consumer Electronics Thematic	5	0	0.26	-	-	-	-	-	N	
2637 JP	Global X CleanTech Japan ETF	4	↓	0	0.17	0.59	-	-	Y	-	N
159895 CH	E Fund CSI Internet of Things ETF	4	0	0.22	0.70	-	-	-	-	N	
2627 JP	Global X eCommerce - Japan Equity ETF	4	0	0.18	0.59	-	-	-	-	N	
3056 HK	Pando Innovation ETF	4	0	1.43	0.75	-	Y	-	-	N	
FTEC AU	Global X Fintech & Blockchain	4	↓	0	0.90	0.69	-	-	-	N	
400180 KS	Smsng KODEX Korea Chi New Enrg Vehi Synth	4	0	0.66	0.25	-	-	Y	-	N	
403990 KS	KB KBSTAR KRX Climate Change Solutions	4	0	0.32	0.37	-	-	Y	-	N	
476000 KS	HYUNDAI UNICORN POSTIPO ACTIVE ETF	4	-	-	0.52	-	-	Y	-	N	
ROYLU AU	BETASHARES GLOBAL ROYALTIES ETF	4	↑	0	0.73	0.69	-	-	-	N	
517660 CH	Tianhong CSI SH-HK-SZ Internet of Things	4	↑	1	0.62	1.10	-	-	-	N	
373490 KS	Samsung KODEX K-Innovation Active ETF	4	↓	0	0.27	0.50	-	-	Y	-	N
367740 KS	NH-Amundi HANARO 5G Industry ETF	4	↓	0	0.25	0.45	-	-	-	N	
314700 KS	NH-Amundi HANARO Agri Business	4	0	0.18	0.50	-	-	-	-	N	
381570 KS	NH-Amundi HANARO Green Energy ETF	4	0	0.27	0.45	-	-	Y	-	N	
2848 JP	Global X MSCI Japan Climate Change ETF	4	↑	0	0.15	0.28	-	-	Y	-	N
2073 JP	Smart ESG 30 Low Carbon Risk Net Return	4	↓	0	0.67	0.85	-	-	Y	-	N
00910 TT	FSITC Aerospace and Satellite ETF	4	0	0.31	1.13	-	-	-	-	N	
3181 HK	Premia Asia Innovative Tech	4	0	1.50	0.50	-	-	-	-	U	N
517770 CH	AXA-SPDB CSI SH-HK-SZ Game and Media	3	0	0.29	1.40	-	-	-	-	N	
3112 HK	Pando Blockchain ETF	3	0	1.70	0.99	-	Y	-	-	N	
140570 KS	KB KBSTAR Exporter Sec - Eq	3	↓	0	0.30	0.52	-	-	-	N	
HFIF AU	Hejaz High Innovation Active ETF	3	-	-	1.24	1.55	-	Y	-	N	
XISI U	Premier ETF SMINFRA18	3	0	2.11	1.20	-	-	-	-	N	
159701 CH	China Merchants CSI Internet of Things ETF	3	↑	0.19	0.60	-	-	-	-	N	
2836 JP	Global X Japan Fintech ETF	3	0	0.16	0.59	-	-	-	-	N	
ITEK AU	iShares Future Tech Innovators ETF	3	↑	0	0.56	0.55	-	-	-	N	
407170 KS	KCGI SmartCommerce Active ETF	3	0	0.21	0.58	-	Y	-	Y	N	
438210 KS	Hanwha Arirang Gbl AI MV	3	0	0.19	1.47	-	-	-	-	N	
159527 CH	GF CSI Cloud Computing and Big Data ETF	3	-	-	0.17	1.40	-	-	-	N	
427120 KS	KB KBSTAR Platform Theme ETF	3	0	0.34	0.60	-	-	-	-	N	
BUGG AU	Global X Cybersecurity ETF/Australia	3	0	0.91	0.47	-	-	-	-	N	
407300 KS	NH-Amundi HANARO Golf Theme ETF	3	0	0.31	0.45	-					

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Style										
Theme (Continued)										
020028 TT	Yuanta Taiwan Elec Vehicles Supply Chain	-	0	0.60	0.90	-	-	-	-	N
020032 TT	Yuanta Taiwan Green Energy Total Return	-	0	0.66	0.90	-	-	Y	-	N
020019 TT	President TIP FacSet Taiwan 5G TR Iidx	-	0	0.30	-	-	-	-	-	N
BIF NZ	Booster Innovation Fund	-	0	2.81	0.34	-	-	-	-	N

Equity Sector										
Communication Services										
515880 CH	Guotai CSI All ShareComm Devices	386	34	0.09	1.63	-	-	-	-	N
395290 KS	NH-Amundi HANARO Fin K-POP&Media ETF	89	↑	1	0.14	0.45	-	-	-	N
228810 KS	MIRAE ASSET TIGER MEDIA CONTENTS	58	0	0.17	0.55	-	-	-	-	N
512220 CH	Invesco Great Wall CSI Tech MediaComm	50	1	0.26	2.70	-	-	-	-	N
159805 CH	Penghua CSI Media ETF	30	↑	4	0.13	1.40	-	-	-	N
365000 KS	Mirae Asset TIGER KRX Internet K-New Deal	29	1	0.20	0.44	-	-	-	-	N
266360 KS	Samsung KODEX Media & Entertainment	29	↑	0	0.12	0.45	-	-	-	N
159695 CH	Harvest CNI Communications ETF	19	↓	1	0.14	0.60	-	-	-	N
516620 CH	Guotai CSI Film and Television ETF	10	↑	2	0.17	1.40	-	-	-	N
159855 CH	Yinhua CSI Film and Television ETF	9	↑	1	0.17	1.40	-	-	-	N
159507 CH	GF CNI Communications ETF	9	1	0.17	-	-	-	-	-	N
159511 CH	China Southern CSI Communicat	6	1	0.16	-	-	-	-	-	N
760006 KS	Kiwoom Securities Kiwoom KPOP ETN 6	6	0	0.28	-	-	-	-	-	N
407160 KS	MERITZ MASTER TMTechMediaTelecom	4	↓	0	0.22	0.61	-	Y	-	N
315270 KS	Mirae Asset Tiger 200Comm Service	4	↓	0	0.23	0.44	-	-	-	N
560300 CH	China Universal CSI Telecom Thematic ETF	4	-	0.20	-	-	-	-	-	N
098560 KS	Mirae Asset TIGER Media & Telecom - Eq	2	0	0.16	0.49	-	-	-	-	N
516190 CH	ChinaAMC CSI Cultural Recreation and Media	2	↑	0	0.22	-	-	-	-	N
315480 KS	KB KBSTAR 200Comm Service	1	↓	0	0.22	0.27	-	-	-	N
020012 TT	Fubon Next Generation MobileComm TR Iidx	-	0	1.84	0.90	-	-	-	-	N
020026 TT	Mega TIP Customized TPEX ESG IT Elite	-	0	0.35	-	-	-	Y	-	N

Consumer										
159928 CH	China Universal CSI Consumer Staples Iidx	1,274	14	0.12	-	-	-	-	-	N
159736 CH	Tianhong CSI Food and Beverage ETF	740	4	0.15	0.60	-	-	-	-	N
091180 KS	Samsung KODEX Autos ETF	432	↓	8	0.06	-	-	-	-	N
515170 CH	ChinaAMC CSI Food & Beverage Sub-Indus	387	8	0.17	0.60	-	-	-	-	N
159766 CH	Fulgoal CSI Tourism Thematic ETF	332	↑	12	0.15	0.60	-	-	-	N
159996 CH	Guotai CSI All Share Household Appliances	291	↓	12	0.09	1.63	-	-	-	N
515710 CH	Hwabao WP CSI Food& Beverage Sub-Indus	107	3	0.17	1.40	-	-	-	-	N
150460 KS	Mirae Asset TIGER China Consumer ETF	89	1	0.22	0.55	-	-	-	-	N
560880 CH	GF CSI All Share Household Appliances ETF	83	↓	3	0.14	1.40	-	-	-	N
228790 KS	MIRAE ASSET TIGER COSMETICS ETF	83	3	0.20	0.55	-	-	-	-	N
159732 CH	ChinaAMC CNI Consumer Electronics ETF	74	↑	6	0.17	-	-	-	-	N
512600 CH	Harvest CSI Primary Consumption Iidx Fund	54	1	0.17	-	-	-	-	-	N
561100 CH	Fulgoal CSI Consumer Electronics Thematic	54	↑	3	0.20	0.60	-	-	-	N
139280 KS	Mirae Asset TIGER Consumer Staples ETF	43	0	0.21	0.42	-	-	-	-	N
2806 HK	Global X China Consumer Brand	43	↓	0	0.52	0.68	-	-	U	N
159699 CH	GF Hang Seng Consumption ETF QDII	38	3	0.14	-	-	-	-	-	N
510630 CH	ChinaAMC SSE Consumer Staples Iidx	36	↓	2	0.13	-	-	-	-	N
513970 CH	Invesco Great Wall Hang Seng C	32	↓	2	0.17	-	-	-	-	N
1625 JP	NEXT FUNDS TOPIX-17 Electric & Precision	32	↑	0	0.13	0.35	-	-	-	N
159698 CH	Penghua CNI Grain Industry ETF	31	1	0.17	-	-	-	-	-	N
159936 CH	GF CSI All Share Consumer Discretionary	27	1	0.12	1.40	-	-	-	-	N
326230 KS	KB KBSTAR Domestic Consumption Plus	19	0	0.27	0.46	-	-	-	-	N
561120 CH	Fulgoal CSI All Share Household Appliances	19	↓	3	0.14	0.60	-	-	-	N
FMCGIETF IN	ICICI Prudential Nifty FMCG ETF	17	0	0.11	2.24	-	-	-	-	N
159735 CH	Yinhua CSI HK Stock Connect Consumer Thm	16	1	0.23	-	-	-	-	-	N
580057 KS	KB Securities KB Japan Consume	15	-	0.20	-	-	-	-	-	N
1630 JP	NEXT FUNDS TOPIX-17 RETAIL TRADE ETF	14	↑	0	0.14	0.35	-	-	-	N
456250 KS	SAMSUNG KODEX Eur Luxury TOP10 STOXX	13	↓	0	0.14	0.45	-	-	-	N
159512 CH	GF CSI All Share Automobiles ETF	12	2	0.11	-	-	-	-	-	N
561600 CH	Ping An CSI Consumer Elec Thematic	12	↑	1	0.23	1.40	-	-	-	N
516600 CH	ICBC Credit Suisse CSI Leading Consumption	12	0	0.25	1.32	-	-	-	-	N
562950 CH	E Fund CSI Consumer Electronics Thematic	12	1	0.42	0.70	-	-	-	-	N
159672 CH	Bosera CSI Consumer Staples ETF	11	↓	1	0.16	1.40	-	-	-	N
513070 CH	E Fund CSI HK Stock Connect Cons Theme	11	2	0.25	0.70	-	-	-	-	N
422260 KS	KIVAM VITA MZ consumption Active ETF	10	0	0.31	0.60	-	Y	-	-	N
516130 CH	Hwabao WP CSI Consumer Top ETF	10	1	0.27	1.40	-	-	-	-	N
513960 CH	Bosera CSI HK S&K Connect Consumer Theme	9	1	0.22	1.40	-	-	-	-	N
159779 CH	China Merchants CSI Consumer Elect Them	9	1	0.22	1.40	-	-	-	-	N
1617 JP	NEXT FUNDS TOPIX-17 FOODS ETF	9	↑	0	0.13	0.35	-	-	-	N
438900 KS	NH-Amundi HANARO K-Food ETF	9	↑	0	0.19	0.45	-	-	-	N
515390 CH	Penghua CSI HK Stock Connect Consumer	8	↓	0	0.36	1.40	-	-	-	N
159798 CH	E Fund CSI Consumer 50 ETF	8	1	0.13	1.10	-	-	-	-	N

1 Option Liquidity (H / M / L / N - High / Medium / Low / None)

2 ↑ / ↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: Y = Currency Hedged, U = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Consumer (Continued)										
513230 CH	ChinaAMC CSI HK Stock Connect Consumer	8	1	0.24	-	-	-	-	-	N
516900 CH	HuaAn CSI SWS Food and Beverage ETF	7	↓	1	0.20	1.60	-	-	-	N
560680 CH	GF CSI Consumer Staples ETF	7	3	0.14	1.40	-	-	-	-	N
266410 KS	Samsung KODEX Consumer Staples ETF	7	↓	0	0.14	0.45	-	-	-	N
479850 KS	NH-Amundi HANARO K-Beauty ETF	7	-	0.18	0.45	-	-	-	-	N
159862 CH	Yinhua CSI Food and Beverage Sub-Ind	6	0	0.18	1.40	-	-	-	-	N
159689 CH	China Southern CSI Consumer Staples ETF	6	↓	1	0.15	1.40	-	-	-	N
RCONSUM IN	Nippon India ETF Nifty India Consumption	6	0	0.16	0.31	-	-	-	-	N
517880 CH	Huatai-PineBridge CSI SH-HK-SZ Consume	5	↓	1	0.45	1.10	-	-	-	N
237440 KS	Mirae Asset Tiger Consumer Goods Balance	5	0	0.25	0.24	-	-	-	-	N
159725 CH	ICBC Credit Suisse CSI Online Consumption	5	0	0.27	1.32	-	-	-	-	N
159670 CH	CPIC CSI Consumer 50 ETF	5	↓	1	0.15	-	-	-	-	N
227560 KS	Mirae Asset TIGER 200 Consumer Staples	5	↑	0	0.18	0.44	-	-	-	N
139290 KS	Mirae Asset TIGER 200 Consumer Discr	5	0	0.21	0.44	-	-	-	-	N
159730 CH	Bosera CNI Top Household Appliances ETF	5	↓	1	0.13	1.10	-	-	-	N
159520 CH	ICBC Credit Suisse CSI Consumer Top ETF	5	1	0.13	1.37	-	-	-	-	N
159793 CH	Ping An CSI SH-HK-SZ Online Consumption	4	↓	0	0.51	-	-	-	-	N
3189 HK	E Fund HK CSI Liquor Index ETF	4	0	0.68	0.80	-	-	-	C	N
517550 CH	China Merchants CSI SH-HK-SZ Consumer	4	↓	0	0.22	1.40	-	-	-	N
266390 KS	Samsung KODEX Consumer Discretionary	4	0	0.24	0.45	-	-	-	-	N
454180 KS	KIWOOM KOSEF Chi Dom Consumer Top CSI	3	↓	0	0.48	0.42	-	-	-	N
2645 JP	Global X Japan Leisure & Entertainment ETF	2	↓	0	0.20	0.59	-	-	-	N
ACSMETF IN	Axis NIFTY India Consumption ETF	2	0	0.42	0.37	-	-	-	-	N
IEAT AU	Belashes Future of Food ETF	1	0	0.49	0.67	-	-	-	-	N
XIC U	Premier ETF Indonesia Consumer	1	0	1.34	2.70	-	Y	-	-	N
287310 KS	KB KBSTAR 200 Consumer Discretionary	1	↓	0	0.24	0.29	-	-	-	N
287330 KS	KB KBSTAR 200 Consumer Staples ETF	1	↓	0	0.21	0.31	-	-	-	N
IBUY AU	Belashes Online Retail and E-Commerce	1	0	0.51	0.67	-	-	-	-	N
CONS IN	Kotak Nifty India Consumption ETF	0	0	0.53	0.30	-	-	-	-	N

Energy										
515790 CH	Huatai-PineBridge CSI Photovoltaic Indus	1,386	59	0.13	1.10	-	-	-	-	N
515700 CH	Ping An CSI New Energy Automobile Indus	482	14	0.09	-	-	-	-	-	N
515220 CH	Guotai CSI Coal and Consumable Fuels ETF	475	↓	29	0.09	1.63	-	-	-	N
159857 CH	Tianhong CSI Photovoltaic Industry ETF	287	↑	18	0.16	1.40	-	-	-	N
MVE AU	VanEck S&P/ASX MidCap ETF	184	↑	1	0.16	0.45	-	-	-	N
159875 CH	Harvest CSI New Energy ETF	148	↑	6	0.22	-	-	-	-	N
455860 KS	Shinhan SOL Scondry Battery Materials&Eqpt	132	↑	3	0.10	0.40	-	-	-	N
159796 CH	China Universal CSI Battery Thematic ETF	126	↑	3	0.20	-	-	-	-	N
516090 CH	E Fund CSI New Energy ETF	115	↑	5	0.28	0.70	-	-	-	N
51680 AU	Belashes Global Energy Cmpny - Cur Hdg	114	↓	1	0.38	0.57	-	-	Y	N
FUEL CH	Yinhua CSI Photovoltaic Industry ETF	114	3	0.19	1.40	-	-	-	-	N
159864 CH	Guotai CSI Photovoltaic Industry ETF	63	3	0.24	1.40	-	-	-	-	N
QLNE AU	VanEck Global Clean Energy ETF	58	0	0.39	0.65	-	-	Y	-	N
159930 CH	China Universal CSI Energy Index ETF	46	↑	4	0.10	-	-	-	-	N
159752 CH	SWS MU CSI CN Mainland New Energy ETF	45	↑	1	0.26	0.68	-	-	-	N
561260 CH	ICBC Credit Suisse CSI Guoxin	41	4	0.13	-	-	-	-	-	N
385510 KS	Samsung KODEX K-Renewable Energy	41	1	0.11	0.50	-	-	-	-	N
516270 CH	HuaAn CSI CN Mainland New Energy ETF	37	↑	2	0.25	0.60	-	-	-	N
159690 CH	AXA-SPDB CSI Photovoltaic Industry ETF	33	2	0.24	1.40	-	-	Y	-	N
159863 CH	Penghua CSI Photovoltaic Industry ETF	30	1	0.22	1.40	-	-	-	-	N
377990 KS										

