CHARTERED PROFESSIONAL ACCOUNTANTS CANADA

CPA Common Final Examination

BOARD OF EXAMINERS' REPORT

PART A — The Day 2 and Day 3 Report

May 2023 Examination

CPA EVALUATIONS

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See Part B for full Day 1 report on Creative Toys Inc. simulations and marking guides.

THE BOARD OF EXAMINERS’ REPORT ON THE MAY 2023 COMMON FINAL EXAMINATION

OBJECTIVES OF THE REPORT

The objective of this report is to explain the Common Final Examination (CFE) process and to assist the profession in improving the performance of candidates on the CFE.

The report sets out the responsibilities of the Board of Examiners, the methods used for guide setting and marking the CFE, and the results of the marking process. The report also includes recommendations to candidates from the Board of Examiners.

The May 2023 CFE Report is presented in two parts: Part A is the Day 2 and Day 3 report and Part B is the Day 1 report.

The appendices provide more detailed information on the design, guide setting, and marking of the CFE, as well as the board’s expectations of candidates on the simulations. Readers are cautioned that the marking guides were developed for the entry-level candidate and that, therefore, all the complexities of a real-life situation may not be fully reflected in the content. The CFE report is not an authoritative source of GAAP.

RESPONSIBILITIES OF THE BOARD OF EXAMINERS

The Board of Examiners (BOE or the board) comprises a chair, two vice-chairs, and sixteen members appointed by the provincial bodies.

The board’s responsibilities, as set out in its terms of reference, include the following:

- Setting the CFE in accordance with the *CPA Competency Map* (the *Map*) and other directions from the Professional Education Management Committee;
- Submitting the CFE and the marking guides to the provincial bodies for review;
- Marking the candidates’ responses and recommending to the provincial bodies the pass or fail standing that should be given to each candidate; and
- Reporting annually on the CFE to various CPA committees and the provincial bodies, in such form and detail and at such time as is satisfactory to them.

The chair is responsible for the supervision of the evaluation process. A CFE subcommittee, made up of nine members of the board, is actively involved in the preparation of the CFE simulations, the preliminary marking guides, and the setting of the initial passing profile. The members of that subcommittee participate in the Preliminary Evaluation Centre where the marking guides are tested against candidate responses and finalized, and in the start-up of the marking centre. The BOE chair and vice-chair provide oversight throughout the entire marking process, consulting with subcommittee members as required. The full board is responsible for equating the difficulty of the examination to prior years' examinations and establishing the passing standard.

THE CFE

Preparation and Structure of the CFE

The board staff works in conjunction with authors to ensure that simulations presented to the board achieve the overall intent and design objectives set by the board, while adhering to the competencies and the proficiency levels specified in the *Map*.

The full board provides guidance as to the content and nature of simulations to be included on the examination. The CFE subcommittee reviews and refines these simulations that make up the three-paper evaluation set.

Nature of the Simulations

The CFE comprises a set of simulations that are both essential and effective in evaluating the candidates' readiness to enter the profession:

Day 1 – The first paper is a four-hour examination consisting of a single simulation that is linked to the Capstone 1 group case. There are two versions of the linked cases, unless special circumstances require that a third version be provided. Version 1 is linked to the most current Capstone case and is written by first time writers and by repeat writers who chose to attempt the new case rather than Version 2 of the previous Capstone case. Version 2 (and Version 3, if applicable) is written by repeat writers and candidates who deferred and are writing Version 2 (and Version 3, if applicable) as their first attempt. The versions of the exams are calibrated to ensure the difficulty of all versions is comparable. For the May 2023 CFE, a Version 1 and a Version 2 were offered. The Version 2 case relates to CTI, for which a Version 1 was offered in May 2022.

Day 2 – The second paper is a five-hour case, with four different roles and requirements. Additional information tailored to each role is provided in four separate appendices.

Day 3 – The third paper is a four-hour paper, consisting of three multi-competency area simulations.

Assessment Opportunities

The board applies competency-based marking procedures that enable it to decide which candidates demonstrate readiness to enter the profession.

Assessment Opportunities are designed to answer the question, "What would a competent CPA do in these circumstances?" To attain a pass standing, candidates must address the issues in the simulations that are considered significant.

Appendix A contains a comprehensive description of the evaluation process.

Marking Guides

Marking centre leaders and assistant leaders provide valuable input during the testing and setting of the marking guides, before live marking begins. The vice-chair, selected member(s) of the CFE subcommittee and senior evaluations staff hold meetings with the leaders and their assistants during both the guide-setting and the marking processes. See **Appendix B** for the Day 1 simulations that appeared on the May 2023 CFE and **Appendix C and D** for the Day 2 and Day 3 simulations and marking guides. The marking results for Day 2 and Day 3, by Assessment Opportunity, appear in the statistical reports found in **Appendix E** of this report. See Part B of the CFE Report for details on Day 1, Creative Toys Inc. Version 1 and Version 2.

Day 1 – The marking guide is designed to assess the candidate on the stages of the CPA Way: 1) situational analysis; 2) analysis of the major issues; 3) conclusions and advice; and 4) communication. Based on these four summative assessments, the candidate's response is then holistically judged to be either a passing or a failing response.

Day 2 and Day 3 – Marking guides are prepared for each simulation. Besides identifying the Assessment Opportunities, each marking guide includes carefully defined levels of performance to assist markers in evaluating a candidate's competence relative to the expectations set out by the board when developing the passing profile for a competent CPA.

Five categories of performance are given for each Assessment Opportunity. The candidate's performance must be ranked in one of the five categories:

- Not Addressed
- Nominal Competence
- Reaching Competence
- Competent
- Competent with Distinction

Setting the Passing Standard

The board chair and vice-chair in charge of the examination monitor the live marking. Near the completion of the marking process, the CFE subcommittee satisfies itself that the markers applied the marking guides as intended by the board.

In determining which candidates pass the CFE, a candidate is judged in relation to the board's pre-established expectations of an entry-level chartered professional accountant. Any changes to the initial profile that were made throughout guide-setting and the marking centre are ratified by the full board. In setting the passing profile, the board considers the following:

- The competency area requirements described in the *Map*
- The level of difficulty of each simulation (set using a scale: Easy, Easy to Average, Average, Average to Hard, or Hard)
- The level of difficulty of each Assessment Opportunity (set using a scale: Easy, Easy to Average, Average, Average to Hard, or Hard)
- The design and application of the marking guides
- Comments from leaders and assistant leaders regarding any marking difficulties encountered or any time constraints noted
- Possible ambiguity of wording or of translation
- Input on critical decision factors from an independent board (i.e., those BOE members not on the CFE subcommittee and therefore not directly involved) who review the fair pass package

The Decision Model

The purpose of the CFE is to assess whether candidates possess the competencies required of an entry-level CPA through a written evaluation that is common to all CPAs. Each day of the CFE is unique and is designed specifically to assess different skills:

- ➢ Day 1 is linked to the Capstone 1 group case work. It assesses the candidates' ability to demonstrate professional skills. It is independent from Day 2 and Day 3.

- Day 2 assesses technical **depth** in one of four unique roles (that reflect the four CPA elective choices) and provides **depth** and **breadth** test opportunities in the common core competency areas of Financial Reporting and/or Management Accounting. Candidates pre-select one role and respond from that role's perspective.

- Day 3 supplements the **depth** and **breadth** tests in the common core areas of Financial Reporting and/or Management Accounting, and also provides **breadth** test opportunities for all other common core competency areas.

Candidates must pass all three days in order to qualify for entry to the profession. Those seeking licensure must obtain depth in Financial Reporting and in the Assurance Role.

Day 1

Day 1 is assessed independently from Day 2 and Day 3. A pass or fail decision is made based on a holistic assessment of the candidates' performance in applying the CPA Way to demonstrate essential professional skills.

Day 2 and Day 3

The decision model used by the board is presented in Exhibit I. Four key decision points, or levels, are applied in reaching a pass or fail decision, as follows:

1. The response must be **sufficient**; i.e., the candidate must demonstrate competence in the Assessment Opportunities presented on Day 2 and Day 3 (Level 1).

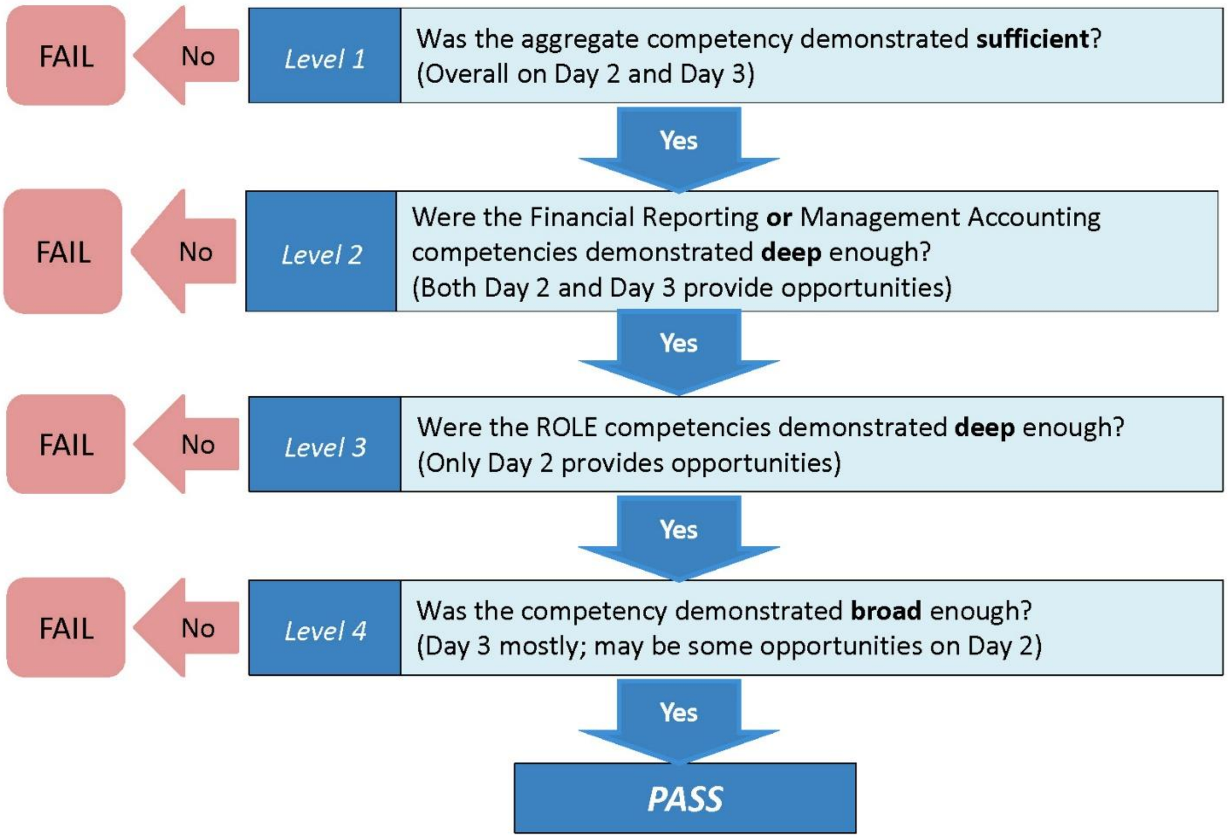
2. The response must demonstrate **depth** in the common core area of Financial Reporting or Management Accounting (Level 2).

3. The response must demonstrate **depth** in the pre-selected elective role (Level 3).

4. The response must demonstrate **breadth** across all competency areas of the *Map*, at a core level, by not having avoided a particular technical competency area (Level 4).

The BOE is responsible for equating the results from one examination to another to ensure that candidates have an equal chance of passing whichever examination they write. The BOE uses the factors listed above under setting the passing standard, in order to equate the examinations.

EXHIBIT I
DAY 2 AND 3 PASS/FAIL ASSESSMENT MODEL



Approving the Results

The CFE subcommittee reviews and approves the marking results for each simulation. Day 1 is assessed separately from Day 2 and Day 3.

Day 1 – The CFE subcommittee discusses the profiles for both the marginally passing and marginally failing candidates to confirm that the board's pre-established passing profile has been appropriately applied by the markers.

Day 2 and Day 3 – As part of the development process, the CFE subcommittee sets preliminary requirements for the three levels (tests of depth and breadth) being assessed on the Day 2 and Day 3 simulations. After the marking is completed, the board reviews and finalizes those requirements. The board establishes the Level 1 (sufficiency) requirement for the combined Day 2 and Day 3 simulations.

During the approval process, the board continues to consider whether the results could be affected by any inconsistency in the evaluation or the board's processes.

Reporting

In reaching its decision, the board determines which candidates pass on a national basis only, without regard to provincial origin or language. Similarly, the detailed comments are based on analyses of the performance of all candidates.

The board reports the following information by candidate number:

- Overall pass/fail standing and pass/fail standing for each of Day 1 and of Day 2 and Day 3 combined.
- A pass/fail standing for Day 1.
- A pass/fail standing for Level 1, Sufficiency. A decile ranking is provided for failing candidates.
- A pass/fail standing for Level 2, Depth in Financial Reporting or Management Accounting.
- A pass/fail standing for Level 3, Depth in Role.
- A pass/fail standing for Level 4, Breadth in all technical competency areas.

Thank You

All board members wish to express their warm and sincere appreciation for the outstanding energy, support, and commitment of the Board of Examiners staff members whose dedication and talent contributed in large measure to the achievement of our objectives and the fulfilment of our responsibilities.

We also wish to acknowledge the contributions made by the provincial reviewers, markers, authors, translators, and editors. The commitment, energy, and skill demonstrated by all the markers were outstanding, resulting in the sound application of marking procedures and producing an appropriate evaluation of the candidates. Everyone's commitment to the quality and fairness of the process is appreciated.

Jonathan Vandal, CPA
Chair
Board of Examiners

A MESSAGE TO CANDIDATES

To attain a pass standing, candidates needed to achieve a "Pass" on Day 1, and on Day 2 and Day 3 combined, demonstrate sufficient competence in all areas, and meet the two depth standards and the breadth standards.

Introduction

The May 2023 CFE Report, Part A and Part B combined, presents detailed information on all candidates' performance for all the examination cases, except for the Day 1 linked case, KTI Version 1. Detailed commentary on the performance of candidates on the KTI cases (Version 1 and Version 2) will only be available after KTI Version 2 is written in May 2024. The simulations, marking guides, marking results, and Board of Examiners' (BOE) comments on the Day 2/Day 3 portion of the examination are found in Part A of the CFE Report. Similar information on Day 1 CTI simulations (Version 1 and Version 2) can be found in Part B of the CFE Report.

The intent of this message from the BOE is to help candidates improve their performance on future CFEs by drawing their attention to the most common detracting characteristics observed in candidate responses to the May 2023 CFE. The BOE's comments are based on the feedback of the marking teams, who see the entire candidate population, and reflect the broad themes noted by the markers that apply to all candidates who wrote this sitting of the CFE. More detailed AO-by-AO commentary on candidates' performance can be found in the BOE's comments in Appendix F of Part A, or Appendix H of Part B, of the CFE Report.

Nature of the CFE

The design of the CFE is such that each day of the examination allows candidates to demonstrate a different skill set. Day 1 allows candidates to demonstrate their high-level professional skills, such as analysis that is relevant and critical to strategic decision-making, professional judgment, and ability to synthesize information. Day 2 allows candidates to demonstrate their technical competence in the common Financial Reporting and Management Accounting competencies and in their chosen role, which is tied to one of the four elective areas. Day 2 typically, but not always, directs candidates to the work to be done and is not designed to be time constrained, allowing candidates to demonstrate depth. Day 3 allows candidates to further demonstrate depth and breadth in the common Financial Reporting and Management Accounting competencies, and provides multiple opportunities to demonstrate breadth in all the other core technical competency areas. Day 3 is typically time constrained, requiring candidates to prioritize the issues and manage the amount of time spent on each issue. Both Day 2 and Day 3 require candidates to integrate the information found in the simulation in order to demonstrate competence. All three days require candidates to clearly communicate their thought process.

Strengths and Weaknesses

Time management

The Day 1 simulation was not time constrained in any way and, generally, the amount of time that candidates devoted to their situational analysis and their issue analysis was appropriate. Most candidates were able to address all the strategic alternatives presented, spending more time on the alternatives that required more analysis and discussion.

The Day 2 simulation was also not designed to be time constrained; however, candidates appeared to struggle with addressing all requireds appropriately in the time provided. There was evidence of time constraint across all roles, with candidate responses generally being much shorter in total length than would be expected, considering that they were given five hours to respond. In addition, candidate responses to the later AOs were briefer compared to the AOs at the beginning of their response. Candidates generally spent an appropriate amount of time responding to the common section requireds, but appeared to spend much less time than would be expected on the role section requireds.

On Day 3, while it is designed to be time constrained, and required time management on the part of the candidates to ensure that all three simulations were completed within the four hours allotted, candidates struggled more than expected with time management. There was evidence of some candidates spending too much time on Simulation 1 to the detriment of Simulations 2 and 3, which had a higher-than-normal percentage of candidates with “Not Addressed” AOs than on a typical Day 3 simulation. Day 3, Simulation 1 was the longest of the three simulations and had seven AOs to address within the allotted 90 minutes, requiring strong time management skills. If candidates went over the suggested time on Simulation 1, they would have had difficulty making that time up. Responses on Day 3 were also generally shorter in total length than expected.

There was also a higher “Not Addressed” percentage across the entire exam, with candidates frequently not attempting all the AOs. For example, many candidates skipped Day 2 Assurance role, AO#7 (Forward contract), Day 2 Finance role, AO#12 (RoboCarton asset value), Day 2 Finance role, AO#13 (Short-term financing), Day 2 Taxation role, AO#7 (Accounting issues), Day 3, Simulation 2, AO#3 (Taxation – Carryover balances), and Day 3, Simulation 3, AO#4 (Financial reporting – Lawsuit and wire fraud). These AOs ranged from being rated Average to Hard by the BOE. It is unclear whether this behaviour is due to the time constraints noted above, or due to candidates avoiding topics that they are not comfortable addressing.

Candidates are reminded that the CFE has a minimum sufficiency score that must be obtained, separate from the requirements that are set for the depth and breadth tests. The BOE continues to encourage candidates to take time to identify the relevant issues and attempt a discussion of all the requireds, since their sufficiency score is affected by AOs they do not attempt. The BOE also encourages candidates to plan their time appropriately, and to continue to use the suggested times on each simulation as a guide, to help manage the time spent per AO.

Unrelated discussions

Although not a pervasive issue, some candidates inserted discussions that were not relevant, because of either misinterpreting or misreading the requireds or neglecting to consider the specifics presented in the simulation. This often appeared to be the result of applying a templated approach and failing to consider the differences in the facts presented compared to similar issues tested on past exams. These candidates appeared to be trying to fit the answers from their practice exams into the current year's exam, rather than addressing the case facts as presented. The following are some examples of where candidates either misinterpreted the requireds or provided irrelevant discussions.

On the Day 2 Assurance role, AO#8 (Audit plan), some candidates provided an audit approach discussion as part of their audit plan, when the case specifically noted that only the risk of material misstatement and materiality needed to be addressed.

On Day 3, Simulation 1, AO#4 (SWOT analysis), some candidates provided a qualitative analysis of the expansion, and a recommendation on whether HG should proceed with the expansion plan, even though the required specifically stated that only a SWOT analysis was required, and there were no other requests to comment on whether HG should proceed with the expansion plan.

On Day 3, Simulation 1, AO#6 (Audit procedures), some candidates seemed confused about what to do with the information provided in Appendix IV on HG's processes, which was intended to help candidates design audit procedures. Although the requirement was clearly to provide audit procedures over specific areas, some candidates provided a control weakness discussion over the processes provided, in addition to providing the audit procedures requested, which was not required.

The BOE reminds candidates that, while it is good to practice writing cases and know different approaches to use, they should not automatically assume that the task is the same as in previous years. As in real life, the facts presented are unique to each case, and require integration of the pertinent case facts, to fully understand what the relevant issues are for a particular case and to decide what form of analysis is appropriate. Rarely is an issue identical to a prior one. Before beginning their response, candidates are encouraged to pause and take the time necessary to ensure that they have clearly identified what issues and analyses are most relevant, based on the set of circumstances presented.

Technical ability

The BOE continues to note a trend of declining technical abilities. The pattern the BOE has seen over the past few CFEs has continued, with candidates generally avoiding more complex topics. In addition, while candidates performed well on some of the more familiar, straightforward topics, there were also familiar topics where candidates struggled.

Candidates generally performed well on the very straightforward AOs, including: Day 2 Common, AO#1 (Cost allocations), Day 2 Common, AO#2 (Customer quote), Day 2 Common, AO#3 (Cash budget), Day 2 Performance Management role, AO#7 (Suppliers – quantitative), Day 2 Performance Management role, AO#8 (Suppliers – qualitative), Day 2 Performance Management role, AO#10 (Recycling – qualitative), Day 2 Taxation role, AO#8 (Taxable income and taxes payable), Day 2 Taxation role, AO#11 (QBS and T4), and Day 3, Simulation 2, AO#4 (Minimum price).

However, the BOE noted significant weaknesses across multiple competencies in the candidates' technical knowledge, in both more straightforward and harder topics.

There was a particular weakness in financial reporting. For example, on Day 2 Common, AO#5 (Intangible assets), candidates had trouble demonstrating their understanding of the intangible asset definition criteria, particularly with the control criterion. On Day 2 Assurance role, AO#7 (Forward contract), although the BOE recognizes that this is a harder topic, candidates struggled to even identify the relevant guidance that would be applicable to the transaction. On Day 3, Simulation 2, AO#1 (Lease), candidates struggled with how to analyze whether there was a bargain purchase option. On Day 3, Simulation 3, AO#4 (Lawsuit and wire fraud), candidates struggled with identifying that ASPE was relevant in this case, or when they did, they struggled with the correct accounting treatment of the damaged sled.

Candidates also showed technical weakness across the other competencies. For example, on Day 2 Performance Management role, AO#12 (Pricing – bundled services), most candidates compared the two pricing approaches based on revenues, as opposed to contribution margins, a critical error. On Day 2 Taxation role, AO#13 (Sale and leaseback), many candidates applied a capital loss on the building against the capital gain on the land, which is not appropriate. On Day 3, Simulation 1, AO#3 (Payback), most candidates did not calculate the payback period correctly, which was a relatively straightforward calculation.

Candidates should expect to see a variety of issues of varying difficulty. The BOE encourages candidates to be balanced in studying, and to ensure that they have a sufficient level of technical knowledge in all competency areas.

<u>Inability to explain the implications of issues identified or to provide sufficient detail</u>

Candidates on the May 2023 exam seemed to struggle with explaining the implications of the issues they identified, or with providing sufficient detail for the points they raised. For example, on Day 2 Assurance role, AO#10 (Internal controls), candidates struggled to explain the implications of the internal control weaknesses identified. On Day 2 Assurance role, AO#11 (Manual journal entries), candidates identified some of the items in the manual journal entries that suggested a concern, but were often unable to discuss how it would suggest a risk to the financial statements. On Day 2 Taxation role, AO#7 (Accounting issues), candidates frequently failed to provide much discussion, simply stating that the accounting adjustment would increase/decrease income and taxes, either without attempting to explain the tax concepts involved, or only providing very brief descriptions without explaining their conclusions. On Day 2 Taxation role, AO#9 (GST/HST return), candidates were unable to provide sufficient explanations for the errors present in the draft GST/HST return. On Day 2 Taxation role, AO#12 (Personal services business), although many candidates identified that the personal services business rules would apply, they struggled to correctly explain the implications, or the mechanisms behind their conclusions. On Day 3, Simulation 1, AO#2 (Revenue recognition), candidates were able to provide IFRS 15 guidance and apply some case facts, but the level of discussion of how the case facts applied lacked depth. On Day 3, Simulation 1, AO#5 (Audit versus compilation), candidates struggled to explain some of the differences in the two types of engagement, and many did not attempt to discuss the implication of the change in engagement for the client. On Day 3, Simulation 1, AO#7 (Sole proprietorship versus incorporation), most candidates provided some basic points on the differences between the two options, but only provided generic discussions without explaining how it would work for HG specifically. On Day 3, Simulation 3, AO#2 (Spending versus mission), many candidates provided suggestions that were too general to be helpful, without further explanation.

The role of the CPA is often to advise clients, either on the application of standards and tax rules or on why, and how, to proceed with certain business decisions. Without a clear explanation, a client would have incomplete information. In the case of responses to CFE simulations, the BOE is interested in understanding the logic used and is looking for evidence of the analysis and professional judgment that was applied in reaching a conclusion. Therefore, it is important for candidates to answer the questions “Why?” or “So what?” when making any point using case facts, and to include the answer in the response. Identifying an issue without explaining the implication, or jumping to the conclusion without first presenting the analysis supporting that conclusion, is insufficient. The BOE is looking for a clearly articulated response.

Failure to consider the specific context of the simulations and to integrate relevant case facts

Consistent with previous CFEs, candidates seemed to struggle with applying the specific context of the simulation to their response, or with integrating relevant case facts into their analysis. For example, on Day 2 Performance Management role, AO#9 (Recycling – quantitative), candidates struggled with understanding the Refill IT option, not demonstrating a full understanding of the business model behind the proposal. On Day 2 Performance Management role, AO#13 (Strategic direction and governance), candidates approached the analysis of the strategic options on an item-by-item basis, rather than analyzing the proposals as a whole and attempting to link the proposals to elements of UBI's environment. Also on this AO, candidates often made points that were very generic related to the composition of the Board of Directors, and did not make links to UBI's environment or context. On Day 3, Simulation 1, AO#1 (Variances), candidates had difficulty applying the variance formulas they had presented to the data provided, and their interpretations of the variance analysis were often generic and not tied to the specific case facts presented to them. On Day 3, Simulation 3, AO#3 (Enterprise risks), most candidates did not provide additional risks that were not on the template, despite being explicitly asked to do so. In addition, candidates often did not focus on the bigger picture, focusing on minor details instead of the bigger issues, such as commenting on the controls on the Excel spreadsheet rather than on the cyber security threats for the company. Many candidates also failed to realize that some of the risks presented in the template would clearly be different for CBA compared to another company.

The BOE emphasizes that the ability to adapt to unique scenarios and integrate information from various parts of the case are important skills for an entry-level CPA. Candidates should ensure that they have a good understanding of the specific context for any requests before addressing them, and ensure that any analyses incorporate elements that are specific to the case that is presented.

Pre-populated financial information

For the first time on the May 2023 exam, any financial information presented in the case that had 10 lines or more was provided to candidates electronically in the exam writing software. The BOE was pleased to see that many candidates took advantage of this and leveraged what was already provided to save time and/or provide a more structured response. For example, many candidates used the pre-populated information provided to structure their response for Day 2 Common, AO#1 (Cost allocations), to efficiently allocate each cost and sum up the cost categories.

For more detailed commentary, see Appendix F of Part A of the CFE Report.

Additional Comments Specific to Day 1 – KTI (Version 1)

Most candidates dedicated the first section of their response to a relevant situational analysis. Most used this information later in their response, making relevant links back to the company's global situation when analyzing the specific strategic issues that were presented, and within their conclusions. However, the links that weak candidates made were typically to the more obvious case facts that related to KTI's key success factors, mission, and vision, rather than being tied to the more important factors, which generally varied for each strategic issue.

Beyond the specific objectives to increase the company's operating margin to 12% by 2028 and to increase the company's revenue by 10% annually, all of KTI's private-label contracts were set to expire in the near term. Given that these contracts comprised approximately 70% of the company's sales, this was an imperative issue for candidates to address through their response. In addition, KTI only had $4 million of cash available for strategic investment, with no access to further bank financing. Candidates were expected to integrate these crucial elements of the company's broader situation within their qualitative and quantitative analyses of each strategic alternative.

For each of the strategic options available to KTI, candidates were expected to conclude and recommend a course of action that was consistent with their analyses. Within their conclusions, candidates were expected to address how the company's supply of raw materials and constrained cash position would be impacted if each of the strategic options was accepted. They were also expected to provide an overall conclusion that was consistent with their analyses and that addressed the two main entity-level issues: the allocation of raw materials, and how best to allocate the company's limited cash availability.

There were five strategic options to be analyzed both qualitatively and quantitatively in this case: whether to accept the contract proposal from BFI, which would require KTI's entire supply of raw materials; whether to acquire a 40% ownership interest in Hilly, a Sri Lankan tea farm; whether to partner with Leaf, a cannabis retailer; whether to utilize the company's newly-granted patent to develop a product line of theanine-infused tea beverages; and whether to enter into a US sales agreement with FFF, a well-known American grocery chain.

Within the analysis of the major issues, three main factors differentiated strong responses from weak responses. First, a strong response identified and provided an in-depth discussion of the most important decision factors for each issue. Weak candidates tended to list case facts, often failing to explain why those elements were important and how they affected the decision-making process. Second, strong candidates provided valuable quantitative analyses to help support their recommendations (such as by linking their calculations to the stated objectives of KTI). On the other hand, weak candidates' quantitative analyses were often unstructured and unclear and, therefore, challenging to follow. Many failed to perform the correct calculation to assess the decision. These candidates often struggled to explain how the results of their quantitative analyses affected the decision at hand. Third, strong candidates routinely linked their analysis of each option to the two prevalent entity-level issues presented in the case: the supply of raw materials and the cash constraint. Strong candidates incorporated these aspects into their discussion of each strategic option, whereas weak candidates either missed making these links altogether or provided a superficial discussion by listing pros or cons, sometimes in contradictory ways from option to option, and failing to adequately highlight the importance of these aspects to the decision. Strong candidates typically incorporated both entity-level issues to some extent and usually prioritized their strategic recommendations, explaining why one option should be pursued over another, drawing on the entity-level decision factors. Weak candidates tended to only perform an issue-by-issue analysis without stepping back to consider the broader perspective and without integrating the key entity-level issues into their conclusions. As a result, they failed to make important links between the various aspects of each alternative. For example, weak candidates failed to consider whether KTI would be able to adequately satisfy the BFI contract's minimum supply requirements, or the impact of the exclusivity feature on the other available strategic options.

Most candidates approached their response in a coherent and organized fashion. Only a few candidates struggled to effectively communicate their ideas. These candidates tended to use poor sentence structure, confusing syntax, and an unorganized approach to their response.

Additional Comments Specific to Day 1 – CTI (Version 2)

Similar to KTI Version 1, most candidates dedicated the first section of their response to a relevant situational analysis. Most used this information later in their response, making relevant links back to the company's global situation when analyzing the specific strategic issues that were presented, and within their conclusions.

One of the most significant changes since Capstone 1 was that Solange was hired as CTI's CEO, and was recently granted performance share units (PSUs) to incentivize her to stay with CTI. Solange had also detailed a new set of key performance indicators (KPIs) she created that the company's division leads were expected to follow when recommending future projects. Candidates were expected to integrate the crucial elements of the company's broader situation, including consideration of the PSUs and KPIs, into their analysis.

There were three strategic options that candidates were expected to analyze both qualitatively and quantitatively: whether to acquire Kolepare, a doll manufacturer and wholesaler of organic materials; whether to invest in the building block board game; and whether to invest in the development of a math game software. In addition, candidates were expected to discuss the governance issues related to Solange's PSUs.

Similar to KTI Version 1, strong candidates recognized and discussed the most important decision factors for each issue, provided valuable quantitative analysis, and linked their analysis to the significant entity-level issues presented in the case. Strong candidates tended to incorporate the impact of each strategic option on Solange's PSUs, and considered the apparent bias that Solange had towards certain investment options, throughout each of their issue-by-issue discussions and within their conclusions and overall recommendations.

Weak candidates generally did not identify and discuss in depth the most relevant aspects of each strategic option presented as part of their analysis. Rather than discuss the more pertinent implications, weak candidates' analyses tended to focus on the minor considerations. For example, for the development of the new math game software, weak candidates tended to focus their analysis on the fit with the mission, vision, and core values, rather than on the several significant risks associated with the investment. Weak candidates also had a difficult time providing a balanced discussion, and instead tended to highlight each investment option's strengths without providing an equally robust discussion of the risks or weaknesses of each option. Weak candidates also often did not step back and consider the entity-level issues within their analysis of the options. For example, many weak candidates had a difficult time recognizing the governance issues related to Solange's PSUs, and when they did, their analysis was often brief.

As was the case with KTI Version 1, only a few candidates struggled to effectively communicate their ideas. These candidates tended to use poor sentence structure, confusing syntax, and an unorganized approach to their response.

APPENDIX A

EXAMINATION DESIGN, MARKING GUIDE DEVELOPMENT, AND MARKING OF THE COMMON FINAL EXAMINATION

CFE Design

Day 1 is one four-hour case that is linked to the Capstone 1 case, which is worked on in groups for eight weeks prior to the CFE. When writing the Day 1 case, candidates are allowed access to their Capstone 1 case but not their group's answer or any sample response. The Day 1 case is designed to assess the enabling (professional) skills. Candidates are directed to target a "board room and senior management" level of discussion, with high-level analytics and a strategic focus. There are typically two versions of the Day 1 case. Candidates pre-select the version they will write.

Day 2 is one case designed to be completed by an average candidate in three and one half hours that candidates are given five hours to respond. The extra one and one half hour gives candidates time to filter and find the information that they need to answer *their* role requirements from within the common information presented. Day 2 is designed to assess the technical competencies in **depth** (Level 2 and Level 3). Candidates pre-select a role (Assurance, Finance, Taxation, or Performance Management). All candidates work with the same case — it has a common section and four sets of appendices containing additional information applicable to each of the four unique roles. The required tasks, regardless of the role, are clearly directed unless there is an undirected/enabling issue in the case that the board expects candidates to identify on their own. Day 2 evaluates the competencies listed in the *CPA Competency Map* mostly in the elective area and in common Financial Reporting and/or Management Accounting areas in **depth** and **breadth**. The role **depth** test (Level 2) may also include coverage of other competency areas from the common core.

Day 3 is a four-hour examination containing a mix of small cases (70 to 90 minutes each[1]) that evaluate the common core competencies only. The Day 3 cases provide additional opportunities for **depth** and **breadth** in Financial Reporting and Management Accounting and provide **breadth** opportunities for all the other technical competency areas. Cases are time constrained, and they are designed to cover different competency areas within each case. A higher level of integration and judgment is required on Day 3 of the CFE than in the core modules, although the technical competencies are tested at the common core level of expectation.

The assessment opportunities on the Day 2 case are given mark values such that each of Day 2 and Day 3 are weighted equally.

[1] The CFE Blueprint allows anywhere between 45 to 90 minutes. The May 2023 CFE ranged from 70 to 90 minutes.

The Development of Marking Guides and the Provincial Review Centre

Prior to the Common Final Examination booklets being published, provincial reviewers, appointed by each region, meet to examine the simulations and the preliminary marking guides. The provincial reviewers' comments are then considered by the board when it finalizes the examination set and again when the leaders and assistant leaders review the marking guides in the context of actual responses at the Preliminary Evaluation Centre.

The May 2023 CFE Marking Centre

The May 2023 CFE Evaluation Centre was run 100% remotely. From the marker applications received, approximately 120 individuals were chosen to participate in the May 2023 CFE marking centre. The criteria for selection included marking experience, motivation, academic achievement, work experience, personal references, and regional representation. The marking was supervised by the CPA Canada CFE full-time board staff, with oversight by the CFE subcommittee vice-chair, and the chair of the BOE.

The Day 1 Version 1 linked case (KTI V1) was marked by a team of 11 people from June 19 to 30, 2023. The Day 1 Version 2 linked case (CTI V2) was marked by a team of three people from June 6 to 12, 2023.

The Day 2 Common assessment opportunities were marked separately from the role assessment opportunities by a team of 21 people from June 18 to 29, 2023. Day 2 Assurance was marked by a team of 18 people from June 18 to 30, 2023. Day 2 Performance Management was marked by a team of 14 people from June 19 to 29, 2023. Day 2 Finance was marked by a team of four people from June 10 to 15, 2023. Day 2 Taxation was marked by a team of three people from June 5 to 9, 2023. All three Day 3 cases were marked from June 20 to July 4, 2023. The Day 3 simulations were marked by a total of 45 people.

In advance of the marking centre, the members of the CFE subcommittee, staff, leaders, and assistant leaders participated in a three- to six-day preliminary evaluation centre (PEC). Participants reviewed the marking guides, applied them to randomly selected candidate responses, and made necessary revisions to the marking guidelines, taking into account the comments on the marking guides received from provincial reviewers.

The larger teams followed a set marking centre schedule, which included a start-up phase to train the markers. During the start-up phase, the leaders and assistant leaders presented the marking guides to their teams, while staff and the BOE vice-chair monitored the discussions. The teams undertook a two-phase test-marking procedure prior to actual marking. Phase one consisted of marking guide familiarization, during which markers applied the marking guide to copies of candidates' responses and collectively reviewed their results. Phase one thus ensured that all markers understood the issues in the marking guide and the basis on which to apply each expectation level. Phase two consisted of an expanded test marking of several responses to establish marker congruence.

After the training and test-marking phases, and only when marker congruence was achieved, live marking commenced. All larger teams had a leader, and anywhere from one to two assistant leaders, and had both French-speaking and English-speaking markers. Each team had one or more markers who marked in both languages.

For smaller teams, all markers attended PEC, and moved directly from PEC to live marking. These teams had a leader, and two to three experienced senior markers, of which two were bilingual and marked all the French papers. These bilingual markers started in English and switched to marking in French once their marking was assessed as being consistent with the team. The bilingual markers arbitrated the French papers by discussing where there were differences in their markings.
The board strives for the highest possible marking consistency and quality control. Leaders and assistant leaders, therefore, devoted much of their time to cross-marking and other monitoring activities. Control papers were fed into the system daily to check marker consistency. Markers' statistics were reviewed to ensure that marking remained consistent throughout the centre. Based on analysis of the statistics, leaders reviewed and, if necessary, re-marked papers to ensure that the assessment opportunities were marked fairly for all candidates. Bilingual markers marked papers in both languages, and their results were compared to ensure that the marking was consistent in both languages. Additional audits were performed at the end of marking on any of the larger differences between markers.

Borderline Marking (Day 1)

Each candidate's paper was marked once. All candidates' responses that were assessed as clear fail, marginal fail, and marginal pass were marked a second time by the team leader, an assistant team leader or a senior marker. Clear pass results were also audited to ensure accuracy of marking.

Double Marking (Day 2)

Each candidate's Day 2 paper was marked independently by two different markers. If the two initial markings differed on any assessment opportunity, an arbitrator (the leader, the assistant leader, or a senior marker) compared the two initial markings and determined the final assessment.

As an added measure to ensure that markers were consistently applying the marking guide, a two-day rule exists, which results in the second round of marking not beginning until two days have elapsed since the first marking. Adherence to this rule ensures that any movement in the application of the marking guides due to marker interpretations during the first two days of live marking are stabilized before the second marking and arbitration process begin.

Borderline Marking (Day 3)

Day 3 was marked using a borderline model. All Day 3 responses were marked once and then the Day 2 and Day 3 results were combined. All failing candidates who passed the Day 2 role test, had their Day 3 response marked a second time by an independent marker, and any differences between the first and second markings were arbitrated by a leader or senior marker.

Subsequent Request for Remark of Results and Request for Performance Analysis

Failing candidates may request a remark of their examination results and/or a detailed personalized performance analysis for either Day 1, or Day 2 and Day 3, or for all three days for a fee.

In an effort to provide failing candidates with more timely feedback, the Board of Examiners is providing an automated feedback report for Day 1 of the CFE. The report is automatically generated using the marking data collected for each response rather than being based on a personalized review of the response. It is therefore being provided at no cost to all failing candidates. This report is intended to allow for the identification of the key deficiencies in the candidate's Day 1 response, which then allows the candidate to decide whether to request the more detailed, and personalized performance analysis report noted above, for a fee.

Review and Remarking Approach

Great care is exercised in the original marking and tabulating of the papers and results. The following review and marking procedures are applied to all three papers constituting the Common Final Examination.

Under the supervision of the chair of the Board of Examiners, as well as CPA Canada CFE staff, the responses are reviewed by the leaders and assistant leaders who did the original marking. The leaders and assistant leaders read the responses and compare them to the marking guides used at the marking centre. In reviewing candidates' results, two aspects are considered. First, it must be determined that the basis of marking the papers has been consistent with that accorded other candidates who wrote the examination. Second, all responses reviewed are subjected to a careful check to ensure the markers have indicated that consideration has been given to all material submitted by the candidate.

The results are tabulated, and a decision made regarding whether any candidates have been treated unfairly and should be granted a pass on the examination.

The results are then forwarded to the provincial bodies for notification of the candidates.

APPENDIX B

MAY 30, 2023 – DAY 1 SIMULATIONS

COMMON FINAL EXAMINATION
MAY 30, 2023 – DAY 1

Case (KTI-Version 1) **(Suggested time: 240 minutes)**

It is March 31, 2025, and you, CPA, are still working at F & W Consulting LLP (FWC). Kingsdale Tea Inc. (KTI) has again engaged FWC to assist with KTI's strategic analysis and planning.

Michael retired in 2023. Upon retirement, he gifted 45,000 KTI common shares to Kathleen, and his remaining 165,000 shares were repurchased and then retired by KTI. Each child—Jason, Sabrina, and Kathleen—now owns an equal amount of KTI (45,000 common shares each). In return for his 165,000 shares, Michael accepted an interest-free loan of $5 million, which will be repaid in equal annual instalments over a 10-year period. Michael no longer sits on KTI's Board of Directors (the board), but still provides advice to KTI on a periodic basis. Jason is now KTI's CEO, and Conrad Bolton was hired as KTI's VP of marketing. In late 2023, Conrad invested $6 million for 60,000 preferred shares that are convertible into common shares on a one-to-one basis.

Since the last engagement, KTI has begun to sell a new product line of its own branded tea, which has a total of 10 products. KTI now has two distinct product lines: private-label and KTI-branded teas. Since joining KTI, Conrad has been instrumental in the successful rollout and sales growth of KTI-branded tea. KTI's current strategy is to sell the new, KTI-branded teas in tea rooms and tea shops (where tea can be purchased for at-home consumption). KTI used a portion of the funds received through Conrad's preferred-share issuance to finance the necessary equipment and initial marketing costs associated with offering KTI-branded teas. With the remaining funds, KTI upgraded its dust-elimination equipment, which has resolved the respiratory issues that some KTI employees were experiencing. Since 2023, KTI has made no other major investments, such as the investment in Sleeping Hills Tea Estate (SHTE), and did not pursue the proposals from Home Taste Koffee Inc. (HTK) and Bolton Drinks Corp. (BDC).

To date, KTI has chosen not to sign any long-term contracts for its KTI-branded teas.
Fortunately, orders for KTI-branded teas have increased each month since their launch.

Despite the launch of KTI-branded tea, the company still relies on its private-label sales (which come from four remaining private-label contracts) for approximately 70% of its sales. All four contracts are set to expire over the next two years, and KTI has not yet approached these customers about beginning the contract renewal process. As the private-label contracts expire, KTI's strategy to date has been to reallocate the supply of raw materials to producing KTI-branded teas.

Over the past two years, Sabrina has continued to build a strong R&D team, which has been successful in developing popular and innovative products. This has gained KTI the reputation of being an industry innovator of new tea products. Part of this success is owed to running focus groups with tea shop owners to test new tea flavours. At present, KTI's R&D team creates five new tea flavours each year. In addition, KTI was just granted its first patent as a result of the R&D team's efforts. The patent protects the process by which theanine, an amino acid naturally found in green tea, is extracted from the tea plant. KTI's R&D team pioneered a new process that greatly increases the quantity of theanine that can be successfully extracted from each tea plant.

Since 2018, KTI has not changed its mission, vision, or core values. However, because Michael retired from active management of KTI, the board decided to update the company's objectives.

At a recent board meeting, the directors agreed on the following objectives:

1. Increase the operating profit margin to 12% by 2028.
2. Increase revenues by 10% annually.

For any new strategic investments, KTI has $4 million of cash available for investment and no access to further bank financing.

KTI's board has asked you to review the information provided and draft a report in which you analyze and make a recommendation for each proposal presented. The board would also like you to comment on KTI's overall strategic direction and on how each proposal might affect that direction. For this engagement, please ignore any tax implications within your analysis and recommendations.

INDEX OF APPENDICES

APPENDIX I
BOARD MEETING WITH CPA IN ATTENDANCE

March 31, 2025

Jason: Thank you, CPA, for coming today.

To date, we're happy with how KTI-branded teas have been received by our customers. Not only have sales for KTI-branded tea grown steadily, but we also enjoy a higher margin on these sales, given the higher sales price we can charge. Although our profits have been somewhat hampered by high marketing costs, this is not much of a surprise, as we are building a new brand, which costs money.

At the same time, our R&D department is exceptional. Just recently, KTI was awarded the company's first patent! Sabrina, congratulations on a job well done.

Sabrina: Thank you so much, Jason. Honestly, I think we have the best R&D team in the business. We are just getting started in our pursuit of creating high-quality, niche products.

Jason: Excellent, Sabrina.

CPA, given the company's transition from private-label sales into KTI-branded tea sales, we must decide how best to reallocate the supply of raw materials that will come available once the remaining private-label contracts expire.

Kathleen: I think we need to start accepting long-term sales contracts for KTI-branded tea, to secure our revenue stream. To date, sales of our KTI-branded teas have grown quickly, but that growth has recently slowed. With our current sales strategy, and in comparison to the amount of KTI-branded tea we sold in 2024, we expect to sell an additional 750,000 kg of KTI-branded tea in 2025, 800,000 kg in 2026, and 850,000 kg in 2027.

Sabrina: I disagree. The company would be best served if we focus our resources on the development and distribution of new, niche products.

Jason: As a board, we can only make an informed decision about KTI's strategic direction after we have analyzed our options. On that note, we have several strategic alternatives to consider. For the first alternative, we are being joined via telephone by none other than the founder of KTI, Michael Galinsky.

APPENDIX I (continued)
BOARD MEETING WITH CPA IN ATTENDANCE

March 31, 2025

Michael joins the meeting via telephone.

Kathleen: Dad, I thought you were supposed to be retired!

Michael: I am, but I have something very exciting to share with the board. As you know, KTI was built through the acquisition and retention of strong relationships with the company's private-label customers. Well, after 10 years of targeted marketing and relationship building, I am overjoyed that Beau Foods Inc. (BFI) is finally ready to sign on with KTI.

Conrad: Do you know what changed for BFI?

Michael: Yes, KTI-branded teas! BFI saw how well the public received KTI-branded teas, and they now want to sell them within their vast network of stores across Canada and the U.S. This would be the biggest contract in KTI's history!

Jason: Looking at the notes provided, this is indeed a huge contract (Appendix IV). Given its size, we would need to allocate KTI's entire supply of raw materials to service it adequately. In fact, by the contract's third year, we would likely need to increase our supply by roughly 50% to meet the requirement.

Michael: Accepting this contract would reduce KTI's risk profile.

Kathleen: I agree. BFI's long-term contract will secure KTI's revenue stream for the foreseeable future.

Sabrina: I am not convinced. Given that BFI requires 10 new unique tea flavours each year, R&D would have no time left to develop other products.

Jason: Plus, the profit margin from this contract would be lower than a typical KTI-branded sale.

Michael: Contracts like this are rare — I recommend that you accept it. Anyway, I need to run.

Michael leaves the meeting.

APPENDIX I (continued)
BOARD MEETING WITH CPA IN ATTENDANCE

March 31, 2025

Kathleen: Wow, what a surprise. This certainly gives us more incentive to expand KTI's supply of raw materials. On that note, Jason, can you tell us about the Hilly Side Tea Farm (Hilly) proposal?

Jason: Sure. Hilly was founded 30 years ago by Frans Mendis, who retired in 2024. The farm is now 100% owned by his son, Ivaan Mendis, who operates the farm alongside Hilly's long-time manager. Although KTI has never purchased raw tea leaves from Hilly, I am familiar with their operations. I know they have been certified as Fairtrade and organic for more than 10 years.

Kathleen: Ivaan has offered to sell 40% of Hilly to KTI for $6 million. I have compiled additional information for this potential investment (Appendix V).

Sabrina: Next, I am excited to introduce a fantastic opportunity. Grant McGuire, a long-time friend of mine, recently suggested that KTI and his company, Relaxing Leaf Company Limited (Leaf), team up to open a series of unique tea rooms.

Leaf is a popular cannabis retailer with a well-known brand in many Canadian provinces where privately owned cannabis retail outlets are allowed. With KTI, Grant wants to open three tea rooms as a pilot project for what could become a national chain. Grant's vision is to attract a younger demographic of tea drinkers, who want to experience the health benefits associated with cannabis-infused tea products within a community atmosphere.

