

2025.06.02.RM.FINAL.REPORT.CONCENTRIC

THE APPROPRIATE RETURN MARGIN FOR THE BOTTLE DEPOTS

JUNE 2, 2025



CEADVISORS.COM

©2025 CONCENTRIC ENERGY ADVISORS, INC. ALL RIGHTS RESERVED.

TABLE OF CONTENTS

Section 1: Introduction and Purpose	1
Section 2: Approach to Calculating Return Margins	2
Section 3: Overview of Results	7
Section 4: Rationale for Recommendation	9
Section 5: Application of Return Margin	15
Section 6: Appendix	17

TABLE OF TABLES

Figure 1: U.S. Industry Screening Process	3
Figure 2: U.S. Industry Groups Included in Analysis	4
Figure 3: U.S. Industry Analysis: Pre-Tax Return Margin Point Estimates	7
Figure 4: Canadian Industry Analysis: Pre-Tax Return Margin Point Estimates	7
Figure 5: Concentric Recommendation for Depots	8
Figure 6: Example Depot Revenue Requirement	15
Figure 7: U.S. Industry Return Margins – Data from Yahoo! Finance	18
Figure 8: U.S. Industry Return Margins – Data from S&P Capital IQ	19
Figure 9: Canadian Retail Trade, Return Margins	20
Figure 10: Canadian Wholesale Trade, Return Margins	21

SECTION 1: INTRODUCTION AND PURPOSE

The Beverage Container Management Board (“BCMB”) has directed the Data Collection Agent (“DCA”) to retain an expert “to provide the DCA with recommendations as to the Return Margin to be applied in a Handling Commission Review and how that Return Margin is to be applied by the DCA.”¹ The DCA is currently MNP, LLP. Concentric was retained by the DCA to develop analyses and recommendations for the appropriate return margin for the Bottle Depots (“Depots”).

The methodology and conceptual basis for establishing return margins was originally developed by Pacific Economics Group (“PEG”) in 2006, and was used in PEG’s 2006, 2010 and 2013 Memoranda to the BCMB, as well as by Concentric Energy Advisors, Inc. (“Concentric”) in our 2016 and 2019 reports. The BCMB methodology is designed to calculate a return margin for regulated companies that lack a sizeable asset or rate base and therefore bases the return margin on the cost of goods sold (“COGS”). Previous reports have determined that the Depots do not make significant investments in capital assets under their business model, which is why the BCMB has determined that traditional rate of return regulation, as seen for regulated electric and gas utilities in the U.S. and Canada, is not appropriate for the Depots.

The current return margin methodology and results of Concentric’s calculations are outlined in Sections 2 and 3 of this report. Section 4 provides rationale for the recommended return margin, including commentary on contemporary economic conditions. Section 5 provides a recommendation regarding the appropriate method of application of the return margin to COGS. Finally, Section 6 is an Appendix that provides a commentary on the evolution of the BCMB’s return margin methodology, detailed results tables, and a stress-test of a component of the report’s analysis.

¹ Beverage Container Management Board, “Return Margin Methodology Policy,” approved April 26, 2023, page 1.



SECTION 2: APPROACH TO CALCULATING RETURN MARGINS

The BCMB previously determined that traditional rate of return regulation was not the best method for setting an authorized return for the Depots in Alberta because the Depots have significant working capital requirements and do not make significant capital investments in order to provide bottle recycling services. The BCMB, therefore, implemented a return margin methodology based on the average return margin for retail and wholesale companies with high turnover ratios. We believe the BCMB's previous decision continues to have merit.

The recommended return margin for the Depots was determined by calculating the actual earned return margin, based on publicly-available financial data, of risk-comparable companies in the U.S., averaged over the past three years, and retail and wholesale trade groups in Canada, averaged over the past two years of available data. This has been referred to in prior reports as the “top-down approach.” As there are numerous ways to cut and slice the universe of financial data that is publicly-available, Concentric developed a few variations of the methodology and presented a range of reasonable results in Section 3. As noted in Section 6, Concentric analyzed *pre-tax* return margins for both the U.S. and Canadian analyses. This represents a change from previous reports, which used *after-tax* return margins for the U.S. analysis.

