

The ETF buyer's guide to trading

From liquidity to execution

Executive summary

Exchange-traded funds (ETFs) have become a cornerstone of modern investment strategies, offering a blend of the diversification found in mutual funds and the trading flexibility of stocks. This paper explores the dynamic liquidity characteristics of ETFs, key trading concepts and best practices for optimising ETF trades. By understanding the unique liquidity mechanisms of ETFs, the factors influencing bid/ask spreads and premiums/discounts and the importance of strategic order types, investors can navigate the complexities of ETF trading with greater confidence and efficiency. Whether dealing with active or passive ETFs, these insights are crucial for achieving optimal trading outcomes and enhancing overall investment performance.

1. The dynamic liquidity characteristics of ETFs

ETFs possess unique liquidity characteristics that distinguish them from both mutual funds and individual stocks. Unlike mutual funds, which can only be purchased at a finite point, and stocks, whose shares outstanding are fixed and liquidity is determined solely by their trading volume on the secondary market, an ETF's liquidity is influenced by both its secondary market trading and the liquidity of its underlying holdings. This means that even ETFs with low trading volume can be highly liquid due to the liquidity of their constituent securities. This is true for both active and passive ETFs.

2. Key trading concepts

Understanding key trading concepts and terminology is essential for leveraging best practices in ETF trading. Fundamental concepts such as bid/ask spreads, premium/discounts and how the arbitrage mechanism keeps the ETF trading in-line with the fund's net asset value (NAV) can help add a level of confidence to any trading desk.

3. Trading best practices

Effective ETF trading requires adherence to several best practices to navigate market volatility and achieve optimal execution. By following these best practices, timing trades to reduce volatility, using appropriate order types and leveraging the expertise of the ETF trading community, investors can enhance their ETF trading outcomes and achieve optimal execution.

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1. The dynamic liquidity of ETFs

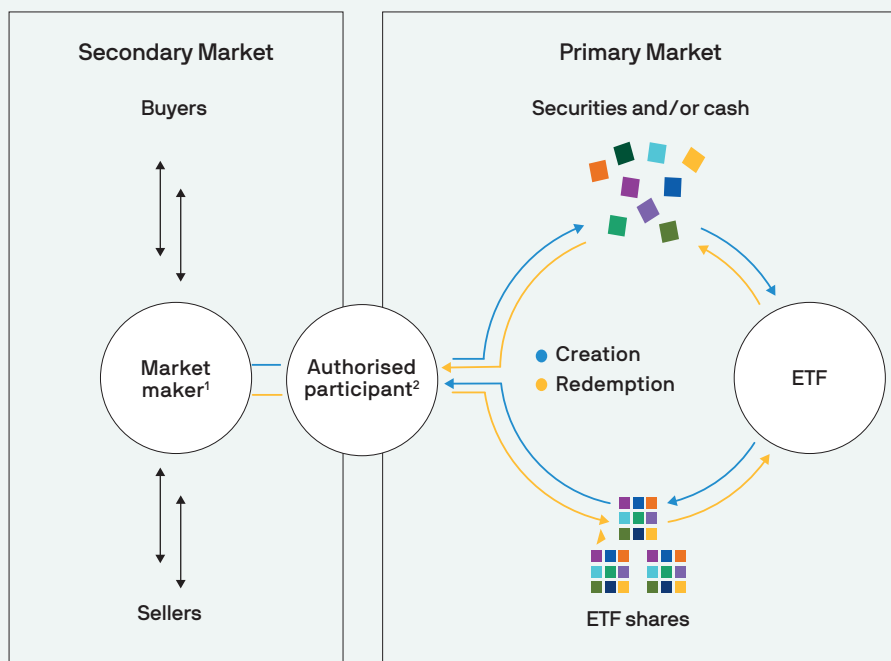
In some ways, ETFs are like mutual funds, securities bundled together to offer diversified portfolios in one product. In other ways, they are like stocks, traded throughout the day, bought and sold using common order types such as market and limit orders and quoted on-exchange with bids and offers (also referred to as bids and asks). When it comes to liquidity, however, there are important differences between stocks and ETFs.

