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Canadian Junior Public Markets Health Check:

Surprising Resilience Thus Far, Some Concerns Looking Forward

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EXECUTIVE SUMMARY[1]

It is widely recognized that Canada, along with other developed Western economies, has a significant public capital markets problem. Increasingly fewer operating companies are choosing to go public, limiting access to the most attractive growth-stage opportunities for retail investors. Thus far, analysis of the public company decline phenomenon in Canada has focused almost exclusively on the Canadian senior capital markets. Reasons for the lack of focus on the Canadian junior markets include: i) fragmented nature and inconsistent data accessibility, requiring extraction and collation of data from a variety of different underlying sources; and ii) the fact that Canadian junior capital markets are unique, primarily dealing with companies of a smaller size and earlier stage of maturity than one would encounter in other international public markets. Yet, the Canadian junior capital markets fill a critical role in the Canadian economy, in particular because of the lower level of access to institutional private capital for startup and growth-stage businesses in Canada compared to our American neighbours.

This paper conducts a health check on the Canadian junior public markets. Surprisingly, the evidence demonstrates that the junior markets have proved resilient in the face of headwinds and the total number of listed operating companies on the junior stock exchanges in Canada has not followed the declining trendline of the senior markets. The makeup of issuers listed on Canadian junior public markets has evolved materially over the past 15 years; as the market has fragmented, new competitors have taken market share from the incumbent TSX Venture Exchange.

[1] This is the second paper in a two-part series assessing the state of the public markets in Canada. This paper focuses on the junior public capital markets, and the first paper focuses on the senior public capital markets. The two papers together seek to fill in the data gaps to create a more fulsome understanding of the nature and extent of the Canadian public company decline phenomenon and collectively serve as a foundation for upcoming research collaborations and engagement with policy-makers proposing a series of reforms and initiatives offering the prospect of re-energizing the Canadian capital markets.

I. INTRODUCTION

A significant body of academic analysis attests to the fact that the number of operating public companies listed on the Canadian senior markets has declined precipitously over the past 15 years, with the number of companies currently listed on the Toronto Stock Exchange (TSX) standing more than 40 per cent lower than at the end of 2008.[2] While academic analysis has focused on operating company decline on the TSX, there has been no significant analysis to date as to recent evolution, current state and future trajectory of operating companies listed in the Canadian junior public markets.[3] The most relevant analyses of public companies operating in the Canadian junior markets are more than half a decade old and do not focus on the overall trajectory and growth or decline of the markets as a whole (Lortie 2019a, b; Carpentier and Suret 2006, 2009, 2010; Carpentier, Cumming and Suret 2012; Pandes and Robinson 2013).

Yet, it also widely understood that the junior public markets in Canada play an outsized role in the Canadian economy as an early and growth-stage corporate financing source, filling a need caused by the more restricted access to private capital in Canada compared to the U.S. (Tingle, Robinson and Pandes 2013; Tingle and Pandes 2021; Pandes and Robinson 2013).

Anyone paying even marginal attention to the junior capital markets in Canada understands that these markets over the past 15 years have lived through a series of booms and busts, with significant volatility occurring in the cannabis, cryptocurrency, technology and mineral exploration sectors.[4] The Canadian junior markets are well known for their susceptibility to the lottery mentality of promoters and investors, and the fortunes made and lost through booms and busts in volatile sectors. Yet, the junior markets in Canada have also proven to be surprisingly resilient over the decades, and there are many large-scale success stories currently listed on the TSX, and even senior U.S. exchanges, that began their public journey in the Canadian junior markets. Moreover, graduations to the TSX from the junior public markets remain the lifeblood of the senior Canadian public markets, even more now than ever before, due to the complete implosion of the senior initial public offering (IPO) market in Canada over the past three years.

Any fulsome analysis of the operating public company phenomenon on the senior markets in Canada must include an accurate picture of what has occurred, and is currently transpiring, on the junior public markets. Do the junior markets exhibit the same degree of operating company decline witnessed on the TSX? The data demonstrate that the combined junior markets have actually maintained a relatively consistent number of operating companies up until the past year. Nevertheless, there has undoubtedly been a significant contraction of the junior markets broker-dealer ecosystem that supports the operation of the Canadian junior public markets (Tingle and Pandes 2021). The majority of the small broker-dealers have disappeared from the market, unable to remain commercially viable in the era of robo-advisers, discount brokerages and exchange-traded funds (ETFs).

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2 Operating companies include those companies that directly make a product or offer a service to customers. Calculation of operating companies starts with all companies listed on the TSXV Listed Company summaries provided by TMX Market Intelligence over the relevant intervals and deducts passive investment vehicles. On the TSX, these excluded issuers include closed-end funds (CEFs), exchange-traded funds (ETFs) and real estate investment trusts (REITs). On the TSXV, the excluded issuers include capital pool companies (CPCs) and REITs.

3 A notable exception to the lack of consideration of Canadian junior markets is a series of two excellent papers by Canadian business leader Pierre Lortie (2019a, b). However, these papers are now five years old, deal only with the TSXV component of the junior market and deal with the nature and trajectory of the junior markets as an ancillary topic rather than the main focus of the articles.

4 The term "mineral exploration" is specifically adopted throughout this paper rather than the alternative "mining." The mineral exploration sector on the junior Canadian public markets is comprised primarily of issuers endeavouring to develop future mining prospects, but rarely includes issuers that actually operate mines in production. The majority of mineral exploration companies on the Canadian junior markets that are successful in advancing their prospects end up selling the projects to senior mining companies listed on the TSX before the mines are operational.

It is impossible to evaluate all of the key elements of the Canadian junior capital markets in a single research paper, and this paper does not purport to comprise an exhaustive overview of all aspects of the junior public capital markets space. Rather, this paper is focused on those particular elements of the junior markets that are most instructive to understanding the topic of operating public company decline. It is principally intended to fill specific gaps and provide a more fulsome foundation for upcoming research pieces recommending proposals to reverse the tide of operating public company decline in senior markets and stimulate new listing activity in junior markets.

II. ANALYTICAL CHALLENGES IN CANADIAN JUNIOR CAPITAL MARKETS

Previous academic analysis and business commentary surrounding the topic of operating public company decline in Canada has largely avoided analyzing the junior side of the public capital markets. The lack of attention paid to the junior markets is not a result of the belief that the junior markets in Canada are unimportant. In fact, analysts in this space expressly go to lengths to point out the crucial role that the junior capital markets play in the Canadian public markets ecosystem, being more important to the overall economy than in any other country (Tingle, Robinson and Pandes 2013; Pandes and Robinson 2013).

Why, then, the lack of coverage? There are three reasons why analysis as to the interaction of the Canadian junior markets with the operating public company decline phenomenon has been largely missing thus far. First, the lived experience of companies listed on the Canadian junior markets is foundationally different from those companies listed on the senior markets, a fact that is well understood by all Canadian public markets participants who have worked in both market segments.[5] Data gathered on the experiences and perceptions of decision-makers in the junior markets reflect a different reality than the experiences and perceptions of decision-makers in the senior markets. While of critical importance, the junior public markets situation in Canada needs to be studied on its own terms in order for the analysis to be valid, not cross-pollinated with data from decision-makers in the senior markets.

Second, the phenomenon of operating public company decline has been experienced to an even greater degree in the U.S., and the authors of the pre-existing Canadian academic stream of literature understand that their analyses will be evaluated by American readers for comparison and enlightenment on the U.S. phenomenon. There is no direct public markets analogue in the U.S. to the Canadian junior capital markets, with the average Canadian company size in the junior markets being a fraction of the size of the smallest U.S. public companies.[6] As such, limiting discussion of the junior markets in the Canadian context increases the usefulness of the Canadian analysis for prospective American audiences.

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5 For example, the hassles of dealing with quarterly analyst targets ranked as one of the highest frustrations of C-suites in the Canadian senior markets in the empirical work undertaken by the author on contributing causes to senior public company decline (Wilson 2020). In comparison, C-suite executives of many junior companies in Canada consider securing analyst coverage an unattainable dream that they would go to great lengths to achieve. With respect to stock analysts, at least, it appears that absence does indeed make the heart grow fonder.

6 This is not to say there is no forum for trading of small-capitalization public companies in the U.S. The U.S. does have two over-the-counter markets with relatively robust pockets of trading activity, the OTCQB and the OTCQX. Unlike the TSXV, CSE and CBOEC, these are not regulated exchanges. The over-the-counter market in the U.S. is overseen by the U.S. Financial Industry Regulatory Authority and companies traded thereon are subject to certain reporting obligations.

Third, data sources for the Canadian junior markets are challenging to access and inconsistent in coverage and disclosure. What each exchange tracks and disseminates is fundamentally different in content and in format. The numerous tables and figures created for this paper require accessing a host of different sources, digging through numerous promotional releases over years of disclosure and calculating certain statistics by inference. Determining how to reformat and combine statistics to create a holistic picture of the combined junior markets is a particular challenge. Creating the datasets referenced in this paper has required accessing and reviewing hundreds of issuer profiles and individual disclosure documents filed on SEDAR+.[7]

III. HISTORY AND COMPOSITION OF THE CANADIAN JUNIOR PUBLIC CAPITAL MARKETS

The Canadian junior public capital markets have operated for more than 120 years.[8] The junior markets in Canada evolved from regional Western stock exchanges, originally established to support economic growth by financing local Western companies. With much smaller populations and economies than existed in Ontario and Quebec, the Western stock exchanges developed more flexible listing policies designed to attract smaller and earlier stage issuers than were eligible to access the senior market TSX and Montreal Exchange. The Winnipeg Stock Exchange, which began operations in 1903, is considered to be the first junior public securities exchange in Canada. The Vancouver Stock Exchange was the next junior market exchange entrant, starting operations in 1906. The Alberta Stock Exchange was the third and final entrant, starting up operations in 1913. Each of the three junior Canadian stock exchanges developed concentrations of issuers supporting local industry. Thus, the Vancouver Stock Exchange became known primarily for mineral exploration and forestry, the Alberta Stock Exchange for oil and gas and the Winnipeg Stock Exchange for agriculture services and commodity producers.

The Alberta Stock Exchange and the Vancouver Stock Exchange merged in November 1999 to form the unified CDNX exchange. The putative motivation for the merger was to: i) increase the profile of the combined exchange; ii) create a fresh start for the Vancouver Stock Exchange in particular to overcome a negative market perception from a string of scandals and stock promotions; iii) increase access to capital from a national investor base; iv) save on technology infrastructure costs as the exchanges moved to an electronic trading floor; and v) to save on brokers having to pay for multiple seats on multiple exchanges across the junior market (Chu 2013).

In July 2000, the CDNX exchange acquired the listings of the Canadian Dealing Network (CDN) as a third tier for junior companies. The CDN represented Canada's over-the-counter market. In November 2000, the Winnipeg Stock Exchange and the small-capitalization board of the Montreal Exchange transferred all their operating company listings to the CDNX, leaving Canada with a single junior-focused stock exchange.

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7 SEDAR+ is the online depository of all intermittent and continuous disclosure filed by reporting issuers in Canada.

8 The idea of distinguishing between "junior" and "senior" markets in Canada is a more recent construct that has evolved to describe the inherent differences between public market segments. The TSX and the Montreal Stock Exchange, both of which originated in the mid-19th century, are considered to have represented senior markets and competed for paramountcy in Canada up until the 1970s. Political turmoil in Quebec ultimately led to the TSX emerging as the clear winner in the competition for senior company listings, and the Montreal Stock Exchange was ultimately acquired by the TSX in 2007, leaving a single "senior" exchange. In 2007, the TSX Group Inc. was renamed the TMX Group Inc.

In 2001, the TSX Group Inc. acquired the CDNX and renamed it the TSX Venture Exchange (TSXV). For a period of time after its acquisition by the TSX Group Inc., the TSXV operated as the sole junior public market exchange in Canada.[9] Around the same time, the TSX Group Inc. demutualized, becoming the first stock exchange owner in North America to do so. As a result of demutualization, the TSXV became a for-profit enterprise. The role of being a quasi-regulator of its listed company client base, as well as being a for-profit entity, created a dynamic tension between market facilitation and regulation to protect the integrity of the market.

After consolidation of the TSXV and demutualization, financial industry voices soon began to advocate for creating a new exchange to provide competition in the junior markets. To this end, the Canadian Securities Exchange (CSE) was established in 2003 to provide the Canadian capital markets with an alternative to the TSXV. From the outset, the CSE strived to represent a more flexible and cost-effective market for early-stage companies, promoting itself as "The Exchange for Entrepreneurs." The Ontario Securities Commission recognized the CSE as a stock exchange in May 2004, making it the first new stock exchange to be recognized in Canada for several decades (Ontario Securities Commission 2004). The British Columbia Securities Commission became the second regulator to formally recognize the CSE in 2019. All other provincial securities regulators have issued rulings or exemptions allowing for companies to trade on the TSX.

The CSE is owned by CNSX Markets Inc., a private company with a variety of shareholders. However, 50 per cent of the common shares of CNSX Markets Inc. are now owned by Urbana Corporation, a publicly traded investment company holding a diversified portfolio of private equity and public investments (Urbana Corporation 2024). Urbana Corporation is itself a public company, listed on both the CSE and, somewhat ironically, on the TSX (thereby being effectively both self-listed on the CSE as well as being listed on the senior exchange that owns its direct junior market competitor, the TSXV). In July 2023, the CSE created a new senior tier to allow larger listed issuers greater access to institutional investors and stock indices (CSE 2023). Urbana Corporation immediately became the first CSE issuer to list on the senior tier.

Over the past two decades, the CSE has made significant inroads in challenging the TMX Group's dominance in listing on the Canadian junior public markets. The CSE now represents 34.5 per cent of the total operating company listings on the Canadian junior public markets, although the CSE's share of the total junior market capitalization is significantly lower at 13.5 per cent. Compared to the TSXV, the CSE originally was marketed as having lower minimum listing requirements, more streamlined listings processes, lower listing fees, lower maintenance costs, not mandating sponsorship for new listings and not generally engaging with transactional reviews. The cost difference between the two exchanges has narrowed over the years due to competitive forces, but one key difference remains: the TSXV continues to conduct merit-based reviews on certain key transactions, whereas the CSE leaves the risk assessment solely to market forces provided that the proposed transaction complies with exchange and securities law requirements.

The third market included in the Canadian junior market analysis began its existence as the Aequitas NEO Exchange (NEO). The OSC recognized NEO in 2014 and it began trading operations in March 2015. NEO was initially financially backed by major institutional financial industry players such as OMERS Capital Markets, Barclays and CI Investments (Hepburn 2017). At the time of its

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9 The TSXV operates a separate trading board designated as NEX, which houses companies that have fallen below the minimum listing requirements of the TSXV. NEX was established in 2023 to make it easier for investors to identify shells. Companies downlisted to NEX status continue to trade as long as they comply with continuous disclosure obligations and can move back up to the TSXV on an expedited basis if they regain compliance with the TSXV minimum listing requirements. However, the TSXV does not publish extensive data on NEX listings and those listings are not considered in our operating company analysis.

launch, NEO stated its ambition to compete directly with the TSX in the senior Canadian capital markets by "remutualizing" the exchange business, providing a platform that reflects the interests of all stakeholders and eliminating "predatory" high-frequency trading practices (Daras 2014).

Ultimately, an American public company, CBOE Global Markets Inc., acquired NEO in June 2022 and rebranded it as the CBOE Canada (CBOEC). Subsequent to the CBOE's acquisition of NEO, all of Canada's junior and senior exchanges are majority-owned by for-profit publicly listed entities. The purported remutualization of the Canadian public markets that NEO promised appears to have been illusory, or at least temporary.