A. APPROACH TO U.S. INDUSTRIES

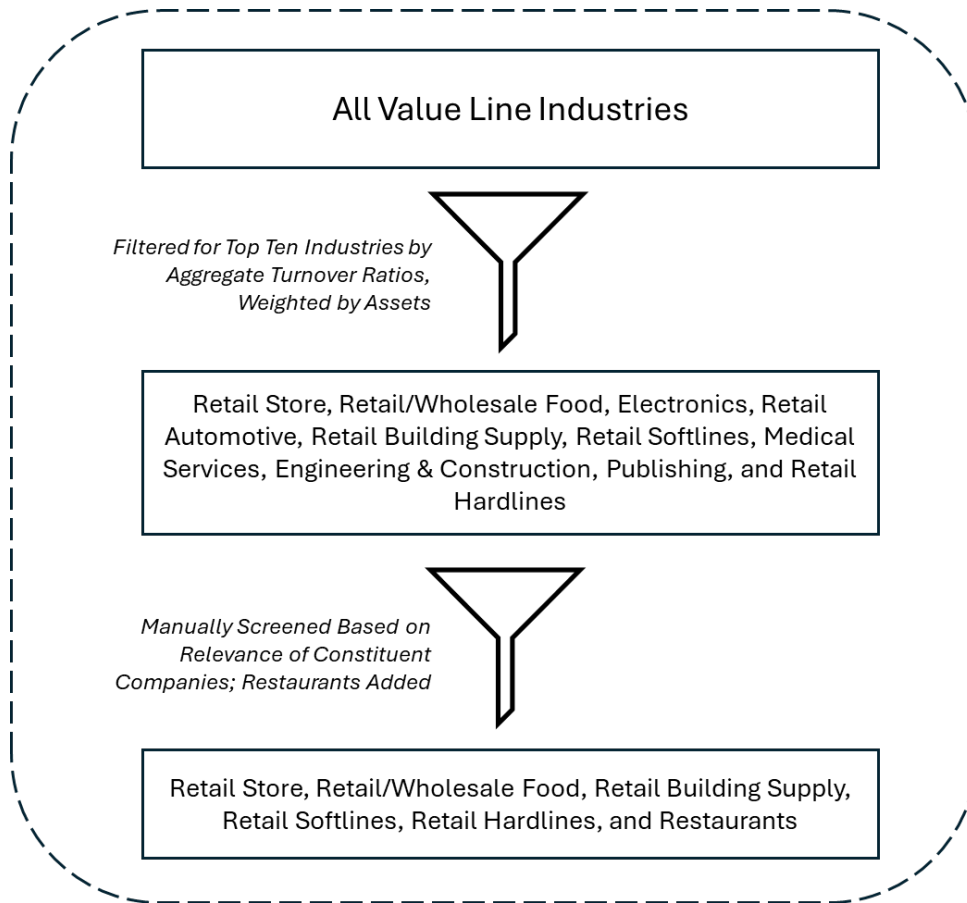
The first prong of the top-down approach was the determination of the U.S. industry return margin. Here, Concentric selected a group of risk-comparable industries as defined by the Value Line Investment Survey (“Value Line”) and analyzed actual pre-tax earned return margins of these companies based on publicly-available data from Yahoo! Finance (“Yahoo”) and S&P Capital IQ (“S&P”).

I. U.S. INDUSTRY SCREENING PROCESS

To start, Concentric conducted a screening to determine which industries, and therefore which companies, were risk-comparable to bottling depots, and should be used in the U.S. analysis.



Figure 1: U.S. Industry Screening Process



Starting with the universe of all companies covered by Value Line, Concentric calculated each company’s 2024 turnover ratio, defined as 2024 net operating revenues as a ratio of 2024 total assets. Based on the industry each company was assigned to, Concentric then calculated each Value Line industry’s aggregate turnover ratio, weighted by assets. The ten industries with the highest aggregate turnover ratios were selected for further screening. As discussed in previous reports, the reason for selecting companies in industries with high turnover ratios is that these companies derive their revenues from relatively small asset bases, much like the Depots, and can be reasonably thought of as risk-comparable to the Depots, having similar business models. The industries selected at this step ranged from Retail Store, which had the highest aggregate industry turnover ratio of 2.84, down to Retail Hardlines, which had the tenth-highest ratio of 1.15.



Concentric then conducted a manual screening of the ten industries, reviewing constituent companies to determine if they were materially different from the bottling depot business model in Alberta. At this step, the following industries were excluded due to material differences from bottling/recycling:

- Electronics: Excluded, as these companies were engaged in production and distribution of consumer electronics;
- Retail Automotive: Excluded, as most companies were auto parts stores or similar, which had turnover ratios closer to 1.00; only auto retailers, which are a unique business model, had turnover ratios near or over 2.00;
- Medical Services: Excluded, consistent with Concentric’s 2019 report, as these companies provided specialized healthcare services;
- Engineering and Construction: Excluded, as these companies were engaged in the construction and management of large infrastructure projects;
- Publishing: Excluded, as these companies produced and distributed printed and digital content.

Finally, the Restaurants industry was included, consistent with Concentric’s 2019 report. Therefore, the six Value Line industries used in the U.S. return margin analysis, representing 189 companies, were:

Figure 2: U.S. Industry Groups Included in Analysis

Value Line Industry	2024 Aggregate Industry Turnover Ratio	Number of Companies
Retail Store	2.84	29
Retail/Wholesale Food	2.22	24
Retail Building Supply	1.58	13
Retail Softlines	1.42	32
Retail Hardlines	1.15	42
Restaurants	0.69	49

We note that the “Office Equipment and Supplies” industry, which was included in Concentric’s 2019 report, has since been dissolved by Value Line, and therefore was not included in this iteration of the report.



We further note that using data previously provided by the DCA, Concentric calculated a turnover ratio for the Depots of 2.31 in 2017. Ideally, we would select industries that were at or around this threshold to analyze, to maintain comparability to the Depots. However, across all 88 Value Line industry groups analyzed, only one (Retail Store) exceeded this threshold, and only two (Retail Store and Retail/Wholesale Food) crossed 2.00. Therefore, Concentric believed it is reasonable to select the top ten industries for additional screening. Further, consistent with past practices and as described below, the subsequent analysis excludes individual companies that had turnover ratios below 2.00, which provided another measure of maintaining comparability to the Depots.