A deeper level of liquidity can be accessed

While individual stocks usually have a fixed supply of shares, ETFs are open-ended vehicles, meaning shares can be created or redeemed in the primary market to meet the supply and demand needs of investors. Here's how it works:

How ETFs are created and redeemed

- When investor demand outweighs supply in the secondary market (e.g. on-exchange), market makers, who also function as Authorised Participants (APs), help facilitate liquidity by creating additional shares in the primary market. Market makers which are not APs will engage with an AP to source inventory. For UCITS ETFs, APs typically deliver cash as per an ETF's daily holdings in exchange for new shares; while some fixed income UCITS ETFs may allow for in-kind delivery of underlying securities. As a result, shares outstanding of the ETF will increase by the amount of shares created.
- When supply outweighs demand, a redemption can take place, following the same steps as a creation but in reverse. ETF shares are sent back to the ETF issuer, redeemed (ETF shares outstanding will lower by the amount redeemed) and underlying securities and/or cash will be delivered back to the AP.



Shown for illustrative purposes only.

¹ **Market maker:** A broker-dealer providing a bid and an offer for an ETF on a stock exchange (or off-exchange), posting what is referred to as a two-sided market. See glossary for further details.

² **Authorised participant (AP):** A broker-dealer that contracts with an ETF issuer to facilitate the creation and redemption process. See glossary for further details.

An ETF's holdings determine its true liquidity

For an individual stock, liquidity is determined by its trading volume in the secondary market.³ For an ETF, liquidity is based on both secondary market trading and the liquidity of its underlying holdings. Small or thinly-traded ETFs, therefore, can actually be highly liquid instruments. The example below demonstrates how an ETF that trades less than its underlying holdings benefits directly from the liquidity of each of its securities.



	Stock	ETF: JREE
Average daily volume (20-day average)	\$3.7 Bn	\$9.2 Mn
Market cap	\$256 Bn	\$2.8 Bn
Number of holdings	1	146
Market cap holdings	\$256 Bn	\$10 Tn
Sum of average daily volume of holdings (20-day average)	\$3.7 Bn	\$62 Bn

Source: Bloomberg, J.P. Morgan. Data as of July 31, 2025. The security highlighted above has been selected based on its significance and is shown for illustrative purposes only. It is not a recommendation to buy or sell.

ETF liquidity runs deep and there is often more than meets the eye. Beyond liquidity in the secondary and the primary markets, market makers often leverage their own inventory or other securities to hedge investor activity to add liquidity to the market.

The average daily volume of Nestle (NESN) is \$3.7 billion. The average daily volume of the JPM Europe Research Enhanced Index UCITS ETF (JREE) is \$9.2 million. At first glance, this appears low compared to NESN, but there is more to JREE's liquidity than its secondary market trading. JREE is comprised of approximately 146 equity securities, including NESN, which trade over \$62 billion each day. This underlying liquidity is accessed by market makers to make JREE more liquid, regardless of how much it trades on and off-exchange. This additional liquidity afforded by the underlying securities is accessed via the primary market, where new ETF shares are created and redeemed to meet demand in the secondary market.

³ **Secondary market:** A market where investors buy and sell securities, typically on-exchange such as the London Stock Exchange, Deutsche Börse, Euronext Milan, SIX Swiss or off-exchange directly with a market maker. Note, market makers often provide liquidity both on- and off-exchange. See glossary for further details.

Fixed income ETFs benefit from this additional liquidity, too

While ETFs and equities both trade on the same regulated stock exchanges providing natural efficiencies, the ETF technology also allows for efficient management of fixed income funds. Secondary market liquidity cushions the number of creations or redemptions that occur, helping minimise portfolio turnover. At the same time, the in-kind mechanism of ETFs allows the fixed income portfolio manager to leverage the inventory of market makers, which eliminates the need to buy and sell specific bonds, reducing transaction costs⁴. With such efficiencies, it is no wonder that fixed income ETFs are one of the fastest growing segments of the market. The same core principles and best practices that apply to trading equity ETFs also apply to fixed income ETFs.

