

# 2020 MEMBERSHIP QUALIFICATION EXAMINATION

DATE: September 30, 2020

TIME: 4.0 Hours

# CBV INSTITUTE 2020 MEMBERSHIP QUALIFICATION EXAMINATION (MQE)

### Administered by:

York University School of Continuing Studies

#### **NOTES TO CANDIDATES:**

- 1. <u>Candidates must use the case facts as presented and should not incorporate the effects of COVID-19 into their responses.</u>
- 2. The MQE must be written using Word and Excel (or programs capable of opening, exporting, and saving Word and Excel files) to write their exam. The Word and Excel templates to be used are to be retrieved from the MQE page in Moodle. Excel Macros are to remain disabled.
- 3. The only equipment allowed is:
  - a calculator that is silent, with single-line or two-line display, incapable of alpha storage
  - laptop computer
  - power cord
  - one keyboard
  - one mouse
- 4. Absolutely **NO** reference materials (websites, texts, notes, etc.) are permitted.
- 5. As markers may be marking paper copies of Candidates' responses, details of assumptions and calculations should be provided in the responses.
- 6. Candidates must name/save their Word and Excel response files as the Candidate Number that was assigned by CBV Institute. No names, Student IDs, or any other identifying information should be included in the response files. The Word and Excel files must be uploaded to Moodle immediately after the exam writing is completed.
- 7. The number of marks allocated to each question and the pro-rata time element are noted on the next page.
- 8. Details of assumptions and calculations should be provided in the responses.
- 9. Applicable tax rates are provided in each question.
- 10. Tables of present values and capital cost allowance rates are attached at the end of the examination paper.
- 11. Answer all questions.

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# 2020 MEMBERSHIP QUALIFICATION EXAMINATION

# **Allocation of Marks**

Question No.	Marks	Suggested Time (in Minutes)
1	55	132
2	45	108
	100	240

# **QUESTION 1**

# Question 1

# **Toronto University - Smart Foods (55 Marks)**

### **Background**

It is September 30, 2020 and your first day of work at Brown, Reichardt & Pelt Partners (BRP), a mid-size public accounting firm specializing in audit and tax. You (CBV) were hired to build the firm's advisory services practice, with a focus on transaction services. The managing partner of BRP, Paula Reichardt, enters your office and asks you to join an audit-findings meeting with one of BRP's audit clients, Toronto University (TU).

While walking to the conference room, Paula mentions that TU was discussing a potential new opportunity to value and sell Smart Foods (one of TU's operating subsidiaries and its cafeteria food services supplier). Because you are the firm's new transaction services advisor, she decided to have you join the meeting.

You enter the conference room and are introduced to Dr. Marjory Farmwood (a former Dean for the Faculty of Arts & Science and current president of TU), Donna Jones (CFO of TU), and Bill Jackson (Chair of TU's Business Board<sup>1</sup> and Chief Investment Officer at a large pension plan) (see Appendix A for key comments from this meeting).

Marjory, Donna, and Bill explain that they believe a sale of Smart Foods makes sense, as it is not a core operation of the university, and because owning a food services business commands much of TU's Governing Council's<sup>1</sup> time. They further explain that any major transactions must be recommended by TU's Business Board to TU's Governing Council<sup>1</sup>, and that the Governing Council needs to assert that such transactions are at fair market value. Thus, they would like BRP to provide an analysis and conclusion of fair market value which could be used as a basis for a selling price. You also learn that TU received an offer for Smart Foods' entire business one year ago (see Appendix A).

Marjory has a poor opinion of TU's cafeteria service, and given Smart Foods' history of losses, doubts there is much intangible value in the company. However, Bill thinks that Smart Foods is a strong business with both identifiable intangible assets and goodwill, and that Smart Foods' entire business could be sold through a more fulsome sale process. Bill explains that the Governing Council's background is not in finance or business and it struggles with understanding the concept of goodwill. He notes that an analysis of Smart Foods' third-party customer relationships (i.e. excluding TU) as one way to demonstrate the value that could only be captured through the sale of Smart Foods' business (vs. an asset-only sale).

During the remainder of the meeting, Marjory, Donna, and Bill discuss Smart Foods' existing Ontario business (see Appendices B, C, and D), as well as a business proposal to potentially expand into Quebec ("Quebec Business Plan") (Appendix E).

<sup>1</sup> The Governing Council of TU is responsible for the overall strategic direction of the university and appointing the President (i.e. comparable to Board of Directors in a corporation). The Business Board provides input and advice regarding finance and business operations to the Governing Council (i.e., similar to an Audit and Finance Committee in a corporation).

### **BRP Debrief from TU Meeting, and Engagement Deliverables**

Later that day, Paula comes by your office. "TU wants to proceed with an advisory engagement. This is a fantastic opportunity for us to build on our relationship with TU and to position BRP as a full-service firm with advisory engagement expertise. I talked to the other partners, and we would like to structure BRP's fee for this engagement on a Success Fee<sup>2</sup> basis.

I would like to communicate our preliminary findings in a presentation that you could give to TU's Governing Council<sup>1</sup>. We can prepare the presentation later, but as a first step, you can outline your calculations, analysis, approaches and assumptions in a memo for my review, which will form the basis for the presentation. Remember that Marjory and Bill have differing opinions on how Smart Foods should be sold (i.e., sale of tangible assets vs. sale of business). Bill also requested a copy of the memo for his review. Because we want to be paid via a Success Fee, we should be careful that any work done is consistent with that goal.

The audit team has gathered some notes from the audit file (see Appendix D) and I think you should set up a call with Bill. He is a great resource (see Appendix F). The audit team also brought up an ongoing legal claim (see Appendix G) that should be incorporated into our calculations.

The Business Board requested we provide an analysis of the stand-alone value of the Quebec Business Plan, as they would need to receive separate approval from the Governing Council in order to proceed with it. If the Quebec Business Plan has positive value, we should assume that TU would proceed with it, and incorporate its value into our calculation of the value of Smart Foods. The operations will be managed separately with little overlap in staff or suppliers, so we should assume no synergies.

Lastly, improving the student experience and food quality is an important mandate for Marjory. We should be clear in our recommendations as to the financial and food quality impacts of selling Smart Foods. We should also quantify the annual financial impact of TU's required cafeteria upgrade, which will likely need to occur whether Smart Foods is sold or not (see Appendix B). This assessment should be separate from our assessment of the value of Smart Foods or the proposed Quebec Business Plan."

<sup>&</sup>lt;sup>2</sup> A success fee is payment earned from an engagement which is contingent on selling the business and is based on a % of the business' selling price.

#### Required:

# A. Engagement Considerations:

In a *brief* memo to Paula, outline engagement considerations related to the memo and the presentation (including what Practice Standards and/or Practice Bulletins would apply), keeping in mind BRP's goal with the engagement as well as the Governing Council's requirement to assert that all transactions are at fair market value.

# B. Valuation Analysis (Presentation Outline):

In a memo to Paula:

- 1. Advise if the Smart Foods' Quebec Business Plan has value (that is, value greater than \$Nil) and should be approved.
- 2. Calculate the fair market value of Smart Foods, (1) inclusive of the implications of the legal claim, and (2) assuming the Quebec Business Plan is pursued (if it has value).
  - Given Marjory's doubts, include an explanation of your valuation methodology and support for any calculated value in excess of tangible asset backing.
- 3. Advise if the prior offer for Smart Foods should be revisited or if a new sale process should be undertaken.

# C. Other Analyses

In a memo to Paula, provide advice on areas beyond Smart Foods, including:

- 1. An analysis of whether TU should modernize its cafeterias, based on your quantification of the annual financial impact.
- 2. Assuming Smart Foods is sold, a brief identification of the potential impacts to TU which may arise after the sale.

# **Appendices**

Appendix A: Notes from TU Meeting re: Smart Foods

• Appendix B: Background Information on the Food Service Industry and Smart Foods

• Appendix C: Smart Foods' Historical Financial Statements

• Appendix D: BRP Audit File Notes on Smart Foods

Appendix E: Smart Foods' Quebec Business Plan Presentation to TU Governing

Council

• Appendix F: Notes from Discussion with Bill Jackson

• Appendix G: Notes on Litigation

• Appendix H: Other Information

# Appendix A - Notes from TU Meeting re: Smart Foods

- Smart Foods is a non-profit subsidiary of TU established 50 years ago to ensure consistent food quality and to centralize food preparation in cafeterias across TU's campuses. TU owns 100% of Smart Foods, but Smart Foods operates as a distinct entity with its own management team and manufacturing facility.
- Over time, Smart Foods expanded to provide similar services to other Ontario universities and colleges.
- Management of Smart Foods recently approached the Business Board with the Quebec Business Plan (see Appendix E), which involves the expansion of Smart Foods' catering and cafeteria services to McGregor University ("McGregor") in Montreal. The Quebec Business Plan requires an initial capital investment of \$800,000 and significant rent commitments for a new facility. The Quebec Business Plan and Smart Foods' requirement for more money prompted the Business Board to review the value of Smart Foods since the business does not generate positive cash flow for TU.
- Marjory stated that TU students often complain about the quality of Smart Foods' food.
   Because one of TU's goals is to promote student engagement and satisfaction, TU has been looking into revamping TU's cafeteria system and possibly changing suppliers.
- Marjory also stated that owning a food preparation business is a distraction for TU's Governing Council. Expanding in Quebec would take up more of the Governing Council's valuable time.
- Bill has reviewed Smart Foods' financial statements and the Quebec Business Plan, and is adamant that Smart Foods has a market advantage and has positive value as it has a strong balance sheet, long-term contracts, good customer relationships, and other assets that TU could realize through a sale. However, Bill believes that Smart Foods' operations are mismanaged under the University.
- One year ago, TU received an unsolicited offer from Global Foods (the world's largest institutional food services provider) to purchase Smart Foods for \$6 million, payable in equal annual instalments over 3 years, with interest charged at year-end at the prime rate of 2.4%.

# Appendix B – Background Information on the Food Service Industry and Smart Foods

### Institutional Food Service Industry - General

The Canadian institutional food service industry includes organizations that provide food and meal services to universities and colleges, hospitals, nursing homes, and other public cafeterias.

Institutional food service providers are generally mid-size companies which service many locations or clients in a specific region. Most companies are domestic, but there are a few international companies (Global Foods being one, specializing in low-cost mass-produced food).

#### Institutional Food Service Industry - University Subsector

For decades, the university campus food service model was based on cooking and freezing meals in large batches and reheating such meals on site. Recently, the transition to fresher, local, organic, and environmentally sustainable foods has gained traction (the "fresh food" model). An example of this is the replacement of frozen pizza (reheated on site) with fresh, made to order pizza assembled on site.

The fresh food model started at smaller and newer universities across the country, and it has been used by such universities as a competitive advantage over larger and more established universities to attract students. Older universities (including TU) have been slow to adopt fresh food as the costs to convert older cafeterias are significant.

Wellington University was an early adopter of fresh food. The university managed to keep its meal plan prices relatively unchanged, increasing the cost of the students' meal plans by only \$600 annually (per student). The increased cost to prepare fresh food is \$1,200 annually (per student). Wellington University's consistently exceptional rankings in student experience have helped tremendously with student attraction and alumni relations. It is estimated that direct and indirect funding to Wellington University increased between \$900 and \$1,100 annually per student relative to universities with traditional cafeterias.<sup>3</sup>

#### Smart Foods' Operations and History

Smart Foods was established 50 years ago and is one of the largest university/college-focused institutional food service providers in Canada. It has operated at capacity since 2018 and serves approximately 28,000 students daily. Smart Foods considers the institutional food service market in Ontario to be saturated and expects its production levels to be consistent going forward. Approximately 50% of Smart Foods' current sales are to TU.

Five years ago, Smart Foods launched a fresh food product offering in certain universities called "Fresh Minds". Under Fresh Minds, meals are partially prepared (i.e., fresh vegetables chopped) in facilities outside the universities and colleges, but final assembly and cooking is done on-site. Fresh Minds was initially launched at Hamilton University and has since expanded to several other Ontario universities and been very well received.

<sup>&</sup>lt;sup>3</sup> This estimate compiles total funding impacts from the food services program, including tuition (limited increases given provincially mandated caps), reduced marketing expenses, and increased alumni donations.

Currently, approximately 20% of Smart Foods' business is from Fresh Minds food services, and 80% is from traditional food service (i.e., food which is frozen and reheated on-site). All of TU's sales are traditional food services. In the long-term, Smart Foods believes that Fresh Minds will form the majority of its business, with its traditional food service limited to a few locations with outdated cafeterias that cannot support fresh food service.

Smart Foods owns a production facility located in a 4-story heritage building just west of TU. In this facility, food sold under Smart Foods' traditional food services model is prepared and frozen, and food sold under the Fresh Minds food services is prepared.

### Previously Rejected Cafeteria Renovation Project

One year ago, Smart Foods prepared an estimate of the cost to convert all of TU's cafeterias (servicing 14,000 meal plan students) to locations that could support a fresh food meal service such as Fresh Minds (or a similar service under an alternative supplier). Smart Foods estimated that the total investment to TU would be approximately \$30 million, with the required equipment and renovations lasting for approximately 15 years. This analysis was presented to the Governing Council (prior to Marjory's appointment) but was rejected due to its high upfront costs.

An investment of this nature could improve student satisfaction and food quality, and such an investment could be made by TU regardless if Smart Foods is sold. Public institutions can finance construction or retrofitting projects almost entirely through debt, and at very low rates (below 5%).

# Appendix C - Smart Foods' Historical Financial Statements

Smart Foods Statement of Income and Expenditures (Not for Pro in \$CAD (000's)	fit Accou	nting	g Standa	rds	)	[9]			
	Notes	31	-Aug-17	3	1-Aug-18	3	1-Aug-19	31	-Aug-20
					Aua	lited			
<u>Income</u>									
Sales	[1]		22,135		27,415		28,495		30,488
Grants	[2]		200		200		200		300
Expenditures									
Cost of Inventory	[3]		13,090		15,706		16,010		17,960
Labour (Food Preparation)	[4]		5,950		7,706		7,860		8,117
Utilities, Building Expenses and Repairs/Maintenance	[5]		1,720		1,750		1,790		1,825
Employee Salaries (non hourly)	[6]		1,035		1,056		1,078		1,100
Office General and Administrative			1,020		1,040		1,060		1,085
Pension Benefit Expense	[7]		700		880		891		922
Marketing/Commissions	[8]		600		330		340		350
Amortization of Capital Assets			200		190		180		170
(Deficiency) / Excess of Income over Expenditures			(1,980)		(1,043)		(514)	\$	(741)
Other									
Food Sold (1000s lb.)			9,000		10,700		10,200		10,550
\$ per Pound (Sales)		\$	2.46	\$	2.56	\$	2.79	\$	2.89
\$ per Pound (Inventory & Food Labour)		\$	2.12	\$	2.19	\$	2.34	\$	2.47
CPI Food			150		153		156		175

#### **Income Statement Notes**

- 1. Approximately 50% of sales are to TU, with the remainder to other universities at market prices. The TU sales are under a legacy cost recovery contract. Smart Foods' contract with TU is set at a 10% markup on direct costs (inventory and food preparation labour). The contract can be cancelled at any time by either party.
- 2. Since its founding, Smart Foods has received a government grant of \$200,000 annually to support its non-profit mandate. In 2020, Smart Foods received an additional grant of \$100,000 under the Federal Government's future skills program, a voluntary program where employees are paid their regular salary to attend offsite training in a growth industry (e.g., IT) and the employer protects their jobs while they train.
- 3. Changes in food costs are heavily correlated with the CPI Food Index. In 2020, there was an unexpected increase in food costs resulting from a strengthening USD/CAD exchange rate. The CPI Food Index is forecast to stabilize moving forward.
- 4. The 2020 labour costs include \$100,000 for paid time-off for training under future skills program.
- 5. Utilities, repairs and maintenance and other building expenses include \$400,000 in property taxes, an amount that has been stable for several years.

- 6. The President, CFO, and COO of Smart Foods are collectively paid \$600,000 annually, which are market rates. As part of their employment contracts with Smart Foods, they are also adjunct professors with TU's School of Business. Approximately 1/3 of their time is spent on TU teaching activities. Other non-hourly employees are non-executive staff in accounting, human resources, and administration roles.
- 7. Expenses related to the employee pension plan average 10% of total salaries.
- 8. Marketing and commission expenses represent fees for marketing consultants engaged to help Smart Foods prepare proposals used in bidding on contracts with new customers.
- 9. Reporting is done under Accounting Standards for Not-for-Profit Organizations. As a not-for-profit, the university (and all its not-for-profit subsidiaries) do not pay income taxes.

Smart Foods			
Statement of Financial Position			
in \$CAD (000's)			
	Notes	31-Aug-19	31-Aug-20
<u>√ssets</u>			
Cash		80	50
Accounts Receivable	[1]	4,700	5,100
Inventory		1,990	2,170
Prepaids		300	200
Capital Assets	[2]	2,800	2,600
		9,870	10,120
abilities			
Accounts Payable and Accrued Liabilities		150	200
Due to TU	[3]	2,000	2,200
		2,150	2,400
et Assets		7,720	7,720
		9,870	10,120

Capital Assets		Cost	Accumulated Depreciation	Net Book Value
Furniture and Fixtures		200	(180)	20
Equipment	[4]	2,000	(1,600)	400
Building		4,000	(1,820)	2,180
			_	2,600
			·	

#### **Balance Sheet Notes**

- 1. It is common for accounts receivable to be significant in Smart Foods' industry as public institutions are slow payers. Typical accounts receivable turnover is 60 days (for both TU and non-TU third-party sales).
- 2. Capital assets include furniture and fixtures and equipment that are replaced every 5 to 10 years on average. The estimated useful life approximates the amortization period.
  - The Smart Foods production facility is a 4-story heritage building in a rapidly developing district.
- 3. Related party loans from TU are used to fund operations, are non-interest bearing and are provided on an as needed basis.
- 4. Equipment (which can be disassembled and moved) is well-maintained, with a fair market value of \$1.5 million.

