

# Understanding the Exchange Landscape in Canada

## Fragmentation of Information

Trading in Canadian listed securities – regardless of whether the listing exchange is TSX, NEO, TSXV or CSE – can occur across a total of 13 different marketplaces. Investors can often find accurate and indicative quotes for these products on a number of different platforms from Thomson One to Yahoo and Google Finance and beyond, including real-time and delayed data. The challenge for investors is finding an accurate picture of total volume across marketplaces. While the TSX often gets all the attention, it's not the only marketplace in Canada.

Marketplaces in Canada are generally separated into 2 categories:

- **Exchanges** – which review and approve the listing of a public company, exchange traded fund, or closed-end fund and may provide trading services for both their own listings and those listed on another exchange
- **Alternative Trading Systems (ATS)** – which do not list, and can only trade those securities listed on a recognized Canadian exchange
  - Provide competition for the trading business, including both transparent and non-transparent (also referred to as Dark Pools)
  - Play an important role in public markets by allowing alternative means of accessing liquidity, with each venue providing differentiated trading services / fees to the market

### Canadian Marketplace Overview

Listing Exchange	Transparent Markets / Displayed Exchanges & Alternative Trading Systems (ATS)										Dark Pools / Non-Displayed Markets		
	TSX	TSXV	TSX Alpha	NEO-L	NEO-N	NASDAQ - CXC	NASDAQ - CX2	CSE	Omega	Omega Lynx	NEO-D	MatchNow	NASDAQ - CXD

### The Hunt for Combined Volume

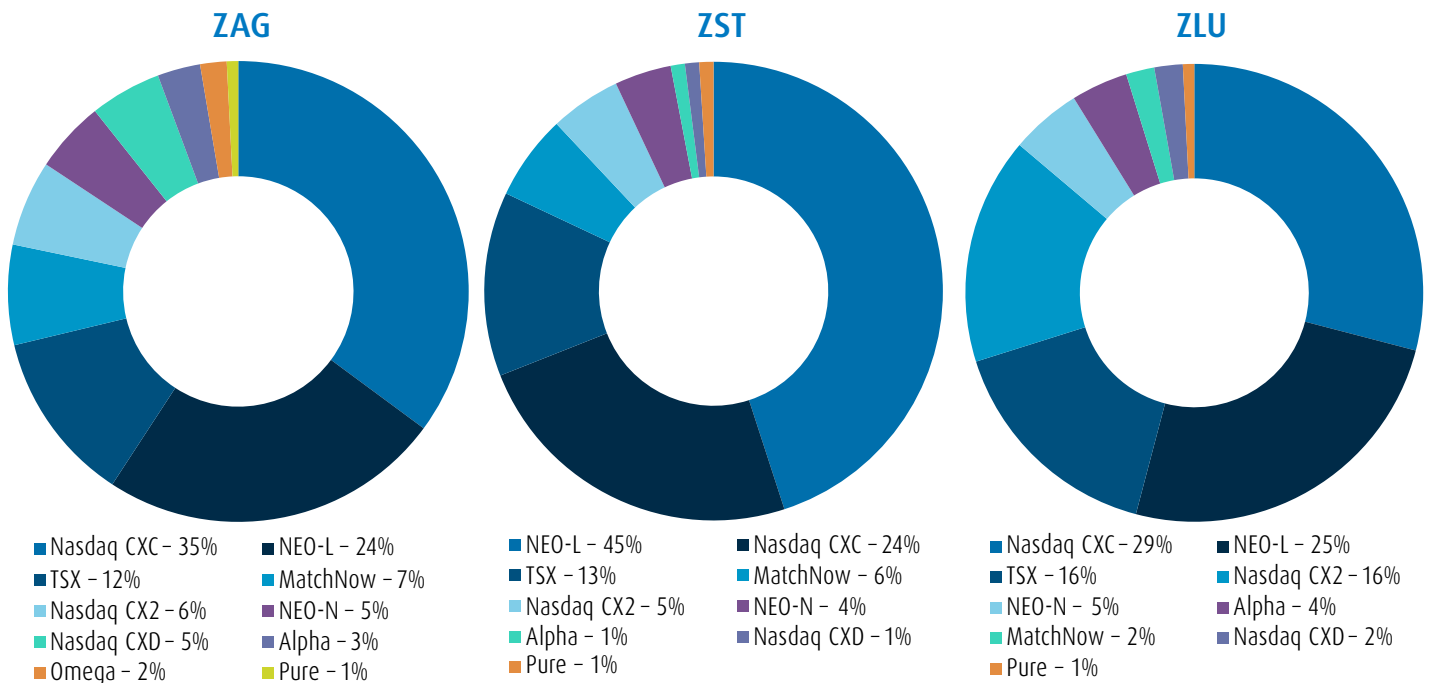
As mentioned a challenge for investors is finding a source for total combined volume. Platforms like Thompson One, or Google Finance will show only the volume traded on the TSX. There are a couple places you can get the full picture on volume and those include sites such as Stock Watch (Free: <http://www.stockwatch.com/Quote>) and QuoteMedia (subscription based: <https://www.quotemedia.com>)