There is no difference between trading active ETFs and index-tracking ETFs

Despite the increased proliferation of actively managed ETFs over the past few years, many investors still associate ETF liquidity with index-tracking funds. While many index-tracking funds do serve as trading vehicles, actively managed ETFs can be equally as liquid. Just like their index-tracking counterparts, active ETFs are as liquid as their underlying holdings. Due to the transparent nature of the ETF wrapper, the underlying holdings of an active ETF are known, and market makers can access the liquidity of these securities just as they do for index-tracking ETFs. By leveraging our trading best practices outlined on the following pages, trading active and index-tracking ETFs should result in the same experience for investors.

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Active ETFs offer investors the opportunity to benefit from top-tier fixed income management through a clear and liquid investment option. As portfolio managers, we appreciate the decreased turnover and the capability to invest in alignment with cash flows.

Iain Stealey

EMEA CIO, GFICC

J.P. Morgan Asset Management

⁴ In-kinds are used where applicable, as not all funds or fixed income securities are in-kindable.

2. Key trading concepts

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Liquidity providers can utilise multiple hedging instruments beyond just the underlying securities, giving them flexibility to choose the most efficient risk management approach for each trade. This can translate into tighter pricing on large orders, which ultimately reduces execution costs for their clients.

Slawomir Rzeszotko
Head of Institutional Sales & Trading, Europe and Asia,
Jane Street

In order to properly leverage our trading best practices, it is important to have an understanding of certain key terms and drivers of liquidity.

Bid/ask spreads

The spread for a security is simply the distance between the bid, the highest price a buyer is willing to pay on-exchange, and the ask (or offer), the lowest price a seller is willing to accept on-exchange. Spreads are driven by a number of factors, but the two largest contributors are how much the ETF trades each day and how much its underlying holdings trade each day. The spread is often set by market maker(s) that take certain variables into consideration when setting their quotes, such as the cost to acquire or sell the underlying portfolio and the cost to hold ETF shares (i.e. cost of carry).

While spreads may be driven by a number of factors, the level of liquidity provided at these levels may also vary based on several factors such as the volatility of the asset class, the ETF lending market, suitable hedging tools and the liquidity of the underlying holdings. The key to ensuring vibrant liquidity from launch is for an ETF issuer to develop its fund with these variables in mind.



Bid/ask spreads are a function of volume. The more buyers and sellers competing on price, the narrower the spread. Market makers take other variables into consideration when setting their quotes, such as the cost to acquire or sell the underlying portfolio of securities.

Premiums/discounts

Unlike mutual funds, ETF investors are not guaranteed execution at NAV and therefore must have an understanding of premiums and discounts. A premium is simply how much higher the ETF market price is relative to NAV, while a discount is how much lower the ETF market price is relative to NAV. Premiums and discounts are a function of underlying creation and redemption costs and market sentiment. All ETFs drift into premium/discount territory depending on buying and selling activity, which can trigger a creation/redemption as market makers look to take advantage of arbitrage opportunities.

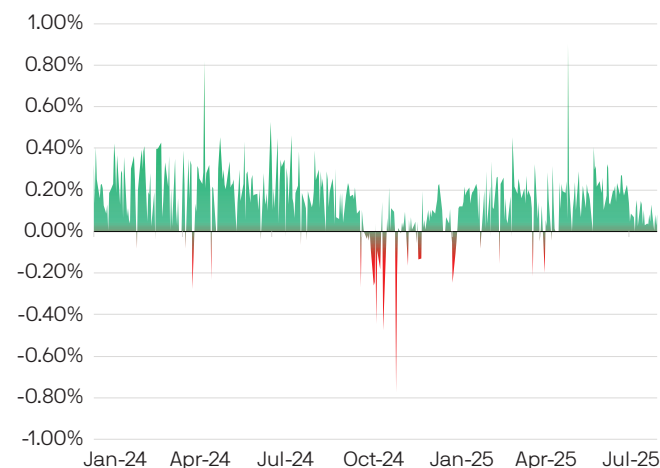
While premiums and discounts are natural, the ETF's price is pulled toward NAV due to arbitrage mechanism. For example, when buyers push the price of an ETF higher above the cost to accumulate the basket, market makers will begin shorting the ETF while simultaneously buying the basket of securities or an appropriate hedge. This process keeps the price of an ETF from drifting too far from NAV. It also provides an opportunity for market makers to recognize a profit. This incentive is the key to understanding how ETFs trade. In order to recognize this profit, market makers often unravel their position by creating new shares of the ETF, which ultimately collapses their short position.