II. U.S. RETURN MARGIN CALCULATION

For the companies in the six Value Line industries determined above, Concentric gathered publicly-available financial operating data for the years 2022, 2023, and 2024, from two sources, Yahoo and S&P. Note that Concentric did not use Value Line data, which we used previously, because Value Line does not report pre-tax income, only after-tax income. Using the Yahoo and S&P data, Concentric calculated each company's pretax return margin, defined as the year's pretax net income divided by the year's sales, from each source. The following adjustments were then made:

- Companies' individual years in which pretax income was negative were excluded. Investors do not expect negative income to continue in perpetuity.
- In addition, companies' individual years in which the company's turnover ratio was below 2.00 or above 9.00 were considered outliers and thus excluded. These thresholds are consistent with past reports and were informed by the Depots' aggregate 2017 turnover ratio of 2.31.
- Finally, for years in which the company's turnover ratio was slightly below the 2.00 cutoff, but the company had turnover ratios greater than 2.00 in the other two years analyzed, the year's data was added back into the analysis. There were two such occurrences.²

Using the adjusted data, Concentric then aggregated the data in the following manner:

- Calculated an average measure for each year and data source by (i) simple average and (ii) weighted average, weighted by assets;

² These instances were: ODP Corp., with a 1.98 turnover ratio in 2024 but a 2.01 in 2023 and 2.05 in 2022; and Lowes Companies Inc., with a 1.99 turnover ratio in 2024 but a 2.13 in 2023 and a 2.17 in 2022.



- Calculated (i) the average of all six industry averages, consistent with prior reports, and (ii) the average of all 189 companies, regardless of industry;
- Averaged the results from the three years, 2022 to 2024;
- Averaged the results from the two sources, Yahoo and S&P.

The above methodology resulted in four point-estimates of the U.S. return margin. Based on the clustering of the four results, Concentric concluded that each did not represent an unreasonable measure, and the midpoint was taken as the U.S. industry recommendation. The numerical results of these analyses are presented in Section 3.

B. APPROACH TO CANADIAN INDUSTRIES

To develop the second prong of the top-down approach, Concentric also analyzed retail and wholesale margins and the COGS using data from Statistics Canada (“CANSIM”). The CANSIM data include Total Expenses in addition to COGS, which makes it possible to estimate consistent Gross Sales Margins for Retail Trade Groups in Canada. The CANSIM data was provided on a pre-tax basis, which is consistent with the U.S. industry analysis. One limitation of the CANSIM source is that the data are reported in aggregate by industry category and not at the firm/company level. Concentric performed the analysis using the CANSIM Retail and Wholesale data for the calendar years 2022 and 2023.³ The results of these analyses are presented in Section 3.

The U.S. and Canadian results were averaged to develop a final return margin recommendation for the Depots.

³ Wholesale and retail trade data for the calendar year 2024 was not available from Statistics Canada at the time of analysis.



SECTION 3: OVERVIEW OF RESULTS

The results of Concentric’s U.S. industry group analysis are presented below. As shown in Figure 3, the four point estimates of the U.S. industry return margin ranged from 4.54% to 7.97%. The average of these four estimates is 6.25%, which Concentric concludes is a reasonable pre-tax return margin for risk-comparable U.S. companies. Tables with further detail can be found in Section 6 and Attachment 1.

Figure 3: U.S. Industry Analysis: Pre-Tax Return Margin Point Estimates

<i>U.S. Industry Return Margin Point Estimates⁴</i>	Average of Six Industry Group Averages	Average of All 189 Companies, Regardless of Industry
Simple Average	7.97%	6.31%
Weighted Average, weighted by assets	6.16%	4.54%
Average	6.25%	

The results of Concentric’s Canadian trade group analysis are presented below. The estimates range from 4.60% to 6.42%, with an average of 5.62%. Concentric concludes that 5.62% is a reasonable pre-tax return margin for Canadian retail and wholesale trade groups. Further detail can be found in Section 6 and Attachment 2.

Figure 4: Canadian Industry Analysis: Pre-Tax Return Margin Point Estimates

<i>Canadian Industry Return Margin Point Estimates</i>	2022	2023
Retail Trade	6.42%	5.97%
Wholesale Trade	5.48%	4.60%
Average	5.62%	

⁴ All U.S. return margin point estimates represent 2022-2024 averages, as well as data averaged across Yahoo and S&P. See Section 2 for further detail.



The average of the U.S. recommendation of 6.25% and the Canadian recommendation of 5.62% is 5.93%. **Concentric concludes that 5.93% is a reasonable pre-tax return margin for the Depots.**

Figure 5: Concentric Recommendation for Depots

	U.S. Risk-Comparable Industries	Canadian Retail and Wholesale Trade Groups	Concentric Recommendation for Depots
Pre-tax Return Margin Estimate	6.25%	5.62%	5.93%



SECTION 4: RATIONALE FOR RECOMMENDATION

A. INDUSTRY-SPECIFIC FACTORS

The Depots have significant working capital requirements that differentiate them from many other industries. Conversely, the Depots are able to generate substantial revenues with a relatively small investment in physical plant, equipment and other related assets. As previously mentioned, using the balance sheet data provided by the DCA for the 2019 return margin analysis, Concentric calculated a turnover ratio for the Depots of 2.31. This confirms the long-standing proposition that the Depots have a different risk profile than many regulated industries, such as public utilities, which have some of the lowest turnover ratios amongst all industries, at 0.15 – 0.25. It also supports the BCMB’s previous determination that traditional rate of return regulation is not the best method to establish an appropriate return for the Depots, which have limited assets on which to earn a return. The Depots have traditionally been allowed to recover their operating expenses and COGS as well as having an opportunity to earn a return margin on total operating expenses and deposits. This return margin must be sufficient to allow the Depots to finance their business.

