BMO Capital Markets
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Volume and Liquidity in the Canadian Market

A discussion on current market volume and structural influences

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Introduction

With the S&P/TSX Composite index currently trading 32% lower than a year ago, and 40% below its June '08 peak, we thought it would be a good time to look at current trading volumes in the Canadian marketplace and discuss some of the structural influences on current and future trading volumes and liquidity.

Date	TSX Average Daily Volume (Millions of Shares)
Jan 1 2007	274
Jan 1 2008	318
Jan 1 2009	395

A quick look at TSX daily volume numbers indicates that trading volumes are moving higher, creating greater liquidity. If we examine these numbers in the larger context of what is going on within the market, we come to a different conclusion. We will examine liquidity with an eye on the following factors:

1. Trade Values are down
2. The growth of Exchange-Traded Funds (ETFs) trading has had a greater upside effect on volume than liquidity
3. Short Term Electronic Liquidity Providers (ELPs) are trading large volumes while arguably adding no natural liquidity

Trade Values are Down

	TSX Average Daily Volume (Millions of Shares)	TSX Average Daily Value Traded (Billions)
Jan 1 2007	274	$5.75
Jan 1 2008	318	$6.66
Jan 1 2009	395	$5.61

Over the past year, we see the average daily value traded is down 16% YOY even though volume is up 24% in the same time period. Over a 2 year period value is down 2.5% versus a volume increase of 44%. As most Portfolio Managers (PMs) make trading decisions based on putting dollars to work, a decrease in value traded suggests that PMs are making smaller bets either due to lower AUMs, smaller exposure to Canadian equities or lower portfolio turnover.

Typically when a single name has a significant downward move in stock price, either due to a sell off or a stock split, value traded remains far more consistent that volume traded. This is why all of the large global dealers use average daily value, rather than average daily volume, in their pre-trade analytic tools. As such, the downward move in value traded is far more significant than the upward move in volumes.

The ETF Effect

ETF trading volumes have exploded over the past 2 years. 2 years ago the Canadian market had 26 ETFs trading roughly 8 million units a day. Today we have 77 ETFs trading roughly 50 million units a day. We would argue that the nature of ETF trading, versus trading in common stocks, results in an overstatement of market liquidity. When an investor buys an ETF they are most likely trading against an ETF market maker. The ETF market maker then hedges their position by buying an offsetting basket of stocks (or possibly futures contracts). This hedging trade creates additional trading volume (and value) but does not increase the net positions being taken by the marketplace. This results in the illusion of greater trading activity.

ETF trading currently accounts for roughly 12% of trading value on the TSX, as opposed to 4% two years ago. If we assume that 50% of all ETF trades result in hedging trades in the cash market, we would argue that trading value would be inflated by 4% strictly due to the ETF effect. (Note: This is not to say the ETF trading isn't real, or beneficial, but to suggest that the nature of ETF trading results in inflated trading volumes relative to trading in common shares).

We fully expect that ETFs will continue to gain traction in the Canadian marketplace, resulting in greater hedging trades and overstatement of 'real' volumes.

The ELP Effect

Over the last year the Canadian market has seen the arrival of Electronic Liquidity Providers (ELPs). ELPs are short-term trading firms that try to profit off market structure inefficiencies rather than pricing inefficiencies. These strategies are probably best illustrated by walking through an example of their most successful strategy, passive rebate arbitrage.

In passive rebate arbitrage, the ELP is attempting to buy and sell stock at the same price while capturing the passive rebates paid out by the TSX and the competing ATSs (Pure, Alpha and Chi-X). They do this by placing passive orders on very liquid names, and once filled, placing a similar passive order on the other side of the market at another trading venue, locking the market.

For example, if BBD.b is trading at $4.71 – $4.72 with multiple players on each side, the ELP might place a ‘passive’ order on the TSX to buy 5,000 shares at $4.71. When they receive a fill, they then proceed to place a ‘passive’ offering on another marketplace that does not have a bid at $4.71, thus locking the market:

		Bid	Offer		
TSX	5,000	$4.71	$4.71	5,000	Pure
TSX	10,000	$4.70	$4.72	15,000	TSX

The ELP is counting on one of the bidders on the TSX moving their order to Pure and buying their stock. The ELP has bought stock at $4.71 and sold stock at $4.71 and earned a passive rebate of roughly a quarter cent on each side. This strategy adds little, if any natural liquidity or price discovery to the marketplace.

We understand that ELP trading comprises 8-10% of all trading on the TSX and other venues which accounts for ~30 million shares of trading daily. In the U.S. ELP trading is believed to make up anywhere from 25% – 40% of trading volumes. While some of the strategies being used by the ELP players do add real liquidity to the marketplace, we would argue that you should reduce current TSX trading volumes by 4% to gain a better comparison to volumes from 2 years ago.

By inflating trading values and volumes with many small trades, the ELPs also have a significant effect on the relative portion of trading done in blocks. (See chart below).

Date	% of Trade Value Done as Blocks
Jan 1 – June 30 2006	30.00%
July 1 – Dec 31 2006	35.74%
Jan 1 - June 30 2007	33.65%
July 1 - Dec 31 2007	30.79%
Jan 1 - June 30 2008	26.03%
June 1 – Dec 31 2008	21.05%

The expectation is that ELP related trading will continue to see strong growth in our market over the next several years. This will continue to overstate real liquidity and understate the value of block trading. We would caution that this trend could reverse itself very quickly if Canadian regulators took steps to ban the systematic locking of markets which is vital to the passive rebate arbitrage as has already been done in other jurisdictions including the U.S.

Conclusion

While volumes are up 44% over the last 2 years, liquidity is most certainly down. Value traded is down alarmingly over the same 2 year period, and there has been significant growth in trading strategies that add little natural liquidity to the marketplace.

While block values have dropped relative to the total market, this factor has been significantly overstated – particularly by the non-block dealers – as much of the relative drop is due to the increase in ETF hedging and ELP trading as opposed to a dramatic increase in traditional firms trading in a non-block fashion. Given the tendency for traders to 'spread' trades over a trading day during volatile periods, rather than risk standing up at one price, the block trading volumes have actually performed very well.

We think this overstatement of liquidity is currently underappreciated by traders and PMs. For PMs using liquidity filters in their models, it is going to be important to understand the true liquidity in a given marketplace otherwise they risk attempting to trade in sizes that could result in excessive market impact. For traders, understanding this phenomenon will allow them to avoid participating at overly aggressive rates. For example, placing an order to trade BBD.b at 25% participation may have resulted in limited market impact in the past, but placing a similar order today without filtering out inflated ELP and ETF related volumes may result in market impact more reflective of a higher participation rate. Understanding what portion of the volume traded, in aggregate and on a single name, is 'real' liquidity will give traders and PMs a real advantage over their peers.

In summary, the significant reduction in value traded, despite the structural changes that have seemingly increased volumes, should be seen as a negative trend for the marketplace. We will be watching closely to see if this trend reverses itself when markets stabilize and the commodity sectors come back into favour.

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Average Daily Volume used is a 50 day simple average.
Data used is from Bloomberg, Iress & Reuters
ETF Issue data supplied by Barclays Global Investors