In the example below, it's quite visible how close the price of the JPM Europe Research Enhanced Index Active UCITS ETF (JREE) is to its NAV. The first chart shows the overlap over a 1-year period ending December 31, 2024, while the second zooms in on the magnitude of these premiums and discounts. The average over this time period was +15.bps.

JREE price vs. NAV



JREE premium/discount



Source: Bloomberg. Data as of July 31, 2025.

From concepts to practice: Examining real trades

In these actual trades of JPM USD High Yield Bond Active UCITS ETF (JPHY), you can see the unique liquidity properties of ETFs as discussed in this guide — particularly their ability to absorb large trades regardless of daily trading volume.

Fixed income: Moving \$120 million without moving the market

On 31 March 2025, an investor bought JPM USD High Yield Bond Active UCITS ETF (JPHY). While the \$120 million trade represented 81% of the ETF's AUM and 1,204 times its average daily trading volume, JPHY was able to absorb the trade off-exchange with no noticeable impact on the market price.

Execution:

Trade occurred 17.87bps from the NAV.

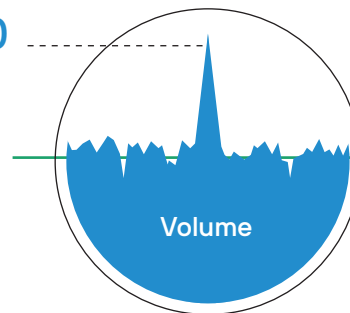
Post-trade:

Market price: Remains in line, little to no impact.

11,945,000
shares traded

1,204x
average daily trading
volume

81%
of the ETF's AUM



Bid/ask spread

Regardless of the volume, the bid/ask spread remains virtually unchanged and the ETF remains liquid.

Source: Bloomberg, 31 March 2025.

Equities: 15 million shares, all in one clip

JPM Nasdaq Equity Premium Income Active UCITS ETF (JEPQ) absorbed a single large trade totaling more than 15 million shares on 20 December, 2024, almost entirely trading in the last two hours of the day off-exchange. While the trades represented over 19 times the ETF's AUM, and over 3,500 times its average daily trading volume, JEPQ absorbed the trades with no noticeable impact on the market price.

Execution:

Block executed at reasonable level.

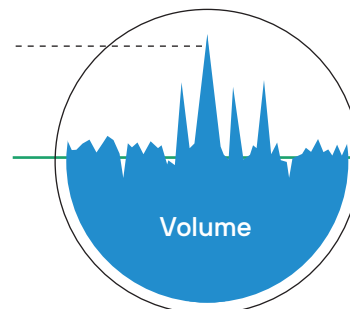
Post-trade:

Market price: Remains in line, little to no impact.

15,359,114
shares traded

3,500x
average daily trading
volume

1,925%
of the ETF's AUM



Bid/ask spread

Regardless of the volume, the bid/ask spread remains virtually unchanged and the ETF remains liquid.

Source: Bloomberg, 20 December 2024.

3. Trading best practices

In addition to having a sound understanding of ETF liquidity, it's important to keep in mind several critical trading considerations and best practices when buying or selling ETFs.

Markets can be more volatile near the open and close of trading

At 9am CET, Europe listed stocks open for trading. Overnight macroeconomic events, company specific news and general sentiment, along with supply/ demand dynamics, will aid in determining the opening price for each security. This is referred to as the open auction phase and the price discovery process which can result in volatility in the underlying securities in each ETF. Due to this potential volatility, ETF spreads may be wider than historical continuous trading averages. Therefore, being cognisant of this potential volatility it is important to be vigilant in the first 15 minutes of trading and on days of extreme volatility, further discretion should be used. Similarly, the close of trading can be a challenging time to trade ETFs. While liquidity is robust, volatility may increase heading into the close, which can result in wider spreads. Therefore, trading before the last 15 minutes of the trading day may also be advantageous.