Jason: This is an interesting idea.

Sabrina: Very! And in addition, Grant wants to co-create a new line of cannabis-infused, ready-to-drink (RTD) beverages. Leaf does not have the R&D expertise required to do this. I have provided more details (Appendix VI).

Jason: Wow. If R&D can successfully develop a cannabis-infused product line, KTI would enter a new niche marketplace.

APPENDIX I (continued)
BOARD MEETING WITH CPA IN ATTENDANCE

March 31, 2025

Sabrina: Given our R&D team's track record, I am confident in our success. In addition, Grant is very familiar with the cannabis industry and will be instrumental in guiding this project through the complicated regulatory environment.

Kathleen: I am not sure. Do we want KTI's new brand associated with a substance that was illegal not so long ago? I worry about our reputation. Plus, this is an unproven product in an unproven market.

Conrad: From my knowledge, the demand for cannabis-related products is rising. Plus, for a reduced fee, my bottling company's facilities would be available to produce and store these RTD products once they have been developed.

Jason: Wonderful, Conrad.

Next, we must discuss our new theanine extraction patent. We have received a $6 million offer to sell it.

Sabrina: Sell it? That seems short-sighted. The patent offers KTI significant opportunities and a competitive advantage, because in the future, theanine will be added to more products than tea.

Kathleen: Maybe, Sabrina, but we need the money to grow and secure KTI's supply of raw materials, given that we currently use all we have.

Sabrina: I think we should go in the opposite direction. At a recent focus group, we received excellent feedback from several tea room owners who tried one of KTI's new theanine-infused products. Each participant commented on how relaxed they felt after a couple cups of the tea. We should commercialize this new product line as soon as possible. I have compiled some additional information (Appendix VII).

Conrad: Sabrina has a point — the stress-reduction benefits associated with theanine will likely attract a high demand. This new product line has the potential to really do well.

APPENDIX I (continued)
BOARD MEETING WITH CPA IN ATTENDANCE

March 31, 2025

Kathleen: I don't doubt the potential, but we need to allocate our raw materials wisely. On that note, we have received many requests from both our U.S. and Canadian customers, who want to sign long-term contracts for KTI-branded tea, all of which we have so far declined. To secure our revenue stream, we should reconsider our decision not to sign long-term contracts for KTI-branded teas.

Conrad: I will admit, the absence of long-term contracts makes the entire sales and production process more burdensome. Currently, for each one-off sale order we receive, we must go through the entire paperwork process. It also makes production planning and forecasting more difficult.

Sabrina: That may be, but the current system works. Why would we reduce our flexibility around pricing and volumes by signing long-term contracts, especially when the cost of raw materials is expected to increase?

Kathleen: Because without a long-term contract, we can't be certain that a customer will continue to purchase our products. This increases our risk substantially.

Conrad: On that note, we just received yet another long-term contract offer from one of our customers, Fresh Fare Foods (FFF). This well-known grocery chain in the U.S. wants to sign a five-year agreement with us for KTI-branded tea. I have compiled more information about this contract offer (Appendix VIII).

Jason: How big is the contract, Conrad?

Conrad: Based on the preliminary information, it would absorb roughly 8% of our total current supply of raw tea leaves in Year 1 of the contract.

Jason: Okay, CPA, could you look at all the information provided and let us know what you think? Thanks, everyone, for meeting today.

APPENDIX II
2024 SEGMENTED INCOME STATEMENT

	Private-Label	KTI-Branded	Total
Revenue	$ 36,540,000	$ 15,660,000	$ 52,200,000
Cost of goods sold	(29,049,000)	(10,179,000)	(39,228,000)
Total gross profit	7,491,000	5,481,000	12,972,000
Research and development			(1,210,000)
Marketing			(2,350,000)
General and administrative			(5,649,000)
Total operating income			3,763,000
Finance expense			(425,000)
Income before taxes			3,338,000
Income taxes			(760,000)
Net income			$ 2,578,000
Supply required *(in thousands of kilograms)*	8,638	2,710	11,348
Percentage of total supply	76%	24%	

Additional information for private-label contracts:

Company	**Expiry**	**Revenue**	**Supply Required** *(in thousands of kilograms)*
Alcona Grocery Limited	May 2025	$ 6,213,000	1,316
Natures Foods Limited	November 2025	$ 11,542,000	2,854
Neighbourly Groceries Inc.	January 2026	$ 13,834,000	3,398
P&Y Food Services Inc.	June 2026	$ 4,951,000	1,070
Total		$ 36,540,000	8,638

APPENDIX III
INTERNAL MEMO – INDUSTRY UPDATE

Demand for specialty teas, especially organic and Fairtrade products that confer health benefits, continues to grow. This trend is most evident in tea rooms and tea shops, where sales are increasing beyond expectations. However, given increasing inflation, the price of all consumer goods has risen, and this has led some tea drinkers to purchase specialty tea in grocery stores, where it is cheaper than in tea rooms and tea shops. To meet this increased demand, many grocery retailers are expanding their selection of specialty teas.

The supply of raw tea leaves continues to be an industry-wide concern. The ongoing effect of climate change, combined with two growing seasons with poor harvests, has resulted in an increase in competition for fertile land on which tea can be reliably grown. As supply starts to decline, the price of tea is expected to increase.

Recent research has uncovered the significant health benefits of teas supplemented with the amino acid theanine. Theanine, which naturally occurs in tea plants, provides benefits such as relaxation and reduced anxiety. Currently, all research indicates that theanine is safe for human use, although no studies on long-term effects have been performed. As theanine is classified as a natural health product rather than a pharmaceutical, there is little regulation regarding the production and sale of products that contain it.

Similarly, the health benefits associated with products infused with cannabis derivatives, such as THC and CBD, have led many Canadians of all ages to include them in their wellness routine. THC has been found to reduce stress in some people, whereas CBD has been found to improve sleep and reduce pain and inflammation. Unlike theanine, however, cannabis derivatives face considerable regulation. At present, few cannabis-infused products have been authorized for sale by the applicable government agencies. This has led to an increase in black market sales.

APPENDIX IV
BEAU FOODS INC. CONTRACT PROPOSAL

BFI is a multinational food retailer that sells premium products.

Extracts from BFI's proposed agreement are as follows:

- The contract's term is 10 years and begins on August 1, 2025.
- BFI will purchase all KTI-branded teas produced by KTI.
- The contract is exclusive; therefore, KTI will be prohibited from selling KTI-branded teas to any other vendor.
- BFI will be responsible for the marketing expenses to promote KTI's products throughout the term of the contract.
- BFI commits to purchase a minimum of 11 million kg in Year 1 (August 1, 2025, to July 31, 2026), 13 million kg in Year 2, and 16 million kg annually, in years 3 through 10.
- BFI will pay $4.63 per kilogram of KTI-branded tea purchased.
- If KTI cannot meet these minimum supply requirements, BFI will charge KTI a penalty.
- BFI will pay for any capital expenditures necessary for expanding KTI's production capacity in order to meet the requirements of the contract.
- BFI's product development team will work closely with KTI's R&D division to develop the flavours that BFI's marketing team has determined will be bestsellers.

KTI's cost of goods sold currently equals approximately 80% of the total selling price, and KTI will be able to reduce its annual administration costs to $2.56 million for each year of the BFI contract.

APPENDIX V
INVESTMENT IN HILLY SIDE TEA FARM INC.

Hilly had $8 million of revenue in 2024 and an operating margin of 45%.

Currently, Hilly has only one long-term sales contract, which expires in early 2026. If KTI agrees to purchase 40% of Hilly, Ivaan has agreed to grant KTI the first right to purchase whatever quantity of raw materials KTI requires. Only after KTI has purchased its required level of raw materials will Hilly be allowed to sell to other companies. At Hilly's current level of production, if KTI purchased 100% of Hilly's raw tea leaves, KTI would expand its current supply by 30%. However, Hilly expects to increase its production capacity in the future.

KTI will be able to purchase the raw tea leaves for their cost plus a fixed percentage rather than at the market prices at the time of purchase.

In 2022, there was a complaint made concerning the working conditions of Hilly's workers. According to Ivaan, these issues arose at the time his father was retiring and management was in transition. Ivaan has assured us that the situation was immediately rectified and that no further complaints have been filed since the transition period.

Depending on the quality of the tea produced, recent sales transactions for similar Sri Lankan tea farms have had valuations within a range of 3.5 times to 5 times operating profit. These multiples are expected to increase over time.

APPENDIX VI
AGREEMENT WITH RELAXING LEAF COMPANY LIMITED

At the onset of the agreement, a separate entity will be established: Canna Relaxation Rooms. KTI and Leaf will each invest $1 million to cover the initial opening costs of the first three tea rooms, which will be named Canna Relaxation Rooms. Grant will be responsible for this part of the project.

Although the onsite consumption of cannabis-infused tea is currently illegal, Grant is confident that future legislation will allow for it. In the meantime, the Canna Relaxation Rooms will only offer KTI-branded teas.

Leaf will manage the three locations. In return, KTI will sell KTI-branded teas to Canna Relaxation Rooms at KTI's cost. The profit from the Canna Relaxation Rooms will be split equally between KTI and Leaf.

Sabrina has prepared the following sales estimates:

Estimate	2026	2027	2028
Revenue (total for three locations)	$2,100,000	$2,500,000	$3,000,000

The cost of goods sold for the annual relaxation room revenues will be 42%, and other operating costs will be $350,000 annually. KTI's required rate of return for this project is 12% on operating cash flow. In the first year, KTI estimates that this project will require an 80,000 kg supply of raw tea leaves.

For the development of the cannabis-infused RTD product, Leaf will supply KTI's R&D team with the cannabis required at the same price as Leaf pays. Once developed, these products will be sold in Grant's existing cannabis dispensaries and, if future legislation allows, directly within the Canna Relaxation Rooms. KTI's R&D team would begin research on the cannabis-infused RTD product right away.

APPENDIX VII
COMMERCIALIZATION OF THEANINE-INFUSED PRODUCT LINE

With its new theanine-infused tea beverages, as well as a significantly increased supply of theanine (given R&D’s new patented extraction process), KTI is ready to begin producing this new niche product line. If KTI decides to move ahead with production, it will take an estimated 18 months before the products are ready to be sold.

The market for theanine-infused tea beverages is growing, although it has been difficult to quantify demand due to a lack of research on this emerging market. Kathleen and Sabrina have estimated a range of annual sales for the new theanine-infused beverages.

Item	Low	High
Cases sold per year	17,000	80,000
Selling price per case	$140	$140
Kilograms of raw tea required	220,000	1,035,000
Total revenue	$ 2,380,000	$ 11,200,000
Cost of goods sold (55%)	$ (1,309,000)	$ (6,160,000)
Shipping costs	$ (71,400)	$ (336,000)
Initial marketing costs	$ (250,000)	$ (250,000)
Additional R&D costs	$ (50,000)	$ (50,000)
Operating profit	$ 699,600	$ 4,404,000

Given its new patented process, KTI will be able to increase production of these products even if demand exceeds the high estimate of cases that might be sold. To sell this product line, KTI will initially target drug and health food stores.

The estimated cost for a necessary equipment upgrade is $2.5 million. This will be depreciated on a straight-line basis over a 10-year period.

APPENDIX VIII
U.S. SALES AGREEMENT WITH FRESH FARE FOODS

The agreement will have an initial five-year term and a five-year renewal option if both parties agree.

Extracts from the proposed agreement, which would commence on September 1, 2025, are as follows:

- FFF agrees that KTI-branded tea will be the only premium tea brand that FFF will sell in its grocery stores.
- FFF agrees to include KTI in its marketing promotions at least twice annually.
- FFF will pick up all purchases directly from KTI's warehouses and will be responsible for all shipping expenses and logistics.
- FFF guarantees to purchase 850,000 kg of KTI-branded tea in Year 1 (September 1, 2025, to August 31, 2026), 950,000 kg in Year 2, and 1,050,000 kg annually, in years 3 through 5.
- FFF will pay KTI US$4.10 per kilogram of KTI-branded teas. The current exchange rate is 1 USD = 1.35 CAD.
- FFF will require three new tea flavours in each year of the contract.

KTI's cost of goods sold is forecast to be CA$3.75 per kilogram.

COMMON FINAL EXAMINATION
MAY 30, 2023 – DAY 1

Case (CTI-Version 2) **(Suggested time: 240 minutes)**

It is May 7, 2024, and Martin Ferringer, your boss at Hilton Consulting Group LLP (HCG), tells you that the firm has another consulting engagement with Creative Toys Inc. (CTI). Martin recently met with the Board of Directors (the board) for an update. In 2023, Thomas invested $6 million in preferred shares, with the conditions that he first proposed except that the dividends are non-cumulative. In October 2023, Lorraine was appointed chair of the board, replacing Thomas, who stayed on as a director. Also in October 2023, Solange Johannsen, who previously worked at a large global toy company and led its successful entry into the video game sector, was hired as the CEO. Solange is considered a visionary who motivates others to embrace her innovations.

CTI declined the agreement with Discount Pete's Inc. (DPI) and still does not sell its games and puzzles to non-traditional retailers, such as bookstores and gift stores or online retailers. Sales of Know It or Lose It have declined significantly as the product nears the end of its life cycle. CTI turned to character licensing arrangements for some of its games and puzzles. CTI's character-licensed products significantly outsell its non-character-licensed products.

CTI did not sell Sook's Dolls Limited (SDL), and the deficient Sookie dolls were recalled in 2022. On January 1, 2023, CTI replaced Greenhaven with Kolepare Inc. (Kolepare) as its doll manufacturer. The quality of the end products has since consistently exceeded expectations. During 2023, CTI introduced a clothing line for the Sookie dolls. The clothing line is sold online directly to consumers, resulting in higher gross margins for these clothing products and an ability to gather feedback from consumers. The dolls are still sold only through retailers. SDL has recently received some attention from retailers in the U.S. seeking to add more organic toys to their product lines.

In June 2023, changes were made to the R&D department. Cale Baxter replaced Andrew Wang as the department head, and many of the previous R&D employees were also replaced. CTI's board instructed Cale to hire employees with experience in doll design to ensure that SDL's potential growth was not ignored.

In early 2023, CTI opened an electronics division, and CTI's first video game, based on Know It or Lose It, called Smarts to Win, was released online, directly to consumers. The release was successful, targeting female gamers aged 34 to 64. However, the division has floundered since the departure of Chloe in June 2023. In November 2023, Solange hired Aleck Morrell, who was instrumental in developing three top sellers in the video game market before he was hired. The division continues to develop new video games, but none have gone to market yet.

CTI's mission and vision remain unchanged. However, at a December 2023 board meeting, the first of CTI's core values was revised to: manufacture and deliver safe, high-quality educational toys and games *that persist over time*. The board made this revision to emphasize the importance of developing products that have a long life cycle.

In preparation for the next board meeting, Solange asked each division to develop at least one strategic proposal that aligns with CTI's vision. Thomas was unable to attend the board meeting where the presentations were discussed. CTI has asked HCG to review the strategic proposals presented and to develop a response and action plan for the board to consider. Martin asks you to prepare the report and to bring to his attention any other issues you notice. For this engagement, please ignore any tax implications within your analysis and recommendations.

INDEX OF APPENDICES

APPENDIX I
EXCERPTS FROM INTERNAL SEGMENTED INCOME STATEMENTS

Creative Toys Inc.
From January 1 to December 31, 2023
(in thousands of Canadian dollars)

	Games/ Puzzles	Dolls	Electronics	Total
Net sales	$ 21,700	$ 6,640	$ 5,130	$ 33,470
Cost of goods sold (Note 1)	14,300	4,130	0	18,430
Gross profit	7,400	2,510	5,130	15,040
Gross profit %	*34.1%*	*37.8%*	*100%*	*44.9%*
Expenses				
Marketing and advertising	420	110	910	1,440
Research and development	750	220	0	970
In-house programmers' and developers' wages	0	0	2,450	2,450
Depreciation and amortization	910	200	840	1,950
Distribution costs	510	160	50	720
Occupancy costs	860	190	200	1,250
Administrative and general	2,250	410	450	3,110
Total expenses	5,700	1,290	4,900	11,890
Net income before taxes	$ 1,700	$ 1,220	$ 230	$ 3,150
Net income %	*7.8%*	*18.4%*	*4.5%*	*9.4%*

Note 1: There is no cost of goods sold related to the electronics division, given that the games are played online. Once a game has been developed, the only ongoing costs relate to any required maintenance and/or upgrades.

APPENDIX II
PERFORMANCE SHARE UNIT INCENTIVE

On April 1, 2024, the board granted Solange performance share units (PSUs) to incentivize her to stay with CTI. The actual number of PSUs received will be determined on March 31, 2025, and will range from 0 to 300,000 PSUs, based on reaching the performance measures detailed below. For each individual performance measure achieved, Solange will receive the number of PSUs indicated. If she reaches or exceeds the target for all three performance measures, she will receive 150% (300,000) of the number of PSUs indicated.

If Solange is still employed by CTI on March 31, 2027, she will receive common shares equal to the number of PSUs she was awarded.

The PSUs are based on the following three performance categories:

Performance Measures	**Target**	**Number of PSUs**
Return on invested capital (Note 1)	12%	100,000
Number of annual product sales and/or software downloads	1 million	50,000
Number of new products (including offshoots) per year	6	50,000

Note 1: Return on invested capital (ROIC) is calculated as follows:

Annual net income before interest and taxes divided by net assets (where net assets = total assets minus total liabilities associated with the investment)

APPENDIX III
INTERNAL MEMO – INDUSTRY UPDATE

The retail toy market's annual sales are expected to increase slightly, between 1% and 1.5%, for the next three years. Traditional games and puzzles now represent 10% of the industry's sales. The trend of character licensing is bigger than ever, and only games and puzzles that are character licensed have seen growth. The doll segment, and related accessories, remains strong and is expected to grow by 8% annually. Educational toy retailers are losing market share to the large online retailers and to book and gift retailers. Due to their high volume of sales, online retailers are forcing their suppliers to lower their prices by as much as 20% or they will not sell their products.

Customers are more price sensitive but are still willing to pay a premium for character-licensed toys and for products made from organic materials. This is partially due to the recent scandal in which three companies were found to be using materials that caused allergic reactions and skin rashes in children. As a result, there is an increased consumer demand for toys certified as being made from organic materials only. There are expectations that these products' sales will increase significantly in 2024, 2025, and beyond. CTI's 2022 recall of the Sookie dolls worked in its favour. The public believes they can trust CTI's products, which has contributed to increased sales of Sookie dolls and is expected to increase the sales of CTI's other games and puzzles.

Sales of video games are expected to increase by 10% annually, although sales prices are falling due to increased competition. The larger toy manufacturers have moved into video games to diversify their products. Increasingly, video games are being targeted to young children, now as young as five years old. Schools are embracing educational video games to help with learning in the classroom, particularly for the primary grades. Studies have found that children using games designed to develop math and spelling skills, along with critical thinking, perform better in these subject areas.

Currently, the prime interest rate is climbing (it is at 3.8% today) and the Canadian dollar is strong. Per capita disposable income is expected to increase by 2% annually.

APPENDIX IV
NEW KEY PERFORMANCE INDICATORS

To: Division Leads
From: Solange Johannsen, CEO
Date: May 3, 2024

Subject: New Key Performance Indicators (KPIs)

As CTI moves into the future, we must look at innovative and creative ways to measure our success. I have designed the following KPIs for 2024 and 2025 to maximize the company's growth potential:

- Number of annual product sales or software downloads (including upgrades)
- Number of times the game is played in a month by a player
- Number of new products, including offshoots
- Product revenues
- Time to market (from product conception to market release — for both new products and product upgrades)

Because we have only $3 million to invest in 2024, we need to invest it wisely. For each of your strategic proposals, I want to understand how it helps attain each of the KPIs and what its projected ROIC, as defined by the board, will be. To make the options comparable, given that they may have different development times and costs, please use 2025 projections to calculate the ROIC. I will recommend to the board the proposal with the best results for the most KPIs.

Keep in mind that CTI's board only agreed to use character-licensed products to maintain its income until a replacement for Know It or Lose It is found. Although these character-licensed products have proven quite successful, CTI's success is directly linked to the reputation of the characters. The board has asked us to reduce this dependency on license contracts, if possible, as it is viewed as a high-risk strategy.

I look forward to hearing new, bold, and innovative ideas!

APPENDIX V
DOLL DIVISION – PRESENTATION AND DISCUSSION

Presented by Anna Simponi, Manager

– 1 –
Purchase of Kolepare

- We can purchase all the outstanding common shares of Kolepare for $4 million ($1 million in upfront cash and $3 million as debt, at an attractive rate to CTI).
- Kolepare is a doll manufacturer and wholesaler of organic materials.
- Based on information received from Kolepare:
  - Kolepare's manufacturing plant is currently at 63% utilization.
  - Kolepare's 2023 revenues are:
    - 60% from CTI, for manufacturing dolls and from the sale of organic materials.
    - 40% from the sale of organic materials to other manufacturers, on which the margins are similar to the sales Kolepare made to CTI.
  - Net income before taxes for 2023 was $650,000.
- If we purchase Kolepare, synergies from cost savings are expected to be 15% of CTI's total administrative and general expenses and $125,000 of Kolepare's administrative expenses. Combining the two companies could also save approximately $300,000 in operating expenses.
- To ensure a smooth transition, the two owners (one is the plant manager and the other is the office manager/accountant) have agreed to stay on for one year.

– 2 –
Purchase of Kolepare – KPIs

- Number of annual product sales or software downloads – Not applicable
- Number of times the game is played in a month by a player – Not applicable
- Number of new products, including offshoots – Not applicable
- Product revenues – Kolepare's total revenue was $10 million in 2023.
- Time to market – Not applicable
- 2025 ROIC, based on a full year of ownership:
  - Income before interest and taxes = assumed same as 2023 net income before taxes
  - Increase in net assets = $1 million
  - ROIC = $650,000 ÷ $1 million = 65%

APPENDIX V (continued)
DOLL DIVISION – PRESENTATION AND DISCUSSION

Presented by Anna Simponi, Manager

Discussion:

Solange: I do not see anything new. I am disappointed — the doll division seems to be looking towards the past instead of the future. I thought I had made it clear that I wanted innovative ideas.

Lorraine: I disagree. With this deal, CTI will become a supplier of organic materials, which would boost our revenues while cutting our costs. We could also use Kolepare's excess capacity to introduce new Sookie products. Bringing the manufacturing in-house gives us total control over quality.

Steven: I also think this is a good idea. A common multiplier on net income before taxes for this industry is 5, which means Kolepare is valued at $3.25 million.

Krystal: That valuation does not consider the additional synergies.

Solange: Regardless, I am against this investment, given that it meets very few of our KPIs.

Lorraine: I am having trouble with some of your new KPIs, as I do not know how they apply to an investment like this. This acquisition is a necessary first step before SDL can expand into U.S. and international markets, where demand for this type of product is growing. In the past, we would have looked at a payback period, which for this investment is an attractive 3.5 years.

Krystal: I agree with Lorraine. We would also have looked at the impact on gross profit margins. Given the synergies involved with this acquisition, our gross profit margins would improve in both the games and puzzles division and the doll division.

APPENDIX VI
GAMES AND PUZZLES DIVISION – PRESENTATION AND DISCUSSION

Presented by Steven Zhang, VP manufacturing and distribution

– 1 –
Building Block Board Game

- In this board game, players are given building blocks, and they gain or lose blocks as they move their game piece around the board. Players build different structures using the building blocks, and each structure earns a different number of points. The player with the most points at the end of the game is the winner.
- It combines creativity and critical thinking and is fun for the entire family (can be played by two or more players, from ages five and up).
- R&D has worked for one year on this project and now needs $1.5 million for equipment, which will last 10 years.
- Market entry will be by late 2024, in time for holiday shopping.
- The selling price per game will be $20.
- Volumes expected are 50,000 in 2024, 250,000 in 2025, and 280,000 in 2026.
- Variable costs will be 67%.
- The game will be made from 100% organic materials.
- This could potentially be character licensed, which would increase profits by another 5%.

– 2 –
Building Block Board Game – KPIs

- Number of annual product sales or software downloads – 250,000 in 2025
- Number of times the game is played in a month by a player – 4 times (maybe once per week?)
- Number of new products, including offshoots – 1
- Product revenues – $5 million in 2025
- Time to market – Approximately 1.5 years in total
- 2025 ROIC:
  - Not yet calculated

APPENDIX VI (continued)
GAMES AND PUZZLES DIVISION – PRESENTATION AND DISCUSSION

Presented by Steven Zhang, VP manufacturing and distribution

Discussion:

Steven**:** I think this could be an award-winning board game. When the R&D department tested the board game with a focus group of parents, it got great reviews. The parents loved the critical thinking involved in the game. We can use the focus group's feedback to improve the game further.

Also, to keep our per-unit costs down in the games and puzzles division, we need to keep our production levels up at the manufacturing facilities. Given the lost sales from Know It or Lose It, we need new products to fill the excess capacity. That is the only way we will be able to keep our sales prices at a competitive level.

Solange**:** This is one of the best ideas I have seen in a while; however, as simply a board game, this option only meets some of our KPIs. Maybe it would perform better as a video game instead? It seems like it could be easily converted.

Krystal**:** I love the board game idea — there is nothing else like it on the market. If we want an innovative product that combines critical thinking with creativity, this is it.

Lorraine**:** A few designers from R&D said this game could become CTI's next evergreen product.

Solange: As we have a limited amount of capital, it should be invested where the best payoff is, and according to the presentation, this product does not offer any potential offshoots. Rather than spend our available cash on capital equipment upgrades, I would prefer to take this idea and develop a video game for some time next year.

Lorraine**:** I think the payback period and gross profit margin analysis are better tools for analyzing this type of investment. The payback period is approximately 2 years, which is short for our business, and the gross profit margin is 33%.

Steven: I'm sorry, Solange, but I disagree. We have a game we think will be well received by the market and, based on payback and margins, should be invested in, and you want to put it off? This game has the potential to sell for years to come.

APPENDIX VI (continued)
GAMES AND PUZZLES DIVISION – PRESENTATION AND DISCUSSION

Presented by Steven Zhang, VP manufacturing and distribution

Solange: We need to get the biggest impact we can on our new KPIs, and this game does not achieve that. Wait until you see the educational video game the electronics division has proposed!

Krystal: We could invest in the board game now, and then develop a video game version once the game has developed a fan base. We should think about it.

APPENDIX VII
ELECTRONICS DIVISION – PRESENTATION AND DISCUSSION

Presented by Aleck Morrell, Manager

– 1 –
Math Game Software

- Allison Zhu, a primary teacher with a master's degree in mathematics, has approached CTI to finish developing a math game software program, which is 65% complete, and then license it to schools.
- The game's content will match the current math curricula for grades 1 to 3.
- This is a single-player game.
- The game should be ready for a January 2025 launch.
- Two versions of the game software are required: a desktop version for use at school and a mobile version for use at home.
- Schools will receive the desktop version for free and are not expected to pay for upgrades.
- The mobile home version will:
  - be a free initial download for the basic software; and
  - cost $1.10 to upgrade for additional functionalities and levels of difficulty.
- Allison wants a 10% royalty on all revenue; in return, CTI has the right to use all parts of the software.
- Allison also requires 5% of all revenue to be donated to a scholarship fund that helps promote children's education.

– 2 –
Math Game Software – Pilot Project

- The pilot project will involve three local primary schools.
- CTI will donate all of the required computers to each school.
- Based on a successful pilot project, additional schools are expected to sign up.
- Required upfront costs for an initial pilot project are as follows:
  - $1.6 million – To finish developing the game software (desktop and mobile versions)
  - $500,000 – To provide computers to the three schools

APPENDIX VII (continued)
ELECTRONICS DIVISION – PRESENTATION AND DISCUSSION

Presented by Aleck Morrell, Manager

– 3 – Math Game Software – Financial Analysis		
Total initial free downloads (2025)		400,000
Upgrade purchases (2025):		
• 65% of home users will purchase 6 upgrades		1,560,000
• 30% will purchase 4 upgrades		480,000
• 5% will purchase 2 upgrades		40,000
		2,080,000
Selling price per upgrade		× $1.10
Total annual revenues	$	2,288,000
Less: 10% royalty to Allison		(228,800)
Less: 5% scholarship donation		(114,400)
Net revenues		1,944,800
Ongoing programming costs		(1,500,000)
Net income before taxes	$	444,800

Note: The required upfront costs for this project have not been included in the above analysis.

– 4 –
Math Game Software – KPIs

- Number of annual product sales or mobile downloads – 400,000 free downloads; 2.08 million downloads for upgrades
- Number of times the game is played in a month by a player – Each day × 30 days per month
- Number of new products, including offshoots – A new product for each grade (1, 2, and 3) and two offshoots per grade; total = 9 new products
- Product revenues – $1,944,800 (net revenues after royalties)
- Time to market – May 2024 to January 2025 (8 months)
- 2025 ROIC:
  - Increase in net income before interest and taxes = $444,800
  - Increase in net assets = $1.6 million
  - ROIC = $444,800 ÷ $1.6 million = 28%

APPENDIX VII (continued)
ELECTRONICS DIVISION – PRESENTATION AND DISCUSSION

Presented by Aleck Morrell, Manager

Discussion:

Solange: I cannot think of a better way to expand our electronics division and build trust for all of our products.

Krystal: There are already several math game software programs available for children, developed and marketed by well-known companies. What makes this one different?

Solange: It was specifically developed with the schools' actual math curricula in mind, so whatever is taught in school will be reinforced by the game. The other available math games do not do this. On top of that, the game was designed to be fun as well as educational.

Krystal: Have you seen it or tried it yet?

Solange: No, because the game is not complete, but our electronics division is very optimistic about it.

Lorraine: Having the schools announce that we have provided the computers and software for free would give CTI great publicity.

Steven: What happens if the schools decide not to support the game? Is the decision made by each school board and then the schools?

Solange: If the schools do not support us, we can market the product directly to parents. We will just have to include some marketing expenses in our projections.

Krystal: You mean no marketing costs have been included in the forecast? Is this going to sell itself?

Solange: Yes! We will simply arrange for the teachers to give handouts to the students, explaining that a free download is available. Since we are making a 5% donation on all revenue earned, the schools will want to promote the mobile home version.

Lorraine: The payback period appears to be around 4.5 years. Since the game is in English, we will need to develop a French version. And because curricula vary significantly from one school board to the next, there will be substantial development costs. Are the cost estimates provided high enough?

APPENDIX VII (continued)
ELECTRONICS DIVISION – PRESENTATION AND DISCUSSION

Presented by Aleck Morrell, Manager

Solange: That is why we have an R&D department. If needed, we can reallocate the R&D staff to research the differences between various school curricula.

Lorraine: Our R&D team was never intended to be used in that way. Shouldn't they be focused instead on developing new board games, puzzles, and dolls?

Solange: R&D should be used in a way that creates the most value for CTI.

Krystal: You are also counting on a lot of upgrades being purchased.

Solange: I expect the game software to receive many accolades for its innovation and contribution to the community at large. I have launched similar products before and know what I am doing. Look at how well this option performs relative to our new KPIs. After the launch of our math game, a significant number of offshoots could follow. And once the success of this pilot project is confirmed, we will start developing similar software for all the other subjects in elementary school and beyond!

Finally, think of the exposure that CTI's electronics division will gain. Launching this game software will reinforce our reputation as a provider of quality educational products. This investment will surely help CTI's growth going forward.

APPENDIX C

MAY 31, 2023 – DAY 2
SIMULATION AND MARKING GUIDES

COMMON FINAL EXAMINATION
MAY 31, 2023 – DAY 2

Case

Assume the pre-selected role in which you will be formulating your response. Answer all requireds as specifically directed in your role. Within the requireds for each role, candidates are directed to look at specific additional appendices, which are unique to each role. Use only the information you have been directed to refer to.

Information that is shared by all roles is presented in the "Common Information" section. Additional information, customized to each role, is presented in the "Specific Information" section.

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BACKGROUND
COMMON INFORMATION FOR ALL ROLES

Unique Bottles Inc. (UBI), a private company incorporated in 2011 that reports under ASPE, provides bottle and jar packaging solutions. UBI operates in Ontario, close to its largest customers.

UBI has three divisions. The Custom Glass division manufactures custom-shaped glass jars, used to package foods. UBI works with each customer to design and test prototypes of custom jars. The Standard Glass division manufactures standard-shaped glass bottles, used for food products and dietary supplements. The Plastic division imports plastic bottles and lids manufactured overseas, used for vitamins and other dietary supplements.

Jessica Lowrey and Lisa Finnegan each own 100,000 of UBI's 200,000 common shares and are co-CEOs. UBI also has retractable preferred shares that were issued to their friend Callum Galbraith. The Board of Directors (the board) is made up of Jessica, Lisa, and Callum, who each have one vote.

Today is February 15, 2023, and the directors have just reviewed the draft financial statements for the year ended December 31, 2022. All three directors are concerned about the low cash balance and declining revenues and profits. They want to reduce costs related to energy, waste, and general and administration. UBI is also considering obtaining additional financing soon. Callum is disappointed with the earnings and stated that he may retract some of his preferred shares in 2023 if he does not see any improvements.

UBI outsourced its payroll function to QBS, a third-party provider, on September 1, 2022, to reduce the administrative burden. In early November, UBI's controller retired, and Jessica has been too busy to hire a replacement.

Additional information, customized to your role, is presented in your role package.

REQUIREMENTS FOR YOUR ROLE
(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

ASSURANCE REQUIREMENTS

You, CPA, are a senior associate at Braverman and Associates LLP (Braverman). You met with Landen, the audit partner on the UBI engagement.

Lisa is concerned about the number of customer complaints for the Plastic division. She would like you to determine the total cost of each of UBI's four cost of quality management categories and discuss any potential issues identified with the quality management process. Lisa also wants you to discuss and quantify the problems with the existing customer quote method, and she wants to know whether UBI should implement changes to its method going forward. Finally, Lisa would like you to review the draft third quarter cash budget and make any necessary revisions. Landen asks you to address Lisa's requests as part of your work on UBI and has already dealt with any independence and conflict-of-interest considerations.

Also, Landen asks you to assess the financial reporting issues related to the Yarley's Jams and Mustards Inc. contract, the Peak Performance Inc. contract, and two specific accounts receivable balances.

On December 1, 2022, UBI entered into a foreign currency forward contract related to the purchase of inventory. Jessica would like to understand the accounting policy options that could be applied in the future to account for this type of transaction. She also wants to know how the impact of this transaction on the financial statements might vary based on the accounting policy used.

The 2021 financial statements were audited by Middleton LLP (Middleton), and Landen has reviewed Middleton's files pertaining to that audit. He asks you to draft an audit planning memo discussing the risks of material misstatement at the financial statement level and materiality, including how changes in these areas from the prior year will affect the 2022 year-end audit. Landen would also like you to provide audit procedures for the financial reporting issues he has asked you to address, including the forward contract entered into in 2022.

In addition, Landen asks you to discuss any internal control weaknesses that you identify in UBI's accounting processes and provide recommendations to address them.

REQUIREMENTS FOR YOUR ROLE
(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

ASSURANCE REQUIREMENTS (continued)

A junior associate has isolated all manual journal entries over $50,000 for the period after the controller retired. Landen asks you to discuss any risk areas that you identify from your review of these journal entries. In addition, the junior associate has designed and performed procedures over the trade payables and accrued liabilities and general and administrative balances, and Landen asks you to review their work and recommend how to address any deficiencies you identify in their work.

Finally, Jessica plans to include some statements regarding environmental sustainability initiatives on UBI's website. Jessica has engaged Braverman to independently verify them. Landen would like you to recommend procedures for auditing these statements.

In addition to the common appendices (I to VI), information provided in Appendix VII (Assurance) is relevant for your analysis.

REQUIREMENTS FOR YOUR ROLE
(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

FINANCE REQUIREMENTS

You, CPA, work at UBI as a financial analyst. Lisa is concerned about the number of customer complaints for the Plastic division. She would like you to determine the total cost of each of UBI's four cost of quality management categories and discuss any potential issues identified with the quality management process. Lisa also wants you to discuss and quantify the problems with the existing customer quote method, and she wants to know whether UBI should implement changes to its method going forward. Finally, Lisa would like you to review the draft third quarter cash budget and make any necessary revisions.

Also, Jessica asks you to assess the financial reporting issues related to the Yarley's Jams and Mustards Inc. contract, the Peak Performance Inc. contract, and two specific accounts receivable balances.

Lisa has collected data on several companies. She asks you to assess UBI's liquidity and solvency against the most relevant companies from the list and provide recommendations for improvement.

The board is reviewing UBI's financial risk management program (FRMP). Lisa would like you to discuss the financial risks in UBI's current FRMP and recommend improvements to it.

Lisa asks you to provide a quantitative and qualitative analysis of a proposed royalty agreement with Blue Planet Materials Inc. (BPM). She would also like you to qualitatively assess an alternative joint venture proposal.

UBI recently received an offer to purchase Pine Bluffs Packaging Inc. (Pine Bluffs). Lisa is not looking for any quantitative analysis, but asks that you review the financial analysis provided and make a recommendation on how UBI should proceed.

Lisa wants to purchase a RoboCarton machine and would like you to provide an analysis of the price using various valuation approaches. She also wants you to recommend the price UBI should offer. UBI will need short-term financing to purchase the machine. Lisa would like you to assess the financing options and recommend one.

In addition to the common appendices (I to VI), information provided in Appendix VII (Finance) is relevant for your analysis.

REQUIREMENTS FOR YOUR ROLE
(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

PERFORMANCE MANAGEMENT REQUIREMENTS

You, CPA, work at UBI as a financial analyst. Lisa is concerned about the number of customer complaints for the Plastic division. She would like you to determine the total cost of each of UBI's four cost of quality management categories and discuss any potential issues identified with the quality management process. Lisa also wants you to discuss and quantify the problems with the existing customer quote method, and she wants to know whether UBI should implement changes to its method going forward. Finally, Lisa would like you to review the draft third quarter cash budget and make any necessary revisions.

Also, Jessica asks you to assess the financial reporting issues related to the Yarley's Jams and Mustards Inc. contract, the Peak Performance Inc. contract, and two specific accounts receivable balances.

Due to the issues still faced by the Plastic division, UBI is considering replacing its plastic bottles supplier. Lisa asks you to compare the cost per bottle of the existing supplier to the potential new supplier, considering the cost of quality management. She also wants you to perform a qualitative assessment of each supplier and make a recommendation.

UBI is considering implementing a reuse or recycle system for its standard glass bottles. Lisa asks you to perform a quantitative assessment of the two proposals. She also wants you to discuss any other factors relevant to the decision and make a recommendation.

Jessica and Lisa disagree on whether to publicly report on environmental metrics. They ask you to analyze the Standard Glass division's performance in key areas and the considerations around collecting and publishing this data.

UBI is considering providing a bundled service to its Custom Glass division's customers. Lisa believes UBI should use a cost-plus pricing strategy to ensure market penetration of this service, whereas Jessica thinks that using a pricing strategy based on the timing of the orders might be best. They would like you to perform a quantitative and qualitative analysis of both proposed strategies and make a recommendation.

Finally, Callum has expressed concerns about the difference between Jessica's and Lisa's visions with regards to UBI's strategic direction. Jessica and Lisa have asked you to assess both of their proposed strategic directions for UBI. They have also asked you to discuss any issues with UBI's governance structure and recommend improvements to address them.

In addition to the common appendices (I to VI), information provided in Appendix VII (Performance Management) is relevant for your analysis.

REQUIREMENTS FOR YOUR ROLE
(READ ONLY THE ONE SPECIFIED FOR YOUR PRE-SELECTED ROLE)

TAXATION REQUIREMENTS

You, CPA, work at UBI as a financial analyst. Lisa is concerned about the number of customer complaints for the Plastic division. She would like you to determine the total cost of each of UBI's four cost of quality management categories and discuss any potential issues identified with the quality management process. Lisa also wants you to discuss and quantify the problems with the existing customer quote method, and she wants to know whether UBI should implement changes to its method going forward. Finally, Lisa would like you to review the draft third quarter cash budget and make any necessary revisions.

Also, Jessica asks you to assess the financial reporting issues related to the Yarley's Jams and Mustards Inc. contract, the Peak Performance Inc. contract, and two specific accounts receivable balances.

Further, Jessica asks you to determine the tax treatment of these financial reporting issues. She would then like you to calculate taxable income and federal taxes payable for UBI for the taxation year ended December 31, 2022.

A junior accountant drafted the GST/HST return for January 2023, and you need to review it. Lisa also asks you to remind her of the GST/HST filing and payment deadlines and of the penalties if UBI files or pays late.

UBI is considering offering an employee stock option plan. Jessica and Lisa ask you to analyze the tax consequences of this plan, for both the employees and UBI, and to recommend whether to proceed with it.

QBS prepared the draft T4 summary and slips for 2022. Jessica thinks they contain some errors caused by the system, and she asks you to review the sample T4 slip to identify the errors.

Lisa's spouse also earns income, so Lisa does not need all her earnings immediately. A friend told her she could pay less tax if, instead of receiving a salary from UBI, she incorporated a new corporation (LisaCo), which would charge a management fee to UBI. LisaCo would then pay Lisa a smaller salary. Lisa asks you to analyze the tax impacts for her and LisaCo of this structure.

To generate some cash, UBI is planning a sale-leaseback of its land and building. Lisa wants to know the income tax and GST/HST consequences of the sale and the leaseback.

In addition to the common appendices (I to VI), information provided in Appendix VII (Taxation) is relevant for your analysis.

APPENDIX I – COMMON INDUSTRY AND COMPANY BACKGROUND

In addition to manufacturing and distributing bottles and jars, all three divisions also fill, label, and package products for shipping. These value-added services generate higher profit margins than the sale of bottles alone. Labels are affixed by hand or machine, depending on the product and label type. It is industry practice to keep unfilled bottles and jars in inventory. Unless warehousing is specified as part of the customer's contract, orders are normally shipped on order completion.

UBI often loses to competitors on new and existing contracts because its quotes are too high. UBI lost two major customers in the past two years, and replacing these revenues has been slow.

The Plastic division has faced issues due to supply constraints, increased cost of plastic bottles, and inventory shortages. Late in 2021, due to customer complaints related to quality, UBI changed its plastic bottle supplier. In 2022, UBI lost a large contract due to complaints about the quality of bottle colour consistency and label legibility.

Current market rates of interest are 4.5% for bottling companies and food manufacturers.

APPENDIX II – COMMON
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

Unique Bottles Inc.
Balance Sheet
As at December 31
(In thousands of Canadian dollars)

	2022 Draft	2021 Audited
Assets		
Current assets:		
Cash and cash equivalents	$ 80	$ 240
Accounts receivable (Note 1)	4,710	4,560
Inventories	7,440	7,130
Prepaid supplies and expenses	960	910
	13,190	12,840
Property, plant, and equipment – net	13,830	14,399
Intangible asset	280	0
Total assets	$ 27,300	$ 27,239
Liabilities		
Current liabilities:		
Line of credit (Note 1)	$ 6,300	$ 7,000
Trade payables and accrued liabilities (Note 1)	5,602	6,370
Income taxes payable	70	95
Retractable preferred shares (Note 2)	2,000	2,000
	13,972	15,465
Term loan (Note 3)	5,600	5,600
	19,572	21,065
Shareholders' equity		
Common shares	800	800
Retained earnings	6,928	5,374
	7,728	6,174
Total liabilities and shareholders' equity	$ 27,300	$ 27,239

APPENDIX II – COMMON (continued)
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

Unique Bottles Inc.
Statement of Earnings and Retained Earnings
For the year ended December 31
(In thousands of Canadian dollars)

	2022 Draft	2021 Audited
Revenue (Note 4)	$ 48,560	$ 51,980
Cost of sales	35,120	36,380
Gross profit	13,440	15,600
Expenses		
Amortization	1,669	1,817
Bad debts	975	810
Selling and marketing	4,375	3,990
General and administrative	3,938	4,710
	10,957	11,327
Operating income	2,483	4,273
Other expenses (income)		
Foreign exchange (gains) losses	(460)	780
Dividends on preferred shares	160	160
Interest – line of credit	399	405
Interest – term loan	504	504
	603	1,849
Income before taxes	1,880	2,424
Income taxes	326	426
Net income for the year	1,554	1,998
Opening retained earnings	5,374	3,376
Closing retained earnings	$ 6,928	$ 5,374

APPENDIX II – COMMON (continued)
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

Additional information from Jessica

Note 1 – Current assets and liabilities

Normal credit terms for customers are net 30 days.

The line of credit bears interest at prime plus 2% and is secured by accounts receivable and inventories. Interest is paid monthly. The prime rate at December 31, 2022, was 4%.

Normal payment terms for suppliers are net 45 days.

Note 2 – Retractable preferred shares

There are 40,000 issued preferred shares that have a cumulative 8% annual dividend. The preferred shares are retractable at $50 per share, at the holder's option at any time, and there are currently no dividends in arrears.

Note 3 – Term loan

The term loan is due in 2028 and bears interest at 9% per year; only interest is payable monthly. The loan is secured by the land and building.

Note 4 – Revenue

Sales to U.S. customers represent 18% of total revenues. The 2022 average exchange rate and spot rate as at December 31, 2022, were 1 USD = 1.30 CAD and 1 USD = 1.35 CAD, respectively.

(*in thousands of Canadian dollars*)

Division	2022	2021
Custom Glass	$ 27,010	$ 25,280
Standard Glass	6,500	8,600
Plastic	15,050	18,100
Total	$ 48,560	$ 51,980

APPENDIX III – COMMON
LIST OF COSTS RELATED TO QUALITY MANAGEMENT

UBI categorizes costs of quality management as follows:

1. To prevent defects
2. To identify defects prior to assembly
3. To repair or replace defects after assembly, but prior to delivery
4. To satisfy customer complaints after delivery

Costs of Quality Management (Plastic Division)	2022	2021
Inspection of incoming materials	$ 170,000	$ 160,000
Inspection of prototypes from new supplier and testing on the machines	95,000	210,000
Overtime to fix labels for errors found upon final quality check	460,000	220,000
Responding to customer complaints	340,000	310,000
Rework on returned bottles	540,000	370,000
Scrapped lids that did not fit bottles during assembly	170,000	524,000
Supplies required to redo labels for errors found upon final quality check	280,000	70,000
Testing the calibration of the labelling and filling machines	205,000	360,000
Testing the quality of final products	240,000	310,000
Training new staff on workflow and safety protocols	120,000	110,000
Visits to suppliers' manufacturing premises to ensure that standards are being met	40,000	120,000
Total costs of quality management	$ 2,660,000	$ 2,764,000

APPENDIX IV – COMMON CUSTOMER QUOTE METHOD

Annually, Lisa calculates each indirect cost type as a percentage of total direct costs for the year. When preparing a customer quote, Lisa uses these percentages to allocate each indirect cost type to the quote.

Lisa thinks she could improve the method she uses to budget indirect costs for quotes. She provided some information for a recent quote, #1793:

Indirect Cost Type	Amount Allocated to Quote #1793
Purchasing department	$ 5,900
Machine setup*	$ 1,000
Material handling	$ 6,500
Machine lubricants	$ 1,500
Shipping department*	$ 1,000
Customer service*	$ 1,000

*For small amounts, a minimum of $1,000 is used in preparing quotes.

The 2023 budget for each specific indirect cost type is provided below:

Indirect Cost Type	Total 2023 Company-Wide Budgeted Costs
Purchasing department	$ 580,000
Machine setup	$ 380,000
Material handling	$ 685,000
Machine lubricants	$ 240,000
Shipping department	$ 410,000
Customer service	$ 460,000

The levels of activities expected for 2023 are as follows:

Activity	Total 2023 Company-Wide Expected Activity Level	Expected Activity for Quote #1793
Total purchase orders/receipts	15,000	100
Total machine hours for all machines	25,000	300
Total customer orders/shipments	10,000	20
Number of setups	8,000	10
Number of units produced	700,000	5,000

APPENDIX V – COMMON
2023 THIRD QUARTER CASH BUDGET

The treasury clerk prepared the following cash budget:

Receipts	
Collection of sales (Note 1)	$ 17,400,000
Disbursements (Note 1)	
Direct material purchases	5,715,000
Direct labour	2,610,000
Supervisors' salaries	250,000
Bad debts (Note 2)	348,000
Selling and marketing	1,200,000
Amortization (Note 3)	580,000
Property taxes and insurance	140,000
General and administrative	800,000
	11,643,000
Net cash inflow	$ 5,757,000

Notes:

1. Sales and expenses occur evenly over each month of the quarter. Sales are collected and direct material purchases are paid under normal credit and payment terms. All other costs are paid as incurred, except for property taxes and insurance, which are paid annually in February.
2. Bad debts are expected to be 2% of sales.
3. Includes $130,000 of amortization of new equipment to be purchased in the third quarter. UBI will pay $2.6 million for the new equipment, which will last five years.