ASIA-PACIFIC LISTED ETFS



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Equity Sector										
Energy (Continued)										
1618 JP	NEXT FUNDS TOPIX-17 ENERGY RESOURCE	6	↓	0	0.15	0.35	-	-	-	N
159566 CH	E Fund CNI New Energy Battery ETF	6	-	0.19	-	-	-	-	-	N
3134 HK	CSOP Huaai-PineBridge CSI Photovoltaic Ind	6	0	0.77	1.50	-	-	-	-	N
159945 CH	GF CSI All Share Energy Index ETF	5	↓	1	0.12	1.40	-	-	-	N
159731 CH	ChinaAMC CSI Petrochem Industry Stimulus	4	↓	0	0.23	-	-	-	-	N
562960 CH	E Fund CSI Green Electricity ETF	4	↑	1	0.30	-	-	Y	-	N
561760 CH	Bosera CSI Oil and Gas Resources ETF	3	-	0.18	-	-	-	-	-	N
284990 KS	KB KBSTAR 200 Energy & Chemicals ETF	3	↓	0	0.25	0.28	-	-	-	N
243890 KS	Mirae Asset Tiger 200 Energy & Lvg	2	0	0.29	0.72	+2x	-	-	-	N
7505 HK	CSOP US Oil&Gas Comp Daily -2x/Inv Product	2	0	0.94	2.00	-2x	-	-	-	N
TANN AU	Betashares Solar Ef	2	0	0.74	0.69	-	-	Y	-	N
3405 HK	Fubon ICE FactSet Asia Battery	2	0	0.88	1.20	-	-	-	-	N
ENGY TB	MTrack Energy ETF	2	0	0.51	1.22	-	-	-	-	N
ENY TB	KTAM SET Energy ETF Tracker	1	0	1.72	1.50	-	-	-	-	N
Financials										
1615 JP	NEXT FUNDS TOPIX Banks	1,134	↑	11	0.06	0.21	-	-	-	N
512800 CH	Fortune SG CSI Bank ETF	835	↓	30	0.09	1.40	-	-	-	N
512900 CH	China Southern CSI All Share S	787	7	0.13	1.60	-	-	-	-	N
BBEES IN	Nippon India ETF Nifty Bank BEES	773	6	0.04	0.19	-	-	-	-	N
512070 CH	E Fund CSI 300 Financials ex Banks Idx	755	21	0.18	0.65	-	-	-	-	N
515290 CH	Tianhong CSI Banks ETF	661	↓	8	0.12	1.40	-	-	-	N
BANKNFT IN	Kotak Nifty Bank ETF	645	1	0.13	0.16	-	-	-	-	N
SBIBANK IN	SBI-ETF Nifty Bank	519	1	0.07	0.20	-	-	-	-	N
510230 CH	Guotai Shanghai Stock Exch 180 Financial	468	6	0.12	1.63	-	-	-	-	N
BANKETF IN	ICICI Prudential Nifty Bank ETF	394	0	0.11	0.15	-	-	-	-	N
UTBANETF IN	UTI Nifty Bank ETF	393	0	0.17	0.30	-	-	-	-	N
PSUBBE IN	Nippon India ETF Nifty PSU Bank BEES	346	4	0.05	0.49	-	-	-	-	N
ABSLBAN IN	Aditya Birla SL Nifty Bank ETF	332	0	0.18	0.15	-	-	-	-	N
HNBANK IN	HDFC NIFTY Bank ETF	294	0	0.17	0.16	-	-	-	-	N
PVTBANIE IN	ICICI Prudential Nifty Private Bank ETF	285	0	0.11	0.15	-	-	-	-	N
570090 KS	Korea Invst & Sec True KIS CD Rate Invst Etn	226	0	-	-	-	-	-	-	N
159940 CH	GF CSI All Share Financials Index ETF	214	1	0.15	1.40	-	-	-	-	N
091170 KS	Samsung KODEX Banks ETF	210	↓	4	0.10	-	-	-	-	N
PSUBANK IN	Kotak Nifty PSU Bank ETF	203	1	0.19	0.49	-	-	-	-	N
512700 CH	China Southern CSI Bank ETF	181	↓	10	0.11	1.10	-	-	-	N
560090 CH	Chi Uni CSI All Share IB and Brokerage	160	2	0.17	-	-	-	-	-	N
MVB AU	VanEck Australian Banks ETF	120	0	0.10	0.28	-	-	-	-	N
515020 CH	ChinaAMC CSI Banks ETF	69	↓	2	0.14	-	-	-	-	N
OZF AU	SPDR S&P/ASX 200 Financials Ex A-REIT	65	↓	1	0.16	0.34	-	-	-	N
1631 JP	NEXT FUNDS TOPIX-17 BANKS ETF	57	↑	0	0.13	0.35	-	-	-	N
0055 TT	Yuanta/P-shares MSCI Taiwan Financials	55	0	0.16	0.44	-	-	-	-	N
515560 CH	CCB Principal CSI All Share Invst Banking	54	1	0.22	1.05	-	-	-	-	N
512570 CH	E Fund CSI All Share Sec Cmpany	50	↑	1	0.16	0.65	-	-	-	N
159887 CH	Fullgoal CSI 800 Banks ETF	46	8	0.11	0.60	-	-	-	-	N
512820 CH	CSI Banks ETF Fund	43	↓	4	0.14	-	-	-	-	N
QFN AU	BetaShares S&P/ASX Financial Sector ETF	42	↑	0	0.17	0.34	-	-	-	N
BFSI IN	Mirae Asset Nifty Financial Services ETF	33	0	0.11	0.12	-	-	-	-	N
1632 JP	NEXT FUNDS TOPIX-17 FINANCIALS EX BANK	31	↑	0	0.13	0.35	-	-	-	N
FUESSVFL VN	SSIAM VNFIN LEAD ETF	31	↓	0	0.28	0.65	-	-	-	N
DBNKETF IN	DSP NIFTY BANK ETF	28	0	0.23	0.16	-	-	-	-	N
102970 KS	Samsung KODEX Securities ETF	28	1	0.13	0.45	-	-	-	-	N
516210 CH	HuaAn CSI Banks ETF	28	↑	1	0.34	0.60	-	-	-	N
BNKS AU	BetaShares Global Banks - Cur Hdg	26	↓	0	0.78	0.57	-	-	Y	N
AXSBANK IN	Axis NIFTY Bank ETF	24	0	0.27	0.18	-	-	-	-	N
00917 TT	CTBC Selected Financials and Data Indus	22	0	0.12	1.10	-	-	-	-	N
SBIFBET IN	SBI ETF Private Bank	21	0	0.28	0.15	-	-	-	-	N
513750 CH	GF CSI HK Connect Financials e	20	3	0.14	1.40	-	-	-	-	N
159933 CH	UBS SDIC CSI 300 Financials Index ETF	19	0	0.32	1.53	-	-	-	-	N
140700 KS	Samsung KODEX Insurance ETF - Equity	17	↑	1	0.13	0.45	-	-	-	N
516310 CH	E Fund CSI Banks ETF	16	↓	2	0.15	0.70	-	-	-	N
ASF NZ	Smartshares Australian Financials ETF	16	0	0.62	0.54	-	-	-	-	N
515630 CH	Penghua CSI 800 Sec & Insurance	14	1	0.15	1.40	-	-	-	-	N
512730 CH	Penghua CSI Bank ETF	13	↓	1	0.21	1.20	-	-	-	N
139270 KS	Mirae Asset TIGER 200 Financials ETF	10	0	0.14	0.43	-	-	-	-	N
453060 KS	NH-Amundi HANARO KOFR ACTIVE ETF Synth	9	0	0.00	0.05	-	Y	-	-	N
DFVIFBET IN	DSP NIFTY Private Bank ETF	9	0	0.26	1.00	-	-	-	-	N
512640 CH	Harvest CSI Financial Property Idx Fund	8	0	0.29	0.60	-	-	-	-	N
159931 CH	China Universal CSI Financials Index ETF	8	0	0.14	-	-	-	-	-	N
091220 KS	Mirae Asset TIGER Banks ETF	7	↓	0	0.15	0.48	-	-	-	N
513190 CH	ChinaAMC CSI Hong Kong Connect	7	1	0.17	-	-	-	-	-	N
517900 CH	China Merchants CSI Banks AH Price Select	7	0	0.32	1.40	-	-	-	-	N
PSUBNKIE IN	ICICI Prudential Nifty PSU Bank ETF	7	0	0.11	0.40	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Financials (Continued)										
510650 CH	ChinaAMC SSE Financials Idx Sponsor	6	↓	2	0.23	-	-	-	-	N
515280 CH	Fullgoal CSI Bank ETF	5	↓	2	0.20	1.63	-	-	-	N
513140 CH	Huatai-PineBridge CSI HK 300 Fin Service QDII	5	1	0.18	1.10	-	-	-	-	N
157500 KS	Mirae Asset Tiger Securities ETF	4	0	0.19	0.46	-	-	-	-	N
427110 KS	KB KBSTAR Venture Capital Company ETF	4	0	0.32	0.59	-	-	-	-	N
284980 KS	KB KBSTAR 200 Financials ETF	3	0	0.23	0.26	-	-	-	-	N
XIIF U	Premier ETF Indonesia Financial	2	↓	0	1.45	3.20	-	Y	-	N
HNPSUBK IN	HDFC NIFTY PSU BANK ETF	2	-	0.29	0.35	-	-	-	-	N
DPSBETF IN	DSP Nifty PSU Bank ETF	1	0	0.25	0.45	-	-	-	-	N
NPBET IN	Tata Nifty Private Bank ETF	1	0	0.51	0.14	-	-	-	-	N
020037 TT	Yuanta Financial DH TR Reinvestment ETN	-	0	0.50	0.99	-	-	-	-	N
020036 TT	Yuanta Financial DH TR Payout ETN	-	0	0.61	0.99	-	-	-	-	N
BAFINBK IN	Bajaj Finserv Nifty Bank Ef	-	-	0.33	-	-	-	-	-	N
Health Care										
512170 CH	Hwabao CSI Medical ETF	3,087	↑	51	0.30	1.40	-	-	-	N
512010 CH	E Fund CSI 300 Health Care Index ETF	2,390	62	0.28	0.65	-	-	-	-	N
513060 CH	Bosera Hang Seng Healthcare ETF QDII	1,452	↑	125	0.27	1.45	-	-	-	N
159992 CH	Yinhua CSI Brand Name Drug Industry ETF	925	29	0.15	1.35	-	-	-	-	N
513120 CH	GF CSI Hong Kong Brand Name Drug ETF QDII	795	↑	153	0.16	1.40	-	-	-	N
159938 CH	GF CSI All Share Health Care Idx Fund	645	↑	7	0.17	1.40	-	-	-	N
512290 CH	Guotai CSI Bio-medicine ETF	551	11	0.11	1.63	-	-	-	-	N
515120 CH	GF CSI Brand Name Drug Industry ETF	439	14	0.20	1.40	-	-	-	-	N
159859 CH	Tianhong CNI Biomedicine ETF	354	↑	7	0.27	1.40	-	-	-	N
159892 CH	ChinaAMC Hang Seng,Hong Kong-Listed	336	↑	39	0.23	-	-	-	-	N
159828 CH	Guotai CSI Medical Service ETF	278	↑	7	0.25	1.63	-	-	-	N
560080 CH	Chi Uni CSI Traditional Chinese Medicine	250	7	0.12	-	-	-	-	-	N
159929 CH	China Universal CSI Health Care Index ETF	235	7	0.08	-	-	-	-	-	N
159883 CH	Maxwealth CSI All Share Medical Device	234	6	0.21	-	-	-	-	-	N
560260 CH	GF CSI Medical Service ETF	208	2	0.16	1.35	-	-	-	-	N
143860 KS	Mirae Asset TIGER Health Care ETF	188	↑	3	0.10	0.42	-	-	-	N
159837 CH	E Fund CSI Biotechnology Thematic ETF	181	3	0.23	0.70	-	-	-	-	N
513200 CH	E Fund CSI HK Connect Health-Care Comp	162	↑	13	0.17	0.70	-	-	-	N
516820 CH	Ping An CSI Health Care Innovation ETF	156	↑	3	0.29	-	-	-	-	N
DRUG AU	BetaShares Global Healthcare - Cur Hdg	115	0	0.44	0.57	-	-	-	Y	N
515950 CH	Fullgoal CSI Health Care 50 ETF	112	3	0.14	0.63	-	-	-	-	N
462900 KS	SAMSUNGACTIVE KoAct Bio Health	103	3	0.10	0.45	-	Y	-	-	N
244580 KS	Samsung KODEX BIO ETF	100	↑	3	0.11	0.45	-	-	-	N
463050 KS	TIMEFOLIO TIMEFOLIO Kbio Active ETF	89	4	0.14	0.69	-	Y	-	-	N
513700 CH	Penghua CSI HK Connect Health Care	88	↑	7	0.26	1.40	-	-	-	N
159647 CH	Penghua CSI Traditional Chinese Medicine	87	6	0.11	1.40	-	-	-	-	N
3069 HK	CHINAAMC HANG SENG HONG - CNY	86	↑	0	0.41	0.50	-	-	-	U,C
364970 KS	Mirae Asset TIGER KRX BIO K-New Deal	80	↑	2	0.13	0.43	-	-	-	N
159847 CH	E Fund CSI Medical Service ETF	79	↑	2	0.27	0.70	-	-	-	N
NIFPHETF IN	Nippon India Nifty Pharma ETF	77	1	0.07	0.21	-	-	-	-	N
159839 CH	China Universal CNI Biomedicine ETF	67	2	0.30	-	-	-	-	-	N
562860 CH	Harvest CSI Vaccine and Biotec	51	↓	1	0.24	-	-	-	-	N
266420 KS	Samsung KODEX Healthcare ETF	48	↓	2	0.11	0.09	-	-	-	N
2820 HK	Global X China Biotech	47	↓	0	0.40	0.68	-	-	-	U
512120 CH	HuaAn CSI Pharmaceutical Segment Idx	46	↑	2	0.27	0.60	-	-	-	N
159506 CH	Fullgoal Hang Seng SCHK Healthcare ETF	45	13	0.15	-	-	-	-	-	N
159615 CH	Biotech ETF Hong Kong	43								

ASIA-PACIFIC LISTED ETFS

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Health Care (Continued)										
159567 CH	Yinhua CNI HK Connect Innovat	19	-	0.13	-	-	-	-	-	N
261070 KS	Mirae Asset TIGER KOSDAQ150 Biotech	18	1	0.17	0.44	-	-	-	-	N
159891 CH	CCB Principal CSI All Share Healthcare	18	↑	0.31	1.40	-	-	-	-	N
516060 CH	ICBC Credit Suisse CSI Br& Name Drug Indus	18	↑	0.30	1.32	-	-	-	-	N
516790 CH	Huatai-PineBridge CSI All Share Healthcare	16	0	0.27	1.10	-	-	-	-	N
159508 CH	HuaAn CNI Biomedicine ETF	16	0	0.20	-	-	-	-	-	N
159760 CH	Taikang CNI Public Health ETF	15	1	0.22	-	-	-	-	-	N
1621 JP	NEXT FUNDS TOPIX-17 PHARMACEUTICAL	15	↑	0.12	0.35	-	-	-	-	N
LV NZ	Smartshares Healthcare Innovation Etf	15	0	0.84	0.75	-	-	-	-	N
561510 CH	Huatai-PineBdg CSI Traditional Chinese Medicine	15	↓	2.14	1.10	-	-	-	-	N
510660 CH	ChinaAMC SSE Health Care Idx Sponsor	14	1	0.12	-	-	-	-	-	N
516500 CH	ChinaAMC CSI Biotechnology Thematic ETF	13	0	0.26	-	-	-	-	-	N
HEALTHIE IN	ICICI Prudential Nifty Healthcare ETF	13	0	0.17	0.15	-	-	-	-	N
159835 CH	CCB CSI Brand Name Drug Industry ETF	12	0	0.31	1.40	-	-	-	-	N
588700 CH	Harvest SSE STAR Biology and M	11	-	0.33	0.60	-	-	-	-	N
159849 CH	China Merchants CSI BioTech Thematic	11	1	0.27	1.10	-	-	-	-	N
159877 CH	China Southern CSI All Share Health Care	10	0	0.23	1.40	-	-	-	-	N
562390 CH	Yinhua CSI Traditional Chinese Medicine ETF	10	0	0.17	1.40	-	-	-	-	N
516560 CH	Hwabao WP CSI Old-Age Industry ETF	10	0	0.15	1.40	-	-	-	-	N
562600 CH	ChinaAMC CSI All Share Health	10	-	0.38	-	-	-	-	-	N
159643 CH	Guotai CNI Vaccine and Biotechnology ETF	9	2	0.18	1.40	-	-	-	-	N
516610 CH	Da Cheng CSI All Share Healthcare Equip	9	1	0.32	0.60	-	-	-	-	N
464610 KS	Shinhan SOL Medical Device Mat	8	0	0.18	0.40	-	-	-	-	N
159797 CH	China Universal CSI All Share Health Care	7	↑	0.19	-	-	-	-	-	N
253280 KS	KB KBSTAR HealthCare ETF	5	0	0.25	0.20	-	-	-	-	N
307510 KS	MIRAE ASSET TIGER HEALTHCARE EQUIP	5	0	0.22	0.56	-	-	-	-	N
516930 CH	Minsheng Royal CSI Biotech Thematic	5	0	0.45	0.86	-	-	-	-	N
ABNHETF IN	Aditya Birla Sun Life Nifty Healthcare ETF	4	0	0.17	0.22	-	-	-	-	N
2639 JP	Global X Japan Bio & Med Tech ETF	4	↓	0.16	0.59	-	-	-	-	N
561920 CH	China Merchants CSI Vaccine an	4	↓	0.72	-	-	-	-	-	N
517990 CH	China Merchants CSI SH-HK-SZ 500 Health	4	↑	0.25	1.40	-	-	-	-	N
2841 HK	Global X China MedTech ETF	3	0	1.12	0.68	-	-	-	-	N
473380 KS	NH-Amundi HANARO K-MedTech ETF	3	-	0.41	0.36	-	-	-	-	N
AXIHCEF IN	Axis NIFTY Healthcare ETF	2	0	0.34	0.34	-	-	-	-	N
MOHLTEF IN	Motilal Oswal S&P BSE Healthcare ETF	2	0	0.33	0.22	-	-	-	-	N
DHEALTH IN	DSP Nifty Healthcare ETF	1	-	0.37	0.20	-	-	-	-	N
EDCOAU	BETASHARES DIGITAL HEALTH	1	0	0.48	0.67	-	-	-	-	N
Industrials										
512660 CH	Guotai CSI National Defense ETF	1,013	35	0.12	1.63	-	-	-	-	N
305720 KS	Samsung KODEX Secondary Battery Indus	852	↑	25.04	0.45	-	-	-	-	N
512710 CH	Fullgoal CSI Military Indus Leading Ent	602	17	0.19	0.63	-	-	-	-	N
516970 CH	GF CSI Construction and Engineering ETF	486	↓	12.12	1.40	-	-	-	-	N
512680 CH	GF CSI National Defense Industry Index ETF	439	5	0.14	1.40	-	-	-	-	N
512670 CH	Penghua CSI National Defense ETF	283	12	0.17	1.20	-	-	-	-	N
159611 CH	GF CSI All Share Electric Utilities ETF	281	↓	16.11	1.40	-	-	-	-	N
516150 CH	Harvest CSI Rare Earth Industry ETF	222	5	0.14	-	-	-	-	-	N
159870 CH	Penghua CSI Chemicals Sub-industry ETF	220	8	0.17	1.40	-	-	-	-	N
466920 KS	Shinhan SOL Shipbuilding TOP3 Plus ETF	152	4	0.07	0.40	-	-	-	-	N
516110 CH	Guotai CSI 800 Automobiles & Components	141	↓	11.02	1.40	-	-	-	-	N
159638 CH	Harvest CSI High-End Equipment Sub-Indus 50	113	↓	6.16	1.40	-	-	-	-	N
449450 KS	Hanwha ARIRANG K-Defense Industry Fn ETF	88	↑	6.06	0.45	-	-	-	-	N
512560 CH	E Fund CSI Military Industry ETF	76	3	0.20	0.65	-	-	-	-	N
515260 CH	Hwabao CSI Electronics 50 ETF	71	2	0.22	1.40	-	-	-	-	N
512810 CH	Fortune SG CSI Military Industry ETF	68	↑	8.12	1.40	-	-	-	-	N
139230 KS	MiraeAsset TIGER 200 Heavy Industry ETF	64	2	0.16	0.44	-	-	-	-	N
454320 KS	NH-Amundi HANARO CAPEX ETF	59	↑	3.14	0.45	-	-	-	-	N
516020 CH	Hwabao WP CSI Chemicals Sub-Indus	51	4	0.19	1.40	-	-	-	-	N
1629 JP	NEXT FUNDS TOPIX-17 COMMERCIAL	46	↑	1.12	0.35	-	-	-	-	N
441540 KS	NH-Amundi HANARO Shipbuilding&Shipping ETF	31	↑	3.12	0.45	-	-	-	-	N
515320 CH	HuaAn CSI Electronics 50 ETF	30	2	0.25	0.60	-	-	-	-	N
516800 CH	Hwabao WP CSI Intelligent Manufacturing	27	1	0.16	1.40	-	-	-	-	N
516120 CH	Fullgoal CSI Chemicals Sub-industry ETF	27	2	0.17	0.60	-	-	-	-	N
445150 KS	Samsung KODEX K-Eco Strip Active ETF	23	↑	0.11	0.50	-	Y	-	-	N
516220 CH	Guotai CSI Chemicals Sub-industry ETF	23	4	0.18	1.40	-	-	-	-	N
1622 JP	NEXT FUNDS TOPIX-17 AUTOMOBILE TRANS	20	0	0.14	0.35	-	-	-	-	N
NIPAUTO IN	Nippon India Nifty Auto ETF	17	0	0.10	0.22	-	-	-	-	N
117700 KS	Samsung KODEX Construction ETF - Equity	16	↓	0.20	0.45	-	-	-	-	N
MAKENDIN	Mirae Asset Nifty India Manufacturing ETF	16	0	0.14	0.43	-	-	-	-	N
562910 CH	E Fund CSI Equipment Manu Industry Stimulus	14	1	0.26	0.70	-	-	-	-	N
139220 KS	Mirae Asset TIGER 200 Construction ETF	12	↓	0.23	0.44	-	-	-	-	N
464600 KS	Shinhan SOL Automobile Materia	12	0	0.24	0.40	-	-	-	-	N
1619 JP	NEXT FUNDS TOPIX-17 CONSTRUCTION	12	↑	0.18	0.35	-	-	-	-	N