If the CBOEC was launched as a direct competitor to the TSX and continues to market itself as a senior equities exchange, why is it being considered as a part of the Canada junior markets ecosystem in this paper rather than being evaluated as a component of the senior markets ecosystem in the companion Canadian senior markets paper? First, the whole point of this paper series is to provide a more expansive foundation for understanding the status and trajectory of operating public companies in the Canadian public markets, looking beyond the impact of high-volume trading and ETFs in the market. Our analysis of the CBOEC's place in the capital markets ecosystem, therefore, is based on the characteristics of the operating public companies listed on the CBOEC compared to its competitors.

It is apparent that the CBOEC has become a direct senior market competitor of the TSX in terms of: i) its share of the trading volume in Canadian equities, with approximately 15 per cent of the Canadian public markets trading volume currently occurring on the CBOEC platform; ii) listing of special purpose acquisition companies (SPACs), with 12 of the 26 SPACs listed on Canadian exchanges to date having been initially listed on the NEO;[10] and iii) the ETF-listing space, with 193 ETFs currently listed on the CBOEC, many of which are operated by several of Canada's top investment managers (CBOEC 2022). However, none of these characteristics actually deals with operating companies, of which CBOEC only has 42. When looking specifically at operating company listings, it is clear that both the size and stage of maturity of the CBOEC's listed operating company roster are more appropriately considered within the junior market category, sharing more in common with the TSXV and CSE than with the TSX.[11] For the remainder of this analysis, therefore, the constituents of Canadian junior public markets will be considered those operating companies listed on the TSXV, the CSE and the CBOEC.

As a final note on the classification of junior versus senior equity markets in Canada, Canadian securities law recognizes a class of issuer designated as a "venture issuer" which is eligible for reduced continuous disclosure under applicable regulatory instruments. Venture issuers are defined as those listed on the TSXV and the CSE, not the CBOEC, so the CBOEC-listed issuers must comply with the same continuous disclosure obligations (including the filing of an annual information form) as TSX-listed issuers. It is noteworthy that the 42 operating companies listed on the CBOEC have chosen this exchange notwithstanding the increased compliance obligations.

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10 The author has generated a comprehensive database of Canadian-listed SPACs from 2015 onwards based on source data obtained from TMX Market Intelligence (monthly New Company Listing) for TSX listings and from CBOEC staff for NEO listings. Detailed analysis of the Canadian SPAC experience is upcoming in another paper.

11 The mean market capitalization of a TSX-listed operating company as at May 31, 2024 was $5.657 billion and the median market capitalization as at the same date was $481.1 million. The mean market capitalization of a CBOEC-listed operating company as of June 26, 2024 was $116.7 million and the median market capitalization was $26.7 million at the same date. In comparison, the mean market capitalization of a TSXV-listed operating company at June 26, 2024 was $81.9 million and the median market capitalization was $9.2 million at the same date. Total market capitalization of operating companies listed on the CBOEC amounts to only 0.1 per cent of the TSX market capitalization. In fact, the total market capitalization of all operating companies listed on the CBOE is less than the mean market capitalization of a single TSX operating company. While the CBOEC may yet attain senior market status that warrants analysis as a direct competitor to the TSX, it is clearly not there yet.

However, the CBOEC also provides some additional waivers to smaller issuers on compliance with exchange policies.

IV. TRAJECTORY OF THE CANADIAN JUNIOR PUBLIC MARKETS

1. Total Operating Company Listings

Although the ongoing decline in the number of operating companies listed on the TSX Canada has been tracked closely and reported in both business media and academic papers, this is the first analysis to assess operating company data on the Canadian junior public markets. In discussions between the author and several Canadian capital markets experts on this topic in advance of generating the junior market data, the experts expressed the consensus expectation that the data would demonstrate that the number of operating companies listed on the junior public markets in Canada has declined at ratios similar to, if not greater than, the 40-per-cent decline witnessed on the senior markets.

However, the data did not bear out this expectation. While the number of operating companies listed on the TSXV has indeed dropped by 31.5 per cent from its peak in 2011, additions to operating company listings on the CSE (and, to a lesser degree, the CBOEC) during the same interval offset the TSXV operating company losses. In fact, with the level of operating company contraction witnessed in the United States in the past 15 years, it is likely that the CSE is the only recognized stock exchange in North America that has continued to exhibit consistent and material growth in the number of listed operating companies over that time. While our data on the CBOEC go back less than five years, the CBOEC also has enjoyed operating listing company growth over a time period in which the TSXV has seen a significant decline in listings. Figure 1 summarizes current operating company listings on the Canadian junior markets.

Figure 1. Junior Operating Company Listings by Exchange

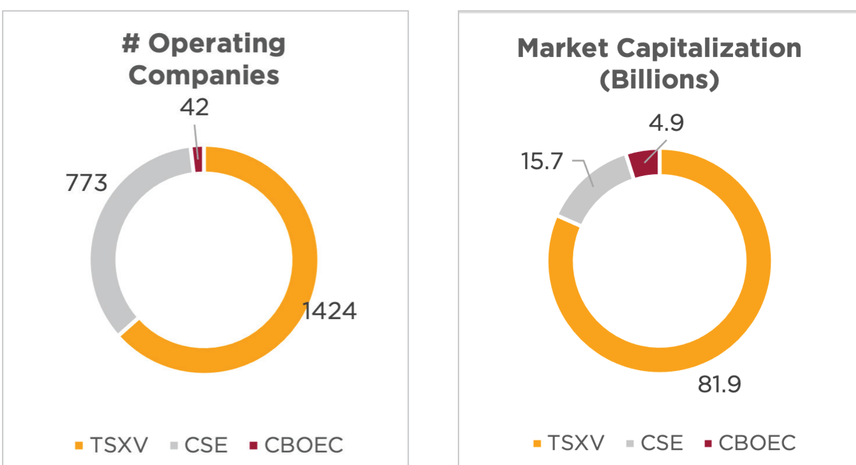

Table 1 provides additional detail on the distribution of operating companies in the junior market, tracking the growth and decline in operating company listings on each of the three junior exchanges going back to 2008.

Table 1. Total Canadian Junior Capital Public Markets Operating Company Listings by Year[12]

Year End OpCo Listings	# Operating Companies Listed[13]			
	TSXV	CSE	NEO/CBOE Canada	Total
2008	1,972	89	-	2,061
2009	1,953	109	-	2,062
2010	2,015	128	-	2,143
2011	2,080	144	-	2,224
2012	2,079	164	-	2,243
2013	2,014	181	-	2,195
2014	1,904	244	-	2,148
2015	1,738	293	-	2,031
2016	1,607	291	-	1,898
2017	1,592	326	-	1,918
2018	1,585	431	-	2,016
2019	1,516	523	-	2,039
2020	1,510	578	10	2,098
2021	1,532	687	15[14]	2,234
2022	1,512	763	20	2,295
2023	1,459	790	54	2,303
2024[15]	1,424	773	42	2,239

From Table 1, the incursions the CSE has made in the junior public company market against the traditional dominance of the TSXV are apparent. It is unknown at this time whether the CBOEC will become a significant third-party competitor in the operating company listings space, whereas we have already disclosed that it has become a significant player in the ETF and mutual fund sphere.

Table 1 also shows that the total number of junior market operating company listings in Canada was 2,303 at the 2023 peak of TSXV listings. The 2023 peak number is even higher than the previous peak of 2,243 in 2012. As at the time of writing of this paper, total operating junior company listings in Canada were 2,239, effectively the same level as in both 2012 and 2021. The overall junior public market has not yet, therefore, seen material contraction in operating company listings, but rather a reallocation of listings among different exchanges.

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12 Total listings extracted from different sources for each of the three referenced exchanges. For the TSXV, operating company listings extracted from monthly listed company summaries provided by TMX Market Intelligence. For the CSE, data extracted from intermittent CSE press releases, archived and available on the CSE website. For the NEO/CBOEC, data extracted from annual "Year in Review" press releases issued by the exchange. N/A means "not available." Years indicated as "n/a" in the chart are years for which no total listings information was released in CSE or NEO press releases.

13 In this table, TSXV number calculated based on listed issuer spreadsheets published by TMX Market Intelligence Group. CSE numbers provided directly by CSE. NEO numbers based on annual reports published by NEO up to 2022, thereafter based on direct analysis of listed company data on CBOEC Canada. The NEO Exchange started operations in 2015. However, NEO did not disclose the number of operating companies in its public disclosure until 2020 and the number of listings prior to that time is below materiality in the analysis of market trajectory.

14 The NEO/CBOEC did not disclose their total listed companies in the 2021 annual report. For the purpose of calculating the total number of operating companies, the 2021 NEO/CBOEC listings were assumed to be the average of 2020 and 2022.

15 For the partial current year, TSXV listing information is as of May 31, 2024. NEO and CSE information is as of June 26, 2024.

The data show two peaks in operating company listings over the last 15 years. Each of the upturns in listed operating companies corresponds to upturns in precious minerals prices, an unsurprising correlation given the importance of mineral exploration to the public junior markets discussed in more detail hereafter. The downturns have also corresponded to declines in precious minerals prices up until this most recent decline starting in 2023, which is the first decline over the past 15 years in Canadian junior operating company listings that has occurred despite continued buoyancy in precious minerals prices. This divergence in correlation between operating company listings and commodity pricing is concerning for what it may portend. Does the decline in the 2024 operating listing companies indicate the beginning of a systemic decline similar to what has been observed since 2008 in the senior public markets? It is far too soon to make any such conclusions. The 2024 listings decline may also prove to be a short-term blip. However, the fact the decline has occurred during a year when commodity prices remained high and interest rates have been dropping regularly is worrisome. If the decline proves to be systemic, contributing factors that have been suggested as relevant to headwinds in the junior capital markets include relatively high inflation over the past couple of years that have left investors with less disposable income, as well as recent federal government tax changes that have significantly increased capital gains tax rates. Junior public markets have always been, and will undoubtedly remain, high risk. Yet, capital losses can only be used against capital gains, not against ordinary income. If capital gains are taxed closer to ordinary income, that creates an obvious disincentive to invest in higher risk markets.

Why have the junior public markets been able to defy the ongoing contraction witnessed in the senior public markets since 2008? There are two obvious explanations, both of which are likely to have played a role in the phenomenon. The first explanation comes from an analysis of the nature of companies listing on the Canadian junior markets. Empirical analysis confirms that one of the most critical contributing factors to the operating company decline on the senior public markets is the increasing availability of private equity alternatives in Canada, particularly for companies generating positive cashflow (Wilson 2020). The majority of junior operating company public listings in Canada, particularly in the mineral exploration sector, are from companies that are pre-revenue, or generate significant negative cashflow, and therefore cannot access traditional private equity markets. Canada suffers from a significant deficit of institutional financing availability of venture capital and angel financing networks for startup businesses compared to the U.S. (Tingle, Robinson and Pandes 2013; Tingle and Pandes 2021). As such, promoters of Canadian early-stage businesses do not have the financing alternatives available to senior market participants and have continued to resort to the only financing means available to them, namely the junior public markets.

The second explanation is more complex, arising from the boom-and-bust nature of the Canadian junior markets. Without question, the Canadian junior markets have alternately benefited and paid the price of being markets where irrational retail investor exuberance plays a significant role in deal flow. Between 2016 and 2022, the Canadian junior markets benefited from a string of successive frothy markets around specific high-risk, high-return industries that collectively generated significant new-listing momentum. These included the cannabis boom (2017–2019), two blockchain/cryptocurrency bubbles (2017–2018 and 2020–2022) and the COVID-19-era technology stock bubble (2020–2021). The junior Canadian markets secured a disproportionate number of listings on these bubble-sector stocks due to the lower minimum listing requirements, lower costs and reduced time to listing compared to the senior markets.

In particular, the vast majority of cannabis stock listings in North America occurred on the CSE, with cannabis companies being critical to the CBOEC as well. Perhaps the most important factor in the CSE's rapid ascendancy in the cannabis space was its pragmatic approach to the inconvenient underlying fact that many of the cannabis-related issuers with assets in the U.S. were operating on a business model that was technically illegal at the federal level there (Kellogg 2022).[16] Since the TSX and TSXV continued to struggle during this period with approving listings for businesses that were federally illegal in their home jurisdictions, the major cannabis players around the world flocked to the CSE throughout 2018 and the first three quarters of 2019, initially listing on the CSE and remaining there as their market capitalizations swelled, completing a string of financings of a size and frequency that were previously unknown in any industry on the junior capital markets in Canada (Robertson 2022).[17] Although the TSX and the TSXV ultimately began to compete for blockchain/currency listings once the securities regulators had more clearly defined the legal foundations and regulatory oversight mechanisms, the CSE remains the most significant cannabis market in North America.

As a final thought on the competition between the TSXV and CSE for new operating company listings, why has the CSE been successful in gaining market share outside of cannabis? Industry participants largely point to reduced listing and maintenance costs, along with the speed of transaction approval. Certainly, the CSE has done what it can to reduce the costs and time of accessing the junior public markets in Canada. However, only a portion of the impediments and financial costs associated with going/being public in Canada are imposed by the listing stock exchange. Much of the securities regulation requirements and resulting costs in the Canadian market are imposed in regulations established by the 13 provincial and territorial securities regulators. While the CSE has expedited the going-public process and lowered barriers to securing a stock exchange listing by eliminating mandatory sponsorship requirements, the CSE does not have the jurisdiction to address the continuous disclosure and other ongoing compliance elements that create most of the compliance challenges and financial costs for junior public companies in Canada. As such, the CSE eliminates one level of substantive review in the sponsorship process and reduces listing fees, but CSE-listed companies operate under the same set of securities compliance rules as the companies listed on the TSXV. Any further reductions in listing/maintenance costs and compliance complexity sufficient to induce new junior listing activity must come from the provincial securities regulators.

2. Nature of Operating Companies in the Canadian Junior Public Markets

Having previously stated that Canadian public markets generally (but not universally) serve companies operating at an earlier stage of development than would ordinarily go public in other countries, what does the universe of Canadian junior public companies look like? Can we identify the characteristics of a typical junior public operating company? The data show that there is significant variation between companies operating at the upper and lower ends of the Canadian junior markets, but generalizations can certainly be made. Also, although there is a degree of commonality between the operating companies listed on the three junior Canadian stock exchanges, there are key areas of distinction between the three exchanges as well.

Figures 2 and 3 disclose the breakdown of current TSXV operating company listings according to both total listings and market capitalization.

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16 In this instance, "technically illegal" means illegal from a U.S. federal law perspective, but not regularly enforced by U.S. federal authorities. For traditional stock exchanges, the lack of a federal U.S. enforcement mandate was not sufficient to replace actual legality at the core of a listed company's business operations.

17 A few of the largest cannabis issuers restructured their operations such that U.S. assets and legal exposure were sufficiently ring-fenced in segregated legal vehicles, thereby enabling them to list on the TSX and access the larger institutional shareholders that do not trade in the junior markets. Yet, the majority of public cannabis players have continued to list on the CSE.