Consider the order type when trading on-exchange

A common and effective method is using a limit order, which gives you control over the price and pace at which the ETF trade is executed by specifying to buy or sell a set number of shares at a stated price (the limit) or better. Market orders, on the other hand, should be treated with caution. While they provide immediate execution, the price achieved could be far higher (or lower) than expected given an order book's depth.

Consider off-exchange liquidity

Only 27% of UCITS ETF volumes are traded on-exchange⁵. If a trade is particularly large relative to an ETF's average volume, trading desks or broker dealers could look to trade a block of shares over the counter (OTC), rather than interacting with the exchange order book. Request for quote (RFQ) systems have simplified the process of seeking block liquidity, while also promoting competition. An RFQ allows a buy-side dealing desk to place several market makers in competition, all while shielding its intent to buy or sell. When several market makers compete, it can help achieve best execution, particularly in terms of price. Factors such as inventory, asset class, geographic expertise, or other unique market dynamics at that moment may come into play. In this setup, each market maker has an equal chance to trade any given ETF, with the winner taking the entire trade.

⁵ Source: Big XYT, as of 31 August 2025.

There are two main ways to trade OTC: NAV trading and risk trading.

When choosing an OTC trade type, it is important to consider both trade timing and the trade objective. As mentioned previously it is important to be aware of market dynamics that could affect trading at the market open, just before the close, or around big information releases when wider spreads could be observed. Knowing primary market dealing cut-off times is also important because spreads may become marginally wider if the market maker (authorised participant) is unable to create or redeem their position in the primary market on the same day. When thinking about trade objectives, clients should consider factors such as price, urgency, size, information leakage, prevailing market conditions, certainty of settlement and the underlying ETF exposure they are trading.

Execution strategy	Description	Potential advantages	Considerations
NAV trading	Trading vs. a future NAV per share (T or T+1). Price is quoted as NAV plus, or minus a spread in basis points.	NAV provides a transparent daily valuation point that is calculated independently. Can be useful for contingent trades – for example, when transitioning exposures.	Investor bears market risk until the NAV is calculated. The final price is known the day after NAV publication.
Risk trading	Trading immediately at an intraday price.	Immediate risk transfer can be useful when implementing a market view. Transparent all-in cost.	The market maker bears the risk and therefore will factor this into pricing.

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The RFQ continues to be a game changer for improving efficiency and reducing transaction costs for advisors. Being able to access multiple liquidity providers simultaneously helps drive better pricing, which ultimately leads to better outcomes for investors.

Adam Gould
Global Head of Equities
Tradeweb

Example

This example brings the deep liquidity of an ETF to light through the use of Tradeweb's RFQ platform. Four market makers were selected from a group of ten to compete on a buy of 100,000 shares (€4.6 million) of the JPM Europe Research Enhanced Index Equity Active UCITS ETF (JREE). This ETF typically trades about \$9 million/day. But as noted in the section on how ETFs are created and redeemed, the underlying securities can be accessed to provide more liquidity than what the ADV of the ETF shares implies.

In this example, all four market makers provided bids and offers within seconds and, as you can see, certain market makers provided more competitive bids and others provided more competitive offers. By putting these market makers in competition, an investor is able to access the best possible price at a given point in time when either buying or selling. Though the offer at the time of this RFQ was €45.9050, the investor was able to purchase 100,000 shares at a price of €45.9000, 1bp better than the quoted offer on-exchange. It is important to note this RFQ is for both bids and offers as it does not allow for information leakage on whether the investor is buying or selling.

Note: The market makers in this example have been hidden to protect their identity.

ETF JREE M 100,000

Ticket + Docket Blotter

RFQTwo way

JREE JPM Europe Research Enhanced Index Equity Active UCITS EUR (acc) ETF LSE EUR

VENUE: UKMTF

Shares

Notional

Settlement

Ref Price

100,0004,606,000T+2 | Jul 2246.0600

Trade Type

Pricing Type

RiskGross

1 Min 21 Secs

Live Exchange Data

Size

Bid

Offer

Size

44045.890045.9050363

Hit BestLift Best

Dealer	State	Yield Bid	Price			Yield Offer
			Hit	Bid	Offer	
MM1	Dlr-Qte		Hit	45.8991	45.9005	Lift
MM2	Dlr-Qte		Hit	45.8900	45.9010	Lift
MM3	Dlr-Qte		Hit	45.8999	45.9050	Lift
MM4	Dlr-Qte		Hit	45.8990	45.9000	Lift