Symbol	Issuer	Last	B	Sz	Bid	Ask	A Sz	Vlm	Chg	%Chg
<b>ZAG-T</b>	<b>BMO AGGREGATE BOND INDEX CAD</b>	<b>15.99</b>	<b>83</b>	<b>15.98</b>	<b>15.99</b>	<b>217</b>	<b>63179</b>	<b>+0.09</b>	<b>+0.57</b>	

When we look at StockWatch (**Note there is a 15 minute delay**) we see a very different picture, total volume is actually double that which we see when looking solely at Thomson One.

Sym-X	Bid	Ask	Last	Chg	%Ch	Vol	\$Vol	#Tr	Open-Hi-Lo	Year Hi-Lo	Last Tr	News	Delay		
ZAG - T	81.9	15.98	15.99	12.0	15.98	+0.08	0.5	317.2	5,068	1,004	15.96 15.99 15.94	16.43 15.26	13:36:59	Dec 18	15 min RT 2g
TSX - T	81.9	15.98	15.99	12.0	15.98	+0.08	0.5	62.3	996	225	15.96 15.985 15.94	16.43 15.26	13:36:59		15 min
NEO ATS - U					15.99	+0.09	0.6	131.2	2,098	294	15.96 15.99 15.94		13:36:49		15 min
Alpha - A					15.98	+0.08	0.5	9.1	146	17	15.95 15.99 15.95		13:21:34		15 min
Omega - O					15.98	+0.08	0.5	10.0	160	13	15.96 15.98 15.95		12:59:51		15 min
Pure - P					15.99	+0.09	0.6	3.8	61	26	15.94 15.99 15.94		13:26:13		15 min
Chi-X - X					15.985	+0.085	0.5	3.6	58	16	15.95 15.985 15.94		13:21:46		15 min
CX2 - H					15.98	+0.08	0.5	4.8	77	70	15.95 15.98 15.95		12:45:20		15 min
CXD - D					15.985	+0.085	0.5	39.0	622	218	15.955 15.985 15.955		13:17:54		15 min
TriAct - M					15.90			53.3	851	125			13:12:53		15 min

This is because the venue on which the stock or ETF trades will vary. If we pull up the volume by venue on the following three ETFs over one month we see vast differences in the percentage of volume traded on each venue.



Source: Bloomberg, Dec 31 2019. For illustrative purposes only.

### Important: Thompson One Extensions

**Looking up TSX-listed tickers (i.e. Default: ZAG-T)** when an advisor is only enabled for TSX and NEO real-time market data

- For advisors with a Canadian market preference / default, simply enter ZAG and press <enter>, this will return to ZAG-T, the ETF's primary listing market (TSX) only
- To uncover the volume on different exchanges you can change the following extensions to the ETF ticker:
  - -GD = shows NEO real-time market data only
  - -MK = shows consolidated delayed market data on all other markets excluding those in real-time (i.e. excluding NEO and TSX)