1 Option Liquidity (H/M/L/N - High / Medium / Low / None)

2 ↑/↓ - Significant increase / decrease in shares outstanding in last one year

3 Currency Hedged: Y = Currency Hedged, U = USD v version exists for the fund, C = CNY v version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Industrials (Continued)										
1624 JP	NEXT FUNDS TOPIX-17 MACHINERY ETF	11	↑	0.14	0.35	-	-	-	-	N
1620 JP	NEXT FUNDS TOPIX-17 RAW MATERIALS	11	↑	0.16	0.35	-	-	-	-	N
516750 CH	Fullgoal CSI All Share Construction Materials	11	2	0.21	0.60	-	-	-	-	N
159662 CH	China Southern CNI Transportation ETF	11	↓	3.12	1.40	-	-	-	-	N
159666 CH	ChinaAMC CSI All Share Transportation ETF	10	1	0.17	-	-	-	-	-	N
516960 CH	Guotai CSI Machinery Sub-industry ETF	9	0	0.24	1.40	-	-	-	-	N
516320 CH	ChinaAMC CSI Equipment Manuf Ind Stimulus	9	0	0.21	-	-	-	-	-	N
3132 HK	Samsung Bloomberg global semiconductor	9	↓	0.45	1.80	-	-	-	-	N
159703 CH	Tianhong CSI New Materials ETF	9	↑	1.22	1.40	-	-	-	-	N
466930 KS	Shinhan SOL Automobile TOP3 Plus ETF	9	0	0.14	0.40	-	-	-	-	N
140710 KS	Samsung KODEX Transportation - Eq	8	0	0.23	0.45	-	-	-	-	N
102960 KS	Samsung KODEX Machinery & Equip	7	↓	0.16	0.45	-	-	-	-	N
159886 CH	Fullgoal CSI Machinery Sub-industry ETF	6	2	0.16	0.60	-	-	-	-	N
159656 CH	E Fund CSI Auto Components Thematic ETF	4	-	0.17	-	-	-	-	-	N
159683 CH	Harvest CSI Chi Mainland Transportation	4	1	0.14	1.40	-	-	-	-	N
227550 KS	Mirae Asset TIGER 200 Industrials - Eq	3	↓	0.31	0.44	-	-	-	-	N
139310 KS	Mirae Asset TIGER Metal Futures ETF	3	0	0.25	0.76	-	-	-	-	Y
159944 CH	GF CSI All Share Materials Index ETF	3	↓	0.16	1.40	-	-	-	-	N
285010 KS	KB KBSTAR 200 Heavy Industries ETF	2	↓	0.24	0.25	-	-	-	-	N
287300 KS	KB KBSTAR 200 Constructions ETF	2	↓	0.34	0.12	-	-	-	-	N
3076 HK	Fubon ICE FaciSet Taiwan Core Semicon Idx	2	0	1.08	1.60	-	-	-	-	N
415920 KS	Hanwha ARIRANG Global Rare Earth metals	2	0	0.53	0.93	-	-	-	-	N
287320 KS	KB KBSTAR 200 Industrials ETF	1	↓	0.28	0.31	-	-	-	-	N
Materials										
512400 CH	China Southern CSI SWS Nonferrous ETF	583	↑	22.01	1.10	-	-	-	-	N
M/R AU	VanEck Australian Resources ET	300	↑	1.13	0.35	-	-	-	-	N
QRE AU	BETASHARES Aus RESOURCES SECTOR	148	↑	1.17	0.34	-	-	-	-	N
515210 CH	Guotai CSI Ferrous Metals ETF	141	7	0.12	1.63	-	-	-	-	N
562800 CH	Harvest CSI Rare Metals Industry ETF	128	6	0.22	0.60	-	-	-	-	N
OZRAU	SPDR S&P/ASX 200 Resources Fund	115	↑	1.12	0.34	-	-	-	-	N
159671 CH	ICBC Credit Suisse CSI Rare Me	96	↓	4.17	-	-	-	-	-	N
516780 CH	Huatai-PineBridge CSI Rare Earth Indus	86	2	0.17	1.10	-	-	-	-	N
159745 CH	Guotai CSI All Share Building Materials ETF	84	↑	5.01	1.40	-	-	-	-	N
ASRNZ	Smartshares Australian Resources ETF	49	0	0.78	0.54	-	-	-	-	N
517520 CH	Maxwealth CSI SH-SZHK Gold Ind	41	7	0.10	0.50	-	-	-	-	N
159652 CH	Chi Uni CSI Non-ferrous Metal Sub-Indus	38	↑	3.04	-	-	-	-	-	N
159713 CH	Fullgoal CSI Rare Earth Industry ETF	36	2	0.18	0.60	-	-	-	-	N
159608 CH	GF CSI Rare Metals Industry ETF	33	↑	2.02	1.40	-	-	-	-	N
510170 CH	GTJA Allianz SSE Commodity Eq Idx	27	1	0.17	1.70	-	-	-	-	N
159715 CH	E Fund CSI Rare Earth Industry ETF	27	1	0.19	0.70	-	-	-	-	N
159761 CH	Guotai CSI New Materials ETF	24	2	0.24	1.40	-	-	-	-	N
159321 CH	HuaAn CSI SH-SZHK Gold Indust	19	-	-	-	-	-	-	-	N
XMET AU	Betashares Energy Transition Metals ETF	18	↑	0.52	0.69	-	-	-	-	N
117680 KS	Samsung KODEX Steel ETF - Equity	16	↓	0.14	0.45	-	-	-	-	N
516360 CH	Hwabao WP CSI New Materials ETF	13	1	0.17	1.40	-	-	-	-	N
561800 CH	Harfor CSI Rare Metals Industry ETF	13	0	0.31	-	-	-	-	-	N
516710 CH	ChinaAMC CSI New Materials ETF	12	0	0.42	-	-	-	-	-	N
159763 CH	CCB Principal CSI New Materials ETF	10	0	0.55	1.10	-	-	-	-	N
517400 CH	Guotai CSI SH-SZHK Gold Indus	8	-	0.14	-	-	-	-	-</	

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Real Estate (Continued)										
MVA AU	VanEck Australian Property ETF	371	2	0.13	0.35	-	-	-	-	N
2517 JP	MAXIS J-REIT Core ETF	364	↑	0	0.13	0.15	-	-	-	N
2555 JP	TSE REIT ETF	347	0	0.13	0.25	-	-	-	-	N
SLF AU	SPDR S&P/ASX 200 Listed Property Fund	332	1	0.16	0.40	-	-	-	-	N
SREITS SP	Lion-Phillip S-REIT ETF	267	↑	1	0.33	0.60	-	-	-	N
2552 JP	Listed TSE REIT Idx - Bi-Monthly Div Mini	260	↑	0	0.13	0.38	-	-	-	N
1660 JP	MAXIS High Yield J-REIT ETF	246	↑	0	0.12	0.15	-	-	-	N
AJXRET SP	NikkoAM-StratsTrading Asia ex Japan REIT	242	1	0.25	0.55	-	-	-	-	U
REIT AU	VanEck FTSE International Prop	216	↑	1	0.44	0.20	-	-	-	Y
2527 JP	NZAM ETF J-REIT Core Index	214	↓	0	0.16	0.24	-	-	-	N
2566 JP	Listed Index Fund Nikkei ESG REIT	208	0	0.13	0.26	-	-	-	-	Y
2528 JP	Daiwa Tokyo Stock Exch REIT Core Idx	178	↑	0	0.15	0.20	-	-	-	N
1555 JP	Listed Aus REIT S&P/ASX200 AREIT	96	0	0.36	0.57	-	-	-	-	N
2852 JP	iShares Japan Green REIT ETF	76	↑	0	0.52	0.17	-	-	-	Y
NFF NZ	Smartshares NZ Property ETF	67	0	0.54	0.54	-	-	-	-	N
515060 CH	ChinaAMC CSI All Share Real Estate ETF	57	↑	4	0.19	-	-	-	-	N
SRT SP	Csop SG Etf Series I-Csop ledge S-REIT Lead	52	0	0.42	0.60	-	-	-	-	U
GRN SP	UOB Apac Green Reit Etf	43	0	0.64	0.50	-	-	-	-	Y
159707 CH	Hwabao WP CSI 800 Real Estate ETF	35	↑	6	0.20	1.40	-	-	-	N
476800 KS	SAMSUNG KODEX KOREA REITs Infra ETF	28	-	0.10	0.09	-	-	-	-	N
1495 JP	Listed Index Fund Asian REIT	27	0	0.43	0.75	-	-	-	-	N
159768 CH	Yinhua CSI China Mainland Real Estate ETF	24	↑	4	0.21	1.40	-	-	-	N
ASPNZ	Smartshares Australian Property ETF	22	↓	0	0.84	0.54	-	-	-	N
1633 JP	NEXT FUNDS TOPIX-17 REAL ESTATE ETF	21	↓	0	0.16	0.35	-	-	-	N
341850 KS	Mirae Asset TIGER KIS Real Estate Infra TR	15	↓	0	0.21	0.26	-	-	-	N
2098 JP	Global X Hotel & Retail J-REIT ETF	14	0	0.23	0.30	-	-	-	-	N
3187 HK	Samsung S&P High Div APAC ex NZ REITs	13	0	0.44	1.12	-	-	-	-	N
PAREITS SP	Phillip SGX APAC Div Leaders REIT	8	0	1.04	0.95	-	-	-	-	U
352540 KS	SAMSUNG KODEX TSE Japan REITs ETF-H	8	↑	0	0.06	0.30	-	-	-	N
480460 KS	WOORI WOORI Korea Real Estates	8	-	0.13	0.25	-	-	-	-	N
375270 KS	KB KBSTAR Global Data Center REIT Nasdaq	5	↑	0	0.38	0.57	-	-	-	N
429740 KS	Hanwha ARIRANG K-REITs Fn ETF	5	↑	0	0.13	0.66	-	-	-	N
2045 JP	NEXT NOTES S&P Singapore REIT Net TR	5	0	1.06	0.95	-	-	-	-	N
316300 KS	KIM KINDEX Singapore REITs ETF	4	↓	0	0.43	0.88	-	-	-	N
2094 JP	TSE REIT Inverse ETF	4	0	0.29	0.75	-1x	-	-	-	N
2066 JP	NEXT NOTES Tokyo Exch REIT Net TR USD H	4	0	1.18	0.85	-	-	-	-	N
429870 KS	Kiwoom HERODES REITs IIGIS Active ETF	3	0	0.30	0.52	-	-	-	-	Y
2097 JP	Global X Residential J-REIT ETF	3	0	0.24	0.28	-	-	-	-	N
2096 JP	Global X Office J-REIT ETF	2	0	0.25	0.28	-	-	-	-	N
REITSETF MK	Tradeplus MSCI Asia Ex Japan REITs Tracker	1	0	3.85	0.54	-	-	-	-	N
KRXKZ	iX US Real Estate Exchange Traded Notes	0	0	-	1.00	-	-	-	-	N
PLPNZ	Private Land & Property Fund	-	0	2.81	-	-	-	-	-	N
MOREALTY IN	Motilal Oswal Nifty Realty ETF	-	-	0.15	0.40	-	-	-	-	N
Technology										
588000 CH	ChinaAMC CSI Sci & Tech Innov Board 50	10,069	↑	305	0.13	0.60	-	-	-	N
588080 CH	E Fund CSI Sci & Tech Innov Board 50	4,862	↑	83	0.13	1.10	-	-	-	N
513050 CH	E Fund CSI Overseas China Internet 50	4,606	143	0.10	1.35	-	-	-	-	N
513330 CH	ChinaAMC Hengsheng Internet Sci -Tech	4,071	369	0.27	-	-	-	-	-	N
3033 HK	CSOP Hang Seng Tech Index ETF	3,560	↑	260	0.06	1.05	-	-	-	N
159995 CH	ChinaAMC CSI Semi-conductor Chip ETF	3,107	54	0.13	0.60	-	-	-	-	N
513180 CH	ChinaAMC Hang Seng TECH ETF QDII	2,985	375	0.20	-	-	-	-	-	N
512480 CH	GTJA Allianz CSI Semi-conductor	2,882	112	0.15	1.10	-	-	-	-	N
513130 CH	Huatai-PineBridge CSOP Hang Seng TECH	2,110	↑	298	0.20	0.75	-	-	-	N
512760 CH	Guotai CES Semi-conductor Industry ETF	1,759	35	0.13	1.60	-	-	-	-	N
3067 HK	iShares Hang Seng TECH ETF	1,266	17	0.08	0.25	-	-	-	-	U
THSTIFA CH	Tianhong Hang Seng Tech Index Launched	1,257	-	-	-	-	-	-	-	N
159792 CH	Fullgoal CSI Hong Kong Connect Internet	1,252	↑	93	0.18	0.60	-	-	-	N
7226 HK	CSOP Hang Seng TECH Idx Daily 2X	1,073	↑	141	0.08	1.58	+2x	-	-	N
588050 CH	ICBC Credit Suisse CSI Sci & Tech Innov	1,032	↑	24	0.13	1.40	-	-	-	N
159605 CH	GF CSI Overseas China Internet 30 ETF QDII	953	141	0.13	1.40	-	-	-	-	N
513010 CH	E Fund Hang Seng TECH ETF QDII	764	73	0.20	0.75	-	-	-	-	N
00830 TT	Cathay PHLX Semiconductor ETF	627	13	0.04	0.55	-	-	-	-	N
588060 CH	GF SSE Science and Tech Innov Board 50	564	↑	18	0.21	1.40	-	-	-	N
00891 TT	CTBC Taiwan ESG Leading Semiconductor	558	↓	7	0.08	0.44	-	-	-	Y
588090 CH	Huatai-PineBridge CSI Sci & Tech Innov Board	542	↑	13	0.14	1.10	-	-	-	N
139260 KS	Mirae Asset TIGER 200 IT ETF	533	2	0.07	0.43	-	-	-	-	N
2644 JP	Global X Japan Semiconductor ETF	482	↑	22	0.12	0.59	-	-	-	N
159813 CH	Penghua CNI Semi-conductor Chip ETF	467	16	0.20	1.40	-	-	-	-	N
371160 KS	Mirae Asset TIGER China Hang Seng Tech	435	7	0.12	0.20	-	-	-	-	N
091160 KS	Samsung KODEX Semicon ETF	431	18	0.04	-	-	-	-	-	N
2837 HK	Global X Hang Seng TECH ETF	408	↑	0	0.16	0.44	-	-	-	N
513980 CH	Invesco Great Wall CSI Hong Kong Connect	397	34	0.24	1.40	-	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Technology (Continued)										
3032 HK	Hang Seng TECH Index ETF	394	6	0.08	0.60	-	-	-	-	U
515000 CH	Hwabao CSI Tech Leading Ent	388	9	0.12	1.40	-	-	-	-	N
588180 CH	CPIC SSE Science and Tech Innov Board	384	↑	4	0.22	-	-	-	-	N
159740 CH	Da Cheng Hang Seng TECH ETF QDII	382	70	0.20	0.60	-	-	-	-	N
ASIA AU	BetaShares Asia Technology Tigers ETF	328	1	0.25	0.67	-	-	-	-	N
159801 CH	GF CNI Semi-conductor Chip ETF	322	↑	5	0.26	1.40	-	-	-	N
159607 CH	Harvest CSI Overseas China Internet 30	288	50	0.13	-	-	-	-	-	N
7552 HK	CSOP Hang Seng TECH Idx Daily -2X	285	↑	75	0.10	1.61	-2x	-	-	N
455850 KS	Shinhan SOL Semicondtr Materials & Equipment	282	↑	20	0.07	0.40	-	-	-	N
00927 TT	CAPITAL TIP Taiwan Semiconductor	280	6	0.07	0.44	-	-	-	-	N
159998 CH	Tianhong CSI Computer ETF	269	6	0.15	1.40	-	-	-	-	N
159939 CH	GF CSI All Share IT7Idx	256	5	0.23	1.40	-	-	-	-	N
446770 KS	KIM ACE SolActv Gbl Semicondtr Top4	250	↑	6	0.04	0.80	-	-	-	N
HST SP	Lion-OCBC Securities Hang Seng TECH ETF	236	2	0.22	0.58	-	-	-	-	U
00892 TT	Fubon ICE FaciSet Taiwan Core Semicon	218	↓	2	0.10	0.44	-	-	-	N
3088 HK	CHINAAMC HANG SENG TECH - CNY	214	↓	3	0.13	0.40	-	-	-	U
83088 HK	CHINAAMC HANG SENG TECH - CNY	214	-	0.50	-	-	-	-	-	N
159997 CH	Tianhong CSI Electronic ETF	204	6	0.14	1.40	-	-	-	-	N
513580 CH	HuaAn Hang Seng TECH ETF QDII	204	↓	19	0.22	0.60	-	-	-	N
0052 TT	Fubon Taiwan Technology ETF	198	3	0.11	0.19	-	-	-	-	N
512720 CH	Guotai CSI Computer Theme ETF	193	↓	9	0.13	1.63	-	-	-	N
091230 KS	Mirae Asset TIGER Semicon ETF	183	9	0.06	0.48	-	-	-	-	N
SEMI AU	Global X Semiconductor ETF	176	↑	1	0.26	0.57	-	-	-	N
513770 CH	Hwabao WP CSI Hong Kong Connect	174	↑	37	0.15	1.40	-	-	-	N
00935 TT	NEXT FUNDS Nomura Taiwan Innov	172	5	0.07	0.54	-	-	-	-	N
471990 KS	SAMSUNG KODEX AI Semiconductor	170	23	0.07	0.39	-	-	-	-	N
159636 CH	ICBC Credit Suisse CNI HK Connect Tech	166	↑	15	0.16	1.32	-	-	-	N
516640 CH	Fullgoal CSI Chip Industry ETF	154	↑	5	0.22	0.60	-	-	-	N
159742 CH	Bosera Hang Seng TECH ETF QDII	152	20	0.20	1.45	-	-	-	-	N
422420 KS	KB KBSTAR Secondary Cell Active ETF	150	↑	2	0.13	0.42	-	-	-	Y
ATEAU AU	BetaShares S&P/ASX Aus Tech	149	1	0.17	0.48	-	-	-	-	N
560800 CH	Pengyung CSI Digital Economy ETF	148	3	0.19	-	-	-	-	-	N
372330 KS	Samsung KODEX China Hang Seng Tech	140	↑	2	0.15	0.12	-	-	-	N
471760 KS	MIRAE ASSET TIGER AI Semicondu	132	19	0.08	0.45	-	-	-	-	N
395270 KS	NH-Amundi HANARO Fn K-Semiconductor	128	↑	4	0.09	0.45	-	-	-	N
588290 CH	HuaAn SSE STAR Chip ETF	122	11	0.15	0.60	-	-	-	-	N
326240 KS	KB KBSTAR IT Plus ETF	112	0	0.11	0.46	-	-	-	-	N
159852 CH	Harvest CSI Software and Services ETF	110	↑	7	0.18	-	-	-	-	N
515230 CH	Guotai CSI All Share Software ETF	100	7	0.17	1.40	-	-	-	-	N
513260 CH	China Universal Hang Seng TECH ETF QDII	100	↑	7	0.14	-	-	-	-	N
159516 CH	Guotai CSI Semiconductor Mater	98	9	0.13	-	-	-	-	-	N
HAHSTLC CH	HuaAn Hang Seng TECH Launched Fdr Fnd QDII	98	-	-	-	-	-	-	-	C
275980 KS	Mirae Asset TIGER Synth-Morningstar Exp	95	↓	0	0.15	0.49	-	-	-	Y
513860 CH	HFT CSI Hong Kong Connect Technology	92	↑	9	0.25	1.40	-	-	-	N
159741 CH	Harvest Hang Seng TECH ETF QDII	86	10	0.22	-	-	-	-	-	N
163A JP	Semiconductor Focus Japan Equity	82	-	0.39	0.80	-	-	-	-	N
515750 CH	Fullgoal CSI Technology 50 Strategy ETF	79	1	0.16	0.63	-	-	-	-	N
159807 CH	E Fund CSI Technology 50 ETF									