# Appendix D - BRP Audit File Notes on Smart Foods

The following notes were extracted from BRP's audit files:

- Smart Foods obtains contracts by replying to request for proposals (RFPs) from universities and colleges. The RFPs are usually fixed price and for two-year terms. The industry is highly competitive and the prices that are quoted to potential customers are based on a markup applied to inventory and direct labour costs. Given contract lengths, any changes in CPI or labour costs will take two years to be reflected in contracts.
- Smart Foods' standard markup when submitting bids in Ontario has been 30%, which is standard in the industry.
- While all contracts are done through RFPs, there is value in the ongoing customer relationships as universities can renew suppliers for additional two-year terms and often give preference to previous suppliers. Of Smart Foods' sales to non-TU customers, approximately, 80% are earned from recurring customers (i.e., there is 20% annual attrition).
- The minimum wage increase in Ontario in 2018 was beneficial to Smart Foods. For many years, Smart Foods' union mandated a starting wage of \$15/hour, while the provincial minimum wage was \$11/hour. In January 2018, with the Ontario increase in minimum wage to \$14/hour, Smart Food was able to increase their markup on labour to 30% (a 20% increase) and remain competitive.
- Smart Foods' employees are eligible to enroll in the TU pension plan (a benefit of 10% of their salary). Smart Foods' competitors do not have similar benefits for hourly employees.
- Working capital is always a challenge. Institutional customers take approximately two
  months to pay, whereas Smart Foods must pay for inventory on delivery. On average,
  inventory for the traditional frozen/bulk food business has a 30-day turnover, but only two
  weeks for the Fresh Minds product.

# Appendix E - Smart Foods' Quebec Business Plan Presentation to TU Governing Council

Note from Bill Jackson: This presentation was delivered by Smart Foods' management to TU's Governing Council. It outlines the potential contract for McGregor University.

The Governing Council wants to know if the Quebec Business Plan has a positive value impact to Smart Foods. An independent consultant advised the Business Board that operations in Quebec could be significantly negatively impacted if legislation currently being debated is passed. The consultant believes there is a 30% chance that this legislation could be passed and enacted starting in January 2022.

I think the Quebec Business Plan is very different from Smart Foods' core Ontario business, and I think it should be valued like a start-up. For the purposes of your recommendation to the Governing Council, a 20% discount rate is reasonable. The pension fund I manage has used that for similar businesses when using a multi-probability approach.

# SMART FOODS QUEBEC PROPOSAL

Bringing an appetizing formula to a new market

### OPPORTUNITY

- We have been selected as the winning bidder for a proposal to supply food service to McGregor University (McGregor) in Montreal
- We are currently reviewing potential contract terms with McGregor and would need approval from TU Governing Council to execute a food services contract in November, with capital investments to be made through the remainder of 2020 and service starting (fully operational) with the January 2021 school semester
- McGregor recently competed a \$20 million renovation to modernize its school cafeterias from the old "reheat and serve" model to "prepared fresh model" and is now looking for a supplier to service students from the new facilities
- Our contract is for our "Fresh Minds" product offering, where meals are cooked and assembled fresh on site with some made-to-order offerings
- Contract is for three years full meal service (breakfast, lunch, dinner) beginning January 2021.
   At the end of the term, the contract can be renewed on mutual acceptance.

#### PROPOSED CONTRACT

- There is a risk of pending legislation passing that would apply penalties to suppliers from outside Quebec that serve public institutions like universities. These penalties would be set at 25% of revenue in each year
- Our independent bid consultant has estimated the probability of this legislation passing at 30% effective January 2022
- The consultant has also noted that based on initial taste tests our service is expected to be very well received at McGregor and any renewal decisions in December 2023 is expected to be at Smart Food's discretion
- Our Fresh Minds product charges a premium rate given the more expensive ingredients and two stages of preparation (more labour)
- The contract is for 2 million lbs of food @ \$5/lb (adjusted annually for inflation)

# OPERATIONAL INFORMATION

- A refrigerated distribution and preparation kitchen has been sourced close to McGregor, which could rent for either \$300,000 annually on a 5-year lease (commencing in November 2020) with annual renewal options or \$290,000 annually over a 5-year non-cancellable lease
- Quebec manager and salary staff totaling \$400,000 annually would need to be hired
- · Additional operating costs and overhead of \$200,000 annually are expected
- Manufacturing equipment of \$800,000 to be acquired immediately (i.e., fiscal 2020) and would on average need to be replaced over a 10-year period. Were the contract to be cancelled, it is assumed this equipment would sell for between 70%-80% of cost

Note from Bill Jackson: We should provide a recommendation back to Smart Foods on which rent option to pursue

# Appendix F: Notes from Discussion with Bill Jackson

Bill provides you with some data that he has put together:

- The portfolio that I manage includes businesses similar to Smart Foods, which have multiyear contracts with institutional buyers.
- When the \$6 million offer came in last year, I analyzed a few industry transactions to assess
  if it might be reasonable. From our research, companies in this industry tend to be valued
  based on market EBITDA multiples. I've updated for more current deals as well:

				Target			
				GM	Target	Enterprise	
Data	Tarret	D. I. i. i.	Target		U	•	Description
Date	Target	Buyer	Revenue	(%)	EBITDA	Value	Description
(\$000s)	Fulsom Foods	Global Foods	10,000	20%	500	3,000	A food services provider serving prisons across Ontario, acquired by largest global institutional food service company. Fulsom serves primarily mass produced meals, but has developed a fresh food line to service newer prison cafeterias
Jan-20	Guelph Meatless	Unbelievable Foods	800	5%	16	480	The long-term food/catering supplier for Guelph University, the Company had recently patented a new vegetable protein that tastes indistinguishable from chicken. Acquired by plant-based meat public company on NASDAQ
May-19	Smart and	Morgan Foods	90.000	10%	2,700	27,000	Frozen dinner manufacturer ranked by Canadian Life magazine as best meals for families on the go, sells under own brand and private label for Canada's largest grocery chain nationally, purchased by Canada's largest frozen food company (and globally #1 for frozen French fries)
Apr-19	East Coast Fresh	Pension Plan of Nova Scotia	15,000	30%	1,500	·	A food services provider with approximately 50% market share across Atlantic Canada, rebranded 5 years ago from East Coast Eats to East Coast Fresh with fresh campus food now comprising about 80% of sales. Acquired by pension fund
	Shepherd				,	,	Target was the second largest hospital institutional food service provider in Ontario, acquired by the largest - both operate facilities out of Toronto and subsequent to the sale they consolidated operations into a
Nov-18	roods	Ross Foods	12,000	25%	1,440	14,400	single site.

 The pension plan I work for did consider acquiring Smart Foods 10 years ago. The biggest issue was that its existing pricing with TU made it unattractive as it was under market rates. I imagine any sale would depend on a new contract being negotiated. Smart Foods' production facility is in a rapidly developing area in Toronto, which makes it
challenging to serve clients outside of the city and creates inefficiencies in the production
layout. The 30,000 square foot building could be sold as premium office loft space, as was
the case with an adjacent property (a former warehouse similar to Smart Foods property) that
sold recently (details below):

Net Rent	Sale Price (\$/ Square Foot) - Adjacent Property	Property Taxes
\$60/ square foot	\$650/ square foot	\$400,000/year

 Smart Foods could relocate to a production facility closer to highways and rent industrial space in a facility 2/3rds the size, with no impact on capacity. Moving costs are estimated to be \$400,000 in total with no significant impact to production. A listing for a facility which I would consider appropriate is below:

Net Rent	Operating Maintenance, Foods Location	Expenses etc.) – Potential on	•	Property Taxes
\$25/ square foot	Comparable to foot basis	existing property o	n per square	\$100,000/year

- I understand you will be valuing Smart Foods' customer relationships as well. The Governing
  Council struggles to understand concepts like operating value, goodwill and intangible assets.
  If the value of the customer relationships were calculated and presented by you, it would help
  me explain to the Governing Council the benefits of a fulsome sale process. This can be
  separate from your valuation of Smart Foods and can be presented as one potential reason
  for the excess of operating value over tangible asset backing.
- I've been reviewing Smart Foods operations for years and it is a strong company, though it is mismanaged under its current not-for-profit ownership. I am impressed with the Company's understanding of the changing university cafeteria landscape and was a supporter of the TU cafeteria reinvestment plan that they drafted (whether supplied by Smart Foods or another company). I think it should be revisited with the new Governing Council as they are now willing to make financial investments that enhance student experience.

### Appendix G - Notes on Litigation

- Metro University ("Metro") has been a Smart Foods' client since 2000.
- In 2013, Metro was undergoing financial difficulties. To get more certainty on future costs, it circulated an RFP for a 10-year food service contract for a minimum of 1 million lbs of food annually (starting September 1, 2013).
- Smart Foods spent \$120,000 in June 2013 in professional fees to prepare their bid.
- Smart Foods priced the contract based on a markup on the cost of ingredients and direct labour of 20%, knowing that price sensitivity was an issue for Metro. Metro requested the RFP be based on a set menu, which Smart Foods priced at costing \$1.25/lb in for the first year of the contract (September 2013 – August 2014). Given the length of term and low markup, the pricing was to be adjusted annually for CPI (Food) (see Appendix C).
- Smart Foods won the contract and it was fully executed by both parties in August 2013.
- From September 2013 to August 2014, 1.2 million lbs of food were sold from Smart Foods to Metro. Both parties were projecting an increase in volumes of 25% for the year September 2014 to August 2015 due to Metro's opening of a large new student residence and cafeteria. However, in August 2014, the roof of Metro's new residence/ cafeteria collapsed, and there was a one-year delay in opening the new residence/ cafeteria.
- On July 31<sup>st</sup>, 2014, Smart Foods received a letter from Metro notifying them that Metro would be suspending purchases at the end of August 2014, citing a failure by Smart Foods to meet Metro's internal quality tests. To date, Smarts Foods has not received any official documentation to support Metro's claim of Smart Foods' not meeting their internal quality tests. At the same time, Metro executed a new agreement with Global Foods to supply its campus (with pricing established at \$1.00/lb, adjusted for CPI (Food)), and purchased no further food from Smart Foods.
- Until the lost sales from Metro were recovered (from sales made to other customers) and the
  plant was brought back to full capacity, Smart Foods mitigated lost production by reducing
  part-time hours. However, 8 full-time employees were terminated in 2015, with severance
  costs totalling \$65,000.
- Smart Foods filed its initial claim against Metro in December 2014 for lost business. Trial is expected to commence shortly. With respect to this lawsuit, Smart Foods incurred \$40,000 in legal fees in each of fiscal 2015 and fiscal 2020, and \$15,000 in each of fiscal 2016, 2017, 2018, and 2019.
- Assume that a discount rate of 10%, and a pre-judgement interest rate of 5% (simple basis), are appropriate for any calculations relating to this litigation.

# **Key Terms from Smart Foods' Agreement with Metro**

- Contract can be cancelled by Metro for Smart Foods' failure to meet minimum nutritional requirements (as set in initial menu), or for failed taste tests as verified by an independent lab.
- If a cancellation notice is received, Smart Foods has 3 months to remedy the issue.
- On execution of the contract, Smart Foods is owed an additional one-time contract fee of \$1.5 million, payable by Metro on August 31, 2023 (i.e., end of contract), assuming the full contract term is fulfilled.

# **Appendix H: Other Information**

## Corporate Tax Rates

- Ontario Combined Federal/Provincial: 26.50% (25.00% Manufacturing and Processing)
- Quebec Combined Federal/Provincial (M&P or Other): 26.60%

# **Contributory Asset Charges**

- Working Capital Contributory Asset Charge: 3%
- Equipment Contributory Asset Charge: 8%
- Other Contributory Asset Charges (i.e., relating to the technology, brand name, etc.) are assumed to be nominal and can be excluded from any calculation

## Intangible Asset Discount Rates

Customer Relationship Discount Rate: 15%

# **QUESTION 2**

# **Question 2**

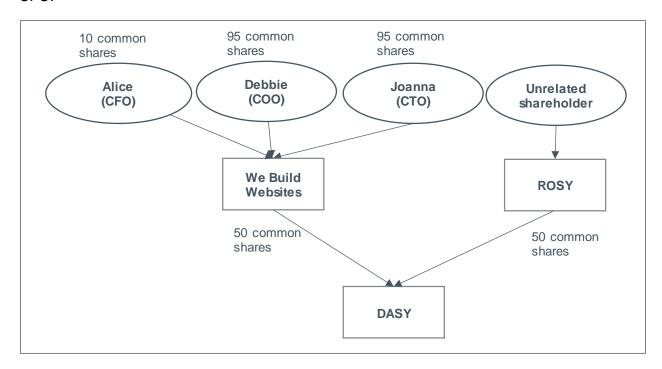
# We Build Websites (45 Marks)

It is December 2020. You recently received your CBV designation and are a manager at the boutique valuation firm where you work.

Your firm was recently engaged by Sally, a new client and the CEO of We Build Websites ("WBW"). A summary of the information that Sally has told Megan, the partner on the engagement, is set out below.

### **Background Information**

WBW is a privately held company that builds highly customized websites for hotels. Joanna and Debbie started WBW in 2016. WBW has three unrelated shareholders. Joanna and Debbie each own 47.5% of the 200 common shares outstanding, and the remaining 5% is owned by Alice, the CFO.



Debbie has noted that in recent months, Joanna has become distant and non-participative in the daily operations of WBW. Sally thinks this is because Joanna has recently become more involved in the operations of another company (Gloves and Hats Ltd.) in which Joanna is a majority shareholder.

WBW has a 50% ownership interest in Digital Advertising Services for You ("DASY"). DASY provides hotels with digital advertising that is designed to increase website traffic and sales (i.e. reservations) at hotels. The other 50% shareholder of DASY is a company called ROSY. ROSY is unrelated to WBW and its shareholders.

Sally has been the CEO of WBW for one year. She was recruited by Alice to work at WBW. Sally and Alice went to university together and are good friends, and often discuss WBW business outside of work.

Originally, Sally wanted to buy into the company when she joined WBW (like Alice did). However, Joanna and Debbie wanted to ensure that they could work with Sally and that they all shared the same vision for WBW before Sally became a shareholder. Therefore, they decided to defer any decisions on Sally becoming a shareholder until Sally had held the role of CEO for one year.

After the one-year period, if Joanna and Debbie were happy with Sally's performance and future potential, Sally would have an opportunity to buy shares of WBW. To facilitate this, Sally was granted 60 stock options when she commenced employment on September 1, 2019. These options vested on the one-year anniversary of her employment and were exercisable at that time. Each option gives her the right to buy one common share from treasury at a strike price of \$6,750.

Alice told Sally that she paid a total of \$9,000 for her 10 shares at the end of fiscal 2016<sup>1</sup>. At that time, a third party had valued each share, pro-rata, at \$1,125. The third-party valuation was used to set the price that Alice paid.

Debbie has suggested that since Joanna has become less involved in operating WBW, perhaps Sally should consider buying out Joanna's 95 shares. Debbie is certain that Joanna would want to sell all her shares for the "right price".

Sally is aware that a shareholder's agreement was drafted after Alice became a shareholder, but it was never finalized or signed. The agreement states that shares can be purchased by a third party from an existing shareholder for 3 times adjusted income multiplied by the percentage of shares being purchased.

Sally has now been employed with WBW for more than one year. She is unsure whether she should exercise her stock options, effective September 1, 2020 (the "Valuation Date").

Sally has also told Megan that her eldest daughter will soon be going to university in the United States, and that she has committed to financing her daughter's education. As a result, she only has approximately \$500,000 that she can commit to either exercising the stock options or buying all of Joanna's shares.

In addition to speaking to Sally, Megan has also spoken to the three shareholders. The notes from her meetings with them are set out in Appendix 2.

26

<sup>&</sup>lt;sup>1</sup> Alice is not interested in acquiring any additional shares of WBW at this time.

# Required:

Based on qualitative and quantitative considerations, advise Sally as to whether she should exercise her stock options<sup>2</sup> or if she should try to purchase all of Joanna's shares.

A formal report is not required at this time – an internal memo summarizing your analysis and explanatory comments will be sufficient for your discussions with Megan (the partner at your firm), which will occur prior to any analysis being reviewed by Sally.

# **Appendices**

Appendix 1: WBW Background

• Appendix 2: Notes from Megan's Discussions with Joanna, Debbie, Sally,

and Alice

Appendix 3: WBW - Other Information

Appendix 4: DASY Background

• Appendix 5: Additional Information

<sup>&</sup>lt;sup>2</sup> Black Scholes should not be considered in this calculation.

# Appendix 1: WBW Background

WBW provides highly customized websites to hotels across Canada. Because the websites are highly customized, they take a significant amount of time to develop. At the Valuation Date, WBW could develop 4 websites per month.

Starting in 2017, WBW began providing sales and other administrative functions to DASY. DASY does not have its own employees, and its shareholder companies provide all the necessary functions for it to be able to provide digital advertising services to its clients. In return for providing these necessary functions, each of WBW and ROSY receive a management fee from DASY (each receive 50% of the total management fee paid).

The management fee is paid in connection with corporate income tax planning purposes. That is, the management fee is intended to strip out the profit from DASY, so that DASY operates at essentially break-even. If DASY were to hire its own employees, this would free up WBW employee time.

Non-consolidated historical balance sheets and income statements for WBW are set out on the following pages.

# We Build Websites

# Summary of Statements of Income and Retained Earnings

(\$)

		For	The Fiscal Years E	nded August 31,	
		2017	2018	2019	2020
Trade sales					
WBW trade sales		984,822	1,109,875	1,213,211	1,517,676
Cost of sales		534,597	521,171	480,312	577,432
Gross margin		450,225	588,705	732,899	940,244
Gross margin %		46%	53%	60%	62%
Other Income					
Management fee income - DASY		-	=	75,000	220,000
Expenses					
Wages and benefits	[1]	160,489	252,752	443,324	661,089
Rent	[2]	15,411	17,000	30,000	30,000
Office and general	[3],[4]	23,178	22,120	31,021	32,143
Travel and entertainment		8,756	8,964	8,702	8,909
Professional fees		1,300	2,600	2,750	2,750
Other operating expenses		526	2,300	2,145	3,000
		209,660	305,736	517,942	737,891
Net income before income taxes		240,565	282,969	289,957	422,353
Provision for income taxes					
Current	[5]	37,287	43,860	44,943	65,465
Net income		203,277	239,108	245,014	356,888
Retained earnings - beginning		45,000	5,527	36,885	21,899
Dividends paid		(242,750)	(207,750)	(260,000)	(346,000)
Retained earnings - ending		5,527	36,885	21,899	32,788

Notes:

<sup>[1]</sup> Joanna, who has held the role of CTO has historically been paid a \$40,000 salary plus dividends (which were paid to all shareholders). Joanna's husband has been doing the bookeeping for WBW. He has not been paid and no amount has been accrued with respect to any payment to him. Debbie, Sally, and Alice are compensated at market rates and their salaries are included in wages and benefits.