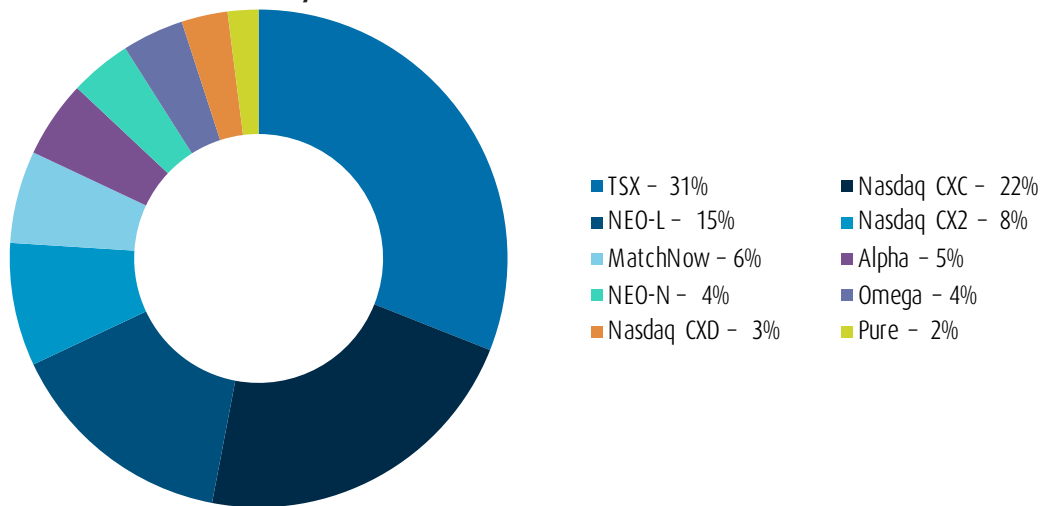
**Looking up NEO-listed tickers (i.e. Default: ZTL-GD)** when an advisor is only enabled for TSX and NEO real-time market data

- For advisors with a Canadian market preference / default, simply enter ZTL and press <enter>, this will return ZTL-GD, the ETF's primary listing market (NEO)
  - NEO-listed securities only trade on NEO trading venues and MatchNow (a dark trading venue), so there is no volume to uncover on different exchanges
- For advisors with a US market preference / default, you must specify the Canadian listing exchange when entering the ticker i.e. ZTL-GD

### How is volume directed to different marketplaces?

Each exchange differentiates its trading offering which can attract many different types of investors and traders. Each investor type may use various routing technologies to determine how to manage orders based on factors such as size of order, limit vs. market order, symbol type (e.g. dual-listed securities); each exchange may have its own niche and target a specific type of client.

## Canadian ETF Volume by Venue – 2019



Source: Bloomberg, Dec 31 2019

## Who, What and Where?

### TMX Group

#### The Toronto Stock Exchange (TSX)

The TSX is an exchange that provides listing services and facilitates trading in securities listed on the TSX only. Order and price volume information is available.

#### TSX Venture Exchange (TSXV)

The TSXV is an exchange that provides listing services and facilitates trading in securities listed on the TSXV only. TSXV targets the listing of companies with smaller market capitalizations. Order price and volume information is available.

#### TSX Alpha Exchange

TSX Alpha Exchange is an exchange that provides trading in securities listed on the TSX and TSXV – it does not list its own securities. Order price and volume information is available.

### NEO Exchange Inc.

#### NEO-L

NEO-L provides trading in all securities listed on NEO, CSE, TSX and TSXV. Order price and volume information is available. Its market data is also available free of charge for users on Thomson One to access.

#### NEO-N

NEO-N provides trading in all securities listed on NEO, CSE, TSX and TSXV. NEO-N subjects certain active orders to a

delay as determined by NEO Exchange. Order price and volume information (aggregated by price) is available. Its market data is also free of charge for users on Thomson One to access.

#### NEO-D

NEO-D (dark) trades at the mid-point with no pre-trade transparency for securities listed on NEO Exchange, CSE, TSX and TSXV.

### Canadian Securities Exchange (CSE)

CSE is an exchange that provides listing services and facilitates trading on securities listed on CSE, TSX and TSXV, and typically targets the listing of companies with a smaller market capitalization. Order price and volume information is available.

### TriAct Canada Marketplace (MatchNow)

MatchNow is an ATS that provides trading in securities listed on the TSX, TSXV, CSE and NEO. No pre-trade information on participants as the venue is a dark pool. Only post-trade information is available.

### Omega ATS (Omega)

Omega is an ATS that provides trading in securities listed on TSX, TSXV and CSE. Order price and volume information is available.

### Lynx ATS (Lynx)

Lynx is an ATS that provides trading in securities listed on TSX, TSXV and CSE. Order price and volume information is available.

### Nasdaq CXC Limited (Nasdaq Canada)

#### CXC

CXC offers a continuous limit order book matching orders based on price/broker/time priority.

#### CX2

CX2 offers a continuous auction market matching orders based on price/broker/time priority. Members may elect to

have their orders entered without attribution by selecting the anonymous order marker. All attributed orders are eligible for broker preferencing automatically whereas anonymous orders are not. Order price and volume information is available.

#### CXD

CXD is a dark Trading Book (no pre-trade transparency) offering a continuous auction market that matches orders based on price/broker/time priority offering members price improvement and size discovery opportunities. Only post-trade information is available.



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