Cash on hand at the end of the second quarter is expected to be $30,000. UBI pays monthly income tax instalments of $40,000.

Additional Information from the 2023 Yearly Budget

Item	Quarter 2	Quarter 3	Quarter 4
Revenues	$ 6,190,000	$ 17,400,000	$ 12,700,000
Direct materials purchased	$ 7,830,000	$ 5,715,000	$ 6,075,000
Direct labour incurred	$ 929,000	$ 2,610,000	$ 1,905,000

APPENDIX VI – COMMON
NOTES FROM DISCUSSION WITH JESSICA

Yarley's Jams and Mustards Inc. Contract

UBI manufactures custom jars for Yarley's Jams and Mustards Inc. (YJMI), a long-time customer. YJMI ships mustards and jams to UBI, which then fills the jars and packages them in cartons. Once packaged, they are shipped to YJMI the same day.

<u>Excerpts from the most recent contract with YJMI</u>

> Contract #2819
>
> Customer: Yarley's Jams and Mustards Inc. (YJMI)
>
> Date: October 28, 2022
>
> YJMI contracts with UBI to fill and package 10,000 cartons of 12 mustard jars each. The total contract price is $720,000. YJMI will determine the shipping schedule, make the shipping arrangements, pay the costs of freight, be responsible for the goods during transport, and take title once the goods leave UBI's warehouse. Normal payment terms are 30 days.

The first 2,000 cartons were shipped in November 2022 and received and accepted by YJMI.

On December 15, 2022, UBI received notice from YJMI regarding Contract #2819. YJMI had a flood in its warehouse and stated that it would not be able to take final delivery of the remaining 8,000 cartons until January 27, 2023. UBI was instructed to fill the jars and bill YJMI immediately. YJMI requested that UBI hold these items in UBI's warehouse and agreed to take ownership of these goods while they were stored by UBI.

UBI filled the remaining jars, packaged them, and placed them in a separate section of the warehouse. This was completed by December 21, 2022, and an invoice for the full contract amount was sent to YJMI on that date. Full payment was received on January 18, 2023.

As of December 31, 2022, UBI had recorded the full $720,000 of revenue and $489,600 of cost of sales for this contract.

Final instructions for shipping were received on January 27, 2023, and UBI shipped the 8,000 cartons within a few hours of notice.

APPENDIX VI – COMMON (continued)
NOTES FROM DISCUSSION WITH JESSICA

Peak Performance Inc. Contract

In August 2022, UBI signed a new contract with Peak Performance Inc. (PPI) to redesign UBI's assembly line processes. The agreement stated that the design would provide a new assembly line layout that would improve efficiency and reduce the amount of space required, using only UBI's existing machines and equipment. On August 15, 2022, UBI paid PPI $240,000 for the design.

On September 20, 2022, UBI received the final design document and paid PPI $40,000 for staff training on the new processes, which took place in late September. UBI spent $18,000 reconfiguring the assembly line on October 1, 2022, which involved moving the machines and equipment.

The design and training costs, totalling $280,000, were capitalized as an intangible asset. The costs to reconfigure the assembly line were expensed as incurred.

Accounts Receivable

Included in accounts receivable at December 31, 2022, is an invoice owing from a U.S. customer, Savory Foods Inc. The original invoice for US$250,000 was dated December 9, 2022, when the exchange rate was 1 USD = 1.33 CAD. The invoice was included in accounts receivable at CA$250,000. This invoice was paid on January 16, 2023, and UBI received CA$327,000 on exchange to Canadian dollars.

Accounts receivable also include an amount due from Lowesons Preserves Inc. (Lowesons) for $980,000. Lowesons is a long-time customer in the food industry, but it has not placed an order since September 2022. UBI has no security against this receivable.

In early January 2023, the owner of Lowesons contacted Jessica to request an extension to pay the outstanding amount. They indicated that Lowesons had collection issues from a customer that had now declared bankruptcy. They asked if the amount due to UBI could be paid in two amounts: one-half by December 31, 2023, and one-half by December 31, 2024. Jessica agreed to these terms. Jessica then investigated selling this receivable to a factoring agency, which has offered to purchase the receivable for 70% of its face value.

ASSURANCE ROLE
ADDITIONAL INFORMATION

APPENDIX VII – ASSURANCE
ADDITIONAL INFORMATION

Foreign Currency Forward Contract

On December 1, 2022, UBI ordered inventory for US$500,000, to be delivered and paid for on January 31, 2023. Also on December 1, 2022, UBI entered into a forward contract to buy US$500,000 on January 31, 2023, for CA$680,000, to reduce exposure to foreign currency fluctuations. Information on exchange rates and the fair market value of the forward contract is as follows:

Date	Spot Exchange Rate	Fair Market Value of the Forward Contract
December 1, 2022	1 USD = 1.32 CAD	CA$0
December 31, 2022	1 USD = 1.35 CAD	CA$3,200
January 31, 2023	1 USD = 1.38 CAD	CA$10,000

UBI has only recorded the following entry related to this contract, on December 31, 2022:

Dr. Forward contract	$3,200	
Cr. Gain on forward contract		$3,200

Review of Predecessor Auditor File

In planning for the December 31, 2021, audit, Middleton noted that UBI's controller demonstrated necessary competence, UBI's management had industry expertise, and there was little incentive for management to manipulate the financial statements. As a result, Middleton did not identify any risks of material misstatement at the financial statement level. Materiality was set as $170,000 (7% of net income before income tax). Middleton identified three misstatements during the 2021 audit. The aggregate of the identified misstatements was less than materiality; however, UBI management agreed to make all of the adjustments.

APPENDIX VII – ASSURANCE (continued)
ADDITIONAL INFORMATION

Accounting Processes

Overview

UBI has one login ID for its accounting system. This ID has permission to enter information and post entries into the accounting system.

The accounting department consists of the controller, the payables clerk (initials: RJ), and the treasury clerk (initials: AT). After the controller left, both clerks were given the login credentials for the accounting system ID, in order to post manual entries relevant to their role. The clerks input their initials in the description field of any manual journal entries they make.

Purchases

When a sales contract is received, the plant production manager assigns it to one of the three purchasing managers, who orders the materials needed to complete the contract. The purchasing manager establishes an expenditure budget (EB) to budget the cost of materials, assigning it a number that corresponds to the sales contract. The EB is a standard template that includes each material's expense account from the accounting system. The EB is uploaded into the accounting system in the budgeting module, and as material costs are incurred, they are coded to the EB. Upon contract completion, the purchasing manager closes the EB, although this is not always done. The information in the EBs is also used by Jessica and Lisa in the annual budgeting process and to assess profitability by contract type.

Purchasing managers are authorized to issue purchase orders (POs) in the purchasing system from any supplier. POs are pre-numbered sequentially and include fields for the material's expense account and EB number, but they are often left blank. The vendor includes these items on their invoice, if available. For repeat vendors, the purchasing system will prepopulate the POs based on past orders (vendor address/phone number, cost coding, EB number, types of materials ordered, and the quantity ordered).

UBI uses a third-party invoicing hub, InvoiceHub. InvoiceHub allows the vendor to upload invoices, which UBI can then bring directly into its accounting system. The payables clerk approves all invoices in bulk in InvoiceHub. The invoices are then downloaded and posted to UBI's accounting system, using the expense account and EB coding detailed on the invoice. When the expense account is not included on an invoice, a miscellaneous materials expense account is debited in the general ledger.

Vendors who do not use InvoiceHub email their invoices to the accounting department. Each morning, the payables clerk approves the invoices, enters the invoices into the accounting system, and then posts the associated journal entries.

APPENDIX VII – ASSURANCE (continued)
ADDITIONAL INFORMATION

Manual Journal Entries Isolated by the Junior Associate

#	Date	Time	Description	Account	DR	CR
1	2022-11-14	13:43	Costs for Contract #2819 Initials: AT	Cost of sales Inventory	$ 65,000	 $ 65,000
2	2022-11-17	10:30	Costs for Contract #2820 Initials: RJ	Cost of sales Inventory	$ 85,000	 $ 85,000
3	2022-11-23	14:45	Invoice 329 – to be adjusted out when coding known Initials: AT	Prepaid expenses Accounts payable	$ 60,000	 $ 60,000
4	2022-12-01	15:15	Annual insurance Dec 1, 2022 – Nov 30, 2023 Initials: RJ	Insurance expense Accounts payable	$ 90,000	 $ 90,000
5	2022-12-16	23:45	Contract #2799 Initials: AT	Accounts receivable Sales	$155,000	 $155,000
6	2022-12-17	8:20	Correct coding for Invoice 329 Initials: RJ	Machinery Prepaid expenses	$ 60,000	 $ 60,000
7	2022-12-19	16:45	Invoice 870 – unsure of coding Initials: RJ	Prepaid expenses Accounts payable	$ 50,000	 $ 50,000
8	2022-12-20	11:20	To reverse Nov 2022 accrual for professional fees booked in error Initials: RJ	G&A – Professional fees Accrued liabilities	$ 55,000	 $ 55,000
9	2022-12-21	12:35	Contract #2819 Initials: AT	Accounts receivable Sales	$320,000	 $320,000
10	2022-12-27	9:25	Correction for Invoice 870	Selling expenses Prepaid expenses	$ 50,000	 $ 50,000
11	2022-12-31	22:30	Cheque run to vendors Initials: RJ	Accounts payable Cash	$125,000	 $125,000

APPENDIX VII – ASSURANCE (continued)
ADDITIONAL INFORMATION

Audit Work Performed by the Junior Associate

Trade payables and accrued liabilities

Prepared by: Junior Associate
Date: February 11, 2023

Account	2022	2021
Trade payables (Note 1)	$ 5,157,000	$ 5,840,000
Accrued liabilities (Note 2)	445,000	530,000
Total	✔ **$ 5,602,000**	✔ **$ 6,370,000**

✔ Agreed to financial statements

Note 1: Two invoices were selected by the payables clerk from the trade payables subledger. Both showed the items purchased were received in 2022, and the amounts matched the amounts recorded in the subledger.

Note 2: Breakdown of accrued liabilities is as follows:

Sub-account	2022	2021
Consultants	$ 45,000	$ 60,000
Professional services	0	85,000
Plastic lid order	250,000	225,000
Labelling materials	150,000	160,000
Total (agreed to above)	**$ 445,000**	**$ 530,000**

Per discussion with management, the decrease in total trade payables and accrued liabilities was due to a drop in sales in November and December of 2022 versus the same period in 2021.

No further work is considered necessary.

APPENDIX VII – ASSURANCE (continued)
ADDITIONAL INFORMATION

Audit Work Performed by the Junior Associate (continued)

General and administrative expenses

Prepared by: Junior Associate
Date: February 11, 2023

Account	2022	2021
General and administrative	✔$ 3,938,000	✔$ 4,710,000

✔ Agreed to financial statements

The payroll expense of $2,362,800 was tested separately from the remainder of general and administrative expenses.

Payroll
As UBI outsourced the payroll function to QBS in September, the payroll expenses from September to December per the payroll subledger were vouched to the payroll reports from QBS. No issues were noted.

Other general and administrative expenses
Representative sampling was performed over the remaining general and administrative balance of $1,575,200. Our sampling template required 45 general and administrative items to be tested.

Of the 45 items tested, 3 items had issues identified:
1. An amount of $3,500 was vouched to a professional services invoice that was for work performed in January 2023.
2. An amount of $4,500 did not have supporting documentation. The payables clerk indicated that it was related to the reimbursement of overseas accommodation costs for three production managers. The payables clerk provided the credit card statements of the three production managers and highlighted the costs, which totalled $4,500.
3. An expense related to a staff party was recorded as $1,250. When it was vouched to the invoice, the amount was $2,250.

The above differences are immaterial. Therefore, no further work is considered necessary.

APPENDIX VII – ASSURANCE (continued)
ADDITIONAL INFORMATION

Environmental sustainability initiatives

Jessica provided the following statements that she plans to include on UBI's website:

- In August 2022, UBI created a committee to discuss environmental sustainability objectives and set performance targets. The committee meets quarterly and includes two managers from each of the purchasing and sales departments.
- UBI reduced packaging waste from 5% of the total packaging materials used in 2021 to 3% in 2022. Of the packaging waste, 2,000 kg were brought to a recycling plant during 2022, versus 1,700 kg during 2021.
- At the end of 2021, UBI began an initiative to reduce its water consumption. Total water expenses in 2022 were 6% less than in 2021.
- UBI plans to refurbish two pieces of equipment during 2023 and 2024, to reduce carbon emissions by 4%.
- UBI has been effective in encouraging employees to use less paper and to recycle any used paper.

FINANCE ROLE
ADDITIONAL INFORMATION

APPENDIX VII – FINANCE
ADDITIONAL INFORMATION

Liquidity and Solvency Ratios for Other Companies

PCS Consulting Services Inc. (PCS)

Provides consulting services to packaging and labelling providers in Ontario, mainly in the plastic bottle and glass jar packaging segment. PCS is a thought leader on supply chain optimization.

QuickPack Limited (QP)

Provides glass and plastic bottle packaging and labelling solutions for food customers. QP purchases bottles from third-party suppliers and operates in Ontario and Atlantic Canada.

Cleaning Solutions Inc. (CSI)

Purchases plastic bottles from a third party and fills them with cleaning products. CSI provides logistics services, including warehouse inventory and just-in-time shipping. CSI operates in Manitoba, Saskatchewan, and Ontario.

Containers4U Co. (C4U)

Supplies plastic bottles, glass jars, and wood fibre to companies in different industries, including the packaging and labelling industry. C4U operates across North America.

Company	Quick Ratio	Average Collection Period	Days in Inventory	Days Payable Outstanding	Debt-to-Equity Ratio	Times Interest Earned
PCS	1.55	40 days	N/A	37 days	1.33	7.77
QP	0.88	25 days	31 days	28 days	1.00	2.38
CSI	0.63	32 days	21 days	21 days	1.44	1.84
C4U	0.78	23 days	41 days	36 days	1.62	2.60

APPENDIX VII – FINANCE (continued)
ADDITIONAL INFORMATION

Macroeconomic Landscape

The inflation rate is expected to reach a 30-year high of 5.1% by March 2023 and remain high. Due to inflation, economists believe the prime lending rate in Canada will reach 6.25% within 24 months. The U.S. Federal Reserve is expected to announce increases in the policy rate, which will result in similar increases in the U.S. prime lending rate. Economists have differing views regarding the impact of the interest rate increases on the CAD-to-USD exchange rate.

The cost of plastic bottles is expected to increase in each of the next three years, and short-term supply chain issues are expected to continue for the next 18 months.

Excerpts from the Financial Risk Management Program – Updated June 1, 2017

International customers

UBI will settle receivables from international customers at the spot rate on the date the customer pays UBI.

UBI does not have a hedging policy, as international customers represent only 2% of total sales.

Procurement

UBI signs one-year contracts with suppliers. UBI’s contracts stipulate that it will purchase a specified volume at a fixed price. Purchases above the specified volume are made at market price.

UBI purchases 45% of its plastic bottles at market price.

Borrowing

Of UBI’s borrowing, 65% must come from short-term debt with variable interest rates, with the remainder from long-term debt with fixed interest rates.

UBI’s line of credit and term loan provide sufficient funding; no significant increases in interest rates are anticipated.

APPENDIX VII – FINANCE (continued)
ADDITIONAL INFORMATION

BPM – Royalty Agreement

BPM is a Canadian company using emerging technologies to produce glass, metal, fibre, and plastic products with less waste. BPM has developed a highly durable, biodegradable plastic bottle.

Due to customers shifting away from traditional plastic bottles, sales in UBI's Plastic division are expected to decrease by 1% annually from 2022 onward. BPM proposes replacing UBI's supply of plastic bottles with its biodegradable bottles, which is expected to result in Plastic division sales of $16,254,000 in the first year, with annual increases of 6% thereafter.

UBI's Plastic division generates a gross profit margin of 28%. UBI plans to charge a premium for BPM's biodegradable bottles; as a result, the gross profit margin is expected to increase by 5 percentage points.

BPM will receive a 0.5% royalty on plastic bottle sales. If plastic bottle sales exceed $18 million in any year, BPM will make a one-time payment of $500,000 to UBI the following year. Lisa plans to spend $50,000 per year to market the new bottles. To date, Lisa has incurred travel costs of $25,000.

To label and package the new bottles, UBI has to retrofit its existing machinery at a cost of $1.4 million. The costs qualify for CCA Class 53. The retrofitted machines do not have additional salvage value. Additional employee training costs of $200,000 would be incurred in the first year.

The agreement would begin in January 2024 and remain in effect for four years. UBI would incur a $280,000 penalty to terminate its current supplier agreement.

Lisa has told you to use the following rates in your analysis:

- Tax rate: 26.5%
- Discount rate: 11%

APPENDIX VII – FINANCE (continued)
ADDITIONAL INFORMATION

BPM – Joint Venture Proposal

As an alternative to the royalty agreement, BPM has proposed a joint venture (JV) for the Plastic division:

- BPM and UBI will each invest $1 million in the JV to fund upfront costs, including the equipment retrofit. BPM would receive 70,000 shares and UBI 30,000 shares in the JV.
- UBI will transfer the equipment from its Plastic division to the JV and rent the building to the JV at market rates.
- BPM will provide an expert management team, for which BPM will be paid a percentage of the JV's annual sales. BPM will commit to supplying all of the JV's plastic bottle needs.
- All income earned in the JV will be distributed proportionately to share ownership.
- UBI and BPM will commit to contribute equity funding in proportion to their share ownership to fund any additional cash requirements. If either party cannot make the required contribution, the other party could contribute the full amount in exchange for additional shares.
- If one party wishes to exit the JV, the other party will acquire their shares at a negotiated price. If negotiations are unsuccessful, an arbitrator will be used.

UBI and BPM have also agreed to the following:

- If BPM develops new plastic bottles, it must first offer these products to UBI before seeking alternative markets.
- BPM and UBI will collaborate on opportunities to sell other products developed by BPM, including glass bottles.
- If BPM becomes insolvent, UBI gets the right to acquire the technology related to any products supplied to the JV or directly to UBI for a nominal fee.

APPENDIX VII – FINANCE (continued)
ADDITIONAL INFORMATION

Pine Bluffs Offer

Pine Bluffs, a private company headquartered in British Columbia, manufactures metal can packaging for customers. The owner, Bella Chan, has offered to sell Pine Bluffs for $16 million based on the following:

(in thousands of Canadian dollars)

	2024	2025	2026	Terminal Value
Sales (Note 1)	$ 5,975	$ 6,692	$ 7,495	$ 8,394
Cost of sales (Note 2)	4,063	4,417	4,797	5,372
Gross profit	1,912	2,275	2,698	3,022
Expenses				
Selling and marketing (Note 3)	700	660	640	602
General and administrative	382	455	540	604
Management bonus (Note 4)	0	0	0	0
Amortization	480	466	438	398
Income before taxes	350	694	1,080	1,418
Income taxes (25%)	87	174	270	354
Add-back: amortization (Note 5)	480	466	438	398
Cash flows	$ 743	$ 986	$ 1,248	$ 1,462
PV factor rate of 11%	1.00	0.90	0.81	0.73
Capitalization rate (Note 6)				12.5
Discounted cash flows	$ 743	$ 887	$ 1,011	$ 13,341

Notes:

1. Sales in 2021 and 2022 were $5.2 million and $5.3 million, respectively. One of Pine Bluffs' largest customers (15% of total sales) cancelled their contract in January 2023.
2. Cost of sales in 2021 and 2022 were $3.9 million and $4.0 million, respectively.
3. Selling and marketing costs are necessary to acquire and retain customers.
4. Management bonuses of $0.5 million were paid in each of 2021 and 2022. Bonuses are anticipated in 2023 and beyond; however, an estimate has not been provided.
5. Annual amortization approximates capital expenditures.
6. The long-term growth rate of the packaging industry is 3%, compared to 1% for the metal-can packaging segment. The capitalization rate is based on a discount rate of 11% and growth rate of 3%. Lisa believes that the discount rate of 11% is appropriate.

APPENDIX VII – FINANCE (continued)
ADDITIONAL INFORMATION

RoboCarton Machine

The RoboCarton can perform precise, high-frequency cartoning, which will minimize cartoning waste.

Lisa wants to acquire a used RoboCarton built two years ago, which can produce five cartons per minute. The supplier, Imperial Heavy Equipment (IHE), will sell the machine for $1,125,000, inclusive of shipping. UBI would need to incur installation costs of $100,000. Lisa would like to make a counteroffer.

Market information

IHE just sold a RoboCarton for $650,000, including shipping but not installation. This machine was built 18 months ago and can produce five cartons per minute.

Lisa obtained quotes for similar used machines:

Age of Machine	Shipping Included?	Installation Included?	Carton Output	Price	Notes
1 year	Yes	No	5.3 per minute	$800,000	Heavily customized; significant labour required to reconfigure
4 years	No	No	4.3 per minute	$445,000	Located in Europe

Replacement cost

UBI could manufacture a cartoning machine in-house with similar specifications. This would require direct materials of $310,000. Further, UBI would need to supply internal labour (estimated at 50% of the direct materials cost) and hire consultants at a cost of $260,000. UBI would also need to perform three days of testing at $25,000 per day.

Other information

UBI expects to realize after-tax cash flows of $120,000 per year if UBI purchases the RoboCarton from IHE. Lisa suggests using a hurdle rate of 10%. A two-year-old RoboCarton has a remaining useful life of eight years.

APPENDIX VII – FINANCE (continued)
ADDITIONAL INFORMATION

Financing Options

Sapphire Credit Union (SCU)

SCU requires a minimum loan of $400,000 and provides loans in $200,000 increments, at a variable rate of prime plus 2.1%, with a 90-day term and renewal at market rates. Currently, the interest rate on this loan is 6.1%. Interest is payable at the end of the term. A personal guarantee from all voting directors is required. UBI can repay the loan at any time with no termination fee.

Keepsafe Lending Partners (KLP)

KLP will provide financing at an effective annual interest rate of 8.8% for a one-year fixed term. Interest is payable monthly. If UBI repays the loan early (i.e. prior to the one-year maturity date), there will be a penalty equal to 25% of the amount repaid early. UBI is approved for a loan of up to $5 million, and KLP requires a minimum loan of $500,000.

Trusty Andy's Collections (TAC)

TAC, a factoring agency, will purchase accounts receivables from UBI at 70% of their face value, up to a maximum face value of $900,000, but will not purchase receivables that are over 120 days past due or with customers outside Canada. TAC will consider increasing the maximum dollar amount after one year.

PERFORMANCE MANAGEMENT ROLE
ADDITIONAL INFORMATION

APPENDIX VII – PERFORMANCE MANAGEMENT ADDITIONAL INFORMATION

Suppliers of Plastic Bottles

JM Manufacturing Inc. (JMMI) – UBI's current supplier

In 2022, JMMI supplied UBI with 2.5 million bottles at a price of $0.55 per bottle. According to JMMI, the issues with bottle colour consistency and label legibility were due to the cold conditions often experienced in Canada. The costs of quality management in UBI's Plastic division that are being attributed to these ongoing issues are as follows (costs not listed below were attributed 0%):

Cost of Quality Management (Plastic Division)	Percentage (2022)
Inspection of incoming materials	33%
Overtime to fix labels for errors found upon final quality check	100%
Responding to customer complaints	45%
Rework on returned bottles	90%
Supplies required to redo labels for errors found upon final quality check	90%
Testing the calibration of the labelling and filling machines	33%
Testing the quality of final products	33%
Visits to suppliers' manufacturing premises, to ensure that standards are being met	33%

Sales relating to bottles supplied by JMMI represent 33% of total plastic bottle revenues; certain quality costs have been attributed on that basis.

In 2022, 80% of the quality supervisor's time, who had an annual salary of $95,000, was spent dealing with the JMMI-related issues.

JMMI is located overseas, and its shipments are often subject to lengthy delays and volatile shipping costs. In 2022, shipping ranged from $3.50 to $8.50 per flat (24 bottles) and took anywhere from one to six weeks.

Tests performed by UBI in early 2022 identified potentially harmful amounts of lead and dioxins in JMMI bottles. The issue was brought to the attention of JMMI, and tests performed later in the year showed that this issue had been resolved.

APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Suppliers of Plastic Bottles (continued)

Maple Leaf Jars Co. (Maple Leaf) – potential new supplier

Maple Leaf is based in Mississauga, Ontario, and has a reputation for producing high-quality products. Their focus is on creating sustainable products that are free of harmful substances.

The price of each bottle is $1.40. UBI would need to inspect prototypes and test them on their filling machines before operations can begin. UBI does not expect any customer complaints or rework with these bottles. However, UBI would still perform the same quality steps as currently performed for all its suppliers, which includes inspections of incoming materials, calibration, final product testing, and visits to manufacturing premises.

Due to its proximity to UBI, shipping costs and times are expected to be relatively constant. Maple Leaf has quoted a shipping cost of $3.00 per flat and will ship within one to three business days.

Reuse/Recycle Proposals

In response to rising input prices, many manufacturers are looking to increase the use of reusable bottles. These bottles are returned by consumers, either to be recycled or refilled, in exchange for a refund.

UBI would like to start a bottle return program, and it has solicited proposals from two providers for the standard glass bottles it uses for its dietary supplements. UBI produces 400,000 of these bottles annually.

Refill IT

Refill IT, recommended by Jessica, has a system for tracking bottles from manufacture to return. The end consumer returns their empty bottles directly to UBI in exchange for a 5% discount on their refill purchase. UBI refills the bottles, then sends them directly back to the end consumer. The company supplying the dietary supplement is not involved in the process, as UBI handles the refill and shipping and absorbs the cost of the discount. The average selling price for these products is $35 each, before any discount.

APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Reuse/Recycle Proposals (continued)

Refill IT (continued)

Refill IT uses blockchain technology to track the bottles. UBI scans a QR code on the bottle when it is produced and again when the empty bottle is collected, filled, and shipped to the end consumer, ensuring that the correct bottle is returned to each individual. Encryption of the blockchain ledger maintains privacy of the data, and once stored on the blockchain, the data cannot be altered or deleted.

The system has a monthly cost of $30,000. The number of bottles expected to be returned for refill is 50%.

Implementation of this program would reduce UBI's electricity usage for glass bottle manufacturing by 15%. The unit cost of producing bottles is currently $1.60. The system could also be used to track all of UBI's inventory and the related total amount of waste going to landfill. UBI currently spends $2,715,000 on electricity related to manufacturing glass bottles.

DePoly Inc. (DePoly)

DePoly would handle the recycling of the bottles, from collection to crushing and moulding for new uses. It would be responsible for collecting and processing the returned bottles and would pay UBI $0.50 per bottle collected. Lisa recommends the program, and it could be implemented immediately.

This program would have no impact on UBI's energy consumption or emissions. There are no privacy concerns because the crushing process destroys all personal data on the labels.

The only initial cost is a one-time, $50,000 setup fee. Under this system, the recycling rate is expected to be 20%.

APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Environmental Reporting

Several customers have requested information regarding UBI's energy consumption, emissions, and waste. Consumers are also concerned about whether any known harmful substances are used in UBI's products. Customers across the industry are threatening to switch to suppliers who are able to provide more environmentally friendly products.

UBI began tracking emissions and energy consumption related to its Standard Glass division last year. This information is not shared publicly as Lisa believes there is a risk of UBI losing some of its existing contracts if the information is misinterpreted. Lisa noted the added cost of tracking and reporting this type of information as a reason for avoiding data collection and reporting.

Jessica believes that UBI should make this data publicly available as part of its strategy to become a leader in this field. While it is not required for bottle manufacturers, industry experts have noted that such reporting may become mandatory in the coming years.

Industry performance

Indicator	Industry Average	Unit
Electricity consumption	50	kWh/kg of bottles manufactured
Emissions	0.015	Tons of CO_2/$ revenue
Waste to landfill	50%	Percentage of total weight of bottles manufactured
Existence of harmful chemicals	27%	Percentage of organizations with at least one product containing harmful substance(s)

Internal information

- UBI currently emits 75,000 tons of CO_2 each year related to the production of its glass bottles.
- The average electricity cost in 2022 was $0.08/kWh.
- UBI manufactured 650,000 kg of glass bottles in 2022.
- None of the products that the division manufactures contain harmful substances.
- UBI is unsure how much of the Standard Glass division's end products currently go to landfills.

APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Proposed Bundled Service

For the customers of its Custom Glass division, UBI would manufacture, fill, label, and package the containers and store the filled containers. It would then ship them directly to the final consumer.

UBI's customers are very interested in this service, as it allows greater flexibility during peak demand when their own supply chains are at capacity.

UBI currently has excess secure warehouse space, which can store up to 24,000 cartons.

The cost of providing the bundled service has been estimated at $85 per carton.

Information from market research

There are few competitors offering bundled services in UBI's segment of the market.

Lisa's proposal is to charge a price based on cost plus a profit margin of 40%. UBI would likely sell enough containers to fill 90% of its excess secure warehouse space.

Jessica's proposal would have customers pay different rates depending on the timing of their order:

Timing of Order	Price Point	Allocated Space (% of Excess Warehouse Capacity)	Estimated Sales Volume
Advance orders	Cost + 40%	50%	100% of allocated space
Regular orders	Cost + 55%	25%	55% of allocated space
Last-minute orders	Cost + 75%	25%	35% of allocated space

APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Proposals for New Strategic Direction

UBI operations

When UBI started, Jessica and Lisa decided to focus on the food product and dietary supplement industry. Although this is a small segment, they knew that they could not achieve high quality if they provided a wide range of products and services. Key success factors in the industry are adaptability to customers' needs, effective cost controls, and access to multi-skilled workers.

Jessica's strategy

Jessica presented Callum with the following PowerPoint presentation:

Indispensable: A New Strategic Direction

Presented by Jessica Lowrey
Co-CEO, Unique Bottles Inc.

"To Become Indispensable" as a Core Belief:

- Provide value-added services, so our customers won't be able to live without us, and make UBI more essential to our larger customers.
- Create end products that are not disposable, but rather, are reusable/recyclable.
- Provide high-quality bottling solutions while upholding environmental stewardship.

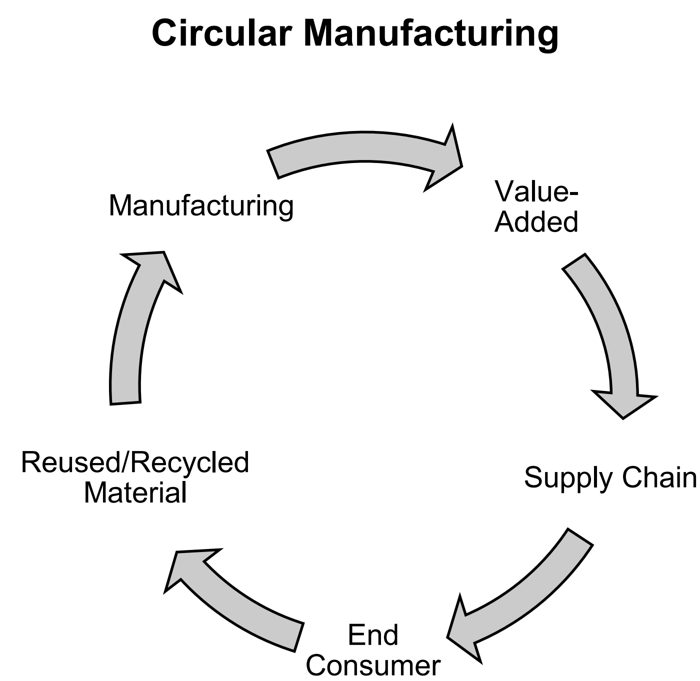
Three-Year Plan

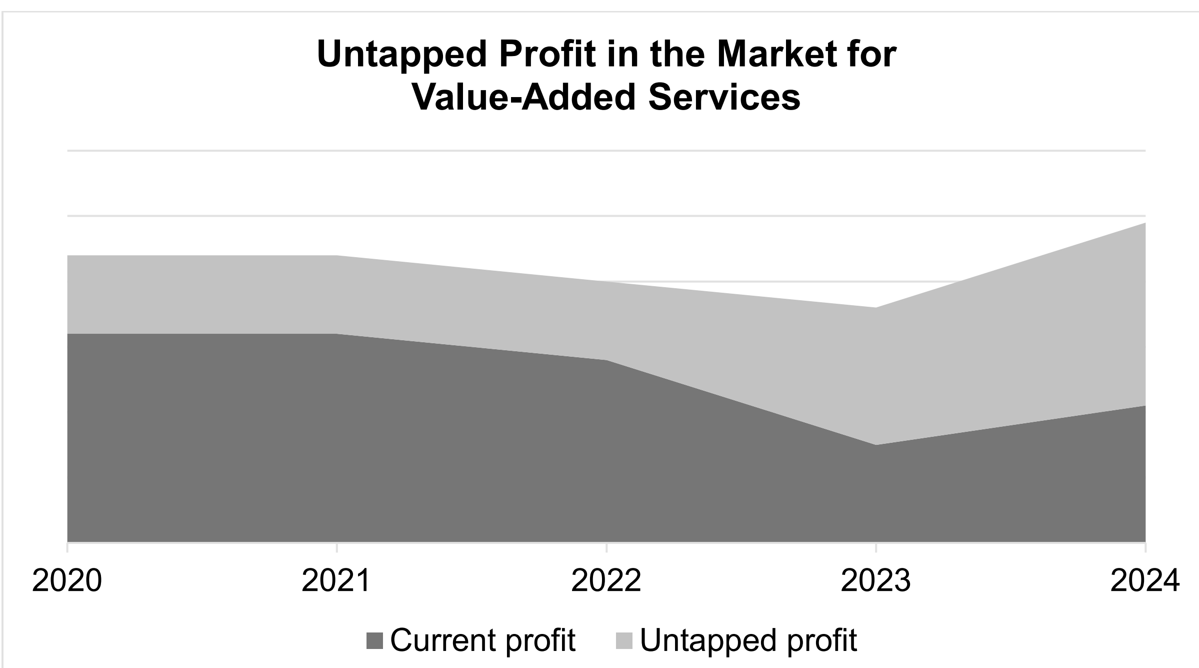
Year 1: Determine which products have the highest profitability, and eliminate low-margin products.
Year 2: Partner with customers to complete their supply chain by providing custom packaging and inventory management solutions.
Year 3: Invest in recycling programs, to develop a circular manufacturing process.

APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Proposals for New Strategic Direction (continued)

Jessica's strategy (continued)





APPENDIX VII – PERFORMANCE MANAGEMENT (continued)
ADDITIONAL INFORMATION

Proposals for New Strategic Direction (continued)

Lisa's strategy

Lisa described her strategic proposal to Callum in the following email:

Hi Callum,

I didn't have time to prepare a proper presentation, as I was too busy working with the marketing department. I love it there — strategy can be a bit dull sometimes. Anyway, here are my notes on UBI's new direction.

I want to reduce UBI's reliance on its large customers and have a more diversified customer base.

Cut Costs:

- Focus on low-cost product offerings.
- Save production costs by outsourcing to suppliers who can make products cheaper than we can.
- Reduce general and administrative expenses by eliminating needless internal tracking of environmental performance.

Diversify:

- Increase our product offerings and use outsourcing to meet the demand.

Penetration Pricing:

- Win more contracts by quoting lower than our competitors.
- Later, increase brand awareness through marketing, and then increase our prices to boost margins.

Regards,

Lisa
Co-CEO, UBI

TAXATION ROLE
ADDITIONAL INFORMATION

APPENDIX VII – TAXATION
ADDITIONAL INFORMATION

Corporate Income Tax Return

UBI has no balance in its refundable dividend tax on hand (RDTOH) pools.

Included in general and administrative expenses for 2022 are meals and entertainment of $20,000.

Undepreciated capital cost (UCC) balances at December 31, 2021, are as follows:

Class 1 (10%)	$ 4,925,000
Class 8	$ 331,000

The following purchases of property, plant, and equipment were made during 2022:

Manufacturing equipment	$560,000
Furniture and equipment	$350,000
Computer hardware	$190,000

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

January 2023 GST/HST Return

Ontario's HST rate is 13%. A working copy of the January 2023 GST/HST return is as follows:

GST/HST Return Working Copy **Due Date:**
Company: Unique Bottles Inc. **Business #:**
Reporting Period: **From:** 2023-01-01 **To:** 2023-01-31

Item	**BOX**		
Total sales and other revenue	101	$ 2,757,569.00	
NET TAX CALCULATION			
GST and HST amounts that you collected or that became collectible	103	$ 358,484.00	
Adjustments to be added to the net tax	104	$ 0.00	
Total GST/HST and adjustments	105		$ 358,484.00
GST/HST you paid or that is payable by you on qualifying expenses (input tax credits – ITCs)	106	$ 650,054.00	
Adjustments to be deducted from net tax	107	$ 127,400.00	
Total ITCs and adjustments	108		$ 777,454.00
Net tax	109		**$ (418,970.00)**
OTHER CREDITS, IF APPLICABLE			
Instalment and other annual filer payments	110	$ 0.00	
GST/HST rebates	111	$ 0.00	
Total other credits	112		$ 0.00
Balance	113A		$ (418,970.00)
OTHER DEBITS, IF APPLICABLE			
GST/HST due on purchases of real property or purchases of emission allowances	205	$ 0.00	
Other GST/HST to be self-assessed	405	$ 0.00	
Total other debits	113B		$ 0.00
Balance	113C		$ (418,970.00)
Refund claimed	114		**$ 418,970.00**
Payment enclosed	115		**$ 0.00**

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

Reports Supporting the Working Copy of the GST/HST Return

The following reports were run on February 15, 2023, to support the GST/HST return. All amounts are in Canadian dollars. Additional notes have been provided on the reports.

Unique Bottles Inc.
Ad-hoc report (sales by region)
January 1 to 31, 2023

Ontario	3,737,569	***minus 980,000=2,757,569×13%=358,484***
United States	451,598	
Total	4,189,167	

Unique Bottles Inc.
Aged accounts receivable summary
January 1 to 31, 2023

Current	2,258,106	
>30 days	201,996	
>60 days	645,894	
>90 days	980,000	**× 13%= 127,400**
Total	4,085,996	

Unique Bottles Inc.
Ad-hoc report (GST/HST collected by region)
January 1 to 31, 2023

Ontario	485,884
United States	0
Total	485,884

Unique Bottles Inc.
Ad-hoc report (GST/HST paid in all regions)
January 1 to February 15, 2023

Total	650,054

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

Reports Supporting the Working Copy of the GST/HST Return (continued)

INVOICE Southern Auctions LLC, USA
January 10, 2023

Unique Bottles Inc.
Ontario, Canada

This invoice was in the HST folder, but I don't know why it was there – no HST on the invoice?

Premium model XB-550 labelling machine
Year: 2005
SN: 15589DJ87

Price (including shipping) US$15,000

Received January 25, 2023, paid via bank draft at 1.28 = CA$19,200

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

Stock Option Plan

A stock option plan would be made available to approximately 50 employees, who become eligible after five years of service. We anticipate issuing 100 options per employee each year. Based on our preliminary discussions, each option will provide the right to acquire one common share at the initial exercise price of $50.

The fair market value (FMV) of UBI's stock today is $45. Lisa expects employees will start to exercise options when the FMV of a common share is $57 and would start to sell the shares when the FMV climbs to $65.

2022 T4 Reporting

Jessica provided more details about employee remuneration and wants your findings on these back to her by March 15. Employees are paid semi-monthly, on the 15th and last day of each month. In December, employees received a holiday bonus equal to 5% of their gross salary.

UBI has an employee health and dental plan, with premiums of $200 per month per employee. UBI pays 50% of the premium and the employee pays the other 50%, which is deducted on the last pay of the month. There is also an employee group term life insurance plan, with monthly premiums of $17.50 per employee, paid by UBI.

Every summer, UBI runs a fundraising campaign for a local registered charity, and employees donate through a payroll deduction. UBI also holds an annual barbeque for all employees and their families, with an estimated cost of $80 per employee.

Canada Pension Plan (CPP) maximum pensionable earnings for 2022 are $64,900, with the first $3,500 exempt and an employee contribution rate of 5.7%. Employment insurance (EI) maximum insurable earnings for 2022 are $60,300, with an employee premium rate of 1.58%.

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

2022 T4 Reporting (continued)

The following is from the file provided to QBS, with year-to-date figures as at August 31, 2022:

Employee	Gross	Bonus	Tax	CPP	EI	Health	Life	Donations
Simon Rennell	44,000.00	0.00	7,886.40	2,391.04	695.20	800.00	140.00	250.00

Jessica provided Simon's remittance advice and T4 from QBS for December 31, 2022:

		REMITTANCE ADVICE
RENNELL, Simon		
Pay period: December 16, 2022, to December 31, 2022		
	Period	Year-to-date
Earnings		
Gross	2,750.00	66,000.00
Bonus	3,300.00	3,300.00
	6,050.00	69,300.00
Deductions		
Tax	1,471.35	12,808.05
CPP	62.68	3,499.80
EI	0	952.74
Health and dental	100.00	1,200.00
Charitable donations	0	250.00
	1,634.03	18,710.59
Net pay	4,415.97	50,589.41

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

2022 T4 Reporting (continued)

Employer's name – Nom de l'employeur
Unique Bottles Inc.

Canada Revenue Agency | Agence du revenu du Canada

Year / Année: 2022

T4
Statement of Remuneration Paid
État de la rémunération payée

Box	Description	Amount
14	Employment income / Revenus d'emploi	66,000.00
22	Income tax deducted / Impôt sur le revenu retenu	4,921.65
54	Employer's account number / Numéro de compte de l'employeur	
10	Province of employment / Province d'emploi	ON
16	Employee's CPP contributions – see over / Cotisations de l'employé au RPC – voir au verso	3,499.80
24	EI insurable earnings / Gains assurables d'AE	66,000.00
12	Social insurance number / Numéro d'assurance sociale	123 456 789
28	Exempt – Exemption: CPP/QPP (RPC/RRQ), EI (AE), PPIP (RPAP)	
29	Employment code / Code d'emploi	
17	Employee's QPP contributions – see over / Cotisations de l'employé au RRQ – voir au verso	
26	CPP/QPP pensionable earnings / Gains ouvrant droit à pension – RPC/RRQ	66,000.00
18	Employee's EI premiums / Cotisations de l'employé à l'AE	952.74
44	Union dues / Cotisations syndicales	
20	RPP contributions / Cotisations à un RPA	
46	Charitable donations / Dons de bienfaisance	
52	Pension adjustment / Facteur d'équivalence	
50	RPP or DPSP registration number / N° d'agrément d'un RPA ou d'un RPDB	
55	Employee's PPIP premiums – see over / Cotisations de l'employé au RPAP – voir au verso	
56	PPIP insurable earnings / Gains assurables du RPAP	

Employee's name and address – Nom et adresse de l'employé

Last name (in capital letters) – Nom de famille (en lettres moulées)	First name – Prénom	Initial – Initiale
RENNELL	SIMON	

Other information (see over) / Autres renseignements (voir au verso)

Box – Case	Amount – Montant	Box – Case	Amount – Montant	Box – Case	Amount – Montant
40	400.00	85	400.00		

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

2022 T4 Reporting (continued)

Report these amounts on your tax return.

14 – Employment income – Enter on line 10100.

16 – Employee's CPP contributions – See lines 30800 and 22215 in your tax guide.

17 – Employee's QPP contributions – See lines 30800 and 22215 in your tax guide.

18 – Employee's EI premiums – See line 31200 in your tax guide.

20 – RPP contributions – Includes past service contributions. See line 20700 in your tax guide.

22 – Income tax deducted – Enter on line 43700.

39 – Security options deduction 110(1)(d) – Enter on line 24900.

41 – Security options deduction 110(1)(d.1) – Enter on line 24900.

42 – Employment commissions – Enter on line 10120. This amount is already included in box 14.

43 – Canadian Armed Forces personnel and police deduction – Enter on line 24400. This amount is already included in box 14.

44 – Union dues – Enter on line 21200.

46 – Charitable donations.

52 – Pension adjustment – Enter on line 20600.

55 – Provincial parental insurance plan (PPIP) – Residents of Quebec, see line 31205 in your tax guide. Residents of provinces or territories other than Quebec, see line 31200 in your tax guide.

66 – Eligible retiring allowances – See line 13000 in your tax guide.

67 – Non-eligible retiring allowances – See line 13000 in your tax guide.

74 – Past service contributions for 1989 or earlier years while a contributor

75 – Past service contributions for 1989 or earlier years while not a contributor – See line 20700 in your tax guide.

77 – Workers' compensation benefits repaid to the employer – Enter on line 22900.

78 – Fishers – **Gross income** **79 – Fishers** – **Net partnership amount** **80 – Fishers** – **Shareperson amount**	See Form T2121. **Do not** enter on line 10100.

81 – Placement or employment agency workers **82 – Taxi drivers and drivers of other passenger-carrying vehicles** **83 – Barbers or hairdressers**	**Gross income** See Form T2125. **Do not** enter on line 10100.

85 – Employee-paid premiums for private health services plans – See line 33099 in your tax guide.

87 – Emergency services volunteer exempt amount – See "Emergency services volunteers" at line 10100, and the information at lines 31220 and 31240 in your tax guide.

69 – Indian (exempt income) – **Non-eligible retiring allowances** **71** – **Indian (exempt income)** – **Employment** **88** – **Indian (exempt income)** – **Self employed**	See Form T90. **Do not** enter these amounts on line 10100, line 13000 or lines 13499 to 14300.

Do not report these amounts on your tax return. For Canada Revenue Agency use only.
(Amounts in boxes 30, 32, 34, 36, 38, 40, 57, 58, 59, 60, and 86 are already included in box 14.)

30 – Board and lodging

31 – Special work site

32 – Travel in a prescribed zone

33 – Medical travel assistance

34 – Personal use of employer's automobile or motor vehicle

36 – Interest-free and low-interest loans

38 – Security options benefits

40 – Other taxable allowances and benefits

57 – Employment Income – March 15 to May 9, 2020

58 – Employment Income – May 10 to July 4, 2020

59 – Employment Income – July 5 to August 29, 2020

60 – Employment Income – August 30 to September 26, 2020

86 – Security options election

APPENDIX VII – TAXATION (continued)
ADDITIONAL INFORMATION

Lisa's Remuneration

Lisa's annual salary is $150,000, and she would expect LisaCo to receive the same amount of remuneration. LisaCo would pay Lisa a salary of $80,000 and would pay for legal and accounting fees of $2,500 and computer hardware purchases of $1,500 annually. Lisa would be the only employee of LisaCo.

For this analysis only, in addition to federal tax, assume the following provincial income tax rates (ignore provincial income taxes in your other analyses):

Provincial Tax	**Rate**
Corporation income tax – income eligible for the small business deduction	3.2%
Corporation income tax – other income	11.5%
Personal income tax – effective rate on actual eligible dividends	2.0%
Personal income tax – effective rate on actual other-than-eligible dividends	8.0%
Personal income tax – all other income	10.0%

Sale and Leaseback of Land and Building

UBI would sell its only land and building for FMV of $12.5 million ($8,125,000 for the land and $4,375,000 for the building). The adjusted cost base is $1.2 million for the land and $9.1 million for the building. The building is the only asset in Class 1.

DAY 2 – MARKING GUIDE – COMMON
UNIQUE BOTTLES INC. (UBI)

Memo

From: CPA
Re: Management accounting and financial reporting issues

Assessment Opportunity #1 (Common) (Depth and Breadth Opportunity)
The candidate determines the total cost of each of UBI's four quality management cost categories, and discusses any potential issues identified.
The candidate demonstrates competence in Management Accounting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
3.3.3	Recommends changes identified by applying process improvement methodologies	B

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

The Plastic division has been facing issues for the past two years. During 2021, UBI changed its plastic bottle supplier because of customer complaints. In 2022, the company lost a contract due to UBI's inability to meet its level of quality related to the colour consistency of the bottle and label legibility. Lisa has provided a list of costs incurred to ensure that finished products meet quality standards for the Plastic division. Lisa has asked that the total cost of each of UBI's four quality management categories be determined, and that any potential issues with the quality management process be discussed.

The first step is to categorize the costs into the four quality management cost categories.