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Technology (Continued)										
395160 KS	Samsung KODEX Fn System Semicond	35	↓	1	0.13	0.45	-	-	-	N
501225 CH	Inv. Grt WI Gbl Semcdr Chp Inds Eq Fnd	34	↑	2	0.08	2.95	-	-	-	N
469150 KS	KIM ACE AI Semiconductor Focus ETF	34	1	0.13	0.27	-	-	-	-	N
2854 JP	Global X Japan Tech Top 20 ETF	33	↑	0	0.14	0.28	-	-	-	N
588280 CH	HuaAn SSE Science and Tech Innov Board	32	↑	1	0.27	0.60	-	-	-	N
MAHSTEC IN	Mirae Asset Hang Seng TECH ETF	32	↑	0	0.13	0.57	-	-	-	N
513890 CH	CIFM Hang Seng TECH ETF QDII	27	↓	8	0.15	1.65	-	-	-	N
368190 KS	NH-Amundi HANARO K-NewDeal Digital Plus	25	0	0.22	0.45	-	-	-	-	N
515860 CH	Harvest CSI Emerging Tech 100 Strategy	25	0	0.20	0.60	-	-	-	-	N
KOTTETF IN	Kotak Nifty IT ETF	23	0	0.14	0.18	-	-	-	-	N
584504 CH	CM SSE Science and Technology	22	-	-	-	-	-	-	-	N
438320 KS	Mirae Ast Tiger Synth-Chi HSTECH Lvg H	22	↑	1	0.27	0.58	+2x	-	Y	N
243880 KS	Mirae Asset Tiger 200 IT Leverage ETF	21	0	0.30	0.72	+2x	-	-	-	N
159560 CH	Invesco Great Wall CSI Chip Industry ETF	21	1	0.23	1.40	-	-	-	-	N
159899 CH	China Merchants CSI All Share Software	21	↑	2	0.20	1.40	-	-	-	N
475310 KS	Shinhan SOL Semiconductor Back	20	-	0.13	-	-	-	-	-	N
453950 KS	Mirae Ast Tiger TSMC Value Chain FACTSET	19	0	0.23	0.49	-	-	-	-	N
266370 KS	Samsung KODEX IT ETF	19	↓	0	0.13	0.45	-	-	-	N
469160 KS	KIM ACE Japan Semiconductor ETF	18	0	0.29	0.39	-	-	-	-	N
513040 CH	E Fund CSI Hong Kong Connect Internet ETF	18	2	0.19	-	-	-	-	-	N
513150 CH	Huatai-PineBridge CSI Hong Kong Connect	17	↑	2	0.30	1.10	-	-	-	N
1626 JP	NEXT FUNDS TOPIX-17 IT & SERVICES	17	0	0.14	0.35	-	-	-	-	N
159750 CH	China Merchants CSI Hong Kong Technology	16	↑	3	0.21	1.45	-	-	-	N
517200 CH	Harvest CSI SH-HK-SZ Internet ETF	16	0	0.37	-	-	-	-	-	N
2812 HK	Samsung CSI China Dragon Internet ETF	16	0	0.36	1.16	-	-	-	U	N
A TECHETF IN	Axis NIFTY IT ETF	16	0	0.23	0.22	-	-	-	-	N
530119 KS	Samsung Securities Samsung Lev	15	-	0.31	-	-	-	-	-	N
513160 CH	Yinhua Hang Seng SCHK China Tech	15	↑	6	0.19	1.40	-	-	-	N
561980 CH	China Merchants CSI Semiconduc	15	3	0.13	-	-	-	-	-	N
00887 TT	SinoPac China CSI Technology 50 ETF	15	↑	0	0.61	1.02	-	-	-	N
517350 CH	GF CSI SH-HK-SZ Technology Top ETF	13	0	0.33	1.40	-	-	-	-	N
159729 CH	China Universal CSI SH-HK-SZ Internet ETF	13	0	0.52	-	-	-	-	-	N
0053 TT	YuantaiP-shares Taiwan Electronics Tech	12	0	0.61	0.44	-	-	-	-	N
396520 KS	Mirae Asset TIGER China Semiconductor	12	0	0.62	0.57	-	-	-	-	N
560780 CH	GF CSI Semiconductor Material	12	-	0.44	1.40	-	-	-	-	N
463250 KS	MIRAE ASSET TIGER Space Tech ETF	12	1	0.12	0.40	-	-	-	-	N
159751 CH	Penghua CSI Hong Kong Connect Tech	11	2	0.21	1.55	-	-	-	-	N
159613 CH	Harvest CSI Information Security ETF	10	1	0.19	-	-	-	-	-	N
513220 CH	Chi Merchants CSI Gbl Chi Internet QDII	10	9	0.14	0.65	-	-	-	-	N
159568 CH	Bosera CSI Hong Kong Connect I	10	-	0.18	0.50	-	-	-	-	N
3119 HK	Global X Asia Semiconductor Etf	10	0	0.47	0.68	-	-	-	-	N
475300 KS	Shinhan SOL Semiconductor Fron	10	-	0.13	-	-	-	-	-	N
517960 CH	CIFM CSI SH-HK-SZ Technology 100 ETF	10	↓	0	0.40	-	-	-	-	N
280320 KS	KIM KINDEX US INTERNET ETF - Synth H	9	0	0.39	0.66	-	-	Y	-	N
530080 KS	Samsung Securities Samsung Inv Tech	9	0	0.20	1.05	-1x	-	-	-	N
471780 KS	MIRAE ASSET TIGER Korea Tech A	9	0	0.34	0.77	-	Y	-	-	N
TDIGETF IN	Tata Nifty India Digital	9	0	0.13	0.41	-	-	-	-	N
517360 CH	HuaAn CSI SH-HK-SZ Technology 100 ETF	9	0	0.47	0.60	-	-	-	-	N
562570 CH	ChinaAMC CSI Information Techn	8	-	0.46	-	-	-	-	-	N
580047 KS	KB Sec KB Lvlgd Hang Seng TECH Fr Etn HB47	8	0	0.22	-	+2x	-	-	Y	N
159538 CH	Fullgoal CNI Information Techn	8	1	0.17	0.60	-	-	-	-	N
449690 KS	Mirae Ast Tiger Synth Korea-Chi Semcdr	8	0	0.74	0.35	-	-	-	-	N
159586 CH	China Southern All Share Computers ETF	7	-	0.15	0.50	-	-	-	-	N
560990 CH	CICC CSI Technology Pioneer ETF	7	↓	2	0.45	-	-	-	-	N
562560 CH	ChinaAMC CSI All Share Informa	7	-	0.42	0.50	-	-	-	-	N
561010 CH	HuaAn CSI All Share Software D	7	-	0.42	0.60	-	-	-	-	N
MANFYIT IN	Mirae Asset Nifty IT ETF	7	0	0.15	0.08	-	-	-	-	N
444200 KS	Shinhan SOL KEDI Mega Tech Active ETF	6	0	0.21	0.56	-	Y	-	-	N
562590 CH	ChinaAMC CSI Semiconductor Mat	6	0	0.33	-	-	-	-	-	N
446690 KS	SAMSUNG KODEX Asia Semicon Sup	6	↓	0	0.26	0.50	-	Y	-	N
560850 CH	China Universal CSI Informatio	6	-	0.20	0.50	-	-	-	-	N
00735 TT	Cathay Korea/taiwan IT Premier Etf	6	0	0.38	0.48	-	-	-	-	N
159546 CH	Guotai CSI All Share Integrated Circuits ETF	6	2	0.18	1.40	-	-	-	-	N
DIETF IN	DSP NIFTY IT ETF	6	0	0.22	0.20	-	-	-	-	N
00913 TT	Mega Taiwan Wafer Manufacture ETF	6	0	0.24	0.44	-	-	-	-	N
562030 CH	Hwabao WP CSI Information Tech	6	2	0.23	1.40	-	-	-	-	N
368680 KS	Samsung KODEX Fn K-NewDeal Digital Plus	6	0	0.27	0.09	-	-	-	-	N
371150 KS	KB KBSTAR China Hang Seng Tech Etf	6	↑	0	0.38	0.14	-	-	-	N
3172 HK	Smsng Asia Pacific ex NZ Metaverse Theme	6	0	0.62	0.85	-	Y	-	-	N
457930 KS	BNK BNK Future Strategic Techn	6	0	0.44	0.45	-	Y	-	-	N
450190 KS	Smsng KODEX Korea Chi Semcdr Synth	6	0	0.68	1.25	-	-	-	-	N
159537 CH	Guotai CNI Information Technol	5	1	0.18	1.40	-	-	-	-	N

1 Option Liquidity (H/M/L/N - High/Medium/Low/None)
 2 ↑/↓ - Significant increase/decrease in shares outstanding in last one year
 3 Currency Hedged: Y = Currency Hedged, U = USD version exists for the fund, C = CNY version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Equity Sector										
Technology (Continued)										
460280 KS	KIWOOM KOSEF Genetic Innovato	5	0	0.38	0.40	-	-	-	-	N
159540 CH	E Fund CNI Information Technol	4	0	0.17	0.50	-	-	-	-	N
371870 KS	KIM ACE China Hang Seng TECH ETF	4	↑	0	0.43	0.82	-	-	-	N
428510 KS	Samsung KODEX China Metaverse Active	4	0	0.52	0.50	-	Y	-	-	N
562930 CH	E Fund CSI Software and Services ETF	4	0	0.43	-	-	-	-	-	N
530079 KS	Samsung Securities Samsung Leverage	4	0	0.40	-	-	-	-	-	N
476260 KS	NH-Amundi HANARO Semiconductor	3	-	0.21	0.45	-	-	-	-	N
261060 KS	Mirae Asset TIGER KOSDAQ 150 IT ETF	3	↓	0	0.26	0.44	-	-	-	N
285000 KS	KB KBSTAR 200 IT	3	↓	0	0.17	0.10	-	-	-	N
562920 CH	E Fund CSI Information Security ETF	3	0	0.45	-	-	-	-	-	N
159539 CH	GF CNI Information Technology	3	1	0.17	1.40	-	-	-	-	N
2628 JP	iFreeETF China STAR50	3	↑	0	0.53	0.99	-	-	-	N
469790 KS	KIWOOM KOSEF K-TechTOP10 ETF	2	0	0.36	0.34	-	-	-	-	N
588890 CH	China Southern SSE STAR Chip ETF	2	-	0.50	-	-	-	-	-	N
UTINFIT IN	UTI Nifty IT ETF	1	-	0.36	0.20	-	-	-	-	N
020031 TT	President TIP Customized Taiwan IC design	-	0	1.21	-	-	-	-	-	N
020025 TT	President ICE FactSet Asia Semiconductor	-	0	-	-	-	-	-	-	N
020023 TT	Yuantai TPEX Semiconductor Leaders TR Idx	-	0	0.65	0.90	-	-	-	-	N
020033 TT	President HSTECH Futures Index ETN	-	0	2.35	1.48	-	-	-	-	N
020041 TT	Mega TPEX FactSet Semiconductb	-	-	0.93	0.85	-	-	Y	-	N
00946 TT	Capital TIP Customized Taiwan	-	-	0.10	0.33	-	-	-	-	N
00943 TT	Mega Taiwan IT Growth and High	-	-	0.10	-	-	-	-	-	N
Utilities										
561560 CH	Huatai-PineBridge CSI All Share Electric Util	18	↓	3	0.10	1.10	-	-	-	N
561700 CH	Bosera CSI All Share Electric Utilities ETF	14	↓	1	0.13	1.40	-	-	-	N
560580 CH	Chi Southern CSI All Share Electric Utilities	7	↓	1	0.17	1.40	-	-	-	N
562350 CH	Yinhua CSI All Share Electric Utilities ETF	4	1	0.24	-	-	-	-	-	N
Multi-asset										
Asset Allocation										
459580 KS	SAMSUNG KODEX CD Rate Active ETF	6,625	↑	253	0.00	0.02	-	Y	-	N
329650 KS	Samsung KODEX TRF3070 ETF	115	0	0.07	0.24	-	-	-	-	N
475080 KS	SAMSUNG KODEX Tesla Income Pre	113	-	0.06	0.39	-	Y	-	-	N
448540 KS	KIM ACE NVIDIA30 Blend Bloomberg ETF	92	↑	2	0.04	0.08	-	-	-	N
447770 KS	Mirae Asset TIGER TESLA Balanced ETF	87	↑	1	0.08	0.25	-	-	-	N
435420 KS	Mirae Asset TIGER NASDAQ 100 T	59	↑	0	0.06	0.25	-	-	-	N
284430 KS	Samsung KODEX 200 US Treasury	55	↑	0	0.12	0.35	-	-	-	N
DZZF AU	BetaShares Diversified High Growth ETF	51	↑	0	0.22	0.39	-	Y	-	N
438080 KS	KIM KINDEX S&P500 3070 Blend Active ETF	50	↑	1	0.14	0.54	-	Y	-	N
434060 KS	SAMSUNG KODEX Target Date 2050 ETF	47	↑	1	0.07	0.30	-	-	-	N
472170 KS	MIRAE ASSET TIGER US Tech Top1	43	1	0.08	0.22	-	-	-	-	N
461490 KS	KB KBSTAR Global Multi-Asset A	40	0	0.25	0.16	-	Y	-	-	N
GROW AU	Schroder Real Return Managed Fund	35	0	0.64	0.93	-	Y	-	-	N
448330 KS	Samsung KODEX Wise Samsung Ele	33	↑	0	0.10	0.07	-	-	-	N
447620 KS	Shinhan SOL US TOP5 40 Blended ETF	27	↑	0	0.13	0.25	-	-	-	N
329670 KS	Samsung KODEX TRF7030 ETF	23	0	0.14	0.10	-	-	-	-	N
440340 KS	Mirae Asset TIGER Global Multi	21	0	0.19	0.59	-	Y	-	-	N
329660 KS	Samsung KODEX TRF5050 ETF	21	0	0.17	0.17	-	-	-	-	N
EHF1 AU	Elstree Hybrid Fund	21	0	0.53	0.80	-	-	-	-	N
438100 KS	KIM KINDEX NASDAQ100 3070 Blend ETF	17	↑	0	0.12	0.46	-	Y	-	N
DHOF AU	Daintree Hybrid Opportunities Fund EQMf	13	↑	0	0.29	0.65	-	-	-	N

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Government											
2821 HK	ABF PAN ASIA BOND INDEX FUND	3,347	0	1.23	0.20	-	-	-	-	N	
BETF430 IN	Bharat Bond ETF - April 2030	2,249	0	0.16	0.00	-	-	-	-	N	
511520 CH	Fullgoal ChiBond 7-10 Year Policy Bank Bond	1,869	↑ 702	0.00	-	-	-	-	-	N	
BETF0431 IN	BHARAT Bond ETF - April 2031	1,615	0	0.15	0.00	-	-	-	-	N	
IAF AU	iShares CORE Composite Bond ETF	1,547	↑ 3	0.04	0.10	-	-	-	-	N	
BETF0425 IN	BHARAT Bond ETF - April 2025	1,441	0	0.21	0.00	-	-	-	-	N	
BETF0432 IN	Bharat Bond ETF - April 2032	1,332	0	0.37	0.00	-	-	-	-	N	
VAF AU	Vanguard Aus Fixed Interest Idx	1,287	↑ 3	0.05	0.10	-	-	-	-	N	
2510 JP	NEXT FUNDS Japan Bond NOMURA-BPI	1,226	↑ 0	0.12	0.08	-	-	-	-	N	
NETFSD26 IN	Nippon India Nifty SDL - 2026 Maturity	898	0	0.56	0.20	-	-	-	-	N	
159650 CH	Bosera ChinaBond 0-3 Year CDB Bond ETF	854	173	0.00	0.50	-	-	-	-	N	
511220 CH	SSE Pledge Urban Investment Bond ETF	731	↑ 44	0.01	0.82	-	-	-	-	N	
SBIF SP	ABF Singapore Bond Index Fund	729	0	0.15	0.24	-	-	-	-	N	
VBG AU	Vanguard Aus Govt Bond Idx	657	2	0.05	0.20	-	-	-	-	N	
3199 HK	CSOP BBG Barclays ChinaTreasury+ Policy	657	0	0.46	0.55	-	-	-	C	N	
159649 CH	HuaAn ChinaBond 1-5 Year CDB Bond ETF	639	147	0.00	0.20	-	-	-	-	N	
CYC SP	CSOP FTSE Chinese Govt Bond Idx	575	↓ 0	0.24	0.26	-	-	-	-	N	
00857B TT	Sinopac ICE 20+ Year US Treasury ETF	536	↑ 7	0.05	0.20	-	-	-	-	N	
153130 KS	Samsung KODEX KRW Cash ETF	531	2	0.01	0.15	-	-	-	-	N	
2829 HK	iShares China Government Bond ETF	486	0	0.25	0.18	-	-	-	U,C	N	
356540 KS	KIM KINDEX KIS Active Bond Composite ETF	482	0	0.07	0.04	-	Y	-	-	N	
159972 CH	Penghua CSI 5-Y Local Govt Bond	462	11	0.02	0.60	-	-	-	-	N	
AGVT AU	Belashares Aus Govt Bond	406	↑ 1	0.09	0.22	-	-	-	-	N	
R/ABFI U	ABF Indonesia Bond Index Fund	405	-	-	0.23	-	-	-	-	N	
196230 KS	KB KBSTAR Short Term MSB ETF - Bond	400	6	0.00	0.15	-	-	-	-	N	
XARO AU	ActiveX Ardea Real Outcome Bond Fund	367	↓ 1	0.19	0.50	-	Y	-	-	N	
SBIGILT IN	SBI-ETF 10 Year Gilt	353	0	0.38	0.14	-	-	-	-	N	
148070 KS	Kiwoom KOSEF 10Y KTB ETF	352	1	0.03	0.05	-	-	-	-	N	
MBIF MK	ABF Malaysia Bond Index Fund	346	0	0.80	0.17	-	-	-	-	N	
00718B TT	Fubon China Policy Bank Bond ETF	310	↓ 0	1.95	0.55	-	-	-	-	N	
159651 CH	Ping An ChinaBond 0-3 Year CDB Bond ETF	309	109	0.00	1.20	-	-	-	-	N	
ABFTHB TH	ABF Thailand Bond Index Fund	302	0	-	0.11	-	-	-	-	N	
2819 HK	ABF Hong Kong Bond Index Fund	281	0	1.30	0.22	-	-	-	-	N	
114260 KS	Samsung KODEX Treasury Bond ETF	278	↑ 1	0.03	0.15	-	-	-	-	N	
385560 KS	KB KBSTAR 30-Y Treasury Bond Enhanced	276	↑ 3	0.03	0.08	-	-	-	-	N	
365780 KS	KIM ACE Korea 10Y Treasury Bon	263	↑ 1	0.04	0.05	-	-	-	-	N	
IGB AU	iShares Treasury ETF	251	↓ 1	0.06	0.18	-	-	-	-	N	
511090 CH	Pengyang ChinaBond 30-year Tre	249	59	0.01	-	-	-	-	-	N	
511130 CH	Bosera SSE 30-Year China Treas	249	-	0.01	0.15	-	-	-	-	N	
LCGSGLT IN	LIC MF G-SEC Long Term	240	0	0.33	1.48	-	-	-	-	N	
302190 KS	MIRAE ASSET TIGER KTB 3-10 ETF	235	1	0.02	0.17	-	-	-	-	N	
511010 CH	Guotai SSE 5-Y China Treasury Note	234	↑ 63	0.00	0.82	-	-	-	-	N	
439870 KS	Smsng KODEX 30-Years Trsry Bond Actv	207	↑ 1	0.05	0.05	-	Y	-	-	N	
RELGLT IN	NIPPON INDIA LONG TERM GIL	206	0	0.05	0.10	-	-	-	-	N	
ZHS SP	NikkoAM-ICBCSG China Bond ETF	200	↓ 0	1.24	0.30	-	-	-	U,C	N	
159816 CH	Penghua CSI 0-4 Y Local Govt Bond	199	9	0.04	0.60	-	-	-	-	N	
461460 KS	Hanwha ARIRANG 10-Year Treasur	190	0	0.09	0.03	-	Y	-	-	N	
2561 JP	iShares Core Japan Government Bond ETF	174	0	0.11	0.07	-	-	-	-	N	
451000 KS	Hanwha Airrang Total Mkt Bond AA-higher Actv	161	↓ 0	0.08	0.05	-	Y	-	-	N	
471230 KS	SAMSUNG KODEX 10-Years Treasur	158	4	0.03	0.02	-	Y	-	-	N	
511260 CH	SSE 10-year T-bond ETF	155	↑ 46	0.01	0.42	-	-	-	-	N	
278620 KS	Hanwha Airrang Active Short Term Credit	152	↑ 0	0.01	0.13	-	Y	-	-	N	
511020 CH	Ping An China Sec 5-10Y T-bond Active	149	58	0.01	0.30	-	-	-	-	N	
272560 KS	KB KBSTAR Short-term KTB Active ETF	134	↑ 0	0.01	0.09	-	Y	-	-	N	
451600 KS	Hanwha Airrang 30-Year Trsry Bond Actv	130	0	0.09	0.05	-	Y	-	-	N	
2251 JP	NEXT FUNDS JPY JGB Futures Dou	124	0	0.05	0.42	-2x	-	-	-	N	
511270 CH	SSE 10 Year Term Local T Bond ETF Fund	119	↑ 44	0.01	0.77	-	-	-	-	N	
2817 HK	Premia China Treasury & Policy Long Dur	118	0	0.57	0.28	-	-	-	U,C	N	
9177 HK	Premia China Treasury and Poli	118	0	0.72	0.28	-	-	-	Y,C	N	
RGB AU	Russell Invest Aust Govt Bond ETF	118	↑ 0	0.20	0.58	-	-	-	-	N	
451530 KS	Mirae Ast Tiger Trsry 30Yr Strips Bond Actv	106	2	0.06	0.30	-	Y	-	-	N	
511060 CH	HFT SSE 5-Y Local Govt Bond	89	37	0.02	0.62	-	-	-	-	N	
438570 KS	Shinhan SOL Korea Treasury Bond 10Y ETF	82	↑ 0	0.05	0.05	-	-	-	-	N	
KV4 SP	Xtrackers II Singapore Govt Bond UCITS	80	0	0.18	0.20	-	-	-	-	N	
472920 KS	Heungkuk HK Total Market Bond	79	0	0.08	0.03	-	Y	-	-	N	
282000 KS	KB KBSTAR KTB 3Y Futures Inverse ETF	73	↑ 2	0.07	0.07	-1x	-	-	-	N	
610061 KS	Meritz Sec MERITZ 3x Lvg KTB 30Y Etn 61	68	↑ 1	0.12	-	+3x	-	-	-	N	
511100 CH	ChinaAMC SSE Market-Making Tre	63	-	0.01	-	-	-	-	-	N	
465780 KS	DB Mighty 26-09 Special Bond Active ETF	55	0	0.03	-	-	Y	-	-	N	
461500 KS	NH-Amundi HANARO Total Market	53	0	0.08	0.01	-	Y	-	-	N	
114820 KS	Mirae Asset TIGER KTB 3Y ETF	50	0	0.05	0.17	-	-	-	-	N	
2843 JP	Listed Index Fund Aus Govt Bond Cur hdg	48	↑ 0	0.35	0.20	-	-	-	Y	N	