<sup>[2]</sup> WBW moved to new premises during fiscal 2019.

<sup>[3] 2019</sup> includes one time moving expenses of \$3,000.

<sup>[4]</sup> Approximately \$10,000 in computers and office equipment are purchased and expensed in each year. The existing undepreciated capital cost (UCC) balance on computers is negligible, and the existing UCC balance on office equipment is \$25,000.

<sup>[5]</sup> WBW claims the full small business deduction.

# We Build Websites Summary of Historical Balance Sheets (\$)

Notes:

		As at August 31,						
	2017	2018	2019	2020				
<u>Assets</u>		·						
Current								
Cash	43,504	17,532	45,116	18,824				
Accounts receivable	58,915	58,455	75,345	75,657				
Prepaid expenses	101	90	100	100				
	102,520	76,077	120,561	94,581				
Long-term								
Investments in DASY		10	10	10				
	102,520	76,087	120,571	94,591				
<u>Liabilities</u>								
Current								
Accounts payable and accrued liabilities	41,513	14,107	36,936	46,755				
Income taxes payable	20,588	-	28,863	12,455				
Government remittances payable [1		24,995	32,773	2,493				
	96,893	39,102	98,572	61,703				
Shareholders equity								
Share capital	100	100	100	100				
Retained earnings	5,527	36,885	21,899	32,788				
	5,627	36,985	21,999	32,888				
	102,520	76,087	120,571	94,591				

<sup>[1]</sup> During the 2020 fiscal year, WBW did not remit all the HST collected. In late September 2020, WBW was assessed for the amounts owing, which related to regular operations during fiscal 2020 year. As a result of the assessment, WBW owed \$62,880 which should have been accrued on their 2020 year end financial statements.

### Appendix 2: Notes from Megan's Discussions with Joanna, Debbie, Sally, and Alice

#### Joanna – Shareholder and CTO of WBW

"I started this company with a vision, and I have managed to grow it tremendously. I know there is lots of growth still to come. I can easily see WBW growing by 20% per year for at least the next ten years.

I spoke with my friend who works in mergers and acquisitions – she told me that we could easily sell WBW for 15x EBITDA. Many software companies that host applications and make them available to customers over the Internet (also known as "software as a service" or "SAAS" companies) are selling for multiples in excess of 15x EBITDA.

The value of what I have given to this company as CTO is significant and is easily valued at \$400,000 per year. My husband's bookkeeping skills have a market value in excess of \$150,000 per year."

#### Debbie - Shareholder and COO of WBW

"When Joanna and I started this company, we never thought it would grow to where it is today. Joanna has been very valuable to the company. I think we would have to pay a CTO an annual salary of \$115,000 if we were to hire someone externally.

I recently read the details of a transaction for 30% of a company that is very similar to WBW. The details of the transaction are set out below."

Intra is pleased to announce that it has reached a deal with Pac to purchase 30% of Pac's shares in a friendly transaction for \$30 million (or a 5x revenue multiple). Pac is an international company that builds websites. Its customers span the globe and it produces an average of 100 websites a month. Intra's purchase of Pac is strategic as it complements Intra's current business. The deal is expected to close in 6 weeks (Excerpt from press release for Intra's purchase of Pac).

#### Sally - CEO of WBW

"Based on my research, Debbie has been paid a market salary in each year. I have looked at various salary surveys and summarized the following data points:

Salary Survey Information							
Position	Revenue	Median Compensation (\$)					
СТО	>\$1,000,000	110,000					
СТО	<\$1,000000	95,000					
Operations Manager	>\$1,000,000	90,000					
Operations Manager	<\$1,000000	80,000					
Office Manager	>\$1,000,000	75,000					
Office Manager	<\$1,000000	60,000					
Bookkeeper	>\$1,000,000	50,000					
Bookkeeper	<\$1,000000	40,000					

WBW has reached maximum efficiency in terms of monthly output. It needs about \$75,000 of working capital to operate."

# Alice, CFO of WBW and Shareholder

"I don't have anything to add other than to say that I agree with everything that Sally has already told you."

### Appendix 3: WBW - Other Information

WBW uses internally developed software (WBW Backend) in building websites for its clients.

In order to develop WBW Backend, WBW had to buy software that cost \$10,000. Two employees were collectively paid \$95,000 (in total) annually to customize it. It took them 4 years to develop WBW Backend. All costs related to the development of the software were expensed as wages.

Sally thinks that if they were to rebuild WBW Backend today, they could save 25% of the time it took to originally build it. However, salary costs have increased, and annual salaries would be 10% higher. Last year, two programmers (unrelated to WBW) unexpectedly offered WBW \$375,000 to buy WBW Backend.

WBW developed two other software programs (Garvin and iBooster) that are used by front desk associates at hotels to upsell products and services to customers when they check in. WBW earns a small fee each time a front desk associate upsells a product or service. Garvin and iBooster are currently not being marketed by WBW, but Sally feels that they could be another stream of revenue for WBW.

Garvin was built in 2 months by 2 employees (who each earned an annual salary of \$25,000). iBooster took the same two employees 3.5 months to build.

There is no remaining undepreciated capital cost (UCC balance) related to any of WBW's internally developed software.

WBW shareholders believe that the company's future success is dependent on its programmers continuing to develop new and innovative software to improve website quality and/or maximize hotel employee efficiency.

The research analyst at your firm found the following information on publicly traded companies:

	ed Companies							
(in CAD \$), ex  Name  Websites are Us	Description Designs user interfaces for	Type of Company Graphic Design	Stage of Company Mature	<b>Beta</b> 1.50	<b>Market Cap</b> 75,098,123	<b>Debt</b> 13,498,300	<b>Revenue</b> 97,899,066	<b>EBITDA</b> 15,255,115
US	websites to improve user experience.							
Websites.AI	Software as a service company that uses AI and machine learning to track website usage and refine targeted ads based on websites visited.	Software as a Service	Early Stage	0.75	8,900,000	1,200,000	500,000	(3,000,000)
ML Web	Website development for companies across many industries.	Website development	Early Stage	1.30	8,271,991	2,725,494	5,400,000	6,017,265
SAS.ca	A company dedicated to having the largest inventory of stock photos for use in websites.	Visual communications	Growth stage	1.10	24,815,972	21,450,988	15,899,430	48,138,120
Webbies	Website development	Website development	Mature	1.60	230,000	60,000	300,000	200,000

## Appendix 4: DASY Background

DASY is a digital advertising company engaged in the provision of online advertisements for hotels across Canada. Initially, DASY serviced many of WBW's existing clients, but over time DASY has expanded and grown its own client base. Historically, DASY created ads for individual hotels, but going forward DASY expects its business to include contracts with hotel chains.

DASY creates digital advertisements for hotels that run on websites and social media platforms such as Google, Facebook, and Instagram. Historically, hotels paid the sites directly for the advertising space, and then paid DASY a management fee on each marketing campaign.

At the Valuation Date, DASY had no employees because WBW and ROSY provide the necessary services to fulfill DASY's functions<sup>3</sup>. Specifically, WBW provides the labour for various sales and finance related functions, while ROSY does the direct creative campaign work. WBW and ROSY are paid the same management fees, which has historically stripped out most of DASY's profits. This management fee arrangement has never been formalized.

Historical information for DASY is set out on the following pages.

35

<sup>&</sup>lt;sup>3</sup> On a stand-alone basis, DASY would need to hire employees.

DASY
Summary of Statements of Income and Retained Earnings / (Deficit)
(\$)

		For The Fisca	l Years Ended Aug	just 31,
		2018	2019	2020
Sales				
Advertising sales		102,800	331,838	750,000
HW Hotels contract	[1]	-	325,000	556,700
		102,800	656,838	1,306,700
Cost of Sales				
Advertising sales		-	182,511	412,500
HW Hotels contract		56,540	220,951	378,556
	_	56,540	403,462	791,056
Gross Margin		46,260	253,376	515,644
Gross margin % - advertising sales		45%	45%	45%
Gross margin % - HW Hotels		N/A	32%	32%
Expenses				
Management fees		-	150,000	440,000
Professional fees		3,191	15,000	17,500
Office and general expenses	[2]	60,520	87,420	21,901
		63,711	252,420	479,401
ncome before taxes		(17,451)	956	36,243
Less: Income taxes		-	253	9,604
Net income		(17,451)	703	26,639
Retained earnings / (deficit) - beginning		-	(17,451)	(16,748
Retained earnings / (deficit) - ending		(17,451)	(16,748)	9,890

Note:

<sup>[1]</sup> Details on the HW hotels contract is provided further below.

<sup>[2]</sup> DASY purchased approximately \$20,000 of computers and office equipment in each of 2018 and 2019, that were expensed.

### DASY

### Summary of Balance Sheets

(\$)

		As	s at August 31,	
		2018	2019	2020
<u>Assets</u>				
Current				
Cash		4,685	8,976	25,363
Accounts receivable	[1]	10,864	65,698	299,948
Due from shareholders - ROSY		20	· -	-
		15,569	74,674	325,311
		10,000	74,074	020,011
<u>Liabilities</u>				
Current				
Accounts payable and accrued liabilities	[1]	33,000	81,422	305,017
Due to shareholders - ROSY	[2]	-	9,980	10,384
		33,000	91,402	315,401
Shareholders equity				
Share capital		20	20	20
Retained Earnings / (Deficit)		(17,451)	(16,748)	9,890
		(17,431)	(16,728)	9,910
		15,569	74,674	325,311

#### Notes:

- [1] Increases in accounts receivable and accounts payable relate to increases in amounts paid to advertisers for hotel contracts (which has results in increased sales).
- [2] Due to shareholders is non-interest bearing.

#### **Hotels Worldwide Contract**

In May 2018, DASY entered into an agreement with Hotels Worldwide ("HW"), a worldwide conglomerate that operates hotels around the world, for DASY to provide HW's Canadian hotels with digital advertising services (the "HW Agreement").

Under the HW Agreement, if a Canadian HW hotel wishes to advertise on a social media website, they may use DASY. They are not obligated to use DASY, but the HW's corporate head office strongly encourages it. DASY will incur all the costs and will invoice HW for the funds spent on media, as well as a commission based on the funds spent. This differs from how DASY had historically operated. Under the HW Agreement, DASY earns significantly higher revenue but also incurs higher costs of sales.

As at the Valuation Date, approximately 40% of DASY's clients were HW hotels. Management anticipates that even though hotels are not obligated to use DASY, an increasing amount of DASY's revenues will come from agreements similar to the HW Agreement, such that by the end of 2024, 90% of DASY's revenues will come from these types of agreements.

As at the Valuation Date, DASY was aware of other hotel chains that were expecting to solicit requests for proposals for arrangements like the HW Agreement. DASY is confident in its ability to win new hotel chain contracts and is of the view that in the next year, revenue from these types of contracts could be 75% of total revenue, especially given that it has been recommended to clients by both Google and Facebook, and it has the confidence of the HW hotel chain.

#### Additional Information on DASY (per Joanna)

Joanna has told you that she prepared a 5-year forecast with the help of her husband, which covered the period from fiscal 2021 to fiscal 2025. The forecast was prepared for the bank in June 2020 when DASY was considering obtaining a bank loan. Joanna admits that the forecast should have been prepared jointly by WBW and ROSY.

Joanna's hard drive was recently corrupted, and she did not have the forecast backed up, so she has unable to provide you with the forecast. However, she was able to recollect certain details, which she has shared with you:

- Total revenue growth in the next five years (i.e. from fiscal 2021 to fiscal 2025) was forecasted to be 50% annually and would be 25% annually in subsequent years and in the long term.
- Gross margins were forecast to be 80% per year in the next five years, before reducing to 75% in the long term.
- Pre-tax operating profit would be approximately 55% both in the forecast period and in the long-term.

#### Additional Information on DASY (Your Research)

The research analyst at your firm has learned the following:

- The advertising industry in Canada includes companies that create and distribute advertising campaigns through various outlets, including radio, print, and digital platforms. Many businesses have made investments in digital advertising, which has further spurred growth in the advertising industry. Digital advertising accounted for approximately 35% of total revenue in the Canadian advertising industry in 2018.
- It is expected that over the next five years, the advertising industry in Canada will continue
  to grow at a fast pace as new digital formats and technologies such as machine learning
  come to the forefront. These new formats and technologies will help in the effectiveness
  of advertising campaigns, spurring further growth.
- Companies that provide digital advertising typically earn a pre-tax operating profit of 8%; however, this is expected to increase to 11% in the long term as companies realize economies of scale and discover ways to be efficient.

You have done your own research on growth rates and have spoken to the other shareholders. You have learned the following:

- DASY, in line with industry estimates, expects to be able to achieve higher growth in the next 5 years before trending to a more normalized growth rate. It is expected that the normalized growth rate will still be higher than most other industries, given growth prospects.
- Joanna's estimate of 50% overall growth in 2021 is reasonable. Total revenue growth is
  expected to be high in each of the years 2022 to 2024, but not at the 50% rate projected
  by Joanna. Total revenue growth is expected to decrease in each year and is expected to
  be 13% in 2025. Thereafter, growth is expected to be close to inflation.
- Gross margins are expected to be 35% in 2021 and are expected to ultimately stabilize at 32% in 2025.
- With the projected growth, it is expected that additional personnel will be needed to service
  the revenue and operate the office it is estimated that for every \$550,000 increase in
  revenue, DASY will need to hire additional staff (a mix of either creative or back office) for
  \$135,000. In lieu of the management fee, salaries in the first year will be \$500,000.
- Professional fees are expected to be \$5,000 in the first year and increase by 15% each year thereafter
- Office and general expenses, which consists of a wide array of expenses, are expected to be between 1% and 2% of total revenue in each year.
- DASY's annual required working capital is equal to approximately half a month of the annual change in revenues.
- Annual capital expenditures are expected to be \$10,000 for the office furniture and \$10,000 for the computers.

#### **Appendix 5: Additional Information**

	Short-term	Medium-term	Long-term	Other
Bond yield	3.0%	3.2%	3.5%	
Equity risk premium	5.0%	5.2%	5.3%	
Industry risk premium				
Graphic design				2.0%
Digital advertising services				2.5%
Size premium				10.0%
Cost of debt				6.5%
Long term inflation				2.0%
Income tax				
Small Business Deduction	Γax rate on first	\$500,000 of inco	me (WBW)	15.5%
Tax rate thereafter				26.5%

Table I
Present Value of \$1 Received at the End of the Year

Years																			
Hence	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%	13.0%	14.0%	15.0%	16.0%	17.0%	18.0%	19.0%	20.0%
1	0.98	0.97	0.96	0.95	0.94	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.86	0.85	0.85	0.84	0.83
2	0.96	0.94	0.92	0.91	0.89	0.87	0.86	0.84	0.83	0.81	0.80	0.78	0.77	0.76	0.74	0.73	0.72	0.71	0.69
3	0.94	0.92	0.89	0.86	0.84	0.82	0.79	0.77	0.75	0.73	0.71	0.69	0.67	0.66	0.64	0.62	0.61	0.59	0.58
4	0.92	0.89	0.85	0.82	0.79	0.76	0.74	0.71	0.68	0.66	0.64	0.61	0.59	0.57	0.55	0.53	0.52	0.50	0.48
5	0.91	0.86	0.82	0.78	0.75	0.71	0.68	0.65	0.62	0.59	0.57	0.54	0.52	0.50	0.48	0.46	0.44	0.42	0.40
6	0.89	0.84	0.79	0.75	0.70	0.67	0.63	0.60	0.56	0.53	0.51	0.48	0.46	0.43	0.41	0.39	0.37	0.35	0.33
7	0.87	0.81	0.76	0.71	0.67	0.62	0.58	0.55	0.51	0.48	0.45	0.43	0.40	0.38	0.35	0.33	0.31	0.30	0.28
8	0.85	0.79	0.73	0.68	0.63	0.58	0.54	0.50	0.47	0.43	0.40	0.38	0.35	0.33	0.31	0.28	0.27	0.25	0.23
9	0.84	0.77	0.70	0.64	0.59	0.54	0.50	0.46	0.42	0.39	0.36	0.33	0.31	0.28	0.26	0.24	0.23	0.21	0.19
10	0.82	0.74	0.68	0.61	0.56	0.51	0.46	0.42	0.39	0.35	0.32	0.29	0.27	0.25	0.23	0.21	0.19	0.18	0.16
11	0.80	0.72	0.65	0.58	0.53	0.48	0.43	0.39	0.35	0.32	0.29	0.26	0.24	0.21	0.20	0.18	0.16	0.15	0.13
12	0.79	0.70	0.62	0.56	0.50	0.44	0.40	0.36	0.32	0.29	0.26	0.23	0.21	0.19	0.17	0.15	0.14	0.12	0.11
13	0.77	0.68	0.60	0.53	0.47	0.41	0.37	0.33	0.29	0.26	0.23	0.20	0.18	0.16	0.15	0.13	0.12	0.10	0.09
14	0.76	0.66	0.58	0.51	0.44	0.39	0.34	0.30	0.26	0.23	0.20	0.18	0.16	0.14	0.13	0.11	0.10	0.09	0.08
15	0.74	0.64	0.56	0.48	0.42	0.36	0.32	0.27	0.24	0.21	0.18	0.16	0.14	0.12	0.11	0.09	0.08	0.07	0.06
16	0.73	0.62	0.53	0.46	0.39	0.34	0.29	0.25	0.22	0.19	0.16	0.14	0.12	0.11	0.09	0.08	0.07	0.06	0.05
17	0.71	0.61	0.51	0.44	0.37	0.32	0.27	0.23	0.20	0.17	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.05	0.05
18	0.70	0.59	0.49	0.42	0.35	0.30	0.25	0.21	0.18	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.05	0.04	0.04
19	0.69	0.57	0.47	0.40	0.33	0.28	0.23	0.19	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.04	0.03
20	0.67	0.55	0.46	0.38	0.31	0.26	0.21	0.18	0.15	0.12	0.10	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.03