Figure 2. TSXV Industry Composition by Number of Listings (as at May 31, 2024)[18]

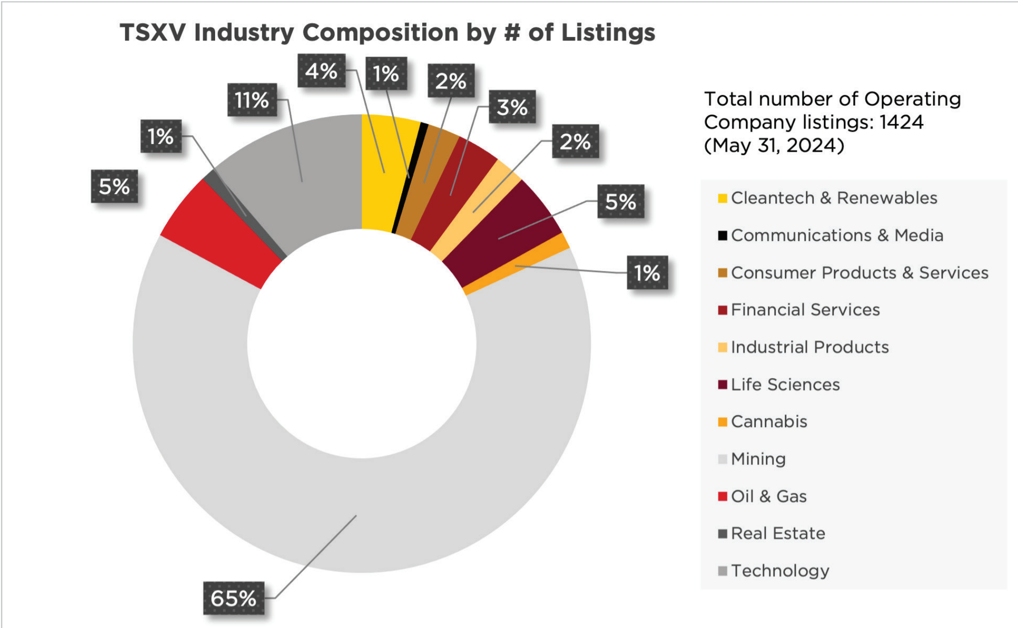
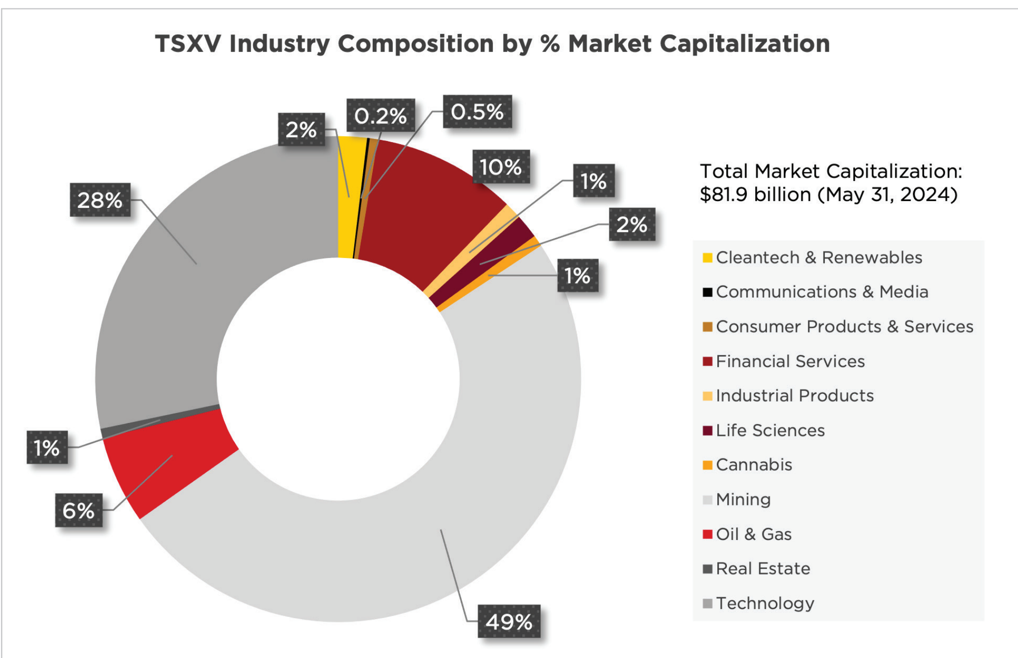


Figure 3. TSXV Industry Composition by Market Capitalization (as at May 31, 2024)



From Figure 2 and Figure 3, we see that the TSXV clearly remains dominated by mineral exploration issuers, who comprise 65 per cent of the total listings and 49 per cent of the total market capitalization. This is unsurprising given the prominent historical role of mineral exploration in the Canadian junior public market, along with the fact that most junior mineral exploration companies have a limited number of financing opportunities outside the public markets.

18 Data obtained from TMX Market Intelligence monthly listed company reports.

Noteworthy from these figures is the more modest contribution of oil and gas companies to the TSXV. Oil and gas companies have undoubtedly faced significant headwinds in the public markets over the past few years, with special interest groups repeatedly using shareholder protection mechanisms afforded by the public markets to oppose new exploration. In the public markets, this has forced Canadian oil and gas promoters to access new sources of financing in the private markets. Moreover, recent advances in technology that have materially increased the predictability of oil and gas exploration have reduced the risk profile of the classic oil and gas exploration cycle, thereby making private institutional capital more willing to invest in such exploration than in earlier eras. We will return to the reduced role of oil and gas issuers on the TSXV later in this paper when we evaluate changes in the TSXV's composition over the past 15 years.

A couple of additional observations are merited on the TSXV issuer composition. First, it is clear that the TSXV has limited exposure to the cannabis market, which accounts for just one per cent of operating companies on the TSXV by both number of listings and by market capitalization. How much of a differentiator this is for the TSXV will become apparent when we turn to analysis of the CSE and the CBOEC.

Second, it appears that the technology sector of the TSXV is disproportionately large in terms of market capitalization compared to number of listings. While true, this fact is directly attributable to the presence of two very large software companies that have chosen to list on the TSXV rather than on the TSX, Lumine Group Inc. and Topicus.com. Both of these companies, the two largest listings on the TSXV by market capitalization, are recent spin-offs of the same TSX-listed parent company, Constellation Software Inc. Constellation is infamous in the Canadian public markets for never having raised money as a public company and operating with as little public stock promotion as is possible.[19] Only Constellation's senior insiders fully understand the rationale for listing the spin-offs on the TSXV rather than the TSX, although it is clear that the reduced continuous disclosure requirements for venture issuers under applicable securities rules is a piece of the Constellation decision. If one removes those two technology outliers, the remaining technology issuers on the TSXV would represent only 5.6 per cent of the TSXV market capitalization, significantly less than the 11 per cent technology group representation by number of listings.

Turning now to the CSE, Figures 4 and 5 disclose the breakdown of current CSE operating company listings according to both total listings and market capitalization.

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[19] Constellation went public on the TSX in 1995 without raising any money for the company, solely for the purpose of providing liquidity for early-stage institutional investors who possessed contractual registration rights. Since that time, Constellation has grown by orders of magnitude by both organic growth and acquisition, with acquisitions financed internally off its balance sheet.

Figure 4. CSE Industry Composition by Number of Listings (as at June 26, 2024)

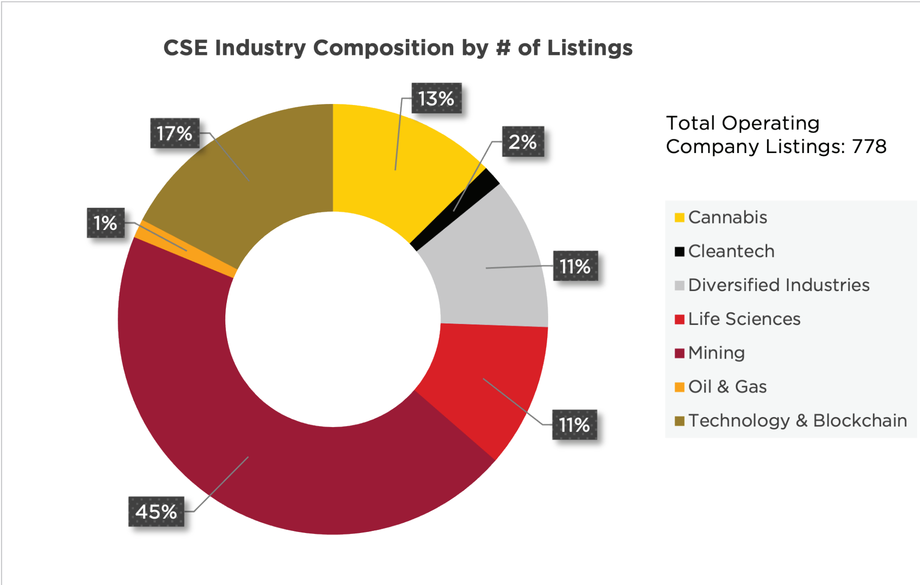


Figure 5. CSE Industry Composition by Market Capitalization (as at June 26, 2024)

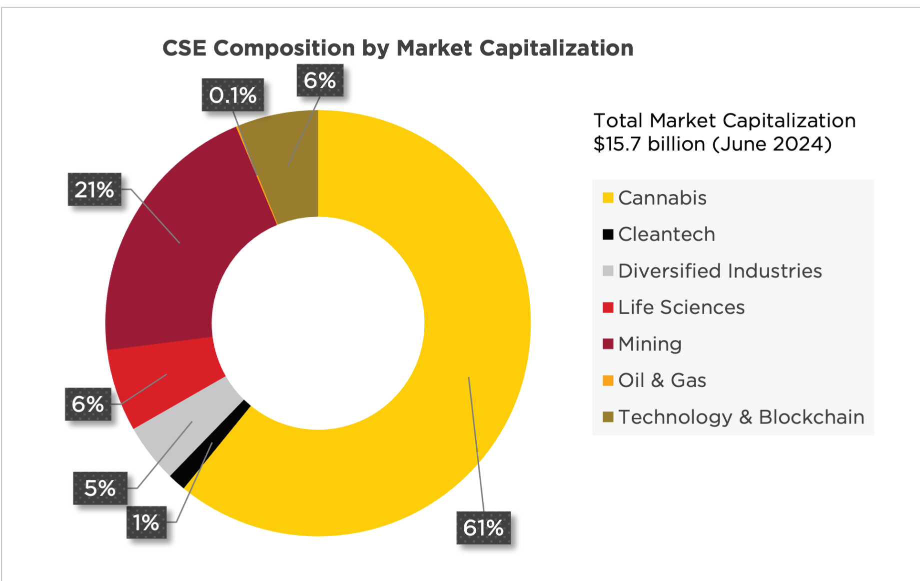


Figure 4 demonstrates the dominant position of mineral exploration companies in terms of total number of CSE listings. However, the headline observation from Figure 5 is inescapable: From a market capitalization basis, the CSE remains an exchange completely dominated by cannabis stocks.[20] Significant fortunes have been made and lost on the CSE during the cannabis boom and bust. We will return to this particular issue later in this paper while analyzing comparative investor returns on the junior exchanges.

[20] The CSE groups cannabis stocks in with biotech and health stocks under the life sciences category in its disclosures. It is only when the cannabis stocks are backed out of the life sciences group that the degree of CSE concentration in cannabis stocks becomes fully apparent.

One more inescapable observation regarding the CSE from these figures is the almost complete absence of oil and gas issuers, comprising only one per cent of total issuers and 0.1 per cent of total CSE market capitalization. Clearly, few oil and gas promoters have been willing to consider the CSE as a financing alternative, choosing to keep the limited junior market oil and gas activity that is occurring on the TSXV.

Turning now to the CBOEC listings, we observe in Figures 6 and 7 below that the composition of the exchange is similar to the CSE in terms of its market value concentration in cannabis-linked issuers. However, the CBOEC has a much lower concentration of mineral exploration issuers than either the CSE or the TSXV. Rather than a reliance on mineral exploration, the CBOEC has a greater representation of renewable energy/carbon sequestration/carbon credits trading companies, along with a more significant contribution from cryptocurrency and blockchain stocks.

Figure 6. CBOEC Industry Composition by Number of Listings (as at June 26, 2024)

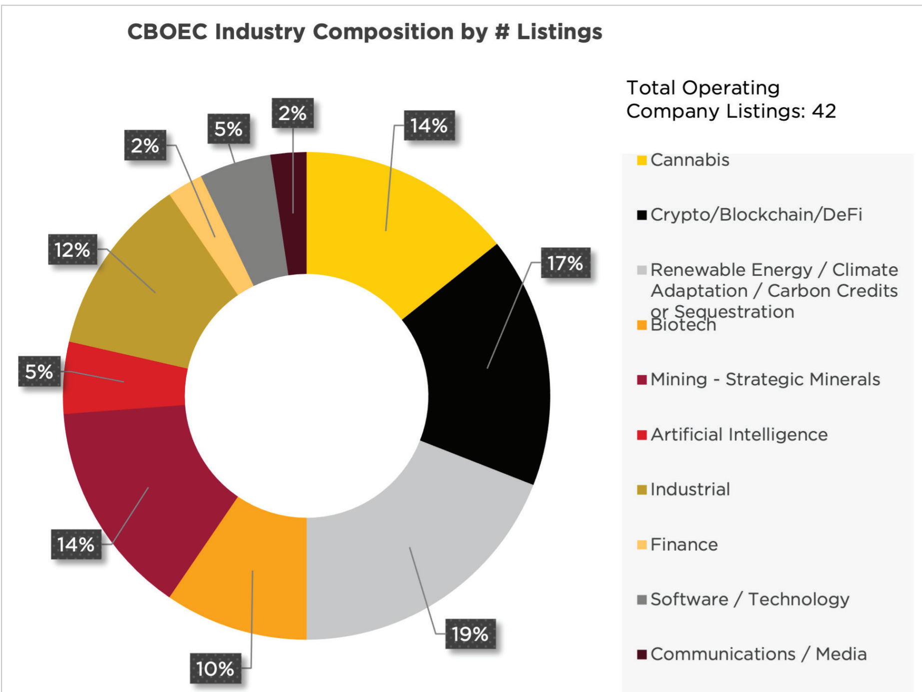
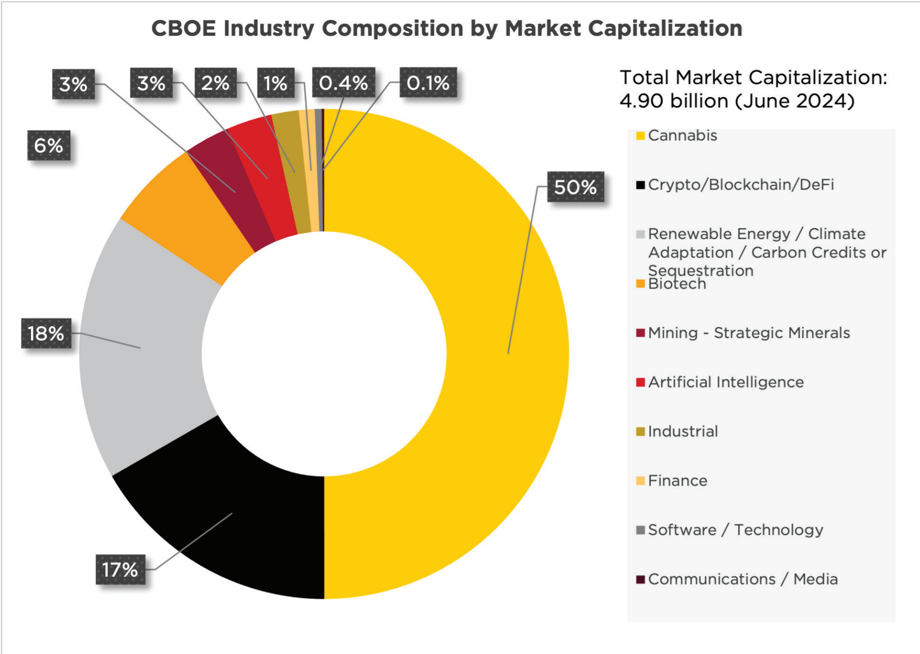


Figure 7. CBOEC Industry Composition by Market Capitalization (as at June 26, 2024)



Moving on now to analysis of market capitalization, Table 2 provides a summary of the bands market capitalization among the three junior market issuers.

