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

**Problem Set: The Income Approach – Discounted Cash Flow [[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+Cash+Flow+Forecast+9-14-2021.xlsx)). Utilizing data provided for [Canadice Lake Technologies – Narrative & Financials](http://richardhaskell.net/resources/Canadice+Lake+Tech+-+Narrative+and+Financials.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.

CLT has plans to acquire two smaller competitors in 2022 for $10 million based on a 0.8x revenue with CLT realizing the full benefit of the added revenues, etc. by the end of 2023[[3]](#footnote-3). Hopeful to avoid potential control issues arising from extending equity capital to new or current external investors, the firm’s founders have agreed to pursue debt financing to help capitalize acquisitions given currently attractive borrowing costs. HakFam has agreed to fund the million acquisition in exchange for a 6% interest only loan and being granted an additional 500,000 preferred shares[[4]](#footnote-4).

**The Income Approach – Discounted Cash Flow**

1. **Prepare a multi-columnar valuation analysis using the Free Cash Flow Model from the perspective of the firm’s current stakeholders given the instruction above.**
2. **Construct a multi-columnar valuation structure using the Free Cash Flow Model from the perspective of HakFam Ventures based on the assumption HakFam’s investors are expecting an average annualized return of 30%.**
3. **What is the intuition behind using the Gordon Growth Model for the continuing value calculated in the FCF Model?** *Be specific here and convince me you understand the assumptions behind the use of this model*
4. **Why do we apply a different long run (perpetual) growth rate to the continuation term in this model?** *Be specific here and convince me you understand the assumptions behind the use of this variable in the model*
5. **Under what conditions is a negative free cash flow acceptable to would be investors and what would that negative value really represent?** *Be specific here - it might help to discuss each of the inputs to free cash flow and consider those investors may find acceptable and under what assumptions this may hold true*
6. **Damodaran has instructed us to use as many periods as necessary and as few as possible when using the income approach. How would explain this and what assumption(s) underlies the instruction?**

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. Details as stated in Canadice Lake Technologies: Narrative & Financials [↑](#footnote-ref-3)
4. Details as stated in Canadice Lake Technologies: Narrative & Financials (updated 10/11/2021); additional preferred shares granted to HakFam in exchange for the VC extending a below market loan of $10 million and without being required to provide additional paid-in capital. [↑](#footnote-ref-4)