	2022		2021	
Total sales (Plastic division)	$15,050,000		$18,100,000	
Costs incurred to prevent defects:				
Inspection of prototypes from new supplier and testing on the machines	95,000		210,000	
Training new staff on workflow and safety protocols	120,000		110,000	
Visits to suppliers' manufacturing premises, to ensure that standards are being met	40,000		120,000	
	255,000	1.69%	440,000	2.43%
Costs incurred to identify defects prior to assembly:				
Inspection of incoming materials	170,000		160,000	
Testing the calibration of the labelling and filling machines	205,000		360,000	
	375,000	2.49%	520,000	2.87%
Costs incurred to repair or replace defects prior to delivery:				
Testing the quality of final products	240,000		310,000	
Overtime to redo labels for errors found upon final quality check	460,000		220,000	
Scrapped lids that do not fit bottles during assembly	170,000		524,000	
Supplies required to redo labels for errors found upon final quality check	280,000		70,000	
	1,150,000	7.64%	1,124,000	6.21%
Costs incurred to satisfy customer complaints after delivery:				
Responding to customer complaints	340,000		310,000	
Rework on returned bottles	540,000		370,000	
	880,000	5.85%	680,000	3.76%
Total quality costs	$2,660,000	17.67%	$2,764,000	15.27%

Total Quality Management Cost (Plastic Division)

The total cost of quality has decreased slightly year over year, from $2,764,000 to $2,660,000. However, sales in the division have declined by $3,050,000 ($18,100,000 – $15,050,000), which is significant; this is likely due in part to the loss of a large contract. UBI was unable to meet standards for the quality of the colour consistency and the legibility of the labels. The percentage of sales that the costs of quality represent has increased from 15.27% to 17.67%.

Lid Fit and Rework (2021)

In 2021, UBI replaced its suppliers due to quality issues with the old suppliers. From the review of the costs, the quality issues in 2021 appear to be related to lids not fitting the bottles, and shortage of inventory of bottles and lids, due to higher than anticipated usage from scrapped lids. At the same time, the costs of rework due to the poor-fitting lids were also high.

Bottle Colour Consistency and Label Legibility (2022)

In 2022, although the lid issue seems to have been resolved, as these specific costs have declined, the quality issue now is with respect to the bottle colour consistency and the labels not being legible. This is indicated by the increased overtime to redo labels, and the loss of a customer due to poor bottle colour consistency and label legibility. At the same time, some product shipped to customers had labels and bottles still not up to quality standards required by the customers, causing one large customer to cancel its contract. Costs to respond to these customer complaints are even higher than in 2021, and the rework costs on returned bottles is significantly higher, since these defects were not being caught prior to shipping the goods to the customers.

Prevention and Quality Assurance

Even more telling is how the costs break down. The costs incurred for prevention have declined from 2.43% to 1.69%, and the costs for identifying defects have declined from 2.87% to 2.49%. Overall, UBI has spent less on assuring quality and the testing of quality early in the assembly process, which has led to increased internal and external failure costs, arising primarily due to the quality of the materials.

Specifically, the company has not spent enough resources to adequately test that the new suppliers' products (prototypes) have the correct colour, as per customer specifications. There also appears to be a problem with the affixed labels that are not legible. The label issue could be due either to the materials used for the label, or the process used to affix it to the bottles.

In addition, there is a reduction in the cost spent on visits to the suppliers' plants, which has likely led to inferior product being received. With regular visits to see the supplier manufacturing in process and review the materials used, the company would be able to better assess whether the defects are caused by inferior materials or the assembly process.

The label machine was not being tested for calibration as often as before, which has led to labels being illegible. The materials are not being tested as regularly, which results in flawed and poor-quality bottles being used in the process. Although the inspection costs related to materials have stayed consistent year over year, there needs to be training or changes in the nature of this inspection, since poor-quality materials are being used.

Finally, the costs to test the final products have also declined. This could be due to fewer products being tested, or to a change to the testing procedures. Regardless, this reduction in final product testing has led to more defective products reaching customers, leading to higher returns, rework, and complaints.

Costs of Correcting Failures

Costs to correct the issues due to labelling, and the increased overtime to deal with this rework, have significantly increased year over year, which further shows the large amount of rework that had to be done, and have contributed to lost profits on these contracts.

Finally, the costs that arise due to defective products reaching the customer have increased significantly. Not reflected in these figures is the loss of the large contract and loss of reputation, which have a significant cost to UBI and must be addressed.

Conclusion and Recommendation

UBI wants to focus on reducing all costs, to improve its declining profits. However, management needs to re-evaluate where the costs of quality are best incurred, and this should be at the prevention and identification level, as early in the process as possible. UBI needs to inspect its suppliers' products more consistently and change the nature of its testing, to ensure that it can meet its customers' standards and specifications once filled and processed. UBI also needs to ensure that the labelling machine is consistently calibrated and checked, to ensure that the affixed labels are legible.

By spending additional resources prior to production, the amount of rework and related costs should be reduced, as well as the number of customer complaints and returns, which are difficult to control once poor-quality product has already been produced. These changes should ensure higher profits from customer contracts, and restore the company's reputation for quality (which was why UBI had targeted a niche market to begin with).

For Assessment Opportunity #1 (Management Accounting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to determine the total cost of each of UBI's four quality management cost categories, and attempts to discuss the potential issues identified.

Competent – The candidate determines the total cost of each of UBI's four quality management cost categories, and discusses the potential issues identified.

Competent with distinction – The candidate determines the total cost of each of UBI's four quality management cost categories, discusses the potential issues identified, and makes a supported recommendation.

Assessment Opportunity #2 (Common) (Depth and Breadth Opportunity)

The candidate discusses the problems with the existing customer quote method, and whether UBI should implement changes to its method going forward.

The candidate demonstrates competence in Management Accounting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
3.3.2	Evaluates and applies cost management techniques appropriate for specific costing decisions	B

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

UBI has been losing bids for new customer contracts because its bids are coming in higher than those of its competitors. Currently, UBI allocates indirect costs based on a percentage of total direct costs.

The current method of estimating the indirect costs as a percentage of estimated direct costs does not relate to the amount of actual cost that might be incurred.

Problems with Existing Customer Quote Method

There are several examples of the cost allocation not relating to the work performed:

- Purchasing and material handling are directly related to the number of purchase orders that are issued and received by the purchasing department. As the number of orders received increases, so will the related costs. Similarly, for the material handling costs, these costs should not represent a fixed percentage of direct costs, since a single contract could have few or many purchases and receipts of purchased items, depending on the nature of the work to be done.
- Machine setup costs are directly related to the number of machine setups, and this may also vary by customer contract, depending on the nature of the work to be done under the contract. Using a percentage of direct costs is not a good indicator of this cost. In addition, using a minimum amount, as in this quote, has overstated the costs related to this activity in the bid.
- Machine lubricants are tied to the number of hours the machine is used, since the more hours the machine is operated, the more lubrication will be required to maintain the machine. This was significantly overstated by using a percentage of direct costs, since the number of machine hours required for a contract can vary, depending on what is being done under the contract. Some parts of the contract work may require operating the machines, while other parts, such as design for customization of work, may not.
- Shipping and customer service will relate to the number of customer orders the company is completing. A contract may include several orders over a period from a customer, or it may consist of only a single, one-time order. Therefore, to use a percentage of direct costs or a fixed minimum amount, as used in this case, will not provide a reasonable estimate of the related costs.
- The amount of indirect costs allocated to each quote is based on company-wide historical averages, rather than on more current data/information. The allocation of costs is, therefore, not as up-to-date as it could be.
- The last issue relates to the use of minimum amounts in general. In this case, there are three categories where the minimum of $1,000 has been used, resulting in a total of $3,000 being included in the quote. These three costs, using activity-based costing (calculated later), totalled $2,215, for a difference of $785. On the one hand, it does make sense to have a “floor” for some of these costs, which results in a buffer being built into the quote. But on this bid, for example, the machine setup costs have been overstated. UBI should consider whether a floor is justified in each category (or overall) before arbitrarily using this amount in the quote.

Using Activity-based Costing Instead

Activity-based costing starts with identifying the appropriate activity drivers to use. The specific indirect costs should be directly tied to each driver—as the level of activity increases or decreases, so does the related cost. Using the expected level of activities for 2023 for the contract and determining the costs based on this expected level of activity, the following revised activity-based budget has been calculated.

	Total 2023 Budgeted Costs	Activity Driver	Total Budgeted Level of Activity for 2023	Company -wide Budgeted Rate per Driver	Estimated Amount of Activity for the Quote	Indirect Costs Allocated to Quote Using Activity-based Costing	Indirect Costs Allocated to Quote Based on Current Method
Purchasing department	$ 580,000	Total purchase orders/receipts	15,000	$38.67	100	$ 3,867	$ 5,900
Machine setup	380,000	Number of setups	8,000	47.50	10	475	1,000
Material handling	685,000	Total purchase orders/receipts	15,000	45.67	100	4,567	6,500
Machine lubricants	240,000	Total machine hours for all machines	25,000	9.60	300	2,880	1,500
Shipping department	410,000	Total customer orders/shipments	10,000	41.00	20	820	1,000
Customer service	460,000	Total customer orders/shipments	10,000	46.00	20	920	1,000
	$2,755,000					$13,529	$16,900

The amount allocated in the original budget is too high (by $3,371), and might be a reason UBI has lost some bids to its competitors. By using a minimum of $1,000 for the low-cost items, the indirect costs related to machine setup, shipping, and customer service are inflated. For the other costs, some included in the quote are too low (for example, purchasing and material handling) or too high (for example, machine lubricants). Using an estimate of the amount of activity that will be required gives a more accurate estimate of the costs.

Overall, if this quote is representative of others, UBI is overestimating the cost of each contract, which will lead to bidding too high. This leads to a higher gross margin percentage on the contracts it does win, because actual costs will be lower than budgeted, but is leading to fewer contracts overall. More information is necessary to determine whether the lower volume and higher gross margin percentage is more, or less, profitable. However, the disconnect between the actual costs and the costs used in the quoted bid appears to be resulting in UBI missing out on contracts.

Implementing activity-based budgeting would help UBI in the following ways:

- In controlling the cost drivers, UBI can better manage the total costs for each item. However, UBI also needs to understand what the impact would be if a driver were changed, and which drivers it has control over. This will help it to provide more accurate quotes for its customers and to prevent cost overruns.
- UBI could use this analysis to reduce the activities that customers do not value. If the company could identify non-value-added activities from the customer's perspective, these could be eliminated and profits increased.
- UBI should review each activity and the cost driver annually, to try to reduce its total cost without impacting quality.

However, there are some disadvantages in using activity-based costing:

- It is a complex process, requiring a lot of tracking of a variety of activity levels and data-gathering.
- It may be difficult in some cases to identify a single cost driver that directly impacts a cost.
- It will take resources (time and dollars) to fully implement, as well as to explain to the rest of the management team.

Recommendation

Given that UBI is struggling with its costs and margins, it is losing bids on new contracts to its competitors. This suggests that UBI needs to spend more time understanding the nature of its costs. The resources to implement some level of activity-based costing may be well spent, as it could yield more successful contracts while still ensuring the profitability of each contract. I recommend that UBI start its analysis on some of the more significant indirect costs, to understand how they are occurring and whether reducing these will impact quality in any way.

For Assessment Opportunity #2 (Management Accounting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the problems with the existing quote method and whether UBI should change its method going forward.

Competent – The candidate discusses the problems with the existing quote method and whether UBI should change its method going forward.

Competent with distinction – The candidate thoroughly discusses the problems with the existing quote method and whether UBI should change its method going forward.

Assessment Opportunity #3 (Common) (Depth and Breadth Opportunity)

The candidate reviews the draft of the third-quarter cash budget, and makes any necessary revisions.

The candidate demonstrates competence in Management Accounting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
3.2.1	Develops or evaluates data and information inputs for operational plans, budgets, and forecasts	A
3.2.2	Prepares, analyzes, or evaluates operational plans, budgets, and forecasts	A

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Lisa has requested that we review and revise the draft of the cash budget for the third quarter.

Based on the review of the draft cash budget, there are several errors in the assumptions, which have been revised in the following revised cash budget (all amounts in thousands of dollars).

Receipts			
1/3 of sales from Q2 × 98%	$	2,022	Note 1
2/3 of sales from Q3 × 98%		11,368	Note 1
Total collections		13,390	
Disbursements			
Direct materials purchases			
Q2 direct materials purchases × 50%		3,915	Note 2
Q3 direct materials purchases × 50%		2,858	Note 2
Total direct materials disbursements		6,773	
Direct labour		2,610	Note 3
Supervisor salaries		250	Note 3
Amortization		0	Note 4
Bad debts		0	Note 5
Selling and marketing costs		1,200	Note 6
Property taxes and insurance		0	Note 7
General and administrative		800	Note 6
New equipment		2,600	Note 8
Income tax instalments		120	Note 9
Interest on long-term debt ($504 ÷ 4)		126	Note 10
Estimated interest on line of credit		95	Note 10
		14,574	
Net cash deficiency		(1,184)	
Opening cash		30	Note 11
Closing cash	$	(1,154)	

Notes:

1. Receipts – In the draft cash budget, all the sales for Q3 are assumed to be collected in Q3, and all Q2 sales are assumed to be collected in Q2. However, this assumption is incorrect. Sales are to be collected under normal trade terms, being 30 days, which we have assumed for these calculations to be a month. Using the assumption that sales occur evenly over each month in the quarter, this means sales from the third month are collected in the following quarter. Therefore, the collection of sales for Q3 is one-third of Q2 sales plus two-thirds of Q3 sales. These amounts have been reduced to only 98% of sales due to a 2% assumption for bad debts that will not be collected.

2. Payment for direct materials – Purchases of direct materials by quarter are given. In the draft, the purchases of direct materials are all assumed to be paid in the quarter in which they arise. However, this is not the correct assumption. Purchases are paid for under normal payment terms, which are 45 days, or 1.5 months. Using the assumption that direct material costs are incurred evenly over the quarter, this means that, in Q3, 50% (1.5 ÷ 3 months) of Q2 direct material purchases are paid for, and 50% of Q3 direct material purchases are paid for.

3. Disbursements for direct labour and supervisors' salaries are correct and in agreement with the assumptions provided.

4. Amortization – Since amortization is not a cash expense, it should not be included in the cash budget, and has therefore been removed.

5. Bad debts – Bad debt is not a disbursement, but a reduction of the sales collected. Therefore, the collection receipts have been reduced by 2% for this estimate, as stated in Note 1.

6. Selling and marketing, and general and administrative, amounts are correct and in agreement with the assumptions.

7. Property taxes and insurance – These amounts are paid annually in February, so are not a disbursement in Q3.

8. The new equipment must be fully paid for in Q3. Even though it will last for five years, that is not relevant. The full amount of $2,600 has been included as a disbursement.

9. Income tax instalments – As per the notes to the financial statements, UBI pays income tax instalments of $40 per month. Therefore, this disbursement has also been included for the quarter ($40 × 3 months).

10. Interest on both loans is also paid monthly, as per the notes to the financial statements. We know the amount of interest on the long-term loan, which is fixed (\$504 ÷ 4). The interest on the line of credit has been estimated, based on the balance outstanding as at December 31, 2022, being \$6,300 × 6% ÷ 4 quarters. However, the actual balance of the line of credit should be used if it can be determined.

11. The opening cash balance of \$30 should also be shown, so that the total amount of cash or deficit expected can be determined. Note that the opening cash balance of \$30 could be unreliable (depending on who prepared the Q2 budget), and may need to be reviewed.

Conclusion

The revised cash budget indicates that UBI will have a cash deficit of \$1,154,000, which may have to be financed. This could result in additional financing costs, which would need to be considered in the cash budget. If the equipment purchase could be put off by one quarter, this would result in a positive balance. Since one-third of the sales revenues for Q3 will be collected in Q4, there might be sufficient cash available in Q4 to cover this disbursement.

For Assessment Opportunity #3 (Management Accounting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to revise the cash budget.

Competent – The candidate revises the cash budget, making some of the adjustments required.

Competent with distinction – The candidate revises the cash budget, making most of the adjustments required.

Assessment Opportunity #4 (Common) (Depth and Breadth Opportunity)

The candidate discusses the accounting treatment for the bill-and-hold arrangement.

The candidate demonstrates competence in Financial Reporting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
1.2.2	Evaluates treatment for routine transactions	**A**

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.3 Applies decision criteria to choose among viable alternatives
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility
7.1.2 Communicates non-complex financial information logically, clearly, concisely

The issue is whether the full amount of Contract #2819 can be recognized in the fiscal 2022 year end. The accounting requirements under ASPE 3400 Revenue are applied below to make a recommendation on this issue.

As of December 31, 2022, UBI has recognized revenue of $720,000 and cost of sales of $489,600. However, up to December 31, 2022, UBI has delivered only 2,000 of the 10,000 cartons under the contract.

Per ASPE 3400:

.04 Revenue from sales and service transactions shall be recognized when the requirements as to performance set out in paragraphs 3400.05-.06 are satisfied, provided that at the time of performance ultimate collection is reasonably assured.

.05 In a transaction involving the sale of goods, performance shall be regarded as having been achieved when the following conditions have been fulfilled:

(a) the seller of the goods has transferred to the buyer the significant risks and rewards of ownership, in that all significant acts have been completed and the seller retains no continuing managerial involvement in, or effective control of, the goods transferred to a degree usually associated with ownership; and
(b) reasonable assurance exists regarding the measurement of the consideration that will be derived from the sale of goods, and the extent to which goods may be returned.

Generally, revenue would be recognized on delivery. For 2,000 of the 10,000 total cartons under the contract, the goods were shipped from UBI's warehouse in November 2022 (before December 31). Therefore, by year end, the significant risks and rewards of ownership have been transferred, because the goods have been delivered; the amount of the revenue is known and, therefore, measurable; and collection is assured, as UBI has likely already received payment, given that the normal payment terms are 30 days. Even if payment has not yet been made, YJMI is a long-time customer, and there is no evidence to suggest non-payment.

For the remaining 8,000 units, even though delivery has not taken place by year end, in determining how much revenue related to Contract #2819 can be recognized, ASPE 3400.09 allows for an exception, as follows:

> *Generally, delivery is not considered to have occurred unless the product has been delivered to the customer's place of business or another site specified by the customer. Some of the aspects of the revenue arrangement an enterprise would consider in determining if delivery has occurred or services have been rendered are as follows:*
>
> *(a) bill and hold arrangements (paragraphs 3400.A40-.A44 provide related application guidance);*
> *[…]*

The YJMI contract is a bill-and-hold arrangement. Given this, the criteria for revenue to be recognized are as follows:

> *A43. The following criteria are required to be met to recognize revenue when delivery has not occurred:*
>
> *(a) the risks of ownership must have passed to the buyer;*
> *(b) the customer must have made a fixed commitment to purchase the goods;*
> *(c) the buyer, not the seller, must request that the transaction be on a bill and hold basis, and the buyer must have a substantial business purpose for ordering the goods on a bill and hold basis;*
> *(d) there must be a schedule for delivery of the goods that is reasonable and consistent with the buyer's business purpose (e.g. storage periods are customary in the industry);*
> *(e) the seller must not have retained any specific performance obligations such that the earning process is not complete;*
> *(f) the ordered goods must have been segregated from the seller's inventory and not be subject to being used to fill other orders; and*
> *(g) the product must be complete and ready for shipment.*

Each of these criteria are discussed below:

a) The risk of ownership has passed to YJMI. YJMI stated that they would take ownership of the goods while they were being warehoused by UBI, indicating that ownership has passed prior to December 31. In addition, YJMI asked for this deferral, which was unusual but necessary due to the circumstances of a flood in their warehouse. YJMI is receiving these custodial services at no cost (since there is no added fee and there is no change in the contract amount), and is therefore receiving economic benefits of ownership in the form of savings of storage costs for the period of December 18 to January 27. Therefore, this criterion appears to have been met.
b) YJMI has a fixed commitment to purchase the goods. There is a valid contract that has been signed and accepted by YJMI. This contract, along with YJMI's request to be invoiced, and its payment under the normal terms, indicates that this criterion has also been met.
c) YJMI, as the buyer, has requested that the transaction be on a bill-and-hold basis, and YJMI has a substantial business purpose for asking for these goods to be held. YJMI's warehouse flooded, so it does not have the space to accept this inventory yet, which represents a substantial business purpose.
d) YJMI has also indicated that they will accept the delivery on January 27, 2023, so there is a schedule of delivery. In analyzing whether the delivery schedule is reasonable and consistent with the buyer's business purpose, the storage of the filled jars is not in compliance with YJMI's contract, since these goods would normally be shipped immediately and not held as UBI's inventory. Normally, only the unfilled jars would be inventoried until required to be filled. However, for other customers, UBI may warehouse filled jars and bottles if that is specified in the customer's contract. Therefore, this criterion has been met.
e) UBI has not retained any specific performance obligations that would suggest the earning process is not yet complete. In this case, the bottles were filled and packaged, ready to go when shipping was requested.
f) The orders have been segregated from UBI's inventory in the warehouse and are not subject to being used to fill other orders. These jars are custom-made for YJMI, and were held in a separate part of UBI's warehouse. This criterion has been met.
g) The product must be complete and ready for shipment. This is met as of December 31, as indicated above.

Therefore, based on the above analysis, we conclude that all the revenue and costs related to Contract #2819 have been correctly recognized for the December 31, 2022, fiscal year end, and no adjustments are necessary.

For Assessment Opportunity #4 (Financial Reporting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting treatment for the bill-and-hold arrangement.

Competent – The candidate discusses the accounting treatment for the bill-and-hold arrangement.

Competent with distinction – The candidate thoroughly discusses the accounting treatment for the bill-and-hold arrangement.

Assessment Opportunity #5 (Common) (Depth and Breadth Opportunity)

The candidate discusses the accounting treatment for the assembly line redesign.

The candidate demonstrates competence in Financial Reporting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
1.2.2	Evaluates treatment for routine transactions	**A**

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.3 Applies decision criteria to choose among viable alternatives
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility
7.1.2 Communicates non-complex financial information logically, clearly, concisely

The issue is how to account for the costs related to the PPI contract. To assess the accounting treatment, the requirements under ASPE 3064 – Goodwill and Intangible Assets are discussed.

There are three costs related to this contract:

- The design costs of $240,000.
- Training on the new assembly line of $40,000.
- Costs of $18,000 to reconfigure UBI's machines and equipment into the new assembly line.

Each of these are discussed separately below.

Design Costs

These design costs were incurred to make a custom assembly line layout, using UBI's existing machines and equipment. UBI has recorded these costs as an intangible asset. Therefore, we should assess whether these costs meet the criteria to be treated as an intangible asset.

Per ASPE 3064:

> *.09 Entities frequently expend resources, or incur liabilities, on the acquisition, development, maintenance or enhancement of intangible resources such as scientific or technical knowledge, design and implementation of new processes or systems, licenses, intellectual property, market knowledge and trademarks (including brand names and publishing titles). Common examples of items encompassed by these broad headings are computer software, patents, copyrights, motion picture films, customer lists, mortgage servicing rights, fishing licenses, import quotas, franchises, customer or supplier relationships, customer loyalty, market share and marketing rights.*

> *.10 Not all the items described in paragraph 3064.09 meet the definition of an intangible asset (i.e., identifiability, control over a resource and existence of future economic benefits). If an item within the scope of this Section does not meet the definition of an intangible asset or goodwill, expenditure to acquire it or generate it internally is recognized as an expense when it is incurred.*

The new assembly line layout falls within the scope of this standard as it is the design and implementation of a new process or system. We need to determine whether the design costs should be recognized as an intangible asset, based on meeting the following criteria:

<u>Identifiable</u>

Per ASPE 3064:

> *.12 An asset meets the identifiability criterion in the definition of an intangible asset when it:*
>
> *(a) is separable (i.e., is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability); or*
> *(b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.*

The new assembly line design potentially could be sold or transferred to another entity, since it is not clear whether UBI has the right to transfer the design to another entity. However, under the contractual agreement with PPI, UBI has the legal right to use the design; therefore, these costs appear to meet the criterion of being identifiable.

<u>Control</u>

Per ASPE 3064.13: "An entity controls an asset if the entity has the power to obtain the future economic benefits flowing from the underlying resource and to restrict the access of others to those benefits."

PPI has provided the design to UBI, and we assume that the design is customized to UBI because it uses its existing machines and equipment. Since UBI will use the design to rearrange its assembly line, and will experience improved efficiency and space savings as a result, we consider UBI to have the power to obtain the future economic benefits of the design.

However, UBI may not have the ability to restrict others' access to the future economic benefits of this resource, since it does not have a copyright or patent for this design. There appears to be no legal enforceability that grants UBI the power to restrict PPI from selling the design to other clients. Therefore, this criterion is not met.

<u>Future economic benefits</u>

There are future economic benefits to be realized, since the costs incurred will enable UBI to improve operational efficiency and reduce the space required for the assembly line, both of which contribute to reducing expenses and improving profitability. This criterion is met.

Conclusion

Since the control criterion has not been met, the design costs cannot be recognized as an intangible asset. ASPE 3064.10 states that, if an item within the scope of this standard does not meet the definition of an intangible asset, the expenditure to acquire it is recognized as an expense when it is incurred. Based on this requirement, the assembly line design costs should be immediately expensed.

The journal entry to correct this is:

Dr. General and administrative expenses	$240,000	
Cr. Intangible asset		$240,000

Training on the New Assembly Line

Costs related to training are specifically excluded as intangible assets, as stated under ASPE 3064:

> *.51 The following are not components of the cost of an internally generated intangible asset:*
> *(a) selling, administrative and other general overhead expenditure unless this expenditure can be directly attributed to preparing the asset for use;*
> *(b) identified inefficiencies and initial operating losses incurred before the asset achieves planned performance; and*
> *(c) expenditure on training staff to operate the asset.*

Therefore, further analysis of these costs is not required and they should be immediately expensed:

Dr. Training expense	$40,000	
Cr. Intangible asset		$40,000

Reconfiguration Costs

Costs related to reconfiguring the machines and equipment must be assessed under ASPE 3061 *Property, plant and equipment*:

> *.05 The cost of an item of property, plant and equipment includes the purchase price and other acquisition costs such as option costs when an option is exercised, brokers' commissions, installation costs including architectural, design and engineering fees, legal fees, survey costs, site preparation costs, freight charges, transportation insurance costs, duties, testing and preparation charges.*

Given that the machines and equipment were previously installed and functioning, the costs incurred to reconfigure the assembly line would not qualify as installation costs. Furthermore:

> *.14 The cost incurred to enhance the service potential of an item of property, plant and equipment is a betterment. Service potential may be enhanced when there is an increase in the previously assessed physical output or service capacity, associated operating costs are lowered, the life or useful life is extended, or the quality of output is improved. The cost incurred in the maintenance of the service potential of an item of property, plant and equipment is a repair, not a betterment. If a cost has the attributes of both a repair and a betterment, the portion considered to be a betterment is included in the cost of the asset.*

It could be argued that the new assembly line increases the physical output or service capacity at UBI as a whole. However, this would not alter the physical output or service capacity of the individual machines or pieces of equipment, and therefore, would not be able to be capitalized.

Therefore, the costs were appropriately expensed, and no adjustment is required.

For Assessment Opportunity #5 (Financial Reporting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting treatment for the assembly line redesign.

Competent – The candidate discusses the accounting treatment for the assembly line redesign.

Competent with distinction – The candidate thoroughly discusses the accounting treatment for the assembly line redesign.

Assessment Opportunity #6 (Common) (Depth and Breadth Opportunity)
The candidate discusses the accounting treatment for the accounts receivable transactions.
The candidate demonstrates competence in Financial Reporting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core
1.2.2	Evaluates treatment for routine transactions	A

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.3 Applies decision criteria to choose among viable alternatives
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility
7.1.2 Communicates non-complex financial information logically, clearly, concisely

Currently, there are two issues to resolve related to the accounts receivable.

U.S. Dollar Receivable

Included in accounts receivable is an invoice owing from a US customer, Savory Foods Inc. The original invoice for US$250,000 was dated December 9, 2022.

Per ASPE 1651 – Foreign currency translation:

> *.14 At the transaction date, each asset, liability, revenue or expense arising from a foreign currency transaction of the reporting enterprise shall be translated into Canadian dollars by the use of the exchange rate in effect at that date. …*
>
> *.16 At each balance sheet date, monetary items denominated in a foreign currency shall be adjusted to reflect the exchange rate in effect at the balance sheet date. …*

.20 An exchange gain or loss of the reporting enterprise that arises on translation or settlement of a foreign currency-denominated monetary item or a non-monetary item carried at market shall be included in the determination of net income for the current period.

Therefore, there are two adjustments required. The original invoice for US$250,000, dated December 9, 2022, was issued when the spot exchange rate was 1 USD = 1.33 CAD, and should have been recognized at the translated amount of $332,500 ($250,000 × $1.33) as at that date.

The correcting journal entry is:

Dr. Accounts receivable ($332,500 – $250,000)	$82,500	
Cr. Sales		$82,500

Next, the receivable must be valued at the exchange rate at the year-end date, which is 1 USD = 1.35 CAD (as provided in Note 4 to the financial statements).

The revised receivable should be $337,500 ($250,000 × 1.35). Therefore, the adjustment is:

Dr. Accounts receivable ($337,500 – $332,500)	$5,000	
Cr. Foreign exchange gain		$5,000

Any difference with the amount that was ultimately collected will be reflected as a foreign exchange gain or loss in 2023.

Lowesons Receivable

There is an indication of impairment of this receivable, as demonstrated by the customer's inability to pay this balance on time and their request for a revised payment plan, which Jessica has agreed to. To determine the amount of the impairment, we look to ASPE 3856 – Financial Instruments:

.17 Except as specified in paragraphs 3856.17A-.17B, when an enterprise identifies a significant adverse change in the expected timing or amount of future cash flows from a financial asset, or group of similar financial assets, it shall reduce the carrying amount of the asset, or group of assets, to the highest of the following:

(a) the present value of the cash flows expected to be generated by holding the asset, or group of assets, discounted using a current market rate of interest appropriate to the asset, or group of assets;

> *(b) the amount that could be realized by selling the asset, or group of assets, at the balance sheet date; and*
> *(c) the amount the enterprise expects to realize by exercising its right to any collateral held to secure repayment of the asset, or group of assets, net of all costs necessary to exercise those rights.*
>
> *The carrying amount of the asset, or group of assets, shall be reduced directly or through the use of an allowance account. The amount of the reduction shall be recognized as an impairment loss in net income.*

Since there is a change in the expected timing and amount of future cash flows, the amount of the receivable will be reduced to the highest of the following:

a) the present value of the cash flows expected to be received, discounted using a current market rate of interest for the asset group – 4.5%. The cash flows expected to be received are $490,000 ($980,000 ÷ 2) on December 31, 2023, and $490,000 on December 31, 2024. The present value of the cash flows is:

   ($490,000 ÷ 1.045) + ($490,000 ÷ $(1.045)^2$) = $468,900 + $448,708 = $917,608

b) the amount that could be realized on selling the asset—the factoring agency had offered to purchase the receivable for $980,000 × 70% = $686,000.

c) the amount that UBI could realize if it exercised its right to collateral—UBI has no security against this receivable, so this amount would be nil.

The highest of these three amounts is $917,608, and the impairment loss is ($980,000 – 917,608) = $62,392.

The impairment loss can either be recognized directly against the receivable or through the allowance account. In this case, we have decided to use the allowance account.

The following entry is required:

Dr. Bad debts	$62,392	
Cr. Allowance for doubtful accounts		$62,392

In addition, since this is a receivable that will be recovered over two years, a portion should be shown as current, and a portion should be shown as long-term on the balance sheet as at December 31, 2022.

Below is the amortization schedule related to how this receivable will be measured in subsequent years:

Year End	Payment	Interest at 4.5%	Principal Portion Paid	Balance Outstanding
Dec 31, 2022				$917,608
Dec 31, 2023	$490,000	$41,292	$448,708	$468,900
Dec 31, 2024	$490,000	$21,100	$468,900	0

Balance sheet presentation:
Current portion: $448,708
Long-term portion: $468,900

For Assessment Opportunity #6 (Financial Reporting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting treatment for the accounts receivable transactions.

Competent – The candidate discusses the accounting treatment for the accounts receivable transactions.

Competent with distinction – The candidate thoroughly discusses the accounting treatment for the accounts receivable transactions.

DAY 2 – MARKING GUIDE – ASSURANCE ROLE
UNIQUE BOTTLES INC. (UBI)

To: Landen, audit partner
From: CPA
Subject: UBI requests

See Common Marking Guide for the Common Assessment Opportunities #1 to #6.

Assessment Opportunity #7 (Depth Opportunity)

The candidate discusses the accounting policy options for foreign currency forward contracts.

The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	Elective
1.2.1	Develops or evaluates appropriate accounting policies and procedures	A	A
1.2.3	Evaluates treatment for non-routine transactions	B	A

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.3 Applies decision criteria to choose among viable alternatives
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility

Jessica would like to understand the accounting policy options that could be applied for future foreign currency forward contracts, and how the financial statement impact of this transaction, entered into on December 1, 2022, might vary based on the accounting policy used. UBI is required to pay for the inventory ordered in USD when it is received on January 31, 2023. Using a forward contract, UBI has mitigated the risk of foreign currency changes by locking in a rate of 1 USD = 1.36 CAD (CA$680,000 ÷ US$500,000) for January 31, 2023. The contract represents a financial instrument that falls within the scope of *ASPE 3856 – Financial Instruments.*

Under ASPE 3856, there are two options that UBI could use to recognize forward contracts of this nature. The first choice, which is optional, is to adopt hedge accounting if the forward contract qualifies under the criteria outlined in this standard. If the forward contract does not qualify for hedge accounting, or management chooses not to adopt hedge accounting, the standard details how to account for the forward contract as a financial instrument. Each of these alternatives is described below.

Optional hedge accounting

This forward contract appears to have the quality of a hedging arrangement, as UBI is using one contract to offset the risks of another contract (an anticipated transaction). In this case, the risk is a foreign currency exchange exposure between the date the USD inventory order was placed (December 1, 2022) and the date the inventory will ultimately be received, and the USD paid (January 31, 2023).

Per ASPE 3856.31, hedge accounting is optional, but can only be applied if certain criteria are met:

A hedging relationship qualifies for hedge accounting only when all of the following conditions are satisfied:

(a) At the inception of the hedging relationship, the enterprise:

(i) *designates that hedge accounting will be applied to the hedging relationship; and*

Not met – for the December 1, 2022, transaction: As this transaction has already occurred, UBI is unable to designate that hedge accounting will apply. Met – for future transactions: UBI can designate that hedge accounting will be applied.

(ii) *formally documents the hedging relationship, identifying the hedged item, the related hedging item, the nature of the specific risk exposure or exposures being hedged and the intended term of the hedging relationship.*

Met: UBI can document the hedging relationship and identify the hedged item (the payment related to the inventory purchase), the hedging item (the FX forward contract), the intended term of the hedging relationship, and that the foreign exchange risk is being hedged pursuant to the terms of the forward contract. For this contract, the term of the hedging relationship would have been from December 1, 2022, to January 31, 2023 (two months).

(b) *Both at the inception of the hedging relationship and throughout its term, the enterprise has reasonable assurance that the critical terms of the hedging item and the hedged item are the same, as described in paragraphs 3856.A62-.A65 or paragraphs 1651.38-.41.*

Met: See below (analysis of paragraph A62).

(c) *When the hedged item is an anticipated transaction, it is probable the anticipated transaction will occur at the time and in the amount designated.*

Met: Using this forward contract as an example, there was no evidence to suggest the anticipated inventory purchase would not occur. The payment of USD was due on January 31, which was the same date that the forward contract matured.

In addition, only certain relationships can be designated as a hedging relationship, and per ASPE 3856.32(a), foreign currency forward contracts can be considered as a hedging relationship:

.32 *An enterprise may designate only the following hedging relationships:*

(a) *an anticipated transaction denominated in a foreign currency hedged with a forward contract to mitigate the effect of changes in future foreign currency exchange rates*

Using this forward contract as an example, the anticipated transaction was the USD payment of the ordered inventory payable on January 31, 2023. For the foreign currency forward contract to qualify as a hedging relationship, it needs to meet certain criteria:

A62 An enterprise may designate a foreign exchange forward contract as a hedge of an anticipated foreign currency transaction or a group of foreign currency transactions only when:

(a) *the forward contract is for the purchase or sale of the same amount of the same currency as the designated hedged anticipated transaction or group of transactions;*

Met: The forward contract is for the purchase of US$500,000, which is the US-dollar cost of the inventory.

(b) *the forward contract matures within 30 days of the settlement of each designated anticipated transaction;*

Met: The forward contract matures on the same day as the settlement of the inventory transaction. January 31, 2023, is the date when the inventory will be delivered and paid for, and when the USD are purchased for CAD, per the forward contract date.

(c) *it is probable the settlement of each anticipated foreign currency transaction will occur at the time and in the amount expected; and*

Met: There is no indication to suggest the settlement of the inventory purchase will not occur on January 31, 2023.

(d) *the fair value of the forward contract at the inception of the hedging relationship is zero.*

Met: The fair value of the forward contract at the inception of the hedging relationship is nil.

For future transactions, we would need to determine if hedge accounting aligns with the intentions of UBI, whose stated intention is to reduce income volatility. The purpose of hedge accounting is to recognize offsetting gains, losses, revenues, and expenses in net income in the same period or periods. When hedge accounting is used, by recognizing the offsetting gains and losses on the hedged item and the hedging item on the income statement at the same time, the impact of changes in foreign currency rates on volatility are reduced or fully eliminated.
As the hedged item, the payment for the inventory, is payable on the same date that the amount is due under the forward contract, per 3856.33(a), an entity accounts for the qualifying hedge of the anticipated transaction as follows:

.33 *An enterprise accounts for a qualifying hedge of an anticipated transaction as follows:*

(a) *The hedged item is recognized initially at the amount of consideration payable or receivable. The gain or loss on the hedging item (forward contract, or the percentage of the contract relating to the hedged item) is recognized as an adjustment of the carrying amount of the hedged item when the anticipated transaction results in the recognition of an asset or a liability. When the hedged item is recognized directly in net income, the gain or loss on the hedging item is included in the same category of income or expense.*

When hedge accounting is used, the first entry required is on the date of the inventory receipt (January 31, 2023), when the accounts payable is established. The amount of inventory and accounts payable would reflect the FX rate on that date.

Dr. Inventory	$690,000 (US$500,000 × 1.38 spot rate)	
Cr. Accounts payable		$690,000 (US$500,000 × 1.38 spot rate)

To record the purchase of inventory.

Dr. Cash – USD	$690,000 (US$500,000 × 1.38 spot rate)	
Cr. Cash – CAD		$680,000
Cr. Inventory		$10,000

To record the settlement of the forward contract, with the gain on the hedging item (the forward contract) recognized against inventory, the hedged item.

Dr. Accounts payable	$690,000	
Cr. Cash – USD		$690,000

To record the payment for the inventory.

There would have been no journal entries required on December 1, 2022, or December 31, 2022, for the recognition of the forward contract if hedge accounting had been used. There would be no adjustment required to the financial statements until the date the inventory is received.

The result of applying hedge accounting is that the inventory is recognized at CA$680,000, the US$500,000 at 1.36 exchange rate. That is because the gain on the forward contract of $10,000 is reflected in the reduced value of the inventory, and does not affect the income statement until the inventory is ultimately sold and recognized as a cost of goods sold.

<u>If the option of hedge accounting is not adopted</u>

If the forward contract is not designated as a hedge, per ASPE 3856.12, the forward contract is measured at fair market value at each reporting period. Any gains and losses are immediately recognized in net income. UBI must record the December 1, 2022, foreign currency forward contract under this method because it was not designated as a hedge at the inception of the hedging relationship.

There is no entry at December 1, 2022, because the fair value of the forward contract at inception is nil.

On December 31, 2022:

Dr. Forward contract	$3,200	
Cr. Gain on forward contract		$3,200

To record the fair value of the forward contract at December 31, 2022.

UBI has recorded the appropriate entry under this method at year end.

On January 31, 2023:

Dr. Forward contract ($10,000 – $3,200)	$6,800	
Cr. Gain on forward contract		$6,800

To record the fair value of the forward contract at January 31, 2023, less $3,200 already recognized.

Dr. Inventory	$690,000 (US$500,000 × 1.38 spot rate)	
Cr. Accounts payable		$690,000 (US$500,000 × 1.38 spot rate)

To record the purchase of inventory.

Dr. Cash – USD	$690,000	
Cr. Cash – CAD		$680,000
Cr. Forward contract		$10,000

To record the settlement of the forward contract.

Dr. Accounts payable	$690,000	
Cr. Cash – USD		$690,000

To record the payment for the inventory.

In this case, the $10,000 gain on the forward contract is recognized as $3,200 in 2022 and $6,800 in 2023. This has increased the volatility of net income for the company. The inventory is recognized at $690,000, the actual cost in USD at the time it is paid for.

For future foreign currency forward contracts of this nature, UBI should consider applying hedge accounting, to meet the goal of reducing income volatility. To support this, the hedging relationship will need to be designated at inception, to allow for hedge accounting to be applied.

For Assessment Opportunity #7 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting policy options for foreign currency forward contracts.

Competent – The candidate discusses the accounting policy options for foreign currency forward contracts.

Competent with distinction – The candidate provides an in-depth discussion of the accounting policy options for foreign currency forward contracts.

Assessment Opportunity #8 (Depth Opportunity)

The candidate discusses the risks of material misstatement at the financial statement level and materiality for the UBI audit, including how changes in these areas from the prior year will affect the 2022 year-end audit.

The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
4.3.1	Assesses issues related to the undertaking of the engagement or project	B	A
4.3.4	Assesses materiality for the assurance engagement or project	B	A
4.3.5	Assess the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B	A

CPA Map Enabling Competencies:
2.2.1 Assists in identifying and monitoring risks within areas of work responsibility
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility

Risks of Material Misstatement at the Financial Statement Level

In the current year, there are several risks of material misstatement at the financial statement level:

- UBI's controller retired in November 2022, and Jessica has not had time to hire a replacement controller (and there is uncompleted work). Therefore, there is a lack of accounting and financial reporting expertise to prevent and detect errors in the financial statements. This is evidenced by Jessica requesting information on how to account for new transactions, and the errors that were already identified.
- There is evidence of a weak system of internal control, as evidenced by both the manual journal entries and the identified control weaknesses (see below). In addition, UBI has a small accounting group, which consists of the controller (up to early November 2022), the payables clerk, and the treasury clerk. This makes segregation of duties difficult, especially during November and December, when there were only two staff members and no controller. In addition, proper segregation of duties, including review of journal entries before posting, is not enforced through access controls in the accounting system. Therefore, errors will not be prevented or detected by internal controls.
- UBI is experiencing declining profits, and Callum may retract some of his preferred shares in 2023 if he does not see any improvements. Lisa and Jessica may therefore be biased to select accounting policies and to record transactions that maintain the most positive profit level possible, to avoid Callum retracting his preferred shares, creating a risk of fraud in the financial statements.
- UBI is also considering obtaining additional financing in the near future. Therefore, Lisa and Jessica may be biased in selecting accounting policies that improve the financial performance of UBI, to attract potential lenders, creating a risk of fraud in the financial statements.
- Upon review of the predecessor auditor file, it was noted that misstatements were identified in the prior year; however, UBI management agreed to make all identified adjustments. This reduces risk as it suggests that, historically, management has not acted on their potential bias.

As a result of the risks of material misstatement identified, it will be important to have experienced staff assigned to the audit team, and we should increase supervision of the audit to address the risks identified.

Materiality

Materiality is based on the financial information needs of the users of the financial statements, which include the following:

- Lisa and Jessica, who are concerned with a decline in revenues and profits, will assess the overall health of UBI and potential strategic directions by reviewing net income. They will be focusing on expenses in order to reduce costs.
- Callum, who holds retractable preferred shares, is basing his decision on whether to retract his preferred shares in the coming year, based on net income.
- The lenders of the line of credit and long-term debt are also users of the financial statements, along with potential future lenders. They will assess the health of the company and its ability to make interest payments and ultimately repay the loans on maturity, which is likely to be reflected in net income and the related cash flows.

Based on the users' needs, income before taxes appears to be an appropriate basis. Professional judgment is required to set the threshold of overall materiality, which usually falls in the range of 3% to 7% of net income before taxes. The predecessor auditor used 7% for overall materiality, but, based on the changing users' needs during the current year, I recommend using a more conservative threshold of 5%.

Income before taxes, before adjusting entries	**$1,880,000**
Assembly line redesign adjustments ($240,000 + $40,000)	(280,000)
Revenue increase on FX adjustment	82,500
FX gain on year-end valuation	5,000
Bad debt expense	(62,392)
Net income before taxes, after adjusting entries	1,625,108
Overall materiality threshold	5%
	$ 81,255
Adjusted overall materiality	or $81,000 rounded

In addition to calculating overall materiality, CAS 320 requires that the external auditor calculate performance materiality. Performance materiality is less than materiality, and is set by the auditor to reduce the likelihood that the aggregate of any unadjusted misstatement, combined with any undetected errors, does not exceed overall materiality. Like overall materiality, setting performance materiality requires professional judgment but is generally between 50% and 90% of overall materiality. Based on the financial statement errors we have already noted, the loss of the controller, and UBI being a new engagement for us, I recommend performance materiality be set near the lower end of the range, at 60% of overall materiality.

Overall materiality	$81,000
Performance materiality threshold	60%
Performance materiality	$48,600

Changes from Prior Year and Impact

As successor auditor, we need to obtain sufficient appropriate audit evidence regarding whether the opening balances contain material misstatement.

In the prior year, materiality used was $170,000, which is higher than our current-year materiality of $81,000. Therefore, it is possible that the opening balances contain misstatements in excess of the current year materiality of $81,000, even though such misstatements would not have been material in the prior year. In addition, the extent of audit evidence in the prior year would have been less than what would be required in the current year, as the predecessor's performance materiality was most likely significantly higher than $48,600. Therefore, we will likely need to increase the sample size for substantive procedures, as well as perform additional procedures over opening balances compared to what was performed by the predecessor auditor.

In the prior year, no risks of material misstatement were identified at the financial statement level, while in the current year, there are numerous risks of material misstatement at the financial statement level. Most of the risk factors discussed above explain changes that occurred in the current year, and therefore do not impact the assessment of the opening balances. However, the risks of material misstatement in the current year will need to be addressed, including the audit team performing more rigorous and/or extensive audit procedures, by which to obtain more persuasive audit evidence.

For Assessment Opportunity #8 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the risks of material misstatement at the financial statement level and materiality for the UBI audit.

Competent – The candidate discusses the risks of material misstatement at the financial statement level and materiality for the UBI audit, including how changes in these areas from the prior year will affect the current-year audit.

Competent with distinction – The candidate thoroughly discusses the risks of material misstatement at the financial statement level and materiality for the UBI audit, including how changes in these areas from the prior year will affect the current-year audit.

Assessment Opportunity #9 (Depth Opportunity)

The candidate provides audit procedures for the financial reporting issues.

The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
4.3.5	Assess the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B	A
4.3.6	Develops appropriate audit procedures, including Audit Data Analytics (ADA), based on the identified risk of material misstatement	B	A

CPA Map Enabling Competencies:
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.4.1 Develops preliminary implementation plans within areas of work responsibility

We should plan to perform the following audit procedures related to the financial reporting risks identified above.

Bill-and-Hold Arrangement with YJMI

- Review Contract #2819 to develop an understanding of the terms, including the products to be delivered, the various performance obligations of UBI and YJMI, and the sales value of the products ordered, and confirm that YJMI takes title to the products when the goods leave UBI's warehouse.
- For the revenue recognized related to the 2,000 cartons already delivered, we should obtain supporting documentation, such as shipping documents, that verifies that the items have been delivered to and accepted by YJMI, to ensure that the significant risks and rewards of ownership have transferred.
- For the 8,000 cartons under the bill-and-hold arrangement, we should do the following:
  - Obtain the correspondence dated December 15, 2022, from YJMI, requesting that UBI hold the 8,000 cartons due to a flood in their warehouse, and:
    - Verify that the date YJMI expected to take final delivery was on January 27, 2023.
    - Verify that the correspondence includes the direct request from YJMI for UBI to hold these items in the UBI warehouse, and states that YJMI will take ownership of these goods while they are stored by UBI. Also verify that UBI was instructed to complete the filling of the jars.
  - Obtain cost of sales reports to verify that UBI had completed substantially all of the performance obligations required to complete the contract. Sample the cost amounts and vouch to supporting documents, such as invoices received from vendors or requisitions from inventory for the bottles and cartons. Ensure that the costs were incurred prior to December 31, 2022.
  - Obtain the correspondence from YJMI on December 21, 2022, requesting the invoice to be sent for the contract, and vouch that it includes the full cost of the contract.
  - Obtain the correspondence from YJMI on January 27, 2023, requesting that UBI ready the shipment for pick-up.

- Review UBI's inventory listing at December 31, 2022, to verify that the finished goods are not included in UBI's inventory at year end.