The conceptual premise of using comparable risk retail industries to set the return margin (or handling fee) for the Depots remains valid. This methodology represents a necessary departure from the regulatory approach based on rate base, which the BCMB has previously recognized is not well suited for the Depots. No business can survive if it is not permitted a reasonable opportunity to recover its costs and earn a just and reasonable return that reflects the underlying risks of the business.

We have continued to consider three years of financial data in our “top-down” approach because we believe it is important to smooth out any short-term anomalies that may occur in a given year and to identify industry trends that might suggest either a higher or lower return margin. We also continue to believe that it is reasonable to exclude unprofitable companies from the return margin analysis. Companies with negative projected growth rates are typically excluded from such analyses because it is not reasonable to believe that investors would invest in a company that is expected to have negative earnings in perpetuity; therefore, these companies would not set a reasonable benchmark return for sustainable operation of the Depots. This approach is consistent with the methodology employed by Concentric and PEG in previous reports.



The Depots recover the refund of the Deposit with a relatively risk free pass-through. The actual amount recovered is uncertain because the Depots cannot predict the volume of returns. The Depots may adjust their labor for variations in volume, while other costs (such as building leases or ownership costs) are relatively fixed and cannot be readily adjusted for variations in volume.

B. RISK ASSESSMENT

Concentric considered the relative risk of the Depots and the industry groups used in our “top-down” analysis. We find that the Depots have similar risk profiles as the firms in our U.S. industry groups that have turnover ratios greater than 2.0 and less than 9.0. Furthermore, we find that the Depots have higher risk than many firms in the U.S. industry groups due to the smaller relative size of the firms engaged in the bottle recycling industry in Alberta. Smaller size is generally equated with higher risk because it limits the financial flexibility of the company to respond to changing economic conditions, changing costs, and changing demand for its services. Kroll (formerly Duff & Phelps) has quantified the small size premium as it relates to higher expected returns for smaller companies vs. larger companies over long historical periods going back to 1926. The small size of many Depots increases the operational and financial risk of those entities, and therefore, a higher operating return margin may be justified as compared with the returns authorized for much larger entities such as the companies in our U.S. industry groups.

As in our 2016 and 2019 reports, Concentric continues to believe that it is appropriate to use retail and wholesale industries to estimate the return margin for the Depots. Many companies with turnover ratios greater than 2.0 operate in the Retail and Wholesale industry groups. Operating margins for retail companies, especially companies that sell consumer discretionary items, are sensitive to seasonality and economic conditions. Likewise, it is our understanding that the Depots’ volumes are also sensitive to seasonality and economic conditions in Alberta. Retail companies generally employ a relatively unskilled and transitory workforce, as do the Depots. In addition, both retail companies and the Depots tend to have risk associated with staff turnover and shrinkage.

Given the degree of financial and economic integration between Canada and the U.S., we continue to believe that it is appropriate to consider financial data for U.S. firms to develop a return margin recommendation for businesses that operate solely in Canada because of the high degree of integration between the economies and capital markets of the two countries. Although we acknowledge that the current trade tensions between the U.S. and Canada may jeopardize economic integration over the short-term, Concentric’s view is that investors do not currently perceive this



situation as a long-term structural change. While trade between Canada and the U.S. may be impacted in the near-term as trade deals are re-negotiated, we continue to expect that there will be a high level of economic and capital market integration between the two countries, and that investors will continue to seek returns from a global basket of investment options.

The correlation between real GDP growth rates in Canada and the U.S. has been strong, as has the correlation between the consumer price indices for each country, indicating that these metrics move together over time. Over the period from 2000-2024, real GDP growth was 2.06 percent in Canada and 2.21 percent in the U.S., while consumer price inflation was 2.23 percent in Canada and 2.56 percent in the U.S. The average yield on 10-year government bonds has also been very similar in Canada and the U.S. Over the past 25 years, the average yield on 10-year Canadian government bonds was 3.12 percent, compared to 3.27 percent in the U.S. The correlation between average yields on 10-year government bonds in Canada and the U.S. since 2000 has been very strong at 0.96. Correlations of this degree are reflective of closely integrated financial markets.

Despite the recent tariff tensions, the magnitude and significance of trade between the two countries reflects the high degree of integration between the two economies. According to the U.S. Department of State: “The United States and Canada enjoy the world’s most comprehensive trading relationship, which supports millions of jobs in each country. Canada and the U.S. are each other’s largest export markets, and Canada is the number one export market for more than 30 U.S. States.”⁵ Canada is currently the U.S.’ 2nd largest goods trading partner overall with \$762 billion in total (two-way) goods trade during 2024.⁶ This is an average two-way trade of \$US 2.1 billion per day. This is an indication of the high degree of integration between the two economies.