Table II

Present Value of an Annuity of \$1 Received at the End of Each Year

No. of Years																			
Received	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%	13.0%	14.0%	15.0%	16.0%	17.0%	18.0%	19.0%	20.0%
1	0.98	0.97	0.96	0.95	0.94	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.86	0.85	0.85	0.84	0.83
2	1.94	1.91	1.89	1.86	1.83	1.81	1.78	1.76	1.74	1.71	1.69	1.67	1.65	1.63	1.61	1.59	1.57	1.55	1.53
3	2.88	2.83	2.78	2.72	2.67	2.62	2.58	2.53	2.49	2.44	2.40	2.36	2.32	2.28	2.25	2.21	2.17	2.14	2.11
4	3.81	3.72	3.63	3.55	3.47	3.39	3.31	3.24	3.17	3.10	3.04	2.97	2.91	2.85	2.80	2.74	2.69	2.64	2.59
5	4.71	4.58	4.45	4.33	4.21	4.10	3.99	3.89	3.79	3.70	3.60	3.52	3.43	3.35	3.27	3.20	3.13	3.06	2.99
6	5.60	5.42	5.24	5.08	4.92	4.77	4.62	4.49	4.36	4.23	4.11	4.00	3.89	3.78	3.68	3.59	3.50	3.41	3.33
7	6.47	6.23	6.00	5.79	5.58	5.39	5.21	5.03	4.87	4.71	4.56	4.42	4.29	4.16	4.04	3.92	3.81	3.71	3.60
8	7.33	7.02	6.73	6.46	6.21	5.97	5.75	5.53	5.33	5.15	4.97	4.80	4.64	4.49	4.34	4.21	4.08	3.95	3.84
9	8.16	7.79	7.44	7.11	6.80	6.52	6.25	6.00	5.76	5.54	5.33	5.13	4.95	4.77	4.61	4.45	4.30	4.16	4.03
10	8.98	8.53	8.11	7.72	7.36	7.02	6.71	6.42	6.14	5.89	5.65	5.43	5.22	5.02	4.83	4.66	4.49	4.34	4.19
11	9.79	9.25	8.76	8.31	7.89	7.50	7.14	6.81	6.50	6.21	5.94	5.69	5.45	5.23	5.03	4.84	4.66	4.49	4.33
12	10.58	9.95	9.39	8.86	8.38	7.94	7.54	7.16	6.81	6.49	6.19	5.92	5.66	5.42	5.20	4.99	4.79	4.61	4.44
13	11.35	10.63	9.99	9.39	8.85	8.36	7.90	7.49	7.10	6.75	6.42	6.12	5.84	5.58	5.34	5.12	4.91	4.71	4.53
14	12.11	11.30	10.56	9.90	9.29	8.75	8.24	7.79	7.37	6.98	6.63	6.30	6.00	5.72	5.47	5.23	5.01	4.80	4.61
15	12.85	11.94	11.12	10.38	9.71	9.11	8.56	8.06	7.61	7.19	6.81	6.46	6.14	5.85	5.58	5.32	5.09	4.88	4.68
16	13.58	12.56	11.65	10.84	10.11	9.45	8.85	8.31	7.82	7.38	6.97	6.60	6.27	5.95	5.67	5.41	5.16	4.94	4.73
17	14.29	13.17	12.17	11.27	10.48	9.76	9.12	8.54	8.02	7.55	7.12	6.73	6.37	6.05	5.75	5.47	5.22	4.99	4.77
18	14.99	13.75	12.66	11.69	10.83	10.06	9.37	8.76	8.20	7.70	7.25	6.84	6.47	6.13	5.82	5.53	5.27	5.03	4.81
19	15.68	14.32	13.13	12.09	11.16	10.34	9.60	8.95	8.36	7.84	7.37	6.94	6.55	6.20	5.88	5.58	5.32	5.07	4.84
20	16.35	14.88	13.59	12.46	11.47	10.59	9.82	9.13	8.51	7.96	7.47	7.02	6.62	6.26	5.93	5.63	5.35	5.10	4.87

#### Table III

#### **Capital Cost Allowance Tax Shield**

• Declining balance basis, assuming full capital cost allowance in first year as well as thereafter:

• Formula reflecting the allowance of one-half of the CCA in the year the assets are acquired:

$$\frac{\text{Investment Cost (UCC) X Tax Rate X CCA Rate}}{\text{Rate of return + CCA rate}} \qquad \qquad \text{X} \qquad \underbrace{((1 + (0.5 \text{ X Rate of return}))}_{\text{(1 + Rate of return)}}$$

• Formula reflecting the allowance of 1.5 times the CCA in the year the assets are acquired (Accelerated Investment Incentive):

#### **Maximum Capital Cost Allowance Rates for Selected Classes**

		Rate
Class 1		4%
Class 3		5%
Class 6		10%
Class 8		20%
Class 10		30%
Class 10.1		30%
Class 12		100%
Class 14	Lesser of capital cost spread over useful life or the UCC at the tax year	end of the
Class 14.1	Property acquired after December 31, 2016	5%
Class 16		40%
Class 17		8%
Class 29	Straight line (25% in 1st year, 50% in 2nd year, 25% in 3rd year)	50%
Class 38		30%
Class 43		30%
Class 45		45%
Class 46		30%
Class 50		55%
Class 53		50%

# SUGGESTED SOLUTIONS

## **QUESTION 1**

#### **Question 1 - Toronto University/ Smart Foods - Suggested Solution**

#### Requirement A – Engagement Considerations

**To**: Paula Reichardt, Managing Partner – BRP

From: CBV

Re: Engagement Considerations

#### **Nature of the Engagement:**

- If we do not express any conclusion in the presentation or the memo, they could fall under CBV Institute Practice Bulletin No. 5 (*Guidance As To When Communications Are Not Valuation, Advisory, Expert or Limited Critique Reports*). That is, if the presentation and memo is an illustrative pricing analyses or a communication in the context of pricing strategy.
- However, if a conclusion is expressed in the presentation and memo, or if we prepare a formal report after our presentation, then our work will need to be in accordance with CBV Institute Practice Standards.
- An engagement under Practice Standard 100 cannot be undertaken, as independence restrictions/considerations prohibit CBVs from contingent/success fee engagements where an independent conclusion is expressed. In addition, if we were engaged on a contingent/success fee basis after finalizing an independent report, there could be issues related to the appearance of independence.
- I recommend an engagement under Practice Standard 200, where CBVs are not required to be independent, which allows for:
  - The presentation of a valuation analysis, including an indication of a potential sale price.
  - The recommendations of business decisions impacting value (i.e. Quebec go / no-go, sale of building, etc.).
  - o The collection of a success fee.

- Most Candidates recognized that an engagement under Practice Standard 200 (Advisory Reports) was the best option based on the needs of the client and the desire for a contingent fee payment structure.
- Some Candidates struggled with the role of a CBV in the case and stated that the firm should prepare an independent valuation and not accept contingent fees.

#### TU's Requirement to Support any Transaction as Being at FMV:

- While we are unable to prepare a Practice Standard 100 report, if a report under Practice Standard 200 does not provide the Board with enough comfort (i.e., due to a lack of independence), we could prepare a Standard 500 Fairness Opinion.
- A Fairness Opinion under Practice Standard, which is a report that concludes on the "fairness" of a transaction (e.g., price in relation to fair market value), and could include a reconciliation of deal terms (i.e. not just cash or cash equivalents).
  - As TU is an audit/largest client of the firm, we would need to disclose our relationship with TU in the report. Further, Standard 500 requires we clearly outline any fee arrangement so that users of the report can assess our objectivity.
  - There is a potential lack of independence (in appearance) due to TU being BRP's largest client and the firm's positioning to appearing to be a full-service firm (i.e., there is a lack of sell-side experience at BRP and a small valuation team).
  - If a report from a valuator is required, a fairness opinion from another firm may be the best option.
  - While some investment banks prepare fairness opinions and act as brokers of transactions, given the small valuation team at BRP it would be difficult to set up appropriate "ethical walls" to sufficiently reduce the concerns and risks regarding independence (i.e., risk can be lowered, but not eliminated), and we recommend against being engaged to prepare a fairness opinion.
- The Governing Council's requirement that all transactions are at FMV could create issues as the price paid may not be FMV. Common reasons for this include buyers or vendor being forced to transact or having uneven negotiating ability.

- Candidates generally struggled to link the potential selling price and the Governing Council's Fair Market Value (FMV) requirement. This requirement was meant to bring Candidates outside of their comfort zone, as:
  - o It required consideration for future engagement in a sell-side role, anticipating different selling processes and considerations.
  - Candidates were meant to take the standard FMV definition and comment how the sale process may not meet the FMV definition (e.g., require selling price be in cash consideration, ensure open market through broad selling program, etc.).
  - Candidates were also pushed to make creative recommendations to the Governing Council, such as anticipating selling price/FMV reconciliation issues and advising that another firm could prepare an independent report (Standard 100 or 500).
- Better responses on these two reporting sections also addressed other reporting items, such
  as BRP's ability to set up ethical walls from the audit team, whether BRP has sufficient
  expertise, etc.
- Many Candidates used templated responses for various issues (e.g., simply providing FMV definition without using case facts, or used valuation report formats (including sections on scope, restrictions, etc.) when it was not required.

#### Requirement B – Valuation Analysis

#### Quebec Business Plan (Value, and Proceed or Not Proceed) - Exhibit A

- We should be cognizant that the Quebec Business Plan in Appendix E could include a degree of bias
- The Quebec Business Plan should be pursued as it has a positive net present value (i.e. adds to the value of Smart Foods) despite the risks of potential losses (i.e., pending Quebec government decisions).
- A discounted cash flow approach on a multi-scenario basis, which is commonly used to value start-ups, was applied using discount rates provided by Bill Jackson.
  - DCF was appropriate given no historical operations and sufficient details to build a forecast.
  - A multi-scenario probability analysis is preferred given the two distinct operating scenarios based on the penalty probability (and subsequent decision to continue operations or shut down).
- See Exhibit A for calculations and below for summary:

Net Present Value - Current		1	Neighted		
Scenario	Probability	NPV	Avg	Low	High
Scenario 1: Full Service Renewal	70%	3,099	2,170		
Scenario 2: Penalty	30%	(2,591)_	(777)		
			1,392	1,300	1,500
		_			

#### Quebec Start-Up - Key Findings

- TU should move forward with the Quebec Business Plan as the NPV is positive under the weighted average basis (\$1.4 million).
- The venture is only profitable long-term if the penalty for out of province food ownership is not passed.
- Smart Foods should consider not entering into a 5-year lease agreement, in order to provide the flexibility to abandon start-up in a "non-expansion" scenario if the penalty is enacted.
  - If the 5-year lease was cancelled there would be 2 years of rent, which would result in negative income when contract would otherwise be cancelled (\$290,000 additional rent X 2 years @ 30% chance = \$174,000 undiscounted additional rent versus \$50,000 incremental cost to rent annually).

- Candidates generally performed well in this area, preparing a technically correct DCF calculation. However, the majority prepared only one scenario with a blended/ weighted penalty.
- Candidates also generally did a good job of summarizing their analysis as a "proceed/ do not proceed" decision for the Council, which is in line with their role.

- Preparing a second scenario calculation (i.e., assuming legislation passed and penalty enforced) allowed Candidates to provide a superior recommendation from an advisory standpoint. With a penalty the business is not profitable, and additional calculations were needed to ascertain this (i.e., sale of equipment, return of working capital, no terminal value, etc.).
- Better responses identified the initial stub period and used a partial period factor or at least deducted capex on an undiscounted basis.
- Most Candidates excluded working capital or stated that it was expected to be nominal. Better
  responses addressed that as this was a start-up, the impact of accounts receivable timing on
  working capital was significant.
- Several Candidates were missing cost of goods sold or other significant expenses (perhaps
  due to the fact that other case facts were in other parts of the question outside the PowerPoint
  exhibit that explicitly addressed this part of the question), which led to large overstatements
  of the Quebec NPV. Candidates are encouraged to review their calculations at a high level
  and assess the reasonability of their assumptions.
- Regarding operating cash flow assumptions, Candidates were intended to assume 30% markup for standard bid markup per Appendix D. Many Candidates either used the Ontario margin
  (which was understated given TU related sales) or Ontario costs (which overstates margin as
  Fresh Minds higher cost product). Marks were available for these and other reasonable
  margins.

#### Smart Foods Value - Exhibits B and C

If Smart Foods were to be sold in its current state (including Quebec), our analysis indicates pricing between \$36.3 million and \$43.3 million (\$38.5 million to \$45.5 million before TU loans), as summarized below (also see Exhibit B):

	Note	Low	High
Existing Business			
Normalized EBITDA	1/ Exhibit C	2,600	2,800
EBITDA Multiple	2	6.0x	8.0x
		15,600	22,400
One-Time Moving Costs	Appendix F	(400)	(400)
Quebec Start-Up	Exhibit A	1,300	1,500
Factory (Redundant Asset)	3	19,500	19,500
Metro University Loss Claim	4 / Exhibit D	2,546	2,546
Total Assets		38,546	45,546
Working Capital Adjustment	5		-
Enterprise Value		38,546	45,546
Due to TU	Appendix C	(2,200)	(2,200)
Fair Market Value - Smart Foods		\$36,346	\$43,346

#### **Marker Comments**

 Most Candidates appropriately consolidated the various components of their analysis into an overall assessment of Smart Food's FMV.

#### Notes:

A Market Approach was used to value the existing business given the availability of comparable companies and the fact that acquisitions in the industry are generally based on EBITDA multiples.

- 1. See Exhibit C for a review of historical earnings to calculate normalized earnings, including various adjustments and weightings to represent annual normalized earnings on a go-forward basis.
- 2. Bill Jackson indicated companies in the industry are usually valued using EBITDA multiples. Based on the transaction information provided in Appendix F, and as indicated below, Fulsom Foods and East Coast Fresh were selected as comparable companies. Fulsom Foods' EBTIDA multiple is 6x (Enterprise Value of \$3 million / Target EBITDA of \$500,000), and East Coast Fresh's EBITDA multiple is 8x (Enterprise Value of \$12,000,000 / Target EBITDA of \$1,500,000).

	Tar				Target						
			Т	arget	GM	Та	rget	Enterprise	<b>EBITDA</b>		
Date	Target	Buyer	Re	venue	(%)	ЕВ	ITDA	Value	Multiple	Description	Comments
(\$000s) Jul-20	Fulsom Foods	Global Foods	\$	10,000	20%	\$	500	3,000	6.0x	A food services provider serving prisons across Ontario, acquired by largest global institutional food service company. Fulsom serves primarily mass produced meals, but has developed a fresh food line to service newer prison cafeterias	Comparable, institutional customers (different industry/similar service), with comparable gross margin to Smart Foods. Both in Ontario so provincial government
Jan-20	Guelph Meatless	Unbelie vable Foods	\$	800	5%	\$	16	480	30.0x	The long-term food/catering supplier for Guelph University, the Company had recently patented a new vegetable protein that tastes indistinguishable from chicken. Acquired by plant-based meat public company on NASDAQ	Not comparable, multiple and small revenue (as well as purchaser) indicates purchase was primarily for vegetable meat replacement technology
May-19	Smart and Hungry	Morgan Foods	\$	90,000	10%	\$2	2,700	27,000	10.0x	Frozen dinner manufacturer ranked by Canadian Life magazine as best meals for families on the go, sells under own brand and private label for Canada's largest grocery chain nationally, purchased by Canada's largest frozen food company (and globally #1 for frozen French fries)	Not comparable, while food services, frozen food preparation for retail is very different industry - see lower margins and higher revenue (volume business)
Apr-19	East Coast Fresh	Pension Plan of Nova Scotia	\$	15,000	30%	\$1	,500	12,000	8.0x	A food services provider with approximately 50% market share across Atlantic Canada, rebranded 5 years ago from East Coast Eats to East Coast Fresh with fresh campus food now comprising about 80% of sales. Acquired by pension fund	Comparable, similar business to Smart Foods (university institutional food services) in different region of Canada. Higher GM, but more focused on Fresh Food, which is only 30% of Smart Foods current Ontario Business
Nov-18	Shepherd Foods	Ross Foods	\$	12,000	25%	\$1	,440	14,400	10.0x	Target was the second largest hospital institutional food service provider in Ontario, acquired by the largest - both operate facilities out of Toronto and subsequent to the sale they consolidated operations into a single site.	Not comparable, institutional food services in Ontario - but appears to be significant synergies that were available that might not be present for any market participants of Smart Foods (none identified to date)

#### **Marker Comments**

- Candidates prepared technically correct adjusted EBITDA calculations for Smart Foods' existing business.
- Candidates performed good normalization adjustments in Smart Food's pricing analysis.
  There were many potential calculations, and Candidates generally appeared to prioritize
  the most material calculations (e.g., TU's market adjustment) and those calculations that
  could be incorporated efficiently.
- Candidates generally performed a good analysis of comparable companies, with explanations. Most Candidates correctly identified at least one or more comparable companies.
- Most Candidates used a simple average of historical EBITDA or the most recent year's results. Candidates are encouraged to consider case facts for weighting particular years (e.g. excluding years before minimum wage increase or when plant was below capacity).
- Several Candidates used a CCF approach. While some marks were available for this approach, it likely cost Candidates time and impacted their valuation range (generally understating the range). Candidates are encouraged to carefully consider provided case facts as an indicator of the most appropriate approach. In this question, Bill Jackson commented that similar companies are purchased based on EBITDA multiples, and there was minimal information to use in a WACC build-up calculation (many Candidates used start-up discount rate of 20% for cost of equity in error).
- Regarding the TU adjustment to market rates, Candidates could have either assumed 50% of costs or revenue related to TU, as long as reasonable adjustments to convert the 10% markup to a 30% markup is applied to TU only.
- 3. The factory has been identified as a redundant asset. The building is considered redundant given the availability of cheaper rental buildings, and the highest and best use of the property is not for manufacturing. The potential sale price based on selling as commercial office loft space, as summarized below. Note that income tax impacts were not incorporated into the calculation as TU is a non-taxable entity:

30,000
650
19,500,000

- The majority of Candidates recognized that the real estate was redundant, although support with case facts (e.g. area being redeveloped, superior location available for rent, etc.) was generally weak.
- 4. The value of the loss claim is calculated on Exhibit D (and discussed in detail below). The amount may need to be adjusted for the probability of winning per discussion with legal counsel. The gross amount of the loss estimate is provided given the near-term timing of the trial, the impact of not discounting the amount to present value is not material.

5. The current working capital is consistent with the working capital comments made by management (i.e., typical accounts receivable turnover is 60 days and inventory for the traditional frozen/bulk food business has a 30-day turnover), thus no adjustment is necessary.