Assembly Line Redesign Contract with PPI

<u>Redesign costs</u>

- Obtain the contract dated August 2022 between UBI and PPI, to develop an understanding of the terms and conditions of the contract. Using the contract and the description of the purchase, confirm whether the design costs represent an intangible asset:
  - For identifiability, ensure that the costs relate solely to the assembly line redesign, and that UBI has access to the design.
  - For control, verify whether UBI can transfer the design to another entity and whether there are any restrictions on PPI's ability to provide a similar design to another customer.
  - For future economic benefits, discuss with management how the new assembly line will improve efficiency and reduce the space required, and how that will reduce operating costs of the assembly line. Corroborate the facts with the design documents, information on the previous assembly-line layout, analysis of current costs and the reasonableness of cost savings, and/or discussion with PPI.
- Verify the amount of design costs to the contract and vouch to the general ledger to ensure that the full amount is included in the correct period. Obtain the bank statement and vouch that the August 15, 2022, payment was made.

<u>Training costs</u>

- Review the contract to ensure that the training costs on the new assembly line were $40,000.
- Obtain a list of what the training costs include, to ensure that all costs included as staff training pertain to training on the new assembly line.
- Obtain the bank statement to vouch that the September 20, 2022, payment was made.

<u>Reconfiguration costs</u>

- Obtain a list of what is included in the $18,000 in reconfiguration costs, and verify that the costs are not capital in nature, per review of invoices, time records for labour incurred, or other supporting documentation.
- Obtain the October bank statement to vouch that payments were made for the reconfiguration costs (either payments to third parties or payroll for internal labour costs).

US Dollar Receivable from Savory Foods Inc.

- Obtain the original invoice for the USD transaction with Savory Foods Inc. Agree the invoice to the sales ledger, verifying the USD amount and determining if the invoice was recorded in the correct period.
- Confirm the exchange rate of 1 USD = 1.33 CAD on the transaction date (i.e., the date of the original invoice, December 9, 2022) to a reputable source for 2022 daily exchanges rates, such as Bank of Canada, and recalculate the Canadian dollar equivalent of the USD revenue and the corresponding USD accounts receivable.
- Similarly, confirm the exchange rate on December 31, 2022, of 1 USD = 1.35 CAD to the Bank of Canada rate, and recalculate the Canadian dollar equivalent of the USD receivable on December 31, 2022. Compare the amount at year end to the amount recorded at December 9, 2022, to confirm the amount to be recorded as a foreign exchange gain on the income statement.

Lowesons Receivable

- Obtain the original contract with Lowesons and verify that the sales contract amount is $980,000.
- Obtain the correspondence between the owner of Lowesons and Jessica from January 2023. Verify that Lowesons requested a payment extension on the outstanding amounts: half by December 31, 2023, and the other half by December 31, 2024.
- To ensure that the carrying amount is appropriate:
  - Verify the rate used to calculate the present value of the cash flows expected to be generated from holding the asset by performing market research, to obtain the appropriate interest rate. Recalculate the present value of the cash flows using that rate.
  - Verify the amount that could be realized by selling the receivables, at the balance sheet date, by confirming the offer with the factoring agency to purchase the receivable for 70 cents on the dollar. Verify whether there were any other conditions related to this offer.

Foreign Currency Forward Contract

- Obtain a reputable source for daily exchanges rates, such as Bank of Canada. Confirm the exchange rates on December 1, 2022, December 31, 2022, and January 31, 2023.
- Obtain the forward contract that UBI entered into. Verify that the date the contract was entered into was December 1, 2022, and that the contract was to purchase US$500,000 on January 31, 2023, for CA$680,000

- Given that UBI did not designate the transaction as a hedging relationship at inception, confirm the fair market value of the forward contract asset at year end to a reputable source (if available), or compute the fair market value using a pricing model.

For Assessment Opportunity #9 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate provides some audit procedures for the financial reporting issues.

Competent – The candidate provides several audit procedures for the financial reporting issues.

Competent with distinction – The candidate provides several audit procedures for most of the financial reporting issues.

Assessment Opportunity #10 (Depth Opportunity)

The candidate discusses internal control weaknesses in UBI's accounting processes, and provides recommendations for addressing them.

The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
4.1.1	Assesses the entity's risk assessment processes	A	A
4.1.2	Evaluates the information system, including the related processes, using knowledge of data requirements and risk exposures	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.3 Demonstrates skepticism, objectively, due care and persistence when identifying issues
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility
7.1.2 Communicates non-complex financial information logically, clearly, concisely

Control Weaknesses Identified

<u>One ID</u>

Weakness: There is only one login ID for the accounting system. Each employee in the accounting department can both enter and post journal entries. There is no requirement for review or approval.

Implication: If entered journal entries are not reviewed prior to posting, there is a risk that errors made would not be detected. There is also a risk of fraud. For example, if the payables clerk creates a journal entry to establish a payable to a fictitious vendor, the clerk is able to post the entry. When the payable comes due, the amount will be included on a cheque run, and if it is not flagged during the treasury process as suspicious, it will be paid to the fictitious vendor.

Recommendation: Each member of the accounting department needs to have their own user ID. The accounting system should not allow the same user ID to both enter and post journal entries. Therefore, each time a journal entry is entered into the system, a different user is required to review the entry and then post it.

<u>Pre-approved vendor listing</u>

Weakness: There is no pre-approved vendor listing from which purchasing managers are required to order.

Implication: Without a pre-approved list of vendors, there is no assurance of the authenticity of the vendors. There is also potential for the purchasing managers to commit fraud by creating fake orders and making payments to fictitious vendors. This risk is increased with the lack of approval on purchase orders (see below). In addition, the vendors are not scrutinized for quality, and as a result, the company may be missing out on volume discounts or the best pricing.

Recommendation: UBI should establish a list of pre-approved vendors that have a history of high-quality products and timely delivery, and who offer volume discounts. If a new vendor is proposed, it needs to be approved by the plant production manager and either Jessica or Lisa.

Purchase order approval

Weakness: Purchasing managers are not required to receive approval before placing purchase orders.

Implication: As UBI has three purchasing managers, without each understanding what the others are ordering, there may be duplication of orders. If the managers are placing orders for the same item and/or with the same supplier, UBI may have been able to receive a bulk discount, had they aggregated their orders. In addition, the potential exists for the purchasing managers to order materials for their personal use, since no one is approving the purchases.

Recommendation: The plant production manager should approve all purchase orders before they are placed. This will ensure that duplicate orders are not placed, that the materials do not already exist in inventory, that potential bulk discounts can be obtained, and that the materials are required for a legitimate contract (not personal use).

Blank cost coding field and EB field

Weakness: The expense account field and expenditure budget (EB) field are left blank on some of the purchase orders. When this happens, the supplier’s invoice related to the purchase order is downloaded and subsequently posted to a miscellaneous account in the general ledger because the proper expense account and EB code for the specific contract are unknown.

Implication: Costs are coded to miscellaneous accounts, which ultimately could lead to inaccurate financial reporting of the actual expense accounts that these costs relate to. In addition, the cost would not be allocated to the appropriate EB. As Jessica and Lisa use the EBs for annual budgeting and profitability analysis by contract type, accurate materials costing by contract is required for decision making. If they are basing their decisions on incomplete/inaccurate information, their decisions may not be in the best interest of the company.

Recommendation: The accounting system should not allow the expense account and the EB fields to be left blank on the purchase order. Nor should it allow an EB on an invoice to be used that is not associated with the sales contract for which the purchase order was placed (i.e., the vendor invoice can only be posted to an EB if both the purchase order number and the EB code on the invoice match those on the purchase order).

Closing out of EBs

Weakness: There is no control to ensure that the EB is closed out when a contract is complete, and as a result, it is not always done.

Implication: If a purchasing manager is concerned about cost overruns on a contract, they may be tempted to code the costs to an unrelated EB that was left open, which would lead to misstated job costs. If so, Lisa and Jessica would not be able to assess cost control or get an accurate picture of cost per contract and contract type, and ultimately, to accurately budget.

Recommendation: The system should be set up to send a reminder to purchasing managers to close the EB after the contract is completed, which could be based on an expected contract completion date or average contract length. Periodically, the plant production manager and the three purchasing managers should assess the status of all open EBs, and determine whether they should be closed.

Pre-population of order information

Weakness: The purchasing system pre-populates with the previous order information for repeat vendors.

Implication: Pre-populating some of the administrative fields, such as address, phone number, and contact person, can save time and reduce input errors. However, pre-populating fields such as types of materials ordered, cost coding, EB number, and quantity can lead to costly errors (such as incorrect materials ordered), as the purchasing manager may forget to revise these fields. In addition, it may lead to inaccurate budgeting/profitability analysis by contract type if the EB number is not updated. This risk is amplified because no approval is required on purchase orders.

Recommendation: The system should be set up to remove pre-population of any order-specific information. The system should also require a review of the information before the final purchase order is created.

<u>Approval of invoices</u>

Weakness: Invoices are directly downloaded into the accounting system from InvoiceHub, or are manually entered into the accounting system by the payables clerk. For all invoices, the payables clerk does not appear to compare the invoice to purchase orders, or the shipping tickets, or receive approval of the invoice.

Implication: Without approval from the purchasing department or comparison to purchase orders, there is a risk of fraudulent payments or significant errors. UBI may be paying invoices for materials that were not received, or charged at incorrect prices.

Recommendation: The purchasing manager who ordered the materials should be required to approve the invoice in InvoiceHub, or in the accounting system for manual invoices. Then, when the payables clerk sees the approval, they can compare it to the purchase order and select upload. The controller needs to review the package of documents prior to posting the invoice.

For Assessment Opportunity #10 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate discusses some of the internal control weaknesses and makes recommendations.

Competent – The candidate discusses several of the internal control weaknesses and makes recommendations.

Competent with distinction – The candidate discusses most of the internal control weaknesses and makes recommendations.

Assessment Opportunity #11 (Depth Opportunity)

The candidate discusses the risk areas identified in the manual journal entries isolated in the general ledger for the period after the controller retired.

The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
4.3.5	Assess the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.2 Identifies patterns from data analysis
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

The following are risk areas identified in reviewing the isolated manual journal entries:

- In Journal entry 1, the treasury clerk (initials AT) has made entries to costs of sales and inventory, which are not part of the treasury cycle. In Journal entry 11, the payables clerk (initials RJ) has made an entry to cash, which is not part of the payables cycle. This indicates that accounting staff are completing tasks outside of the scope of their jobs. This exposes UBI to risk, if staff are making entries they are not authorized to make, which might lead to errors or fraud in the financial statements.
- Journal entries 3, 6, 7, and 10 indicate that the accounting group is using the prepaid account as a suspense account. Rather than requesting the correct coding, they are entering the invoice into a prepaid account until they receive proper coding, at which point it is corrected. This increases the risk of error, if invoices are not corrected and the prepaid account is not cleared out. Entries may be made and forgotten to be cleared out, in which case, the amount is never reflected in the proper account.
- Journal entry 4 indicates that the accounting group may not understand when an invoice is a prepaid amount. Per the explanation, the clerk recognized that the invoice was for annual insurance; however, they expensed the entire amount of the invoice rather than establishing a prepaid, which would allow for expensing it over the insurance period. This may indicate that certain expense amounts may be overstated, if the cost was for an annual expense.

- Journal entry 8 indicates that the accounting group attempted to reverse an accrual; however, the reversal was entered backwards, thus increasing the expenses and accruals. This may indicate their lack of understanding of accruals, and that they do not know what accruals still remain in the system. In addition, if the issue is a lack of understanding of accrual mechanics, there is a risk that they may have missed booking year-end accruals, or made additional errors in reversing accruals.
- Journal entry 11 indicates that a cheque run was made at the last minute, late on the evening of December 31, 2022. This may indicate that the accounting group wanted to show a lower trade payables balance but may hold the cheques at year end.
- Journal entries 5 and 11 have time stamps that appear to be after regular business hours. Entries made after regular business hours and late in the night can be an indication of fraudulent entries.
- For Journal entry 10, there are no initials in the explanation field. As UBI already has weak controls around data entry (i.e., only one master ID), this demonstrates that the compensating control requiring initials in the explanation field is not working consistently. The risk is that the accounting staff are making entries they are not authorized to make.

It should also be noted that this test only selected manual journal entries over a specific dollar threshold ($50,000). In order to obtain sufficient, appropriate audit evidence over the journal entry process, we would also need to identify what other specific risk factors are present at UBI, and perform tests to address those risks.

For Assessment Opportunity #11 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate discusses some of the risk areas identified in the manual journal entries isolated in the general ledger for the period after the controller retired.

Competent – The candidate discusses several of the risk areas identified in the manual journal entries isolated in the general ledger for the period after the controller retired.

Competent with distinction – The candidate discusses most of the risk areas identified in the manual journal entries isolated in the general ledger for the period after the controller retired.

Assessment Opportunity #12 (Depth Opportunity)
The candidate reviews the audit work performed over the trade payables and accrued liabilities and general and administrative balances, and recommends how to address identified deficiencies.
The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
4.3.5	Assesses the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B	A
4.3.6	Develops appropriate procedures, including Audit Data Analytics (ADA), based on the identified risk of material misstatement	B	A
4.3.7	Performs the work plan	B	A
4.3.8	Evaluates the evidence and results of analysis	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.3 Questions the relevance and tests the quality of information and assumptions in own analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

There are many deficiencies in the audit procedures that the junior associate has performed with respect to the trade payables and accrued liabilities and the general and administrative account balances.

Trade Payables and Accrued Liabilities

The junior has not obtained sufficient appropriate audit evidence for the trade payables and accrued liabilities balance. First, the substantive testing focused only on existence and accuracy. Although this is a risk, the primary risk of material misstatement in trade payables and accrued liabilities is completeness. In addition, the audit work performed over existence and accuracy was not sufficient.

Inquiry

Deficiency: The inquiry with management that the junior performed allowed for a preliminary understanding of the directional change of the trade payables and accrued liabilities balance year over year. However, the explanation received is inadequate as the junior did not receive support for it.

Recommendation: The junior should have, at a minimum, reviewed sales reports for 2021 and 2022 by month, and corroborated the fact that sales dropped in November and December in 2022 compared to the prior year. However, this work alone would not provide sufficient appropriate audit evidence. For the accrued liabilities that were recorded at December 31, 2022, we would request any invoices received subsequent to year end that relate to the accruals booked. From the invoices, we would ensure that the amounts were related to the year ended 2022 and that the accrued amounts are consistent with the invoices. When an invoice has not yet been received for a booked accrual, we should inquire with management, to ensure that the invoice is expected, and what the basis of the estimated amount was. For example, management may indicate that they booked an accrual based on a purchase order for which an invoice had not been received at December 31, 2022. We would obtain the purchase order, to ensure that the amount was related to the year ended December 31, 2022, and that the accrued amount reconciles to the purchase order.

Sample selection

Deficiency: Although the junior took a sample of trade payables to vouch to supporting invoices, to ensure that the items were received in 2022 and the amounts were correct, they did not select the sample appropriately, as the invoices were selected by the payables clerk.

Recommendation: The junior associate should not have used invoices selected by the payables clerk, but should have selected their own sample from the trade payables subledger.

Deficiency: A sample size of two does not appear to be sufficient appropriate audit evidence to support the existence and accuracy of the trade payables balance, which is greater than $5 million.

Recommendation: Based on the balance outstanding and our performance materiality threshold, the junior should have selected an appropriate representative sample of invoices from the listing, and compared each sample to the related source document (the invoice). This would verify the existence and accuracy of the trade payables balance.

Deficiency: It also does not appear that the trade payables balance was agreed to the trade payables subledger, prior to selecting a sample from the trade payables subledger.

Recommendation: The junior should have obtained the aged trade payables listing and agreed the total of the listing to the general ledger, to verify the completeness and accuracy of the listing, prior to selecting a sample. The aging of the listing should have been tested by comparing the date of the invoice and recalculating the days outstanding. As payment terms are net 45 days, invoices greater than 60 days should be investigated through inquiry with management, to determine why they are still outstanding.

Completeness

Deficiency: The primary risk of material misstatement in trade payables and accrued liabilities is completeness, and the procedures performed by the junior did not address this risk.

Recommendation: To test the completeness of the trade payables and accrued liabilities balance, the junior should have performed a search for unrecorded liabilities. This would include obtaining all invoices received subsequent to December 31, 2022, and booked into accounts payables for 2023 (as well as any invoices not yet inputted into the accounting system, if any exist). Based on the date of delivery or service, as shown on the invoice, we would determine whether the invoice was correctly recorded in 2023, or if it should have been included in 2022. Another component of the search for unrecorded liabilities includes obtaining the bank statements for January 1, 2023, to the date of testing in February. Significant disbursements per the statements should have been vouched back to the original invoices. If the date of the service or good provided was December 31, 2022, or prior, per the invoice, the junior should have traced it to the aged accounts payable listing, to ensure that it was recorded as at December 31, 2022.

Deficiency: The junior obtained the breakdown of accrued liabilities by category but did not perform any completeness procedures on these accruals.

Recommendation: The junior should have inquired with management about the nature of each year-end accrual and the reason for the drop in total accruals year over year, and also for each category. Additional tests over the completeness of accruals should have included reviewing the accruals made for the year ended December 31, 2021. If the cost is expected to occur during the year ended December 31, 2022, and has not already been recorded, it should be accrued for at December 31, 2022. For example, there was no accrual made for professional services, whereas during 2021 an accrual of $85,000 was made. The search for unrecorded liabilities discussed above would indicate whether certain amounts should have been accrued for at December 31, 2022.

Deficiency: Based on our review of the manual journal entries (Journal entry 11), it appears that cheques were generated prior to the year-end date and held by UBI.

Recommendation: The junior should have inquired with management about whether cheques were generated and held at the year-end date. The amount of such a cheque would not appear on the trades payable subledger, but would not have been paid at year end, and therefore should be included in accounts payable. If cheques were held, an adjustment is required to debit the cash balance and credit the trade payables balance, to reflect these cheques.

General and Administrative Expenses

Again, the junior has not obtained sufficient appropriate audit evidence for general and administrative expenses. The substantive testing was once again focused only on occurrence and accuracy, and the completeness assertion was not adequately addressed. There were also deficiencies in the actual testing performed. In addition, we should obtain a copy of the working paper where the junior documented each sample, to ensure that all testing was completed appropriately, as the current information only summarizes the overall results.

<u>Payroll</u>

Deficiency: The junior only tested the payroll from September to December. This tests the occurrence and accuracy for only a portion of the year.

Recommendation: Based on the junior's methodology of randomly sampling the remaining untested general and administrative balance, the payroll expense from January to August should have been included as part of the sample population, which would increase the random sample size. Alternatively, the payroll test should have been performed from January to August as well; the nature of the payroll test would have been more relevant than subjecting payroll transactions to an expenses test.

Deficiency: The payroll test itself only proves that the recorded payroll expense agrees to what was paid by QBS. Additional procedures should be performed, to assess the completeness and accuracy of the information provided by QBS.

Recommendation: A random sample of payroll transactions should have been selected and compared to approved time records and wage rates, to prove that employees actually worked to earn the wages they received and that their wage rates were accurate. In addition, as the test relies on payroll reports from QBS, we need to obtain a Type 2 report from QBS, under CSAE 3416 *Reporting on Controls at a Service Organization*, to provide evidence regarding the operating effectiveness of controls at QBS. We must read the report and identify whether there were any exceptions noted in QBS's controls during the year. We also need to test UBI's controls over providing QBS with the relevant information for the purpose of processing payroll, also known as "user entity controls."

Issues identified

Deficiency: The junior found issues with three of the 45 items tested. No further work over these issues was performed because each amount was considered immaterial and/or the staff explanation was determined to be reasonable. However, when errors are found in sampling, additional work must be performed because the sample is considered representative of the entire general and administrative population, unless additional testing shows these to be isolated errors.

Recommendation: The first issue found, related to a cut-off error, and the third issue, related to an incorrect amount recorded, are clear errors. These need to be discussed with management, to determine whether they are systemic or isolated. If these errors are believed to be isolated, additional testing is required to confirm this assessment. If such errors are systemic, they should be extrapolated over the whole population subject to testing. The second issue found included missing supporting documentation, and the junior used credit card statements as support, but this is insufficient audit evidence. The credit card statements do not clearly indicate the nature of the cost or that it pertained to UBI business. Further work should have been performed on this, such as corroborating the payables clerk's claim by discussing the trip with the production managers.

Completeness

Deficiency: The substantive testing performed on the general and administrative expenses was once again focused only on occurrence and accuracy, and the completeness assertion was not adequately addressed.

Recommendation: To obtain sufficient appropriate audit evidence over this assertion, the junior should have performed the search for unrecorded liabilities, as referenced above. This would indicate whether there were any unrecorded general and administrative expenses, among other classes of expenses.

Risk from Manual Journal Entries

The risks identified from the manual journal entries isolated (as discussed above) indicate that there may be additional risks related to these accounts, given that some of the risks are related to expense items (e.g., prepaids, cost of sales, etc.). Additional testing should be performed on these accounts for transactions occurring since the controller left.

For Assessment Opportunity #12 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate identifies some of the deficiencies in the audit work performed over the trade payables and accrued liabilities and the general and administrative balances, and recommends how to address them.

Competent – The candidate identifies several of the deficiencies in the audit work performed over the trade payables and accrued liabilities and the general and administrative balances, and recommends how to address them.

Competent with distinction – The candidate identifies most of the deficiencies in the audit work performed over the trade payables and accrued liabilities and the general and administrative balances, and recommends how to address them.

Assessment Opportunity #13 (Depth Opportunity)

The candidate recommends audit procedures for the statements regarding UBI's environmental sustainability initiatives.

The candidate demonstrates competence in the Assurance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
4.3.2	Assesses which set of criteria to apply to the subject matter being evaluated	B	A
4.3.5	Assesses the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B	A
4.3.6	Develops appropriate procedures, including Audit Data Analytics (ADA), based on the identified risk of material misstatement	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Jessica plans to include some statements regarding environmental sustainability initiatives on UBI's website, and would like these statements to be independently verified. Several of the statements can be independently verified with procedures; however, others pose more of a challenge. Below, I have described the types of procedures that could be performed on each of the environmental sustainability statements.

1. *In August 2022, UBI created a committee to discuss environmental sustainability objectives and set performance targets. The committee meets quarterly and includes two managers from each of the purchasing and sales departments.*

The existence of the committee can be verified by reviewing the committee meeting minutes. The minutes would be reviewed to confirm the implementation date (August 2022) and to determine how often the committee meets (should be quarterly, per the initiative), and whether the discussion reflects environmental sustainability objectives and the setting of performance targets. We could consider the effectiveness of the committee through the initiatives discussed and whether they are reasonable in the context of the industry and UBI's current operations. We could also assess whether the committee has developed a plan to reach the targets that were set. We could determine if Jessica and Lisa are on the committee, and if not, whether they are provided with updates from the committee, which would indicate that the move toward becoming more sustainable is taken seriously, and updates of progress are required by management. Lastly, the meeting minutes would be reviewed to determine whether two purchasing managers and two sales managers are members of the committee.

2. *UBI reduced packaging waste from 5% of the total packaging materials used in 2021 to 3% in 2022. Of the packaging waste, 2,000 kg were brought to a recycling plant during 2022, versus 1,700 kg during 2021.*

To begin with, we would need to determine the total amount of materials used in packaging during the year. This could be determined by adding the opening inventory of packaging materials to the quantity of packaging materials purchased during the year, less the ending inventory of packaging materials. To test the amount of packaging materials purchased, we could randomly select purchases and vouch the quantity of materials purchased to the invoice from the supplier. We would then require an understanding of how packaging waste is being tracked by UBI. If UBI keeps track of the quantity of packaging wasted, we could randomly select amounts per the listing and trace them to invoices related to the pick-up company, to confirm the amount of waste that was picked up. After this, the proportion of packaging waste to total packaging materials would then be recalculated, to verify if the 3% and 5% waste rates for 2022 and 2021, respectively, are reasonable.

If UBI does not keep track of the amount of packaging waste, this could possibly be derived by taking the total packaging materials and subtracting an estimate of the amount of materials actually used in packaging products. This difference would represent packaging waste. The amount of materials used in packaging products could be estimated by taking the products sold during the year, multiplied by an estimate of the average packaging materials required.

To verify the amount brought to recycling plants, we would obtain the general ledger detailing the recycling costs, and trace each cost back to the original invoice. From the original invoice, the volume brought to the recycling plant could likely be determined. In aggregate, the invoices should total 2,000 kg during 2022 and 1,700 kg during 2021.

3. *At the end of 2021, UBI began an initiative to reduce its water consumption. Total water expenses in 2022 were 6% less than in 2021.*

To verify whether a water conservation initiative commenced in 2021, we would need to discuss with management what formal initiative was put in place to reduce the water consumption. We would obtain documentation of the formal policy, to indicate if there was an initiative.

To determine whether total water expenses fell, we would obtain utilities statements from 2022 and for the same period in 2021. We would consider the completeness of the water statements through obtaining all the statements received from water providers during the respective periods, and verifying that the appropriate statements were included in the calculation. We would need to compare the aggregate water consumption (likely in the units provided per the statement) period over period, to verify that the decrease reflects consumption rather than expense. In addition, we would need to normalize the operations year over year, to determine if the reduction in water use was a true reduction or a function of reduced operations.

The initiative indicates a goal of reduction in consumption, but the 2022 reduction represented by management was a 6% decrease in expenses. UBI should be aware that a decrease in expenses may not be consistent with a reduction in consumption. For example, a decrease in expenses may be due to a decrease in the price per unit of water, rather than in water consumption. UBI should consider whether this statement should be revised to remove references to expenses.

4. *UBI plans to refurbish two pieces of equipment during 2023 and 2024, to reduce carbon emissions by 4%.*

We could not verify the actual refurbishing and reduction in carbon emissions, as these events have not yet happened. However, we could obtain the 2023 capital budget to determine what assets are planned to be refurbished, and if it seems reasonable that the assets could provide a 4% reduction in carbon emissions. Perhaps UBI received a report from the refurbishing company detailing how the emissions would be reduced and to what extent. We may need to engage an environmental engineer, to ensure that the modifications will reduce emissions.

5. *UBI has been effective in encouraging employees to use less paper and to recycle any used paper.*

It would be more difficult to verify this statement. We could review management meeting minutes or other supporting documentation, to determine whether any initiatives have been implemented that would potentially reduce paper usage. We could also determine the amount of paper purchased during the year by obtaining supplier invoices, and then comparing it to the amount purchased during 2021. However, this would assume that the closing paper inventory from 2021 is not being used in 2022, so adjustments may be needed to account for paper in opening and closing inventory. Alternatively, UBI's IT system may track the amount of print jobs that each employee has performed, including the number of pages for each print job. If this is available, the data could be pulled for 2022 and 2021, to calculate if there was a reduction year over year.

To verify if there was an increase in paper recycling between 2022 and 2021, the subledger containing the vendor invoices related to paper recycling pick-up could be obtained. The amount related to paper recycling could be vouched to vendor invoices, and a calculation could be performed, to determine if there was an increase in recycling during 2022 compared to 2021 (normalized to the amount of paper used during the respective year).

For Assessment Opportunity #13 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate recommends audit procedures for some of the statements regarding UBI's environmental sustainability initiatives.

Competent – The candidate recommends audit procedures for several of the statements regarding UBI's environmental sustainability initiatives.

Competent with distinction – The candidate recommends audit procedures for most of the statements regarding UBI's environmental sustainability initiatives.

DAY 2 – MARKING GUIDE – FINANCE ROLE
UNIQUE BOTTLES INC. (UBI)

To: Lisa Finnegan
From: CPA
Subject: UBI requests

See Common Marking Guide for the Common Assessment Opportunities #1 to #6.

Assessment Opportunity #7 (Depth Opportunity)

The candidate identifies the most relevant comparable companies, compares UBI's liquidity and solvency position to them, and recommends improvements.

The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	Elective
5.1.1	Evaluates the entity's financial state	A	A

CPA Map Enabling Competencies:
5.1.3 Develops and uses knowledge of the organization, industry, and stakeholders
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

We must first identify the appropriate comparable companies before assessing UBI's liquidity and solvency position.

Panama Consulting Services (PCS)

UBI and PCS are loosely similar in that both companies operate in Ontario and have businesses operating in the glass and plastic bottles packaging segment. However, PCS is a service company, whereas UBI provides finished goods (packed products and labelling). PCS will have very little inventory and minimal capital assets (excluding land and building). Therefore, liquidity and solvency ratios between these companies will not be comparable. PCS is not a good comparable company.

QuickPack (QP)

UBI and QP are similar in that they both operate in Ontario, have glass bottle packaging divisions selling to food customers, and provide glass and plastic bottles. QP operates in Atlantic Canada, whereas UBI does not. However, given that the two companies' product offerings are similar and there is overlap in location, QP would be a comparable company.

Cleaning Solutions Inc. (CSI)

UBI and CSI are similar in that both companies operate in Ontario and provide plastic bottling services. They are different in that CSI focuses on cleaning products, whereas UBI targets a more diverse customer base (pharmaceuticals and food), and CSI operates in several provinces, while UBI operates only in Ontario. In addition, CSI provides services related to logistics and warehousing for its customers, but UBI does not. Finally, UBI also bottles in customized glass jars and standard glass bottles; CSI does not. Given CSI's product and services offering, it is not a good comparable company.

Containers4U (C4U)

UBI and C4U are similar in that both companies have a presence in Canada and UBI uses the same types of products that C4U supplies. However, whereas UBI is a packaging and labelling company, C4U is a supplier to companies in different industries, including packaging and labelling companies, which would include UBI. Given that there are sufficient similarities, C4U can be considered a comparable company.

Ratio Analysis

UBI should compare its liquidity and solvency ratios to the most comparable companies, which are QP and C4U.

	QP	C4U	QP/C4U Average	UBI	Note
Average collection period	25 days	23 days	24 days	35 days	1
– Adjusted for Lowesons				32 days	1
Days in inventory	31 days	41 days	36 days	76 days	2
Days payable outstanding	28 days	36 days	32 days	62 days	3
Quick ratio	0.88	0.78	0.83	0.36	4
Debt-to-equity ratio	1.00	1.62	1.31	2.62	5
Times interest earned	2.38	2.60	2.49	2. 80	6

<u>Calculation of UBI ratios</u>

1. Average collection period:

Total operating revenue	48,560	**A**
Average accounts receivable [(4,560 + 4,710 + 88 – 62) ÷ 2]	4,648	**B**
Accounts receivable turnover	10.4	**C = A/B**
Average Collection Period		
Days in the period	365	**D**
Accounts receivable turnover	10.4	**C**
Average collection period (days)	34.9	**D/C**

Adjusted for Lowesons:

Average Receivable Turnover		
Total operating revenue (48,560 – 980)	47,580	**A**
Average accounts receivable [(4,560 + 4,710 + 88 – 980) ÷ 2]	4,189	**B**
Accounts receivable turnover	11.4	**C = A/B**
Average Collection Period		
Days in the period	365	**D**
Accounts receivable turnover	11.4	**C**
Average collection period (days)	32.1	**D/C**

2. Days in inventory:

Inventory Turnover		
Cost of goods sold	35,120	**A**
Average inventory [(7,130 + 7,440) ÷ 2]	7,285	**B**
Inventory turnover	4.8	**C = A/B**
Days in Inventory		
Days in the period	365	**D**
Inventory turnover	4.8	**C**
Days in inventory	75.7	**D/C**

3. Days payable outstanding:

Days Payable Outstanding		
Average accounts payable [(5,602 + 6,370) ÷ 2]	5,986	**A**
Cost of sales	35,120	**B**
	0.2	**C = A/B**
Days in period	365	**D**
Days payable outstanding	62.2	**C × D**

4. Quick ratio:

Cash and cash equivalents	80	**A**
Accounts receivable	4,710	**B**
Add: US dollar receivable adj.	88	**C**
Less: Lowesons allowance adj.	(62)	**D**
Less: Lowesons LT portion adj.	(469)	**E**
	4,346	**F = SUM (A:E)**
Current liabilities	11,972	**G**
Quick ratio	0.36	**F/G**

5. Debt-to-equity ratio:

Total liabilities	19,572	**A**
Total equity, unadjusted	7,728	**B**
Less: Design costs – PPI contract	(240)	**C**
Less: Training expense	(40)	**D**
Add: US dollar receivable adj.	88	**E**
Less: Lowesons allowance adj.	(62)	**F**
Total equity	7,474	**G = SUM (B:F)**
Debt-to-equity	2.62	**A/G**

6. Times interest earned:

EBIT unadjusted	2,783	**A**
Less: Design costs – PPI contract	(240)	**B**
Less: Training expense	(40)	**C**
Add: US dollar receivable adj.	88	**D**
Less: Lowesons allowance adj.	(62)	**E**
EBIT adjusted	2,529	**F = SUM (A:E)**
Interest expense	903	**G**
Times interest earned	2.80	**F/G**

Average Collection Period

UBI is collecting from customers at a slower pace than QP and C4U. This is in part due to there being an amount owing from Lowesons at year end of $980,000, which increases the collection period. If this amount is excluded from both the receivable balance and the sales, the average collection period would be reduced from 35 days to 32 days, which would bring UBI closer to the credit terms extended to its customers of net 30.

QP and C4U may have more restrictive credit terms and shorter payment terms for their customers, perhaps due to wanting or needing to collect quicker, to manage their cash cycles.

Considering the above, it appears that UBI is collecting its receivables within a reasonable time period, and more quickly than its payment term to suppliers of 45 days.

Days in Inventory

UBI's days in inventory is 76 days, which is longer than QP's and C4U's average of 36 days. This indicates that UBI is holding more inventory compared to QP and C4U, suggesting that UBI is manufacturing and/or purchasing inventory but not selling it right away, or holding it longer than the other companies. This could be caused by UBI purchasing additional plastic bottle inventory to stockpile, anticipating further supply chain issues in the short-term, based on current supply constraints and inventory shortages. It could also be caused by manufacturing a surplus amount of the standard glass bottles, to ensure that they are on hand when customers need them filled, since orders fluctuate over the year, based on variability of contracts. Although sales have declined by $3 million in 2022, there has been an increase in inventory levels, which is a concern.

It is recommended that UBI evaluate its production schedules, given the recent decline in sales, and determine what amount of inventory is appropriate to keep on hand. Having longer days in inventory may require UBI to delay payments to suppliers or draw on the line of credit, due to the lower inventory turnover tying up cash.

Days Payable Outstanding

UBI's days payable outstanding is 62 days, which is higher than QP's and C4U's average of 32 days. It appears that UBI is delaying its payments to conserve cash and finance its inventory buildup. If UBI does not pay its suppliers on time, it risks losing its current credit terms (currently 45 days), and could negatively affect its relationship with its suppliers. UBI must raise some cash in order to repay its suppliers on time.

Quick Ratio

UBI's quick ratio of 0.36 is significantly lower than QP's and C4U's average quick ratio of 0.83. This indicates that UBI has a worse liquidity position than QP and C4U. UBI has a higher risk of not being able to satisfy its current obligations as they come due. The quick ratio is driven by a low cash balance at year end, a large accounts payable balance (as discussed above), and significant borrowing on its line of credit (although it is decreasing). UBI should investigate ways to reduce its purchases, to be more aligned with production schedules, given the variability of UBI. Additionally, UBI should seek alternative long-term borrowing and use the cash to pay down its line of credit and pay off its later supplier payables, as it appears that UBI is over-levered, as discussed below (debt-to-equity ratio).

Debt-to-Equity Ratio

UBI's debt-to-equity ratio is 2.62, which is higher than QP's and C4U's average of 1.31, indicating that UBI is more highly levered. UBI is currently experiencing a cash deficiency, and has investment opportunities that require a cash outlay (royalty agreement, joint venture, and Pine Bluffs). It is not clear if UBI has the debt capacity to take on some of these investments.

Times Interest Earned

UBI's times interest earned is 2.80, compared to QP's and C4U's average of 2.49, indicating that UBI is in a stronger position to satisfy interest payments due on its debt from its operating earnings. This is despite UBI's higher debt-to-equity ratio, indicating that UBI might be funded differently than QP and C4U, and generates sufficient income to support its debt, or that it has debt at lower interest rates. This indicates that UBI may have the capacity to make increased interest payments, which indicates that it may have the ability to take on additional debt to support the investment opportunities.

Conclusion

UBI appears to have a poor liquidity position but can take steps to improve it. While UBI has a strong solvency position, it may not be optimizing its use of financing.

UBI's cash cycle is long, at 49 days (35 + 76 – 62), which must be financed. UBI should strive to manage its cash cycle by reducing the amount of inventory on hand (by reducing purchases or aligning production schedules with anticipated sales). Moreover, based on the days payable outstanding, UBI does not have the cash on hand to pay its suppliers within the agreed-upon terms. Additionally, UBI is overborrowing on its line of credit. UBI should investigate alternative long-term borrowing, to both enhance its liquidity position and leverage itself appropriately, in order to pursue the investment opportunities presented.

For Assessment Opportunity #7 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to assess UBI's liquidity and solvency position.

Competent – The candidate selects relevant comparable companies, provides a reasonable assessment of UBI's liquidity and solvency position, and provides recommendations on how to improve UBI's position.

Competent with distinction – The candidate selects relevant comparable companies, provides a thorough assessment of UBI's liquidity and solvency position, and provides recommendations on how to improve UBI's position.

Assessment Opportunity #8 (Depth Opportunity)

The candidate assesses the financial risk program and recommends improvements.

The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
5.5.1	Develops or evaluates financial risk management policies	B	A
5.5.2	Analyzes the use of derivatives as a form of financial risk management	C	B

CPA Map Enabling Competencies:
3.4.4. Communicates with appropriate stakeholders about progress and whether objectives are being achieved
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

International Customers and Hedging

Weakness/Risk: UBI settles with international customers at the daily spot rate on the day the customer pays their account.

Implication: Currently, 18% of UBI's sales are from customers that pay in US dollars. This is significantly higher than the 2% noted in 2017, when the Financial Risk Management Program (FRP) was updated. With this higher percentage, UBI is much more exposed to exchange rate fluctuations that could result in large foreign exchange gains or losses.

Recommendation: UBI could enter a foreign exchange forward contract, where it would receive a fixed number of CAD for a fixed number of USD. When UBI makes a sale to US customers and receives USD, it can settle its forward contract with USD and receive CAD. Alternatively, UBI could negotiate with customers that all sales will be settled in CAD at an agreed-upon CAD-to-USD foreign exchange rate.

In addition, if the company also purchases in USD, then there is a natural hedge, and only the excess is exposed to foreign exchange risk.

Procurement

Weakness/Risk: UBI purchases a portion of its inventory at market price.

Implication: If input prices rise, UBI will have a higher cost of sales and lower gross profits, particularly if, to remain competitive, it cannot pass these increased costs to its customers.

Recommendation: Given the forecasted increase in the cost of plastic bottles, UBI should negotiate contracts for a longer term than a single year. If possible, the contract should also allow for a range rather than a set volume, which would reduce the volume that UBI purchases at uncertain prices. In 2017, this was noted as being 45% of the time. The current percentage is not known, and could be more or less. By locking in a fixed price for plastic bottles, UBI reduces its risk of paying much higher market prices, which is possible right now because of market conditions (prices are expected to go up over the next three years). A longer-term contract also better protects against running out of inventory, which is a possibility, due to the supply chain shortages being experienced. However, as UBI is looking to reduce plastic, it may be willing to lock in a lower volume, in case it is able to shift more customers toward glass.

Alternatively, UBI may want to consider the joint venture with Blue Planet Materials Inc. (BPM), or seek a similar arrangement with another plastic bottle supplier, since it wants to reduce waste and needs to do so to avoid losing customers. In addition, UBI may be making purchases that are not in Canadian dollars (i.e., it could be importing plastic bottles manufactured in Asia). Therefore, UBI may also consider entering into a foreign exchange contract, or it could negotiate with suppliers to settle purchases in CAD at a fixed exchange rate, to reduce exchange rate risk.

Borrowing

Weakness/Risk: 65% of UBI's debt is short-term and variable-rate debt, which, under its current borrowing, comes from the line of credit.

Implication: If the overnight lending rates rise, the interest rate on UBI's line of credit will also rise, increasing overall interest expense and cash outflows. Currently, the prime lending rate is 4%; however, this is expected to increase to 6.25% over the next 24 months. Using 2022's line-of-credit balance, an interest rate increase of 2.25% would increase interest expense by $141,750 ((6.25% – 4.00%) × $6,300,000), which will likely be a surprise to the board.

Recommendation: UBI should lower the proportion of debt being funded with the line of credit and prioritize a shift to fixed-rate debt, so it can better predict its future cash outflow obligations. This can be accomplished several ways. First, as cash becomes available from operations, UBI could use the cash to pay back its line of credit. Second, UBI sales and production appear to be variable. Therefore, UBI needs to determine its lowest draw on the line of credit throughout the year, and shift this to long-term debt. This will leave a portion of the short-term debt with its variable rate, fluctuating as needed during the year, and the remaining amount will be financed with long-term debt, where the interest rate is fixed and known for the term of the loan. This will reduce the company's interest rate risk during these times of increasing interest rates.

Policy Update

The FRP is an important tool for managing UBI's financial risk. However, for it to be an effective tool, it needs to be regularly reviewed and evaluated against emerging trends. As the FRP was last updated in 2017, it is very outdated and not reflective of current risks, and is therefore not managing UBI's financial risks effectively. UBI should set a board policy requiring the yearly review of the FRP.

For Assessment Opportunity #8 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to assess the financial risk program.

Competent – The candidate assesses the financial risk program and recommends improvements.

Competent with distinction – The candidate thoroughly assesses the financial risk program, recommends improvements, and recognizes that the financial risk program requires regular monitoring for it to be effective.

Assessment Opportunity #9 (Depth Opportunity)

The candidate assesses, from a quantitative and qualitative perspective, the royalty agreement with BPM.

The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
5.3.1	Develops or evaluates capital budgeting processes and decisions	B	A
5.6.1	Evaluates the purchase, expansion, or sale of a business	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Incremental Analysis
(in thousands of dollars)

Gross profit with royalty agreement:		**2023**	**2024**	**2025**	**2026**	**2027**	**Note**
Sales			16,254	17,229	18,263	19,359	1
Cost of sales			10,890	11,543	12,236	12,971	2
Gross profit with royalty agreement			5,364	5,686	6,027	6,388	2
Gross profit without royalty agreement:							
Sales			14,900	14,751	14,603	14,457	3
Cost of sales			10,728	10,621	10,514	10,409	4
Gross profit without royalty agreement			4,172	4,130	4,089	4,048	4
Incremental gross profit from royalty agreement			1,192	1,556	1,938	2,340	
Expenses and other items							
Royalties 0.5% of gross sales			(81)	(86)	(91)	(97)	5
Marketing campaign for new bottles			(50)	(50)	(50)	(50)	6
Additional training			(200)				7
One-time receipt from BPM to UBI (revenue)			0	0	0	500	8
Earnings before taxes			861	1,420	1,797	2,693	
Income taxes (26.5%)			228	376	476	714	9
Cash flows			633	1,044	1,321	1,979	
Less: Retrofit equipment		(1,400)					
Less: One-time penalty for terminating contract, net of tax		(206)					10
Add: Net present value of tax shield		319					11
Total cash flows		(1,287)	633	1,044	1,321	1,979	
PV Factor (discount rate = 11%)		1.0000	0.9492	0.8551	0.7704	0.6940	12
Discounted cash flows		(1,287)	601	893	1,018	1,373	
Net present value	**$ 2,597**						

Notes:

1. 2024 is $16,254. Annual increase of 6% thereafter.
2. Based on Plastic Bottle division gross profit margin of 28% plus 5% = 33%.
3. 2022 sales from plastic bottles were $15,050. The first year of sales is $15,050 × (1 – 1%) = $14,900. Decrease of 1% each year thereafter.
4. Based on gross profit margin of 28%, as provided in the case.
5. Royalties are based on total plastic bottle sales, not just incremental sales:

Year	Total Revenues	Royalties (0.5%)
2024	$16,254	$81
2025	$17,229	$86
2026	$18,263	$91
2027	$19,359	$97

6. Marketing expenses will increase by $50,000, and are the only relevant costs in evaluating this agreement.
7. $200,000 in first year only.
8. Based on forecasted increases to plastic bottle sales, the milestone of $18 million in annual sales will be achieved 3.5 years from now. Therefore, the one-time bonus payment of $500,000 will be paid approximately 4.5 years from now.
9. Effective tax rate for 2022 and 2021 is assumed to 26.5%, as all incremental income will be above the Small Business Deduction amount.
10. $280,000 × (1 – 26.5% tax rate).
11. As retrofitted equipment qualifies under CCA Class 53, the calculation of the tax shield is as follows: C = 1,400, T = 26.5%, k = 11%, d = 50%.

   Present value of total tax shield from CCA for a new asset acquired after November 20, 2018:

$$= \frac{CdT}{(d+k)}\left(\frac{1+1.5k}{1+k}\right)$$

12. Hurdle rate of 11%. Assumed cash flows from the sale of plastic bottles would be earned evenly throughout the year.

Advantages

- Customers are demanding more sustainable materials, and BPM provides plastic bottles that are sustainable (i.e., biodegradable) and produce less waste. UBI needs to transition to using these materials, to retain current customers that are threatening to leave.

- BPM will supply 100% of UBI's plastic bottles. This mitigates the risk of UBI having to procure plastic bottles with increasing input costs, and helps address the greater uncertainty of supply chains.

Disadvantages

- The success of the agreement is based on estimates and other assumptions that may not materialize. As an example, the forecast suggests that UBI will grow its sales year over year, despite having experienced a decrease in sales from 2021 to 2022.
- UBI is required to pay $1.4 million up front to retrofit the equipment, and pay a penalty for terminating its existing supplier contract. UBI does not have sufficient cash to pay for this, and will have to rely on debt financing.
- Having a single supplier (BPM) places significant reliance on BPM to fulfil UBI's requirements. If BPM has to slow down its production for any reason or becomes insolvent, it would affect UBI's ability to provide bottles to its customers.

For Assessment Opportunity #9 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to assess the royalty agreement from a quantitative and qualitative perspective.

Competent – The candidate assesses the royalty agreement from a quantitative and qualitative perspective.

Competent with distinction – The candidate thoroughly assesses the royalty agreement from a quantitative and qualitative perspective.

Assessment Opportunity #10 (Depth Opportunity)

The candidate qualitatively assesses the proposed joint venture with BPM.

The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	Elective
5.3.1	Develops or evaluates capital budgeting processes and decisions	B	A
5.6.1	Evaluates the purchase, expansion, or sale of a business	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

There are several factors that UBI should consider relative to the proposed joint venture (JV).

Advantages to JV Proposal

- The JV will have an expert management team selected by BPM. BPM uses emerging technologies. Therefore, using a related team to guide the JV operations may translate into better commercial success for the JV, and for any expansion plans than UBI could have achieved on its own.
- BPM will fund $1 million of the upfront costs, which reduces the amount UBI needs to raise to take on this project. Given UBI's current cash position, this may help to get this project running.
- The JV structure provides UBI with some intangible benefits. BPM is committing to offer new plastic bottle products to UBI first, which could represent additional opportunities for UBI. However, it is not clear if any new opportunities need to be part of the JV or if UBI can acquire such products on its own.
- There are opportunities for UBI and BPM to collaborate on other products, which could result in additional gross profits being generated for UBI.
- One of UBI's concerns with having all plastic bottles supplied by BPM is that, if BPM goes bankrupt, UBI will have invested significantly in the equipment and may need to retrofit it to work with another supplier's bottles. By having access to the technology for a nominal fee, UBI could set up a plastic bottle production line and maintain its plastic bottle production.

Disadvantages of JV Proposal

UBI will contribute the same dollar amount ($1 million) to the JV as BPM but will also contribute its equipment (receiving rent only for the use of the building), whereas BPM will not contribute other assets. However, UBI will only receive 30% of the shares, and therefore 30% of the distributions, which will decrease its return on the investment.

- As UBI only owns 30% of the shares, BPM controls the direction and decisions for the JV. As a result, the JV could take a direction or make financial decisions that are disadvantageous for UBI. UBI and BPM should have an equal number of shares of the JV for it to be a true joint venture, and to reflect each party's monetary contribution.
- UBI has never worked with BPM before. There may be conflicts in the objectives of each
(i.e., UBI may want to expand its product offering just in Ontario, whereas BPM may want to expand geographically). Differing views will need to be resolved if key strategic decisions are to be made, but BPM's controlling position may make it challenging for UBI to make strategic decisions in its best interest.
- Although BPM is providing a management team, they are charging a management fee, whereas UBI is providing a building and equipment and only charging rent on the building (equipment will be owned by the JV). Therefore, BPM appears to be getting more financial return from its direct contribution to the JV.
- If UBI or BPM want to exit the JV, the exit price will need to be negotiated. However, it may be difficult to value the ownership of each party. Rather than risking an unfavourable ruling at arbitration, it may be prudent for Lisa to negotiate a prescribed formula as part of the agreement for the exit price.
- If a cash injection is required, both parties will need to contribute. As UBI has limited cash on hand, it would either need to obtain additional debt financing or allow BPM to have a larger proportion of ownership.

