ETF NAV, iNAV, and price

For Professional Clients only

An introduction to ETF valuations

- The current value of an ETF can be assessed in a variety of different ways
- ETF exchange prices show the price at which the ETF is currently trading on the secondary market with a bid/ask spread, but this is not necessarily the same as the ETF's NAV (Net Asset Value)
- Investors in the secondary market can either trade at NAV – either on the exchange or OTC (Over the Counter) – or at risk OTC
- Whereas in the primary market, ETFs are always created and redeemed at NAV plus creation/redemption costs

What is the NAV?

Net Asset Value: traditionally it is viewed as the value of the net assets held by the ETF, minus any liabilities, and then divided by the number of shares that the ETF currently has in issue

Computed once a day: as with a mutual fund, an ETF calculates its official NAV at the end of each day using close of market prices

Publically available: must be shared with the public on a daily basis

Creation/redemption: APs create and redeem at NAV by delivering cash or a basket of the underlying securities in exchange for ETF shares

Premium and discount: factors such as supply and demand, taxes, trading hours and market liquidity can effect the price of the ETF and may result in it moving away from NAV, generating premia or discounts

Arbitrage mechanism: when the ETF price moves away from fair value, APs are incentivised to exploit this arbitrage opportunity, thus ensuring the ETF returns to fair value

What is the iNAV?

Indicative Net Asset Value: an estimation of the ETF's NAV at the given point in time

Dynamic: the iNAV changes throughout the day to reflect the indicative value of the underlying basket of securities at a point in time

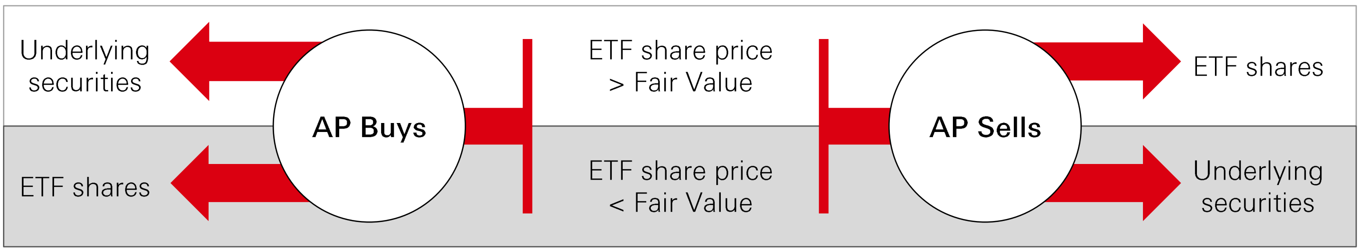
Publically available: calculated by service providers and then published on the listing exchange, disseminated to the public every 15 seconds

Accuracy: the iNAV uses the last available price for a security. This means where a security trades in a different time zone, the last price may be 'stale' when the iNAV is calculated and may reduce the accuracy of the reported iNAV

ETF price

- A way to think about the ETF price is the same as any stock: a combination of supply and demand where the price rests in the middle of the two in the form of a Bid/Ask spread
- Given that ETFs are traded throughout the day, the price moves and this is what creates the premium/discount phenomenon
- It is the arbitrage mechanism which brings these back in line

The arbitrage mechanism



- The arbitrage mechanism keeps the ETF price in line with the fair value of the ETF's underlying holdings
- The key actor in this mechanism is the AP (Authorised Participant), who interacts with both the open market and the ETF manager
- If the price of the ETF is above the fair value, then the AP buys the underlying basket of securities and sells shares of the ETF in the open market. The AP then delivers this basket to the manager at close of trading in exchange for new units of the ETF
- If the price of the ETF is below the fair value, then the AP sells the underlying basket of securities and buy shares of the ETF in the open market. The AP then delivers the ETF shares to the manager at close of trading in exchange for the basket of underlying securities
- During normal market periods, this process of supply and demand allows ETFs to stay close to their fair value throughout the trading day and prevents a wide divergence between fair value and ETF price

Key risks

The value of an investment in the portfolios and any income from them can go down as well as up and as with any investment you may not receive back the amount originally invested.

- **Concentration Risk:** The Fund may be concentrated in a limited number of securities, economic sectors and/or countries. As a result, it may be more volatile and have a greater risk of loss than more broadly diversified funds
- **Counterparty Risk:** The possibility that the counterparty to a transaction may be unwilling or unable to meet its obligations
- **Derivatives Risk:** Derivatives can behave unexpectedly. The pricing and volatility of many derivatives may diverge from strictly reflecting the pricing or volatility of their underlying reference(s), instrument or asset
- **Emerging Markets Risk:** Emerging markets are less established, and often more volatile, than developed markets and involve higher risks, particularly market, liquidity and currency risks
- **Exchange Rate Risk:** Changes in currency exchange rates could reduce or increase investment gains or investment losses, in some cases significantly
- **Index Tracking Risk:** To the extent that the Fund seeks to replicate index performance by holding individual securities, there is no guarantee that its composition or performance will exactly match that of the target index at any given time ("tracking error")
- **Investment Fund Risk:** Investing in other funds involves certain risks an investor would not face if investing in markets directly. Governance of underlying assets can be the responsibility of third-party managers
- **Investment Leverage Risk:** Investment Leverage occurs when the economic exposure is greater than the amount invested, such as when derivatives are used. A Fund that employs leverage may experience greater gains and/or losses due to the amplification effect from a movement in the price of the reference source
- **Liquidity Risk:** Liquidity Risk is the risk that a Fund may encounter difficulties meeting its obligations in respect of financial liabilities that are settled by delivering cash or other financial assets, thereby compromising existing or remaining investors
- **Operational Risk:** Operational risks may subject the Fund to errors affecting transactions, valuation, accounting, and financial reporting, among other things
- **Real Estate Investments Risk:** Real estate and related investments can be negatively impacted by any factor that makes an area or individual property less valuable

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