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Government (Continued)											
152380 KS	Samsung KODEX 10 Y Korea Treasury Fir	41	↓ 0	0.04	0.07	-	-	-	-	N	
458030 KS	WOORI Short Term Govt&Spl Bank Bond Actv	41	↑ 0	0.02	0.05	-	Y	-	-	N	
00794B TT	Capital Ice 7 + Y China Policy Bank	40	0	1.86	0.45	-	-	-	-	N	
295020 KS	KB KBSTAR KTB 10Y Futures Inverse ETF	39	↑ 0	0.13	0.07	-1x	-	-	-	N	
RSM AU	Russell Invest Aust Semi-Govt Bond ETF	38	0	0.20	0.26	-	-	-	-	N	
397410 KS	KB KBSTAR FKTB 5Y Duration Following Inv	37	↑ 0	0.11	0.07	-1x	-	-	-	N	
448490 KS	NH-Amundi HANARO Oct 2032 Trsry Actv	36	0	0.07	0.05	-	Y	-	-	N	
2844 JP	Listed Index Fund Aus gov't Bond no-cur hdg	33	↓ 0	0.22	0.20	-	-	-	-	N	
479520 KS	KB KBSTAR KOFIR Active SYNTH ETF	31	-	0.02	-	-	Y	-	-	N	
122260 KS	Kiwoom KOSEF 1Y MSB - FI	30	0	0.01	0.05	-	-	-	-	N	
3125 HK	iShares Short Duration China Policy Bank	28	0	0.26	0.20	-	-	-	U,C	N	
272910 KS	KIM Klxd Active Korea Treasury & Agency	26	0	0.06	0.11	-	Y	-	-	N	
GOVT AU	SPDR S&P/ASX Aus Govt Bond Fund	26	↑ 0	0.14	0.22	-	-	-	-	N	
426150 KS	Woori WOORI Korea Treasury Bond Active	25	↑ 0	0.05	0.07	-	Y	-	-	N	
114100 KS	KBSTAR KTB ETF	24	↑ 0	0.04	0.13	-	-	-	-	N	
BOND AU	SPDR S&P/ASX Australian Bond Fund	24	0	0.14	0.24	-	-	-	-	N	
363510 KS	Shinhan SOL KIS Short-term MSB	23	↓ 0	0.02	0.07	-	-	-	-	N	
481430 KS	KB KBSTAR 10-Years Treasury Bo	22	-	0.02	-	-	Y	-	-	N	
438560 KS	Shinhan SOL Korea Treasury Bond 3Y ETF	19	↑ 0	0.08	0.06	-	-	-	-	N	
NETF5Y GL IN	Nippon India ETF Nifty 5 yr Benchmark G	18	0	0.08	0.09	-	-	-	-	N	
272570 KS	KB KBSTAR Mid-Hong Term KTB Active ETF	16	0	0.02	0.09	-	Y	-	-	N	
610008 KS	Meritz Securities Meritz Leverage KTB 30Y	16	0	0.23	-	+2x	-	-	-	N	
610047 KS	Meritz Sec Meritz Inv KTB 3Y Etn 47	15	0	0.07	-	-1x	-	-	-	N	
114460 KS	KIM ACE KOREA TB ETF	13	↓ 0	0.05	0.17	-	-	-	-	N	
GSEC5IET IN	ICICI Prudential Nifty 5 Yr Be	12	0	2.93	0.20	-	-	-	-	N	
114470 KS	Kiwoom KOSEF 3Y KTB ETF - Fixed Income	12	↓ 0	0.05	0.05	-	-	-	-	N	
457700 KS	Smsng KODEX 53-09 Trsry Bond Actv	12	↑ 0	0.11	0.15	-	Y	-	-	N	
610010 KS	Meritz Securities Meritz Inverse 2X KTB 30Y	11	0	0.19	-	-2x	-	-	-	N	
5GOV AU	VanEck 5-10 Year Australian Go	11	0	0.10	0.22	-	-	-	-	N	
MOT5YGS IN	Motilal Oswal 5 Year G Sec ETF	10	0	1.22	0.15	-	-	-	-	N	
457690 KS	Smsng KODEX 33-06 Trsry Bond Actv	10	↑ 0	0.09	0.15	-	Y	-	-	N	
GSEC10YE IN	Mirae Asset Nifty 8-13 yr G-Sec ETF	10	0	1.64	0.10	-	-	-	-	N	
610009 KS	Meritz Securities Meritz Inverse KTB 30Y	9	0	0.10	-	-1x	-	-	-	N	
XGOV AU	VanEck 10+ Year Australian Gov	9	0	0.16	0.22	-	-	-	-	N	
449540 KS	Shinhan SOL 24-06 Treasury Bond Active ETF	8	0	0.02	0.04	-	Y	-	-	N	
610050 KS	Meritz Sec Meritz Lvg KTB 5Y Etn 50	8	0	0.07	-	+2x	-	-	-	N	
430500 KS	Kiwoom KOSEF TIPS KIS ETF	8	0	0.02	0.15	-	-	-	-	N	
610021 KS	MERITZ SECURITIES MERITZ INV KTB 10Y	8	0	0.07	-	-2x	-	-	-	N	
610020 KS	MERITZ SECURITIES MERITZ INV KTB 10Y	8	0	0.07	-	-1x	-	-	Y	N	
610049 KS	Meritz Securities Meritz KTB 5Y Etn 49	8	0	0.07	-	-	-	-	-	N	
610046 KS	Meritz Sec Meritz Lvg KTB 3Y Etn 46	8	0	0.07	-	+2x	-	-	-	N	
510039 KS	Daishin Securities Daishin 3X	8	0	0.44	0.50	+3x	-	-	-	N	
610045 KS	Meritz Securities Meritz KTB 3Y Etn 45	8	0	0.07	-	-	-	-	-	N	
610055 KS	Meritz Sec MERITZ 3x Lvg KTB 3Y Etn 55	8	0	0.04	-	+3x	-	-	-	N	
5100											

ASIA-PACIFIC LISTED ETFS



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Fixed Income											
Government (Continued)											
289670 KS	Hanwha Airrang KTB 10Y Futures ETF	4	↓	0	0.08	0.05	-	-	-	N	
390950 KS	NH-Amundi HANARO Short-Term Bond Act	4	↓	0	0.02	0.10	-	Y	-	N	
FFKX KZ	FF UIUF Fixed Income USD ETN	4	0	-	-	-	-	-	-	N	
295000 KS	KB KBSTAR KTB 10Y Futures ETF	3	↓	0	0.09	0.07	-	-	-	N	
GGAB AU	Betashares Geared Long Austral	2	-	-	0.38	0.99	+2.65x	Y	-	N	
397420 KS	KB KBSTAR FKTB 5Y Duration Following	2	↓	0	0.18	0.07	-	-	-	N	
3041 HK	Global X FTSE China Policy Bank Bond ETF	2	↓	0	0.87	0.30	-	-	-	N	
BBAB AU	Betashares Geared Short Austral	0	-	-	0.38	0.99	-2.79x	Y	-	N	
UTN5GSC IN	UTI Nifty 5 yr Benchmark G-Sec ETF	0	-	-	3.47	0.22	-	-	-	N	
UTN10GS IN	UTI Nifty 10 yr Benchmark G-Sec ETF	0	-	-	1.27	0.10	-	-	-	N	
HBLTETF PA	HBL Total Treasury Exchange Traded Fund	-	0	-	-	-	-	-	-	N	
XMGB U	Reksa Dana Majris Government	-	0	-	-	-	-	Y	-	N	
Corporates (Investment Grade)											
449170 KS	MIRAE ASSET TIGER SYNTH-KOFR ACTIVE	2,673	↑	3	0.00	0.03	-	Y	-	N	
273130 KS	Samsung KODEX Active Korea Total AA-	1,982	1	0.03	0.05	-	Y	-	-	N	
465680 KS	SAMSUNG KODEX 24-12 Bank Bond	1,785	0	0.05	0.04	-	Y	-	-	N	
SUBD AU	VanEck Australian Subordinated	988	↑	4	0.05	0.29	-	-	-	N	
470260 KS	MIRAE ASSET TIGER 24-12 FINANCIAL ETF	955	0	0.02	0.10	-	-	-	-	N	
QPON AU	BetaShares Aus Bank Senior Floating Rate	911	↑	4	0.07	0.22	-	-	-	N	
447820 KS	Mirae Ast Tiger 24-10 Corporate Actv	578	↑	2	0.01	0.10	-	Y	-	N	
476810 KS	SAMSUNG KODEX 25-11 Bank Bond	558	-	-	0.06	0.09	-	Y	-	N	
453540 KS	MIRAE Ast Tiger 25-10 CORP Actv	535	↑	3	0.02	0.10	-	Y	-	N	
CRED AU	Betashares Aus IG Corp Bond	502	↑	2	0.09	0.25	-	-	-	N	
VACF AU	Vanguard Aus Corp Fixed Interest Idx	439	1	0.06	0.20	-	-	-	-	N	
NIKIGCB SP	Nikko AM SGD IG Corp Bond	429	0	0.14	0.26	-	-	-	-	N	
451540 KS	Mirae Asset TIGER Aggregate Bond Active ETF	332	↑	0	0.03	-	-	Y	-	N	
467940 KS	SAMSUNG KODEX 25-11 Corporate	241	0	0.06	0.08	-	Y	-	-	N	
PLUS AU	VanEck Australian Corporate Bo	204	0	0.14	0.32	-	-	-	-	N	
493860 KS	Smsng KODEX ESG Korea Tot Bond Mkt A-Actv	202	0	0.19	0.07	-	Y	Y	-	N	
RCB AU	Russell Invest Aust Select Corp Bond ETF	179	0	0.17	0.28	-	-	-	-	N	
464540 KS	KB KBSTAR Mar2025 Term Credit ETF	178	0	0.02	0.04	-	-	-	-	N	
473290 KS	SAMSUNG KODEX 26-12 Corporate	163	-	-	0.07	0.09	-	Y	-	N	
ICOR AU	iShares Core Corporate Bond ETF	132	↑	0	0.16	0.15	-	-	-	N	
438330 KS	Mirae Asset TIGER Investment G	116	0	0.02	0.10	-	Y	-	-	N	
363570 KS	Samsung KODEX Active KAP Long Term AA-	113	0	0.06	0.05	-	Y	-	-	N	
461270 KS	KIM ACE 26-06 Term Corporate B	99	1	0.05	0.04	-	Y	-	-	N	
473440 KS	KIM ACE Nov Rollover Corporate	93	-	-	0.05	-	Y	-	-	N	
462540 KS	Shinhan SOL 25-09 Credit Bond	87	0	0.03	0.04	-	Y	-	-	N	
466400 KS	Hana KTOP 25-08 Corp Bond A+ A	82	1	0.02	-	-	Y	-	-	N	
475260 KS	KIM ACE Feb Rollover Corporate	81	-	-	0.05	-	Y	-	-	N	
468820 KS	WOORI 25-09 Corporate Bond AA-	76	0	0.02	0.05	-	Y	-	-	N	
AJACS SP	iShares J.P. Morgan USD Asia Credit Bond	72	0	0.47	0.20	-	-	-	U	N	
511180 CH	HFT SSE IG Convertible Bond & Exch Bond	67	↑	31	0.01	0.72	-	-	-	N	
461260 KS	KIM ACE 25-06 Term Corporate B	64	0	0.06	0.04	-	Y	-	-	N	
00853B TT	UPAMC 10+ Y AA-A USD Senior Corp Bond	60	↓	1	0.19	0.45	-	-	-	N	
448600 KS	KB KBSTAR Nov2025 Term Credit ETF	53	↓	0	0.02	0.09	-	Y	-	N	
437070 KS	Smsng KODEX Asia USD Bond SRI Plus Actv	50	↑	0	0.06	0.18	-	Y	Y	N	
136340 KS	KB KBSTAR Credit Bond Sec - Bond	44	0	0.03	0.28	-	-	-	-	N	
IYLD AU	iShares Yield Plus ETF	28	↑	0	0.13	0.12	-	-	-	N	
475270 KS	KIM ACE May Rollover Corporate	20	-	-	0.06	-	Y	-	-	N	
3075 HK	Global X Asia USD Investment G	20	0	0.63	0.35	-	-	-	-	N	
475280 KS	KIM ACE Aug Rollover Corporate	19	-	-	0.06	-	Y	-	-	N	
HCRD AU	Betashares Interest Rate Hedge	13	↑	0	0.35	0.29	-	-	-	N	
3141 HK	ChinaAMC Asia USD IG Bond	12	↓	0	0.81	0.35	-	-	U	N	
3059 HK	Gbl X BBG MSCI Asia ex Japan Green Bond	7	↓	0	0.87	0.40	-	Y	C	N	
BSUB AU	Betashares Australian Major Ba	5	-	-	0.06	0.29	-	-	-	N	
00784B TT	Fubon FTSE Asian Broad Bond Idx China IG	4	0	0.34	0.53	-	-	-	-	N	
Corporates (High Yield)											
AHYGS SP	iShares Barclays USD Asia HY Bond Idx	1,073	↓	0	0.27	0.50	-	-	-	U	N
00741B TT	Fubon 1-5 Y US HY Bond Ex China	14	0	2.97	0.56	-	-	-	-	N	
Corporates (Broad)											
HBRO AU	BetaShares Active Australian Hybrids Fund	1,462	3	0.12	0.55	-	Y	-	-	N	
214980 KS	Samsung KODEX KRW Cash Plus - Bond	927	2	0.01	0.15	-	-	-	-	N	
511030 CH	Ping An China - Medium-HG Corp factors	876	↑	59	0.01	-	-	-	-	N	
464230 KS	Kiwoom Heroes 24-09 Term Corpo	120	1	0.02	0.05	-	Y	-	-	N	
480260 KS	MIRAE ASSET TIGER 27-04 CORPOR	76	-	-	0.02	0.10	-	-	-	N	
FXD AU	Coolabah Active Composite Bond Fund Hdg	56	0	0.15	0.30	-	Y	-	-	N	
3001 HK	Premia China USD Property Bond ETF	12	0	0.87	0.58	-	-	-	U,C	N	
ECOR AU	elinvest Core Income Fund	12	0	-	0.45	-	Y	-	-	N	
GOOD AU	Janus Henderson Sus Credit Actv Managed Fnd	1	↑	0	0.27	0.50	-	Y	Y	N	
020039 TT	Yuantia TAIXE TRI ETN	-	0	0.50	-	-	-	-	-	N	

