

Trading and the True Liquidity of an ETF

BMO Exchange Traded Funds

The ETF market in Canada has grown rapidly over the last 5 years where we have seen an increasing number of ETFs with lower daily trading volumes.

The ETF industry in Canada today has grown to \$297 billion in assets.¹ And the actual number of ETFs available to investors has more than doubled in the last 5 years. Today there are more than 900 ETFs listed in Canada from 41 providers on 2 exchanges.² However not all these ETFs have large amounts of assets. The 100 largest ETFs make up more than half (67.6%) of the Canadian ETF market, 78 ETFs have greater than \$1 billion in assets, while 393 ETFs have less than \$20 million in assets.³

We can draw similar conclusions by examining ETF trading volumes over recent years. As of June 2021, the top 20 largest ETFs in Canada account for 50% of all Canadian ETF trading volumes.⁴ While a number of mature ETFs have emerged with approximately 27 ETFs in Canada at over two billion in assets, there are still a great deal of smaller ETFs. Many of these ETFs have below 20,000 shares traded each day.

Given these emerging characteristics, investors who are most familiar with traditional stock trading are raising concerns about the “investability” of smaller ETFs.

To address these concerns, it’s important to note that the traded volume of an ETF does not measure its liquidity. While the liquidity of an individual security is directly related to the traded volume of that security, the same correlation does not apply to ETFs.

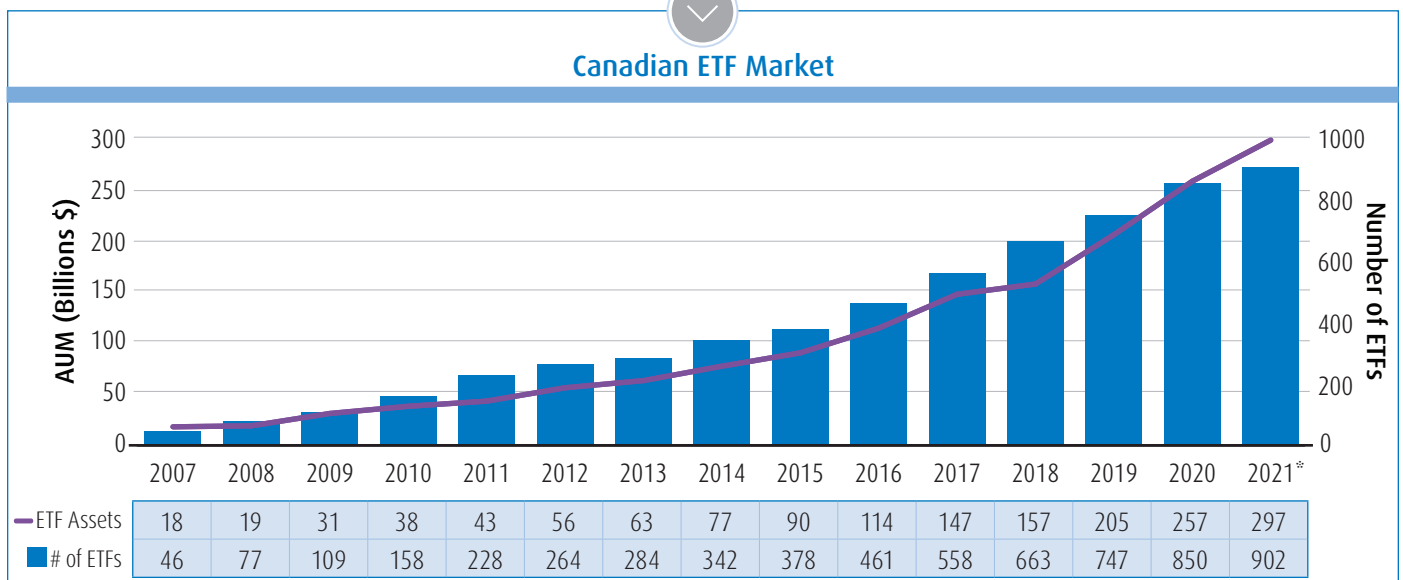
Myth: If the size of the ETF is too small or its volume is too low relative to a trade size, then the trade will move the ETF’s market price.

Fact: ETFs have access to the liquidity of their underlying portfolios. **Therefore a small ETF or a trade with a large volume relative to its trade size will not move the ETF’s market price.**

Even though ETFs are listed on an exchange and are accessed in the same manner as stocks, there is a key difference. ETFs are “open-ended” and thus have access to the liquidity of their underlying holdings. This creates a second layer of liquidity, a level that an ordinary stock does not have.

Traditional stock screening does not apply.