Table 2. Market Capitalization Analysis on the TSXV, CSE and CBOE

Market Capitalization Range	# of TSXV-Listed Operating Companies as at May 31, 2024	% TSXV Listings	# of CSE-Listed Operating Companies as at June 26, 2024	% CSE Listings	# of CBOEC-Listed Operating Companies as at June 26, 2024	% CBOEC Listings
Less than $2 million	231	16.2%	279	36.1%	1	2.4%
Between $2 million and $5 million	271	19.0%	184	23.8%	5	11.9%
Between $5 million and $10 million	219	15.4%	127	16.4%	8	19.0%
Between $10 million and $25 million	291	20.4%	108	13.9%	7	16.7%
Between $25 million and $50 million	181	12.7%	40	5.2%	6	14.3%
Between $50 million and $100 million	113	7.9%	19	2.5%	5	11.9%
Between $100 million and $250 million	77	5.4%	9	1.2%	5	11.9%
Between $250 million and $500 million	25	1.8%	4	0.5%	3	7.1%
Between $500 million and $1 billion	9	0.6%	1	0.1%	1	2.4%
Above $1 billion	7	0.5%	2	0.3%	1	2.4%
Total	**1,424**	**100.0%**	**773**	**100.0%**	**42**	**100.0%**

It is clear from Table 2 that the CBOEC does indeed have a higher percentage of larger operating companies listed than the TSXV or the CSE. Although we have discussed why it is not yet appropriately considered to be a senior exchange, it is worth noting that the CBOEC has moved up-market materially in the past year. In May 2023, the CBOEC only had a single issuer with a market capitalization above $250 million, whereas it now has five issuers above that size. It will be interesting to see whether the CBOEC can continue this momentum and become a serious challenger to the TSX in the senior market listed operating company space.

Another illuminating statistic highlighting the difference between the three junior exchanges is the fact that more than 60 per cent of the CSE operating company issuers have a market capitalization below $2 million, whereas only 16 per cent of TSXV-listed companies and two per cent of the CBOEC-listed companies (i.e., a single issuer) are below this threshold[21]. At this microscopic size, the issuers are likely to be effective market orphans without any stock liquidity and at risk for price manipulation with small-volume trades. This statistic also underlines the double-edged sword of the CSE's more flexible listing practices and the elimination of the sponsorship requirement.

V. TOP 25 OPERATING COMPANIES COMPARISON

What are the characteristics of a typical operating company on each of the TSXV, the CSE and the CBOEC, and how do they differ from each other? It is difficult to define "typical" in a universe of companies that range from market capitalizations below $1 million to companies with market capitalizations in the multibillions. However, looking in more detail at the characteristics of the top 25 operating companies listed on each of the three exchanges is illuminating in distilling the overall flavour of the individual markets. Appendices A, B and C contain tables describing the key characteristics of the top 25 listings on each exchange. In addition to the information contained in the appendices, the revenue and operating profit were derived for each issuer from source documents filed by the issuers and accessed through SEDAR+.

Starting with the TSXV, we have already outlined the unusual circumstances leading to the presence of the two largest TSXV listings by market capitalization, Lumine Group Inc. and Topicus.com Inc. Both highly profitable, these two companies would be welcomed on any stock exchange in the world but have chosen to list on the TSXV for their own reasons. The third-largest listing, Partners Value Investments LP, is also materially profitable with a large investment base and could easily list on senior stock exchanges, but also chooses to remain on the TSXV. The phenomenon of a few large companies choosing to remain listed on the TSXV long after they are capable of graduation to senior stock exchanges goes back to the start of the TSXV. Famously, Alberta-based Shaw Communications kept a series of securities listed on the TSXV for decades until its 2023 merger with Rogers Inc. In each of these instances, senior management and/or controlling shareholders perceived a strategic reason to remain listed on the TSXV compared to the TSX. However, these mega-listings remain outliers for the TSXV, and it's not expected that there will be a rush of additional companies to down-list from the TSX to the TSXV. Although there are certainly some cost and time savings in continuous compliance as a venture issuer under applicable securities rules, those savings are not so substantial as to offset the lower levels of institutional buying and analyst coverage on the junior exchanges that normally impact trading multiples.

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[21] In fairness to the CSE, it must be noted that the TSXV has the NEX board available as a repository for its shell companies, whereas NEX does not. NEX currently has more than 180 listings, the majority of which are shells that are former TSXV-listed companies. If the NEX companies were included in the analysis, the difference in the listings below $2 million in market capitalization between the TSXV and the CSE would be reduced, but the CSE would still have a materially higher percentage of listings than the TSXV in this category.

A summary of observations from the top 25 TSXV operating listings by market capitalization follows:

- Twenty of the top 25 companies are resource-based issuers, three of the top 25 are technology companies and two of the top 25 are financial services companies;
- Sixteen of the top 25 companies are mineral exploration companies and four issuers in the top 25 are oil and gas companies;
- The majority of the TSXV mineral exploration companies (12 of 16) are pre-revenue development-stage companies and one mineral exploration company is a non-operating royalty investment company;
- Three out of four oil and gas companies are in production, but only one is currently profitable;
- Only five of the top 25 TSXV-listed operating companies were profitable in their last completed financial year; and
- The top five TSXV listings account for 37.1 per cent of the total TSXV market capitalization and the top 25 TSXV listings account for 52.7 per cent of the total TSXV market capitalization.

Turning to the CSE, the most obvious takeaway is the heavy concentration of cannabis stocks in the CSE's top 25 listings, along with the extremely poor financial results generated by those cannabis issuers. A summary of observations from the top 25 CSE operating listings by market capitalization follows:

- Eight of the top 10 and 12 of the top 25 CSE-listed issuers are involved in the cannabis market in some capacity;
- The cannabis-focused issuers on the CSE generate a significant amount of revenue (averaging more than $480 million per issuer), but only one (Green Thumb Industries Inc.) is currently profitable;
- The average operating loss among the dozen CSE-listed cannabis issuers in the top 25 listings as of the last completed financial year exceeded $114 million;
- Only four of the top 25 CSE-listed issuers are mineral exploration companies. One of the four top 25 CSE mineral exploration companies is in production, but none are profitable;
- Only one of the top 25 CSE-listed operating companies was profitable in its last completed financial year; and
- The top five CSE listings account for 53.7 per cent of the total CSE market capitalization and the top 25 CSE listings account for 71.8 per cent of the total CSE market capitalization.

Of these statistics, the most surprising to anyone not familiar with the junior markets mineral exploration is the lack of mineral exploration companies on the CSE in the top 25 issuers by market capitalization. Clearly, while the CSE has a huge roster of mineral exploration companies, they are predominantly early-stage and small. However, this observation is not unique to the CSE or the current market. Canadian junior mineral exploration companies have historically been in the prospecting and early-stage project development business. Once they have established their project's commercial viability, the junior public companies generally either sell to larger mining companies or else graduate to the senior Canadian equity markets to source the capital required to construct a mine.

Finally, looking at the top 25 of the CBOEC, the following observations can be made:

- Five of the top 25 CBOEC-listed issuers are involved in the cannabis market in some capacity;
- The cannabis-focused issuers on the CBOEC also generate a significant amount of revenue (averaging over $214 million), but none were profitable in their last completed financial year;
- The average operating loss by the CBOEC-listed cannabis issuers was $53 million;
- Only four of the top 25 CBOEC-listed issuers are mineral exploration companies and one of the four top 25 CBOEC mineral exploration companies is in production, but none are profitable;
- Only one of the top 25 CBOEC-listed operating companies was profitable in its last completed financial year (SolarBank Corporation); and
- The top five CBOEC listings account for 70.4 per cent of the total CBOEC market capitalization.

Combining these observations from the three appendices, we can distill some key themes that describe the top issuers across the Canadian junior public markets. First, profitability is rare among the top junior issuers. The typical Canadian cannabis-linked public company generates significant revenue yet continues to lose large amounts on operations each year. Across the three junior exchanges, only seven of the 75 top issuers (i.e., 9.3 per cent) are currently profitable. This reality requires these companies to continue to access the public markets for equity financing to fund operations and survive, making them vulnerable to serious dilution or bankruptcy during challenging fundraising environments.

Second, each of the Canadian junior exchanges is top-heavy, with a small number of listings accounting for a majority of the market capitalization. This concentration makes the total return of the junior exchanges susceptible to both significant upwards and downwards swings. This is not a new development on the Canadian junior exchanges but does lead to the potential for skewed analysis depending on the particular points in time chosen for comparative analysis. As such, it's important to look at trendlines over a longer period of time and not draw too many generalizations from the positive or negative impacts of one or two large junior issuers.

Third, more than half of all junior public company listings across the three exchanges are mineral exploration company listings, but the vast majority of these listings are development-stage issuers without any revenue. This mineral exploration concentration leaves the junior markets particularly vulnerable to a possible downturn in global mineral prices.

Fourth, oil and gas barely rates a mention at this time in the top-listed stocks on the junior exchanges. Only four of the 75 top listings across the three exchanges are oil and gas issuers. This is unfortunate for investors, since the historical oil and gas record on the Canadian junior markets evidenced a significantly greater success rate than mineral exploration stocks. The best junior oil and gas plays are now largely financed in the private markets through institutional investors and high-net worth individuals. In fact, there is a perception in the market that the few oil and gas deals still coming to the public markets are those that could not secure private financing due to geopolitical risk or some other complicating factor.

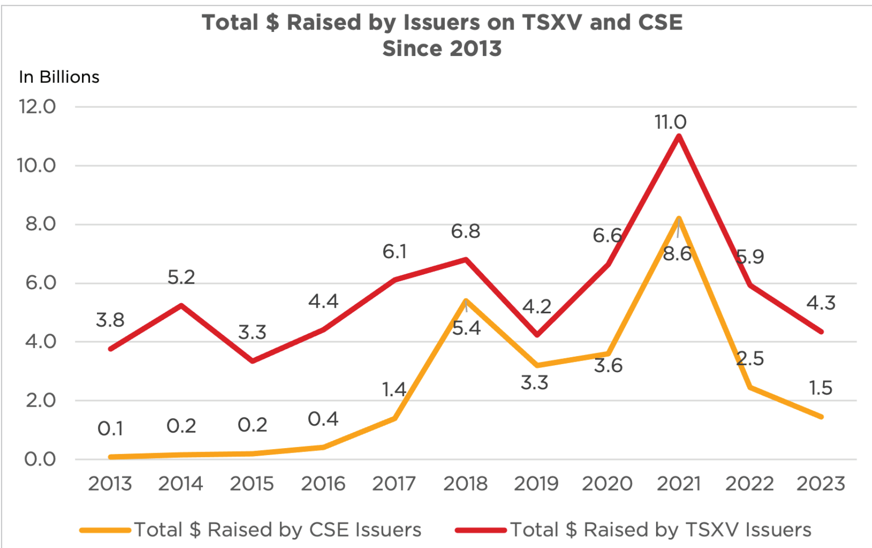
Finally, if one reviews the disclosure documents of the 75 issuers in Appendices A, B and C, the common theme is that these businesses are almost universally striving to be the "next big thing." The junior public markets issuers are focused almost exclusively on hitting home runs for investors, not delivering singles and doubles. High-risk, high-return initiatives have always played a big role in the Canadian junior markets, but using the Canadian junior capital markets as a means to finance growth and consolidation of profitable businesses has effectively disappeared.

Profitable companies looking for financing now almost universally access the private markets. This is not necessarily a new phenomenon, but it is an unfortunate outcome for Canadian middle-class investors who do not have broad access to the private capital markets. As a result, the Canadian junior markets now resemble lottery markets with maximum risk for investors.

VI. FUNDRAISING ON THE CANADIAN JUNIOR MARKETS

The primary purpose of the junior markets is to raise capital for their issuers. We have seen in the previous section how critical the ability to continue to fundraise is for most Canadian junior public companies because of their overall lack of profitability. How well have the Canadian junior markets been faring in executing the prime fundraising directive? The CBOEC does not regularly disclose fundraising data, but we can compare the fundraising by issuers listed on the TSXV and the CSE since 2013.

Figure 8. Listing Issuer Fundraising, TSXV vs. CSE[22]

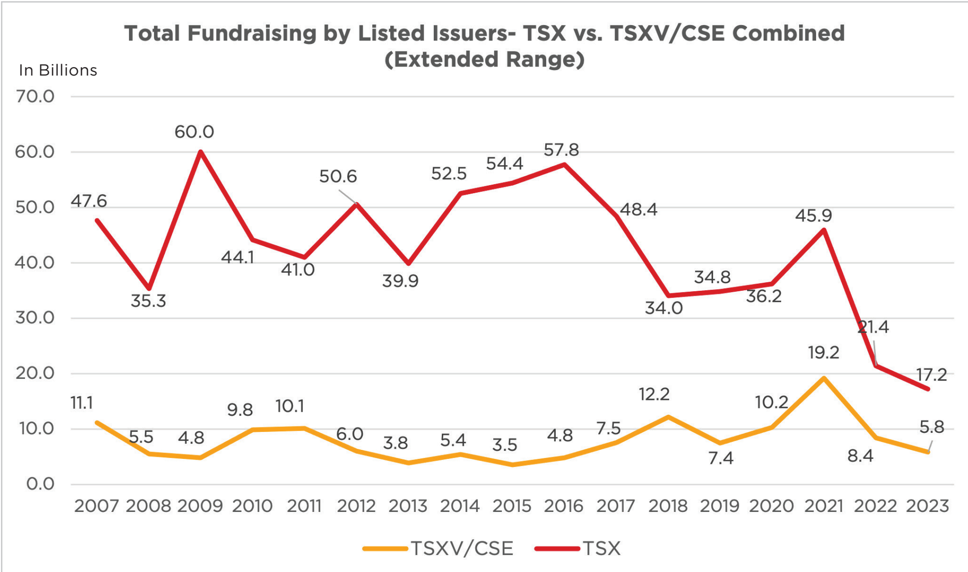


From Figure 8 we see that the CSE was relatively inconsequential in terms of total dollars raised for issuers up until 2017. In the cannabis boom of 2018–2019, the CSE became a significant player competing with, although never exceeding, the TSXV each year. Between 2018 and 2021, the CSE raised between 55 per cent and 80 per cent of the amount raised on the TSXV each year. That proportion dropped in 2022, and again in 2023, with the CSE suffering bigger drops than the TSXV in the recent down-market for junior market fundraising. However, even in the sharp downturn in 2023, total dollars raised on the two markets exceeded the total fundraising in junior markets for any year between 2013 and 2016. The junior market fundraising for junior issuers in the technology boom of 2021 was clearly exceptional by comparative standards.

How has the fundraising in the junior Canadian markets compared to the senior markets? Figure 9 shows that the combined fundraising on the TSXV and CSE has contributed a higher percentage of the overall capital markets fundraising in Canada since 2018 than in the preceding years.