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-ask spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Fixed Income											
Aggregate/Multi-sector											
511380 CH	Bosera CSI Convertible Bond & Exch Bond	1,023	↑	123	0.01	0.52	-	-	-	N	
385540 KS	KB KBSTAR Active Korea Total Bond A-	790	0	0.02	0.03	-	Y	-	-	N	
436140 KS	Shinhan SOL K-Total Bond Actv AA- Higher	570	↑	0	0.03	0.04	-	Y	-	N	
BNDS AU	Betashares Legg Mason Aus Bond Fund	449	↑	1	0.11	0.42	-	Y	-	N	
NZB NZ	Smartshares NZ Bond ETF	258	0	0.11	0.54	-	Y	-	-	N	
OZBD AU	Betashares Australian Composite Bond ETF	256	↑	1	0.10	0.19	-	-	-	N	
273140 KS	Samsung KODEX Active Korea FRN 1Y AAA	244	0	0.01	0.15	-	Y	-	-	N	
GBND AU	Betashares Sustainability Diverse - Cur Hdg	230	↑	0	0.26	0.49	-	-	Y	Y	N
AXBPSETF IN	Axis AAA Bond Plus SDL - 2026 Maturity	224	0	0.20	0.24	-	-	-	-	N	
00848B TT	CTBC Emerging Asia Ex China USD Select	223	↑	0	0.27	0.50	-	-	-	N	
NNIFCP24 IN	Nippon India Nifty CPSE Bond Plus SDL	198	0	0.80	0.20	-	-	-	-	N	
448880 KS	KIM ACE 24-12 Term Corporate Bond Actv	169	↑	1	0.01	0.12	-	Y	-	N	
469820 KS	Shinhan SOL 24-12 Credit Bond	131	0	0.02	-	-	Y	-	-	N	
454780 KS	KIWOOM HEROES Total Market Bon	90	↑	0	0.08	0.02	-	Y	-	N	
385550 KS	KB KBSTAR Active Korea Short Term AA-	86	↓	0	0.01	0.05	-	Y	-	N	
470320 KS	BNK BNK 24-11 Corporate Bond A	79	0	0.03	0.11	-	Y	-	-	N	
464240 KS	Kiwoom Heroes 26-09 Term Corpo	50	1	0.04	0.07	-	-	-	-	N	
469580 KS	KB KBSTAR USD Korean Paper Active ETF	41	0	0.04	0.07	-	Y	-	-	N	
440640 KS	KIM KINDEX Short term Bond Alpha Active ETF	39	0	0.01	0.18	-	Y	-	-	N	
336160 KS	KB KBSTAR Financials Bond Active ETF	25	↓	0	0.05	0.09	-	-	-	N	
239660 KS	Hanwha Airrang Credit Bond 50 ETF	17	↑	0	0.00	0.17	-	-	-	N	
167860 KS	Kiwoom KOSEF 10Y KTB Leverage ETF	10	↑	0	0.08	0.30	+2x	-	-	N	
Money Market											
511600 CH	Huan Rixin in Monetary Market Fund ETF	22,236	0	0.01	0.35	-	-	-	-	N	
511990 CH	Hwabao WP Cash Tianyi Listed MMK Fund	12,946	↓	2,070	0.00	0.69	-	-	-	N	
511880 CH	Yinhua Traded Money Market Fund	11,857	↓	1,764	0.00	0.64	-	-	-	C	N
511810 CH	China Southern Cash Mgmt MMK Fund	9,420	↓	3	0.00	0.65	-	-	-	N	
511700 CH	Pingan-Uob Traded Money Market Fund	7,880	4	0.00	0.21	-	-	-	-	C	N
511860 CH	Bosera Sec Deposit Real-time Traded MMK	6,993	↓	1	0.00	0.64	-	-	-	C	N
357870 KS	Mirae Asset TIGER CD Rate Invest Synth	5,285	↑	13	0.01	0.17	-	-	-	N	
511660 CH	CCB Principal Profit Raise MMK Fund	4,388	↓	158	0.00	0.58	-	-	-	N	
159005 CH	China Universal Quick Gains MMK Fund	3,951	↑	1	0.00	-	-	-	-	N	
511620 CH	Guotai Shunli Traded Money Market Fund	3,742	↑	2	0.00	0.28	-	-	Y	-	N
511850 CH	China Merchants Caibao Traded MMK	2,399	↓	83	0.00	0.43	-	-	-	N	
AAA AU	BetaShares Aus High Interest Cash	2,251	19	0.02	0.18	-	Y	-	-	N	
511820 CH	Penghua Profit Added Traded MMK Fund	2,191	↓	0	0.03	0.60	-	-	-	N	
511830 CH	Huatai-PB Traded Money Market Fund	1,978	↓	0	0.01	0.24	-	-	-	N	
511650 CH	China AMC Express Traded Money	1,639	0	0.07	-	-	-	-	-	N	
511950 CH	GF Tianli Traded Money Market Fund	1,353	0	0.22	0.21	-	-	-	-	N	
LBEEES IN	Nippon India ETF Nifty 1D Rate Liquid BEES	1,351	45	0.00	0.69	-	-	-	-	N	
455890 KS	KB KBSTAR Money Market Active ETF	1,298	↑	6	0.01	0.04	-	Y	-	N	
159003 CH	China Merchants Sec Deposit Fast-swimg	885	2	0.00	0.53	-	-	-	-	N	
3053 HK	CSOP Hong Kong Dollar Money Market ETF	831	0	0.05	0.32	-	-	-	-	C	N
610063 KS	MERITZ SEC MERITZ KIS CD RATE ETN 63	683	↑	2	-	-	-	-	-	N	
3096 HK	CSOP US Dollar Money Market ETF	633	0	0.48	0.43	-	-	-	U	N	
272580 KS	Mirae Asset Tiger Money Market Active ETF	581	↑	1	0.01	0.09	-	Y	-	N	
511670 CH	Huatai Zjin Tiananjin Traded MMK Fund	577	0	0.09	-	-	-	-	-	C	N
700026 KS	Hana Securities Hana CD Intere	546	-	-	0.01	-	-	-	-	N	
157450 KS	Mirae Asset Tiger Money Market ETF	535	↓	1	0.01	0.11	-	-	-	N	
550082 KS	NH QV KIS CD Inrst Rate Invst Eth 82	528									

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
Money Market (Continued)										
MMKT AU	Betashares Australia Cash Plus	81	1	0.03	0.18	-	Y	-	-	N
130730 KS	Kiwoom KOSEF Enhanced Cash - FI	81	↓	1	0.01	-	-	-	-	N
458210 KS	KIWOOM HEROES CD Active ETF	81	↑	0	0.01	0.34	-	-	-	N
500083 KS	Shinhan Securities Shinhan KOFR ETN 83	74	0	0.01	-	-	-	-	-	N
DLIQGRW IN	DSP S&P BSE Liquid Rate ETF	69	-	0.21	0.40	-	-	-	-	N
419890 KS	Kiwoom HEROES Short-Term Bond ESG	66	0	0.01	0.15	-	Y	Y	-	N
3122 HK	CSOP RMB MONEY MARKET ETF	49	0	0.36	0.92	-	-	-	C	N
610066 KS	MERITZ SEC MERITZ KAP MSB 3M ETN 64	45	↑	0	-	-	-	-	-	N
610064 KS	MERITZ SEC MERITZ KAP MSB 6M ETN 65	22	0	-	-	-	-	-	-	N
610065 KS	Meritz Securities Meritz KIS MSB 1Y ETN 66	15	0	0.01	-	-	-	-	-	N
511930 CH	Zhongrong Daily Earning Transactional MMK	15	↑	0	0.11	0.61	-	-	-	N
3152 HK	Bosera HKD Money Market ETF	9	0	0.03	0.40	-	Y	-	-	N
471290 KS	NH-Amundi HANARO CD Active ETF Synth	8	0	0.01	0.02	-	Y	-	-	N
AOFATIF IN	Aditya Birla Sun Life CRISILL	6	0	0.04	0.26	-	-	-	-	N
HIDRTLQ IN	HDFC Nifty 1D Rate Liquid ETN	5	1	0.31	0.50	-	-	-	-	N
83192 HK	Bosera RMB Money Market ETF	0	0	0.19	0.55	-	Y	-	-	N
ZNRLET IN	Zerodha Nifty 1D Rate Liquid ETF	-	-	0.01	0.26	-	-	-	-	N
Inflation										
ILB AU	iShares Government Inflation ETF	493	↑	2	0.13	0.18	-	-	-	N
PAYS AU	Schroder Absolute Return Income/ETF	34	0	0.30	0.54	-	Y	-	-	N
610002 KS	Meritz Securities Meritz Lev Inflation Bond	18	0	0.08	-	+1x	-	-	-	N
610001 KS	Meritz Securities Meritz Inflation Bond ETN 1	17	0	0.08	-	-	-	-	-	N
International										
00679B TT	Yuantia US Treasury 20+ Year Bond ETF	6,705	↑	47	0.04	0.29	-	-	-	N
00937B TT	CAPITALICE ESG 20+ YEAR BBB U	5,037	59	0.07	-	-	-	Y	-	N
00751B TT	Yuantia US 20+ Y AAA-A Corp Bond	4,713	↑	17	0.04	0.50	-	-	-	N
00687B TT	Cathay US Treasury 20+ YR ETF	4,681	↑	51	0.04	0.37	-	-	-	N
00720B TT	Yuantia US 20+ Y BBB Corp Bond	4,441	↑	23	0.04	0.54	-	-	-	N
00772B TT	CTBC BBG Barclays USD Corp 10+ Y HG	4,130	↑	10	0.04	0.54	-	-	-	N
00725B TT	Cathay BBB Corporate bond ex C	3,117	↑	10	0.06	0.61	-	-	-	N
00761B TT	Cathay BBG Barclays US Corp 10+ Y Liquid	2,886	1	0.37	0.50	-	-	-	-	N
00773B TT	CTBC BBG Barclays Banking Senior 10+ Y	2,825	7	0.05	0.57	-	-	-	-	N
00746B TT	Fubon 9-35 Y US Corp Bond A	2,756	↑	4	0.10	0.56	-	-	-	N
MQIO AU	Macquarie Income Opportunities	1,899	0	0.23	0.49	-	Y	-	Y	N
00777B TT	KGI 15+ Y AAA-A US Corp Bond	1,880	↑	0	0.40	0.56	-	-	-	N
00778B TT	KGI 20+Years US Banking Bond ETF	1,696	2	0.33	0.56	-	-	-	-	N
00792B TT	Capital Ice 15+ Y Single-A US Corp	1,642	↑	2	0.27	0.45	-	-	-	N
00933B TT	Cathay US Corporate 10+ Years	1,613	24	0.07	0.45	-	-	-	-	N
00740B TT	Fubon 10+Y US Corp Bond BBB Ex China	1,571	↑	10	0.05	0.54	-	-	-	N
00795B TT	CTBC U.S. Treasury 20+ Year Bond ETF	1,412	↑	13	0.05	0.15	-	-	-	N
00756B TT	CAPITALICE INTERNATIONAL 15+ US EM	1,260	1	0.13	0.61	-	-	-	-	N
00754B TT	Capital Ice 15+ Y Aaa-AA US Corp	1,219	↑	1	0.38	0.46	-	-	-	N
00726B TT	Cathay EM USD IG ex CH Coupon Capped	1,219	0	0.31	0.61	-	-	-	-	N
2621 JP	iShares 20 Y US Treasury Bond JPY Hgd	1,198	↑	11	0.09	0.15	-	-	Y	N
00764B TT	Capital Ice 25+ Y US Treasury	1,106	↑	15	0.05	0.21	-	-	-	N
00696B TT	Fubon US Treasury 20+ Y US Treasury	1,088	↑	8	0.07	0.30	-	-	-	N
00785B TT	Fubon FTSE USD Bank Bond 10+ Y Idx	1,034	↑	2	0.28	0.57	-	-	-	N
1482 JP	iShares Core 7-10Y US Treasury JPY Hgd	983	↑	2	0.07	0.15	-	-	Y	N
2512 JP	NEXT FUNDS International Bond	967	↑	0	0.13	0.13	-	-	-	Y
00931B TT	UPAMC US Treasury 20 Plus Year ETF	963	9	0.09	0.15	-	-	-	-	N
00749B TT	KGI 10+ Y EM USD IG Bond	937	0	0.33	0.56	-	-	-	-	N
00779B TT	KGI 25+ Years US Treasury Bond ETF	893	↑	1	0.16	0.15	-	-	-	N
453850 KS	KIM ACE U.S. Long Term T-Bond Active ETF H	881	↑	10	0.06	0.05	-	Y	-	N
VBND AU	Vanguard Global Aggregate Bond Hgd	843	↑	3	0.06	0.20	-	-	-	Y
MQDB AU	MACQUARIE DYNAMIC BOND ACTIVE	787	0	0.27	0.61	-	Y	-	-	N
00680L TT	Yuantia Daily US Treasury 20+ Y Bull 2X	779	↑	13	0.15	0.96	+2x	-	-	N
00687B TT	Shin Kong Premium Umbrella ICE 15+ Y US	740	↑	0	0.46	0.40	-	-	-	N
00760B TT	FUH Hwa Emerging Market Credit Bond Etf	735	1	0.21	0.56	-	-	-	-	N
00768B TT	FUH Hwa US Treasury 20+ Year Etf	714	↑	1	0.27	0.19	-	-	-	N
00862B TT	CTBC US 20+ Y BBB Corp Bond	653	↑	1	0.14	0.42	-	-	-	N
00849B TT	CTBC 0-5 Y AAA-BB EM USD Govt ex-144a	603	0	7.98	0.40	-	-	-	-	N
USTB AU	Gbl X US Trsny Bond Curr Hdgd	523	↑	1	0.18	0.20	-	-	-	Y
3011 HK	ICBC CICC USD Money Market ETF	521	0	0.45	0.25	-	Y	-	U	N
00863B TT	CTBC US 10+ Y Telecom Bond	521	0	0.27	0.40	-	-	-	-	N
ICLUSDMB HK	ICBC CICC USD Money Market ETF	521	-	-	0.70	-	Y	-	U	N
1487 JP	Listed Idx Fund US Bond Cur Hdg	517	↑	1	0.10	0.20	-	-	-	Y
00711B TT	Fuh Hwa Emerging Market 10+ Yr Bond ETF	490	0	0.44	0.61	-	-	-	-	N
VIF AU	Vanguard International Fixed Interest Idx Hgd	490	3	0.08	0.20	-	-	-	-	Y
00870B TT	Yuantia 15+ Y EM Sovereign Bond	480	0	0.44	0.46	-	-	-	-	N
00836B TT	Sinopac ICE 10Y Core L. Cap US Corp Bond	442	2	0.83	0.50	-	-	-	-	N
00791B TT	Fuh Hwa 1-5 Y USD Credit Select Bond	439	0	0.52	0.51	-	-	-	-	N
00789B TT	Fuh Hwa 20+ Y A3 or Better Corp Bond	424	↑	1	0.28	0.51	-	-	-	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
International (Continued)										
329750 KS	Mirae Asset TIGER USD MMK Active	419	↑	1	0.08	0.33	-	Y	-	N
00719B TT	Yuantia US Treasury 1-3 Year Bond Etf	382	↑	2	0.12	0.22	-	-	-	N
00775B TT	Shin Kong FTSE 15 Y IG USD Corp Bond	369	↑	0	1.07	0.56	-	-	-	N
GGB NZ	Smartshares Global Government Bond Etf	347	0	-	0.30	-	-	Y	-	Y
00688L TT	Cathay US Treasury 20+ YR Lev 2X ETF	316	↑	7	0.14	0.86	+2x	-	-	N
476550 KS	MIRAE ASSET TIGER 30Y US TREAS	299	-	0.05	0.39	-	-	Y	-	N
458250 KS	MIRAE Asti Tiger US T-BOND 30Y SYNTH Actv	289	↑	5	0.04	0.10	-	Y	-	N
00780B TT	Cathay BBG Barclays 7-10 Y Banking	274	0	0.30	0.45	-	-	-	-	N
2511 JP	NEXT FUNDS Intern Citi WGBI ex JP UnHgd	270	↑	0	0.13	0.13	-	-	-	N
1496 JP	iShares USD IG Corp Bond JPY Hgd	261	↑	0	0.12	0.28	-	-	-	N
00694B TT	Fubon US 1-3 Y US Treasury Bond	247	↑	0	0.68	0.22	-	-	-	N
2648 JP	NEXT FUNDS Bloomberg US Treasury hdg	232	↑	0	0.14	0.14	-	-	-	Y
304660 KS	Samsung KODEX Ultra T-bond Fr H	229	↑	2	0.07	0.30	-	-	-	Y
00844B TT	Shin Kong Supreme Umbrella Fund 15Y USD	219	1	0.53	0.43	-	-	-	-	N
1677 JP	Listed Int FTSE WGBI Monthly Div Payment	213	0	0.23	0.43	-	-	-	-	N
456610 KS	MIRAE ASSET TIGER USD synth-SOFR active	207	↑	0	0.08	-	-	Y	-	N
472870 KS	KB KBSTAR 30Y US Treasury Bond	206	-	0.07	0.15	-	-	-	-	N
00845B TT	Fubon EM USD IG Bond	205	0	0.45	0.56	-	-	-	-	N
1656 JP	iShares Core 7-10 Y US Treasury Bond	197	1	0.07	0.15	-	-	-	-	N
00755B TT	Capital Ice 15+ Y US Utility	188	0	0.13	0.46	-	-	-	-	N
00710B TT	Fuh Hwa 1-5 Yr High Yield ETF	180	0	0.15	0.56	-	-	-	-	N
00864B TT	CTBC 0-1 Year US Treasury Bond ETF	171	↑	2	0.29	0.16	-	-	-	N
IHCB AU	iShares Core Global Corp Bond AUD Hgd	168	1	0.40	0.26	-	-	-	-	Y
2856 JP	iShares 3-7 Year US Trsny Bond JPY Hgd	152	↑	0	0.09	0.14	-	-	-	Y
NGB NZ	Smartshares S&P/NZ/NX Govt Bond	148	0	0.31	0.20	-	-	-	-	N
00750B TT	KGI 10+ Year USD Technology Bond ETF	137	0	0.69	0.56	-	-	-	-	N
GGOV AU	Betashares Global Govt 20+ Y - Cur Hdg	125	↑	1	0.16	0.22	-	-	-	Y
1566 JP	Listed Index Fund Emerging Bond	124	0	0.18	0.55	-	-	-	-	N
1486 JP	Listed Idx Fund US No Cur Hdg	123	↓	1	0.10	0.26	-	-	-	N
473330 KS	Shinhan SOL US Treasury 30y 2%	119	-	0.06	-	-	-	-	-	N
1497 JP	iShares USD HY Corp Bond JPY Hgd	119	↑	0	0.10	0.64	-	-	-	N
AGGNZ	Smartshares Global Aggregate Bond ETF	119	0	0.58	0.30	-	-	-	-	N
00727B TT	Cathay HY ex CH Cash pay 1-5 Y 2% Issuer	118	0	3.97	-	-	-	-	-	N
IHHY AU	iShares Global HY Bond AUD Hgd	112	↑	1	0.55	0.56	-	-	-	Y
2620 JP	iShares 1-3 Year US Treasury Bond ETF	106	↓	1	0.07	0.15	-	-	-	N
EBND AU	VanEck Emerging Income Opportunities	101	0	0.29	0.95	-	Y	-	-	N
UTIP AU	Betashares Inflation-Protected	101	0	0.13	0.22	-	-	-	-	Y
2554 JP	NEXT FUNDS BBG Barclays US Corp JP Hgd	99	↑	0	0.14	0.30	-	-	-	N
VCF AU	Vanguard International Credit Sec Idx Hgd	98	0	0.09	0.30	-	-	-	-	Y
GBFNZ	Smartshares Global Bond ETF	96	↓	0	0.13	0.54	-	-	-	Y
305080 KS	Mirae Asset TIGER 10Y U.S. Treasury Fir	92	1	0.06	0.36	-	-	-	-	N
00759B TT	FUH Hwa 15+ YR Pharmaceuticals Bond	84	0	0.80	0.51	-	-	-	-	N
456880 KS	KIM ACE USD SOFR ETF Synth	83	↑	0	0.07	-	-	-	-	N
00846B TT	Fubon 7-15 Years Europe USD Banking ETF	82	0	0.99	0.57	-	-	-	-	N
2259 JP	iShares 7-10 Year France Gover	81	0	0.31	0.15	-	-	-	-	Y
00841B TT	KGI 20+ Y AAA-AA US Large Cap Corp	78	0	0.36	0.56	-				