On balance, the economic and business environments of Canada and the U.S. are highly integrated and exhibit strong correlation across a variety of metrics, including GDP growth, inflation and government bond yields. Based on these macroeconomic indicators, there are no fundamental dissimilarities between Canada and the U.S. (i.e., in terms of economic growth, inflation, unemployment, or government bond yields) that would cause a reasonable investor to have materially different return expectations for comparably situated companies in the two countries.

⁵ U.S. Department of State, <https://www.state.gov/u-s-relations-with-canada>, accessed May 17, 2025.

⁶ See <https://www.census.gov/foreign-trade/balance/c1220.html>



Other relevant risk factors include the cost structure of the Depots (which is heavily weighted toward labor expenses) and the fact that the majority of the Depots' workforce is generally unskilled and employee turnover tends to be relatively high (which increases the need for hiring and training new employees).

C. ALBERTA MACROECONOMIC CONDITIONS

According to TD Economics, the Alberta economy is expected to perform better than most other Canadian provinces in 2025 and 2026. Real GDP growth for Alberta is forecast at 1.8% in 2025 and 1.4% in 2026 as compared to 1.3% in 2025 and 1.1% in 2026 for Canada overall. With regard to oil exports, TD Economics states: "In the absence of readily available substitutes for Canadian oil, we don't expect the U.S. to materially scale back its imports of Alberta oil, while U.S. refiners and a lower Canadian dollar absorb some of the tariff impacts."⁷ Further, Alberta's unemployment situation is expected to deteriorate but will remain stronger than in other Canadian provinces. Population growth is expected to remain robust in Alberta, increasing by 2% in 2025, which will continue to support hiring and spending. Consumers are expected to remain cautious given economic uncertainties, especially as inflation in the province is higher than elsewhere in Canada. However, lower interest rates and a reduced debt burden for households is expected to be a net positive for consumer growth in 2025. Despite the impact of expected government deficits over the next three years, Alberta's fiscal position remains the most favorable among provinces and the newly implemented income tax cut should provide offsetting stimulus if U.S. trade policy actions affect consumer demand. In summary, the Alberta economy is expected to remain relatively strong in 2025 and 2026, despite the possibility that trade tensions will reduce economic growth in the near term.

D. IMPACT OF TARIFFS AND TRADE TENSIONS

The new U.S. administration has imposed tariffs on imports from its trading partners, including Canada. Specifically, on February 1, 2025, U.S. President Trump issued an executive order announcing a 25% additional tariff on imports from Canada and Mexico, and a 10% additional tariff on imports from China.⁸ These tariffs on Canada and Mexico took effect on March 4, 2025, but were revised to exclude goods covered under the U.S.-Mexico-Canada agreement (USMCA) that was signed by President Trump in 2018. The USMCA covers the majority of imports from both Canada and

⁷ TD Economics, Provincial Economic Forecast, Tariffs Taxing the Provincial Outlook, March 19, 2025, at 3.

⁸ See <https://www.whitehouse.gov/fact-sheets/2025/02/fact-sheet-president-donald-j-trump-imposes-tariffs-on-imports-from-canada-mexico-and-china/>, accessed May 17, 2025



Mexico to the U.S. Broad-based tariffs would severely disrupt global trade and economic growth, as noted by the Bank of Canada. In Canada, there are already signs that tariffs are weighing on consumer and business confidence and investment intentions. This threat has also contributed to the recent depreciation of the Canadian dollar.

Although the effect of tariffs on both economies is uncertain, economists generally agree that higher tariffs increase inflation by increasing the cost of consumer goods. Higher inflation could complicate the unwinding of restrictive monetary policies, as well as increase long-term bond yields like the 30-year government bond yield. Longer-term bonds are more sensitive to inflation expectations because their value is eroded more by inflation; thus, as the value (price) of bonds declines due to higher inflation expectations, the yield increases.

Retail analysts and investments firms such as Morgan Stanley have commented that tariffs may cause supply chain disruptions and compression in the operating margin for retail stores, as retailers must decide whether to pass on higher costs to consumers through price increases or absorb those higher costs, thereby leading to lower operating margins.⁹ In addition, consumer confidence in both Canada and the U.S. has been shaken by the trade tensions. If the tariffs lead to a recession, it would be reasonable to expect that the profit margins for retail stores and wholesalers would be negatively affected, as revenues decrease and the cost of goods sold increases. Concentric’s return margin analysis, however, is based on financial data for the period from 2022-2024, and therefore is not affected by the current trade situation, which began in early 2025. While the Depots may be affected by current economic conditions in the near-term, our recommended return margin is based on financial data for a time period when tariffs were not a consideration.

⁹ “Tariff Impact on Retail – What Shoppers Can Expect,” Morgan Stanley, May 5, 2025.



E. CONCLUSION AND RECOMMENDATION

Concentric did not attempt to quantify the impact of any of these specific risk factors. Rather, we believe it is appropriate to develop a range of operating margins for the Depots and then select a reasonable return margin based on an assessment of the relative risk of the Depots to the Canadian and U.S. industry groups that were identified as having similar operational and financial risk as the Depots. This approach is commonly used by cost of capital analysts and utility regulators in developing a specific return recommendation from within the range of results for the proxy group. Based on the analysis discussed in Section 3 of our report, and taking into consideration the risk factors discussed in Section 4, Concentric recommends a pre-tax operating margin of 5.93% for the Depots.