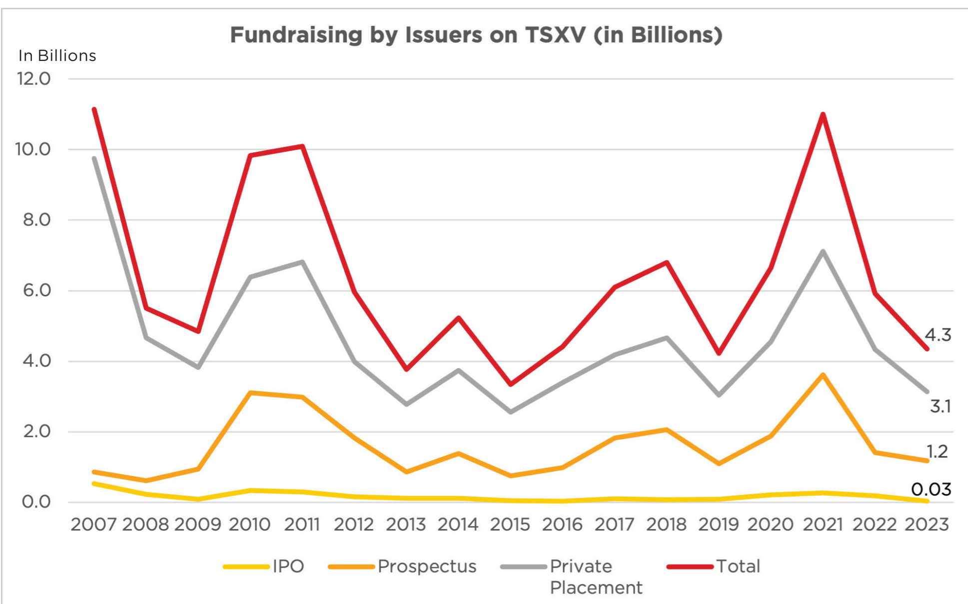
22 The source of the data for the TSXV in this figure is the monthly MIG reports as at December 31 of each year from 2007 to 2023 published by TMX Market Intelligence Group. The financing data for the CSE are the market summary bulletins published by the CSE. The CSE only began disclosing its total financing numbers in its bulletins in 2013.

Figure 9. Combined TSXV/CSE Fundraising vs. TSX[23]



How does the breakdown of fundraising by source on TSXV compare to the TSX?

Figure 10. Total Fundraising by Listed Issuers on TSXV by Component[24]



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23 The source of the data for the TSX and TSXV in this figure are the monthly MIG reports as of December 31 of each year from 2007 to 2023 published by TMX Market Intelligence Group. The financing data for the CSE are derived from the market summary bulletins published by the CSE. The CSE did not provide total financing data in its monthly bulletins until 2013. However, CSE issuers raised only $78 million in 2013, which was a new high on the CSE at that point, so any contribution by CSE issuers to combined fundraising prior to 2013 would be relatively insignificant.

24 Note that “prospectus financings” includes the proceeds of CPC IPOs. The IPO category includes only operating companies completing an IPO on the TSXV.

From Figure 10, we clearly observe the core difference between the junior market TSXV and its counterpart senior market exchange, the TSX. On the TSX, prospectus financings of existing listed issuers dominate the fundraising landscape, representing 71.1 per cent of total financings in 2023. On the TSXV, in comparison, prospectus financings of existing listed issuers represented only 23.8 per cent of total financings in the same period. Instead, private placements dominate on the TSXV, comprising 72.1 per cent of total financing proceeds in 2023.

Why the fundamental difference between the TSXV and the TSX in fundraising? Cost and timing. Prospectuses are expensive to complete and only make financial sense in larger transactions. With respect to timing, expedited filing and review processes are available only for senior issuers that file annual information forms with regulators, a prospectus-level disclosure document. One of the principal cost-saving benefits for TSXV companies in terms of ongoing compliance is the lack of a requirement to file an annual information form as a venture issuer. This prevents access to the expedited forms of prospectus for most junior public companies. Moreover, the cost of a prospectus only makes it practical for an issuer if you are selling to a large group of investors, and this requires a broker-dealer's participation in the financing. Particularly with the atrophying of the junior market dealer ecosystem, most junior public companies simply do not have access to a broker-led widely distributed financing that would justify filing a prospectus.

Table 3 provides detail on fundraising type by CSE-listed issuers.

Table 3. Total Fundraising by Listed Issuers on CSE by Component[25]

CSE Fundraising (In Billions)	2017	2018	2019	2020	2021	2022	2023
IPO[26]	0.01	0.21	0.11	0.04	0.17	0.03	0.02
Equity Financing (Flow-through)	0.99	1.78	1.05	1.69	4.71	0.88	0.67
Equity Financing (Non-flow-through)	0.01	0.01	0.03	0.06	0.09	0.1	0.21
Private Placement- RTO[27]	0.1	2.77	0.36	0.19	0.34	0.01	0.01
Convertible Debt Financing	0.14	0.31	0.78	0.18	0.52	0.22	0.15
Debt Financing	0.12	0.27	0.88	1.39	2.68	1.21	0.33
Debt Settlement	0.03	0.04	0.06	0.1	0.08	0.04	0.05
Total	**1.39**	**5.38**	**3.27**	**3.64**	**8.6**	**2.49**	**1.45**

The CSE does not break down the equity fundraising percentages between private placement and prospectus financings. Therefore, we cannot make any direct observations on how the percentage of private placements on the CSE compares to the TSX or TSXV. However, these CSE data do demonstrate that the flow-through financing mechanism continues to represent a significant percentage of the mining development financing market in Canada, notwithstanding the evidence that the tax incentives associated with the flow-through structure do not generally equate to long-term positive investment performance (Jog 2016). The CSE data also demonstrate the importance of debt securities raised in the cannabis industry.

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25 The data in this table were provided directly by the CSE.
26 Includes non-offering financing.
27 Includes second close of IPO by New Lea Ventures Inc. in 2020; Ascent Wellness Holdings, Inc. in 2021; NovaNet Lease RETI in 2022; Mayo Lake Minerals Inc. in 2022; and Glenstar Ventures Inc. in 2024.

V. GEOGRAPHIC MIX OF JUNIOR OPERATING COMPANIES

Another topic to consider in our analysis of the status and trajectory of the Canadian junior capital markets is the geographic composition of the listed companies. On this topic, we must look at the data on an exchange-by-exchange basis as the CSE head office data are unavailable.

Table 4 shows the head office locations of all TSXV-listed issuers at May 31, 2024.

Table 4. Geographic Distribution of TSX-Listed Operating Companies at May 31, 2024

	TSXV-2024			
	# Listings	%	Market Cap Millions $	%
International				
Africa	2	0.14%	1,500.8	1.83%
Australia/NZ	13	0.91%	359.8	0.44%
Latin America	14	0.98%	3,716.6	4.53%
China	2	0.14%	16.9	0.02%
Southeast Asia	5	0.35%	23.4	0.03%
Europe/U.K.	18	1.26%	10,307.6	12.57%
U.S.	74	5.20%	3,747.5	4.57%
Israel	8	0.56%	79.5	0.10%
Total International	**136**	**9.55%**	**19,752.2**	**24.09%**
Canada				
AB	121	8.50%	5,439.9	6.64%
BC	745	52.32%	27,549.7	33.60%
SK	11	0.77%	292.0	0.36%
MB	6	0.42%	59.4	0.07%
ON	301	21.14%	24,561.4	29.96%
QC	82	5.76%	3,692.3	4.50%
NB	2	0.14%	5.7	0.01%
NS	16	1.12%	305.1	0.37%
NFLD/LAB	4	0.28%	324.8	0.40%
Total Domestic	**1,288**	**90.45%**	**62,230.3**	**75.91%**

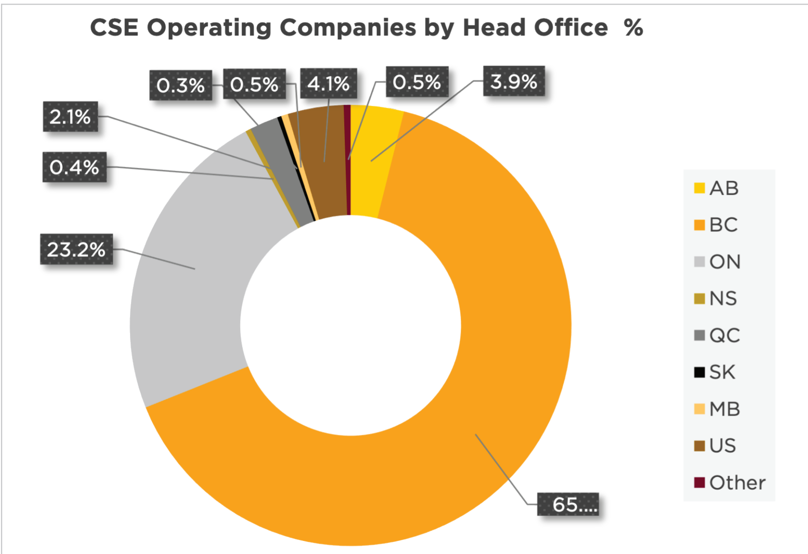
Table 4 clearly articulates the provincial dominance of B.C. and Ontario on the TSXV. Anyone with familiarity in Canadian capital markets would anticipate Ontario's significant role. Ontario is by far the largest economy and the financing centre of Canada. However, the paramountcy of B.C.-listed issuers on the TSXV may be surprising, because B.C. is a distant fourth to Alberta and Quebec in terms of the market capitalization of head offices of public companies listed on the TSX. Clearly, the outsized role of mineral exploration companies is significant in the geographic distribution, but a more detailed analysis of non-mineral exploration issuers continues to evidence a disproportionate number of B.C.-based head offices on the TSXV, particularly in the technology space.

It is uncertain why B.C. continues to incubate a disproportionate share of knowledge-based companies, particularly compared to Alberta, and this is certainly a topic that is worthy of further research and analysis to better understand the overall nature of our junior markets.

One explanation put forward by industry observers is that B.C.-based investors are more comfortable with all-or-nothing junior markets issuers from their long experience in the mineral exploration space, thereby being willing to accept the high-risk nature of knowledge-based investments. In comparison, the junior oil and gas issuers traditionally financed in Alberta at least usually had some degree of producing assets to provide a baseline of revenue that provided a lower risk profile than junior mineral exploration.

Figure 11 provides a comparison of all CSE-listed companies by head office location.

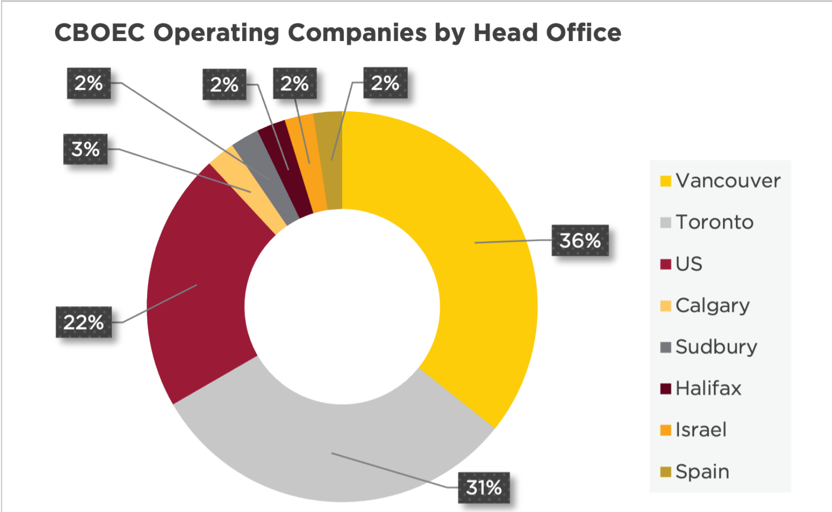
Figure 11. CSE Issuers by Head Office Location (at June 26, 2024)



The obvious conclusion to be drawn from Figure 11 is that the CSE has become a 21st century version of the Vancouver Stock Exchange, effectively dominated by B.C. issuers with a lesser degree of participation from Ontario issuers. At two per cent and four per cent, respectively, Alberta and Quebec are under-represented on the CSE to an even greater extent than on the TSXV. However, one must consider when looking at these data that a large number of CSE issuers are cannabis companies focused on the American market that have a representative head office in Vancouver for jurisdictional purposes. As such, the degree of economic activity directed in B.C. is overstated in Figure 11 and the participation of American businesses is understated.

Turning to the CBOEC, we observe that B.C. and Ontario issuers once again dominate the exchange.

Figure 12. CBOEC Operating Companies by Head Office (June 26, 2024)



Once again, Alberta issuers play a nominal role on the CBOEC. Quebec issuers, along with the rest of the country, are absent.

Combining the data from each of the three junior exchanges, it is incontrovertible that the Canadian junior public markets have effectively become the purview of companies based in Toronto and Vancouver. Issuers from Alberta and Quebec are becoming ever rarer, and the combined influence of the rest of the Canadian provinces is inconsequential. This concentration of listings in the two centres inevitably has impacted the ability of independent investment banks servicing the junior markets to operate in the rest of Canada. The roster of independent investment banks in key historical junior capital markets centres such as Calgary has atrophied significantly.

VIII. INVESTMENT RETURNS ON THE CANADIAN JUNIOR CAPITAL MARKETS

As a final element in our analysis of junior markets' status and trajectory, how have investors in the Canadian junior markets fared with respect to economic returns? The best metric to answer this question is with reference to the S&P TSXV Composite Index (TSXV Index) and the CSE Composite Index (CSE Index). The CBOEC does not publish any index or other tracking mechanism on its listed operating companies and also has a very short history with operating company listings, so will not be considered in this element of the analysis on investment returns. The TSXV Index is comprised of 135 issuers weighted to approximate the overall industry weighting of the TSXV. The CSE Index represents a larger percentage of total listings, comprising 310 operating companies.

Both the TSXV Index and the CSE Index have certainly evidenced a significant degree of volatility over the past years, so the cumulative return numbers to date vary significantly depending on what specific point one uses to start the measurement. Total returns can be easily manipulated by choosing different start dates for the analysis. To use an objective start date not favouring any exchange, the financial performance calculations here have all been done with an origination date of January 31, 2015, which is when the new index (the CSE Index) was formally launched.

Figure 13 directly compares the CSE Index and the TSXV Index since the date of launch of the CSE Index.

Figure 13. Performance of CSE Composite Index vs. TSXV Composite Index[28]

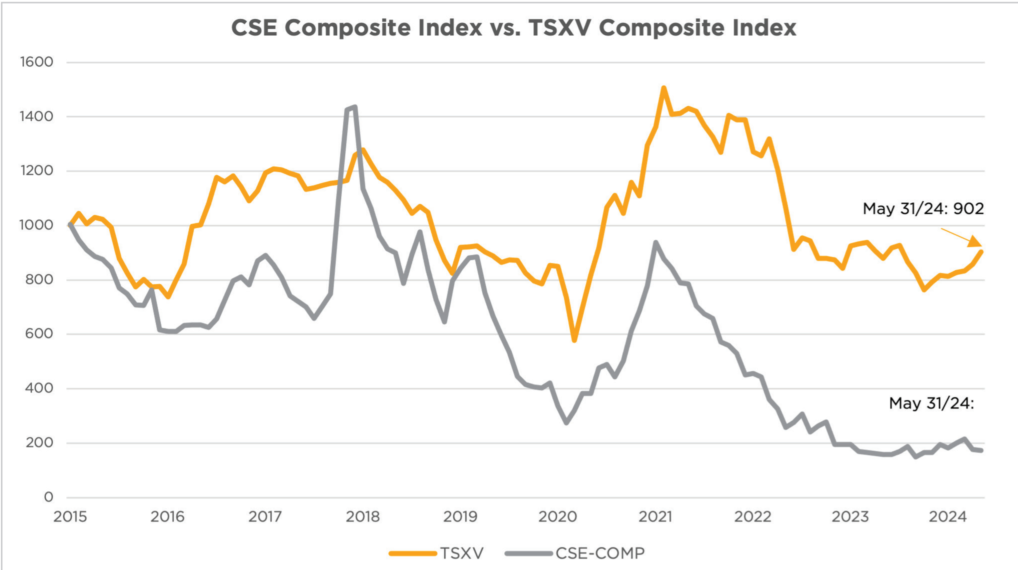


Figure 13 shows that the two junior exchanges have roughly tracked similar overall economic cycles in the past decade, with the obvious exception of the frothy bubble of the CSE Index in the cannabis boom in 2017–2018. The indexes on both exchanges also more than doubled during the post-COVID-19 technology bubble, peaking in 2021 before seeing significant retrenchment in the second half of 2022. However, the single inescapable observation from these data is the massive decline in the overall value of the CSE Index in the past three years. which has left the CSE Composite Index standing with a cumulative loss of 82.7 per cent since its inception in 2015. As a measure of economic return for a broad-based index with more than 300 constituent companies, that level of decline creates indigestion for investors and regulators. Although the TSXV Composite Index is down 9.8 per cent over the same interval, there is no denying that there is a massive difference between the TSXV and CSE cumulative financial returns since 2015.