ASIA-PACIFIC LISTED ETFS



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Fixed Income										
International (Continued)										
00697B TT	Yuanta US Treasury 7-10 Year Bond ETF	34	↑	0	0.13	0.37	-	-	-	N
00788B TT	Yuanta US 10+ IG Utility Electric Power Bond	34	↑	0	0.10	0.40	-	-	-	N
2012 JP	iShares 0-3 Month US Treasury Bond ETF	33	-	0.12	0.13	-	-	-	-	N
481060 KS	SAMSUNG KODEX US Treasury Bond	33	-	0.05	0.25	-	-	-	-	N
2091 JP	NZAM ETF German Government Bon	31	0	0.63	0.11	-	-	-	-	Y N
455960 KS	KB KBSTAR USD SOFR Active SYNTH ETF	29	↑	0	0.16	0.03	-	Y	-	N
179A JP	Global X 25+ Year T-Bond ETF JPY Hedged	29	-	0.24	0.10	-	-	-	Y	N
464470 KS	Hanwha ARIRANG US Treasury Bon	26	0	0.05	0.12	-	Y	-	-	N
00890B TT	KGI 15+ Y US BBB ESG Corp Bond	25	0	0.20	0.43	-	-	Y	-	N
2093 JP	Listed Tracers US Government B	25	0	0.10	0.09	-	Y	-	-	N
2255 JP	iShares 20+ Year US Treasury Bond ETF	25	1	0.10	0.15	-	-	-	-	N
00865B TT	Cathay US Treasury Coupons ETF	24	0	0.60	0.14	-	-	-	-	N
00782B TT	Cathay BBG Barclays 15+ Y Utility	24	↑	0	0.33	0.45	-	-	-	N
472830 KS	KB KBSTAR US Treasury Bond 30Y	23	-	0.08	0.20	-	-	-	-	N
3196 HK	Bosera USD Money Market ETF	23	0	-	0.55	-	Y	-	U, C	N
332620 KS	Hanwha ARIRANG US Long-term Credit	22	0	0.12	0.32	-	-	-	-	N
00834B TT	FSITC BBG Barclays US Corp 10+ Y Banking	22	0	0.37	0.35	-	-	-	-	N
610078 KS	MERITZ SECURITIES MERITZ 3X Le	22	-	0.04	-	-	-	-	-	N
332610 KS	Hanwha ARIRANG US Short-term Credit	21	0	0.23	0.11	-	-	-	-	N
520065 KS	MiraAsset Securities Miraass	19	0	0.06	-	-	-	-	-	N
2519 JP	NEXT FUNDS EM J.P. Morgan EMBI UnHgd	19	0	0.22	0.21	-	-	-	-	N
468380 KS	SAMSUNG KODEX iShares US HY Ac	18	1	0.09	0.15	-	Y	-	-	N
2853 JP	iShares Climate Risk-Adj Global ex Japan	18	0	0.58	0.11	-	-	Y	Y	N
610022 KS	MERITZ SECUR MERITZ US Bond 10Y	17	0	0.08	-	-	-	Y	-	N
GCAP AU	Vaneck Bentham Global Capital Securities	17	↓	0	0.44	0.59	-	Y	-	N
00787B TT	Yuanta US 10+ IG Healthcare Bond	17	↑	0	0.35	0.40	-	-	-	N
00734B TT	Taishin Jp Morgan EMing Markets IG Bond	16	0	0.57	0.51	-	-	-	-	N
550086 KS	NH QV USD SOFR Plus ETN 86	16	-	0.09	-	-	-	-	-	N
2016 JP	iFreeETF US Treasury Bond 7-10	14	-	0.12	0.10	-	Y	-	-	N
00681R TT	Yuanta Daily US Treasury 20+Y Bear 1X	14	↑	0	0.17	0.91	-1x	-	-	N
476760 KS	KIM ACE U.S. Long Term T-Bond Active ETF	14	-	0.10	-	-	Y	-	-	N
468630 KS	SAMSUNG KODEX iShares US Inves	13	0	0.08	0.10	-	Y	-	-	N
610003 KS	Meritz Securities Meritz US Inflation Bond	13	0	0.09	-	-	-	-	Y	N
610040 KS	Meritz Securities Meritz Inver	12	0	0.08	-	-	-	-	Y	N
182490 KS	Mira Asset TIGER SYNTH-IBOXXX HY H	12	0	0.33	0.29	-	-	-	Y	N
610025 KS	MERITZ SECURITIES MERITZ INV 2X US	12	0	0.06	-	-2x	-	-	-	N
520064 KS	MiraAsset Securities Miraass	11	0	0.11	-	-	-	-	-	N
461600 KS	Shinhan SOL US Treasury Bond 3	11	0	0.08	0.04	-	Y	-	-	N
354240 KS	KB KBSTAR U.S. Preferred Sec ICE TR	11	↑	0	0.26	0.50	-	-	-	N
00842B TT	Taishin BBG US Banking Idx 15+ Y	10	0	0.69	0.35	-	-	-	-	N
US10 AU	Betashares US Treasury Bond 7-	10	1	0.11	0.22	-	-	Y	-	N
00856B TT	Sinopac ICE 1-3 Year US Treasury ETF	10	0	2.51	0.20	-	-	-	-	N
467620 KS	KIWOOM HEROES 25-09 US Dollar	10	1	0.07	0.29	-	Y	-	-	N
610039 KS	Meritz Sec Meritz Inv US TsrtyBond 30Y Eth H 39	10	0	0.07	-	-1x	-	-	-	N
610004 KS	Meritz Securities Meritz US Lev Inflation bond	10	0	0.12	-	+1x	-	-	Y	N
00883B TT	CTBC 15+ Y DM US Corp Best-in-Class ESG	10	0	0.56	0.54	-	-	Y	-	N
267440 KS	KB KBSTAR US Treasury Long Bond Fr H	10	↑	0	0.14	0.82	-	-	Y	N
2015 JP	iFreeETF US Treasury Bond 7-10	10	-	0.13	0.10	-	Y	-	-	N
610024 KS	MERITZ SECURITIES MERITZ INV US Bond	10	0	0.06	-	-	-	-	Y	N
00847B TT	CTBC US High Grade Municipal Bond ETF	10	0	7.92	0.40	-	-	-	-	N
USHY AU	Gbl X USD High Yld Bond Curr Hdgd	9	↑	0	0.96	0.30	-	-	-	N
00799B TT	Cathay BBG Barclays 15+ Y Healthcare	9	↑	0	0.55	0.41	-	-	-	N
00758B TT	Fuh Hwa 15+ YR Energy Bond Etf	9	0	0.96	0.51	-	-	-	-	N
181A JP	MAXIS US Treasury Bond 1-3 Yea	8	-	0.62	0.12	-	-	-	-	N
440650 KS	KIM KINDEX US Short Term Bond Active ETF	8	0	0.07	0.72	-	Y	-	-	N
610074 KS	MERITZ SECURITIES MERITZ US Tr	7	-	0.08	-	-	-	-	-	N
610077 KS	MERITZ SECURITIES MERITZ US Tr	7	-	0.08	-	-	-	-	-	N
610075 KS	MERITZ SECURITIES MERITZ 3X Le	7	-	0.06	-	-	-	-	-	N
610076 KS	MERITZ SECURITIES MERITZ Inver	7	-	0.04	-	-	-	-	-	N
00689R TT	Cathay US Treasury 20+ YR Inv 1X ETF	7	0	0.13	0.81	-1x	-	-	-	N
610079 KS	MERITZ SECURITIES MERITZ Inver	7	-	0.05	-	-	-	-	-	N
XKAP AU	ActiveX Kapsream Absolute Return Income	7	0	0.12	0.55	-	Y	-	-	N
460270 KS	KIWOOM HEROES US Dollar SOFR A	7	0	0.13	0.05	-	Y	-	-	N
267490 KS	KB KBSTAR US Treasury Long Fr Lvg	6	↑	0	0.18	0.97	+2x	-	Y	N
455660 KS	KIM ACE US High Yield Active ETF H	6	0	0.13	0.53	-	Y	-	-	N
2092 JP	NZAM ETF France Government Bon	6	-	0.82	0.11	-	-	-	-	N
468370 KS	SAMSUNG KODEX iShares US TIPS	6	0	0.07	0.10	-	Y	-	-	N
456200 KS	Hanwha Arirang USD SOFR Actv SYNTH	6	0	0.16	0.07	-	Y	-	-	N
00859B TT	Capital Ice Bofam 0-1 Y US Treasury	6	↓	0	0.27	0.14	-	-	-	N
00781B TT	Cathay BBG Barclays 15+ Y Tech	6	↑	0	0.63	0.45	-	-	-	N
00860B TT	Capital Ice 1-5 Y US Corp	6	↑	0	0.55	0.14	-	-	-	N
304670 KS	Samsung KODEX Ultra T-bond Fr Inv H	5	0	0.16	0.30	-1x	-	-	Y	N

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-Offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity
Fixed Income										
International (Continued)										
2649 JP	iShares Ginnie Mae MBS JPY Hedged ETF	5	↑	0	0.29	0.14	-	-	-	Y N
2256 JP	iShares US Aggregate Bond ETF	5	0	0.12	0.09	-	-	-	-	N
3077 HK	Premia US Treasury Floating Rate ETF	5	0	0.53	0.15	-	-	-	-	U N
133A JP	Global X Ultra Short-Term T-Bill ETF	5	-	0.14	0.03	-	-	-	-	N
2019 JP	Global X U.S. Preferred Securi	5	-	0.29	0.03	-	-	-	-	N
00793B TT	Capital Ice 15+ Y Aaa-A US Healthcare	5	↑	0	0.73	0.45	-	-	-	N
610023 KS	MERITZ SECURITIES MERITZ LEV US Bond	4	0	0.12	-	+2x	-	-	-	Y N
180A JP	Global X 25+ Year T-Bond ETF	4	-	0.21	0.10	-	-	-	-	N
459370 KS	Shinhan SOL Carbon Emission EU	4	0	0.36	0.50	-	-	Y	-	N
3156 HK	Bosera 20+ Year US Treasury Bond ETF	4	-	0.52	0.15	-	-	-	U	N
SKUK AU	Hejaz Sukuk Active ETF Managed Fund	4	0	-	1.33	-	-	-	-	N
00790B TT	Fuh Hwa 8+ Y Financial Subordinate Bond	4	0	0.57	0.51	-	-	-	-	N
USIG AU	Gbl X USD Corporate Bond Curr Hdgd	3	↑	0	0.35	0.30	-	-	-	Y N
IUSG AU	iShares US Treasury Bond Aud Hedged Etf	3	0	0.18	0.15	-	-	-	-	Y N
2245 JP	NEXT FndS BBG Germany T-Bond 7-10 year Idx	3	↑	0	0.17	0.11	-	-	-	Y N
2258 JP	iShares USD High Yield Corpora	3	0	0.13	0.21	-	-	-	-	N
267500 KS	KB KBSTAR US Treasury Long Fr Inv 2XH	2	0	0.95	0.94	-2x	-	-	-	Y N
456100 KS	NH-Amundi HANARO Eur Tsrty 25+ Year Synth	2	↓	0	0.46	0.20	-	-	-	N
140A JP	iFreeETF 10 Year U.S. Treasury	2	-	0.12	0.50	-	-	-	-	N
2257 JP	iShares USD Investment Grade C	2	0	0.13	0.10	-	-	-	-	N
267450 KS	KB KBSTAR US Treasury Long Fr Inv H	2	0	0.96	0.66	-1x	-	-	-	Y N
2246 JP	NEXT FndS BBG France T-Bond 7-10 year Idx	2	0	0.22	0.11	-	-	-	-	Y N
2861 JP	Listed Idx Fnd France Govt Bond No Curr Hdgd	1	0	0.23	0.21	-	-	-	-	N
183A JP	MAXIS US Treasury Bond 20+ Yea	1	-	1.21	0.12	-	-	-	-	Y N
JPIE AU	JPMorgan Income ETF/Australia	1	0	0.53	0.50	-	Y	-	Y	N
GGFD AU	Betashares Geared Long US Trea	1	-	0.37	0.99	+2.75x	Y	-	Y	N
JPGB AU	JPMorgan Global Bond Active ET	1	-	0.39	0.45	-	Y	-	Y	N
BBFD AU	Betashares Geared Short US Tre	1	-	0.36	0.99	-2.85x	Y	-	Y	N
182A JP	MAXIS US Treasury Bond 20+ Yea	1	-	1.05	0.12	-	-	-	-	N
IXY KZ	IX High Yield Corporate Bond ETN	0	0	-	1.00	-	-	-	-	N
IXB KZ	IX Global Emerging Markets Bonds ETN	0	0	-	0.50	-	-	-	-	N
IXTK KZ	IX US Short-Term Treasury ETN	0	0	-	0.50	-	-	-	-	N
00831B TT	Shin Kong Select Umbrella Fund 1-3 Y Bond	0	↓	0	1.60	0.22	-	-	-	N
BCCGF KZ	BCC Global ETN	0	-	-	-	-	-	-	-	N
02001B TT	President US Treasury 7-10 Y Idx	-	0	-	1.00	-	-	-	-	N
Commodity										
2840 HK	SPDR Gold Shares	62,810	3	0.09	0.40	-	-	-	-	N
1540 JP	Japan Physical Gold ETF	2,653	↑	14	0.06	0.49	-	-	-	N
518880 CH	Huan Yifu Gold ETF	2,232	↑	124	0.02	0.60	-	-	-	N
GBEES IN	NIPPON INDIA ETF GOLD BEES	1,282	5	0.02	0.79	-	-	-	-	N
159937 CH	Bosera Gold ETF	1,273	↑	33	0.02	0.60	-	-	-	N
159934 CH	E Fund Gold Tradable Open-end Sec	861	↑	37	0.02	0.60	-	-	-	N
HDFGOLD IN	HDFC Gold Exchange Traded Fund	583	1	0.06	0.59	-	-	-	-	N
GOLDIETF IN	ICICI Prudential Gold ETF Fund	561	1	0.06	0.50	-	-	-	-	N
SGETS IN	SBI-ETF Gold	551	1	0.05	0.65	-	-	-	-	N
GOLD1 IN	Kotak Gold ETF	488	0	0.08	0.44	-	-	-	-	N
2038 JP	NEXT NOTES NKY JPX Lvgd Crude Oil	445	↓	9	0.06	0.80	-	-	-	N
530031 KS	Samsung Sec Samsung Lvgt WTI Fr	444	1	0.11	0.75	+2x	-	-	-	

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
500082 KS	Shinhan Securities Shinhan Blo	100	2	0.24	-	-	-	-	-	N	
1328 JP	NEXT FUNDS Gold Price	98	↑	1	0.08	0.55	-	-	-	N	
1541 JP	Japan Physical Platinum ETF	97	1	0.15	0.59	-	-	-	-	N	
BSLGOLD IN	Aditya Birla Sun Life Gold ETF	95	0	0.28	0.54	-	-	-	-	N	
2036 JP	NEXT NOTES NKY JPX Lvgd Gold	92	2	0.18	0.80	+2x	-	-	-	N	
570084 KS	Korea Invst & Sec True BBG -2x Nat Gas Ftr Etn	91	1	0.17	-	-	-	-	-	N	
OOO AU	BetaShares Crude Oil Idx - Cur Hdg	88	↓	1	0.24	0.69	-	-	-	Y	
GLDN AU	iShares Physical Gold ETF	85	1	0.16	0.18	-	-	-	-	N	
500029 KS	Shinhan Invst Shinhan Lvg Silver Ftr H 29	85	0	0.14	1.05	+2x	-	-	-	Y	
00642U TT	Yuantia S&P GSCI Crude Oil ER Futures ETF	72	↓	2	0.08	1.15	-	-	-	N	
3175 HK	Samsung S&P GSCI Crude Oil ER Ftr	64	↓	0	0.13	0.80	-	-	-	N	
CO2 NZ	Carbon Fund	63	0	1.24	0.96	-	-	-	-	Y	
159980 CH	Dacheng Fund Nonferrous Metal Ftr	61	↑	13	0.06	0.70	-	-	-	N	
144600 KS	Samsung KODEX Silver Ftr Special Asset	59	1	0.12	0.68	-	-	-	-	Y	
2039 JP	NEXT NOTES NKY JPX Inv Crude Oil	56	0	0.16	0.80	-1x	-	-	-	N	
500015 KS	Shinhan Invst Shinhan WTI Ftr H 15	54	0	0.10	0.75	-	-	-	-	Y	
510019 KS	Daishin Securities Daishin Inv Natural Gas ftrs	49	0	0.31	-	-1x	-	-	-	Y	
580021 KS	KB Securities KB Inverse Natural Gas ftrs	48	0	0.18	-	-1x	-	-	-	N	
700020 KS	Hana Sec Hana BBG Inv 2x Nat Gas Ftr Etn	47	0	0.96	-	-	-	-	-	Y	
610054 KS	Meritz Sec Meritz BBG Inv 2x Nat Gas Ftr EtnH54	47	0	0.50	-	+2x	-	-	-	Y	
520077 KS	MiraAsset Securities Miraass	47	-	-	-	-	-	-	-	N	
261220 KS	Samsung KODEX WTI Oil Futures ETF H	46	↓	2	0.05	0.35	-	-	-	Y	
00738U TT	Yuantia Daji Silver ER Futures Eif	45	1	0.13	1.15	-	-	-	-	N	
510029 KS	Daishin Sec Daishin S&P -2x Nat Gas Ftr Etn 29	45	0	0.96	0.80	-	-	-	-	N	
518850 CH	ChinaAMC Gold ETF	43	↑	2	0.07	-	-	-	-	N	
DGOLETF IN	DSP Gold ETF	43	0	0.64	0.48	-	-	-	-	N	
NUJG AU	VarEck Gold Bullion ETF	42	↑	0	0.21	0.25	-	-	-	N	
530061 KS	Samsung Sec Samsung Lvg Silver Ftr H 61	42	0	0.18	1.05	+2x	-	-	-	Y	
500037 KS	Shinhan Invst Shinhan Lvg Gold Ftr 37	39	0	0.07	1.05	+2x	-	-	-	N	
400570 KS	Samsung KODEX Europe carbon allowance	39	↑	1	0.08	0.64	-	-	-	Y	
ASLVTRF IN	Aditya Birla Sun Life Silver ETF	39	0	0.12	0.35	-	-	-	-	N	
518680 CH	Fullgoal Shanghai Gold ETF	38	↑	3	0.09	0.60	-	-	-	N	
500027 KS	Shinhan Invst Shinhan Inv 2X WTI Ftr H 27	38	0	1.28	1.05	-2x	-	-	-	Y	
580020 KS	KB Securities KB Natural Gas Futures	35	↑	1	0.15	-	-	-	-	N	
570093 KS	Korea Investment & Securities	34	2	0.17	-	-	-	-	-	N	
159981 CH	CCB Principal Esunny Zhengzhou Commodity	33	↓	3	0.07	1.60	-	-	-	N	
530055 KS	Samsung Sec Samsung Lvg Gold Ftr H 55	30	0	0.12	1.05	+2x	-	-	-	Y	
500018 KS	Shinhan Invst Shinhan Copper Ftr H 18	30	0	0.07	0.75	-	-	-	-	N	
319640 KS	MiraAsset TIGER Gold Ftr H - Gold Deriv	30	0	0.08	0.39	-	-	-	-	Y	
271050 KS	Samsung KODEX WTI Crude Oil Ftr Inv H	29	↑	1	0.13	0.35	-1x	-	-	Y	
159881 CH	Guotai CSI Nonferrous Metal ETF	29	4	0.13	1.40	-	-	-	-	N	
520076 KS	MiraAsset Securities Miraass	28	-	-	-	-	-	-	-	N	
00708L TT	Yuantia S&P GSCI Gold 2x Lvgd ER Ftr	28	↓	1	0.28	1.15	+2x	-	-	N	
DGOLETF IN	MiraAsset Gold ETF	27	↑	0	0.18	0.34	-	-	-	N	
520066 KS	MiraAsset Securities MiraAss	27	0	0.37	-	-	-	-	-	N	
530067 KS	Samsung Sec Samsung KRX Gold Spot Ftr	26	0	0.08	0.60	-	-	-	-	N	
530099 KS	Samsung Secur BBG Lev WTI Crude Oil ftr	26	0	0.12	-	+2x	-	-	-	N	
530100 KS	Samsung Secur BBG Inv 2X WTI Crude oil ftr	26	1	0.12	-	-2x	-	-	-	N	
500016 KS	Shinhan Invst Shinhan Gold Ftr H 16	25	0	0.04	0.75	-	-	-	-	Y	
BCOM AU	Global X Bloomberg Commodity E	25	0	0.78	0.60	-	-	-	-	N	
00635U TT	Yuantia S&P GSCI Gold ER Futures ETF	25	↓	0	0.08	1.15	-	-	-	N	
QTGOLD IN	Quantum Gold Fund	25	0	0.11	0.78	-	-	-	-	N	
570059 KS	Korea Investment & Securities Lev Gold ftrs	24	0	0.03	0.70	+2x	-	-	-	N	
500017 KS	Shinhan Invst Shinhan Silver Ftr H 17	24	0	0.06	0.75	-	-	-	-	Y	
518660 CH	ICBC Credit Suisse Gold Fund	24	↑	1	0.07	1.10	-	-	-	N	
160580 KS	MiraAsset TIGER Physical Copper ETF	24	0	0.12	0.85	-	-	-	-	N	
520050 KS	MiraAsset Secur Miraass Inv 2X Crude	23	0	0.16	-	-2x	-	-	-	Y	
520010 KS	MiraAsset Sec Crude Oil Ftr H 10	22	0	0.58	0.75	-	-	-	-	Y	
610044 KS	Meritz Sec Meritz Inv Nat Gas Ftr Etn H 44	22	0	0.13	-	-1x	-	-	-	N	
500004 KS	Shinhan Invst Shinhan Brent Ftr H 4	21	0	0.25	0.75	-	-	-	-	Y	
570078 KS	Korea Invest & Secur TRUE BBG Lev WTI ftr	21	0	0.11	-	-1x	-	-	-	N	
570079 KS	Korea Invest & Secur TRUE BBG Inv 2X WTI	21	0	0.11	-	-2x	-	-	-	N	
00763U TT	JKO Dow Jones Copper ER Futures ETF	20	↑	0	0.12	-	-	-	-	N	
00693U TT	JKO S&P GSCI Soybeans ER Futures ETF	20	↑	0	0.11	-	-	-	-	N	
550062 KS	NH QV Leverage Gold Futures ETN H 62	20	0	0.23	-	+2x	-	-	-	Y	
610012 KS	Meritz Securities Meritz Leverage Gold Ftrs	20	0	0.12	-	+2x	-	-	-	N	
550074 KS	NH QV BBG Lvg Nat Gas Ftr Etn H 74	20	↑	1	0.26	-	-	-	-	Y	
570061 KS	Korea Investment & Securities Lev Silver ftr	20	0	0.18	0.70	+2x	-	-	-	N	
ATOM AU	Global X Uranium ETF/Australia	20	↑	0	0.68	0.69	-	-	-	N	
700013 KS	Hana Fin Inv Hana Leverage Soybeans Ftrs	19	0	0.46	-	+2x	-	-	-	Y	
500023 KS	Shinhan Invst Shinhan Soybeans Ftr H 23	19	0	0.38	0.81	-	-	-	-	N	
HSILVER IN	HDFC Silver ETF	19	0	0.10	0.40	-	-	-	-	N	
520053 KS	MiraAst Sec MiraAst Inv Nat Gas Ftr Etn H 68	19	0	0.41	-	-1x	-	-	-	Y	