Recommendation

There are many disadvantages in working with BPM in a JV. The primary disadvantages are financial (the uneven share distribution) and UBI's lack of experience working with BPM. There are potential advantages related to intangible considerations (BPM offering UBI products first, collaboration on additional opportunities), but these will not necessarily generate future returns. In the meantime, UBI's returns are constrained by its share ownership. Therefore, UBI should enter into a royalty agreement with BPM rather than the JV. If the royalty agreement works out, UBI could discuss a JV agreement with BPM.

For Assessment Opportunity #10 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts a qualitative assessment of the JV.

Competent – The candidate provides a qualitative assessment of the JV.

Competent with distinction – The candidate provides an in-depth qualitative assessment of the JV.

Assessment Opportunity #11 (Depth Opportunity)

The candidate discusses the Pine Bluffs financial forecast, including how the assumptions used impact the offer price.

The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
5.4.2	Applies appropriate methods to estimate the value of a business	B	A
5.6.1	Evaluates the purchase, expansion, or sale of a business	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.1.3. Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.2.3 Questions the relevance and tests the quality of information and assumptions in own analyses
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

I have identified issues with several of the assumptions used by Bella in the $16 million proposed price.

Sales

Projected sales appear overly optimistic, for two reasons. First, it is projected that sales would reach nearly $6 million, which represents a 6.5% annual increase from the period of 2022 to 2024. Moreover, from 2024 onwards, sales are projected to grow by 12% per year, which is much higher than the historical year-over-year growth from 2021 to 2022 of 2% ($5.2 million to $5.3 million). Second, Bella does not appear to have factored in the loss of a major customer in January 2023, which represents 15% of sales. She may have assumed that Pine Bluffs can quickly replace the contract, but has not explained how or why. Further, it is not clear why this customer cancelled their contract; it could indicate additional expected cancellations, and should therefore be investigated.

By assuming higher revenues (higher growth, no consideration of lost contract), Bella is inflating cash inflows and the offer price. I recommend reducing the 2022 revenues by the 15% lost revenues, and increasing future revenues by 2% each year, consistent with historical growth.

Cost of Sales

The gross margin in the forecast is expected to increase to 32%, and improve by 2% per year, before levelling out at 36% in 2026 and onwards. It appears that the projected cost of sales may be too low. No explanation is provided to support the change from the historical rate. Based on the historical information provided, gross margin was approximately 25% in both 2022 and 2021 ([($5.3 – $4.0) ÷ $5.3] and [($5.2 – $3.9) ÷ $5.2]).

By reducing the cost of sales, Bella is inflating the offer price. I recommend that the historical gross margin of 25% be used for each year, and the cost of sales estimates be increased to reflect this.

Selling and Marketing Costs

Projected selling and marketing costs appear too low: they are decreasing from 2024 onwards. However, a decrease in selling and marketing costs is inconsistent with the trend of increasing sales. That is, as sales are expected to increase, so too should selling and marketing costs, given that they are required in order to maintain current customers, according to the forecast note made by Bella. Moreover, as Pine Bluffs lost a major customer in 2023, it would be reasonable to assume that it would need to incur additional selling and marketing expenses, to secure new customers.

By reducing the marketing costs, Bella is deflating the amount of cash outflows and inflating the offer price. I recommend increasing sales and marketing costs at the same rate as the growth in sales.

Management Bonuses

Management bonuses have not been included from 2024 onwards, despite information that they are likely to continue in the future.

By not including a cash outflow in future years, Bella is understating the cash outflows and inflating the offer price. I recommend that an estimate of $0.5 million be used in each year, as an estimate, since this is the amount that has been paid out in the last two years.

Capital Expenditures

Capital expenditures have not been included as future cash outflows. Bella correctly reduces amortization for calculating income before taxes, and correctly adds amortization back to cash flows, as amortization is a non-cash expense. However, the amount that Pine Bluffs spends in capital expenditures is a cash outlay.

Bella is understating the cash outflows by excluding the amount of capital expenditures in the year that they occur, which inflates the offer price. I recommend that a cash outlay equal to at least that of amortization be included for each year.

Capitalization Rate

The capitalization rate assumes a growth rate of 3%, although the metal can packaging segment is projected to have only 1% long-term growth. Given that the capitalization rate on the terminal value is calculated as 1 ÷ (discount rate – growth rate), a higher growth rate will reduce the denominator, which will increase the capitalization rate, which in turn will increase the discounted cash flows from the terminal value, thereby inflating the offer price.

I recommend using the lower growth rate of 1% to reflect that the growth of Pine Bluffs will be based on the long-term growth of the metal can packaging segment, since Pine Bluffs solely specializes in metal can packaging. A lower growth rate will decrease the capitalization rate, which will decrease the valuation of Pine Bluffs.

Working Capital

To determine the equity value of Pine Bluffs, it would be important to know if any changes in net working capital are required, if there are any redundant assets (such as excess cash or excess working capital), and what the market value of long-term debt is at the transaction closing date. As we have not been provided with this information, we cannot determine whether the offer price should be increased or decreased as a result of these. However, I recommend obtaining estimates if we plan to provide a counter-offer in the future.

Recommendation

It appears that many assumptions used in the discounted cash flow have resulted in an offer price that is unjustly high. Therefore, if UBI were to put in a counter-offer, I recommend it be for an amount considerably lower than $16 million. If UBI is interested in making a counter-offer, it should perform its own due diligence on the forecasts and assumptions, particularly those surrounding the discount rate and constant future growth rate, as these have a significant impact on the valuation of Pine Bluffs.

For Assessment Opportunity #11 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss some of the assumptions used and the impact on the offer price.

Competent – The candidate discusses some of the assumptions used and the impact on the offer price, and provides a recommendation.

Competent with distinction – The candidate discusses several of the assumptions used and the impact on the offer price, and provides a recommendation.

Assessment Opportunity #12 (Depth Opportunity)
The candidate discusses different valuation approaches that can be used to support the price of the RoboCarton machine, and suggests a counter-offer price.
The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
5.4.1	Determines the value of a tangible asset	B	A

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Market-based Approach

The RoboCarton machine that recently sold for $650,000 (including shipping, although the location to which this machine was shipped is unknown) is very similar to the machine that Lisa wishes to purchase, in that both produce five cartons per minute, have shipping costs included, and have installation costs excluded. The minor difference is that this second machine was built 18 months ago, whereas the machine Lisa wishes to purchase was built 24 months ago. Given the similarities, this machine provides a relevant data point for negotiating a price.

Regarding the used machines that are similar to the RoboCarton, several differences make them hard to compare to the machine Lisa wants to purchase:

- The first machine is slightly newer and more efficient than the RoboCarton but still relatively comparable. However, the machine appears to have been heavily customized for the original buyer. It is possible that UBI would need to pay a significant amount for reconfiguration and installation, over and above the $800,000 purchase price. Therefore, it is difficult to compare the $800,000 price to the price of the used RoboCarton being considered.
- The second machine is somewhat less comparable in that it is older and less efficient than the RoboCarton. Additionally, the price does not include the cost of shipping. Given that the seller is based in Europe, UBI would likely have to pay significantly more for the shipping costs than for a machine purchased in Canada. There would likely still be installation costs, which would need to be considered. Therefore, it is difficult to compare the $445,000 price to the price of the used RoboCarton being considered.

Replacement-cost Approach

The replacement-cost approach assumes that a potential buyer would value a machine equal to the cost of constructing an equivalent machine. Lisa believes that UBI can produce a machine in-house with similar specifications to a RoboCarton. Based on the direct materials, internal labour, consultants, and the testing required, UBI would incur a total of $800,000 to build an equivalent machine. However, there would be significant risks to UBI manufacturing the machine, as it does not have the expertise to do so. Therefore, the replacement cost of $800,000 may not be a valid point of comparison, although Lisa should look into whether a third-party manufacturer with experience building machines to spec could replicate the machine for $800,000, which would be a more valid comparison point.

		Note
Direct materials	$310,000	
Internal labour	155,000	1
Consultants	260,000	
Testing	75,000	2
	$800,000	

Notes:

1. 50% of direct materials
2. 3 days × $25,000/day

Income-based Approach

UBI's estimate of the after-tax cash flows of the RoboCarton is relevant in determining a fair value based on an income-based approach. Using this approach, the value is calculated using the cash flows attributable to the RoboCarton, and discounting these cash flows at a discount rate appropriate for the riskiness of using the RoboCarton at UBI. Using the expected net after-tax cash flows of $120,000, a used RoboCarton would be valued at $640,191 (I/Y = 10%, NPER = 8, PMT = $120,000). Given that UBI does not have experience using this type of specialized machine, the estimates used should be questioned, but this could be used as a secondary approach. As an example, the estimate of $640,191 could be used to assess the reasonability of a primary approach, such as a market-based approach.

Conclusion

Since IHE's second machine is very similar to the machine that Lisa wants to purchase (i.e., both machines produce cartons at the same rate, have shipping costs included, and have installation costs excluded), it is the best comparable from those being considered above. Since IHE's second machine is six months newer, it is recommended that Lisa offer an amount slightly lower than $650,000, such as $600,000.

For Assessment Opportunity #12 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss different valuation approaches to assess the price of the used RoboCarton machine.

Competent – The candidate discusses some of the different valuation approaches to assess the price of the used RoboCarton machine, and provides a counter-offer.

Competent with distinction – The candidate discusses several of the different valuation approaches to assess the price of the used RoboCarton machine, and provides a well-supported counter-offer.

Assessment Opportunity #13 (Depth Opportunity)

The candidate evaluates the short-term financing options and provides a recommendation.

The candidate demonstrates competence in the Finance role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	Elective
5.2.3	Evaluates sources of financing	B	A

CPA Map Enabling Competencies:

6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

To fund the purchase and installation of the machine ($600,000 estimated offer price + $100,000 installation costs), UBI will need an estimated $700,000 in funding, a portion of which could be available through existing term-loan and line-of-credit facilities. However, I have assumed that the entire amount needs to be funded through the following new, short-term financing options.

Sapphire Credit Union (SCU)

As the loan amounts are only offered in $200,000 increments, the loan size would either be $600,000 or $800,000, even if UBI only needs $700,000. Assuming an effective annual interest rate of 6.1%, which stays consistent for the year at each renewal period (every 90 days), total interest paid over one year would be $48,800 ($800,000 × 6.1%).

<u>Advantages</u>

- SCU has a term of only 90 days and provides more flexibility than KLP, which is a one-year fixed term. If UBI chooses to explore other financing options after 90 days, it could do so under this option.
- SCU can provide a loan large enough to service the cash requirement because no maximum is stated.
- At current interest rates, SCU is the cheapest option. UBI may pay less interest if the loan is required for a shorter period.

- Interest payments are due at the end of the 90-day term, which requires less frequent cash outlays as compared to KLP. This is an attractive feature, since UBI is facing challenges managing its cash balance.

Disadvantages

- The macroeconomic landscape is signalling that interest rates will increase in the short term and that prime is expected to hit 6.25% within 24 months. Therefore, if UBI needs to renew its loan with SCU, it would likely be doing so at higher rates.
- UBI requires $700,000 but may have to borrow $800,000, given the sizing of loans that SCU offers (assuming the full $700,000 is financed). In this case, UBI would be paying extra interest of $6,100 over one year ($800,000 – $700,000 = $100,000 × 6.1%).
- SCU requires a personal guarantee from all voting directors. Jessica and Lisa would need to both provide personal guarantees. Additionally, if Callum does not retract his preferred shares, he will also need to provide a personal guarantee. This would mean putting their personal assets at risk.

Keepsafe Lending Partners (KLP)

UBI could borrow only the amount required, which is the estimated $700,000. The interest payable over one year would total $61,600 ($700,000 × 8.8%).

Advantages

- KLP can provide a loan large enough to service the cash requirement, as the maximum amount of the loan is high ($5 million).
- KLP can lend in exact increments, so UBI would not pay for interest on a principal balance it does not require (compared to SCU).
- The interest rate is fixed and will not increase during the term; therefore, the amount of interest paid is known.
- This provides a cheaper option than TAC (selling A/R), which has an effective interest rate of 30%.

Disadvantages

- KLP is less flexible, as it requires a one-year fixed term, whereas SCU only requires 90 days and TAC has no term.
- If UBI wanted to repay the loan early, the penalty for doing so would be prohibitive (25% of the principal outstanding), particularly given the short maturity for the loan.
- Interest payments are made monthly, which requires more frequent cash outlays. UBI may face challenges servicing the interest payments.

Trusty Andy's Collections (TAC)

UBI would receive proceeds of $630,000 from selling its receivables ($900,000 × 70%). The "expense" of selling receivables to TAC is equal to ($900,000 – $630,000) = $270,000 (before considering any reduction in bad debt expense). This is an effective interest rate of 30%. The additional $70,000 required would need to be funded in some other way.

Advantages

- There is no re-occurring cash outlay (i.e., no interest payments). This is a significant advantage, since UBI is having challenges managing its cash balance (based on the cash budget prepared in the Common section).
- TAC provides the most flexibility because there is no term; once the transaction occurs, there is no obligation between UBI and TAC for future transactions.
- TAC assumes the collection risk on all the receivables it purchases. Any bad debts from the contracts sold would be borne by TAC.
- UBI may be able to sell additional receivables in the future if it requires a cash infusion.

Disadvantages

- By itself, TAC is unable to fund the total cash requirement of $700,000; therefore, UBI will also need to borrow elsewhere. However, given that the other proposed lenders have loan minimums, this may not be possible. The balance may have to be funded with the line of credit.
- This is the most expensive option, with an effective interest rate of 30% (to sell at 70% of face value).
- TAC is not willing to take on contracts that are more likely to default (accounts over 120 days); therefore, UBI would be selling receivables that are more certain to be collected, and yet is paying a prohibitive cost for this.
- TAC is not willing to take on customers outside of Canada, likely due to the difficulty of collecting on such accounts. Therefore, UBI still has to collect out-of-country accounts, which are potentially more challenging to collect on.
- UBI's customers may be upset that their accounts are being passed on to a factoring agency without their consent. This may result in current customers choosing not to extend or renew contracts with UBI, particularly if they suspect that UBI is in financial difficulty.

Conclusion

I recommend borrowing from KLP. The loan provides enough to fund the estimated requirement of $700,000, the one-year term is not excessively long, it is only marginally more expensive than SCU based on current rates, and it does not require any personal guarantees.

For Assessment Opportunity #13 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the short-term financing options.

Competent – The candidate discusses the short-term financing options and provides a recommendation.

Competent with distinction – The candidate thoroughly discusses the short-term financing options and provides a recommendation.

DAY 2 – MARKING GUIDE – PERFORMANCE MANAGEMENT ROLE
UNIQUE BOTTLES INC. (UBI)

To: UBI management
From: CPA
Subject: Internal analysis

See Common Marking Guide for the Common Assessment Opportunities #1 to #6.

Assessment Opportunity #7 (Depth Opportunity)

The candidate compares the cost per bottle of the existing supplier to the potential new supplier.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	E1 PM
3.3.2	Evaluates and applies cost management techniques appropriate for specific costing decisions	B	A

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives

I have calculated the total costs per bottle under each supplier. This calculation indicates that the cost per bottle for JMMI is slightly cheaper, at $1.33 per bottle (at the higher end of its range), compared to $1.64 per bottle for Maple Leaf.

JMMI

Initial cost per bottle			$0.55	Given
Quality Cost	**Allocation (2022)**	**Cost (Average of 2021 & 2022)**	**Attributed Cost**	Note 1
Overtime to fix labels for errors found upon final quality check	100%	$340,000	$340,000	
Inspection of incoming materials	33%	$165,000	$ 54,450	
Responding to customer complaints	45%	$325,000	$146,250	
Supplies required to redo labels for errors found upon final quality check	90%	$175,000	$157,500	
Testing the calibration of the labelling and filling machines	33%	$282,500	$ 93,225	
Testing the quality of final products	33%	$275,000	$ 90,750	
Rework on returned bottles	90%	$455,000	$409,500	
Visits to suppliers' manufacturing premises to ensure that standards are being met	33%	$ 80,000	$26,400	Note 2
Total quality cost			$1,318,075	
Bottles purchased			2,500,000	Given
Quality cost per bottle			$0.53	
Quality supervisor salary			0	Note 3
Shipping cost per bottle, low end of range			$0.15	Note 4
Shipping cost per bottle, high end of range			$0.35	Note 4
Actual cost per bottle, low end of range			**$1.23**	
Actual cost per bottle, high end of range			**$1.43**	
Average shipping cost per bottle:				
Lowest cost, per flat	$3.50			
Highest cost, per flat	$8.50			
Lowest cost, per bottle	$0.15			
Highest cost, per bottle	$0.35			

Maple Leaf

Initial cost per bottle			$1.40	Given
Quality Cost	**Allocation (2022)**	**Cost (Average of 2021 & 2022)**	**Attributed Cost**	
Overtime to fix labels for errors found upon final quality check	0%	$340,000	0	Note 5
Inspection of incoming materials	33%	$165,000	$ 54,450	Note 6
Responding to customer complaints	0%	$325,000	0	Note 5
Supplies required to redo labels for errors found upon final quality check	0%	$175,000	0	Note 5
Testing the calibration of the labelling and filling machines	33%	$282,500	$ 93,225	Note 6
Testing the quality of final products	33%	$275,000	$ 90,750	Note 6
Rework on returned bottles	0%	$455,000	0	Note 5
Visits to suppliers' manufacturing premises to ensure that standards are being met	33%	$ 80,000	$ 26,400	Note 2
Total quality cost			$264,625	
Bottles purchased			2,500,000	
Quality cost per bottle			$0.11	
Quality supervisor salary			0	Note 3
Average shipping cost per bottle			$0.13	
Actual cost per bottle			**$1.64**	
Average shipping cost per bottle	$0.13			
Average cost, per flat	$3.00			

Notes:

1. Quality costs are based on an average of 2021 and 2022 quality costs, to account for fluctuations in costs during those two years (from information in the Common section). In addition, the allocation of certain quality costs is based on the proportion of the supplier's revenue to total divisional revenue, rather than on actual costs incurred. Actual quality costs may be higher or lower than the estimated cost per bottle for each supplier.

2. Visits to suppliers' manufacturing premises appear to be allocated based on the proportion of revenue from the suppliers' bottles compared to total plastic bottle revenue. However, the actual cost to be attributed to JMMI may be higher than the 33% allocated due to the fact that the supplier is located overseas. Further, the 33% allocated to Maple Leaf may be too high, given that it is located within the same province as UBI. Actual costs incurred may result in a higher than anticipated cost for JMMI, and a lower cost for Maple Leaf.

3. No amounts have been included for either supplier related to the quality supervisor's salary, as the salary cost is fixed and incurred regardless of which supplier is chosen.

4. A cost was calculated for both ends of the range of shipping costs for JMMI, as experienced in 2022. This indicates the low and high end of the range of costs that UBI can expect to incur if partnering with JMMI. However, a more accurate representation of the true shipping cost would be one that is based on the weighted average of shipping costs experienced, which would require further information.

5. It was stated that there were expected to be no quality costs attributed to Maple Leaf for customer complaints or reworking, which would include overtime required to redo labels and other similar work. As a result, we have assumed no costs associated with such activities for Maple Leaf. However, while Maple Leaf has a reputation for high-quality products, we have no experience with this supplier, and we do not know if their products will meet our customers' needs. If there are indeed quality issues with Maple Leaf's bottles, the true cost of Maple Leaf's product would be higher as a result.

6. Costs associated with activities related to quality checks are considered to be the same for all suppliers. These costs include inspecting incoming raw materials, testing the calibration of the labelling machine, and testing the quality of final products. It is noted that these costs have been attributed to JMMI based on the plastic division's proportion of revenue. If these costs do actually vary between supplier, or are higher or lower than the division's proportion of revenue, the actual cost experienced may vary.

For Assessment Opportunity #7 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to compare the cost per bottle of the existing supplier to the potential new supplier.

Competent – The candidate compares the cost per bottle of the existing supplier to the potential new supplier.

Competent with distinction – The candidate compares the cost per bottle of the existing supplier to the potential new supplier, and explains where costs may vary (sensitivity discussion).

Assessment Opportunity #8 (Depth Opportunity)

The candidate provides a qualitative assessment of the plastic bottle suppliers and recommends a supplier.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**E1 PM**
2.3.3	Evaluates strategic alternatives	B	A

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.3 Applies decision criteria to choose among viable alternatives

My calculations indicate that JMMI is less expensive. However, some qualitative considerations should be made when selecting the supplier.

Quality Issues

Based on its reputation, Maple Leaf appears to be able to provide high-quality goods. Because it operates in Ontario, its products are likely to be able to withstand the cold conditions often present in Canada. While JMMI may produce goods of reasonable quality, they do not appear to be suited to the conditions experienced in Canada.

Inventory Shortages

Delays in shipping bottles from overseas appear to have contributed to the inventory shortages experienced by UBI over the past year, since the shipment times vary significantly. Such delays impact UBI's profitability and reduce customer satisfaction. It is unlikely that UBI will experience similar issues with Maple Leaf, given its proximity to UBI.

Variations in Cost

There were considerable variations in the shipping costs for JMMI's bottles. This volatility leads to uncertainty around costs for UBI. The distance in shipping also subjects UBI to fluctuations to costs outside of its control, such as fuel prices. Since UBI's selling prices are based on contracts, they are likely fixed, and it is unlikely that UBI will be able to pass along any short-term increases in costs to its customers. This could lead to lower profits for UBI.

Customer Satisfaction

It is difficult to quantify the effect on customer satisfaction of poor-quality items. Though some of these costs are captured in the quality costs of responding to customer complaints, intangible impacts such as potential lost sales and lost reputation could have a much more significant impact, as they would lead to lost revenues in both the short and long term.

Administrative Burden

Dealing with customer complaints and rework from JMMI's quality issues resulted in employee overtime and significant oversight from the quality supervisor, who allocated 80% of their time to dealing with issues related with JMMI. This time could be better used by UBI. Despite Maple Leaf having a slightly higher cost per bottle, the products' higher quality would result in lower stress for UBI's employees, reducing burnout and employee dissatisfaction, and freeing their time for other value-added activities.

Environmental Impact

Maple Leaf has stated that it is committed to producing bottles with a reduced environmental footprint, while JMMI's bottles have been found to contain some harmful substances. Since consumers appear to be increasingly environmentally conscious, a partnership with a supplier with a strong environmental record would help bolster UBI's reputation and record in this area. This could benefit UBI when eventually publishing environmental performance data. In addition, partnering with Maple Leaf could lead to more customer contracts in the future, given that the bottle is made in Canada and is more environmentally-friendly. Further, it may potentially appear to be unethical to continue to partner with a supplier that has had an incident in which harmful substances were found in its products.

Increased Revenue

Customers may be willing to pay a premium for high-quality products with a reduced environmental footprint. As a result, partnering with Maple Leaf could enable UBI to charge higher prices for new contracts signed, which would allow it to recover some of the additional costs of the bottles.

Recommendation

Overall, it appears that Maple Leaf is the better choice as UBI's supplier of plastic bottles. Despite a slightly higher cost per bottle, the consistency, quality, and inputs in Maple Leaf's product result in a better product overall for UBI, and one that fits with its environmental goals and desire for quality.

For Assessment Opportunity #8 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the qualitative decision factors that affect the choice of supplier.

Competent – The candidate discusses some of the qualitative decision factors and recommends a supplier.

Competent with distinction – The candidate discusses several of the qualitative decision factors and recommends a supplier, recognizing UBI's broader goals.

Assessment Opportunity #9 (Depth Opportunity)

The candidate quantitatively assesses the reusing and recycling proposals.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**E1 PM**
3.5.2	Evaluates sustainable profit maximization and capacity management performance	**A**	**–**

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives

I have calculated the impact of the two programs.

Number of glass bottles sold	400,000	400,000
	Refill IT	**DePoly Inc.**
Cash outflows		
Average order price	$35	
Discount given	5%	
Equivalent refund	$1.75	
Return rate	50%	
Refilled bottles (400,000 × 50%)	200,000	
Annual refund cost ($1.75 × 200,000)	$350,000	
Cost of system ($30,000/month)	$360,000	$50,000
Total cash outflows	$710,000	$50,000 (one-time)
Cash inflows		
Electricity costs (from case)	$2,715,000	$2,715,000
Electricity reduction	15%	0%
Annual electricity savings	$ 407,250	$0
Materials cost of producing new bottles	$1.60	
Savings from reusing bottles (200,000 × $1.60)	$ 320,000	
Refund from returns		$0.50
Recycling rate		20%
Recycled bottles		80,000
Annual refund		$40,000
Total cash inflows	$727,250	$40,000
Total annual recurring cash in/(out)	**$ 17,250**	**$40,000**
Payback (years)		1.25

Refill IT

For the Refill IT system, we calculated the equivalent refund of each bottle at $1.75 per bottle. The annual cost of the refunds is $350,000 at a return rate of 50%, and the annual cost of the system is $360,000, based on the monthly cost of $30,000.

Energy savings were calculated using the cost of energy for producing glass bottles of $2,715,000. Total savings associated with this program would be $17,250 per year.

DePoly Inc.

The DePoly Inc. proposal resulted in savings of $40,000, based on a $0.50 refund paid to UBI for every bottle returned and a one-time setup fee of $50,000. The savings of this program are higher than that of the Refill IT program and would provide immediate cash inflows to the company. UBI would be able to recoup the cost of the initial setup after 1.25 years.

For Assessment Opportunity #9 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to quantitatively assess both proposals.

Competent – The candidate quantitatively assesses both proposals.

Competent with distinction – The candidate quantitatively assesses both proposals in depth.

Assessment Opportunity #10 (Depth Opportunity)

The candidate provides a qualitative assessment of the reusing and recycling programs, and makes a recommendation.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	E1 PM
2.3.3	Evaluates strategic alternatives	B	A
3.1.2	Documents and assesses business processes, systems and data requirements and recommends improvements to meet information needs	B	A

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.2 Articulates limitations to recommendations
6.3.3 Applies decision criteria to choose among viable alternatives

Refill IT

<u>Pros</u>

- The use of this program could lower UBI's bottle production costs, which is a key issue in the industry, with rising input prices. While the refund given ($1.75) is greater than the materials cost of producing the new bottle ($1.60), the energy savings represent additional cost savings that reduce the overall production costs.
- By implementing a supply chain that is circular and skips UBI's customer, removing it from the chain (except for providing UBI with the supplements needed for the refills), this program would provide an additional value to UBI's customers, since it would likely lead to lower costs. It would also increase their reliance on UBI, which is a part of the "Indispensable" strategy proposed by Jessica (see later discussion of strategy). Some supplement suppliers might, however, be reluctant to abandon some control of the supply chain, fearing that UBI could more easily change suppliers.
- This program would provide the environmental benefits of reducing UBI's energy usage and the waste going to landfills. This could further benefit UBI and its reputation, since customers are threatening to not renew their contracts if suppliers are unable to provide more environmentally-friendly products.

- Refill IT has stated that this project could be expanded to track all of UBI's inventory. Better tracking throughout the supply chain could improve the company's inventory management, as it would identify potential inventory shortages (noted with its plastic bottle suppliers) before they occur, and would track shipped or warehoused orders. Fewer inventory shortages and misplaced orders would lead to lower costs and more satisfied customers. This program could also be used to track how much of UBI's product is going to the landfill, which appears to be a key concern for UBI's end consumers and the directors.
- Due to the permanent and immutable nature of the data on the blockchain, the use of this system offers clarity in terms of ensuring that the right person gets their own bottle refilled. The encryption of the blockchain ensures security around the storage of personal data.

<u>Cons</u>

- Refill IT requires a significant cost, both in the amount of the discount paid to the end consumer and the monthly fee. For UBI, which is currently experiencing cash flow issues (based on analysis in a Common AO), this cost may be prohibitive to commencing the project, as there is likely to be a lag time for UBI in experiencing the cash benefit of the energy and production savings.
- The costs associated with the program represent a major risk for UBI if the savings under this system are not as high as expected. If the potential energy savings are less than estimated, perhaps because some of the energy costs are more fixed than variable, UBI will be responsible for significant cash outlays.
- Since blockchain data is persistent, this also means that any data that is entered into a block exists forever. Further information should be gathered around how Refill IT will prevent fraudulent or incorrect data from entering the chain.
- Since the bottles contain dietary supplements and are specific to the end consumer, they may display personal information. Despite its encryption, there may be privacy issues around the collection and storage of this data on a permanent blockchain ledger.
- Implementing this system could be complicated and involve setting up new procedures for filling the bottles. This could place a strain on the production team.

DePoly Inc.

<u>Pros</u>

- The system appears relatively simple to implement and operate. Outsourcing the recycling of the product would allow UBI to focus on its core activities and increase its access to DePoly's skills without significant investment, other than the one-time setup fee.

- DePoly does not have the same environmental impact as Refill IT; however, it would have some benefits as it would reduce the amount of waste going to landfill.
- Despite the initial setup cost, UBI would be able to recoup the cost after approximately 1.25 years, which is a fairly quick payback period.

Cons

- DePoly's proposal requires a setup cost of $50,000. While this initial cost will be eventually recouped by the cash flows received from DePoly, the lag time between paying this cost and when UBI receives the payment from DePoly could exacerbate UBI's cash flow situation.
- DePoly's representative stated that there are no risks of privacy issues because the bottles are destroyed. However, there could be data leaks/compromises during the collection and storage of the bottles. Further investigation is required to ensure that end consumers' data is not at risk of dissemination.
- There appears to be no system currently in place that would allow UBI to verify the actual number of bottles being returned, and whether it has received the right amount of refund. Since DePoly has an incentive to under-report the number of bottles returned, there is potential for underpayment.
- This system does not appear to improve UBI's ability to track the bottles it produces, or how much of its overall product goes to the landfill; given the pressures from customers, and the directors' desire to reduce waste, this is not ideal.

Overall Recommendation

The overall benefits of the Refill IT program appear to outweigh those of the DePoly proposal, and as a result, Refill IT is the recommended program. However, given UBI's current cash flow concerns, it may be necessary to wait to implement this program until UBI has more available cash flow for covering the necessary monthly outlays.

For Assessment Opportunity #10 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to qualitatively assess both proposals.

Competent – The candidate qualitatively assesses some factors for both proposals, and makes a recommendation.

Competent with distinction – The candidate qualitatively assesses several factors for both proposals, and makes a recommendation.

Assessment Opportunity #11 (Depth Opportunity)

The candidate discusses UBI's environmental performance compared to industry metrics for its Standard Glass division, and discusses the considerations around collecting and publishing this data.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**E1 PM**
2.3.1	Evaluates the entity's strategic objectives and related performance measures	B	A

CPA Map Enabling Competencies:
2.3.1 Aligns behaviour with workplace norms, while complying with professional ethics and values
5.1.1 Applies general business knowledge to enhance work performed
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.2 Articulates limitations to recommendations

UBI Performance

We have calculated UBI's environmental performance in the four main categories of concern to consumers, based on the data available.

	Value	Unit
Electricity consumption		
Electricity consumption, glass bottles	$2,715,000	$
Price per kWh	0.08	$/kWh
Electricity consumption, glass bottles	33,937,500	kWh
Weight of bottles manufactured	650,000	Kgs of bottles manufactured
Electricity consumption, per kg of bottles produced	52.21	kWh/kg
Reduction from recycling project (Refill IT)	(7.83)	15%
Electricity consumption, per material produced	44.38	kWh/kg, after recycling project
Emissions		
Emissions, glass bottles	75,000	tons of CO_2
Revenue, Standard Glass division (Note 4 of f/s)	$6,500,000	$
Emissions per dollar of revenue	0.0115	CO_2 tons/$

Below is a summary of UBI's performance relative to the industry averages. This information is for the Standard Glass division only.

<u>Electricity consumption</u>

UBI's electricity consumption is currently estimated to be 52 kWh/kg of bottles manufactured, which is slightly higher than the industry average of 50 kWh. We have assumed that the manufactured standard glass bottles are a similar weight to the industry average. However, since some of UBI's products are high-end, they may weigh more or less than average bottles, which could impact this metric.

We note that, if the Refill IT reusing program were implemented across the Standard Glass division, UBI's energy usage for glass jars would be reduced by 15%, bringing it to 44.38 kWh/kg, well below the industry average.

Emissions

Currently, UBI has lower emissions of CO_2 per dollar of revenue than its competitors. This is partially due to UBI performing some value-added services such as filling, labelling, and packaging of the bottles, the revenues of which are not shown separately but are part of the glass bottle division's revenues. These value-add services likely have low emissions and could be bringing down the average emissions from production. It would be advisable to reperform this calculation by removing these services, and comparing the result to the industry average. Performing this calculation based on emissions per bottle produced may also be a more accurate measure, although we would have to determine if industry data is available to compare it to.

Waste to landfill

UBI does not know how much of its glass bottles go to the landfill, suggesting that this information is not being tracked. UBI's first step in improving performance in this area would be to begin tracking this data.

It was noted that the technology used to track bottles for the Refill IT reusing program could be used to collect this information. Also, implementing one of the recycling or reusing programs would help UBI drive improvements in this area.

Harmful chemicals

Around one-quarter (27%) of all companies in the industry have at least one product containing a harmful substance. The internal information that UBI presented states that the Standard Glass division has no products that contain harmful substances. However, the plastic bottles obtained from JMMI (but not manufactured by UBI) appear to have at one point contained substances that are harmful (see earlier discussion). As such, UBI's overall performance is at the industry average of "at least one." Since UBI is considering changing suppliers to a Canadian company, which does not use harmful substances in its products, the future data would change and possibly improve.

Considerations for Publishing the Data

Pros

- There is a growing demand in the industry for products that have a reduced environmental footprint, and it is likely that this trend continues in the coming years. Addressing this issue now by tracking the data and attempting to make improvements may be necessary, to preserve UBI's reputation in the industry.

- Since the implementation of the recycling program is likely to cause improvements in UBI's environmental performance, reporting on these improvements could bring positive benefits for UBI's image in the industry, and drive future sales.
- Although UBI is currently higher than the industry average in some metrics (e.g., electricity consumption), it is not significantly over the average, and since it is an average, there are companies with bigger environmental footprints. UBI may not be seen as a laggard, but simply average. Customer perception of UBI not reporting this data may be worse than the perception of UBI's actual performance.
- While tracking and reporting this data comes with a cost and requires organizational effort, if such reporting becomes mandatory, this cost will be unavoidable. Further, implementing the systems in a slow and measured manner before the reporting becomes mandatory could reduce the organizational burden of doing so all at once.
- By tracking and reporting this data before it becomes mandatory, UBI could be seen as a leader in this field. Instead of punishing UBI for its performance, customers may reward UBI for its transparency and leadership in this area.

<u>Cons</u>

- UBI's energy consumption, for glass bottles alone, is currently higher than the industry average. UBI is also lagging relative to other companies, as it does not track the amount of waste going to landfills. It also has plastic bottles, used in its process, that contain harmful substances. Therefore, there is a risk that environmentally-conscious end consumers reject products using UBI's bottles and jars due to its performance across these indicators, leading to a potential loss of revenue.
- Tracking and reporting this data has a cost. UBI is facing potential cash flow issues, and allocating more cash to cover expenses that may not drive-up profits or sales immediately (and may in fact hurt sales) could harm the company's financial sustainability.
- Tracking and reporting this type of data will require a company-wide effort. To increase the benefits to the organization, UBI could focus on identifying potential reductions in costs, or on driving sales that also have an environmental benefit.

Overall Recommendation

Tracking

There are pros and cons to tracking UBI's environmental performance. However, a key reason to track this data is that it will likely become mandatory in the coming years. Growing consumer demand means that this may become a standard in the reporting for all bottling manufacturers. While tracking the data may be costly, beginning the work now could save costs in the future. Further, it may help UBI identify ways in which its performance could be improved. For example, energy consumption is higher than the industry average. This is a key area to investigate, and could lead to cost savings from reduced energy bills.

Reporting

There are also pros and cons to reporting, or sharing, the data of UBI's environmental performance. Due to UBI's poor performance in a few of the categories, such as having products containing harmful substances, the case could be made for not sharing this data. Lisa has a good point that it may influence the contracts with existing customers. However, the case could also be made that not reporting this data could lead to losing customers who do not trust UBI's lack of transparency, and move to other, more transparent companies.

If UBI wishes to be a leader in this field, which Jessica noted was a strategic objective, reporting this information is a key first step. Management may wish to delay reporting until they have ensured that no harmful substances are in the products, and until the recycling project has been implemented, and performance on key indicators has improved. Then again, showing improvements might be viewed positively by customers. Although UBI may not have a perfect environmental record, being upfront about its strategy and the ways in which it is working toward reducing its footprint would likely bring more benefits than withholding this information until it becomes mandatory to report it.

For Assessment Opportunity #11 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to compare UBI's environmental performance to industry metrics for its Standard Glass division, or discusses considerations related to collecting and publishing this data.

Competent – The candidate compares some aspects of UBI's environmental performance to the industry metrics for its Standard Glass division, and discusses considerations related to collecting and publishing this data.

Competent with distinction – The candidate compares several aspects of UBI's environmental performance to industry metrics for its Standard Glass division, and discusses considerations related to collecting and publishing this data.

Assessment Opportunity #12 (Depth Opportunity)

The candidate evaluates UBI's pricing alternatives for its bundled service, and provides a recommendation on the appropriate price.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**E1 PM**
3.4.1	Evaluates sources and drivers of revenue growth	B	A

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.2 Articulates limitations to recommendations
6.3.3 Applies decision criteria to choose among viable alternatives

Results

I have calculated the expected profit under two pricing strategies, cost-plus and demand-based pricing.

Warehouse capacity	24,000	cartons

Cost-plus pricing:

Cost	$ 85.00	per carton
Margin	40%	
Cost-plus price	$ 119.00	per carton
% of warehouse capacity	90%	
Cartons sold (90% of 24,000)	21,600	
Revenue (21,600 × $119.00)	$2,570,400	
Cost (21,600 × $85)	$1,836,000	
Profit	$ 734,400	

Demand-based pricing:

	Markup	Price (Note 1)	% of Warehouse Allocated	% of Capacity Sold	Volume Sold	Revenue
Advance orders	40%	$119.00	50%	100%	12,000	$1,428,000
Regular orders	55%	$131.75	25%	55%	3,300	434,775
Last-minute orders	75%	$148.75	25%	35%	2,100	312,375
Total					17,400	$2,175,150

Revenue	$2,175,150	
Cost	$1,479,000	= Volume sold × $85/carton
Profit	$ 696,150	

Note 1 – Price calculations:

Advance orders = $85 × (1 + .40) = $119.00
Regular orders = $85 × (1 + .55) = $131.75
Last-minute orders = $85 × (1 + .75) = $148.75

I have assumed that the estimates provided by the market research are accurate. As the volumes of sales at the various price points are averages for the year, they are likely to fluctuate. These swings may impact the actual profit derived under each strategy.

My calculations indicate that the demand-based pricing strategy would result in a lower benefit for UBI. The profit estimated under this strategy is $696,000, compared to $734,000 for cost-plus pricing.

While cost-plus pricing appears to result in a higher profit for UBI, there are some other considerations to be made for both strategies.

Cost-Plus

This strategy is lower risk, since it will ensure a strong volume of sales and will result in high utilization of UBI's warehouse space. It is also much easier to apply and communicate to the market.

As Lisa mentioned, this pricing strategy is aimed at penetrating the market. The intention of it is to create a perception of the bundled service's value relative to those of competitors. Given the low cost, UBI would see rapid uptake of the service. After providing the service and proving the value to its customers, UBI could raise prices over the long term.

However, this approach does not appear to be necessary, since market research has indicated that few competitors are currently offering a bundled service in UBI's segment. UBI's customers are aware of the value of this service and are likely willing to pay a premium for it. Further, UBI has limited warehouse space to devote to this, so a volume-focused approach such as cost-plus does not appear to be appropriate. This strategy may be more effective if UBI invests in expanding its available warehouse space, or if more competitors enter the field that require UBI to compete on price.

Price Based on Timing of the Order

This strategy allows UBI to capitalize on the value customers see in this service, and on their potential willingness to pay premiums for the service provided with less advance notice. Since UBI provides a valued service to customers, it would help with Jessica's proposed strategic approach of becoming indispensable to customers (see later discussion on strategy). There are some drawbacks, however, such as the effort involved in setting multiple prices and handling orders with different timelines. Some customers may be disgruntled with the different price points. This could be mitigated by effectively communicating that the higher price is for orders with tight turnarounds.

Recommendation

Demand-based pricing will result in a lower profit margin but will align with one of UBI's strategies of providing greater value to its customers. Therefore, UBI should use this pricing approach when pricing the bundle of services. While UBI lost out on several customers in the past because its bids were too high, this is a value-added service that customers will likely be willing to pay a premium for.

For Assessment Opportunity #12 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to evaluate UBI's pricing alternatives for its bundled service.

Competent – The candidate evaluates UBI's pricing alternatives for its bundled service, and provides a recommendation on the appropriate price.

Competent with distinction – The candidate thoroughly evaluates UBI's pricing alternatives for its bundled service, and provides a recommendation on the appropriate price.

Assessment Opportunity #13 (Depth Opportunity)

The candidate assesses the strategic direction of UBI, discusses issues with the governance structure, and recommends improvements.

The candidate demonstrates competence in the Performance Management role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	E1 PM
2.1.1	Evaluates the entity's governance structure (policies, processes, codes)	B	A
2.1.4	Analyzes the specific role of the board in an entity's social responsibility strategy and sustainability	C	B
2.3.1	Evaluates the entity's strategic objectives and related performance measures	B	A
2.3.2	Evaluates the entity's internal and external environment and its impact on strategy development	B	A

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
5.1.2 Recognizes the interrelationships among departmental and functional areas within the organization
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.2 Articulates limitations to recommendations

Strategic Direction of UBI

Jessica's strategy

Pros:

- The strategy of becoming indispensable to UBI's customers, which involves providing custom packaging and inventory management solutions, will allow UBI to address its customers' specific needs. This is a key success factor in the industry.
- In our analysis of pricing strategies, we determined that UBI may be able to generate additional profit by providing untapped value for its customers through orders with different time frames. Strategies such as these value-added activities allow UBI to increase its margin and generate additional "untapped" profit, as indicated by Jessica.
- By focusing on quality, UBI should be able to reduce its quality costs associated with customer complaints and returns, which formed a large part of its total quality costs over the past two years. While higher-quality items may cost more in the short term, they may lead to lower overall costs after complete quality costs are accounted for, as identified in our analysis of the suppliers considered by UBI. Further, it may be possible for UBI to charge more for higher-quality items, leading to greater margins. This is in line with one of the objectives mentioned when creating UBI.

- Jessica’s strategy aligns with our recommendation regarding UBI’s environmental performance and reporting, in which it seems that the best approach would be to improve on its environmental performance and report on the results, given continued pressure from customers to use more environmentally-friendly products.
- Increasing and expanding the recycling of UBI’s products beyond glass could help address the rising cost of plastic bottles, and reduce potential inventory shortages.

Cons:
- There is a risk of focusing on fewer customers if UBI targets large customers and also cuts low-margin products. If UBI experiences issues with quality, or consumers want a different product, UBI could be exposed to greater losses than if it spread out its contracts across many different customers.
- Given UBI’s cash flow situation, it is unclear how it will pay for the recycling programs. Since savings from these programs are likely to lag, UBI may compound its cash flow problem in the short term.
- Focusing on fewer customers and producing fewer products would reduce UBI’s ability to adapt to the market.
- It was noted that UBI lost out on several new contracts because its quotes were too high. If customers are unwilling to pay a premium for UBI’s products or do not value the additional quality and services that UBI is providing, its revenues may suffer as a result.

<u>Lisa’s strategy</u>

Pros:
- By pursuing a low-cost strategy, UBI would address the issue of losing out to competitors on new contracts because its bids are too high. UBI would be better positioned to meet or beat the lowest-priced bids on its new contracts.
- An increased reliance on outsourcing would improve UBI’s flexibility in the market, as it would not have to build any capacities in-house. This is a key success factor in the industry.
- Outsourcing contracts generally results in better cost control, since the contracts tend to be a fixed amount and do not vary in the short term. This is a key success factor in the industry.
- Outsourcing can provide UBI with greater access to skilled workers because it would not have to build capacities or hire such skilled workers in-house. This is another key success factor in the industry.
- Diversification of product offerings will allow UBI to spread out its risks, so it is not reliant on any one customer.
- At the beginning of its deployment, the penetrative pricing strategy may bring UBI an increase in market share in a competitive industry.

Cons:

- While outsourcing can provide access to multi-skilled workers and lower costs, it can have its drawbacks. Outsourcing makes it difficult to regulate quality and can lead to increased quality costs, as we have seen with JMMI. If the suppliers are geographically distant from UBI and its customers, as also seen with JMMI, this distance can lead to shipping cost volatility or inventory management issues.
- The penetrative pricing strategy with future increases could backfire if customers are unreceptive to increased prices. UBI could lose its existing customers, or could be stuck with continued low margins on its products.
- By focusing on lower-value goods, UBI may not be able to prove the value of its products to customers, who may switch to another competitor. UBI may not have the economies of scale of a larger producer, and thus may not be able to truly compete based on price alone.
- The strategy of diversification of product offerings may not be compatible with a low-cost strategy, as low-cost strategies often require efficiencies of scale in order to be effective. While the risk of this incompatibility may be reduced by outsourcing, there are still likely inefficiencies in other areas (packaging, sales, marketing, contracts, etc.) that could limit UBI's ability to keep costs down.
- At inception, the shareholders recognized that UBI would be unable to achieve high quality if it provided a wide and diverse range of products and services. Thus, the quality of UBI's products will likely decrease under this strategy. UBI already lost a large customer in 2022 due to quality issues, and this strategy may lead to further revenue losses.
- Lisa's strategy does not mention the environmental impact of UBI's products. There appears to be growing pressure from customers to use more environmentally-friendly products; otherwise, some contracts may not be renewed. A lack of attention to this area could diminish UBI's revenues.
- Eliminating tracking of environmental performance may bring costs down in the short term. However, since tracking and reporting these measures may soon be mandatory, it may be more efficient to continue to track them, rather than stopping and restarting. Further, it appears that reporting these measures may be necessary, to retain certain environmentally-conscious customers.

Recommendation

Based on industry information, there is a considerable upside to providing high-quality products that help customers adapt to their supply chain, and to producing environmentally-friendly products. While there are risks associated with both strategies, and both align with various aspects of the key success factors of the industry, the value-added strategy presented by Jessica appears to align well with a number of UBI's most recent strategic decisions. In addition, as noted below, UBI appears most suited toward having Jessica in a leadership role driving the strategy of the company. As a result, we recommend that UBI pursue the "Indispensable" strategy going forward.

Governance Structure

Management

UBI currently has two co-CEOs.

This is an unusual management structure, and while it can have benefits, such as increased flexibility and greater oversight, it can also lead to conflicts and decreased organizational efficiency. These problems are most likely to occur when the two CEOs are not aligned in terms of their strategy, which appears to be the case for UBI.

Jessica's and Lisa's views on the direction of the company are in almost direct opposition to each other:

- Lisa wishes to pursue a low-cost strategy, Jessica a high-value strategy.
- Lisa does not wish to incur any costs related to sustainability, while Jessica wishes to be a leader in this field.
- Lisa wants to price the bundled services using a cost-plus method, while Jessica wants to use demand-based pricing.
- Lisa does not want to share environmental data with customers, but Jessica believes it should be publicly available.

Throughout my analysis, Jessica's viewpoints have tended to be the best fit strategically for the company. For example, her viewpoint on the plastic bottle supplier is more in alignment with the best interests of UBI than Lisa's choice of JMMI. Jessica supported Refill IT, as well as the decision to track and report environmental performance, both of which we recommended after further analysis. Finally, Jessica's choice of pricing strategy for the bundled services was deemed to be a better fit for UBI than the cost-plus strategy put forward by Lisa. Overall, her views on the strategic direction for the firm appear to be the best fit.

Given the ongoing conflicting views of the two CEOs, it may be necessary to move to a single CEO, or at a minimum, to have clearly defined roles that do not overlap. It appears that Lisa is less interested in strategy and more interested in marketing, so perhaps Lisa can become the director of sales and marketing, or have this aspect of the CEO position clearly assigned to her. Jessica appears to be better suited to making long-term strategic decisions for UBI, so would be better suited to the role of setting values, practices, and goals for the organization.