#### Smart Foods' Value - Key Findings

- A large portion of Smart Foods' equity value is attributable to the redundant asset (i.e., the
  factory). Regardless of the decision to sell the company or not, TU should proceed with selling
  the real estate and renting the suburban location given the factory's value and the fact it is not
  an operationally efficient space for Smart Foods. Smart Foods also indicated the potential
  efficiencies moving to a modern facility.
- Given the materiality of the building value, we would also recommend obtaining a real estate appraisal, and selling the building separately from the business. We would also advise contacting a real estate broker regarding the factory sale as it is outside our expertise.
- The value of the Quebec Start-Up is heavily impacted by the probability of out of province penalty legislation being passed, which may be known before the sale is finalized and could impact value. This potential significant change in value could be addressed via an earnout clause in a sale of Smart Foods.
- The loss claim must be addressed by TU and the seller. If assumed by a buyer who is a taxable market participant, the \$2.5 million claim could be considered a contingent receipt of money. Alternatively, TU could TU retain it as an asset.
- Because much of the above analysis was based on assumptions from Bill Jackson, such assumptions should be substantiated by the BRP team before TU moves forward with a sale.

#### **Marker Comments**

 While most Candidates identified the factory as redundant asset and Quebec as a positive NPV investment, qualitative considerations were weak.

#### Metro Loss Quantification – Exhibit D

The value of loss claim is expected to be approximately \$2.5 million (before tax), as calculated in Exhibit D and summarized below:

1,094
65
259
1,127
2,546

#### Key Assumptions and Disclaimers

- This matter represents a breach of contract, given that the termination was allegedly not permitted under the contract terms (i.e., insufficient notice, no chance to rectify) and was within effective period.
- This calculation is preliminary in nature and is presented as a consideration for a potential sale. A formal expert report should be commissioned in the event that this matter proceeds to trial. Engagements performed under Practice Standard 300 requires the preparer to be independent, and independence may be an issue for BRP.
- A Practice Standard 300 report is a written communication, which contains a conclusion as to the quantum of financial gain/loss, or any conclusion of a financial nature in the context of litigation or a dispute, prepared by an expert acting independently.
- An award of damages due to lost profits would be taxable if the matter is settled after sale. As
  TU is not taxable, it is beneficial for TU to settle this matter prior to a sale. Based on our
  calculations, the present value of likely receipt is \$2.5 million; that is, it increases Smart Foods'
  value by \$2.5 million. TU should either attempt to settle this matter before a sale or retain the
  receivable if the business is sold prior to this matter being settled.
- The breach occurred at the beginning of fiscal 2015 (i.e., September 1, 2014), when Metro stopped purchasing from TU, and the economic losses are calculated as of that date.
- The economic losses have been calculated based on lost profits and assumes the entire contribution margin (sales versus direct ingredient and labour cost of production) could be claimed, as other operating costs are fixed.
- There is a small component for increased operating cost related to terminated employee severance.
- While the contract floor was 1 million pounds, we have used an estimate of actual pounds (using hindsight) for our economic loss calculation. Notably, while volume was expected to

- increase to 1.5 million in fiscal 2015, the new residence was delayed until 2016 and our estimated contract volume (for the damage calculation) reflects the delay.
- While the contract is 10 years, we have assumed the economic losses would have been fully
  mitigated after fiscal 2017, as Smart Foods was able to secure new contracts (at comparable
  or better margins) and is at full capacity.
- The only income/cash flow item occurring after the trial date is a contract end payment of \$1.5 million, which was discounted to 2021 based on the 10% discount rate provided.
- All quantification assumptions should be discussed with legal counsel.

#### **Marker Comments**

- Candidates generally struggled with the loss claim. While many Candidates had technically correct forecasts, responses were weaker on litigation-specific elements such as:
  - Terminating the calculation of potential economic losses once they were fully mitigated (i.e. plant at full capacity).
  - Understanding that the use of hindsight is appropriate with respect to the change in volumes when the new cafeteria was delayed.
  - Appropriate interest for historical losses and discounting of the end of contract payment (all other cash flows after trial date being mitigated).
  - Many Candidates addressed the need for legal counsel's review of assumptions, but discussions regarding the breach of contract specifics was generally weaker.

#### Value of Smart Foods' Goodwill/ Other Intangibles

- For the Governing Council, selling Smart Foods as an operating business will likely generate a higher sale price than if it sold its individual assets on a piecemeal basis.
- Tangible asset backing is comprised of tangible operating assets (including capital assets), net of liabilities, required to carry on the business.
- Smart Foods' value is derived from its tangible assets, intangible assets, and goodwill.
  Goodwill is the residual value remaining when enterprise value is allocated across identifiable
  tangible assets (i.e., assets that have physical substance, the value of which is based on book
  value, appraisals, or estimates of FMV) and intangible assets (i.e., assets that lack physical
  substance, the value of which is obtained using various intangible asset valuation methods).
- While tangible assets (i.e., inventory, accounts receivable, etc.) could be sold quickly, it would likely be more difficult to sell intangible assets (such as contracts in place), and not possible to realize the value of the goodwill without selling the business as an operating company. For the Governing Council, value is maximized through a business sale.

#### Earnings Multiplier over Goodwill/ Intangibles

 Per Exhibit C, the existing business has Enterprise Value of \$16.4 million and \$20.4 million, net assets (tangible asset backing) of approximately \$8.8 million. As such, approximately \$7.6 million to \$11.6 million of value is goodwill and other intangibles (i.e., contracts, relationships, brand, production process, etc.), which represents 2.9x to 4.4x EBITDA (see Exhibit C). For TU, the only way to realize this potential value is through a business sale.

- This value is supported given average length of contracts (2 years), growing brand recognition of Fresh Minds, and customer relationships.
- Also, there are qualitative concerns if wound down TU food service pricing might increase
  due to lack of competitors in the market or potential reputation issues if the business is closed.

#### **Marker Comments**

- Many Candidates recognized the importance of reconciling goodwill and intangibles with operating business value at a high level, and correctly advised the Council that Smart Foods should be sold as an operating business. Most Candidates provided a technically correct calculation of implied goodwill.
- Many Candidates struggled with the TAB reconciliation, either including the redundant asset (which understates goodwill), calculating enterprise vs equity value inconsistently, or comparing to liquidation values.
- Better responses prepared an accurate TAB calculation comparing to identifiable intangibles (i.e., customer relationships) and calculating implied goodwill with support as to why the calculation is reasonable via an EBITDA multiple/goodwill payback calculation.

#### Value of Customer Relationships (not TU) – Exhibit E

- Regarding specific examples of intangible value, we have calculated the potential value attributable to customer relationships (excluding TU) in Exhibit E at \$4.9 million.
- This was calculated using a multi-period excess earnings (MEEM) model discounting cash flows attributable to the existing customers through 2026 (the forecast could be continued, but there is limited NPV after 2026).
- MEEM is a common approach when valuing customer relationships and was selected given the availability of attrition rates and asset rates of return (for the contributory asset charges).
- Key assumptions were:
  - o 50% of sales are not related to TU, and 80% of sales are from prior year customers.
  - The earnings would be taxable at 25% (rate for Ontario manufacturing businesses) assuming a market participant would be taxable
  - 15% discount rate, provided by Bill Jackson, as well as 3% and 8% rates of return for working capital and equipment, respectively
  - Since a customer relationship represents existing customers, marketing/commission expenses have been removed from attributable expenses..

#### **Marker Comments**

MEEM calculation was generally done poorly. While most Candidates correctly adjusted sales
for the non-TU portion, many struggled with MEEM-specific calculations such as applying
attrition on a declining basis and applying the contributory asset charges and other
calculations to only attributable revenue (i.e. not at 100%).

#### Comments on Previous Sale

- The previous offer price was \$6.0 million. The present value of this offer was approximately \$5.7 million, given that it would have been paid in 3 equal annual instalments, bearing interest at 2.4%.
- The value of the offer of \$5.7 million is significantly lower than our valuation analysis. While it
  may have excluded the value of the factory and the Metro University loss claim, \$5.7 million
  is only a fraction of the existing business' enterprise value of \$16.4 to \$20.4 million, and as
  such should not be considered..
- Even if the offer were to be within the range of our valuation analysis, accepting an unsolicited
  offer would be unlikely to meet the Governing Council's requirement to transact at fair market
  value. As Smart Foods was not exposed to the market, it would not meet the "open and
  unrestricted market" requirement of FMV.
- Lastly, Global Foods is known as a high volume/low quality producer, which is contrary to the values of the President.

#### **Marker Comments**

 Most Candidates addressed the previous offer and discussed it relative to their own calculations. Better responses addressed other items from a qualitative perspective (i.e., unsolicited nature vs FMV, whether offer considered real estate, etc.).

#### TU / Smart Foods Related Party Items

Before any sale, items to be resolved include:

- Loans between TU and Smart Foods should be settled either prior to sale or on sale.
- The most significant item is the current sales volume and pricing between TU and Smart Foods:
  - The existing business is not profitable with the current TU food markup (only 10%), and as such would unlikely to be sold.
  - O Given TU is also 50% of existing sales, a market buyer will likely want security that this business will continue as the company would be unprofitable without this significant customer and given related party relationship there may be concerns on whether past sales were only as a result of the discount.
  - Any buyer is likely to require a market rate contract be established between TU and Smart Foods prior to the sale (in terms of rates, length of contract, specified minimum quality thresholds, etc.).

- Most Candidates addressed related party items as they relate to the quantification of the TU markup.
- Few Candidates related back to the sale process as an advisor (i.e. in a sale scenario, all relationships should be adjusted to market).

#### Requirement C – Advice on Areas Beyond Smart Foods

#### Other TU Considerations on Sale

#### **Qualitative Considerations**

#### Pros

- Sale of business will free up the Governing Council and Business Board's time and energy.
- Ownership of food services is not common for Canadian universities. As such, the current relationship opens TU to criticism (either mismanagement or inefficient use of resources), particularly as TU is funding annual deficits.
- In the long-term, the sale of Smart Foods will provide TU more flexibility to source other food options based on the specific situation of each campus.

#### Cons

- Sale would lead to a loss of control over food quality, at least in the short-term and depends on the length of the negotiated supply contract.
- TU would have less control over cost of food service in the future will be subject to market prices.

#### **Quantitative Considerations**

- Food service will become immediately more expensive, as noted in Exhibit C:
  - The expected market pricing adjustment for TU sales is approximately \$2.3 million annually.
  - However, after a sale, TU would no longer need to fund Smart Foods losses (\$700,000 most recently).
  - This leads to a net incremental cost of approximately \$1.6 million annually. TU should consider relative to its operating budget and plan for this increased cost going forward.

#### **Marker Comments**

Many Candidates provided 2 or 3 brief qualitative considerations for the Governing Council.
 Candidates who had better responses clearly took an advisor role and covered a breadth of issues, supported by case facts.

#### **Modernization of Cafeteria Investment**

- The new president has made student engagement a focus, and a significant factor in increased student engagement in Canadian Universities has been with respect to the provision of fresh foods.
- While Smart Foods' products have been criticized at TU, it does offer a well-regarded fresh
  food product (Fresh Minds) that could be implemented by TU, but would be more expensive
  and require a large upfront capital investment. A high-level summary of potential investment
  has been performed below (also Exhibit F):

Cost to convert TU cafes			30,000 <b>a</b>
Incremental cash flow per student			
Annual Meal Plan	600		
Increased Tuition	1,000		
Additional Cost	(1,200)		
Annual incremental cash flow		400	
# of TU students (café)		14,000	
			5,600
Sustaining Capex			(2,000)
Incremental annual cash flow			3,600 b
Payback period (a / b)			8.33 <b>c</b>
IRR (of a perpetuity) (100 / c)			12%

#### Modernization of Cafeteria - Key Findings

Based on expected increases to tuition and meal plans, TU should strongly consider investing in a cafeteria renovation program and switching to fresh food service. As illustrated in the table above, the payback period is less than 10 years, and the IRR of the project would be 12%. Per Appendix B, TU can finance projects at very low rates (5%), therefore the IRR of 12% is a strong return. Qualitatively, this project would help the President's student-first mandate; and it would also improve food quality and allow for a long-term contract with Smart Foods that would provide security to a potential buyer.

Because these calculations are based on an old Smart Foods proposal, the inputs used should be revaluated and confirmed by an updated quote.

#### **Marker Comments**

 The majority of Candidates addressed the cafeteria renovation in a reasonable manner, with many recommending Council move forward. As this required element of the question was presented in open ended manner, marks were provided to students with reasonable calculations (i.e., DCF, IRR, payback period, etc.).

#### Marker Comments – Exam Overall

- The majority of Candidates attempted most parts of the required "asks" in the question, but generally one or two areas were poorly done. The question was meant to test Candidate's ability to prioritize calculations and "asks" that were most material, relevant and time efficient.
- Candidates are encouraged to review the case from the client's perspective. This question was written to address the needs of a financially inexperienced Governing Council.
- Candidates generally performed well in building forecasts and normalizing income, although support for assumptions was generally shallow. For major assumptions (gross margin, etc.),
   Candidates are encouraged to provide more support that are based on case facts.
- Many Candidates struggled with the advisor role requested of them (or reporting/ information requests). The unnecessary preparation of Standard 100 template report sections (scope, restrictions, etc.) appeared to cost some Candidates valuable time.

- Poorer responses appear to have not allocated sufficient time to address each part of the required by the question, with substantial sections not completed. Candidates are encouraged to allocate time to attempt all required parts required by the question.
- Candidates struggled with tax implications throughout their analysis, and the non-profit nature of Smart Foods created complexities (i.e. Quebec is taxable assuming a market participant, but redundant real estate is not as assumed sold by TU).
- Better responses addressed the concept of operating vs asset value and valued/assessed the cafeteria renovation (important considerations for the Governing Council).

Exhibit A Value of Quebec Start-Up (\$000s)

Scenario 1: Full Service and Renewal						
		Nov-Dec				
	Note	2020	31-Dec-21	31-Dec-22	31-Dec-23	Terminal
Income						
Sales	1		10,000	10,200	10,404	-
Expenditures						
Cost of Inventory	2	-	5,385	5,492	5,602	
Labour (Food Preparation)	2		2,308	2,354	2,401	-
	2		7,692	7,846	8,003	_
Gross Margin		-	2,308	2,354	2,401	
			23%	23%	23%	
Building rent (all inclusive)	3	48	290	296	302	
Other operating costs	4	33	200	204	208	
Management Salaries	5	67	400	408	416	_
EBITDA		(148)	1,418	1,446	1,475	1,504
Taxes	6	-	(338)	(385)	(392)	(400)
After Tax		(148)	1,080	1,061	1,083	1,104
Capital Expenditures	7	(800)	(80)	(80)	(80)	(80)
Tax Shield	8	98	10	10	10	10
Working Capital	9	-	(1,874)	(37)	(38)	(39)
Cash Flow		(851)	(864)	954	974	995
Multiple	10					5.6x
						5,528
Partial Period Factor	11	0.167				
PV Factor		0.083	0.667	1.667	2.667	2.667
Discount Rate	12	0.98	0.89	0.74	0.61	0.61
		(838)	(765)	704	599	3,400
Scenario 1: Total PV (Full Service)		\$ 3,099				

Scenario 2: With Penalty - No Renewal						
·		Nov-Dec				
		2020	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24 Terminal
Income						[3]
EBITDA Above		(148)	1,418	1,446	1,475	
Add rent under no-penalty scenario	3	48	290	296	302	
Deduct rent under penalty scenario	3	(50)	(300)	(306)	(312)	
Incremental Penalty	13	-		(2,550)	(2,601)	
Adjusted EBITDA		(148)	1,418	(1,104)	(1,126)	
Taxes	14	-	(338)	294	300	
After Tax		(148)	1,080	(810)	(827)	
Capital Expenditures	15	(800)	(80)	(80)	(80)	560
Tax shield	8	98	10	10	10	
Tax on disposition of equipment	16	-	-	-	-	(4)
Working Capital	9		(1,874)	(37)	(38)	(39)
Cash Flow		(851)	(864)	(918)	(935)	517
Multiple						
Partial Period Factor	11	0.1667				
PV Factor		0.0833	0.6667	1.6667	2.6667	3.6667
Discount Rate		0.98	0.89	0.74	0.61	0.51
		(838)	(765)	(677)	(575)	265
Scenario 2: Total PV (Lunch Service)		\$ (2,591)				

#### Notes:

1 2021 is 2 million lbs of food at \$5/lb per Appendix E. Price in subsequent years is adjusted for inflation, per Appendix E.

Nov-Dec

2

	MOV-DEC			
	2020	31-Dec-21	31-Dec-22	31-Dec-23
Sales per Note 1	-	10,000	10,200	10,404
Cost of Sales (based on 30% markup per Appendix D)	-	7,692	7,846	8,003
Allocated to inventory costs (approximately 70% - see ratio				
of inventory to labour costs in Exhibit C)	-	5,385	5,492	5,602
Allocated to labour costs (approximately 30% - see ratio of				
inventory to labour costs in Exhibit C)		2,308	2,354	2,401

3 In the no-penalty scenario, building rent of \$290,000 per year (5-year non-cancellable lease) (per Appendix E) has been used. (note: marks were also awarded if Candidate explicitly noted that the \$300,000 per year cancellable lease was used in both the no-penalty and penalty scenarios, due to the risk of unprofitable business or cancellation). Amount increased in subsequent years for inflation. Assumed that rent would also be incurred in 2020, thus 2020 amount is 2/12ths of the \$290,000 in 2021.

In the penalty scenario, building rent of \$300,000 per year (renewable annually) (per Appendix E) has been used. Amount increased in subsequent years for inflation. Assumed that rent would also be incurred in 2020, thus 2020 amount is 2/12ths of the \$300,000 in 2021.

- 4 2021 is \$200,000, per Appendix E. Amount increased in subsequent years for inflation. Assumed that other operating costs and overhead would also be incurred in 2020, thus 2020 amount is 2/12ths of the \$200,000 in 2021 (note: other reasonable calculations were awarded marks).
- 5 2021 is \$400,000, per Appendix E. Amount increased in subsequent years for inflation. Assumed that management salaries would also be incurred in 2020, thus 2020 amount is 2/12ths of the \$400,000 in 2021 (note: other reasonable calculations were awarded marks).
- 6 Based on 26.6% corporate tax rate in Quebec per Appendix H. While Smart Foods is non-profit, assumed that the market participant buyer is taxable. Loss in 2020 was carried forward and used in 2021 to reduce taxes payable in 2021.
- 7 Requires immediate initial capital investment of \$800,000, per Appendix A and E. Per Appendix E, equipment would need to be replaced over a 10-year period, thus \$80,000 per year.
- 8 Tax Shield Formula assuming 20% CCA rate.