The CSE's defenders will no doubt point out that the CSE Composite Index's financial returns have been hit by the depression in the cannabis markets generally. While true, that defence fails to recognize that the CSE Composite Index total return originates in 2015 before the cannabis stocks were listed. Thus, the -82.7 per cent return number operates from a baseline that excludes the impact of cannabis at the start. Those supporters of the CSE who celebrated it as the best-performing stock exchange in North America in 2017 now must brave the ignominy of it being the worst-performing exchange in the developed Western world during the past three years.

Why has the CSE Index performed so much worse than the TSXV Index over the same interval? Certainly, the TSXV will point to the additional requirements of broker sponsorship and tighter listing requirements as providing an additional layer of protection for retail investors. The CSE's more flexible and streamlined listing policies and reduced listing fees may be a double-edged sword that are less successful in filtering out bad deals from the system. Numerically, the

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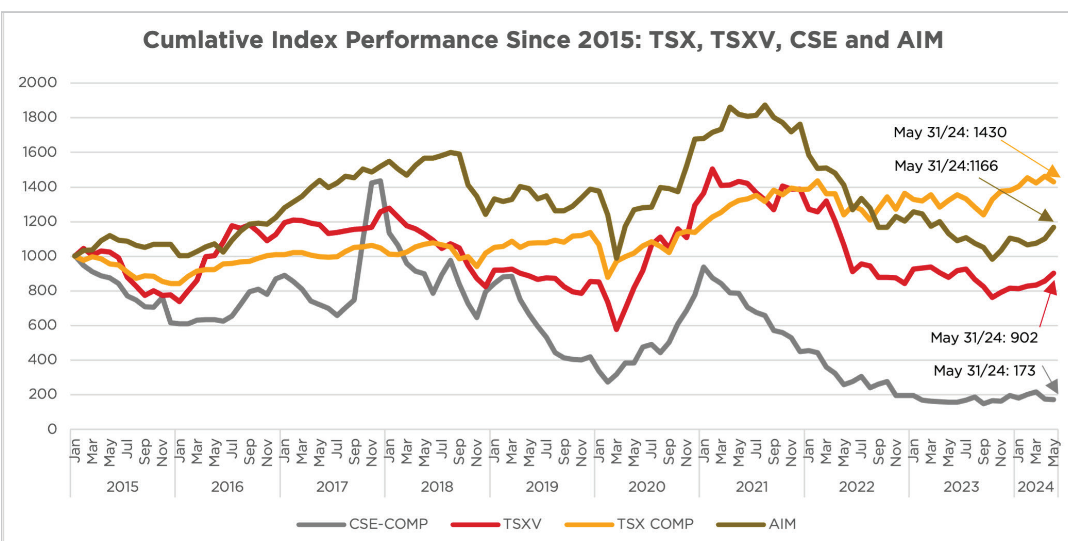
28 The CSE Composite Index originated at 1,000 on January 31, 2015. For the purposes of direct performance comparison, the author has reset the TSXV Composite Index to 1,000 as of January 31, 2015. All source data obtained from CSE and TMX websites.

performance of the cannabis sector certainly explains much, but not all, of the negative return story. No definitive answers are accessible, but certainly junior markets observers each have their own opinions as to the root causes of the troubling financial returns generated by CSE-listed operating companies.

The performance of the CSE Index leads to the question of whether it is at risk of being properly labelled as a “lemons market.” A lemons market is one in which the information asymmetry between buyers and sellers of securities leads to market failure, driving buyers out of the market. Due to space constraints, the answer to that question must be left for another day, and the continued relevance of the CSE in the total financing dollars raised certainly demonstrates that investors have not yet abandoned the market. However, the degree of the negative returns on the CSE over an extended period, combined with the nature of the CSE market bubbles over the past decade, certainly highlight the higher risk nature of the CSE’s cannabis and mining exploration focus. The Canadian junior markets as a whole have evolved into lottery markets in which investors are seeking investments with the potential to generate windfall returns to offset the expectation that a majority of the issuers will ultimately fail.

How have the CSE and TSXV performed compared to junior markets exchanges in other countries? That is a difficult question to answer, because there are a limited number of comparable exchanges to the Canadian junior markets. One would expect that Australia would have equity markets that are comparable to the Canadian junior markets, and that is true to a degree. Australia has two recognized stock exchanges, the Australian Stock Exchange and the National Stock Exchange of Australia. However, the Australian Stock Exchange Index reflects both senior market and junior market elements combined into a single exchange and the National Stock Exchange of Australia does not publish any index data. So, there is no obvious comparator index from Australia available that is appropriate for the Canadian junior markets. Perhaps the best comparator for the CSE and TSXV remains the AIM sub-market of the London Stock Exchange. AIM often operates as a direct competitor for the Canadian stock exchanges in the junior markets, in particular in the mineral exploration space. Figure 14 compares the CSE Index and the TSXV Index to the performance of both the AIM All-Share FTSE Index and the senior TSX Composite Index. The initial reference date remains the origination date of the CSE Index on January 31, 2015.

Figure 14. Junior Index Performance With TSX Since 2015



From this figure, we observe that the AIM market in London has delivered better financial returns than either the TSXV or the CSE. We also see that the AIM All-Share FTSE Index and the TSXV Composite Index track each other quite closely in terms of the timing of upturns and downturns over the past 10 years, demonstrating that the TSXV's overall financial performance is likely more linked to international macroeconomic factors, such as commodity prices, than it is to purely domestic Canadian factors. AIM-listed issuers have generated an overall positive return of 16.6 per cent over the decade, compared to the 9.8-per-cent loss of the TSXV Index and an 82.7-per-cent loss of the CSE Index in the same interval.

IX. ADDITIONAL SPOTLIGHT ON THE TSXV'S UNIQUE FEATURES, HISTORY AND EVOLUTION

To its credit, the TMX Market Intelligence Group publishes a number of datasets each month containing detailed listings information on the TSXV that are available to the public. Archived versions of the listings spreadsheets are available going back to the beginning of 2008. From these sources, a variety of derivative datasets can be generated that provide a more detailed view of the evolution of the TSXV since 2008. Comparable datasets cannot be created for the CSE and CBOEC, which do not track or publish the same depth of archived data. Up to this point, the data presented in this paper have focused on the current state of the combined Canadian junior public markets, with the limited historical data for the CSE and CBOEC listings presented being generated from intermittent press releases. As a final element in this junior market analysis, we now turn to consideration of specific TSXV historical data that track the evolution of the junior markets over the past 16-plus years. As the TSXV still represents 81.6 per cent of the total junior public market capitalization in Canada, these additional TSXV-specific data provide important context, even where no analogue for the CSE or CBOEC has data available.

1. Blind Capital Pools in the Canadian Junior Capital Markets as Sources of New Operating Company Listings

To properly understand the fundamental nature of the Canadian junior public markets, one must be aware of one critical and unique element of the TSXV. All three exchanges offer the traditional IPO route to market, as well as the opportunity to pursue a reverse takeover (RTO) of existing issuers that have largely failed in their previous business operations but retain a corporate shell and a roster of public shareholders sufficient to meet minimum listing requirements. Only the TSXV, however, offers the capital pool company (CPC) program. The critical role that the CPC program plays in generating new listings on the TSXV is unique among international junior markets.

The CPC program has a long history in Canada, being a descendant of the renowned junior capital pool program originating on the Alberta Stock Exchange in 1986 and the Vancouver capital pool program, which originated on the Vancouver Stock Exchange in 1997.[29] A CPC is a public blind capital pool that is created for the specific purpose of acquiring an operating company through an RTO (designated as a "qualifying transaction"), as a result of which an operating public company is created. Retail investors in a CPC IPO invest without assurance as to what the ultimate target business will be, relying on the reputation and experience of the founding board

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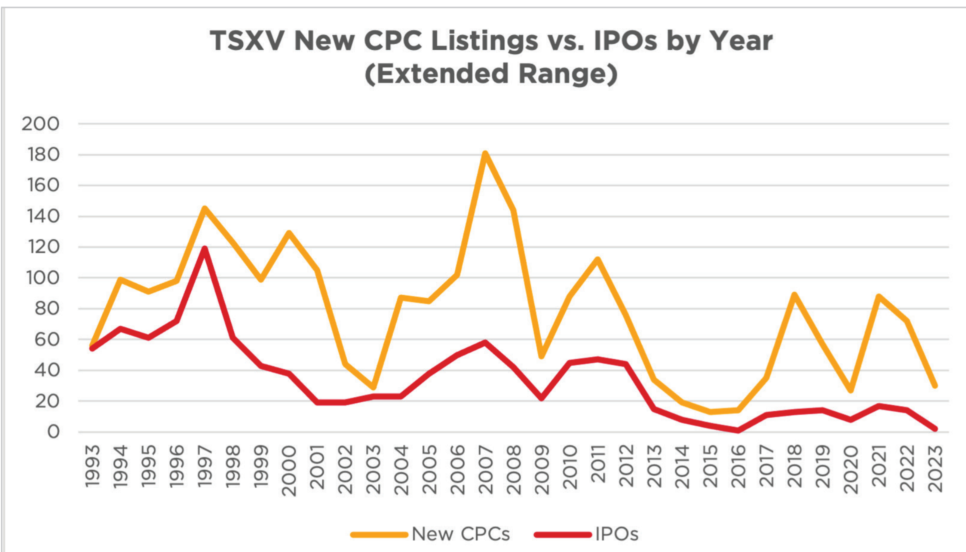
[29] Although the junior capital pool (JCP) program on the Alberta Stock Exchange had a much longer and more illustrious history than the Vancouver capital pool (VCP) program on the Vancouver Stock Exchange, the CPC program more closely follows the model of the VCP than the JCP. The main distinction between the two programs is that the VCPs were required to be true blind pools, whereas the JCPs were primarily approved with recognized "back pocket" transactions in place where the nature of the qualifying transaction was known before the JCP IPO.

of directors. In fact, definitive post-IPO acquisitions are not allowed, which preserves the “blind” element of the pool. The main difference between a traditional public market RTO and a CPC RTO is that the CPC entity does not have the lengthy operating history or accompanying contingent liabilities associated with a failed business, which create inevitable legal risk in a traditional RTO. Also, a CPC does not have to turn over an entire disgruntled retail shareholder base after the original business failure, which in RTOs often serves as a drag on pricing in the markets.

The CPC program has been highly popular in Canada and has served as one of the most important sources of new operating company listings on the TSXV since its inception. To date, more than 2,700 CPCs have been listed over the history of the program on the TSXV.[30] Former CPCs have raised tens of billions of dollars in capital through follow-on private placements and prospectus offerings. In fact, 76 companies currently listed on the senior market TSX, including 13 companies included in the TSX Composite Index, started their existence as CPCs on the TSXV. Of the TSXV’s 1,424 currently listed operating companies, 482 were originally listed as CPCs.[31] Figure 15 shows that CPCs have reliably been the largest source of new listings on the TSXV (and the precursor exchanges) going back to the early 1990s. In fact, if you start counting at the time that the TSXV was acquired by the TSX Group Inc. in 2001, new listings from CPCs outnumber new listings from IPOs by 1,580 to 537.

Figure 15. TSXV New CPCs and IPOs by Year (30-Year Period from 1993 to 2003)[32]



As at the most recently available date (May 31, 2024), only six CPC IPOs had been completed year-to-date. If this trend holds for the remainder of the year, the TSXV is unfortunately on track for the lowest ever CPC output in the three decades for which data are available.

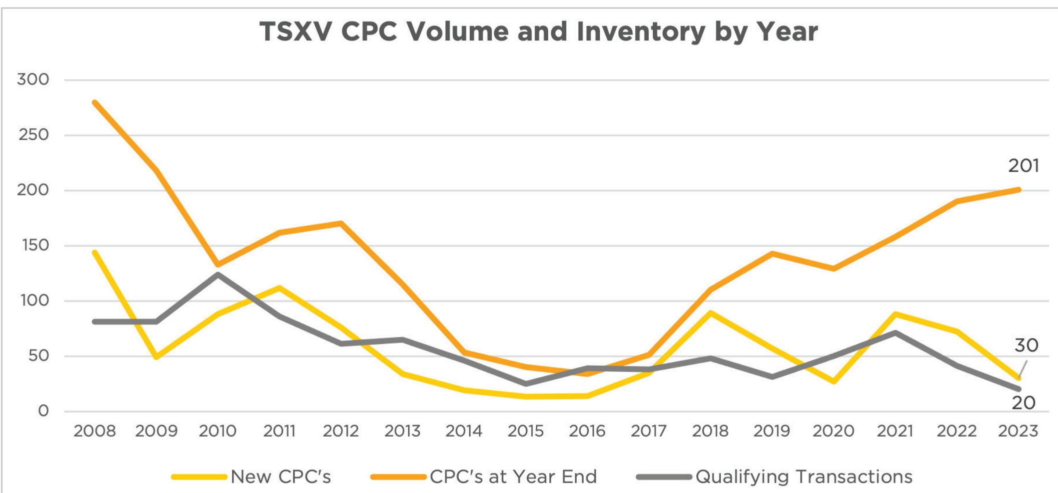
The original model of the precursor JCP and VCP programs on the Alberta Stock Exchange and Vancouver Stock Exchange was to create a public shell with a minimum amount of capital, with the capital resources being sufficient only to pay the listings costs until the qualifying transaction was complete, as well as pay limited deal-sourcing and due-diligence costs to complete the qualifying transaction. In fact, the original JCP model allowed for maximum IPO proceeds of $300,000 in

30 CPC historical data provided by TMX Market Intelligence.
31 Data generated from Listed Company Summary to May 31, 2024, published by TMX Market Intelligence.
32 Between 1993 and 1999, the statistics reference listings on the precursor Alberta Stock Exchange, and for 2000–2001, the CDNX Exchange, prior to its acquisition by the TSX Group Inc.

addition to $100,000 in promoter investment. It was assumed that the JCP company would complete a private placement or prospectus financing contemporaneous with the qualifying transaction to provide the necessary working capital to execute the post-qualifying transaction business plan. This original model has been gradually modified over time, with CPCs now being allowed to raise up to $11 million in total proceeds through the IPO and promoter investment. CPCs may now be expected to have some level of working capital available to execute a qualifying transaction and will supplement their available cash with additional financings as needed.

For the purpose of our analysis, CPCs that have not yet completed their qualifying transaction are excluded from the definition of operating companies throughout this paper. They are simply shells until they complete their qualifying transaction. However, a backlog of CPCs waiting to complete their qualifying transactions indicates that the number of operating companies on the TSXV is likely to rise soon. Even though a CPC is not yet an operating company, any analysis of the trajectory and status of operating companies in the Canadian junior public markets needs to be cognizant of the critical role that CPCs play in the generation of operating public companies.