The liquidity of an ETF is best measured by the underlying securities which it holds. If the individual securities that compose the ETF have high volumes, and therefore are very liquid, then the ETF that holds them will have the same degree of liquidity. Similarly, if the underlying securities of the ETF have low volumes, or are, illiquid, the ETF will have a low degree of liquidity as well. BMO ETFs are constructed to have liquid portfolios by establishing traded volume requirements for each security held within the portfolios.



Source: BMO Global Asset Management, May 31, 2021

* YTD as of May 31 2021.

Liquidity is best measured by the underlying securities.

An ETF’s underlying liquidity can be seen by observing the difference between the buying price and the selling price, or the “bid-ask spread”. A tighter bid-ask spread on an ETF (looking at a minimum of 2,000 shares traded) generally indicates that the underlying securities also have tight bid-ask spreads and are therefore more liquid. In this way, even an ETF with low traded volume is liquid if its bid-ask spread is tight. If the underlying securities within the ETF are liquid, then so is the ETF.

How does ETF liquidity work?

There are three main parties involved with creating ETF liquidity:

Party	Role
ETF Provider	The firm that manufactures the ETF
Designated Broker	The market participants contracted to maintain bids and offers on the ETF, and can request new units of the ETF from the provider
Underwriters	Additional market participants that can request new units of the ETF from the provider

There are three levels of liquidity:

1. The Exchange

The interaction between buyers and sellers creates the first level of liquidity for an ETF. This natural liquidity is established when a buyer and a seller match on an exchange. Popular and established ETFs with high transaction volumes can develop even greater liquidity than their underlying holdings. Therefore the liquidity of an ETF can exceed that of its underlying portfolio as it matures.

2. Designated Broker Activity

Designated brokers are responsible for posting bid and ask offers on the exchange. This enhances liquidity and allows a buyer or seller to transact with minimal trading costs. For BMO ETFs, the designated broker continuously posts units on both the bid and ask side, as a price which reflects the spread of the underlying securities.

Myth: The trade size will move through the quote book, or if the quoted depth on the ETF is smaller than the trade, the trade will not be filled or will be filled at a sub-optimal price.

Fact: ETF quotes are constantly refreshed and replenished. This works differently than a stock.

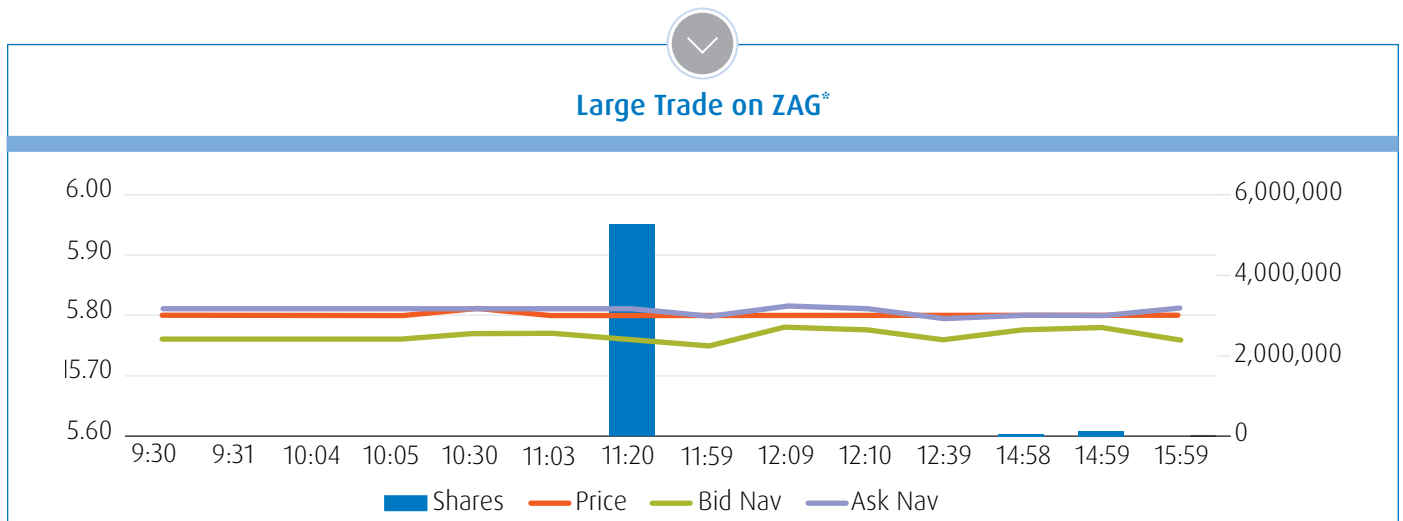
3. Unit Creations Based On Underlying Securities

Because ETFs are open-end structures, the underwriter (a market participant who interacts with the ETF provider) can correct supply imbalances by creating or redeeming units. This is essential as the underwriter can offset an increase in demand by creating more units. On the other hand, when the demand for the units decreases, the underwriter redeems units to tighten supply.