End Trading

Consider agency/algorithmic trading

The use of algorithmic solutions for ETFs has become increasingly popular with institutional investors to optimise trading strategies and enhance liquidity in the ETF market. ETF-specific algorithms are particularly valuable in maintaining market efficiency and ensuring that ETF prices reflect their true underlying value. This is due to many of these algorithms embedding an ETF's Fair Value and/or the creation redemption price corridor to their trading schedule and logic.

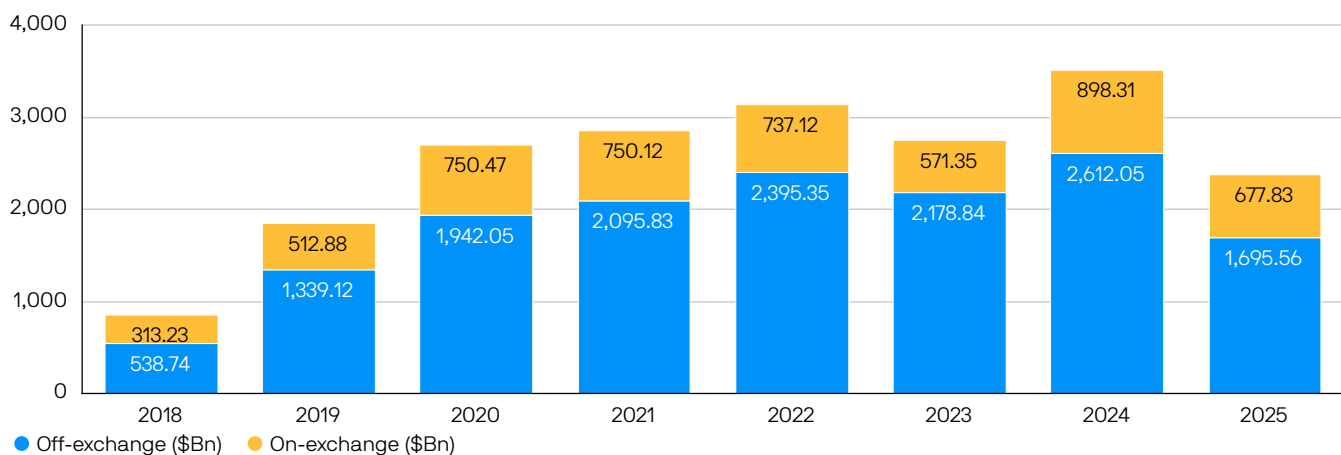
Exchanges across Europe have also reported an increase in algorithm usage by investors to trade ETFs. This is an exciting area that continues to develop given it addresses certain challenges in ETF pricing.

Whereby RFQs can sometimes be costly for smaller trades given investors pay a premium for price immediacy, purpose-built execution algorithms offer an alternative when urgency is not the first priority.

Execution strategy	Description	Potential advantages	Considerations
Agency/Algorithmic trading	Employing a broker to work the order by accessing the available ETF and underlying (security) liquidity. Can also be achieved using algorithms.	Risk and market impact is managed by agency broker. Information leakage is reduced.	Investor bears market risk. The order may not be fully executed.

73% of European ETF trading volume is traded off-exchange.

European ETFs Trading Volume



Source: Big XYT, as of 31 August 2025.

While trading ETFs can be simple, there is no one-size-fits-all approach, so maintaining an open dialogue with your ETF distribution and capital markets teams as you seek liquidity is recommended..

Switch trades

Oftentimes, when an investor is looking to establish a new position in an ETF, they need to sell an existing position in order to fund the transaction. Whether it is a move from a passive strategy to an active one, or from one issuer's ETF to another, investors may want to consider placing these trades with the same market maker or Authorised Participant. When an investor is selling an ETF to buy another, and the two ETFs have overlap in holdings or other attributes that allow market makers to reduce risk, pairing the two trades together may lead to price improvement on one or both legs of the transaction. This pairing is often called a switch trade and can improve an investor's experience. The trading desk will often use an RFQ to buy and sell with the same market maker, enabling the benefits of engaging in a switch.