Figure 16. TSXV Capital Pool Company Annual New Transaction Volume and Year-End Inventory[33]



In Figure 16, we observe a strong correlation between the number of CPCs completed during a calendar year and the inventory of CPCs on the TSXV at the same year-end up until 2021, which is expected. Also, since CPCs have two years to complete a qualifying transaction, one would expect to see a correlation between new CPC listings and qualifying transaction volume, but with qualifying transactions lagging new CPC listings by one to two years. That anticipated correlation is generally observable in the chart. However, what is particularly concerning in Figure 16 is the divergence between annual CPC volume and year-end CPC inventory in 2022 and 2023, which results from the historically low qualifying transactions in 2023 (20 transactions). The anticipated uptick in qualifying transaction volume in 2023 simply did not occur.

From these statistics, we can infer that a number of existing TSXV-listed CPCs are approaching the two-year qualifying transaction deadline and struggling to either find appropriate companies to acquire or to complete the financings necessary to close acquisitions. The inventory of TSXV CPCs

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33 The data in this figure have been generated from monthly listing data published by TMX Market Intelligence. Note that the opening volume of CPC inventory in this chart at 2008 is a direct result of historically high CPC IPOs in both 2007 and 2008 (see Figure 15).

has declined slightly from 201 at December 31, 2023 to 196 at May 31, 2024. Eleven qualifying transactions have been completed year-to-date up to May 31, 2024, running at a marginally higher rate than in 2023. However, the current rate of the qualifying transactions is far below the rate necessary to absorb the inventory of CPCs on a timely basis and suggests that a number of these CPCs may be orphans. Until recently, the rules of the TSXV automatically moved CPCs down to the NEX board if they failed to complete their transactions within two years. Recent amendments have eliminated the automatic downgrading. Still, the remaining high CPC volume, coupled with low qualifying transaction volume, is another cause for junior capital markets concern.

The CSE and CBOEC do not have a direct equivalent of the CPC program that is targeted for the junior markets. As mentioned above, the CBOEC has become a significant player in the SPAC program in Canada. The CSE has also amended its policies to allow for the listing of SPACs, although no new SPACs have yet originally listed on the CSE. The SPAC program, which has been imported from the U.S., is similar to the CPC program in many respects. However, the SPAC model pre-funds the capital pool vehicle with sufficient funds to both complete a qualifying acquisition and to potentially operate a qualifying acquisition. The SPAC program requires a minimum of $30 million in IPO proceeds and typically completes transactions with $300 million or more raised in the blind pool IPO. SPACs are, therefore, more appropriately considered as a senior capital markets vehicle. Although a dozen SPACs were completed on the CBOEC over slightly more than three years, no new SPAC IPOs have been closed on the CBOEC since May 2021. Moreover, no new SPACs are anticipated in the near future, and thus SPACs can be disregarded as a likely source of new operating company listings on the Canadian junior public markets.

3. Evolution of Operating Companies on the TSXV

We previously looked at the current geographic composition of the TSXV, but to track the evolution of the TSXV over time we can now look to the geographic composition of the TSXV at the earliest date the detailed information is available (i.e., 2008) in Table 5.

Table 5. Geographic Composition of TSXV December 31, 2008

	TSXV-2008			
	# Listings	%	Market Cap (Millions)	%
International				
Africa	1	0.05%	73.8	0.44%
Australia/NZ	4	0.20%	36.3	0.22%
Latin America	1	0.05%	6.2	0.04%
China	26	1.32%	359.7	2.15%
Southeast Asia	0	0.00%	0.0	0.00%
Caribbean	4	0.20%	3.3	0.02%
Europe/U.K.	8	0.41%	31.7	0.19%
U.S.	58	2.94%	639.4	3.82%
Israel	0	0.00%	0.0	0.00%
Total	**102**	**5.17%**	**1,150.3**	**6.87%**
Canada				
AB	350	17.75%	3,621.5	21.64%
BC	921	46.70%	7,568.2	45.22%
SK	15	0.76%	181.0	1.08%
MB	14	0.71%	327.4	1.96%
ON	366	18.56%	2,374.6	14.19%
QC	175	8.87%	1,260.7	7.53%
NB	4	0.20%	123.7	0.74%
NS	17	0.86%	92.2	0.55%
NFLD/LAB	8	0.41%	35.5	0.21%
Total	**1,870**	**94.83%**	**15,584.9**	**93.13%**

Comparing the 2008-era data in Table 5 to the current data in Table 4, we see clear evidence of the decline of Alberta's and Quebec's influence in the junior public capital markets over a relatively short interval. Manitoba has also declined significantly, although it was not as large a player as the other two.

We also observe that international listings have grown on the TSXV over the interval, both in terms of number of listings and market capitalization percentage, while total domestic listings have declined. Nearly a quarter of the TSXV market capitalization now comes from international issuers, with the largest gains coming from issuers in Europe and Latin America. While issuers from most international regions have increased, listings from China have notably collapsed on the TSXV. It is uncertain whether this particular event is caused by the challenges that Chinese companies faced with Canadian regulators or the increasing opportunities for Chinese companies on domestic or regional Asian stock exchanges.

4. Financial Performance of the TSXV (longer view)

Earlier, we looked at the financial performance of the TSXV Index as compared to the CSE Index since its creation in 2015. However, the TSXV has a significantly longer history than the CSE, and it is useful to look at the financial performance of TSXV-listed issuers over a longer interval. Starting with the inception of the TSXV Index in late 2001, Figure 17 tracks the TSXV Index over more than two decades.

Figure 17. TSX Venture S&P Composite Index Performance Since Inception in December 2001[34]

In Figure 17, we observe a few additional key points not apparent in the shorter term analysis undertaken earlier. First, the TSXV Index had a golden age running from its inception in 2001 up to the onset of the global financial crisis in 2008. While the senior markets bounced back quickly from that crisis to reach new all-time highs, the TSXV Index never regained the lofty heights of the pre-crisis era. Next, the TSXV Index reached a second zenith in 2012, which also represents the peak of operating company listings, and then began a four-year retrenchment up until 2016. Since 2016, the TSXV Index has moved up and down within a more limited range, but even at the peak of the 2021 technology boom, the TSXV never came close to retaining the heights of the earlier golden eras.

When you compare the TSXV Composite Index to the TSX Composite Index, you observe that the cumulative return on the TSXV was significantly higher than the TSX from the inception of the TSXV up until 2012. Since 2012, though, the TSXV Composite Index has consistently under-performed the senior market.

5. Tracking Operating Company Listings on the TSXV

We previously looked at the headline of total operating companies listed on the TSXV over time in the broader discussion on the junior markets, but it is again helpful to consider the component elements in more detail. Table 6 tracks a variety of elements of the operating company calculation since 2008.

[34] Data in Figure 17 generated from the *Globe and Mail*, Market Data Indices

Table 6. TSXV Listing Analysis 2008–2023[35]

Year	Total Operating Companies	Annual TSX Graduations	Annual Op Co Change	Total TSXV New Listings	IPOs[36]	New CPCs	QTs[37]	TSX Comedowns[39]	Other[39]
2008	1,972	43	+35	321	42	144	81	n/a	n/a
2009	1,953	20	-19	201	22	49	81	n/a	n/a
2010	2,015	40	+62	320	45	88	124	n/a	n/a
2011	2,080	45	+65	334	47	112	86	9	80
2012	2,079	23	-1	236	44	76	61	10	45
2013	2,014	17	-65	155	15	34	65	11	30
2014	1,904	22	-110	120	8	19	46	19	28
2015	1,738	9	-166	86	4	13	25	14	30
2016	1,607	16	-131	101	1	14	39	13	34
2017	1,592	16	-17	141	11	35	38	8	49
2018	1,585	7	-7	206	13	89	48	3	53
2019	1,516	19	-69	136	14	57	31	2	32
2020	1,510	19	-6	126	8	27	50	2	39
2021	1,532	35	22	236	17	88	71	3	57
2022	1,512	15	-20	161	14	72	41	0	34
2023	1,459	12	-53	86	2	30	20	2	32
2024[38]	1,424	5	-35	36	2	6	12	3	13

A headline observation from this dataset is that the average number of new operating listings per year on the TSXV has dropped over the past 10 years to a new lower plateau, stabilizing at a significantly reduced level than we witnessed in the preceding five years (2008–2013). Average operating company new listings on the TSXV (calculated as total new listings minus new CPC listings each year) declined from an average of 189 annually in the five-year period between 2008 and 2012 to an average of 109 annually in the 10-year period between 2013 and 2022, a decline of 42 per cent. It is obvious that this new plateau in TSXV operating company new listings is insufficient to maintain the current level of total operating companies on the TSXV, and that normal-course attrition at the levels observed over the past decade is such that the total operating company listings on the TSXV will continue to decline at a significant rate unless something fundamental changes in the Canadian capital markets ecosystem.

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35 The information in this table was developed by the author directly from the annual TMX New Listing and annual TSXV Listed Companies data, which were provided by TMX Market Intelligence for each year from 2008 to 2022. The TMX New Listing data changed in format over the years and do not provide the necessary granularity between 2008 and 2010 to calculate the specific number of IPOs, TSX comedowns and other listings, but the source data provide sufficient information from which the number of new CPCs and qualifying transactions completed during those years could be calculated. IPO data from 2008 to 2010 are extracted from Pandes and Robinson (2013).

36 "Other" includes substitutional changes on corporate reorganization, changes of business and graduations from NEX board. Statistics not available from the source data for the year designated N/A.

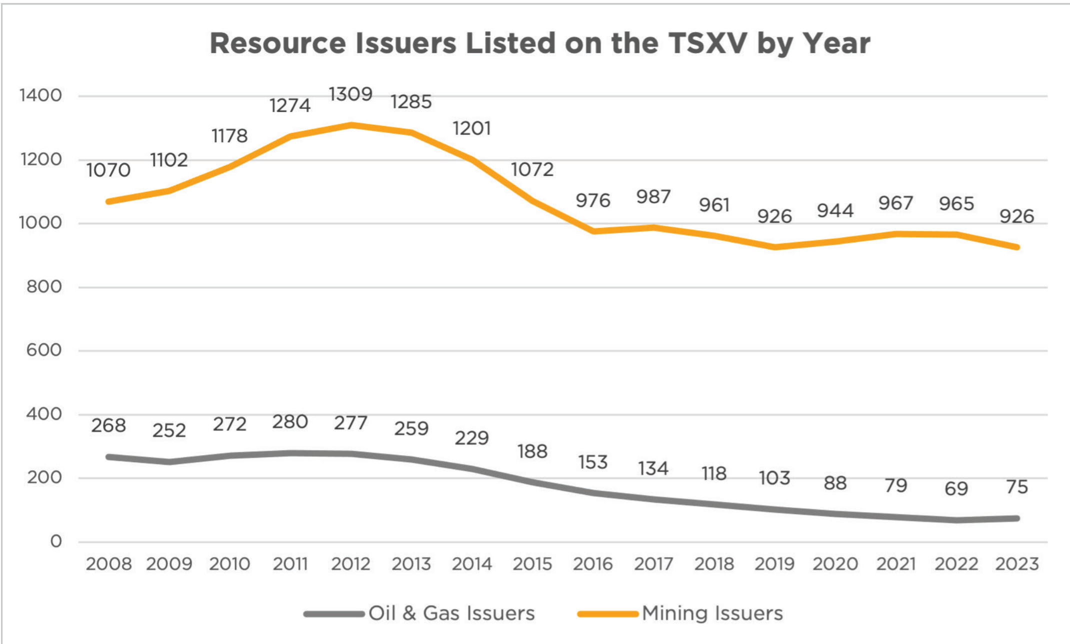
37 Includes qualifying transactions that are completed for TSXV companies as well as for companies that have been moved down to NEX for failing to complete their qualifying transaction within the 24-month requirement, but are relisted on the TSXV upon completion of the qualifying transaction. In 2020, the TSXV updated its CPC rules so that CPCs were no longer automatically moved to NEX for failure to complete their qualifying transaction within the 24-month window.

38 To May 31, 2024, the most recent date for which TSXV listing numbers have been published at the date of writing.

6. Decline in Oil and Gas Listings

Having previously mentioned the surprisingly limited role that oil and gas companies currently play on the TSXV, capital markets veterans recognize that this reality is a relatively recent phenomenon. Even going back to 2008, we see that the current number of oil and gas issuers on the TSX has dropped to 28 per cent of the number of oil and gas listings in 2008.

Figure 18. Resource Issuers on the TSXV 2008–2022



One concerning element of the oil and gas decline on the TSXV from an economic perspective is the fact that oil and gas commodity prices finally recovered during the early COVID-19 era in the summer of 2020, and have remained at relatively strong levels over the past three years. However, the strong commodity prices have not led to any new oil and gas listings on the TSXV. This is perhaps the longest period without significant oil and gas new listings on the Canadian junior markets since oil became critical to Alberta's economy back in the 1950s.

The decline of oil and gas listings in both the junior and senior capital markets in Canada cannot simply be explained by the long down-cycle in commodity prices between 2014 and 2020, or else we would be seeing signs of significant new capital markets activity in this space over the past three years. Something more fundamental has changed the dynamics of the relationship between the oil and gas industry and the capital markets in Canada, and the most obvious explanation is the major shift in public investor sentiment in the past decade against oil and gas, based on environmental principles. Numerous institutional investors have adopted decarbonization mandates in their portfolios and environmental groups have increasingly demonstrated a willingness to attack publicly listed oil and gas companies using a number of shareholder activist measures available only in the public markets.

Another explanation for the massive decline in junior oil and gas in the public markets is the significant increase in costs for starting up a new oil and gas issuer. Oil companies are now increasingly responsible for end-of-life reclamation costs and carbon tax, and have been impacted by changes in flow-through share issuance that were previously the lifeblood of junior oil and gas issuers. Starting a new oil and gas issuer is now so expensive, estimated at more than $100 million, that it is outside the traditional reach of the retail junior public markets in Canada (Hislop 2016).

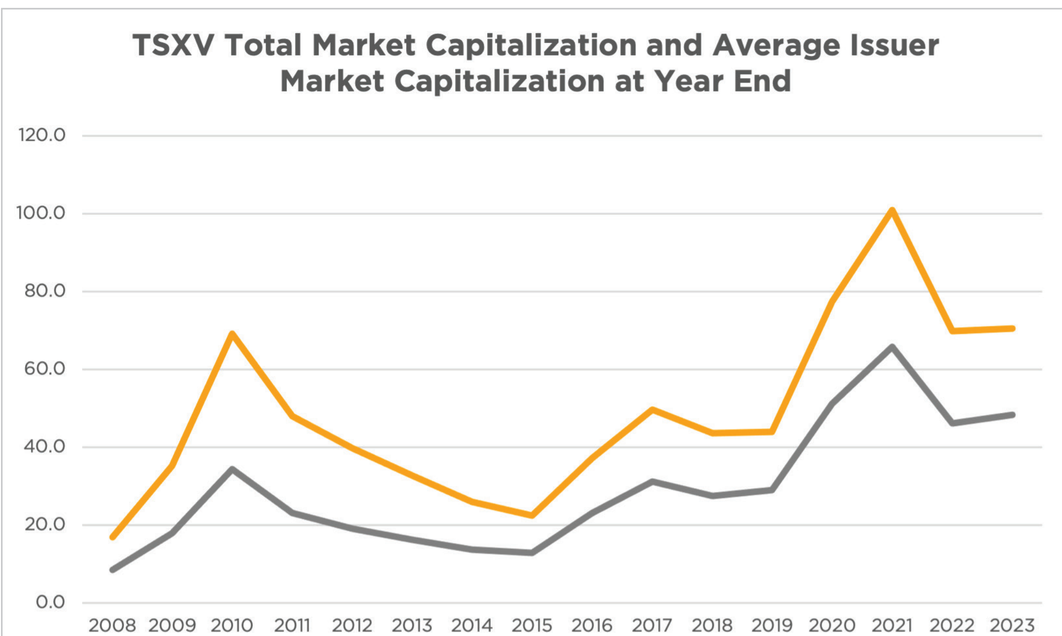
The third explanation is that technology improvements have de-risked the exploration of oil and gas to the extent that private institutional financing sources are now more willing to fund even the exploration side of oil and gas development.