SECTION 5: APPLICATION OF RETURN MARGIN

The pre-tax return margin for the Depots, once established by the BCMB, will be applied to each Depot’s Cost of Goods Sold (“COGS”) to develop a return amount on a pre-tax basis. The exact application of the recommended return margin can be determined as follows. As discussed in Section 3, Concentric analyzed comparator group return margins based on the following formula:

$$Pretax\ Return\ Margin = \frac{Pretax\ Income}{Operating\ Revenues} = \frac{Operating\ Revenues - Cost\ of\ Goods\ Sold}{Operating\ Revenues}$$

The formula can be re-arranged to apply to the Depots as:

$$Required\ Revenues = \frac{Cost\ of\ Goods\ Sold}{(1 - Pretax\ Return\ Margin)}$$

In other words, a Depot’s revenue requirement is equal to its COGS divided by one minus the recommended pretax return margin. In theory, this amount should be sufficient for the Depot to recover its Cost of Goods Sold and income taxes, as well as earn a fair after-tax return.

For example, if we assume a Depot’s COGS is \$100,000, according to the formula above and our recommended 5.93% return margin, the revenue requirement would be \$106,274. This amount can be broken down into its constituent components as \$100,000 in COGS pass-through recovery plus \$6,274 in pretax return; the pretax return can further be broken down into income taxes and the fair after-tax return according to applicable tax rates. See Figure 6 below for these calculations (for illustrative purposes, we assumed an income tax rate of 30%):

Figure 6: Example Depot Revenue Requirement

Line Item	Amount
Example COGS	\$100,000
Pretax Return Margin	5.93% (Recommended)
Pretax Revenue Requirement [1]	\$106,306
Pretax Return	\$6,306

<i>Makeup of Revenue Requirement</i>	
--------------------------------------	--



COGS	\$100,000
Taxes @ 30% Illustrative Rate	\$1,892
After-Tax Return	\$4,414
Total Revenue Requirement [2]	\$106,306

[1] According to the formula: Revenues = COGS / (1 – Pretax Return Margin)

[2] Recovers COGS, income taxes, and after-tax return



SECTION 6: APPENDIX

A. COMMENTARY ON EVOLUTION OF RETURN MARGIN METHODOLOGY

In Concentric’s view, the BCMB’s current methodology to determine the Depots’ return margin is conceptually and analytically straightforward. Concentric is aware that the BCMB has taken several steps to simplify the methodology over the years, which have improved its clarity and ease of application. For example, the BCMB now relies on a “top-down approach” only, having moved away from the “bottom-up approach” contemplated in previous reports. This resulted in fewer moving parts and removed questions over which methodology is more accurate. In addition, the BCMB now determines the return margin on a pre-tax basis, rather than an after-tax basis, which aligns the U.S. and Canadian analyses. This change removed questions about what tax rate to apply to bring after-tax data to a pre-tax basis, similarly cutting down the number of moving parts. Finally, the BCMB moved from a three-year review cycle to a review cycle that takes place at least once every six years. This decision is reasonable because it improves regulatory efficiency while continuing to provide a reasonable opportunity for the BCMB and the parties to review the various components of the Handling Commission Review, including the return margin. Concentric does not have any recommendations to further enhance and/or streamline the determination of the return margin for the Depots at this time.

B. DETAILED U.S. AND CANADIAN INDUSTRY ANALYSIS RESULTS

Detailed year-by-year and industry-by-industry results of the analyses described in Section 2 can be found below. Section 3 provides summary-level aggregation of these results.



Figure 7: U.S. Industry Return Margins – Data from Yahoo! Finance

Data Source: Yahoo				
Simple Average	Industry	Yahoo Pretax Return Margin - Simple Average Excl. Outliers		
		2024	2023	2022
	Retail Hardlines	18.82%	12.24%	11.14%
Retail Softlines	2.02%	n/a	5.72%	
Retail Store	3.48%	5.32%	5.18%	
Retail Building Supply	11.10%	12.50%	11.71%	
Retail Wholesale Food	2.18%	2.14%	2.35%	
Restaurants	10.56%	13.15%	8.41%	
Average	8.03%	9.07%	7.42%	

Weighted Average	Industry	Yahoo Pretax Return Margin - Weighted Average Excl. Outliers		
		2024	2023	2022
	Retail Hardlines	3.29%	4.24%	4.40%
Retail Softlines	2.02%	n/a	5.72%	
Retail Store	3.83%	3.52%	3.09%	
Retail Building Supply	11.10%	12.66%	12.45%	
Retail Wholesale Food	1.91%	2.07%	2.15%	
Restaurants	12.11%	11.49%	9.67%	
Average	5.71%	6.79%	6.25%	

Data Source: Yahoo				
Simple Average	Industry	Yahoo Pretax Return Margin - Simple Average Excl. Outliers		
		2024	2023	2022
	All Companies, All Industries	5.97%	6.63%	6.28%
Average	5.97%	6.63%	6.28%	