		Nov-Dec				
9		2020	31-Dec-21	31-Dec-22	31-Dec-23	Terminal
	Revenue	-	10,000	10,200	10,404	10,612
	Change in revenue	NA	10,000	200	204	208
	A/R - 2 month turnover per Appendix C (2/12)	17%	17%	17%	17%	17%
	Working Capital - A/R	NA	1,667	33	34	35
	Cost of inventory	-	5,385	5,492	5,602	5,714
	Change in cost of inventory	NA	5,385	108	110	112
	Inventory - 2 week turnover per Appendix D (2/52)	4%	4%	4%	4%	4%
	Working Capital - Inventory	NA	207	4	4	4
	Working Capital - A/R and Inventory		1,874	37	38	39

- 10 Based on 20% discount rate provided by Bill Jackson, per Appendix E, less long-term growth (inflation).
- 11 Partial period factor for 2 months in 2020.
- 12 Based on 20% discount rate provided by Bill Jackson, per Appendix E.
- 13 Penalty is 25% of sales in the year, per Appendix E.
- 14 Based on 26.6% corporate tax rate in Quebec per Appendix H. While Smart Foods is non-profit, assumed that the market participant buyer is taxable. Loss in 2020 was carried forward and used in 2021 to reduce taxes payable in 2021. Taxes recovered in 2022 and 2023 recognized as would be carried back to 2021.
- 15 Requires immediate initial capital investment of \$800,000, per Appendix A and E. Per Appendix E, equipment would need to be replaced over a 10-year period, thus \$80,000 per year. Equipment is sold for 70% of cost per Appendix E (\$800,000 + \$80,000 x 3) x 70%.

	Nov-Dec					
UCC Continuity and Tax on Recapture	2020	31-Dec-21	31-Dec-22	31-Dec-23	Terminal	
UCC-Beginning	-	720	648	590	544	Α
Additions	800	80	80	80		В
Capital cost allowance	80	152	138	126		С
UCC-End	720	648	590	544	544	A+B-C
Sold		-	-	-	560	
(Recapture)/Terminal Loss		-	-	-	(16)	
Net Tax Impact (Capital Assets)					(16)	
Tax rate					26.6%	
Tax					(4)	

(note: other reasonable calculations were awarded marks).

Exhibit B Valuation Analysis - Smart Foods (\$000s)

	Note	Low	High
Existing Business			
Normalized EBITDA	1/ Exhibit C	2,600	2,800
EBITDA Multiple	2	6.0x	8.0x
		15,600	22,400
One-Time Moving Costs	Appendix F	(400)	(400)
Quebec Start-Up	Exhibit A	1,300	1,500
Factory (Redundant Asset)	3	19,500	19,500
Metro University Loss Claim	4 / Exhibit D	2,546	2,546
Total Assets		38,546	45,546
Working Capital Adjustment	5		-
Enterprise Value		38,546	45,546
Due to TU	Appendix C	(2,200)	(2,200)
Fair Market Value - Smart Foods		\$36,346	\$43,346

Exhibit C
Smart Foods - Statement of Income and Expenditures (Not for Profit Accounting Standards) (\$000s)

	Note	31-Aug-17	31-Aug-18	31-Aug-19	31-Aug-20
Income					_
Sales		22,135	27,415	28,495	30,488
Labour Grant		22,100	21,110	20, 100	100
Cost of Goods Sold					
Cost of Inventory		13,090	15,706	16,010	17,960
Labour (Food Preparation)		5,950	7,706	7,860	8,117
Gross Margin		3,095	4,004	4,625	4,511
		14%	15%	16%	15%
Other Operating Expenses					
Utilities, Building Expenses and Repairs/Maintenance		(1,720)	(1,750)	(1,790)	(1,825)
Employee Salaries (non hourly)		(1,035)	(1,056)	(1,078)	(1,100)
Office General and Administrative		(1,020)	(1,040)	(1,060)	(1,085)
Pension Benefit Expense		(700)	(880)	(891)	(922)
Marketing/Commissions		(600)	(330)	(340)	(350)
Amortization of Capital Assets		(200)	(190)	(180)	(170)
		(5,275)	(5,247)	(5,339)	(5,452)
Grants (Initial)		200	200	200	200
(Deficiency) / Excess of Income over Expenditures		(1,980)	(1,043)	(514)	(741)
Normalization Adjustments					
Eliminate \$200,000 of grant	1	(200)	(200)	(200)	(200)
Deduct market rent	2	(471)	(480)	(490)	(500)
Eliminate property tax savings	3	282	288	294	300
Eliminate compensation for management time related to					
university activities	4	188	192	196	200
Adjust TU sales to market rates	5	1,908	2,343	2,387	2,606
Above-market benefits	6	298	385	393	406
Reduce building operating costs	7	440	450	463	475
Eliminate amortization		200	190	180	170
Eliminate legal fees re: Metro lawsuit	8	15	15	15	40
Normalized		681	2,140	2,724	2,756
Weighting	9	-	1	3	2
Normalized EBITDA (weighted)		2,637			
Rounded		2,600			

		Low	High
Normalized EBITDA	10	2,600	2,800
Multiple	11 _	8x	6x
Pricing Analysis (Existing Operations)		20,800	16,800
Less: One-Time Moving Cost	12 _	(400)	(400)
		20,400	16,400
Tangible Asset Backing			
Current Assets	13	7,520	7,520
Capital Assets (excluding building)	13	420	420
Equipment fair market value in excess of net book value	14	1,100	1,100
Less: Liabilities (excluding debt)	13 _	(200)	(200)
Net Assets	_	8,840	8,840
Goodwill and Intangibles (implied)	a-b	11,560	7,560
Normalized Earnings per above	_	2,600	2,600
Number of Years of Goodwill/Intangibles	15 c / d	4.4x	2.9x

#### Notes:

- 1 \$200,000 grant from the Ministry of Education removed as would not continue under private ownership, \$100,000 labour grant not adjusted as expected to continue.
- 2 As current factory redundant asset, have deducted market rent that would be payable if factory sold (assuming \$25/sf @ 30,000 sf suburban factory selected per Smart Food). Early years have been adjusted for inflation.
- As factory is redundant asset to be sold, would be savings of property tax differential (\$400,000 current less \$100,000 suburban option). Early years have been adjusted for inflation.
- 4 1/3 of Senior Management's \$600,000 salary is for TU activities that would no longer be required, or could be sold by buyer to TU. Early years have been adjusted for inflation.
- 5 Adjustment to TU sales to reflect a market rate contract (note: other reasonable calculations were accepted):

		31-Aug-17	31-Aug-18	31-Aug-19	31-Aug-20
Pounds of Food Sold (per Appendix C)		9000	10700	10200	10550
50% - sales to TU	a	4500	5350	5100	5275
\$ per pound inventory and food labour (per Appendix C)	b	2.12	2.19	2.34	2.47
Markup on TU sales - existing contract	С	10%	10%	10%	10%
TU sales - existing contract (a x b x (1+c))	d	10,494	12,888	13,127	14,332
Markup on external sales (market rates)	е	30%	30%	30%	30%
TU sales - assuming market rates (a x b x (1+f))	f	12,402	15,231	15,514	16,938
Incremental sales if TU market were at market (f - e)		1,908	2,343	2,387	2,606

- 6 Above market benefits for employees based on TU affiliation is 10%, assume can not be changed easily, but market participant would employ new staff at market rates (i.e. 1/2 of employees assuming average turnover).
- 7 After removing property taxes, adjust for 2/3 of size of existing building.

	31-Aug-17	31-Aug-18	31-Aug-19	31-Aug-20
Utilities, Building Expenses and Repairs/Maintenance	(1,720)	(1,750)	(1,790)	(1,825)
Less property taxes	400	400	400	400
Property expenses excluding taxes	(1,320)	(1,350)	(1,390)	(1,425)
Property-related expenses saved due to smaller building				
(2/3rd size of existing building)	33%	33%	33%	33%
	(440)	(450)	(463)	(475)

- 8 Per Appendix G.
- Weighting rationale as follows:
  - -Provided no weighting to 2017 as below capacity and expected to remain at capacity for future,
  - -Less weighting to 2020 as partially a forecast and margins are also inflated due to unusual CPI bump
  - -Minimal weighting to 2018 as 1/2 of contracts yet to turnover were under old "minimum wage" pricing and this was a major driver for Smart Goods profitability expected to continue
- 10 Adjustment for working capital is not necessary as existing balance sheet appears to represent normal working capital.
- 11 Multiple range of 6x to 8x selected based on comparable companies (see memo).
- 12 Per Appendix F.
- 13 Per Appendix C.
- 14 \$1.5 million fair market value (per Appendix C) less net book value of \$400 (per Appendix C).
- 15 Number of years of goodwill/ intangibles are reasonable given (on average) two year contracts and rate of contract renewals (customer relationships).

Exhibit D
Loss Quantification - Metro University (\$000's)

	31-Au	g-13 3	1-Aug-14	31-Aug-15	31-Aug-16	31-Aug-17	31-Aug-18	31-Aug-19	31-Aug-20	31-Aug-21	31-Aug-22	31-Aug-23
Income												
Sales (a x b)		-	1,800	1,836	2,341	2,388	3,044	3,105	3,167	3,231	3,295	3,361
Cost of Goods Sold (a x c)		-	(1,500)	(1,530)	(1,951)	(1,990)	(2,537)	(2,588)	(2,639)	(2,692)	(2,746)	(2,801)
Gross Margin		-	300	306	390	398	507	518	528	538	549	560
Professional Fees - Bidding Process	('	120)										
End of Contract - Bonus Fee		·										1,500
Pounds of Food Sold (1000s lbs)	а		1,200	1,200	1,500	1,500	1,875	1,875	1,875	1,875	1,875	1,875
\$ per Pound - Revenue	b	9	1.50	\$ 1.53	\$ 1.56	\$ 1.59	\$ 1.62	\$ 1.66	\$ 1.69	\$ 1.72	\$ 1.76	\$ 1.79
\$ per Pound - Cost of Goods Sold	С	9	1.25	\$ 1.28	\$ 1.30	\$ 1.33	\$ 1.35	\$ 1.38	\$ 1.41	\$ 1.44	\$ 1.46	\$ 1.49
\$ Margin/Lb		9	0.25	\$0.2550	\$ 0.26	\$ 0.27	\$ 0.27	\$ 0.28	\$ 0.28	\$ 0.29	\$ 0.29	\$ 0.30
Loss Quantification - Lost Contribution Margin												
Contribution Margin (at 100% of Gross Marging per above)			300	306	390	398	507	518	528	538	549	560
Breach Timing Factor			0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Amount Mitigated (0% = 100% mitigation starting in 2018)			100%	100%	100%	100%	0%	0%	0%	0%	0%	0%
Lost Contribution Margin		_	-	306	390	398	-	-	-	-	-	-
Increased Operating Costs (Severance)			-	65	-	-	-	-	-	-	-	-
Lost Income			-	-	-	-	-	-	-	-	-	1,500
	d		-	371	390	398	-	-	-	-	-	1,500

Historical Lost Contribution Margin			306	390	398					
Sum			1,094							
Pre-Judgement Interest (Assuming Sept 2020 Verdie	<u>:t)</u>									
Years until Sept 2020		е	5.5	4.5	3.5	2.5	1.5	0.5		
Interest (Simple) - (d x e x f)	f 5%		102	88	70	-	-	-		
Total Pre-Judgement Interest		_	259							
Future Loss Income										1,500
PV Factor (Sept 2020)										;
Discount Rate	10%									0.75
Discount Future Lost Income									_	1,12
Reconciliation of Loss Quantification										
Lost Contribution Margin (post Breach / pre Mitigation)	1,094									
Increased Operating Costs (severance 8 employees)	65									
Pre-Judgement Interest	259									
Lost Profits (End of Contract Bonus) - Discounted	1,127									
Total Loss Quantification (Pre-Tax)	2,546									

Exhibit E
MEEM - Value of Customer Relationships (\$000s)

	Note	31-Aug-20	31-Aug-21	31-Aug-22	31-Aug-23	31-Aug-24	31-Aug-25	31-Aug-26
Sales		30,488						
Remove TU Sales (50% of total)		(15,244)						
Third party sales - before attrition	1	15,244	15,549	15,860	16,177	16,500	16,830	17,167
Attributable to Continuing Customer Relationships	2		100%	80%	64%	51%		33%
			15,549	12,688	10,353	8,448	6,894	5,625
Third Party Gross Margin	3		4,665	3,806	3,106	2,534	2,068	1,688
Operating Expenses Attributable to Existing Customers	4		(2,168)	(1,769)	(1,444)	(1,178)	(961)	(784)
Economic depreciation	5		(87)	(71)	(58)	(47)	(38)	(31)
			2,410	1,967	1,605	1,309	1,069	872
Less: Cash Taxes at 25%	6		(602)	(492)	(401)	(327)	(267)	(218)
After-tax cash flow			1,807	1,475	1,204	982	801	654
Contributory Asset Charge Attributable to Existing Customers	7		(161)	(131)	(107)	(87)	(71)	(58)
Excess cash flows			1,647	1,344	1,096	895	730	596
Discount period			0.5	1.5	2.5	3.5	4.5	5.5
Discount factor	8		0.9325	0.8109	0.7051	0.6131	0.5332	0.4636
PV of cash flows			1,536	1,090	773	549	389	276
Sum of Present Value of Excess Cash Flows			4,612					
Tax amortization benefit	9	_	288					
Customer Relationships (FMV) with tax amortization benefit		-	4,900					
Note:								
1 Assumed 2% inflation.								
2 80% retention of existing customers per Appendix D.								
3 Standard markup is 30% per Appendix D.								

4	Operating expenses attributable to existing customers as a % of revenue:					
	Utilities, Building Expenses and Repairs/Maintenance	(1,825)				
	Employee Salaries (non hourly)	(1,100)				
	Office General and Administrative	(1,085)				
	Pension Benefit Expense	(922)				
	Marketing/Commissions					
	Normalization					
	Eliminate \$200,000 of grant	(200)				
	Deduct market rent	(500)				
	Eliminate property tax savings	300				
	Eliminate compensation for management time related to					
	university activities	200				
	Adjust TU sales to market rates					
	Above-market benefits	406				
	Reduce building operating costs	475				
	Operating expenses attributable to existing customers	(4,251)				
	As % of revenue	14%				
5	Assume equal to depreciation (the return of capital assets not reflected in contributory asset charge.					
6	Ontario Tax Rate (assume taxable market participant).					
7	7 Contributory Asset Charge attributable to existing customers:					
	Working Capital (Net):					
	Accounts Receivable	5,100				
	Inventory	2,170				
	Prepaids	200				
	Accounts Payable and Accrued Liabilities	(200)				
	Not working conital as 0/ of revenue	7,270				
	Net working capital, as % of revenue	24%				
	Return on working capital Working capital CAC	<u>3%</u> 0.7%				
	Working capital CAC	<u> </u>				
	Equipment					
	Furniture	20				
	Equipment (FMV)	1,500				
	Total opening equipment	1,520				
	Add: CapEx	- (20.4)				
	Less: Depreciation (assume 20%)	(304)				
	Total ending equipment  Total ending equipment, as % of revenue	1,216				
	Equipment contributory asset charge	8%				
	Equipment contributory asset charge	0.3%				
		0.070				
	Total CAC charge (working capital and equipment)	1.03%				
8	Per Bill Jackson, Appendix H.					
9	(CCA*Tax Rate)/(CCA Rate + Discount Rate) = (5% * 25%) / (5% + 15%) = 6.25%					

Exhibit F Fresh Minds - TU Potential Investment (\$000s)

	<u>Note</u>				
Cost to convert TU cafes	1			30,000	а
Incremental cash flow per student					
Annual Meal Plan	2	600			
Increased Tuition	3	1,000			
Additional Cost	4	(1,200)			
Annual incremental cash flow	_		400		
# of TU students (café)	5	_	14,000		
				5,600	
Sustaining Capex				(2,000)	)_
Incremental annual cash flow				3,600	b
Payback period (a / b)			•	8.33	C
IRR (of a perpetuity) (100 / c)				12%	)
Notos					

#### Notes:

- 1 Smart Foods' estimate.
- 2 Based on increased meal plan at Guelph U.
- 3 Based on increased tuition at Guelph U.
- 4 Per Appendix B.
- 5 Smart Foods 28,000 students total assume 1/2 TU

## **QUESTION 2**

## **Question 2 - We Build Websites**

To: Megan, Partner

From: CBV

Date: December 2020

Re: Preliminary Analysis - Recommendation to Sally on exercising stock options or

purchasing existing shares of WBW

### Note:

1. This memo is for internal purposes only and is not to be shared with the client. As this is analysis has been done for internal discussion purposes, it is not in accordance with (and is not required to be in accordance with) CBV standards. If this analysis is to be shared with the client, a report that is in accordance CBV standards will need to be prepared.

- 2. For the purposes of this analysis, FMV is the premise of value.
- 3. As the parties that are reviewing this memo are familiar with the details, we have not provided any background information.

## **Introduction**

We have been asked by Sally to advise whether she should exercise her 60 stock options or try to purchase Joanna's 95 shares of We Build Websites ("WBW").

To advise Sally of her best course of action, we have valued 100% of WBW, which includes a valuation of WBW's 50% investment in DASY, as at September 1, 2020 (the "Valuation Date"). (Note: Candidates were awarded marks if they used August 31, 2020 as the Valuation Date, as Sally's stock options vested on that day).

# Conclusion

Based on our analysis, Sally should exercise her stock options for WBW. Refer to our analysis and explanation below.

# **Analysis**

### **Stock Options vs Joanna's Shares (Schedule 1)**

As at the Valuation Date, we estimated the en bloc FMV of WBW and its 50% interest in DASY to be in the range of \$1,353,000 to \$1,700,000 (see Schedule 1). On a pro-rata per share basis, this is equivalent to FMV of \$6,765 to \$8,500 per share, or \$7,633 at the midpoint.

We discuss the details of the valuation below.

## Items to Consider re: Stock Options

Sally should consider the following if she were to exercise her stock options:

- Since the pro-rata FMV is \$7,633, and the strike price for the options is \$6,750, the options are in the money, and exercising them would be advantageous.
- It would cost Sally \$405,000 (60 shares \* \$6,750 exercise price) to exercise the options, and she has enough cash on hand to do this (she has \$500,000 available for a transaction)
   she would not have to go out and potentially find financing.
- After exercising the stock options, Sally would have 23% of the outstanding common shares (60 common shares out of 260 common shares outstanding).
- Sally could work with Joanna or Debbie to obtain control. However, Joanna may not be a
  good option to work with as she is less involved; and we are not sure what Sally's
  relationship with Joanna or Debbie is like.