Board

The board currently has three members. There are several implications to consider regarding the current composition of UBI's board:

- You, Callum, are a deciding vote despite not being involved in the day-to-day decisions of the organization. This is a lot of pressure to place on one board member, especially since you are friends with Jessica and Lisa. This dynamic could create situations of conflict for you and the organization, as you may not be seen as completely independent, and thus objective, in your decision-making.
- Given the small number of board members, the organization could be at risk of stalemates if one of the board members is not present for a vote, or falls sick, for example.
- It is not clear if you have had prior experience in the bottling industry, although, since you used to work with Jessica and Lisa, you may have some experience in either the food or dietary supplement industries, which is helpful. Experience in these fields is not a requirement for board membership but is very valuable. It is important that the board is comprised of diverse, independent members who bring a variety of skill sets and experience to this important oversight role.
- Having only internal executives and owners (Jessica, Lisa, and you) on the board can have both benefits and drawbacks.

  Benefits include the following:
  - Internal executives and owners bring a wealth of intimate knowledge of the organization to the board. Providing internal executives and/or owners with a seat on the board brings that knowledge and experience to any board decisions.
  - Since external directors are often paid for attendance (especially for travel and attendance at meetings), it can cost less to simply have the existing internal owners and/or executives on the board, since these extra costs are not incurred.
  - As shareholders, you may be concerned about losing control over important decisions if additional voting members are brought on. As such, having only the internal executives and existing owners on the board (as is the current configuration) would ensure that you retain this control.

Drawbacks can be the following:

- UBI may be missing out on the different functions that external board roles can provide. For example, as co-CEOs, Jessica's and Lisa's roles are to establish shared values, practices, and goals for the organization, and to lead the company toward achieving those values and goals; this may be in conflict with oversight, which is a normal director's function.
- A board member's role is to provide oversight and perform a strategic advisory function, to help with those tough strategic decisions you have been a part of.
- External board members can bring diverse opinions to solving tough strategic problems, and they bring valuable contacts and experience to the organization that could generate additional sales or innovations.
- With internal executives on the board, there is a risk that certain decisions can be clouded by perceived benefits to specific departments in the organization, rather than in the best interest of the company as a whole.
- Independent directors' fiduciary duties will require them to consider the greater good of the firm and all its owners, as opposed to the benefit of any given faction.
- By combining CEO and board roles, the organization is denied the opportunity to benefit from the different skills, experience, and capacity that another individual could provide.

Since UBI appears to be at a critical juncture in the company's history, and its primary stakeholders currently share opposing viewpoints on many issues, now may be the time to bring in more independent directors, to access more knowledge and leverage as much experience as possible. As a result, we recommend adding an additional two to four independent and experienced board members to UBI's board structure. These additional board members should have experience in the industry, be independent from the organization and its key stakeholders, and bring a variety of skill sets to the board. Further, given their lack of independence, UBI should consider replacing Jessica's and Lisa's positions on the board with external, objective individuals who have expertise in the industry.

While there will be a cost to adding members, the long-term value they will bring to the organization will likely outweigh their compensation. To avoid any cash flow issues in the short-term, UBI could consider offering shares as a way of compensating and incentivizing board members. As UBI is a private company, and shares may be difficult for the directors to sell, UBI would need to have a repurchase option for when the director steps down. Further, UBI could transition to directors' fees, paid in cash, when its cash flow situation improves.

Considering the conflicting views of the two co-CEOs on the company's strategic direction, a formal set of policies should be put in place in order to implement a coordinated action plan. Such policies would include a formal succession plan for key managers and personnel. The retirement of the controller should not have led to this important position being left unoccupied for such a long period. With a formal succession plan, UBI would have avoided the consequences of this event.

For Assessment Opportunity #13 (Performance Management), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the strategic direction of UBI and/or the governance issues present at UBI.

Competent – The candidate discusses the strategic direction of UBI and/or the governance issues present at UBI.

Competent with distinction – The candidate discusses in depth the strategic direction of UBI and/or the governance issues present at UBI, and recommends improvements.

DAY 2 – MARKING GUIDE – TAXATION ROLE
UNIQUE BOTTLES INC. (UBI)

To: Jessica and Lisa
From: CPA
Subject: Corporate income tax return

See Common Marking Guide for the Common Assessment Opportunities #1 to #6.

Assessment Opportunity #7 (Depth Opportunity) The candidate analyzes the tax treatment of the financial reporting issues. *The candidate demonstrates competence in the Taxation role.*

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
6.2.2	Advises on taxes payable for a corporation	B	A

CPA Map Enabling Competencies: *6.1.1 Identifies and articulates issues within areas of work responsibility* *6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems* *6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives* *6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions*

General principles state that income for tax purposes starts with profit, as determined for financial reporting purposes, and any tax-specific adjustments are then made.

Bill-and-Hold Arrangement

The revenue is correctly recognized for financial reporting purposes, and for tax purposes is included in net income by virtue of the amount being receivable (ITA 12(1)(a)). Since the goods have not been delivered, a reserve is possible under ITA 20(1)(m), for goods and services not yet delivered.

While accounting recognizes that, under the bill-and-hold arrangement, the goods have not been delivered at the request of the customer, tax rules do not consider this factor. The simple fact that the goods have not been physically delivered to the customer permits the tax reserve.

Therefore, for tax purposes, the reserve would be \$576,000 (\$720,000 × 8,000 ÷ 10,000 bottles not delivered).

PPI Contract

When determining whether to capitalize an asset for tax purposes, the concept of “enduring benefit” is considered. For tax purposes, enduring benefit is considered to be a period lasting beyond one year.

The design and reconfiguration costs do have an enduring benefit, since the manufacturing facility has a life for UBI beyond one year, so UBI will benefit from the improved efficiency over time. However, this consulting contract does not really produce an “asset,” since the costs are simply to improve processes and not to create a patent or other intellectual property. While the work does relate to reorganizing equipment, it does not make any improvements to the equipment itself, which is already available for use. Therefore, both the design and reconfiguration costs should be expensed for tax purposes.

The training costs have no enduring benefit as employees could leave the company, in which case, there would be no future value for UBI. Thus, it is appropriate to expense the training costs for tax purposes under the same rationale that they are expensed for financial reporting purposes.

Since the full amounts have been expensed for financial reporting purposes, no adjustments are required for tax purposes.

Accounts Receivable

The issue with the Savory Foods Inc. receivable (and underlying revenue) is the tax treatment surrounding foreign exchange. The initial recording of the sale in CAD instead of USD is simply an error—like the rationale for financial reporting purposes, for income tax purposes, all revenues must be reported, so the initial sale transaction should be corrected. Since the revenue is on account of income (rather than capital), the foreign exchange gain/loss on the receivable balance is considered part of income, and all of it is considered realized, even if not yet actually realized in cash. Only when a foreign exchange gain/loss is on account of capital would we consider separating an unrealized portion of foreign exchange. Thus, the foreign exchange adjustments are the same for tax as they are for accounting. It is assumed that the other foreign exchange on the income statement is also on account of income.

With the Lowesons receivable, the issue is the valuation of the receivable for tax purposes. First, the discounting of the receivable is purely an accounting convention (a non-deductible reserve), so this adjustment is reversed for tax purposes. The receivable is not uncollectible, so there is no reserve available for doubtful accounts under ITA 20(1)(l), or for bad debts under ITA 20(1)(p).

However, since a portion of the amount will not be received for several years, a reserve for unpaid amounts under 20(1)(n) is available. The sale occurred in (or before) September 2022, and the second payment is not due until December 31, 2024. This is more than two years after the sale, so a reserve is allowed for $433,628 ($490,000 ×100/113, as the GST/HST component cannot be deducted for income tax purposes). This reserve will be brought into net income for tax purposes in 2023. A subsequent reserve will not be available in 2023 because the second payment will be due within one year.

For Assessment Opportunity #7 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the tax impacts of the financial reporting issues.

Competent – The candidate discusses the tax impacts of the financial reporting issues.

Competent with distinction – The candidate thoroughly discusses the tax impacts of the financial reporting issues.

Assessment Opportunity #8 (Depth Opportunity)
The candidate calculates federal taxable income and taxes payable.
The candidate demonstrates competence in the Taxation role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
6.2.2	Advises on taxes payable for a corporation	**B**	**A**

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Taxable Income and Taxes Payable

Taxable income has been calculated as follows:

		Note
Net income per financial statements	$ 1,554,000	
Impact of financial reporting adjustments:		
Bill-and-hold arrangement	0	
Expense consulting costs	(240,000)	
Expense training costs	(40,000)	
Adjust sales to effective rate on date of sale	82,500	
Adjust accounts receivable to year-end spot rate	5,000	
Discount Lowesons receivable	(63,392)	
Revised net income per financial statements	1,298,108	
Tax adjustments		
Financial reporting adjustments (AO#7):		
Reserve for goods not delivered	(576,000)	
Consulting costs PPI	0	
Accounts receivable FX	0	
Reverse discounted receivable	63,392	
Long-term accounts receivable	(433,628)	
Income taxes	326,000	
Dividends expensed on financial statements	160,000	1
Meals and entertainment	10,000	2
Amortization	1,669,000	3
Immediate expensing	(1,100,000)	3
Capital cost allowance (see below)	(558,700)	4
Net income for tax purposes and taxable income	$ 858,172	

Notes:

1. Dividends on preferred shares have been deducted from income in the financial statements, as the shares are treated as debt for financial statement purposes. However, the tax treatment follows the legal form, so the dividends are not deductible from net income for tax purposes or taxable income.

2. Meals and entertainment are only 50% deductible for tax purposes.

3. Accounting amortization is not deductible for tax purposes. Temporarily, CCPCs are allowed to deduct the full cost of depreciable property that becomes available for use in the year, up to $1.5 million per year. Total additions for 2022 are $1.1 million, so the full amount may be deducted.

4. CCA is calculated on the opening balances:
   Class 1: $4,925,000 × 10% = $492,500
   Class 8: $331,000 × 20% = $66,200
   Total: $558,700

In addition to the above adjustments, the following items were not adjusted for:

- UBI held its annual barbeque during the year, which is for all employees. Businesses may deduct the full cost of up to six office parties or similar events per year, if they invite all employees from a particular location, which was the case for UBI. Accordingly, no adjustment is required for this expense.
- It is assumed that the bad debt expense on the statement of earnings was with respect to specific accounts and that, therefore, no adjustment is required for income tax purposes. However, this should be confirmed, as general reserves are not deductible for income tax purposes.

Federal taxes payable are calculated here:

Net income for tax purposes and taxable income		$ 858,172
Basic rate	38%	$ 326,105
Federal abatement	10%	(85,817)
Small business deduction		0
General rate reduction	13%	(111,562)
Federal taxes payable		$ 128,726

Note that no small business deduction has been claimed, since UBI's taxable capital employed in Canada (TCEC) from the previous year exceeds $15 million, and its fiscal year began before budget day in 2022 (it began on January 1), so it is not eligible for the higher phase-out range.

TCEC is calculated as follows:

Capital stock – common shares	$ 800,000
Capital stock – preferred shares	2,000,000
Retained earnings and other equity	5,374,000
Long-term debt	5,600,000
Line of credit	7,000,000
	$ 20,774,000

For Assessment Opportunity #8 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to calculate taxable income.

Competent – The candidate provides a calculation of taxable income and taxes payable.

Competent with distinction – The candidate provides a thorough calculation of taxable income and taxes payable.

To: Junior accountant
From: CPA
Subject: Draft January 2023 GST/HST return

Assessment Opportunity #9 (Depth Opportunity)

The candidate reviews the draft GST/HST return for the month of January 2023.

The candidate demonstrates competence in the Taxation role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	Elective
6.1.2	Assesses reporting systems, data requirements and business processes to support reliable tax compliance	B	A
6.7.2	Analyzes GST obligations of a person	C	B
6.7.3	Calculates net tax for a person	C	B
6.7.4	Discusses GST compliance requirements	B	B
6.7.6	Explains GST obligations arising from other transactions	–	C

CPA Map Enabling Competencies:
3.2.2 Evaluates performance of team members
3.2.5 Shares knowledge with other team members
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Review of GST/HST Return

There are several errors in the draft GST/HST return for the month ending January 31, 2023.

Line 101 – The line should include all sales and revenues (taxable, zero-rated, and exempt). CRA will compare this number to sales reported on corporate income tax returns. It should not be adjusted for the allowance for doubtful accounts or bad debts as these are not reported as gross sales in a corporate tax return. The correct number is $4,189,167 from the sales report.

Line 103 – This line should be the actual GST/HST collected from the accounting records. The amount appears simply to be 13% of Line 101. The correct number should be $485,884 from the report. This revised figure agrees to the taxable sales in Ontario multiplied by 13%.

Line 106 – It is correct that the input tax credit (ITC) should be the amount of GST/HST paid during the period from the accounting system, but the report was run for the wrong period — it should go to January 31, 2023, not February 15, 2023. A new report needs to be run with the correct date. Assuming GST/HST paid is incurred evenly over a month, the GST/HST paid for January 2023 would be $433,369 ($650,054 × 1.0/1.5), but this should obviously be confirmed.

In addition to this amount, GST/HST paid should include $2,496 of the self-assessed GST/HST on the imported labelling machine (discussed later, on Line 405). The total amount for Line 106 should be $435,865 ($433,369 + $2,496), but we should obtain the revised system report before finalizing this calculation.

Line 107 – The $127,400 related to the amount due from Lowesons is not an eligible adjustment as it is not a bad debt, but merely a delinquent account for which we have taken an allowance under ITA 20(1)(n). To claim an adjustment for the GST/HST collected and remitted, the receivable would need to be written off, which is not the case. The correct amount for this line is $0.

Line 109 – Net tax is now $50,019 ($485,884 – $435,865).

Line 405 – UBI is required to self-assess GST/HST on the imported machine, as it was not charged by the auction house and there is no indication that GST/HST was charged at the time it was imported. (We should follow up on this and make sure it was not paid somehow, and is already included in the January 2023 GST/HST paid.) The amount of GST/HST to be self-assessed is $2,496 ($19,200 × 13%). While the net impact on the GST/HST due is $0 ($2,496 self-assessed and an offsetting ITC for the same amount), the reporting is still required. If UBI did not report the self-assessed amount, CRA could charge a penalty for failing to report. An ITC could still be claimed up to four years later to recover the deemed amount collected, but the penalty would still stand.

The corrected GST/HST return, subject to confirming some of the amounts noted, is as follows:

Total sales and other revenue	101	$ 4,189,167
GST/HST collected	103	485,884
	105	485,884
GST/HST paid	106	435,865
Adjustments	107	0
	108	435,865
Net tax	109	50,019
GST/HST to be self-assessed	405	2,496
Payment due	115	$ 52,515

Since UBI is a monthly filer, the filing and payment deadline is one month after the end of the reporting period, which would be February 28, 2023, for the January 2023 GST/HST return.

If the return is filed late, there is a late filing penalty of 1% of the amount owing plus 0.25% for each complete month the return is late, to a maximum of 12 months.

Interest is charged on late payments at the prescribed rate of 8%, compounded daily.

For Assessment Opportunity #9 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts a recalculation of the GST/HST return or discusses the deadlines, penalty, and interest requirements.

Competent – The candidate prepares a recalculation of the GST/HST return and discusses the deadlines, penalty, and interest requirements.

Competent with distinction – The candidate prepares a thorough recalculation of the GST/HST return and discusses the deadlines, penalty, and interest requirements.

To: Jessica and Lisa
From: CPA
Subject**:** Analysis of proposed stock option plan

Assessment Opportunity #10 (Depth Opportunity)

The candidate discusses the proposed stock option plan.

The candidate demonstrates competence in the Taxation role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
6.2.2	Advises on taxes payable for a corporation	B	A
6.3.2	Evaluates income taxes payable for an individual	B	A
6.3.3	Analyzes specific tax-planning opportunities for individuals	B	B
6.4.1	Evaluates adherence to compliance requirements	B	A

CPA Map Enabling Competencies:
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

You have proposed a stock option plan, which I will discuss from an income tax perspective. This benefit would not incur GST/HST, nor would there be any related input tax credit, as corporate shares are exempt supplies.

Stock Options

Stock options create a taxable benefit for the employee when the options are exercised, as well as a capital gain when the acquired shares are subsequently sold.

There are no income tax consequences for either the employee or UBI at the time the options are granted.

The value of taxable benefit added to employment income is the difference between the fair market value (FMV) of the shares when the options are exercised, and the exercise price. For example, with 100 options, exercised at a FMV of $57, the taxable benefit will be $700 (($57 – $50) × 100). Because UBI is a CCPC, any employment income inclusion is automatically deferred until the year the acquired shares are sold.

A deduction is available to the employees, equal to one-half of the employment income inclusion. This deduction is available:

- under paragraph 110(1)(d), if the fair market value of the shares does not exceed the exercise price on the date the options are granted (that is, the options are not “in the money” at the time they are granted); or
- under paragraph 110(1)(d.1), if the corporation is a CCPC, and the shareholder holds the acquired shares for two years after the exercise date.

In this case, with an exercise price of $50 and FMV now of $45, the first condition above is met, and any options granted before the FMV exceeds $50 would be eligible for the paragraph 110(1)(d) deduction.

For subsequent grants of stock options, if the exercise price remains unchanged at $50 and the fair market value of each common share exceeds $50 at the time of the grant, the paragraph 110(1)(d) deduction is not available. However, if employees are willing to hold their shares for two years, they will still qualify for the paragraph 110(1)(d.1) deduction.

Therefore, the paragraph 110(1)(d) deduction available in this scenario is $350 ($700 × ½).

Finally, if the shares are sold at $65, there would be a taxable capital gain of $400 (($65 – $57) × 100 × ½) reported by the employee. The ACB of the shares is equal to the FMV at the time of exercise, as this is the amount that the shares are "tax paid" up to, based on the employment income inclusion.

In summary, the impact on taxable income for an employee in the year the acquired shares are sold is as follows:

Employment income inclusion	$ 700
Taxable capital gain	400
Net income for tax purposes	1,100
Paragraph 110(1)(d) deduction	(350)
Taxable income	$ 750

Overall, the tax impact all occurs in the year of sale, so the employee will have the cash from the sale to use towards the increased income tax.

It should also be noted that the employees may be able to claim the lifetime capital gains deduction (LCGD) if they hold their shares of UBI for two years, and the company is a small business corporation (SBC) at the time they sell their shares. Assuming they have not used the LCGD previously, this could shelter some or all of the taxable capital gain from inclusion in income.

Similarly, if UBI is an SBC at the time of sale and, instead of a gain, there is a capital loss on the shares, the loss could qualify as an ABIL and be deductible against any other income. If these criteria are not met, any loss would be a capital loss, deductible only against capital gains (with the ability to carry them back up to three years, and forward indefinitely).

For UBI, the stock option plan has no income tax implications. The stock option expense that is reported for accounting purposes is non-deductible for income tax purposes, and would be added back in calculating net income for tax purposes.

Any amounts paid by employees on exercise of the option for the shares would be added to PUC and would not be income to UBI, so there would be no immediate tax consequences to UBI from receipt of this cash. Each year, this could amount to $250,000 (5,000 options × $50) of tax-free cash inflows if all employees exercise their options.

One downside of the stock option plan would be the potential to lose control of the corporation. If voting shares are issued, they will slowly dilute Jessica's and Lisa's control of UBI. At a maximum of 5,000 new common shares per year, it would take 40 years (200,000 ÷ 5,000) before Jessica and Lisa combined would lose control of UBI, so this is likely not an issue of immediate concern.

Conclusion

The cost of the stock option plan is low for the employees and could have a much greater upside, should the shares grow in value. However, it would be hard for the employees to realize any real benefit without an active market for the shares in UBI. Ultimately, the only way they would realize any benefit is through a sale of the company to a third-party, private equity firm, or an IPO. To make stock options attractive to employees, UBI may have to agree to buy back the shares from the employees when they want to sell, which would require a valuation to be performed, which could be costly and may lead to undesired disclosure of company financial information to employees. Although the cash inflow received by UBI on exercise of the options is desirable, it is hard to see the stock options overall being popular with employees.

Therefore, I recommend against pursuing the stock option plan, at least until such time as the shares may be marketable.

For Assessment Opportunity #10 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the stock options.

Competent – The candidate discusses the stock options.

Competent with distinction – The candidate discusses in depth the stock options.

To: Jessica
From: CPA
Subject: 2022 T4 errors

Assessment Opportunity #11 (Depth Opportunity)

The candidate analyzes draft T4 slips prepared by QBS.

The candidate demonstrates competence in the Taxation role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
6.1.2	Assesses reporting systems, data requirements and business processes to support reliable tax compliance	B	A
6.3.2	Evaluates income taxes payable for an individual	B	A
6.4.1	Evaluates adherence to compliance requirements	B	A

CPA Map Enabling Competencies:
3.2.2 Evaluates performance of team members
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Based on examining one T4 for Simon Rennell, several errors were made by QBS in preparation of the T4 slips.

Box 14 – This should include all employment income, including taxable benefits. Only gross salary has been included, but it should include the cash bonus of $3,300.00 and non-cash taxable benefits of $210.00 (discussed below). The correct amount should be $69,510.00 ($66,000.00 + $3,300.00 + $210.00).

Box 16 – The employee's CPP contributions should be the maximum for 2022 of $3,499.80 (($64,900.00 – $3,500.00) × 5.70%). It appears that the T4 slip is correct.

Box 18 – The employee's EI premiums should be the maximum for 2022 of $952.70 ($60,300 × 1.58%). It appears that the T4 slip is correct.

Box 22 – This figure is not correct as it is inconsistent with the December 31, 2022, remittance advice. It appears that it is not picking up the amounts from before September 2022. The amount should be $12,808.05, which matches the December 31 remittance advice.

Box 24 – EI insurable earnings is incorrect. The correct figure should be $60,300.00, not gross salary of $66,000.00.

Box 26 – CPP pensionable earnings is incorrect. The correct figure should be $64,900.00, not gross salary of $66,000.00.

Box 46 – The box should include the $250.00 deducted and donated to the registered charity. This amount can be included as a donation eligible for the donation tax credit on the employee's personal income tax return.

Box 40 – This box should only include non-cash taxable benefits. The $400 appears to be four months' worth of the employer's portion of the health and dental plan. However, employer-paid premiums to a private health services plan (including dental plans) are not a taxable benefit. This box should include $210.00 ($17.50 × 12) for group term life insurance premiums paid by UBI. This amount was also not identified on the remittance advices during the year, so the system should be checked to ensure that it is recording taxable benefits correctly.

Note that the annual summer barbeque is not a taxable benefit, as the cost per employee is less than $150.00 and all employees were invited (assuming there are no more than six of these all-employee events per year.)

Box 85 – This box should include the employee-paid premiums for private health services plans of $1,200.00 ($100 × 12). This amount can be included as a medical expense eligible for the medical expense tax credit on the employee's personal income tax return.

The filing deadline for T4 slips is the last day of February, so we need to get these issues resolved with QBS by that date, rather than March 15, the date that Jessica wanted the review completed.

For Assessment Opportunity #11 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the T4 errors.

Competent – The candidate discusses the T4 errors.

Competent with distinction – The candidate discusses in depth the T4 errors.

To: Lisa
From: CPA
Subject: Tax implications of management corporation

Assessment Opportunity #12 (Depth Opportunity)

The candidate discusses the tax consequences of Lisa earning CEO remuneration through a corporation.

The candidate demonstrates competence in the Taxation role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**	**Elective**
6.1.1	Discusses general concepts and principles of income taxation	B	B
6.2.1	Evaluates general tax issues for a corporate entity	B	A
6.2.2	Advises on taxes payable for a corporation	B	A
6.3.2	Evaluates income taxes payable for an individual	B	A
6.7.5	Analyzes GST implications from tax planning for shareholders and a closely held corporation	C	B

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Personal Services Business

Your proposed structure would result in LisaCo earning personal services business (PSB) income, which would negate any potential tax benefits normally associated with a corporation.

PSB income is defined in ITA 125(7). The rules look at your previous relationship with UBI. You are clearly an employee of the corporation, and the PSB rules enforce that relationship, even if you insert a corporation—the term used for this is an “incorporated employee.” None of the exceptions are applicable in your situation as you would be the only employee of LisaCo, and LisaCo and UBI would not be associated. (While you are part of a group that controls UBI, you are not related to all the members of the group, so UBI and LisaCo are not associated.)

Income from a PSB is subject to the following rules:

- Income eligible for the small business deduction, as defined in ITA 125(1) and 125(7), excludes PSB income. Therefore, the income would not be eligible for the 19% federal small business deduction or the low rate of provincial tax.
- The definition of “full rate taxable income” in ITA 123.4(1) excludes income from a PSB, so this income would not be eligible for the 13% federal general rate reduction.
- ITA 123.5 adds a 5% federal surtax on taxable PSB income.
- The definition of the general rate income pool (GRIP) in ITA 89(1) does not exclude taxable income earned from a PSB; thus, after-tax income retained in LisaCo can be designated an eligible dividend, even though it is subject to the PSB rules.

- ITA 18(1)(p) limits the corporation's deductions available against PSB income to salaries paid to the incorporated employee, the costs of benefits to the employee, selling expenses consistent with ITA 8(1)(f) if the incorporated employee earns commissions, and legal expenses to collect accounts receivable.

Thus, only the $80,000 salary and the employer portion of CPP (maximum of $3,500) is deductible by LisaCo. Given that the legal and accounting fees would be incurred "annually" and that there is no reason to assume that legal fees would be required to collect income from UBI, the accounting and legal fees are not eligible expenditures, and would therefore not be deductible by LisaCo. The computer would be a capital item, which is also not on the list of deductible costs, so no CCA deduction would be allowed for it.

The effective corporate tax rate on PSB income is 44.50% (38.0 – 10.0 + 5.0 + 11.5). This higher corporate tax rate serves to negate any advantages of deferring tax using the corporation. It also leads to a lack of corporate-personal tax integration on PSB income, as the dividend tax credit is not adjusted to reflect the higher corporate tax rate. Effectively, once flowed through to you, the income would attract more tax than it would have, had you earned it directly as an employee.

To demonstrate the tax consequences, I have compared what your after-tax cash would be earning your salary of $150,000 directly from UBI against earning the $150,000 as management fees in LisaCo and paying yourself an $80,000 salary and the remainder as an eligible dividend. Note that the following calculations ignore personal tax credits (such as the basic personal amount), as they would be the same under both scenarios; thus, only the incremental difference in tax is considered.

Salary Earned Directly from UBI

Salary		$ 150,000
Federal tax:		
On income up to $100,392		(17,820)
Excess	26.0%	(12,898)
Provincial income tax	10.0%	(15,000)
After-tax cash		$ 104,282

Salary and Dividend through Management Corporation

In corporation:

Management fee earned by LisaCo		$ 150,000
Deductible expenses:		
Salary		(80,000)
Employer portion of CPP		(3,500)
Taxable income		66,500
Corporate income tax	44.50%	(29,593)
Non-deductible expenditures		(4,000)
Cash and retained earnings in corporation for dividend		$ 32,907

The balance in the GRIP pool would be $47,880 ($66,500 × 0.72). However, the eligible dividend payable would be limited by the cash retained in the corporation of $32,907.

Personal tax:

Salary		$ 80,000
Eligible dividend		32,907
Gross-up	38%	12,505
Taxable income		$ 125,412
Federal tax:		
On income up to $100,392		$ 17,820
Excess	26.0%	6,505
Federal dividend tax credit	6/11	(6,821)
Provincial income tax on salary	10.0%	8,000
Provincial income tax on dividend	2.0%	658
Taxes payable		$ 26,162
Salary and dividend received		$ 112,907
Less: Personal income tax		(26,162)
After-tax cash		$ 86,745

By incorporating, you would have a reduced personal cash flow of $17,537 ($104,282 – $86,745).

If you had been earning business income that was not PSB income, the additional corporate income tax costs could be mitigated by income tax deferral in the corporation. However, the rules surrounding PSBs are designed to eliminate this benefit. As the following demonstrates, there is in fact a corporate tax prepayment resulting from you taking only $80,000 salary out of LisaCo rather than $150,000 salary out of UBI directly, because the tax rate in the corporation is higher than your personal marginal rate.

Tax on salary only:

Salary and taxable income		$ 80,000
Federal tax:		
On income up to $50,197		7,530
Excess	20.5%	6,110
Provincial income tax on salary	10.0%	8,000
		$ 21,640
Personal tax without LisaCo		$ 45,718
Corporate tax with LisaCo		(29,593)
Personal tax on salary alone		(21,640)
Prepayment of tax		$ (5,515)

GST/HST

HST would also have to be collected and paid on any management fee from UBI to LisaCo. LisaCo's taxable supplies would be greater than $30,000, so it would have to become a registrant. The ETA 156 election to not pay GST/HST on intercompany transactions (Form RC4616) is not available, since the two corporations are not closely related (defined for the purposes of the election as at least 90% common control of both corporations). While there is no net GST/HST impact, since UBI would claim an input tax credit for any GST/HST it pays to LisaCo, there is an administrative burden with respect to this aspect of the proposed structure.

In conclusion, there is no benefit to incorporating. If you are still looking for opportunities to defer income, you could have a discussion with the other shareholders about reducing your salaries equally, and instead having UBI pay some of your compensation in dividends. If you each held your shares of UBI in your own private corporations (which could be achieved using a Section 85 rollover), you would be able to defer tax on the dividend income until such time as your corporations pay dividends to you, which may be a better alternative to achieving your goal of tax deferral.

For Assessment Opportunity #12 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the PSB rules or to calculate the tax consequences.

Competent – The candidate discusses the PSB rules and calculates the tax consequences.

Competent with distinction – The candidate discusses in depth the PSB rules, and calculates the tax consequences.

To: Jessica and Lisa
From: CPA
Subject: Analysis of tax implication of the sale and leaseback of land and building

Assessment Opportunity #13 (Depth Opportunity)

The candidate discusses the tax consequences of the sale and leaseback of land and building.

The candidate demonstrates competence in the Taxation role.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core	Elective
6.2.2	Advises on taxes payable for a corporation	B	A
6.7.2	Analyzes GST obligations of a person	C	B
6.7.6	Explains GST obligations arising from other transactions	–	C

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Sale of Land and Building

Selling the land and building will follow the normal tax rules for such a transaction—there is no special treatment, even though it will be leased back to UBI.

Since the building is depreciable property, there will be a disposal from Class 1, as follows:

Balance in pool at December 31, 2021		$ 4,925,000
Less: CCA		(492,500)
Balance in pool at December 31, 2022		4,432,500
Less, lesser of:		
ACB	$ 9,100,000	
Proceeds (building)	4,375,000	(4,375,000)
Terminal loss		$ 57,500

After disposal of the building, there is a positive balance still left in the pool, but no assets left, which would normally result in a terminal loss. However, since we are disposing of land and building together, and there is a capital gain on the land component ($8,125,000 – 1,200,000 > $0), ITA 13(21.1) denies the terminal loss by way of forcing the proceeds on the land and building to be reallocated.

The following calculation shows the required reallocation of the proceeds, to make the proceeds on the building equal to UCC.

	Land	Building	Total
Proceeds	$ 8,125,000	$ 4,375,000	$ 12,500,000
Adjustment per ITA 13(21.1)	(57,500)	57,500	0
Adjusted proceeds	8,067,500	4,432,500	12,500,000
ACB	(1,200,000)	(9,100,000)	
Capital gain	$ 6,867,500	0	

This results in no recapture or terminal loss on the building. In addition, the calculation results in a denied capital loss on the building, as it is not possible to have a capital loss on depreciable property. Thus, the only item from the disposal is a taxable capital gain of $3,433,750 ($6,867,500 × ½) on the land.

Taxes payable are calculated as follows:

Taxable capital gain		$ 3,433,750
Basic	38.00%	$ 1,304,825
Abatement	10.00%	(343,375)
Additional refundable tax	10 2/3%	366,266
Taxes before dividend refund		1,327,716
Potential dividend refund *		(1,053,017)
Net taxes after dividend refund		$ 274,699
* Dividend refund:		
NERDTOH – 30 2/3% of AII		$ 1,053,017

Note that the taxable capital gain is included in aggregate investment income (AII), and subject to the additional refundable tax of 10 2/3%. This transaction creates NERDTOH of $1,053,017, rather than ERDTOH, as the only item that typically creates a balance in ERDTOH is Part IV tax on eligible dividends received. This is problematic for UBI as it would have to declare a dividend other-than-eligible dividends, to recover the NERDTOH. The dividends paid on preferred shares to Callum are likely designated as eligible dividends, as UBI would have sufficient GRIP, due to not having the small business deduction available.

Callum would likely be unhappy receiving dividends other-than-eligible dividends, since this would create a much larger personal tax burden for him.

To recover the entire NERDTOH, UBI would have to declare dividends other-than-eligible dividends of $2,747,003 ($1,053,017 ÷ 38 1/3%). Therefore, even if the annual dividends of $160,000 paid to Callum were not designated as eligible dividends, it would take many years to pay enough dividends to recover the tax. Given the current cash flow issues, it seems unlikely that UBI would be able to pay any additional dividends on the common shares (unless my recommendation, made earlier, to shift some of Lisa's and Jessica's salaries to dividends, is implemented). That said, some portion of the proceeds received on the sale could be used to pay dividends to all three shareholders, which would help to offset this cash-flow impact.

The capital gain also generates an addition to UBI's capital dividend account of $3,433,750. This amount can be paid tax-free to the shareholders. However, it seems unlikely that there will be sufficient cash to pay this dividend any time soon, so this balance will carry forward until that is possible.

Adjusted AII exceeding $50,000 can result in a reduction of the small business deduction. However, since the taxable capital gain is a result of selling an "active asset," it is not included in adjusted AII, so this will not have an impact. This will be relevant, as UBI will have access to some small business limit under the new phase-out thresholds that apply to it, starting in 2023.

Given the above analysis, the after-tax cash retained from the sale and leaseback of the building, and after repaying the loan that is secured by the property, is as follows:

Total proceeds	$ 12,500,000
Term loan	(5,600,000)
Taxes before dividend refund	(1,327,716)
	$ 5,572,284

GST/HST on Sale

Non-residential real estate is a taxable supply for GST/HST purposes, so UBI would have to collect HST on the sale. However, if the purchaser is a GST/HST registrant and would otherwise claim an input tax credit for the HST paid, a joint election can be made not to charge and collect HST on the sale. While the net impact is still the same, this election saves the unnecessary exchange of cash.

Repayment of Term Loan

Given that the land and building are collateral for the term loan, it would need to be repaid once the land and building are sold. This would have no tax implication, since the repayment of principal is not a taxable or deductible transaction. Any interest paid on the loan, or costs to cancel the loan early, would be deductible from income, as the loan was used for business expenses.

Leaseback

When the property is leased back, UBI will be able to deduct the lease payments as an operating expense. Many commercial leases require the tenant to pay for property tax, and repairs and maintenance, so those costs would not change and would also be deductible. If UBI is required to pay for improvements made to the building, these would be in the form of leasehold improvements, which are deductible as CCA in Class 13 straight-line over the term of the lease, plus the first renewal term. This could be more beneficial than adding the amounts to Class 1 if UBI still owned the building.

GST/HST on Lease

The lease of non-residential property is considered a taxable supply. UBI would be required to pay HST, but would claim an input tax credit for that HST paid. “Rent” also includes any triple-net costs (typically property tax, insurance, and repairs and maintenance) charged by the landlord to the tenant, so HST is also payable on that portion of the rent. Again, UBI could claim an input tax credit for that cost.

Recommendation

Given that only a little over $5.7 million could be sourced from selling the property, it might be a better option to finance an additional amount, as only $5.6 million in debt is secured by the property, compared to $12.5 million in value. Any interest paid on that borrowing would be deductible against business income, and this would allow UBI to retain ownership of the building. However, a finance expert should be consulted on this matter, as taxation should not be the only factor in making these decisions.

For Assessment Opportunity #13 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the tax consequences of the proposed sale and leaseback.

Competent – The candidate discusses the tax consequences of the proposed sale and leaseback.

Competent with distinction – The candidate discusses in depth the tax consequences of the proposed sale and leaseback.

APPENDIX D

JUNE 1, 2023 – DAY 3
SIMULATIONS AND MARKING GUIDES

COMMON FINAL EXAMINATION
JUNE 1, 2023 – DAY 3

Case #1 **(Suggested time: 90 minutes)**

Home and Garment Inc. (HG) was incorporated by Olive Ray on January 1, 2021, in Whitehorse, Yukon. HG is located in a busy strip mall, and its mission is to provide high-quality and environmentally sustainable home and garment care. HG currently only offers residential cleaning services and tailoring, and Olive's objective is to expand the business. A portion of HG's initial financing was provided by Margaret, who is a CPA and a partner in an accounting firm. She requires the financial information of all companies she invests in to be compiled by her firm. Margaret and Olive each hold one-half of the outstanding common shares of HG. It is December 15, 2022, and you, CPA, have been hired by HG as an advisor in preparation for its December 31, 2022, year end. HG accounts for its transactions under IFRS.
Olive indicated that HG's labour costs for residential cleaning services have been higher than budgeted for the first 11 months of 2022 (Appendix I). She asks you to calculate the efficiency and rate variances and to explain the results and potential causes for those variances. She would also like you to provide an actual-versus-standard analysis of the ratio of labour cost to revenue.

Consumer interest in natural and sustainable products has increased over the past several years. Early in 2022, HG began selling bottles of its natural floor-cleaning product. Customers were pleased with the product, with only 15% of products being returned, and showed interest in other natural cleaning products. In November 2022, HG began selling annual subscriptions for monthly Green Baskets, which contain high-quality, environmentally sustainable products such as soaps, detergents, and cleaning sprays (Appendix II).

On October 31, 2022, Olive was approached by Lily, who owns a laundry service, Creases Inc. (Creases), in a neighbouring town. Lily offered to help Olive expand her business to include a similar service, but with an environmental sustainability focus, as there are currently no laundry services in Whitehorse with this focus. Olive has provided details of the potential expansion and the loan that the bank approved (Appendix III). She asks you to calculate the payback period for the investment, taking into account the financing costs. She would also like a SWOT analysis of HG, to help determine if this expansion is worth pursuing from a strategic standpoint.

One of the bank requirements for the new loan is an audit of the financial statements for the year ending December 31, 2022. Olive would like to understand the difference between a compilation and an audit and the implications of the change of engagement type for HG. She feels confident that Margaret will be able to do the audit quickly as she is very familiar with HG. Olive would also like you to provide audit procedures that will likely be performed over cleaning and tailoring revenue, Green Basket revenue, and employee wages and deductions. She has provided you with some information on HG's processes (Appendix IV).

HG has a tailor who the Canada Revenue Agency has confirmed to be a contractor for tax purposes, since, amongst other things, he performs these services for many clients. Olive asks you to help him understand if, from a tax perspective, it would be better for him to incorporate or to remain as a sole proprietor, and what the differences between the two options are.

APPENDIX I
RESIDENTIAL CLEANING SERVICES

Customers can request a Deep Clean or a Quick Clean. During 2022, several customers went from receiving a Deep Clean every two weeks to receiving a Quick Clean every week. Some of these customers, who had previously been satisfied with the Deep Clean, began expressing disappointment with the Quick Clean. The cleaners have been working hard to keep these customers satisfied with the Quick Clean.

HG’s cleaners work between eight and nine hours per day, so each employee is booked either for one Deep Clean followed by one Quick Clean or for three Quick Cleans. Although staff have indicated that it is difficult for them to switch from the expectations of a Deep Clean to those of a Quick Clean, they prefer that over doing three Quick Cleans in a day, which is more tiring.

Two cleaners (typically, one experienced and one newer) are allocated to each job. HG has a good employee retention rate. The longer the employee has worked for HG, the higher the retention rate. The hourly rate is $20 for employees who have worked at HG for one year or more and $18 for employees who have worked at HG for less than one year.

Standard Inputs per Job	Deep Clean	Quick Clean
Number of cleaners	2	2
Length of cleaning in hours	5	3
Total standard labour hours	10	6

Actuals	Deep Clean	Quick Clean
Total labour hours	5,740	6,100
Total labour costs	$114,000	$116,000
Revenue per cleaning	$230	$170
Number of cleanings	550	840

APPENDIX II
GREEN BASKETS

HG began offering the Green Basket annual subscriptions in early November 2022. Customers pay $1,200 upon subscription (by cash, e-transfer, or credit card) and receive a basket on the first of the month for 12 consecutive months. Customers can return unopened baskets for a full refund, up to 45 days after delivery, but Olive is very confident that returns will not exceed 15%, which is the industry average for that type of product.

In November, HG received $60,000 from the sale of 50 annual subscriptions, to begin on December 1, 2022. So far in December, 30 subscriptions have been sold, for $36,000. Each monthly basket will have approximately the same total value and will generate a profit margin of 40%. Olive wants to know how to account for the sale of the Green Baskets; all amounts received have been recorded in revenue.

APPENDIX III
EXPANSION PROJECT AND BANK LOAN

Lily has offered her expertise in return for an annual royalty of 4% of revenue for the first two years and 6% thereafter for as long as the laundry service will exist. On December 1, 2022, HG was approved for a $400,000 bank loan to finance the purchase of the capital assets (including the unit adjacent to the current location) required for the laundry service.

Terms of the bank loan are as follows:

- Closing date is March 31, 2023.
- Audited December 31, 2022, financial statements are required in order for funding to occur.
- Interest of 9% accrues starting March 31, 2023, and is to be paid annually, beginning on March 31, 2024.
- Principal repayments of $50,000 are to be paid annually, beginning on March 31, 2024.
- Maturity date is March 31, 2028, when the outstanding principal is due.
- In the event of non-payment of interest or principal, the bank can foreclose on the assets of the laundry service.

Olive noted the following information for the laundry service:

- HG will wash and fold customers' garments.
- HG expects to generate 60% of Creases' annual sales volume during the first year of operation, 80% in the second year, and 100% in subsequent years.
- Creases' annual revenue averages $222,768.
- HG expects to be able to charge a 10% premium compared to Creases due to its location and its focus on environmental sustainability.
- Three employees will need to be hired at $17/hour. Their hours will be proportional to how busy the laundry service is and will increase to 40 hours per week by the third year.
- Natural and environmentally sustainable detergents from HG's existing supplier will be used, which will cost 50% more than regular detergents; however, the cost of utilities will be reduced by 30% due to the use of energy-efficient washing machines and dryers.
- Creases' current other annual costs are as follows:
  - Detergent: $10,000
  - Utilities: $15,000
  - Maintenance: $2,500
- Advertising costs will be $10,000 for each of the first and second years of operations and $6,000 per year in subsequent years.

APPENDIX IV
HG'S PROCESSES

Provided by Olive

After a service is performed, HG requires payment by cash, e-transfer, or credit card. For all services, a customer receipt is issued, with a copy held by HG. If a cleaning customer pays cash, the cleaners bring the funds to me at the end of the day. I deposit cash payments at the bank twice a week. The deposit book includes a list of each customer payment that is included in the deposit.

I maintain the daily work schedule for all cleaning employees. Employees sign in and out each day when they are picking up and dropping off their supplies. I reconcile the sign-in sheet to the work schedule every two weeks, approve the schedule, and forward it to a third-party payroll provider. The payroll provider calculates the relevant deductions, initiates direct deposits to employees, and provides me with a summary for the pay period. I record the wage expense based on the summary received.

MARKING GUIDE 3-1
HOME AND GARMENT (HG)
ASSESSMENT OPPORTUNITIES

To: Olive
From: CPA
Subject: Various matters

Assessment Opportunity #1 (Depth and Breadth Opportunity)

The candidate calculates the efficiency and rate variances, explains the results and potential causes for those variances, and provides an actual-versus-standard analysis of the ratio of labour costs to revenue.

The candidate demonstrates competence in Management Accounting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
3.2.1	Develops or evaluates data and information inputs for operational plans, budgets, and forecasts	A
3.2.2	Prepares, analyzes, or evaluates operational plans, budgets and forecasts	A

CPA Map Enabling Competencies:
6.1.2 Uses quantitative and qualitative techniques to clarify the nature of problems
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

Efficiency and Rate Variances

For the Deep Clean and the Quick Clean, there are unfavourable variances. HG budgeted fewer hours at a lower rate to complete the cleans. The actual variances and impacts are determined as follows:

Variance Component	Deep Clean	Quick Clean
Actual quantity of hours (AQ)	5,740	6,100
Actual rate per hour (AR)	\$19.86 (\$114,000 ÷ 5,740 hours)	\$19.02 (\$116,000 ÷ 6,100 hours)
Standard quantity of hours (SQ)	5,500	5,040

Variance Component	Deep Clean	Quick Clean
	(2 cleaners × 5 hours per house × 550 total cleans)	(2 cleaners × 3 hours per house × 840 total cleans)
Standard rate per hour (SR)	$19.00 (2 cleaners at rates of $20 and $18 per hour)	$19.00 (2 cleaners at rates of $20 and $18 per hour)
Variance	**Deep Clean**	**Quick Clean**
Rate Variance		
(AR - SR) × AQ	$4,940 Unfavourable	$100 Unfavourable
Efficiency Variance		
(AQ - SQ) × SR	$4,560 Unfavourable	$20,140 Unfavourable
Total lower profit	**$9,500**	**$20,240**

Explanation of the Results

Overall, the total variance is unfavourable at $29,740 ($9,500 Deep Clean and $20,240 Quick Clean), with the primary variance coming from the efficiency variance within the Quick Clean.

The unfavourable rate variance in both types of cleaning services, but mainly in the Deep Clean, means that the rate paid to the cleaners is higher than what was budgeted.

The unfavourable efficiency variance means that the number of hours spent per cleaning is higher than planned. For the Deep Clean, each cleaning took an average of 10.4 hours (5,740 hours ÷ 550 cleanings) instead of the 10 hours used as a standard (2 cleaners × 5 hours). For the Quick Clean, it took an average of 7.3 hours per cleaning (6,100 hours ÷ 840 cleanings), which is 1.3 hours more than the standard 6 hours (2 cleaners × 3 hours).

Ratio of Labour Cost to Revenue

HG had budgeted a ratio of labour costs to revenue of 83% and 67% for Deep Clean and Quick Clean, respectively. However, the actual ratios were 90% and 81%, respectively.

Total revenue	**Deep Clean**	**Quick Clean**
Revenue per clean	$230	$170
Total number of cleanings	550	840
Total revenue	$126,500	$142,800
Standard ratio of labour costs to revenue	**Deep Clean**	**Quick Clean**
Standard labour costs	$104,500	$ 95,760
Revenue	$126,500	$142,800
Ratio	83%	67%
Actual ratio of labour costs to revenue	**Deep Clean**	**Quick Clean**
Actual labour costs	$114,000	$116,000
Revenue	$126,500	$142,800
Ratio	90%	81%

Potential Causes for Variances

Efficiency variance

The unfavourable efficiency variance does not seem to be related to staff inexperience. As the rate variance is also unfavourable, this indicates that more experienced staff were utilized. This is supported by the fact that HG has a good retention rate. As a result, the unfavourable efficiency variance must be related to operational inefficiencies. Although both the Quick Clean and the Deep Clean have a negative variance, the variance is more significant for the Quick Clean. This is also supported by the actual ratio of labour cost to revenue compared to the standard ratio, with the Quick Clean showing a much higher variance of 14% (81% - 67%) than the Deep Clean variance of 7% (90% - 83%). The following are some reasons that may explain the unfavourable variances:

- Several customers have gone from a Deep Clean every two weeks to a weekly Quick Clean, and some have been disappointed with the service. The cleaners have been working hard to keep these customers satisfied with the Quick Clean. This may result in staff spending additional time beyond the standard three hours in an attempt to avoid negative feedback.
- Staff mentioned that they find it difficult to switch between the expectations of a Deep Clean versus a Quick Clean. They might be spending more time than budgeted on the Quick Clean when they are doing it right after a Deep Clean.
- Staff indicated that, when they do three Quick Cleans in a day, they get tired by the third cleaning of the day. They may become less efficient on the third cleaning, and take longer than three hours.

Rate variance

The overall rate variance for both the Deep Clean and the Quick Clean is unfavourable. We have identified the following potential causes:

- The $2 per hour raise that cleaners get after they have worked with HG for one year might be contributing to a higher than planned retention rate. Although typically an experienced staff member is paired with a newer staff member, this may not always be possible if there are more experienced staff members than less experienced. Such a situation would increase the average hourly rate paid compared to budget.
- It is also possible that the longer hours worked by the cleaners are causing overtime, which could potentially be paid at a higher rate. This is not likely to be the main cause, however, since the rate variance is almost nil in the Quick Clean, where most of the efficiency variance is (and where most of the overtime hours would be spent).