Weighted Average	Industry	Yahoo Pretax Return Margin - Weighted Average Excl. Outliers		
		2024	2023	2022
	All Companies, All Industries	3.95%	4.92%	4.64%
Average	3.95%	4.92%	4.64%	



Figure 8: U.S. Industry Return Margins – Data from S&P Capital IQ

Data Source: S&P Capital IQ				
Simple Average	Industry	S&P Pretax Return Margin - Simple Average Excl. Outliers		
		2024	2023	2022
	Retail Hardlines	15.80%	12.08%	11.17%
Retail Softlines	1.57%	5.56%	1.22%	
Retail Store	3.41%	5.35%	5.94%	
Retail Building Supply	11.78%	11.79%	12.48%	
Retail Wholesale Food	2.20%	2.17%	2.29%	
Restaurants	13.56%	13.30%	8.31%	
Average	8.05%	8.38%	6.90%	

Weighted Average	Industry	S&P Pretax Return Margin - Weighted Average Excl. Outliers		
		2024	2023	2022
	Retail Hardlines	3.96%	4.48%	4.87%
Retail Softlines	1.57%	5.56%	1.22%	
Retail Store	3.46%	3.09%	4.14%	
Retail Building Supply	11.78%	12.50%	13.30%	
Retail Wholesale Food	2.01%	2.11%	1.93%	
Restaurants	12.17%	11.42%	9.60%	
Average	5.82%	6.53%	5.84%	

Data Source: S&P Capital IQ				
Simple Average	Industry	S&P Pretax Return Margin - Simple Average Excl. Outliers		
		2024	2023	2022
	All Companies, All Industries	6.10%	6.55%	6.35%
Average	6.10%	6.55%	6.35%	

Weighted Average	Industry	S&P Pretax Return Margin - Weighted Average Excl. Outliers		
		2024	2023	2022
	All Companies, All Industries	3.71%	4.71%	5.34%
Average	3.71%	4.71%	5.34%	

Note that “n/a” indicates that zero companies in that industry had available data and passed applicable thresholds.



Figure 9: Canadian Retail Trade, Return Margins

	2022	2023
Retail trade, Total	6.42%	5.97%
Motor vehicle and parts dealers	4.66%	4.03%
Automobile dealers	4.40%	3.68%
New car dealers	4.66%	3.85%
Used car dealers	2.48%	2.32%
Other motor vehicle dealers	x	x
Automotive parts, accessories and tire retailers	6.22%	6.91%
Building material and garden equipment and supplies dealers	6.66%	6.02%
Food and beverage retailers	7.21%	7.02%
Grocery and convenience retailers	2.99%	3.10%
Supermarkets and other grocery retailers (except convenience retailers)	2.87%	3.03%
Convenience retailers and vending machine operators	4.24%	3.95%
Specialty food retailers	6.56%	6.06%
Beer, wine and liquor retailers	26.74%	26.01%
Furniture, home furnishings, electronics and appliances retailers	6.64%	5.83%
Furniture, floor covering, window treatment and other home furnishings retailers	8.08%	6.82%
Furniture retailers	8.37%	6.99%
Floor covering, window treatment and other home furnishing retailers	7.61%	6.53%
Electronics and appliances retailers	4.73%	4.69%
General merchandise retailers	6.10%	6.35%
Health and personal care retailers	5.88%	5.71%
Gasoline stations and fuel vendors	7.06%	6.43%
Gasoline stations	7.26%	6.57%
Fuel dealers	5.13%	5.02%
Clothing, clothing accessories, shoes, jewelry, luggage and leather goods retailers	10.08%	9.32%
Clothing and clothing accessories retailers	9.76%	8.87%
Shoe retailers	11.26%	10.96%
Jewellery, luggage and leather goods retailers	11.19%	10.86%
Sporting goods, hobby, musical instrument, book, and miscellaneous retailers	7.89%	7.28%
Sporting goods, hobby, musical instrument, book retailers and news dealers	7.31%	6.32%
Miscellaneous retailers	8.21%	7.82%
Cannabis retailers	F	F
Symbol legend:		
x	suppressed to meet the confidentiality requirements of the Statistics Act	
F	too unreliable to be published	