Our Capital Markets Desk can help

Before placing trades into J.P. Morgan Asset Management's ETFs, you may find it helpful to contact us directly. J.P. Morgan's ETF Capital Markets Desk maintains a keen eye on the market and has industry-leading technology that can assist with understanding the costs involved in execution. J.P. Morgan's strong relationships with market makers and APs, as well as its major presence in the marketplace, enable the ETF Capital Markets team to deliver the trading expertise and guidance many investors seek.

Whether you are looking to make a larger trade, are new to trading ETFs or desire a full range of support from J.P. Morgan Asset Management, we're committed to helping you achieve a better trading experience.

 Product expertise A sound knowledge of the ETF structure is key to your success.	 Market expertise A keen eye on the market informs your trading.	 Execution expertise An experienced partner with deep ties is invaluable.
We help you understand: ● Secondary market trading process ● ETF liquidity, spreads and premium/discounts	Our goal is to inform investors with: ● Intelligence on market trends ● Trade execution guidance	We support your trading by: ● Communicating regularly with market makers and authorised participants ● Vigilant monitoring of market quality using proprietary technology

Glossary of terms

Arbitrage	The simultaneous purchase and sale of an ETF and its underlying securities in order to profit from a difference in the price. Arbitrage results from market inefficiencies and provides a mechanism for keeping ETF prices from deviating substantially from the NAV for long periods of time.
Authorised participant (AP)	A liquidity provider or market maker that contracts with an ETF issuer to enable access to the creation and redemption process, known as the primary market. There are more than 20 APs that can transact in J.P. Morgan Asset Management ETFs.
Average daily volume	The average number of shares traded for a security, which is tracked and reported daily by major stock exchanges around the world. While trading volume is an indicator of a stock's liquidity, it is not always a good proxy for ETF liquidity, which is derived from the ETF's underlying holdings.
Creation units	Blocks of ETF shares that can be bought or sold from the ETF issuer by an authorised participant at NAV, generally ranging from 2,500 to 100,000 fund shares. Creation and redemption activity must occur in these lot sizes or in multiples thereof.
ETF creation	The process of creating more ETF shares to satisfy the demands of the marketplace and/or to keep the ETF price in-line with its NAV. Authorised participants deliver the underlying securities and/or cash into the ETF, and in exchange, receive ETF shares that they can sell on the secondary market.
ETF redemption	The process of reducing the supply of ETF shares in the marketplace and/or to keep the ETF price in-line with its NAV. Authorised participants deliver shares of the ETF to the ETF's custodian, which permanently removes the shares from the fund. In exchange, they receive the underlying securities and/or cash that they can sell on the secondary market or hold in inventory.
Liquidity	The ability to buy or sell securities quickly and easily without substantially affecting the asset's price. The liquidity of an ETF is best determined by the liquidity of all its underlying holdings.
Market maker	A broker-dealer providing a bid and an offer for an ETF on a stock exchange (or off-exchange), posting what is referred to as a two-sided market. Market makers facilitate trading in ETFs. Some, but not all, market makers also operate as APs. Market makers are also considered liquidity providers. But not all liquidity providers are considered market makers if they do not provide continuous two sided quotes.
Net asset value (NAV)	The value per share of a mutual fund or ETF calculated at the end of each business day. The per-share currency amount of the fund is based on the total value of all the securities and cash in its portfolio, less the fund's liabilities, divided by the number of fund shares outstanding.
Primary market	Where ETF shares are created and redeemed. ETFs are traded on the secondary market but are created and redeemed on the primary market. Only authorised participants can transact directly with the ETF in the primary market to change the supply of ETF shares available.
Secondary market	A market where investors buy and sell securities, typically on-exchange such as the London Stock Exchange, Deutsche Börse, Euronext Milan, SIX Swiss or off-exchange directly with a market maker. Note, market makers often provide liquidity both on- and off-exchange. Off-exchange trading venues such as Multilateral Trading Facilities (MTFs) including electronic request-for-quote (RFQ) trading platforms are widely used in Europe for trading ETFs.

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