When a large buy order occurs, the underwriter will buy the basket of securities and initiate a creation order with the ETF provider. The cost would be the fair value of the units based on the prices of the underlying securities, the underwriter’s cost of building the basket, and the investor’s single trade commission rate with their broker. The underwriter’s costs are based on how much each security trade impacts its traded volume. With very liquid underlying securities, the cost is minimal. The cost increases as the liquidity of the underlying securities decreases. Typically, for large cap Canadian equity, these costs would be less than one cent. For harder-to-access underlying portfolios, this cost can typically be three or four cents.

By comparison, if the investor purchased each underlying security within the ETF, they would be faced with the trading costs incurred with each transaction.

The chart at the bottom of the page illustrates a large trade placed on BMO Aggregate Bond Index ETF (Ticker: ZAG). An \$80 million dollar trade had no impact on the trade’s execution price.



* For illustrative purpose only

As we have seen, the true liquidity of an ETF is best measured by the liquidity of its underlying securities and allows for significant trade orders without having an impact on the price of the ETF itself.

Secondary Market

Hard to Trade Assets

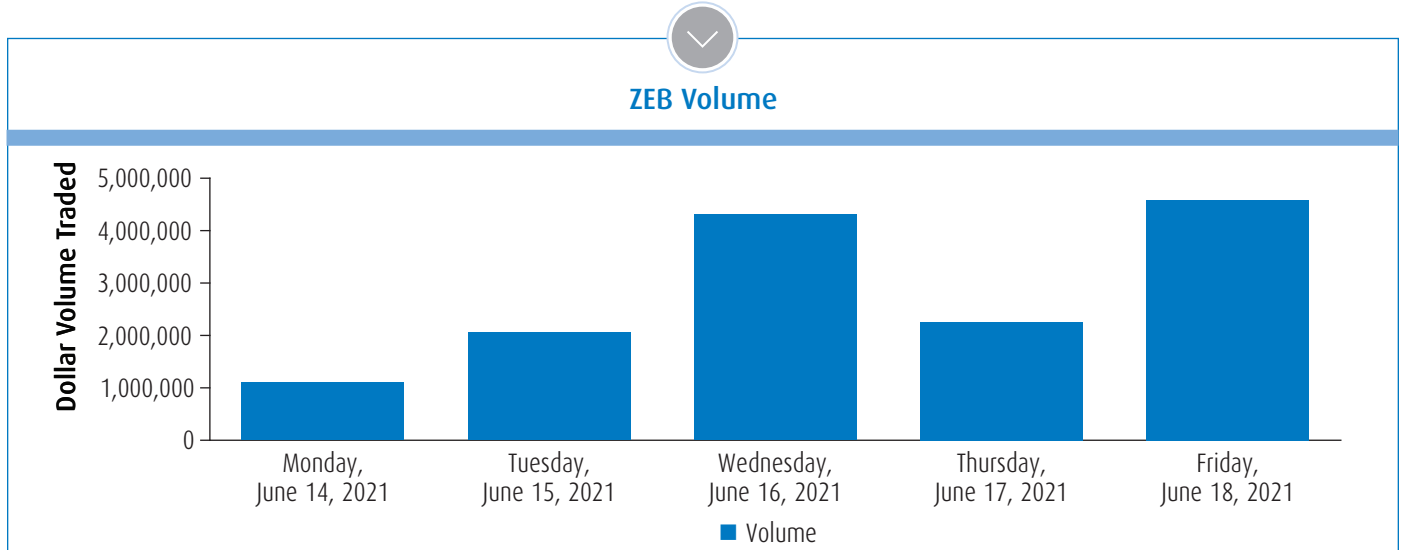
ETFs provide a secondary market which is even more beneficial for over-the-counter (OTC) securities such as fixed income and preferred shares. The exchange trading of ETFs can improve trading efficiency compared to underlying securities, particularly as an ETF matures. The spreads of the ETFs can therefore be tighter than their underlying portfolio holdings. The absolute trading activity (creations plus redemptions) of an ETF is often a small amount relative to the ETF's total trad-

ing volume. For example, the BMO Laddered Preferred Share Index ETF's access to liquidity attracts more liquidity, with investors preferring to purchase their preferred shares and fixed income securities through an ETF rather than over-the-counter.