Figure 10: Canadian Wholesale Trade, Return Margins

	2022	2023
Wholesale Trade, Total	5.48%	4.60%
Farm product merchant wholesalers	2.98%	1.28%
Petroleum, petroleum products, and other hydrocarbons merchant wholesalers	2.47%	0.13%
Food, beverage and tobacco merchant wholesalers	5.45%	5.67%
Food merchant wholesalers	4.60%	4.84%
Beverage merchant wholesalers	10.70%	9.78%
Cigarette and tobacco product merchant wholesalers	10.83%	12.40%
Cannabis merchant wholesalers	16.25%	16.71%
Personal and household goods merchant wholesalers	7.19%	5.82%
Textile, clothing and footwear merchant wholesalers	9.01%	8.33%
Home entertainment equipment and household appliance merchant wholesalers	4.68%	4.77%
Home furnishings merchant wholesalers	7.96%	6.67%
Personal goods merchant wholesalers	8.79%	6.55%
Pharmaceuticals, toiletries, cosmetics and sundries merchant wholesalers	6.77%	5.22%
Pharmaceuticals and pharmacy supplies merchant wholesalers	5.30%	3.92%
Toiletries, cosmetics and sundries merchant wholesalers	15.47%	12.54%
Motor vehicle and motor vehicles parts and accessories merchant wholesalers	6.81%	5.81%
Motor vehicle merchant wholesalers	6.44%	5.24%
New motor vehicle parts and accessories merchant wholesalers	8.15%	8.17%
Used motor vehicle parts and accessories merchant wholesalers	8.88%	8.18%
Building material and supplies merchant wholesalers	8.49%	7.28%
Electrical, plumbing, heating and air-conditioning equipment and supplies merchant wholesalers	10.70%	9.51%
Metal service centres	8.95%	6.85%
Lumber, millwork, hardware and other building supplies merchant wholesalers	6.98%	5.92%
Machinery, equipment and supplies merchant wholesalers	7.71%	8.08%
Farm, lawn and garden machinery and equipment merchant wholesalers	8.37%	8.42%
Construction, forestry, mining, and industrial machinery, equipment and supplies merchant wholesaler	9.44%	9.34%
Computer and communications equipment and supplies merchant wholesalers	5.93%	6.81%
Other machinery, equipment and supplies merchant wholesalers	7.31%	7.60%
Miscellaneous merchant wholesalers	6.87%	6.16%
Recyclable material merchant wholesalers	6.62%	4.51%
Paper, paper product and disposable plastic product merchant wholesalers	6.74%	7.50%
Agricultural supplies merchant wholesalers	6.00%	4.97%
Chemical (except agricultural) and allied product merchant wholesalers	9.69%	11.23%
Mineral, ore and precious metal merchant wholesalers	4.68%	1.74%
Log, wood chips, and other wood products merchant wholesalers	4.14%	1.63%
Other miscellaneous merchant wholesalers	7.64%	6.41%
Business-to-business electronic markets, and agents and brokers	6.28%	5.95%

Further detail on Figures 7 through 10, including underlying calculations, can be found in Attachments 1 and 2.

C. STRESS-TEST OF OUTLIER TURNOVER RATIO THRESHOLDS

In addition to the standard U.S. industry analyses laid out in Sections 2 and 3, Concentric stress-tested the assumption that company return data in years in which the company had turnover ratios less than 2.00 or more than 9.00 should be excluded. To inform an alternative set of outlier thresholds to use, Concentric conducted research on turnover ratios of bottling and recycling organizations in other jurisdictions, with a focus on bottling depots where possible:



- TOMRA Cleanaway (VIC) Pty Ltd.: 2023 Turnover Ratio = 1.47¹⁰
 - TOMRA Cleanaway (VIC) Pty Ltd. is a joint venture between TOMRA and Cleanaway that operates as one of three network operators contracted in Victoria, Australia to operate the state’s deposit return system. The system was introduced relatively recently, in November 2023, and TOMRA Cleanaway has stated plans to “feature over 400 reverse vending machines.”
- The Container Exchange: 2024 Turnover Ratio = 2.16¹¹
 - The Container Exchange is a not-for-profit organization operating in Queensland, Australia, that runs the state’s container refund scheme that began in 2018. The Container Exchange contracts container refund point operators to process recyclable containers and transport them to processing facilities.
- Infinitum AS: 2023 Turnover Ratio = 3.78¹²
 - Infinitum AS is a for-profit organization that owns and manages the Norwegian deposit return scheme, managing the depositing and recycling of plastic bottles and beverage cans in Norway. Infinitum AS has been operating since 1999 and collected over 1.5 billion plastic bottles and beverage can returns in 2023.

Based on the above, Concentric ran an alternative U.S. analysis to that presented in Sections 2 and 3, with 1.50 and 4.00 being the applicable outlier turnover ratio thresholds rather than 2.00 and 9.00. The thresholds of 1.50 and 4.00 were chosen purely for illustrative purposes and should not be construed as Concentric recommendations at this time.

The alternative analysis resulted in the U.S. industry return margin estimate increasing by 50 basis points, from 6.25% to 6.69%. Averaged with the Canadian return margin estimate that would remain unchanged, the alternative final recommendation would be 6.15%, a 22-basis point increase over

¹⁰ Source: 2023 TOMRA Annual Report, Revenues divided by Assets. See https://www.tomra.com/-/media/project/tomra/tomra/investor-relations/annual-reports/tomra_annual-report-2023.pdf

¹¹ Source: 2023-2024 Container Exchange Annual Report; Revenue and Income divided by Total Assets. See https://containerexchange.com.au/wp-content/uploads/2024/10/3690_COEX_Annual-Report-2024_FA-Spreads.pdf

¹² Source: 2023 Infinitum AS Annual Report, Net Operating Revenues divided by Total Assets. See https://infinitum.no/media/d4dese5n/infinitum_a-rsrapport_2023_en.pdf



Concentric's recommended 5.93%. As a general proposition, the lower the low outlier turnover ratio threshold, the greater the resulting return margin estimate.

Concentric does not find such a change to be necessary or warranted at this time in the absence of updated balance sheet data from the Depots. Should the BCMB wish to explore adjusting the outlier turnover ratio thresholds, Concentric suggests collecting an updated set of Depot balance sheets approximately every five years to better understand where turnover ratios stand prior to reviewing the return margin and to better inform where the outlier thresholds should be set.