Will oil and gas ever regain any new listing momentum in the public markets in Canada at either the junior or senior levels? Based on the current market trajectory, one is hard-pressed to believe that the pre-conditions are favourable for such a recovery. Certainly, there would have to be a fundamental shift in the perception of media, institutional investors and environmental activists towards the oil and gas industry overall to create the foundations for any type of significant new listing impetus in this space.

7. Total and Average Market Capitalization

Figure 19 and Table 7 chart the total and average market capitalization of operating listed companies over the past 15 years.

Figure 19. TSXV Total Operating Company Market Capitalization at Year-End[39]



[39] Compiled from monthly TSXV listing data published by TMX Market Intelligence Group.

Table 7 shows the change in composition of operating companies listed on the TSXV by market capitalization.

Table 7. Comparison of TSXV-Listed Operating Companies by Market Capitalization 2008 and 2023[40]

Market Capitalization Range	# of TSXV-Listed Operating Companies as at December 31, 2008	% Listings	# of TSXV-Listed Operating Companies as at May 31, 2024	% Listings
Less than $2 million	885	44.9%	231	16.2%
Between $2 million and $5 million	455	23.1%	271	19.0%
Between $5 million and $10 million	296	15.0%	219	15.4%
Between $10 million and $25 million	202	10.2%	291	20.4%
Between $25 million and $50 million	75	3.8%	181	12.7%
Between $50 million and $100 million	42	2.1%	113	7.9%
Between $100 million and $250 million	14	0.7%	77	5.4%
Between $250 million and $500 million	2	0.1%	25	1.8%
Between $500 million and $1 billion	1	0.1%	9	0.6%
Above $1 billion	0	0.0%	7	0.5%
Total	**1,972**	**100.0%**	**1,424**	**100.0%**

From Table 7, we clearly see nano-capitalization stocks being squeezed out on the TSXV over the past 15 years.[41] In that interval, the number of nano-cap stocks has dropped by 37.6 per cent. Given the increasing compliance costs associated with being a public company, this outcome is unsurprising. Also, it is clear from the CSE listing roster that many of the nano-cap stocks that would have previously listed on the TSXV have now migrated to the CSE due to the reduced costs of securing and maintaining a listing.

X. CONCLUSION

This paper has provided an overview of the current status and trajectory of the Canadian junior capital markets, along with additional detail illuminating the evolution of the TSXV operating companies over the past 15 years. The purpose of this paper is to provide a broader factual context to underpin upcoming discussions by capital markets regulators, government policy-makers, academics and business leaders as to what policy innovations and interventions are necessary and wise to stimulate Canadian public capital markets. Particularly during this historical downturn in the Canadian IPO market, the junior public markets serve as the lifeblood of the senior public markets. If the Canadian junior public markets are not generating a sufficient volume of successful graduates to the senior markets to offset the systemic attrition of operating companies, it is inevitable that the senior capital markets will continue to atrophy at an alarming rate.

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[40] The information in this table was developed by the author directly from the annual TSXV listed companies data provided by TMX Market Intelligence Group.

[41] Applying the widely used American classification, nano-capitalization stocks are defined as those companies with a market capitalization below $50 million.

The data gathered and presented in this paper, compiled from a wide variety of sources, paint a picture of Canadian junior capital markets that have been surprisingly robust in terms of new operating company listing generation, having maintained a relatively stable level of operating companies over the past 15 years while the senior markets have contracted by more than 40 per cent. What many observers perceived as a contraction in junior markets listings is more accurately characterized as a redistribution among the three junior exchanges, occurring as a result of the re-emergence of competition in the junior markets after the consolidation in the TSXV at the start of the millennium. In particular, the CSE has become a major alternative for operating company listings in the Canadian junior company market. Prospective participants in the junior public markets now have different options competing for their listings.

Yet, the last year has witnessed a decline in the total number of junior public companies listed in Canada after several years of annual gains. The critical question is whether this decline is the beginning of a period of systemic decline, or simply a short-term aberration due to current market conditions. Given that this decline in junior operating company listings has occurred during a period of historically high commodity prices, the current downturn in operating company listings is particularly concerning. The trajectory of junior operating company listings in Canada bears close watching over the next few years.

The wounds of the largest bubble of the past decade — the cannabis market — remain clearly evident on two of the three junior exchanges, the CSE and the CBOEC. Most of these companies continue to bleed cash with significant losses from core operations, so it appears inevitable that further consolidation and dilution are on the horizon for junior market investors in the cannabis space. For better or worse, many observers will continue to view the CSE and CBOEC as cannabis-first exchanges for the foreseeable future. However, if the U.S. loosens the regulation of cannabis, these two exchanges are also better positioned to reap the rewards than any other domestic or international exchanges.

Among the most notable of the observations in this paper is that the Canadian junior public markets have continued to evolve in favour of the high-risk, high-return ventures, squeezing out the more modest ambitions of using the public markets to finance the growth and consolidation of traditional cash-flowing businesses. Profitable companies have become increasingly rare on any of the Canadian junior stock exchanges. Based on the overall financial losses investors incurred in the junior markets in the past few years, re-orienting the junior markets towards businesses that are consistently profitable would seem to be an important element of future sustainability. It would also draw in a segment of investors looking for more predictable (and modest) yield in their portfolios, something that is hard to find in the junior markets currently. However, if the only companies that choose to list on a public exchange are those that have taken the public route because they are unable to secure private financing alternatives, that portends poorly for the future of the junior public markets in Canada.

This paper has endeavoured to illuminate the nature of the Canadian junior capital markets, increasing the breadth of understanding on the status and trajectory of this critical segment of our economy. The point in doing so is not only to educate observers on the market, but to lay the groundwork for regulatory reform proposals designed to stimulate the junior public markets. The fundamental question is how we can best, through adoption of regulatory reforms, streamline processes and reduce reporting burdens, to position our junior markets exchanges to more successfully compete in attracting the best and brightest Canadian entrepreneurs to list their companies on the junior public markets.

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APPENDIX A

SUMMARY OF TOP 25 OPERATING COMPANY LISTINGS BY MARKET CAPITALIZATION OF TSX

TSXV (at May 31/24)	Market Capitalization	Company Description	Head Office
Lumine Group Inc.	9,828,560,860	Technology: Software in communications and media industries	Toronto
Topicus.com Inc.	9,697,413,141	Technology: European software platforms	Toronto
Partners Value Investments LP	6,432,761,767	Financial services: Minority owner in Brookfield Corporation (investment income)	Bermuda, Toronto
Sigma Lithium Corporation	2,309,385,238	Mineral exploration: Brazilian lithium extraction	São Paulo
Artemis Gold Inc.	2,145,929,826	Mineral exploration: Constructing Blackwater Gold Mine in B.C.	Vancouver
Alphamin Resources Corp.	1,403,831,527	Mineral exploration: DRC tin mine operator	Mauritius
enCore Energy Corp.	1,209,687,806	Mineral exploration: U.S. uranium producer	Texas
Snowline Gold Corp.	932,355,043	Mineral exploration: Yukon gold mine developer	Vancouver
New Found Gold Corp.	906,609,435	Mineral exploration: Newfoundland gold mine developer	Vancouver
Rusoro Mineral Exploration Ltd.	841,541,202	Mineral exploration: Venezuelan gold prospects	Vancouver
Reunion Gold Corporation	821,111,101	Mineral exploration: Guyana gold prospects	Toronto
IsoEnergy Ltd.	738,334,268	Mineral exploration: Uranium prospects in Athabasca basin	Vancouver
Vizsla Silver Corp.	587,741,888	Mineral exploration: Mexican silver prospects	Vancouver
Gold Reserve Inc.	528,598,340	Mineral exploration: Mineral exploration operations in Venezuela	Spokane, WA
Westaim Corporation (The)	525,506,779	Financial services: Long-term capital provider to financial services industry	Toronto
Sintana Energy Inc.	506,213,145	Oil and gas: Prospects in Africa and Colombia	Toronto
Colonial Coal International Corp.	461,361,539	Mineral exploration: Metallurgical coal development in B.C.	Vancouver
Tiny Ltd.	457,559,931	Acquisition company: Acquires majority interests in technology companies	Vancouver
Amaroq Minerals Ltd.	427,656,634	Mineral exploration: Gold mineral exploration prospects in Greenland	Toronto
Lucero Energy Corp.	420,103,819	Oil and gas: Producer in North Dakota Bakken	Calgary
Coelacanth Energy Inc.	412,925,690	Oil and gas: Development of northeastern B.C. oil and gas properties	Calgary
Bravo Mineral Exploration Corp.	412,460,018	Mineral exploration: Development stage	Vancouver & Brazil
Logan Energy Corp.	400,361,897	Oil and gas: Early commercial-stage Alberta/B.C. oil and gas development	Calgary
Metalla Royalty & Streaming Ltd.	398,902,024	Mineral exploration: Diversified mineral exploration royalties in domestic and international projects	Vancouver
Standard Lithium Ltd.	383,509,877	Mineral exploration: Arkansas-based lithium extraction from brine	Vancouver

APPENDIX B

SUMMARY OF TOP 25 OPERATING COMPANY LISTINGS BY MARKET CAPITALIZATION OF CSE

CSE (at June 26/24)	Market Capitalization	Company Description	Head Office
Green Thumb Industries Inc.	3,503,032,000	Life sciences: American cannabis operator	Chicago
Trulieve Cannabis Corp.	2,210,520,000	Life sciences: American cannabis operator	Florida
Cresco Labs Inc.	703,040,000	Life sciences: American cannabis operator	Chicago
Asante Gold Corporation	489,424,000	Mineral exploration: Ghanaian gold production and exploration	Vancouver
International Battery Metals Ltd.	347,464,000	Mineral exploration: Lithium extraction	Vancouver
Ayr Wellness Inc. S.V., RVS, L.V.	308,256,000	Life sciences: American cannabis operator	Miami
Planet 13 Holdings Inc.	214,968,000	Life sciences: American cannabis operator	Las Vegas
Grown Rogue International Inc.	183,872,000	Life sciences: American cannabis operator	Medford, OR
Jushi Holdings Inc. Class B Subordinate Voting Shares	169,000,000	Life sciences: American cannabis operator	Boca Raton, FL
iAnthus Capital Holdings Inc.	164,944,000	Life sciences: American cannabis financier	Toronto
Urbana Corporation A NV	146,016,000	Diversified industries: Investment management	Toronto
BioHarvest Sciences Inc.	139,256,000	Life sciences: Biotech: Plant compounds grown without the plant	Vancouver
4Front Ventures Corp.	118,976,000	Life sciences: American cannabis operator	Phoenix
Alpha Cognition Inc.	104,104,000	Life sciences: Biotech: ALS and Alzheimer drug development	Vancouver
ME Therapeutics Holdings Inc.	100,048,000	Life sciences: Biotech: Pre-clinical cancer drugs	Vancouver
MariMed Inc.	98,696,000	Life sciences: American cannabis operator	Massachusetts
Western Uranium & Vanadium Corp.	97,344,000	Mineral exploration: Uranium and vanadium development prospects in U.S.	Toronto
Scope AI Corp.	91,936,000	Technology: AI development	Vancouver
Aduro Clean Technologies Inc.	90,584,000	CleanTech: Recycling waste plastics and converting oil into higher value fuel	London, ON
Goodness Growth Holdings Inc.	78,416,000	Life sciences: American cannabis operator	Minneapolis
Jones Soda Co	73,008,000	Diversified industries	Seattle
1CM Inc	71,656,000	Life sciences: Canadian vice consumer staples: Alcohol, tobacco, nicotine	Toronto
InnoCan Pharma Corporation	70,304,000	Life sciences: Pharmaceutical technology using cannabinoid science	Israel
Highlander Silver Corp.	66,248,000	Mineral exploration: Silver mine development in Peru	Vancouver
Railtown AI Technologies Inc.	64,896,000	Technology: AI platform to help SMEs develop software faster and easier	Vancouver

APPENDIX C

SUMMARY OF TOP 25 OPERATING COMPANY LISTINGS BY MARKET CAPITALIZATION OF CBOEC (FORMERLY NEO EXCHANGE)

CBOE (at June 26/24)	Market Capitalization	Company Description	Head Office
Verano Holdings	1,777,119,954	Life sciences: American cannabis operator	Chicago
DeFi Technologies Inc.	536,641,879	Technology: Blockchain/crypto/exchange	Toronto
Glass House Brands Inc.	462,665,568	Life sciences: American cannabis operator	Long Beach, CA
Abaxx Technologies Inc.	404,439,589	Technology: Exchange for LNG, battery metals and carbon credits	Toronto
Cybin Inc.	267,798,619	Life sciences: Clinical stage biotech with novel drugs for mental health conditions	Toronto
Solar Bank Corporation	233,843,245	Clean tech: Renewable energy project developer and owner	Toronto
GRIID Infrastructure	185,577,363	Bitcoin mineral exploration facilities	Cincinnati
Verses AI Inc.	142,590,679	AI-based interactions to manage client contacts	Vancouver
Zefiro Methane Corp.	112,730,400	U.S.-based methane offsets and orphan well abatement	Ft. Lauderdale
The Cannabist Company Holdings Inc.	110,866,344	Life sciences: American cannabis operator	New York
BTQ Technologies	62,101,940	Post-quantum encryption for blockchain industry	Vancouver
Base Carbon Inc.	57,583,689	Financing solutions to global voluntary carbon markets	Toronto
Gold Flor Corporation	56,368,111	Life sciences: American cannabis operator	Costa Mesa, CA
Greenland Resources Inc.	52,722,145	Mineral exploration: Molybdenum development project in Greenland	Toronto
Mount Logan Capital Inc.	51,595,478	Asset manager executing on credit investment opportunities in North America	Toronto
Maritime Launch Services Inc.	41,648,474	Diversified industries: Space transport services	Halifax
Denarisu Metals Corp.	39,053,134	Mineral exploration: Prospects in Spain and Colombia	Vancouver
Medicine Man Technologies Inc.	31,801,889	Life sciences: Cannabis operator	Denver
Carbon Streaming Corporation	27,490,619	Carbon-credit streaming company	Toronto
Lithos Group Ltd.	27,088,625	Sustainable lithium extraction using evaporation ponds	Vancouver
Global Crossing Airlines Group Inc.	26,719,970	Global X Airline operating in U.S., Caribbean, Europe and Latin America	Miami
The INX Digital Company, Inc.	22,375,986	U.S.-regulated hub trading cryptocurrencies and security tokens	Gibraltar
IberAmerican Lithium Corp.	19,710,088	Spanish lithium hard-rock mineral exploration development	Toronto
Biomind Labs Inc.	17,195,226	Psychiatric-focused biotech drug company	Toronto
Metasphere Labs Inc.	13,755,374	Metaverse worlds, networks, virtual reality applications	Vancouver

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