Fixed Income

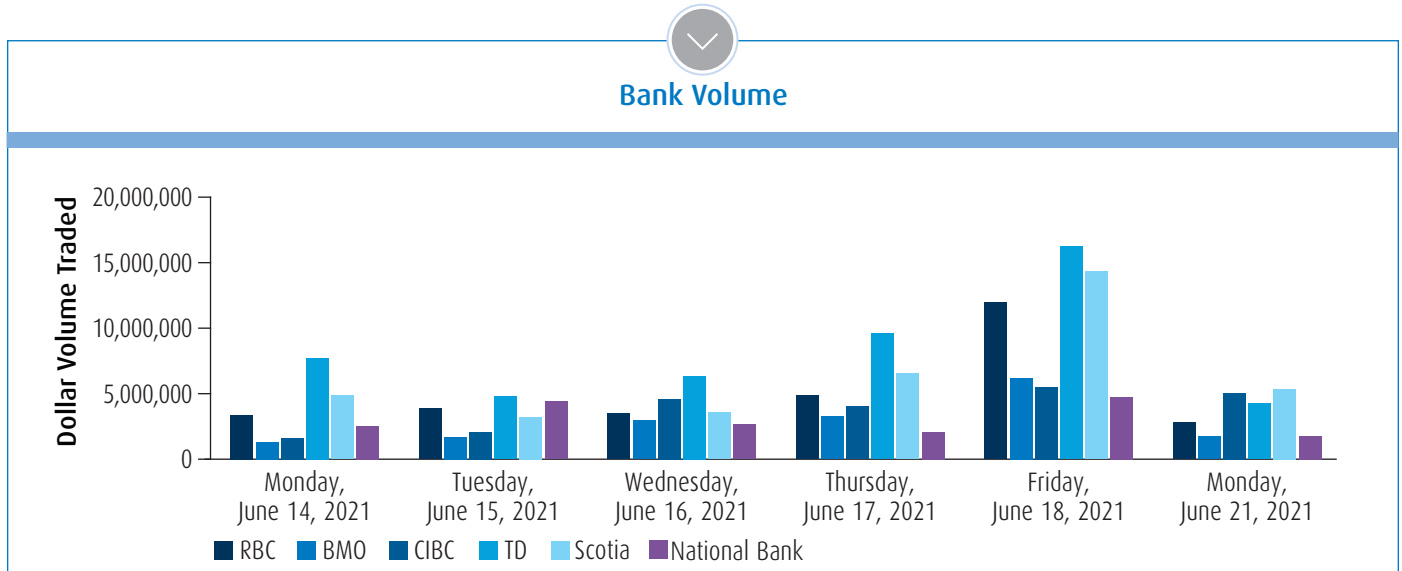
The liquidity benefits of ETFs are further enhanced on fixed income products as the market maker will deliver only a subset of the largest and most liquid issues on a subscription or sometimes even cash. This liquid basket of bonds allows the ETF to trade within a tighter spread on the exchange. The ETF will then review the basket and holdings against the index over time, opportunistically trading to diversify the portfolio. The ETF may choose to sample the index, adding further liquidity by not holding the least traded and smallest bonds.

ZEB Volume



Source: Bloomberg, June 25, 2021.

Bank Volume



Source: Bloomberg, June 25, 2021.

Myth: Trading activity impacts the underlying securities within the ETF.

Fact: Market maker may have an offsetting trade which neutralizes the ETF trade impact.

Myth: Fixed Income ETFs are getting too big, and are a threat to the broad market.

Fact: The additional liquidity that a fixed income ETF offers allows the ETF to trade in the secondary market or within a liquid basket of bonds.

Trading Notes

Avoid trading on the open & close of the market

As the market price of an ETF is a reflection of the underlying portfolio's value, avoid trading in the first 10 minutes of the day. This allows enough time for the underlying portfolio to start trading. Similarly, avoid trading into the close, as underlying portfolio movement can be volatile at the end of the day.

Always use limit orders

As with trading equity securities, many order types are available for use. The entry or exit trading price will impact the trade's overall profitability. As the underlying market levels continue to move while a trade is being placed, a limit order can ensure a desired price on the trade. It's important to note that if the market moves away from a limit, an investor may consider revisiting an aggressive limit price or set a slightly wider initial price.

Trade when the underlying market is open

The underwriter will be able to keep a tighter spread when the underlying portfolio is trading, as the ETF's price can be precisely calculated. When the underlying market is closed, the underwriter will have to model the price, and will therefore set a slightly wider spread to reflect their increased risk on the trade. Where possible, for international ETFs, trade when the underlying market is open.



Let's connect



For more information about BMO ETFs, please visit our website at bmoetfs.com



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¹ etfqi.com, May 31, 2021.

² BMO Global Asset Management, May 31, 2021

³ BMO Global Asset Management, May 2021

⁴ etfqi.com

Commissions, management fees and expenses all may be associated with investments in exchange traded funds. Please read the ETF Facts or prospectus before investing. Exchange traded funds are not guaranteed, their values change frequently and past performance may not be repeated.

For a summary of the risks of an investment in the BMO ETFs, please see the specific risks set out in the prospectus. BMO ETFs trade like stocks, fluctuate in market value and may trade at a discount to their net asset value, which may increase the risk of loss. Distributions are not guaranteed and are subject to change and/or elimination.

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