### Items to Consider re: Purchase of Joanna's shares

- Using the pro-rata per share value (i.e. excluding minority discount), purchasing Joanna's shares would cost in the range of \$642,675 to \$807,500. See Schedule 1.
- However, since Sally would only be acquiring 47.5% of the shares, a minority discount should be considered.
- The discount would likely be small (say, in the range of 5%) as 47.5% is a fairly significant shareholding and Sally could try to work with Alice (a good friend) to obtain control.
- Alice's acquisition of 10 shares and the implied minority discount would not be a good comparable (see analysis below).
- It is not clear whether Joanna will actually want to sell her shares, and if Sally makes an offer to acquire the shares, this may cause tension if she does not want to sell.
- If Joanna does agree to sell the shares, she may want more than FMV price doesn't always equal value.
- If Sally were to choose this option, she would not have enough cash to purchase the shares and would have to find a way to finance the portion of the purchase price in excess of \$500,000.
- Sally could try to negotiate paying the purchase price over time this would give her time to obtain any required financing.

### Other Indicators of Value to Consider: Alice's shares

- When Alice bought her shares, the price per share was \$1,125.
- The pro-rata FMV of 10 shares would be \$11,250.
- However, we know that Alice paid \$9,000, implying a per share cost of \$900.
- A 20% minority discount was applied, which is higher than the 5% noted above, but this
  may have been warranted as Alice only purchased 10 shares, a much smaller number of
  Shares than Sally would be acquiring.
- At the time Alice bought the shares, WBW was in an earlier stage of business and there
  had not been as much growth yet. At that time, WBW also did not own any interest in
  DASY.
- Therefore, the transaction involving Alice's shares is not a comparable transaction.

### Other Indicators of Value to Consider: Shareholder's agreement

- The shareholder's agreement has a clause that addresses the sale of shares.
- The clause appears to be unclear as it uses the word "adjusted income" it is unclear what this exactly means.
- The agreement was also never signed therefore it is unlikely that the clause could be used or enforced.
- We should therefore disregard the shareholder's agreement, and not factor its terms into our analysis.

Considering all of the above, and considering her financial constraints, Sally should exercise her stock options.

# **Marker Comments:**

- Although Candidates did a good job of recognizing that a minority discount may apply on Joanna's shares, the calculations varied and more thoughtful analysis could have occurred.
- Many Candidates did not provide any comments on the other indicators of value.
- Some Candidates did not understand that the shareholder's agreement was never signed and therefore was likely of limited use and should not be used in making a decision.
- Star Candidates did take into consideration the other indicators and tied them into their analysis (i.e. were the indicators of value relevant?).
- Star Candidates also had good discussion around whether Sally should exercise her options or buy Joanna's shares.

## Valuation of WBW (Schedules 2 – 5)

We valued WBW using the capitalized cash flow approach because: (1) WBW is a going concern, and (2) WBW is not expected to grow/fluctuate significantly from its current earnings. (Note: Capitalized earnings approach was also appropriate)

As discussed below, there is significant uncertainty regarding the operational and financial impact to WBW if the services provided to (and management fees collected from) DASY were no longer provided.

### **Marker Comments:**

 Candidates identified the correct approach to be used but many did not use case specific facts to support the approach.

We estimated a range of future maintainable discretionary cash flows that are expected to accrue to a prospective purchaser in Schedule 3.

## Maintainable Discretionary Cash Flows (Schedule 3)

As set out in Schedule 3, we adjusted WBW's pre-tax earnings for the following:

- Non-economic historical remuneration paid to the CTO, Joanna, was added back and our estimate of the economic compensation for the position was deducted. We considered salary survey information provided by Sally, and used this information as a basis for economic compensation. We considered, but did not give any weight, to Joanna's comments about the market value of her services as we considered this to be biased. In 2017, we deducted \$95,000 as the revenue was less than \$1 million. Thereafter we deducted \$110,000.
- We deducted our estimate of the market compensation that would be required to hire a bookkeeper. We considered salary survey information provided by Sally for this role as well, and used this as a basis for economic compensation. We considered, but did not give any weight to Joanna's comments about the market value of her husband's services as we considered this to be biased. In 2017, we deducted \$40,000 as WBW's revenue was less than \$1 million. Thereafter we deducted \$50,000 in each year.
- Moving costs incurred in 2019 were added back as these were one-time fees.
- Historical rent expenses were added back, as we have adjusted for market rent.
- Per Appendix 1, WBW in September 2020, WBW was assessed for HST owing, which
  related to regular operations during fiscal 2020 year. As such, the HST assessed
  (\$62,880) was deducted in 2020 as it should have been accrued on the 2020 year-end
  financial statements.
- We considered whether to make an adjustment for the management fees that WBW earned from DASY. Per Appendix 1, WBW and Rosy perform sales and administrative functions for DASY, and if DASY were to hire its own employees, WBW employees' time

would be freed up. As such, the fees earned from DASY should be eliminated on the basis that they were non-operating income, and an assumption about the additional profits that WBW could have earned with freed-up employee time should be made. Given that limited information was provided about the number of WBW employees working on DASY projects, it is difficult to assess the increase (or decrease) in cash flows that would result if the WBW employees were instead working on WBW projects. However, it is assumed that such gross profits would at least equal the fees earned from DASY. As such, no normalization adjustment was made. (Note: Candidates were awarded for reasonable treatment of these management fees).

- Based on the historical information presented above, we selected a range of maintainable EBITDA before consideration of rent for the larger premises to be in the range of \$200,000 to \$270,000. In selecting the above range of adjusted EBITDA before rent, we placed greater emphasis on the more recent results.
- Our selected range of EBITDA before rent was adjusted for the following to arrive at a range of maintainable discretionary cash flow of between \$144,000 and \$203,000:
  - O An estimate of market rent of \$30,000 that will be paid for larger premises on a goforward basis. It could also be argued that the rent should not be adjusted as the lower rent was commensurate with running a smaller business, however, given that WBW has committed to this \$30,000 rent on a go forward basis, regardless of revenue, we have included the adjustment; and
  - Corporate income taxes at the small business rate of 15.5% were deducted as WBW's expected taxable income is below \$500,000 annually, and assuming that rates in effect at the Valuation Date would prevail.

### **Marker Comments:**

- Many Candidates did not comment on the comments made by Joanna on the market value of the compensation and how they could be biased.
- Most Candidates did not address the operational or financial impact of the services provided to DASY in any way.
- Most Candidates performed these calculations well. Candidates could receive full marks if they adjusted the rent on an annual basis such that the annual rent was \$30,000 instead of deducting it from the maintainable discretionary cash flow.

### Weighted Average Cost of Capital (Schedule 4)

The capitalization multiple is determined as the inverse of the discount rate. The selection of our capitalization rates for WBW was influenced by:

- the trend of revenues and earnings realized by the company;
- ii) the company's history of revenue growth;
- iii) the nature of the company's revenues;

- iv) the quality and experience of management;
- v) the general outlook for the industry, including Betas of comparable companies;
- vi) general industry and economic conditions; and
- vii) the selected level of maintainable earnings, and the risk associated with the likelihood of continued levels of profit as achieved in the most recent fiscal years.

After considering the foregoing factors, among others, and using the information provided for inputs we selected a capitalization rate of 17.9% to 18.7% (which corresponds to multiples of 5.4x to 5.6x), being the weighted average cost of capital ("WACC") range of 19.9% to 20.7% less an estimated long term growth rate of 2%.

### **Marker Comments:**

Candidates generally performed this calculation well.

## En Bloc Fair Market Value (excluding DASY investment) (Schedule 2)

We capitalized the indicated maintainable after-tax cash flow of WBW of \$144,000 to \$203,000 (Schedule 3) using the capitalization multiples of 5.4x to 5.6x (Schedule 4) to calculate the range of business enterprise value of approximately \$806,000 to \$1,088,000. A tax shield on the UCC existing at the valuation date (\$25,000 of office equipment) was added to this range to arrive at business enterprise value of between \$808,000 to \$1,090,000.

WBW requires approximately \$75,000 of working capital. As at August 31, 2020, WBW had a working capital deficit of \$30,000, including the \$62,880 adjustment for HST payable. Therefore, there is a shortfall of approximately \$105,000 of working capital. We deducted this from the business enterprise value to arrive at a range of total enterprise value of \$703,000 to \$980,000 (see Schedule 2).

Since WBW has no interest-bearing debt, the en bloc FMV of WBW is \$703,000 to \$980,000 (rounded), with a midpoint of \$842,000 (see Schedule 2).

## **Marker Comments:**

• While the calculation of en bloc fair market value was generally prepared, the working capital adjustment was typically only performed by star Candidates.

## Test of Reasonableness (Schedule 2)

We considered multiples implied from comparable companies to assess the reasonableness of our conclusion:

Review of Publicly Traded Companies							
Name	EV	EV / Revenue	EV / EBITDA	Debt /Capital	Debt/ Equity	Comparable?	
Websites are Us	88,596,423	0.9	5.8	15%	18%	Yes - similar business; though \very large	
Websites.Al	10,100,000	20.2	(3.4)	12%	13%	No - SAAS company	
ML Web	10,997,485	2.0	1.8	25%	33%	Yes - similar business	
SAS.ca	46,266,960	2.9	1.0	46%	86%	No - different business; much larger in size	
Webbies	290,000	1.0	1.5	21%	26%	Yes - similar business	

Based on the above, our conclusion appears reasonable as the multiples we calculated (5.4 to 5.6 per Schedule 4) are in the range of EV / Revenue multiples and EV / EBITDA multiples for comparable companies.

### **Marker Comments:**

- Candidates generally did a good job of identifying the comparable companies and calculating the implied multiples however they did not do a good job of comparing the result of their analysis to the implied multiples to assess the reasonableness of their conclusion.
- Weak responses incorrectly calculated the multiples using market capitalization and not enterprise value.

## Tangible Asset Backing (including Internally Developed Software) (Schedule 5)

We also calculated the implied goodwill based on the tangible asset backing of WBW (see Schedule 5). We assumed the FMV was equal to the book value except for the following:

- Investment in DASY (which we calculated separately);
- In-house software estimated the FMV (i.e., the estimated costs to develop WBW Backend, Garvin, and iBooster) to be approximately \$372,000; and
- HST payable of \$62,880.

In addition, we then added in the working capital injection that would be required.

After adjusting for the above, we estimated the TAB to be approximately \$447,000.

### **Marker Comments:**

 Candidates performed well with respect to estimating the value of the internally generated software.

### Other Indicators of Value:

#### 1. M&A Comment

We considered the comment made by Joanna's friend regarding the 15x EBITDA multiple. We noted that this multiple was for a company in the SAAS industry, which is not the industry WBW operates in. Further, it is also unclear how much work the dealmaker had undertaken in order to determine if WBW was a SAAS company; and to our knowledge, the dealmaker has not reviewed any financial information of WBW. Thus, while we would need further information on this multiple, it does not appear that this multiple is relevant to WBW.

#### 2. Intra/Pac Transaction

It appears that Pac is in the same industry as WBW, and therefore this transaction may be a comparable transaction. Some things to consider in assessing comparability:

- Intra may have been a special purchaser and therefore may have paid more than a market participant might pay.
- Pac is a bigger company than WBW and therefore may command a higher multiple.
- It is unclear whether there was a minority interest applied to the 30% purchased.
- Further information would be needed in order to assess whether the transaction is comparable. Further, the 5x revenue multiple may require adjusting if Intra was a special purchaser.

## **Marker Comments:**

Candidates generally did not comment on the other indicators of value.

### Valuation of DASY (Schedules 6 – 10)

A discounted cash flow (DCF) technique was used to value DASY as: (1) DASY is expected to be a going concern, (2) High growth is expected in the near future, and (3) Forecasted information was provided, thought it may be biased as it was prepared by one shareholder with no input from any of the other shareholders.

### **Marker Comments:**

 Candidates identified the correct approach to be used but many did not use case specific facts to support the approach.

### Comments on Forecast Prepared by Joanna

We considered, but did not ultimately use, many of the details in the forecast prepared by Joanna because:

- The forecast is likely biased as it was only prepared by Joanna with no input from DASY.
- The forecast was prepared for bank financing purposes; thus, intentions and assumptions may be different.
- The forecast did not consider the shift in revenue that is expected from the HW contract.
- The growth rate appears unrealistic as it assumes that DASY will be able to grow at a very high rate indefinitely.
- The gross margin that Joanna forecast appears unrealistic as it is higher than any gross margins ever earned by DASY.

## **Marker Comments:**

• Candidates generally did not provide observations that the forecast prepared by Joanna was likely biased and should not be used.

### Forecast and Present Value of Cash flows in Discrete Period (Schedule 8)

We used the information from the other shareholders plus our own research to build a forecast. In building the forecast, we valued DASY on a stand-alone basis making a market return.

As a check on the reasonableness of the forecast, we considered the estimated normalized income before taxes. As these amounts were between 8% and 11% in each year (other than in 2021, when it was very close to 8%), we are of the view that the forecast is reasonable.

#### **Marker Comments:**

- Candidates generally did a good job of disregarding Joanna's forecast and using the information from the other shareholders and research (but often did not comment as to why Joanna's forecast should not be used).
- Candidates generally did a good job of estimating the total revenue.
- Candidates were awarded marks if they applied the overall gross profit % to their forecast revenue amounts (i.e. they did not have to specifically forecast both the hotel contract revenues and advertising sales).
- Many Candidates did not prepare a tax shield calculation, but simply keyed in an assumed amount for the tax shield.

### Weighted Average Cost of Capital (Schedule 9)

The capitalization multiple is determined as the inverse of the discount rate. The selection of our capitalization rates for DASY was influenced by:

- i) the trend of revenues and earnings realized by the company;
- ii) the company's history of revenue growth;
- iii) the nature of the company's revenues;
- iv) the quality and experience of management;
- v) the general outlook for the industry;
- vi) general industry and economic conditions; and
- vii) the selected level of maintainable earnings, and the risk associated with the likelihood of continued levels of profit as achieved in the most recent fiscal years.

After considering the foregoing factors, among others, and using the information provided for inputs we selected a capitalization rate of 16.9% to 17.9% (which corresponds to multiples of 5.6x to 5.9x), being the weighted average cost of capital ("WACC") range of 20.4% less a range of estimated long term growth rate of 2.5% to 3.5% (see Schedule 9). A higher long-term growth rate was used for DASY as DASY's long-term growth potential appears to be higher than WBW (see Appendix 4).

## **Marker Comments:**

Candidates generally performed this calculation well.

#### Present Value of Cash Flows (Schedule 7)

- On Schedule 7, from the operating profit we:
  - Deducted tax at 26.5% (we assumed that WBW's income would be sufficiently high in future to claim full amount of small business deduction, thus we used 26.5% tax rate instead of 15.5%).
  - Deducted the annual change in working capital.
  - Deducted annual capex of \$20,000, net of the tax shield.
- The discount factor is the weighted average cost of capital ("WACC") calculated in Schedule 9 (i.e., 20.4%). We applied this discount factor to the forecast period after-tax cash flows and summed them to arrive at the present value of the after-tax cash flows for the forecast period from 2021 to 2025.
- We estimated a terminal period after-tax cash flow. We grew the 2025 terminal cash flow by the average long term growth rate of 3% (estimated average of growth of 2.5% and 3.5% from Schedule 9).

- The after-tax terminal cash flow was then capitalized using a capitalization rate of 5.8x, representing the capitalization rate of 17.4% on Schedule 9.
- We then summed the present value of the after-tax discretionary cash flows in the forecast period and the capitalized terminal value to calculate the total discounted free cash flows for DASY in the amount of approximately \$1,382,000. We calculated a range based on this figure and +/- 5%. The resulting range is \$1,313,000 to \$1,451,000.

## En Bloc Fair Market Value (Schedule 6)

- The range of discounted free cash flows of \$1,313,000 to \$1,451,000 is equal to the enterprise value range as there is no UCC remaining on any assets.
- We deducted the net redundant liabilities of \$10,384 (see Schedule 10).
- DASY has no interest-bearing debt and therefore the en bloc FMV of DASY's share is in the range of approximately \$1,300,000 to \$1,440,000, with a midpoint of \$1,370,000.
- As WBW has a 50% interest in DASY, the value of WBW's share of DASY is in the range of \$650,000 to \$720,000, with a midpoint of \$685,000.
- We considered whether a minority interest would apply to WBW's 50% share of DASY.
   Based on the information we have; it does appear that control is shared equally and that no one party has more control than the other. Therefore, we concluded that a minority discount was not appropriate..

#### **Marker Comments:**

- Candidates generally performed well when calculating the WACC using the build-up method.
- Candidates generally performed well when calculating the discounted cash flow.
- Candidates were awarded marks whether or not they incorporated the Accelerated Investment Incentive into their tax shield calculation.

## Test of Reasonableness (Schedule 6)

- We calculated implied revenue and EBITDA multiples to test our conclusion.
- None of the publicly traded companies were considered comparable to DASY as they
  were all either website development companies or software as a service companies and
  not focused on digital advertising. However, based on our experience and professional
  judgement, the implied multiples appear reasonable.

#### **Marker Comments:**

 Most candidates did not perform an overall reasonableness assessment to determine if their answers made sense.

WBW	Schedule 1
Valuation Summary	
As at September 01, 2020	
(\$)	

	<u>Note</u>	Low	High
En bloc fair market value of WBW (without its 50% interest in DASY)	Schedule 2	703,000	980,000
Plus: WBW's 50% interest in DASY	Schedule 6	650,000	720,000
En bloc fair market value of WBW, rounded		1,353,000	1,700,000
Pro-rata per share value (based on 200 common shares outstanding) # of shares owned by Joanna		6,765 95	8,500 95
Pro-rata - 47.5% shareholding (95 shares / 200 shares outstanding)		642,675	807,500
Less: Minority Discount	1	5%	5%
FMV of 47.5% shareholding		610,000	770,000
Implied per share FMV value (95 shares) - rounded		6,421	8,105
Average - rounded		7,263	
Exercise Stock Options			
Pro-rata value of shares per above (200 shares outstanding)		6,765	8,500
Average - rounded		7,633	
Exercise (Strike) Price of stock options	2	6,750	
Based on the above, the options are in the money.			
Cost to exercise stock options	3	405,000	
Memo: Share ownership if 60 stock options are exercised			
Joanna		95	37%
Debbie		95	37%
Alice		10	4%
Sally		60	23%
		260	100%

- 1 A small discount is appropriate as 47.5% is a fairly significant shareholding and Sally could try to work with Alice to obtain control.
- 2 Per case facts.
- 3 60 stock options x exercise price.

