

### <u>Understanding</u> Exchange Traded Funds premiums and discounts

One of the many benefits of Exchange Traded Funds (ETFs) is the fact that the price of ETF units generally reflect the market value of its underlying basket of securities.

### Understanding market price vs. Net Asset Value

ETFs trade on stock exchanges, and have two end-of-day values. The first is a closing market price, which is determined by trading activity on the exchange throughout the day. This reflects the price at which the units last traded during the trading session. Alternatively, it can reflect the midpoint of the bid and ask quotes if the ETF does not trade during that trading session. The Net Asset Value (NAV), which is calculated after the market closes, is the weighted-average price of the ETF's underlying holdings, net of expenses such as management fees, divided by the units outstanding.

The closing market price refers to the official price set by the exchange on which the ETF trades, as a result of trades during the closing auction. Although the closing price is often close to the NAV, it may be different. In highly volatile markets, this difference may be exaggerated.

# What is a premium or discount to NAV?

A premium or discount to the NAV occurs when the market price of an ETF rises above or below its NAV. If the market price is higher than the NAV, the ETF is said to be trading at a premium. If the price is lower, it is trading at a discount.

## Drivers of ETF premiums and discounts

Two key factors can drive premiums and discounts:

- If the underlying securities trade on an exchange that is open at a different time than the exchange the ETF trades on, there could be deviations between current and stale security pricing, resulting in larger premiums or discounts.
- If the underlying securities become less liquid or markets are experiencing heavy order flow, the result may mean higher transaction costs, leading to larger premiums and discounts.

Many ETFs, notably domestic equity ETFs, have smaller premiums and discounts since they trade at the same time as their underlying market, which is also very liquid.

Many ETFs track well known indices and their daily closing price, reported by multiple data providers such as Bloomberg or Refinitiv, quote the price at which units last traded during the trading session. For ETFs that don't trade frequently throughout the day, the quoted last price traded may not correspond to the daily change in the value of the ETF's underlying index or basket of securities. This might lead an investor to mistakenly conclude that an ETF is trading at a premium or discount to its NAV.



#### Market makers and their role

Market makers provide liquidity by facilitating trades in the secondary market. Through adjusting for continuous market movements in the ETF's underlying securities, market makers set intra-day bid and offer prices for the ETF. While any market participant may meet the best bid or best offer at a given time, a market maker ensures that there is always a bid and offer quote at which to trade. The majority of Canadianlisted ETFs generally trade with a tight bid/ask spread on either side-of NAV, regardless of how frequently they trade. A tight bid/ask spread is facilitated by the presence of a market maker, a designated broker-dealer firm that tracks an ETF's NAV throughout the trading day. As supply and demand pushes an ETF away from its fair value, market makers arbitrage the deviations by selling the ETF at a premium, and buying shares at a discount, to maintain a tight bid/ask spread close to the NAV.

Typically, demand is a major determinant of premiums or discounts, since strong demand would make the ETF price rise quickly above its NAV, causing a premium, or low demand may allow the underlying securities to appreciate above the ETF's price, causing a discount. The imbalances between supply and demand are particularly noticeable within illiquid markets that offer limited access to the underlying assets, such as in the emerging markets. Additionally, international ETFs also track securities traded on different time zones, which produces a time lag between the ETF and its NAV. Commodity ETFs may be restricted by position limits on futures contracts and trade at a steady premium to underlying commodity prices.

In large liquid markets, market makers tend to take advantage of the ETF arbitrage system to capitalize on any discounts or premiums as they create or redeem shares to bring the ETF price closer to the NAV.

#### For information about Mackenzie ETFs, please talk to your financial advisor.

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