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
500040 KS	Shinhan Invst Shinhan Lvg Copper Ftr 40	18	0	0.11	1.05	+2x	-	-	-	N	
DGOLETF MK	TradePlus Shariah Gold Tracker	18	0	0.99	0.56	-	-	-	-	N	
1543 JP	Japan Physical Palladium ETF	17	↑	0	0.41	0.59	-	-	-	N	
130680 KS	MiraAsset TIGER WTI Futures ETF	17	↓	0	0.14	0.70	-	-	-	Y	
00674R TT	Yuantia S&P GSCI Gold 1x Inv ER Ftr	17	0	0.31	1.15	-1x	-	-	-	N	
610016 KS	Meritz Securities Meritz Leverage Silver Ftrs	17	0	0.17	-	+2x	-	-	-	N	
550064 KS	NH QV Leverage Silver Futures ETN H 64	17	0	0.33	-	+2x	-	-	-	N	
570072 KS	Korea Investment & Secur Lev Copper Ftrs	16	0	0.12	0.75	+2x	-	-	-	Y	
520047 KS	MiraAsset Securities Miraass Inv com ftr	16	0	0.35	-	-2x	-	-	-	N	
LICMFGD IN	LIC MF Gold ETF	16	0	0.34	0.35	-	-	-	-	N	
271060 KS	Samsung KODEX Grains Futures ETF H	15	↑	0	0.10	0.55	-	-	-	Y	
570069 KS	Korea Invest & Secur TRUE Lev Platinum ftrs	15	0	0.16	-	+2x	-	-	-	N	
580055 KS	KB Securities KB Bloomberg Lev	14	0	0.32	-	-	-	-	-	N	
159812 CH	First Seafport Gold ETF	14	↑	0	0.11	-	-	-	-	N	
610028 KS	Meritz Securities Meritz Lev Copper Ftrs	14	0	0.16	-	+2x	-	-	-	Y	
530063 KS	Samsung Sec Samsung Lvg Copper Ftr H 63	14	0	0.13	1.05	+2x	-	-	-	Y	
550069 KS	NH QV LEVERAGE COPPER FUTURES	14	0	0.25	-	+2x	-	-	-	Y	
700009 KS	Hana Fin Inv Hana Leverage Copper Ftrs	14	0	0.55	-	+2x	-	-	-	Y	
REGGOLD IN	Invesco India Gold Exchange Traded Fund	14	0	0.49	0.55	-	-	-	-	N	
DSILETF IN	DSP Silver ETF	13	0	0.79	0.50	-	-	-	-	N	
700012 KS	Hana Fin Inv Hana Inverse 2X Com Futures	13	0	0.33	-	-2x	-	-	-	Y	
500013 KS	Shinhan Invst Shinhan Com Ftr H 13	13	0	0.38	0.75	-	-	-	-	Y	
3047 HK	SSIIF DCE Iron Ore Futures Index ETF	13	0	0.81	1.82	-	-	-	-	U	
610036 KS	Meritz Securities Meritz Inverse 2X argi ftrs	12	0	0.21	-	-2x	-	-	-	Y	
401590 KS	NH-Amundi HANARO Global Carbon Ftrs	12	↑	0	0.30	0.50	-	-	-	Y	
500014 KS	Shinhan Invst Shinhan Inv Com Ftr H 14	12	0	0.63	0.75	-1x	-	-	-	Y	
137610 KS	MiraAsset TIGER Agriculture Futures ETF	12	0	0.13	0.70	-	-	-	-	Y	
159871 CH	Yinhua CSI Nonferrous Metal ETF	12	↑	2	0.17	-	-	-	-	N	
610035 KS	Meritz Securities Meritz Leverage Agri Ftrs	12	0	0.15	-	+2x	-	-	-	Y	
510015 KS	Daishin Sec Daishin Wheat Ftr H 15	12	0	0.28	-	-	-	-	-	N	
AXSLVRF IN	Axis Silver ETF	12	0	0.42	0.35	-	-	-	-	N	
570073 KS	Korea Investment & Secur Inv Copper Ftrs	12	0	0.22	0.75	-2x	-	-	-	Y	
138910 KS	Samsung KODEX Copper Ftr Special Asset	12	0	0.14	0.68	-	-	-	-	Y	
520046 KS	MiraAsset Secur Miraass Lev Com Ftrs	12	0	0.29	-	+2x	-	-	-	N	
570060 KS	Korea Investment & Secur TRUE Gold ftrs	12	0	0.09	0.70	-2x	-	-	-	N	
518860 CH	CCB Principal Shanghai Gold ETF	11	↑	0	0.16	1.10	-	-	-	N	
GLD TB	KTAM Gold ETF Tracker	11	0	0.30	1.61	-	-	-	-	N	
570055 KS	Korea Invst & Sec TRUE Gold Ftr 55	11	0	0.07	0.69	-	-	-	-	N	
610067 KS	Meritz Securities Meritz Bloom	11	0	0.33	-	-	-	-	-	Y	
700015 KS	Hana Fin Invest Hana S&P Leverage WTI Ftrs	10	0	0.39	-	+2x	-	-	-	N	
700016 KS	Hana Fin Invest Hana S&P Inv 2X WTI Ftrs	10	0	0.46	-	-2x	-	-	-	N	
500065 KS	Shinhan Investment Shinhan BBG 2X WTI Ftr	10	0	0.12	-	+2x	-	-	-	N	
550071 KS	NH QV Bloomberg Leverage WTI Futures	10	0	0.33	-	+2x	-	-	-	N	
500066 KS	Shinhan Investment Shinhan BBG -2X WTI ftr	10	1	0.14	-	-2x	-	-	-	N	
580037 KS	KB Securities KB S&P Inverse 2X WTI Ftrs	10	0	0.14	-	-2x	-	-	-	N	
550072 KS	NH QV Bloomberg Inverse Leverage WTI Ftrs	10									

ASIA-PACIFIC LISTED ETFS



Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Commodity											
570085 KS	Korea Invst & Sec BBG Indo. Cmnty Etn 85	9	0	0.59	-	-	-	-	-	N	
530089 KS	Samsung Securities Samsung Silver Ftrs	9	0	0.16	-	-	-	-	-	N	
520052 KS	MiraeAst Sec MiraeAst Nat Gas Ftr Etn H 67	9	↑	0.21	-	-	-	-	Y	N	
580054 KS	KB Securities KB Inverse 2X So	9	0	0.31	-	-	-	-	-	N	
510038 KS	Daishin Securities Daishin -2X	9	0	0.32	-	-	-	-	Y	N	
580026 KS	KB Securities KB Leverage Silver Futures	8	0	0.19	-	+2x	-	-	-	N	
500006 KS	Shinhan Invst Shinhan Inv Gold Ftr H 6	8	0	0.13	0.75	-1x	-	-	Y	N	
550043 KS	NH QV -2X WTI Crude Oil Futures ETN H 43	8	0	1.51	1.00	-2x	-	-	Y	N	
159831 CH	Harvest Shanghai Gold ETF	8	↑	2	0.07	1.10	-	-	-	N	
USILVER N	UTI Silver Exchange Traded Fund	8	0	0.16	0.53	-	-	-	-	N	
610026 KS	Meritz Securities Meritz Copper Futures	8	0	0.23	-	-	-	-	Y	N	
530095 KS	Samsung Securities Samsung Copper Ftrs	8	0	0.16	-	-	-	-	Y	N	
700014 KS	Hana Fin Inv Hana Inverse 2X Soybeans Ftr	8	0	0.58	-	-2x	-	-	Y	N	
500041 KS	Shinhan Invst Shinhan Inv 2X Copper Ftr 41	8	0	0.31	1.05	-2x	-	-	-	N	
570056 KS	Korea Invst & Sec TRUE Inv Gold Ftr 56	8	0	0.10	0.69	-1x	-	-	-	N	
570077 KS	Korea Investment & Securities	8	0	0.10	-	-	-	-	-	N	
530098 KS	Samsung Securities Samsung Blo	8	0	0.24	-	-	-	-	-	N	
159834 CH	China Southern Shanghai Gold ETF	7	↑	1	0.07	0.60	-	-	-	N	
570052 KS	Korea Investment & Securities	7	0	0.27	1.20	-	-	-	-	N	
570062 KS	Korea Investment & Securities	7	0	0.29	0.70	-2x	-	-	-	N	
610034 KS	Meritz Securities MERITZ Repre	7	0	0.11	-	-	-	-	Y	N	
500008 KS	Shinhan Securities Shinhan Inv	7	0	0.13	0.75	-1x	-	-	Y	N	
570058 KS	Korea Investment & Securities	7	0	0.24	0.69	-1x	-	-	-	N	
159876 CH	Hwabao WP CSI Nonferrous Metal ETF	7	↑	1	0.13	1.40	-	-	-	N	
580032 KS	KB Securities KB Leverage Copp	7	0	0.23	-	+2x	-	-	Y	N	
580052 KS	KB Securities KB Inverse 2X Wh	7	0	0.33	-	-	-	-	-	N	
530064 KS	Samsung Securities Samsung Inv	7	0	0.25	1.05	-2x	-	-	Y	N	
610027 KS	Meritz Securities Meritz Inver	7	0	0.24	-	-1x	-	-	Y	N	
510037 KS	Daishin Securities Daishin S&P	7	0	0.59	-	-	-	-	-	N	
530096 KS	Samsung Securities Samsung Inv	7	0	0.17	-	-1x	-	-	Y	N	
83168 HK	Hang Seng RMB Gold ETF	7	↓	0	0.55	1.15	-	-	-	N	
SILVRETF N	Mirae Asset Silver ETF	6	0	0.68	0.39	-	-	-	-	N	
580053 KS	KB Securities KB Leverage Soyb	6	0	0.42	-	-	-	-	-	N	
518890 CH	BOC Shanghai Gold ETF	6	0	0.15	0.60	-	-	-	-	N	
530084 KS	Samsung Securities Samsung Inv	6	0	0.18	-	-1x	-	-	Y	N	
610017 KS	Meritz Securities Meritz Inver	6	0	0.29	-	-2x	-	-	-	N	
550065 KS	NH QV Inverse 2X Silver Futures ETN H 65	6	0	0.32	-	-2x	-	-	-	N	
225130 KS	KIM KINDEX Synth-Gold futures	6	↓	0	0.16	0.64	+2x	-	Y	N	
139320 KS	Mirae Asset TIGER Precious Metal Futures ETF	6	0	0.16	0.70	-	-	-	Y	N	
580051 KS	KB Securities KB Leverage Whea	6	0	0.37	-	-	-	-	-	N	
610015 KS	Meritz Securities Meritz Inver	5	0	0.30	-	-1x	-	-	-	N	
530090 KS	Samsung Securities Samsung Inv	5	0	0.20	-	-1x	-	-	-	N	
3097 HK	Global X S&P Crude Oil Fut	5	↓	0	0.37	1.87	-	-	-	N	
700025 KS	Hana Securities Hana Bloomberg	5	0	0.91	-	-	-	-	Y	N	
500007 KS	Shinhan Securities Shinhan Inv	5	0	0.19	0.75	-1x	-	-	Y	N	
580033 KS	KB Securities KB Inverse 2X Co	5	0	0.27	-	-2x	-	-	Y	N	
580023 KS	KB Securities KB 2X Inverse Go	5	0	0.25	-	-2x	-	-	Y	N	
138920 KS	Samsung KODEX Soybeans Futures	5	0	0.29	0.68	-	-	-	Y	N	
530062 KS	Samsung Securities Samsung Inv	5	0	0.30	1.05	-2x	-	-	Y	N	
530056 KS	Samsung Securities Samsung Inv	5	0	0.20	1.05	-2x	-	-	Y	N	
610043 KS	Meritz Securities Meritz Natur	4	0	0.33	-	-	-	-	Y	N	
280940 KS	Samsung KODEX Gold Inverse Futures ETF H	4	↑	0	0.16	0.45	-1x	-	Y	N	
334690 KS	KB KBSTAR Palladium futures ETF H	4	↑	0	0.32	0.90	-	-	-	N	
2037 JP	NEXT NOTES Nikkei JPX Inverse Gold ETN	4	↑	0	0.47	0.80	-	-	-	N	
500030 KS	Shinhan Securities Shinhan Inv	3	0	0.16	1.05	-2x	-	-	Y	N	
580027 KS	KB Securities KB Inverse 2X Si	3	0	0.27	-	-2x	-	-	-	N	
500038 KS	Shinhan Securities Shinhan Inv	3	0	0.19	1.05	-2x	-	-	-	N	
520011 KS	MiraeAsset Securities MiraeAss	3	0	0.46	0.75	-1x	-	-	-	N	
1682 JP	NEXT FUNDS Nikkei-JPX Platinum	2	0	0.92	0.50	-	-	-	-	N	
334700 KS	KB KBSTAR Palladium Futures Inverse ETF H	2	0	0.42	1.21	-1x	-	-	Y	N	
500005 KS	Shinhan Securities Shinhan Inv	2	0	1.54	0.75	-1x	-	-	Y	N	
GXLD AU	Global X Gold Bullion ETF	1	-	0.46	0.40	-	-	-	-	N	
IXG KZ	IX Gold ETN	1	0	-	0.50	-	-	-	-	N	
IXO KZ	IX Brent Oil ETN	0	0	-	1.00	-	-	-	-	N	
ESILVER IN	Edelweiss Silver ETF	-	0	0.65	0.39	-	-	-	-	N	
EDLGOLD IN	Edelweiss Gold ETF	-	0	0.89	0.35	-	-	-	-	N	
BBNPGET IN	Baroda BNP Paribas Gold ETF	-	-	2.26	0.48	-	-	-	-	N	
TGOLDEF IN	Tata Gold Exchange Traded Fund	-	-	0.16	0.07	-	-	-	-	N	
TSLVETF N	Tata Silver Exchange Traded Fund	-	-	0.20	0.44	-	-	-	-	N	
ZGLDETF IN	Zerodha Gold Etf	-	-	0.16	0.31	-	-	-	-	N	

¹ Option Liquidity (H/M/L/N - High / Medium / Low / None)

² ↑/↓ - Significant increase / decrease in shares outstanding in last one year

³ Currency Hedged: Y = Currency Hedged, U = USD v version exists for the fund, C = CNY v version exists for the fund

Ticker	ETF Name	Total Assets (\$M)	6M Average Daily Volume (\$M)	Average bid-offer spread (%)	Exp. Ratio (%)	Fund Leverage	Actively Managed?	ESG Screened?	Currency Hedged?	Options Liquidity	
Currency											
Fiat Currency											
455030 KS	SAMSUNG KODEX US DOLLAR SOFR A	255	↑	0	0.12	0.15	-	Y	-	N	
00706L TT	Yuantia S&P Japanese Yen 2x Lev	140	↑	2	0.19	0.95	+2x	-	-	N	
292560 KS	Mirae Asset Tigger JPYKRW Futures ETF	107	↑	1	0.06	0.25	-	-	-	N	
261260 KS	Samsung KODEX USD Futures Inverse2X ETF	95	↑	3	0.09	0.45	-2x	-	-	N	
USD AU	BetaShares US Dollar ETF	59	↓	0	0.13	0.45	-	-	-	N	
760001 KS	Kiwom Securities Kiwom FJUSDKRW ETN	44	0	0.19	-	-	-	-	-	N	
261240 KS	Samsung KODEX USD Futures ETF	43	↓	0	0.06	0.25	-	-	-	N	
261270 KS	Samsung KODEX USD Futures Inverse ETF	29	0	0.07	0.45	-1x	-	-	-	N	
138230 KS	Kiwom KOSEF USD Futures ETF	25	0	0.08	0.37	-	-	-	-	N	
261250 KS	Samsung KODEX USD Futures Leverage	25	1	0.07	0.45	+2x	-	-	-	N	
AUDS AU	BetaShares Strong Australian Dollar Fund	23	↑	0	0.25	1.38	+2.51x	Y	-	N	
500035 KS	Shinhan Securities Shinhan Lev	22	0	0.11	0.40	+2x	-	-	-	N	
261120 KS	Mirae Asset TIGER USD Futures Inverse 2X	18	0	0.15	0.59	-2x	-	-	-	N	
760004 KS	Kiwom Securities Kiwom F-JUSD	14	0	0.22	-	-1x	-	-	-	N	
00683L TT	Yuantia S&P US Dollar 2x Levera	13	↓	0	0.26	0.95	+2x	-	-	N	
225800 KS	Kiwom KOSEF USD Futures Leverage ETF	12	0	0.12	0.64	+2x	-	-	-	N	
230480 KS	Kiwom KOSEF USD Futures Inver	10	0	0.21	0.49	-2x	-	-	-	N	
570099 KS	Korea Investment & Securities	9	0	0.07	-	-	-	-	-	N	
500011 KS	Shinhan Securities Shinhan Dcl	9	0	0.25	0.81	-	-	-	Y	N	
570096 KS	Korea Investment & Securities	8	0	0.07	-	-	-	-	-	N	
570094 KS	Korea Investment & Securities	7	0	0.08	-	-	-	-	-	N	
500036 KS	Shinhan Securities Shinhan Inv	7	0	0.24	0.40	-2x	-	-	-	N	
261110 KS	Mirae Asset TIGER US Dollar Fu	6	↓	0	0.08	0.59	+2x	-	-	N	
00707R TT	Yuantia S&P Japanese Yen 1x Inv	6	↑	0	0.51	0.95	-1x	-	-	N	
500012 KS	Shinhan Securities Shinhan Inv	6	0	0.32	0.81	-1x	-	-	Y	N	
139660 KS	Woori KOSEF USD Futures Inverse ETF	6	0	0.12	0.49	-1x	-	-	-	N	
570095 KS	Korea Investment & Securities	6	0	0.09	-	-	-	-	-	N	
570098 KS	Korea Investment & Securities	5	0	0.11	-	-	-	-	-	N	
469530 KS	KB KBSTAR USD Futures Inverse ETF	4	0	0.23	0.03	-	-	-	-	N	
YANK AU	BetaShares Strong US Dollar Hedge Fund	4	↓	0	0.37	1.38	+2.04x	Y	-	N	
00682U TT	Yuantia S&P US Dollar ER Futures ETF	4	↓	0	0.26	0.65	-	-	-	N	
00684R TT	Yuantia S&P US Dollar 1x Inverse ER Futures ETF	3	0	0.18	0.95	-1x	-	-	-	N	
Cryptocurrency											
9042 HK	ChinaAMC Bitcoin ETF	107	-	0.36	0.99	-	-	-	-	U,C	
9008 HK	BOSERA HASHKEY BITCOIN ETF	81	-	0.30	0.00	-	-	-	-	N	
EBTC AU	Global X 21Shares Bitcoin ETF	71	↑	1	0.39	1.25	-	-	-	N	
3066 HK	CSOP Bitcoin Futures ETF	66	5	0.19	2.00	-	Y	-	-	N	
3439 HK	HARVEST BITCOIN SPOT ETF	61	-	0.22	0.30	-	-	-	-	U	
9009 HK	BOSERA HASHKEY ETHER ETF	24	-	0.29	0.00	-	-	-	-	N	
3068 HK	CSOP Ether Futures ETF	23	1	0.23	2.00	-	Y	-	-	N	
3135 HK	Samsung Bitcoin Futures Active ETF	20	↑	0	0.22	0.95	-	Y	-	N	
9046 HK	ChinaAMC Ether ETF	19	-	0.37	0.99	-	-	-	-	C	
EETH AU	Global X 21 Shares Ethereum ETF	16	↑	0	0.60	1.25	-	-	-	N	
3179 HK	HARVEST ETHER SPOT ETF	9	-	0.28	0.30	-	-	-	-	U	

NOTES



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