WBW Fair Market Value		;	Schedule 2
As at September 01, 2020 (\$)			
	<u>Note</u>	Low	High
Maintainable discretionary cash flows	Schedule 3	144,000	203,000
Multiples Capitalized maintainable discretionary cash flows	Schedule 4	5.6x 806,339	5.4x 1,087,976
Add: Tax shield on tax values of existing assets Business enterprise value, rounded	1	1,925 808,000	1,925 1,090,000
Less: Working Capital Injection required Total enterprise value, rounded	Schedule 5	(105,002) 703,000	(105,002) 980,000
Less: Interest-bearing debt En bloc fair market value, rounded	Schedule 5	703,000	980,000
Midpoint		=	842,000
Memo:		Low	High
Valuation Multiples			
EV / TTM Revenue		0.5x	0.7x
EV / NTM Revenue		0.5x	0.7x
EV / TTM EBITDA EV / NTM EBITDA		3.4x 3.9x	4.6x 4.5x
Goodwill Payback Period		2.5 Years	3.2 Years
Note:			
Tax shield on \$25,000 in existing UCC (office equipment used the Accelerated Investment Incentive in their CCA		awarded ma	rks if they
Cost of Asset (C) CCA Rate, Estimated (D)		25,000 20%	
Income Tax Rate (T) Discount Rate of Tax Shield (K) - Average WACC		15.5% 20.3%	
Present Value of CCA Tax Shield Formula (C x	( D x T) / (K + D) * ( 1 + K	( / 2) / (1 + K	·)
Present Value of CCA Tax Shield		1,925	

WBW Maintainable Discretionary Cash Flows As at September 01, 2020 (\$)					Schedule 3
		For The	Fiscal Years	Ended Aug	ust 31,
	<u>Note</u>	2017	2018	2019	2020
Pre-tax earnings	App 1	240,565	282,969	289,957	422,353
Add: interest and bank charges			-	-	-
WBW EBITDA		240,565	282,969	289,957	422,353
Eliminate: CTO compensation  Deduct: CTO market compensation  Deduct: Other wages - bookkeeper	1 1 2	40,000 (95,000) (40,000)	40,000 (110,000) (50,000)	40,000 (110,000) (50,000)	40,000 (110,000) (50,000)
Eliminate: Non-recurring moving expenses Eliminate: Rent incurred historically Deduct: HST adjustment DASY management fee	3 4 5 6	- 15,411 -	17,000	3,000 30,000	30,000 (62,880)
	-	(79,589)	(103,000)	(87,000)	(152,880)
Adjusted EBITDA before market rent for larger premises		160,976	179,969	202,957	269,473
				Low	High
Selected range of maintainable EBITDA before market rent for larger premises				200,000	270,000
Less: Rent for larger premises on a go forward basis	4		_	(30,000)	(30,000)
Selected range of maintainable EBITDA				170,000	240,000
Less: Income taxes Small business rate - first \$500,000 Thereafter			15.50% 26.50%	26,350	37,200 -
			_	26,350	37,200
Maintainable discretionary cash flows			=	143,650	202,800
Rounded			=	144,000	203,000

- 1 Per Appendix 1, we understand that Joanna is the CTO of WBW and is a shareholder of the Company. Joanna is compensated mainly in the form of a \$40,000 salary plus annual dividends, which has resulted in her being paid a wage less than market from fiscal 2017 to 2020. Based on our discussions with management, and our own research per Appendix 2, in each of the above years we have added back Joanna's actual wage and deducted what in our view is a market wage in consideration of his position and the Company's annual performance.
- 2 Through our discussions with management of WBW, we understand that historically, Joanna's husband did the bookkeeping and he was not compensated. Per Appendix 2, we deducted an annual salary of \$50,000 to account for the market value of these services.
- 3 Per Appendix 1, management notified us that the Company incurred \$3,000 of moving expenses in 2019 which were non-recurring. For purposes of normalizing EBITDA, we have added these expenses back.
- 4 Per Appendix 1, WBW moved into new premises in 2019 and rent increased as a result. We have added back the rent expense as the rent in prior years would not approximate rent to be paid on a go forward basis.
- 5 Per Appendix 1, WBW in September 2020, WBW was assessed for HST owing, which related to regular operations during fiscal 2020 year. As a result of the assessment, WBW owed \$62,880 which should have been accrued on their 2020 year end financial statements.
- Per Appendix 1, WBW and Rosy perform sales and administrative functions for DASY, and if DASY were to hire its own employees, WBW employees' time would be freed up. As such, the fees earned from DASY should be eliminated on the basis that they were non-operating income, and an assumption about the additional profits that WBW could have earned with freed-up employee time should be made. Given that limited information was provided about the number of WBW employees working on DASY projects, it is difficult to assess the increase (or decrease) in cash flows that would result if the WBW employees were instead working on WBW projects. However, it is assumed that such gross profits would at least equal the fees earned from DASY. As such, no normalization adjustment was made.

(note: Marks were awarded to Candidates based on their addressing the issue and attempting to work with limited information. Marks were awarded for reasonable assumptions and calculations (if any) that were consistent with such assumptions).

WBW			Schedule 4
Cost of Capital and Capitalization N			
As at September 01, 2020			
(\$)			
	Note	Low	High
Cost of Debt			
Cost of debt	1	6.5%	6.5%
Tax rate	2	15.5%	15.5%
After-tax cost of debt		5.5%	5.5%
Weight (Debt to Capital)	3	20%	20%
Weighted after-tax cost of debt		1.1%	1.1%
Cost of Equity			
Risk-free rate	1	3.5%	3.5% <b>a</b>
Market risk premium	1	5.3%	5.3%
Beta	4	1.5	1.5
		8.0%	8.0% <b>b</b>
Size premium	1	10.0%	10.0% <b>c</b>
Company specific risk premium	5	2.0%	3.0% <b>d</b>
After-tax cost of equity (a+b+c+d)		23.5%	24.5%
Weight (Equity to Capital)	3	80%	80%
Weighted after-tax cost of equity		18.8%	19.6%
Weighted average cost of capital (WACC)		19.9%	20.7%
Less: Long-term growth	1	2.0%	2.0%
Capitalization rate		17.9%	18.7%_
Capitalization Multiple		5.6x	5.4x

- 1 Per Appendix 5.
- 2 Per Appendix 5. Assumed that WBW would use the small business deduction.
- 3 Based on debt/ capital ratios of comparable companies in Appendix 3.
- 4 Based on Betas of comparable companies in Appendix 3.
- 5 Estimate based on case facts.

WBW
Balance Sheet Analysis
As at September 01, 2020

(\$)

	<u>Note</u>	Book Value 31-Aug-20	Adjustments	FMV 01-Sep-18	Redundant	Tangible Asset Backing	Interest Bearing Debt
<u>Assets</u>							
Current							
Cash	1	18,824	-	18,824	105,002	123,826	-
Accounts receivable		75,657	-	75,657	-	75,657	-
Loans receivable			-	-	-	-	-
Prepaid expenses		100	-	100	-	100	-
		94,581	-	94,581	105,002	199,583	-
Investments in DASY	2	10	(10)	-	-	-	-
Software - developed in-house	3		372,167	372,167		372,167	
Total Assets		94,591	372,157	466,748	105,002	571,750	
<u>Liabilities</u>							
Current							
Bank indebtedness		-	-	-	_	-	-
Accounts payable and accrued							
liabilities		46,755	-	46,755	-	46,755	-
Income taxes payable		12,455	-	12,455	-	12,455	-
Government remittances payable		2,493	-	2,493	-	2,493	-
HST Payable	4	-	62,880	62,880	-	62,880	
-		61,703	62,880	124,583	-	124,583	-
Total liabilities		61,703	62,880	124,583		124,583	
Shareholders' equity (deficit)		32,888	309,277	342,165	105,002	447,167	

1 We understand that the business needs approximately \$75,000 of working capital to operate. As at August 31, 2020, the company had debt-free cash-free, net working capital of (\$30,002). We are of the view that a purchaser would require cash, or reduce the purchase price for the shortfall of working capital, and thus have reflected a notional working capital injection as set out below.

		Including HST	Excluding HST
Current assets	Appendix 1	94,581	94,581
Debt-free current liabilities	Appendix 1	124,583	61,703
Working capital		(30,002)	32,878
Estimate of required working capital	Appendix 2.	75,000	75,000
Working capital shortfall		(105,002)	(42,122)

- 2 We have valued DASY separately, refer to Schedule 1.
- 3 We estimated the fair market value of WBW's internally developed software based on the cost approach. Management provided the following estimates of costs to develop the Company's currently active software, which we use as a reasonable proxy for their fair market value (see Appendix 3).

		Cost to Develop	3rd party offer	<u>Average</u>
WBW Backend				
Software purchased		10,000		
Three years of salaries		3		
Salary increase of 10%		104,500		
		323,500	375,000	349,250
Garvin	а	8,333		
iBooster	а	14,583		
Total cost to develop software		372,167		

- a Per Appendix 3, Garvin was built in 2 months by 2 employees (who each earned an annual salary of \$25,000). iBooster took same employees 3.5 months to build.
- 4 During the fiscal year, WBW did not remit all the HST collected. As a result of the assessment, WBW owed \$62,880 which should have been accrued on their year end financial statements.

DASY	Schedule 6
Fair Market Value	
As at September 01, 2020	
(\$)	

	_	Low	High
Sum of discounted free cash flows, rounded	Schedule 3	1,313,000	1,451,000
Add: Tax shield on tax values of existing assets		-	-
Business enterprise value		1,313,000	1,451,000
Less: Net redundant liabilities	Schedule 10	(10,384)	(10,384
Total enterprise value		1,302,616	1,440,616
Less: Interest-bearing debt		-	<u>-</u>
En bloc fair market value, rounded	_	1,300,000	1,440,000
WBW's 50% interest in DASY	_	650,000	720,000
Midpoint, rounded		_	1,370,000
WBW's 50% interest in DASY			685,000
Valuation Multiples		Low	High
EV / TTM Revenue		1.0x	1.1
EV / NTM Revenue	=	0.7x	0.7
EV / TTM EBITDA		12.6x	13.9
EV / NTM EBITDA	_	8.7x	9.6

DASY	Schedule 7
Discounted Cash Flow Analysis	
(\$)	

					Einana	ial Projectio	ine.			
	Financial Projections For the fiscal years ended August 31,									
	Note 2021			2022		2023 2024		2025	7	erminal
										7
Estimated Normalized Income Before Taxes	Sch.8	\$	151,617	\$	257,443	\$369,039	\$442,938	\$ 480,307		
Deduct: tax	1		(40,178)		(68,222)	(97,795)	(117,379)	(127,281)		
Deduct: net working capital adjustment	2		(27,223)		(33,484)	(36,388)	(33,642)	(23,703)		
Deduct: capital expenditures	3		(20,000)		(20,000)	(20,000)	(20,000)	(20,000)		
Add: tax shield on capital expenditures	4		2,402		2,402	2,402	2,402	2,402		
Free cash flow		\$	66,617	\$	138,138	\$217,257	\$274,319	\$ 311,724	\$	321,076
Terminal period multiple	5									5.8x
Total free cash flow		\$	66,617	\$	138,138	\$217,257	\$274,319	\$ 311,724	\$1	,847,267
Discount period			0.50		1.50	2.50	3.50	4.50		4.50
Discount factor	5		0.91		0.76	0.63	0.52	0.43		0.43
Discounted free cash flow		\$	60,713	\$	104,568	\$136,599	\$143,259	\$ 135,215	\$	801,278
Sum of discounted free cash flow		<b>\$</b> ′	1,381,632	•						
			Low		High					
Range, rounded	6	\$ 1	1,313,000	\$	1,451,000					

- 1 Based on a 26.5% tax rate per Appendix 5. Assumed that WBW's income would be sufficiently high in future to claim full amount of small business deduction.
- 2 Per Appendix 4, DASY's annual required working capital is equal to approximately half a month of the annual change in revenues.
- 3 Per Appendix 4, DASY had \$20,000 in capital expenditures in 2018 and 2019. Assumed same level of expenditures in future years.
- 4 Tax shield on sustaining capital expenditures: (note: Candidates were awarded marks if they used the Accelerated Investment Incentive in their CCA tax shield formula)

 Cost of Asset (C)
 20,000

 CCA Rate, Estimated (D)
 20%

 Income Tax Rate (T)
 26.5%

 Discount Rate of Tax Shield (K)
 20.4%

Present Value of CCA Tax Shield Formula  $(C \times D \times T) / (K + D) * (1 + K / 2) / (1 + K)$ 

Present Value of CCA Tax Shield 2,402

- 5 Based on DASY's WACC of 20.4% and capitalization multiples of between 5.6x and 5.9x (see Schedule 9).
- 6 Calculated as the sum of discounted free cash flow +/- 5%.
- 7 Terminal year cash flows reflect a growth rate of 3% from 2025.

DASY	Schedule 8
Financial Projections	
As at September 1, 2020	
(\$)	

		Financial Projections For the fiscal years ended August 31,							
	<u>Note</u>	2021	2022	2023	2024	2025			
Revenue		400.040	550 704	545.540	444.440	504.000			
Advertising sales		490,013	552,734	545,549	444,440	501,329			
HW Hotels contract		1,470,038	2,210,936	3,091,442	3,999,962	4,511,957			
	2	\$1,960,050	\$2,763,671	\$3,636,990	\$4,444,402	\$5,013,286			
YoY % revenue growth	1	50%	41%	32%	22%	13%			
Cost of sales	3	1,274,033	1,824,023	2,436,784	3,022,194	3,409,034			
Gross Profit	3	686,018	939,648	1,200,207	1,422,209	1,604,251			
Total gross profit as a % of revenue	3	35%	34%	33%	32%	32%			
Salaries and wages	4	500,000	635,000	770,000	905,000	1,040,000			
Professional fees	5	5,000	5,750	6,613	7,604	8,745			
Office and general expenses	6	29,401	41,455	54,555	66,666	75,199			
· ·		534,401	682,205	831,167	979,270	1,123,944			
Estimated Normalized Income Before Taxes	7	\$ 151,617	\$ 257,443	\$ 369,039	\$ 442,938	\$ 480,307			
Estimated Normalized Income Before Taxes as a % of Revenue		7.7%	9.3%	10.1%	10.0%	9.6%			

- 1 Per Appendix 4, total revenue growth is expected to be high in each of the years 2022 to 2024, but not at the 50% rate projected by Joanna. Total revenue growth is expected to decrease in each year and is expected to be 13% in 2025. Revenue growth rate has been scaled down from 2021 to 2025 by approximately 10% per year accordingly (note: marks were awarded for reasonable revenue growth rate assumptions).
- 2 Per Appendix 4, management believes that 75% of total revenues would come from HW contracts, and that by the end of 2024, 90% of DASY's revenues will come from the HW contracts.
- We understand that under the HW contract, which DASY won in May 2018, DASY pays the online platform for the specific dealers advertising space and HW then reimburses DASY. As at the Valuation Date, approximately 50% of DASY's revenues were from HW hotels and we understand that DASY's growth will be mainly as a result of securing more HW hotels and other hotel chains. As a result, we anticipate that the gross profit margin will come down to 32% (per Appendix 4) as a higher proportion of DASY's customers require them to incur the initial cost of advertising. Gross margin percentages have been scaled down from 2021 to 2025 accordingly (note: marks were awarded for reasonable decrease in gross margin percentages).
- 4 Per Appendix 4, salaries in 2021 will be \$500,000, and it is estimated that for every \$550,000 increase in revenue, DASY will need to hire additional staff for \$135,000.
- 5 Per Appendix 4, professional fees are expected to be \$5,000 in the first year and increase by 15% each year thereafter.
- 6 Per Appendix 4, office and general expenses are expected to be between 1% and 2% of total revenue in each year.
- 7 Based on our discussions with management (Appendix 4), we understand that they expect that if the business were to retain its profits (rather than pay them out in the form of a management fee), it should earn an income before taxes in the range of 8 to 11%. Thus, the normalized income before taxes reflected in the forecast are reasonable.

DASY	Schedule 9
Cost of Capital and Terminal Multiple	
As at September 01, 2020	
(\$)	

	Ner		IPI
Cost of Debt	<u>Note</u>	Low	<u>High</u>
Cost of debt	1	6.5%	6.5%
Tax rate	2	26.5%	26.5%
After-tax cost of debt		4.8%	4.8%
Weight (Debt to Capital)	3	20%	20%
Weighted after-tax cost of debt		1.0%	1.0%
Cost of Equity			
Risk-free rate	1	3.5%	3.5%
Market risk premium	1	5.3%	5.3%
Industry risk premium	1	2.5%	2.5%
Size premium	1	10.0%	10.0%
Company specific risk premium	4	3.0%	3.0%
After-tax cost of equity		24.3%	24.3%
Weight (Equity to Capital)	3	80%	80%
Weighted after-tax cost of equity		19.4%	19.4%
Weighted average cost of capital (WACC)		20.4%	20.4%
Less: Inflationary Growth	5	2.5%	3.5%
Capitalization rate		17.9%	16.9%_
Capitalization Multiple		5.6x	5.9x

- 1 Per Appendix 5.
- 2 Assumed that WBW's income would be sufficiently high in future to claim full amount of small business deduction; thus used 26.5% tax rate instead of 15.5%.
- 3 Based on debt/ capital ratios of comparable companies in Appendix 3.
- 4 Estimate based on case facts.
- 5 A higher long term growth rate was used for DASY than WBW as DASY's long-term growth potential appears to be higher than that of WBW.

DASY	Schedule 10
Balance Sheet Analysis	
As at September 01, 2020	
(\$)	

		Book Value		FMV		Tangible	Interest
	<u>Note</u>	31-Aug-20	Adjustments	31-Aug-20	Redundant	Asset Backing	Bearing Debt
	1						
<u>Assets</u>							
Current							
Cash		25,363	-	25,363	-	25,363	-
Accounts receivable		299,948	-	299,948	-	299,948	-
Due from shareholders							
		325,311	-	325,311	-	325,311	-
Total Assets		325,311		325,311		325,311	
<u>Liabilities</u>							
Current							
Accounts payable and accrued							
liabilities		305,017	-	305,017	-	305,017	-
Due to shareholders		10,384	-	10,384	10,384	-	-
		315,401		315,401	10,384	305,017	-
Total liabilities		315,401		315,401	10,384	305,017	
Shareholders' equity (deficit)		9,910		9,910	(10,384)	20,294	
Note:							
1 Per Appendix 4.							