**Canadice Lake Technologies, Inc.[[1]](#footnote-1)**

**Problem Set: The Income Approach – Capitalization of Earnings[[2]](#footnote-2)**

The following questions may be answered by having integrated a dynamic cash flow model into the spreadsheet you’re constructing for CLT ([Sample Cash Flow Model](http://richardhaskell.net/resources/Sample%2BCash%2BFlow%2BForecast%2B9-14-2021.xlsx)). Utilizing data provided for [Canadice Lake Technologies – Narrative & Financials](http://richardhaskell.net/resources/Canadice%2BLake%2BTech%2B-%2BNarrative%2Band%2BFinancials.pdf) you will have already made operating income adjustments and completed *CLT: Forecasting EBITDA, SDE and Free Cash Flow* and the Weighted Average Cost of Capital in *CLT: Estimating Cost of Capital*. If you erred in your solutions in either of these problem sets, you should update them and use the corrected values.

The Capitalization of Earnings model is one of those useful in estimating the value of a firm using the Income Approach. In this example we want to consider the firm’s expected Free Cash Flow for 2022. You may recall that CLT is expected to make a $10 million investment in 2022 for two smaller competitors, funded by raising debt capital[[3]](#footnote-3).

**The Income Approach – Capitalization of Earnings[[4]](#endnote-1)**

1. **Answer each of the following questions based on the use of the Capitalization of Earnings Model**
	1. How would you explain the use of this model and under what conditions might it be useful?
	2. How would you explain the Cap Rate, what does it represent, and what value will you use for it in a valuation estimate?
	3. What value will you use for the “earnings” in this model and what does this number actually represent?
2. **Prepare a value estimate for the firm using the Capitalization of Earnings model based on the cash flow forecast and costs of capital you’ve prepared.**
3. **What are some of the drawbacks to the use of this model?**

**The Income Approach – VC Method[[5]](#endnote-2)**

1. **How would you explain the use of this model and under what conditions might it be useful?**
2. **How you go about selecting the enterprise multiple to be used in the model and what does it represent?**
3. **What are likely to be the most appropriate discount rates used in this model and what do they each represent?**
4. **Given what you know about CLT and this model form, is it likely the model would be useful in estimating the value of the firm? If so, why, and if not, why not?**
5. **What are some of the drawbacks to the use of this model?**
1. This problem and solution set is intended to present an abbreviated discussion of the included finance concepts and is not intended to be a full or complete representation of them or the underlying foundations from which they are built. [↑](#footnote-ref-1)
2. This problem set was developed by Richard Haskell, PhD (rhaskell@westminstercollege.edu), Gore School of Business, Westminster College, Salt Lake City, Utah (2021) and Michael von Ballmoos (michael.vonballmoos@gmail.com) [↑](#footnote-ref-2)
3. 2022 revenues and expenses, including depreciation, are not expected to include any appreciable change resulting from this investment. As such, the investment’s impact on free cash flow is not likely to be felt until 2023 and beyond. [↑](#footnote-ref-3)
4. The Capitalization of Earnings Model is structured as $\frac{Net Earnings to Equity}{Capitalization Rate}$ = Value of the firm as an Operating Asset. If there are non-operating assets present and if they are relevant to the analysis, these may need to be added to the value of the operating assets. [↑](#endnote-ref-1)
5. The Venture Capital Model, though considered one of the Income Approach model forms, includes the use of an enterprise multiple and as such may also be thought of as part of the Market Approach. When the cash flow variable used in the model is estimated based on the timing of an expected future liquidity event or exit, the model is most commonly considered as part of the Income Approach in that the model’s outcome must be discounted back to the present. The selection of the appropriate enterprise multiple is important. If a revenue multiple is selected, the model is structured as $\frac{Revenue\_{1} x Multiple\_{REV}}{\left(1+r\right)^{t}}$ = Value of the firm [↑](#endnote-ref-2)