Conclusion

To help align the operations with the budget, HG needs to set clear standards for its customers regarding what is included in a Quick Clean. If a customer requires additional services, HG should indicate that extra charges will be applied.

For Assessment Opportunity #1 (Management Accounting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to calculate the efficiency and rate variances, discuss potential causes for those variances, and provide an actual-versus-standard analysis of the ratio of labour costs to revenue.

Competent – The candidate calculates the efficiency and rate variances, discusses potential causes for those variances, and provides an actual-versus-standard analysis of the ratio of labour costs to revenue.

Competent with distinction – The candidate calculates the efficiency and rate variances, thoroughly discusses potential causes for those variances, and provides an actual-versus-standard analysis of the ratio of labour costs to revenue.

Assessment Opportunity #2 (Depth and Breadth Opportunity)

The candidate discusses the accounting treatment for the Green Basket revenue and right of return.

The candidate demonstrates competence in Financial Reporting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
1.2.2	Evaluates treatment for routine transactions	**A**

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

There are two separate issues that need to be considered.

Performance Obligations

The first issue is whether the performance obligations have been satisfied by HG, which will affect whether revenue should be recognized in the 2022 financial statements. The Green Basket revenue should be recognized in accordance with *IFRS 15: Revenue from contracts with customers.* The first step is to identify the performance obligations. Per IFRS 15.22:

> *At contract inception, an entity shall assess the goods or services promised in a contract with a customer and shall identify as a performance obligation each promise to transfer to the customer either:*
>
> *(a) a good or service (or a bundle of goods or services) that is distinct; or*
>
> *(b) a series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer.*

When a customer purchases the annual subscription, HG has an obligation to transfer 12 monthly baskets to the customer. Each basket is distinct, the customer can benefit from each one as a standalone basket, and the baskets have the same pattern of transfer to the customer, since they are received monthly. In addition, each of the 12 baskets purchased in the subscription is separately identifiable from the other baskets in the subscription. Therefore, the delivery of each basket represents a distinct performance obligation.

Per IFRS 15.35(a), "*an entity transfers control of a good over time and therefore satisfies a performance obligation and recognizes revenue over time […] when the customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs.*"

As HG delivers the baskets, the customers can immediately consume the benefit. However, until they receive the baskets, the customers cannot benefit from the goods. Therefore, each Green Basket delivery represents a performance obligation. HG can recognize revenue only when each basket is delivered.

Therefore, the entries to credit revenue for the $60,000 collected in November 2022 and the $36,000 collected in December 2022 will need to be reversed, and those amounts will need to be recognized as follows:

Dr. Cash $96,000
  Cr. Unearned revenue $96,000

As the Green Baskets are delivered, HG will need to allocate the revenue to each performance obligation (i.e., each Green Basket included in the annual subscription).

Per IFRS 15.76, “To allocate the transaction price to each performance obligation on a relative stand-alone selling price basis, an entity shall determine the stand-alone selling price at contract inception of the distinct good or service underlying each performance obligation in the contract and allocate the transaction price in proportion to those stand-alone selling prices.”

The allocation should be based on a relative standalone selling price, being what HG could expect to receive if each individual basket were sold separately to a customer. Each monthly basket will be of roughly the same value, which is $100 per Green Basket ($1,200 ÷ 12 baskets). Therefore, when each monthly basket is delivered, HG can recognize it as revenue for $100. Accordingly, for the December 1, 2022, delivery date, HG can recognize $5,000 (50 subscriptions × $100/basket) because the performance obligation of the first month of the annual subscription has been satisfied. A corresponding cost of sales (COS) will also be recognized for 60% of the revenue (so $3,000 for December 2022). However, we need to consider the second issue: the right of return.

Right of Return

Pursuant to the annual subscription contract, customers who purchase the annual subscription have the right to return unopened baskets within 45 days of receipt. Upon return, the customer will receive a full refund for the Green Basket.

Per IFRS 15.B21, *“to account for the transfer of products with a right of return, […] an entity shall recognise all of the following:*

> *(a) revenue for the transferred products in the amount of consideration to which the entity expects to be entitled (therefore, revenue would not be recognised for the products expected to be returned);*

A right of return is not a separate performance obligation, but it affects the estimated transaction price for transferred goods. Revenue is only recognized for those goods that are not expected to be returned. According to paragraph B23, *"An entity shall apply the requirements in paragraphs 47–72 (including the requirements for constraining estimates of variable consideration in paragraphs 56–58) to determine the amount of consideration to which the entity expects to be entitled (i.e., excluding the products expected to be returned)."* Therefore, the variable consideration estimate limitation needs to be applied, and as per paragraph 56, *"An entity shall include in the transaction price some or all of an amount of variable consideration estimated in accordance with paragraph 53 only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved."* Since Olive is very confident that the returns will not exceed 15%, which is also consistent with the rate of return on the green baskets and the industry average, this percentage is a suitable estimate for the return of Green Baskets.

(b) a refund liability; and

The refund liability will be a reduction to revenue of 15%. This 15% will be established as a refund liability to account for the estimated returns. As returns are made, the refund liability is reduced.

(c) an asset (and corresponding adjustment to cost of sales) for its right to recover products from customers on settling the refund liability.

The asset is generally equivalent to the cost of sales (i.e., inventory) related to the baskets that are expected to be returned. At the end of each reporting period, HG will need to update the measurement of the products returned and consider whether an impairment is required.

The following entries will be made on December 1, 2022, for the baskets sold in November 2022:

Dr. Unearned revenue	$4,250 [$5,000 × (100% - 15% return rate)]	
Cr. Revenue		$4,250

To record the revenue for the initial basket, less the expected 15% return rate.

Dr. Unearned revenue	$750 ($5,000 × 15%)
Cr. Refund liability	$750

To record the refund liability representing 15% of sales.

Dr. Inventory – right to returns	$450
Dr. Cost of Sales	$2,550 [($5,000 × 60% COS rate) x (100% - 15% return rate)]
Cr. Inventory	$3,000 ($5,000 × 60% COS rate)

To record the asset for the right to recover the products on return and the cost of sales corresponding to the revenue, net of returns.

For Assessment Opportunity #2 (Financial Reporting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting treatment for the Green Basket revenue.

Competent – The candidate discusses the accounting treatment for the Green Basket revenue.

Competent with distinction – The candidate thoroughly discusses the accounting treatment for the Green Basket revenue.

Assessment Opportunity #3 (Breadth Opportunity)

The candidate calculates the payback period for the investment in the laundry service.

The candidate demonstrates competence in Finance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
5.3.1	Develops or evaluates capital budgeting processes and decisions	B

CPA Map Enabling Competencies:
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives

To determine the payback period of the investment, we first need to forecast the laundry service operation.

Year	**1**	**2**	**3**	**4**
Date	**Mar 31, 2024**	**Mar 31, 2025**	**Mar 31, 2026**	**Mar 31, 2027**
Revenue	$147,027	$196,036	$245,045	$245,045
Direct labour	(63,648)	(84,864)	(106,080)	(106,080)
Detergent	(9,000)	(12,000)	(15,000)	(15,000)
Gross margin	**74,379**	**99,172**	**123,965**	**123,965**
Utilities	(6,300)	(8,400)	(10,500)	(10,500)
Maintenance	(1,500)	(2,000)	(2,500)	(2,500)
Royalty	(5,881)	(7,841)	(14,703)	(14,703)
Advertising	(10,000)	(10,000)	(6,000)	(6,000)
Interest expense	(36,000)	(31,500)	(27,000)	(22,500)
Net cash flow	**14,698**	**39,431**	**63,262**	**67,762**
Cumulative cash flow	**$14,698**	**$54,129**	**$117,391**	**$185,153**

Year	**5**	**6**	**7+**
Date	**Mar 31, 2028**	**Mar 31, 2029**	**Mar 31, 2030**
Revenue	$245,045	$245,045	$245,045
Direct labour	(106,080)	(106,080)	(106,080)
Detergent	(15,000)	(15,000)	(15,000)
Gross margin	**123,965**	**123,965**	**123,965**
Utilities	(10,500)	(10,500)	(10,500)
Maintenance	(2,500)	(2,500)	(2,500)
Royalty	(14,703)	(14,703)	(14,703)
Advertising	(6,000)	(6,000)	(6,000)
Interest expense	(18,000)	0	0
Net cash flow	**72,262**	**90,262**	**90,262**
Cumulative cash flow	**$257,415**	**$347,677**	**$437,939**

Revenue – To forecast revenue, we will use Creases' revenue with the adjustments indicated in Olive's notes, including the premium due to the use of natural and environmentally-sustainable products, and the increase of revenue over the first two years.

Creases' revenue	$222,768
10% premium	$245,045
Year 1 (60% of Creases' revenue expected in first year)	$147,027
Year 2 (80% of Creases' revenue expected in the second year)	$196,036
Year 3 (Revenue expected to stabilize)	$245,045

Direct labour – Olive has projected that, by the third year, three employees will be needed at $17 per hour, 40 hours per week, which is $106,080 (3 employees × $17/hour × 40 hours per week × 52 weeks per year). Assuming that the labour hours will be proportionate to the sales volume, it will cost $63,648 in labour the first year ($106,080 × 60%) and $84,864 in the second year ($106,080 × 80%).

Detergent – Creases' annual detergent costs are $10,000. Per Olive, it is forecasted to cost HG 50% more per year to purchase natural and environmentally-sustainable detergent, which is $15,000 ($10,000 × 150%). Assuming that the detergent use will be proportionate to the sales volume, it will cost $9,000 in detergent the first year ($15,000 × 60%) and $12,000 in the second year ($15,000 × 80%).

Utilities – Due to the use of energy efficient washers/dryers, Olive is expecting to save 30% in standard utility costs. Creases' annual costs are $15,000; therefore, HG's annual forecasted utilities are $10,500. Assuming that the use of utilities will be proportionate to the sales volume, it will cost $6,300 in utilities the first year ($10,500 × 60%) and $8,400 in the second year ($10,500 × 80%).

Maintenance – Maintenance costs are assumed to be the same as for Lily's operations, and also assumed to be proportionate to the sales volume. They should be $1,500 for the first year ($2,500 × 60%), $2,000 for the second year ($2,500 × 80%) and $2,500 for Year 3 and beyond.

Royalty – Lily has offered her experience and knowledge of operating a laundry business to HG for an annual royalty of 4% of revenue for the first two years ($147,027 × 4% = $5,881 for the first year, $196,036 × 4% = $7,841 for the second year), and 6% per year thereafter ($245,045 × 6% = $14,703).

Advertising – As per Olive's notes, advertising costs will be $10,000 for the first and second years of operations, and $6,000 per year in subsequent years.

Interest – Per the terms of the bank loan, interest of 9% accrues, starting on March 31, 2023, and is to be paid annually on the last day of the loan year. The following payments will need to be made, and reflect a cost that can be allocated to the laundry service:

Item	March 31, 2024	March 31, 2025	March 31, 2026	March 31, 2027	March 31, 2028
Principal on last day of loan year	$400,000	$350,000	$300,000	$250,000	$200,000
Interest	36,000	31,500	27,000	22,500	18,000
Principal repayment on last day of loan year	(50,000)	(50,000)	(50,000)	(50,000)	(200,000)
Outstanding principal	$350,000	$300,000	$250,000	$200,000	$0

Other

No occupancy costs have been considered regarding the new unit that is being purchased. This new purchase will certainly come with additional costs that should be considered in this analysis, such as property taxes, insurance, etc.

Conclusion

Per the forecast above, it will take HG just under seven years to recover the costs of the investment required for the laundry service. In addition, HG needs to ensure that it has $50,000 in cash each year to make principal repayments, especially in the first few years, when the net cash flow is below $50,000.

HG needs to consider the reasonability and accuracy of Creases' operational data provided by Lily. As HG is basing the forecast on Creases' operational data to determine the payback period of the capital assets, if the data received is not accurate, it could significantly impact HG. Creases' operation will be similar, but HG will need to consider that Creases is not operating with the mission of environmental sustainability.

I also want to bring to your attention that the calculation of a payback period, although useful, has its limitations. For example, since it does not consider the time value of money, it is more useful in an economy that has low inflation. It also does not consider the profit beyond the seven years included in the analysis, like a discounted cash flow or an internal rate of return would.

For Assessment Opportunity #3 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to calculate the payback period for the investment in the laundry service.

Competent – The candidate calculates the payback period for the investment in the laundry service.

Competent with distinction – The candidate thoroughly calculates the payback period of the investment in the laundry service.

Assessment Opportunity #4 (Breadth Opportunity)

The candidate prepares a SWOT analysis for the potential expansion into laundry services.

The candidate demonstrates competence in Strategy and Governance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
2.3.2	Evaluates the entity's internal and external environment and its impact on strategy development	B

CPA Map Enabling Competencies:
2.1.3 Identifies the strategic impact of internal decisions and external influences on project plans and initiatives
5.1.1 Applies general business knowledge to enhance work performed
5.1.2 Recognizes the interrelationships among departmental and functional areas within the organization
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

The following are the strengths, weaknesses, opportunities, and threats of HG linked with the decision of adding the laundry service.

Strengths

- HG has a clear mission. It is experienced and successful in providing services that include natural products, and it promotes quality and environmentally-sustainable products with its Green Baskets, which have been popular so far. The expansion aligns with HG's mission to provide high-quality and environmentally-sustainable home and garment care, as the laundry service will use energy-efficient washing machines and dryers and environmentally-sustainable detergents.
- HG has two main revenue streams, home and garment, which allows it to deal with risk better, since it can rely on the other stream if one is struggling. The expansion allows HG to grow the garment side of the business even more with a different type of revenue, further increasing diversification. It is also consistent with Olive's objective to expand the business.
- HG has a supplier that provides all the environmentally-sustainable cleaning products needed for the cleaning services and Green Baskets. This supplier will supply the products required for the laundry service. HG may be able to negotiate volume discounts on the products.
- HG seems to have a good reputation with its customers, as customers are pleased with the existing bottles of the natural floor-cleaning product, with only 15% of products being returned. This could help the expansion, with current customers praising HG's brand and products.
- HG is already well established in the strip mall. The space adjacent to the current location would be used for the laundry service, which would increase HG's presence and enable Olive to effectively manage both sides of the business.
- HG has a strong leader in Olive, who has done well managing the cleaning and tailoring services. Lily, who has experience running a successful laundry business, has offered to help HG establish its laundry service. Her help will make HG even stronger.

- Margaret is financially literate, since she is a CPA. She brings experience and knowledge to HG, which can be helpful in making financial decisions regarding the expansion and the financing of it. She is a good resource to have on the team, as she complements Olive's experience in managing cleaning and tailoring services.

Weaknesses

- HG has no prior experience in laundry. There may be nuances that have not been considered in the actual operations, or HG may have difficulty attracting customers. It may take more time than anticipated for the laundry service to begin operating smoothly and at capacity.
- Olive is the only one managing HG, so a lot of responsibilities lie on her shoulders. With the addition of the laundry service, there is a risk that she will not have enough time to devote to the existing services as well as the laundry service, since she is already busy full-time with the rest of the business. This may cause both services, or one service, to suffer. It may be necessary to hire additional help to manage the business, which would need to be factored into the forecast.
- There are some unfavourable rate and efficiency variances in the current cleaning services, which could have financial consequences if not addressed, and could impact the availability of resources for the expansion, or for future projects.
- Some cleaning services customers have expressed disappointment with the Quick Clean service. If the issue is not fixed quickly, it could affect HG's reputation and limit the sales of future services.
- No market study seems to have been performed to determine the presence of a market for such services in the area, which shows a lack of due diligence before embarking on a new project.

Opportunities

- HG has an existing customer base that values environmental sustainability. Therefore, customers of the cleaning services are likely to use the laundry service, and HG can offer discounts to existing cleaning customers to incentivize the use of the laundry service.
- HG has an existing customer base for garment tailoring, which likely differs from its cleaning customer base. This garment tailoring customer base provides another group to sell laundry services to.
- There is an opportunity for synergies between the home and garment sides of HG. This proposal provides for a way to capitalize on this. For example, HG can offer cleaning customers the ability to leave their laundry for the cleaners to take back to HG. HG can offer convenience to customers through the pick-up and drop-off of laundry.

- Consumer interest in environmental sustainability has been increasing in recent years. Currently, there is no laundry service in Whitehorse that focuses on environmental sustainability through the products used. The proposal will allow HG to be a "first mover" in this area.
- HG is in a busy strip mall and is, therefore, highly visible to many consumers. Acquiring new customers for laundry services likely depends heavily on visibility, so the new proposal is a good fit.

Threats

- There are likely other laundry services in Whitehorse, although not with an environmental sustainability focus. HG will have to charge more than traditional services due to the use of premium products. Consumers may not be willing to absorb the premium, especially with the new laundry service.
- This industry has relatively low barriers to entry. Other new competitors could appear in the landscape rapidly, with little expertise or specific competences needed.
- The absence of competitors offering this service with an environmental focus might indicate the lack of a market for such services in the area.

Conclusion

Based on the analysis above, it is recommended that HG pursue the expansion. The expansion aligns with HG's mission and the intention to expand the business, so it is worth pursuing from a strategic standpoint. Although there are some risks, they are, to an extent, mitigated based on HG's unique value of environmental sustainability and the existing customer base that may use the laundry service. We advise performing market research first, to reduce risk.

For Assessment Opportunity #4 (Strategy and Governance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate discusses a few of the SWOT factors for HG.

Competent – The candidate discusses some of the SWOT factors for HG.

Competent with distinction – The candidate discusses several of the SWOT factors for HG.

Assessment Opportunity #5 (Breadth Opportunity)

The candidate discusses the differences between a compilation and an audit engagement and the implications of the change of engagement type for HG.

The candidate demonstrates competence in Audit and Assurance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core
4.2.1	Advises on an entity's assurance needs	B
4.3.1	Assesses issues related to the undertaking of the engagement or project	B

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

If HG obtains the bank loan, it will need to have an audit for the year ended December 31, 2022. The audited financial statements will need to be completed prior to March 31, 2023. HG had a compilation for the year ended December 31, 2021. The following are some of the differences between a compilation and an audit, as well as the implications for HG.

Difference	Audit	Compilation
Standard(s) applied	Canadian Auditing Standards (CAS)	Canadian Standard on Related Services: *CSRS 4200 – Compilation engagements*
Objective of the auditor/practitioner	The auditor's objectives are to: • obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework (for HG, this will be IFRS); and • report on the financial statements, and communicate as required by the CAS, in accordance with the auditor's findings.	The practitioner's objectives are to: • assist management in preparing the compiled financial information in accordance with a basis of accounting selected by management, based on information provided by management; and • report in accordance with CSRS 4200.
Level of assurance	An audit provides reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error.	A compilation provides no assurance over the financial statements.

Difference	Audit	Compilation
Ethical requirements	The auditor shall comply with relevant ethical requirements, including integrity, objectivity, professional competence, due care, confidentiality, and professional behaviour. The auditor shall also comply with relevant independence requirements. The auditor shall plan and perform an audit with professional skepticism, and shall exercise professional judgment in planning and performing an audit of financial statements.	The practitioner is required to comply with relevant ethical requirements, including integrity, objectivity, professional competence, due care, confidentiality, and professional behaviour. Relevant ethical requirements do not require the practitioner to be independent of the entity for a compilation engagement. However, when the practitioner may be seen by a reasonable observer as lacking independence, the relevant ethical requirements may require disclosure in the compilation engagement report. The practitioner is also required to exercise professional judgment in performing the compilation engagement.
Nature and extent of procedures	As the auditor is providing a high level of assurance during the audit, the amount of evidence that needs to be gathered is also high. Therefore, the auditor will perform a variety of procedures to obtain sufficient, appropriate audit evidence, including substantive procedures and/or tests of internal controls. CAS 315 outlines that the procedures performed will include:	As the practitioner is not providing assurance over the financial statements in a compilation, the level of procedures required is significantly less than for an audit. The practitioner will not perform substantive procedures or tests of internal controls. Per CSRS 4200, the practitioner shall perform the following procedures in a compilation engagement:

Difference	Audit	Compilation
	(i) determination of materiality and performance materiality for the audit; (ii) performance of risk assessment procedures to identify risks at the overall financial statement level, and at the assertion level for classes of transactions, account balances, and disclosures; (iii) planning responses to the assessed risks of material misstatement at the overall financial statement level and the assertion level. Such responses at the assertion level could include substantive procedures (which may include detailed sampling of individual financial statement balances, vouching transactions to source documents, inspections, confirmations, recalculations and analytical procedures) and/or tests of controls that test the operating effectiveness of controls established by the entity to prevent, or detect and correct, material misstatements; and	(i) Obtain knowledge of the entity's business, operations, accounting systems/records, and basis of accounting, sufficient to be able to perform the compilation engagement. (ii) Prepare the compiled financial information, including a note in the compiled financial information that describes the basis of accounting applied in the preparation of the compiled financial information. (iii) When the practitioner assists management with significant judgments used in the preparation of the compiled financial information, the practitioner shall discuss those judgments with management, so that management understands their impact on the compiled financial information and accepts responsibility for them.

Difference	Audit	Compilation
	(iv) evaluating the audit evidence obtained, using professional skepticism and professional judgment, to determine if sufficient appropriate audit evidence has been obtained to reduce audit risk to an acceptably low level, and thereby enable the auditor to draw reasonable conclusions on which to base the auditor's opinion.	(iv) After preparing the compiled financial information, the practitioner shall read the compiled financial information in light of the practitioner's knowledge of the entity and the basis of accounting applied in the preparation of the compiled financial information and consider whether such compiled financial information does not appear misleading. (v) The practitioner shall obtain an acknowledgment from management or those charged with governance, as appropriate, that it has taken responsibility for the final version of the compiled financial information.
Cost	Higher cost compared to a compilation due to the more extensive procedures performed to provide reasonable assurance.	Lower cost compared to an audit due to the absence of assurance provided and the less extensive procedures performed.

There are several implications of having an audit done compared to a compilation, which HG will need to consider. In summary, the audit will provide a greater level of assurance but will also require the auditors to perform more extensive procedures that will require more time, which will translate into higher costs for HG. In addition, Margaret's firm will not be able to perform the audit since the auditor needs to comply with independence requirements that are not needed for a compilation (see further discussion below).

Independence

Currently, Margaret is using her audit firm to perform the compilation engagement. (Presumably, the firm is disclosing its lack of independence in the compilation report if required by the relevant ethical requirements.)

As a shareholder of HG, Margaret has a financial interest in HG. Therefore, her firm performing the audit would create an independence issue and would be prohibited.

Opening Balances and Comparative Information

The opening balances will need to be audited as they will affect the current period financial statements. As the December 31, 2021, financial statements were not audited and the engaged auditors will be new to the HG file, they will need to obtain audit evidence on the opening balances. They will need to perform certain procedures over the opening balances, and this may increase the costs and time requirements of the audit. A scope limitation may also be necessary on the inventory, since it might be difficult to audit its opening balance. This account might not be material, however, especially since the Green Baskets would constitute most of the inventory, and they did not start until December 1, 2022.

Assuming that the financial statements present comparative information, the auditor's report will need an Other Matters paragraph, stating that the comparative information was not audited.

For Assessment Opportunity #5 (Audit and Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the differences between a compilation and an audit engagement.

Competent – The candidate discusses the differences between a compilation and an audit engagement and the implications of the change for HG.

Competent with distinction – The candidate thoroughly discusses the differences between a compilation and an audit engagement and the implications of the change for HG.

Assessment Opportunity #6 (Breadth Opportunity)

The candidate provides audit procedures that will likely be performed over cleaning and tailoring revenue, Green Basket revenue, and employee wages and deductions.

The candidate demonstrates competence in Audit and Assurance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		Core
4.3.5	Assesses the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B
4.3.6	Develops appropriate procedures, including Audit Data Analytics (ADA), based on the identified risk of material misstatement	B

CPA Map Enabling Competencies:
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

The audit procedures will be designed to respond to the risks that exist in revenues and employee wages at the assertion level.

Cleaning and Tailoring Revenue

- The auditors will request the detailed subledgers of all the revenue recorded from both the cleaning service and the tailoring service for 2022. The auditors will agree the total per the subledgers to the trial balance, to ensure that the subledgers are complete.

- As many of these services are paid for in cash, completeness of revenue and the related cash receipts are risks.
  - Since there is a schedule for cleaning services, the auditor could perform a substantive procedure that selects a sample of cleaning engagements from the schedule and determines the expected amount of revenue for each transaction, based on the type of cleaning service scheduled. The auditor could then trace the amount to the deposit slip and bank statement to verify that the cash was received, and to the revenue subledger to verify that the transaction was recorded in revenue.
  - For the tailoring services, the auditor could perform a substantive procedure that selects a sample of transactions from the subledger, obtain the customer receipts and verify that the amount is recorded in revenue in the subledger, and trace the amount to the deposit slip and bank statement to verify that the cash was received.
- There may be a risk of overstatement of revenue, particularly if the owners are attempting to obtain bank financing, since they will want to show strong financial results. To test the occurrence and accuracy of cleaning and tailoring revenue, the auditors could perform substantive testing whereby they randomly sample a certain number of revenue transactions recorded in each subledger. For each sample:
  - The auditor will obtain HG's copy of the receipt for the corresponding service (i.e., either a cleaning receipt or a tailoring receipt) and verify that the amount per the receipt is consistent with the amount per the subledger. They will also inspect the date per the receipt and verify that the amount is recorded in the correct period.
  - For cash payments, the auditor can agree the amount received to the corresponding deposit book listing and vouch that the total of the deposit agrees to the amount per the bank statement.
  - Amounts paid by credit card or e-transfer can be agreed to the bank statement based on the date of the receipt.
- For cleaning services, the auditors could perform a substantive analytic by obtaining the daily cleaning schedules for 2022 and recalculating the expected revenue. They will compare their expectation to the actual, and investigate any significant variances through inquiry with management and corroboration to source documents. This procedure could identify both occurrence and completeness errors.
- Another key assertion for revenue is cut-off. The auditors could select the last few cleaning and tailoring revenue transactions recorded in 2022 and the first few transactions recorded in 2023. For each sample selected, the auditors would agree the amount of revenue to the supporting receipt and evidence of customer payment (deposit book, bank statement, or credit card statement), and determine the date per the receipt to confirm that the amount is recorded in the correct period.

Green Basket Revenue

Currently, all Green Basket amounts received have been recorded as revenue. The financial reporting of the Green Baskets has been discussed and should be implemented as indicated. Therefore, there is a risk of overstatement of revenue (occurrence), since most of the revenue does not meet the recognition criteria at year end. The auditors will substantively test the Green Basket revenue through analytical and sampling procedures.

The following steps will be performed:

- The auditors will request the standard contract related to the annual subscription program for the Green Baskets. They will review the contract to develop an understanding of the terms and conditions, including verifying that the delivery of each monthly basket within the annual subscription satisfies a performance obligation. To test this performance criteria, the auditors will verify that HG has an obligation to transfer 12 monthly baskets, and that each basket is distinct. They will inquire with management about the nature of the products that will be included in each basket, and whether the customer is able to derive benefit from each standalone basket, and ensure that the terms are included in the contract.
- The auditors will request the detailed subledger of all the revenue recorded for the sale of Green Baskets during 2022. The auditors will agree the total of the subledger to the trial balance to ensure that the subledger is complete.
- Based on the terms of the contract, the auditors will perform a substantive analytic to test occurrence, accuracy, and cut-off. They will set their expectation that the revenue recorded during 2022 should approximate 1/12th of the total amount collected for the annual subscriptions during November 2022 (none of the subscriptions received in December should be recognized in revenue in 2022). They will compare their recalculation to the actual amount recorded, and inquire with management for any significant variances.
- Alternatively, to test occurrence, cut-off, and accuracy, the auditors could randomly sample the subledger by vouching individual revenue amounts to the supporting customer contract. They will ensure that the contract is signed by both the customer and HG. They will vouch that the dates of the contract sampled are for December 1, 2022, to November 1, 2023, and that the corresponding amount of revenue is correctly recorded (i.e., one month of the annual subscription in 2022).
  - The auditors will verify that the amounts collected in November 2022 and December 2022 that do not represent revenue for 2022 are recorded as deferred revenue. They will recalculate the amount of deferred revenue recorded, based on the contracts sold during 2022, net of the amount recorded as revenue for the first basket of the annual subscription (i.e., 11/12th of the November subscriptions and 100% of the December subscriptions should be deferred revenue).

  - The auditors will vouch the receipt of payment for the contracts sold in November and December 2022 to the November and December bank statements.
- To test the right-to-return liability, the auditors will consider the reasonability of a 15% estimated return rate. This will be performed through inquiry with management and through obtaining third-party evidence to support the 15% return rate for the Green Baskets.
  - The auditors will test whether the revenue recorded is net of the 15% expected return by recalculating, based on the gross revenue received.
  - The auditors will ensure that the offsetting reduction to revenue is recorded as a refund liability.

Employee Wages

<u>Payroll expense</u>

- The auditors will request the detailed subledger of the payroll expense recorded during the year related to the cleaning staff. The auditors will agree the total per the subledger to the trial balance, to ensure that the subledger is complete.
- The auditors will request a Type 2 report, under CSAE 3416 *Reporting on Controls at a Service Organization*, from the payroll provider, to provide evidence regarding the operating effectiveness of controls in place at the service provider. If available, they will review the report to determine whether any exceptions were noted in the controls at the payroll provider during the year. If a Type 2 report is not available, the auditors will have to assess if sufficient, appropriate audit evidence can be obtained to support payroll expenses from substantive procedures alone, or if the auditor will need to request testing of the operating effectiveness of controls at the payroll provider.
- The auditors will perform substantive testing whereby they verify that the number of payments recorded is equivalent to the expected number of payments (i.e., 26 payments for bi-weekly payroll).
- They will then randomly sample a certain number of payroll payments recorded in the subledger. The sample of payroll payments tested by the auditors will be smaller if they are able to rely on controls at the payroll provider. For each sample:
  - The auditors will vouch each payroll amount per the subledger to the payroll summary provided by the payroll provider. They will vouch that the amount is recorded in the correct period, per the date of the payroll slips. This will provide comfort over accuracy and cut-off. For the individual payroll transactions in the sample, the auditors will trace the hours worked to the shift schedules in that period for the employee, to verify the occurrence of payroll. The wage rate will also be verified by checking how long the employee has worked for HG according to their personnel file (i.e., $20 if more than one year; $18 if less than one year).

  - For the payroll summaries relevant to the sampled payroll transactions, the auditors will also agree them to the work schedule provided by Olive. The auditors will vouch that total payroll of the work schedule agrees to the corresponding payroll summary for the pay period from the payroll provider.
  - The auditors will trace the total amount of the sampled payroll summaries to the withdrawal in the corresponding bank statement.
- To test completeness of payroll recorded in the general ledger:
  - The auditors will compare the total wages per the T4 Summary to the payroll expense recorded.
  - The auditors might also review the bank statement for any payments to employees and obtain support for the payment, to determine if the amount relates to payroll.
- To verify the accrual for payroll up to the end of the year that is recorded in the general ledger, the auditors will obtain the payroll report from the payroll provider that spans the year-end date. They will prorate the amounts in the payroll summary for the number of working days before year end, and compare them to the accrued payroll recorded in the general ledger. This provides evidence on cut-off.

Deductions

- Deductions are computed by the payroll provider. If the CSAE 3416 report indicates that these controls at the payroll provider can be relied upon, the auditors only need to do minimal substantive tests (see overall analytics below). If the payroll provider's controls cannot be relied upon, more extensive substantive testing of deductions will be necessary, both overall and at the individual employee level.
- To test submission of deductions taken by the payroll provider to the government, the auditors will select a sample of payroll reports received from the payroll provider. They will add up the total deductions for the pay period, add the employer portion of CPP and EI, and compare this to the monthly submission to the government for deductions, the corresponding withdrawal from the bank statement, and the entry in the general ledger. This proves that the company met its legal obligation to submit deductions to the government.
- To verify the reasonableness of the employee benefits expense in the income statement (representing the employer portion of CPP and EI), the auditors will calculate the expected expense by taking total payroll and multiplying it by the relevant percentages required to be submitted to the government. They will investigate any significant variances from expected amounts.
- If controls at the payroll provider cannot be relied upon, for the sample of individual payroll transactions selected above, the auditors will also compare the deductions made for income taxes and for the employee portion of CPP and EI to government-issued payroll deduction charts. They will then agree these amounts to the payroll summaries received from the payroll provider.

For Assessment Opportunity #6 (Audit and Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate provides a few audit procedures that would be performed over the revenue items or the employee wages.

Competent – The candidate provides some audit procedures that would be performed over the revenue items and the employee wages.

Competent with distinction – The candidate provides several audit procedures that would be performed over the revenue items and the employee wages.

Assessment Opportunity #7 (Breadth Opportunity)
The candidate discusses the differences between sole proprietorship and incorporation.
The candidate demonstrates competence in Taxation.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
6.1.1	Discusses general concepts and principles of income taxation	B

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.2 Articulates limitations to recommendations
6.3.3 Applies decision criteria to choose among viable alternatives
7.1.1 Targets message content and tone to meet audience needs within areas of work responsibility

Contractors have the option to either act as sole proprietors or incorporate their business. Many contractors can be confused about which alternative is optimal for their situation. Based on the information provided, incorporation would result in a Canadian Controlled Private Corporation (CCPC), which is a private corporation controlled by Canadian residents. A corporation is established through the issuance of shares for an amount decided upon by the shareholder(s), which in this case would be the contractor.

Sole Proprietorship

<u>Advantages:</u>

- Setting up a sole proprietorship is simple, and the costs are low. A sole proprietorship often does not need to be separately registered with the government (although local licensing laws vary and should be confirmed). Registration for the GST/HST is required regardless of the legal structure, so this is not a factor either.
- If the business loses money, the losses can be deducted for tax purposes against other income of the sole proprietor.
- The sole proprietor is in control of all the decisions of the business and receives all of the profits of the business.
- As a sole proprietor, a contractor will only need to file a personal tax return.

Disadvantages:

- A sole proprietor has unlimited liability. They are liable for all debts and other liabilities of the business. If the business is sued, all the business and personal assets of the owner are at risk.
- If the sole proprietor is profitable, the individual will likely pay higher taxes than if it were incorporated. The lowest combined federal tax rate is 15%, in addition to territorial taxes, and it escalates from there (as high as 33%), depending on how much taxable income the sole proprietor generates.
- A sole proprietor is required to pay tax on all of the taxable income earned by the business during the taxation year.

Incorporation

Advantages:

- A corporation has limited liability for its shareholders. Should an incident occur in a business that was not a result of the contractor's own negligence, their personal assets are protected from lawsuits against the corporation.
- Due to the small business deduction (SBD), which is available to CCPCs earning business income, a corporation pays significantly lower federal tax on the first $500,000 of active business income (currently 9%).
- Net income after tax can be held within the corporation. It does not need to be distributed to shareholders immediately, which creates a deferral of taxes because the difference between the corporate income tax and personal income tax is only paid when funds are distributed from the corporation.
- Incorporating allows the contractor to plan when to withdraw the profits from the corporation, at which time those funds will be taxed personally. They could withdraw funds over time to keep themselves in lower marginal tax rates each year. Income after corporation income tax can be held within the corporation until the contractor determines they will have a year of low personal income, and thus a lower personal tax rate.
- Shareholders are eligible for the lifetime capital gains deduction on the sale of qualifying small business corporation (QSBC) shares. The shares would generally be considered QSBC shares when the corporation is a CCPC using all or substantially all of its assets primarily toward active business. If the shares of the corporation are sold, the shareholder is exempt from paying taxes on the capital gain, up to the limit. However, in this case, it does not seem there would be a sellable business with any assets beyond the contractor's ability to generate income through their own work. This negates the benefit of the capital gains deduction.

- The shareholders can pay themselves personally from the corporation through either dividends or employment income, allowing for flexibility in retirement planning (because employment income affects both CPP contributions and the RRSP limits).

Disadvantages:

- Setting up a corporation is costly because it requires registering with the government and annual filings with the corporate registry.
- As a separate legal entity, a corporation pays corporate income tax, which is calculated completely separately from the owner's personal income tax. Therefore, the contractors will be required to file a corporate tax return as well as a personal tax return, thus increasing costs. Corporate tax returns can be complex.
- If all the net income from the corporation is paid out to the shareholder as it is earned, leaving the corporation with little or no taxable income, it will be taxed entirely as personal income of the shareholder for tax purposes, at their personal income tax rate. This approach typically leads to the same amount of tax being paid as if the contractor had not incorporated in the first place.
- Business losses within the corporation cannot be deducted for tax purposes against other income of the shareholder.
- While the CRA has confirmed that these workers are contractors for tax purposes, if the relationship were to change in future (for example, if they stopped serving other clients and began working full time for HG), there is a risk that the income could be considered to be personal services business income, which is subject to very high corporate tax rates.

Sole proprietorship is a more common structure for a business that does not have any employees, which is presumably the case for the contractors. Unless the contractor intends to take advantage of the tax deferral, plans to grow their business within their corporation, or will take on liabilities within the CCPC, I would recommend the contractor remains a sole proprietor, to avoid the complexities of filing two tax returns and the costs of incorporation.

For Assessment Opportunity #7 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not attain the standard of reaching competence.

Reaching competence – The candidate discusses a few of the differences between sole proprietorship and incorporation.

Competent – The candidate discusses some of the differences between sole proprietorship and incorporation.

Competent with distinction – The candidate discusses several of the differences between sole proprietorship and incorporation.

COMMON FINAL EXAMINATION
JUNE 1, 2023 – DAY 3

Case #2 **(Suggested time: 80 minutes)**

It is February 2, 2023. Daniel Mao, your new consulting client, owns Horsin' Around Inc. (HAI), a horse ranch that offers horse boarding, trail rides, and riding lessons. Daniel calls you, CPA:
"We have cash flow issues, and we approached the bank for help. They offered a $50,000 unsecured loan at 6.5% interest, which is better than the 20% rate we are currently paying on our credit card balances. We need to provide the bank with our most recent corporate tax returns and our financial statements, prepared in accordance with ASPE. I sent you the financial statements that I drafted, along with my notes (Appendix I). We can discuss other accounting issues later, but can you look at the accounting treatment for the school bus we recently leased? Can you also calculate HAI's taxable income for 2022? We have had to pay so much money in taxes in the past! I emailed you some details from our last tax returns (Appendix II).

"To bring in more revenue, we are launching a summer day camp, which will start in 2023 (Appendix III).

"I need HAI to have a positive cash flow again, and I don't know where to find money. In addition to our usual capital spending, we need a new tractor this year — that's $42,000, and we will need to spend $70,000 to re-roof our stable in five years. Please prepare a pre-tax cash flow forecast so that I can see if we will have sufficient funds for these expenditures. After that, I need your help to find ways to improve our cash flow, and I'm wondering if we should go ahead with the unsecured loan, and if there are other options.

"I have to run — two more rescue horses are arriving today. I love helping them out."

APPENDIX I
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

Horsin' Around Inc.
Balance Sheet
As at December 31

	2022	2021
Assets		
Current assets:		
Cash	$ 100	$ 28,000
Accounts receivable	17,900	10,000
Prepaid insurance	15,000	15,000
Investments	0	12,000
	33,000	65,000
Property, plant, and equipment (Note 1)	1,077,440	1,100,000
Total assets	$ 1,110,440	$ 1,165,000
Liabilities and shareholder's equity		
Current liabilities:		
Credit card payable	$ 22,500	$ 5,000
Accounts payable	50,000	8,000
Accrued interest	1,000	1,000
Shareholder loan	44,500	0
Current portion of mortgage	38,000	37,000
	156,000	51,000
Mortgage	475,000	513,000
	631,000	564,000
Share capital	100,000	100,000
Retained earnings	379,440	501,000
	479,440	601,000
Total liabilities and shareholder's equity	$ 1,110,440	$ 1,165,000

APPENDIX I (continued)
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

Horsin' Around Inc.
Income Statement
For the year ended December 31, 2022

Revenue	
Boarding fees (Note 2)	$ 126,000
Trail rides (Note 3)	50,000
Training and lessons	30,000
Gain on sale of securities	8,000
	214,000
Expenses	
Lease payments (Note 4)	4,000
Donations to registered charities	7,000
Advertising	3,000
Insurance (Note 5)	20,000
Horse feed	27,000
Staff salaries	141,500
Veterinary (Note 6)	29,000
Interest (Note 7)	14,000
Meals and entertainment	2,500
Amortization expense	87,560
	335,560
Net loss	$ (121,560)

APPENDIX I (continued)
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

Notes:

1. Property, plant, and equipment (PP&E)

PP&E Category	Opening Net Book Value	Additions	Amortization	Closing Net Book Value
Land	$ 400,000	$ 50,000		$ 450,000
Buildings	$ 450,000	$ 15,000	$ 22,560	$ 442,440
Vehicles	$ 150,000		$ 45,000	$ 105,000
Furniture and fixtures	$ 100,000		$ 20,000	$ 80,000
Total	$ 1,100,000	$ 65,000	$ 87,560	$ 1,077,440

We invest an average of $40,000 per year in PP&E. In December 2022, we invested $65,000 in land and buildings that we purchased from a neighbouring horse facility that had to close its doors after 20 years in business. It was such a shame — they had many horses boarding there! We will use that facility to grow our own hay, which will reduce our feed purchases by 30% starting in 2023.

2. We board horses (provide food and a stable) for nearby residents. We charge $350 a month per horse and currently board 30 horses. Other barns in the area charge $400. We have not increased rates for several years because we want to keep it accessible. We have the capacity to board an additional 18 horses, but I like our small-barn atmosphere. HAI owns 25 horses that we use for lessons and trail rides, and we have 20 rescue horses that we have taken in over the years who are just enjoying a nice, easy life. Horses cost a lot to feed! Each horse needs about half of a bale of hay each month, at $60 a bale.

3. Trail rides were slow in 2022. As Travel Canada is doing international advertising, focusing on ranch life, this should pick up. In fact, Travel Canada anticipates growth of 7% per year.

4. To transport children to and from the city for the summer camp, we started leasing a used school bus in September. The bus is worth $55,000, and we got it on a five-year lease. The credit union could have financed it at a 5% interest rate, but we preferred to lease it. The contract says we can buy the bus for $15,000 after five years, which is a fair price for what will then be a 15-year-old bus. These buses can stay on the road for 20 years! Payments are $1,000, due on the first of the month.

APPENDIX I (continued)
EXCERPTS FROM DRAFT FINANCIAL STATEMENTS

5. This includes the cost of my corporate-owned life insurance policy of $2,400 and our liability policy for the horses. This doesn't include the extra $5,000 we'll have to pay in insurance for the summer camp, since that won't start until later in 2023.

6. We keep taking in rescue horses, so our veterinary bills keep increasing. They will total around $45,000 in 2023 but should remain stable after that.

7. This relates to both credit card and mortgage interest. Our property value has increased significantly in the last 20 years. We renewed the mortgage two years ago at 2%, and monthly blended payments are $4,000.

APPENDIX II
EMAIL ABOUT TAX MATTERS

To: CPA
From: Daniel Mao
Subject: Tax matters

Hi CPA,

Since we have a loss this year, does it mean that the Canada Revenue Agency (CRA) will send us money for once? How would that work?

HAI's taxable income from the last four years is as follows:
2018: $65,000
2019: $45,000
2020: $30,000
2021: $25,000

HAI sold all of its marketable securities this year. That $20,000 really helped us out. The adjusted cost base was $12,000. I am sure that will cost me a bunch in tax that I will never get back.

Undepreciated capital cost ending balances from HAI's last return are as follows:
Class 1 (4%): $500,000
Class 8: $ 11,000
Class 10: $170,000

We have confirmed with CRA that our activities are not considered to be farming activities for tax purposes.

Regards,

Daniel

APPENDIX III
SUMMER DAY CAMP DETAILS

We will run the day camp for 10 weeks a year during the summer. Other camps advertise a cost of $350 per week. I was thinking of charging $250 per week, to help low-income families. Please calculate the minimum price I can charge for the camp for it to be cash-flow neutral. We can accommodate 30 children each week, and I think we'll be able to fill all spots.

Here is some information related to the costs:

- HAI currently pays $3,000 a year for advertising. We'll run extra ads for 12 weeks before the camp starts, for $100 per week.
- We must pay an annual camp licensing fee of $500. We also need to maintain a maximum child-to-staff ratio of 12:1, so we'll hire staff to run the camp. We need at least two accredited staff onsite, at $25 per hour, which are included in the 12:1 ratio. The rest of the staff do not require special training, and we can pay them $15 per hour. We work 40-hour weeks.
- Gas for the bus will cost $220 per week. In the off months, the local school uses the bus. They pay for their gas and offered HAI $200 a week to use it, but I declined the $200; giving back to the community is more important.
- Incidentals will amount to $200 per week.
- The Provincial Agriculture School has a program in which students work during the summer to gain experience and receive school credits instead of money.

MARKING GUIDE 3-2
HORSIN' AROUND INC. (HAI)
ASSESSMENT OPPORTUNITIES

To: Daniel Mao
From: CPA, consultant
Subject: Advice regarding Horsin' Around Inc. (HAI)

Assessment Opportunity #1 (Depth and Breadth Opportunity)

The candidate discusses the accounting treatment for the school bus lease.

The candidate demonstrates competence in Financial Reporting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
1.2.2	Evaluates treatment for routine transactions	A

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

You asked me to look at the accounting for the bus lease. HAI follows ASPE, and leases are addressed under Section 3065: Leases.

We need to determine if this is a capital lease or an operating lease. Per HB 3065.06, at least one of the following conditions needs to be met in order for the lease to be a capital lease:

(a) There is reasonable assurance that the lessee will obtain ownership of the leased property by the end of the lease term. Reasonable assurance that the lessee will obtain ownership of the leased property is present when the terms of the lease result in ownership being transferred to the lessee by the end of the lease term or when the lease provides for a bargain purchase option.

The contract states that HAI can buy the bus for $15,000 afterwards, which you said was a fair price for a 15-year-old bus. Based on this statement, ownership will not be automatically transferred at the end of the term, and since $15,000 is a fair price, that is likely the fair market value, and the clause is not a bargain purchase option (BPO).

Therefore, this criterion is not met.

(b) The lease term is of such a duration that the lessee will receive substantially all of the economic benefits expected to be derived from the use of the leased property over its life span. Although the lease term may not be equal to the economic life of the leased property in terms of years, the lessee is normally expected to receive substantially all of the economic benefits to be derived from the leased property when the lease term is equal to a major portion (usually 75 percent or more) of the economic life of the leased property. This is due to the fact that new equipment, reflecting later technology and in prime condition, may be assumed to be more efficient than old equipment that has been subject to obsolescence and wear.

The lease term is five years. According to the information provided, buses can stay on the road for 20 years. Therefore, the remaining useful life at the inception of the lease is 10 years, and the lease term represents 50% of the remaining useful life (5 out of 10 years). This is not a major portion of the economic life of the asset as it is less than 75%.

Therefore, this criterion is not met.

(c) The lessor is assured of recovering the investment in the leased property and of earning a return on the investment as a result of the lease agreement. This condition exists if the present value, at the beginning of the lease term, of the minimum lease payments, excluding any portion thereof relating to executory costs, is equal to substantially all (usually 90 percent or more) of the fair value of the leased property, at the inception of the lease. In determining the present value, the discount rate used by the lessee is the lower of the lessee's rate for incremental borrowing and the interest rate implicit in the lease, if known.

Elements for Calculation	Value	Explanation
Rate	0.42% (5% ÷ 12)	The credit union said they would finance the bus at 5%.
Term	60	This is a five-year term. Payments are made monthly: 12 months × 5 years = 60 months.
Payments	$1,000	The lease payments are $1,000, paid monthly.
BPO	NA	There is no BPO, as the purchase price would be equal to the fair value (FV).
Type	1	Payments are due at the beginning of the month.
Present value (PV) of the monthly lease payments	$53,212	= PV (0.42%,60,1000,0,1)
FV	$55,000	The FV of the bus at the inception of the lease, as given.
Portion of FV	**97%**	This is more than 90%.

As the PV of the lease payments is more than 90% of the FV of the lease, this criterion is met.

Therefore, this lease must be accounted for as a capital lease.

Per Section 3065, paragraphs 15 to 18:

> *.15 The lessee shall account for a capital lease as an asset and an obligation.*

.16 The asset value and the amount of the obligation, recorded at the beginning of the lease term, are the present value of the minimum lease payments, excluding the portion thereof relating to executory costs. The amount relating to executory costs included in the minimum lease payments are estimated if not known to the lessee. The interest rate implicit in the lease is affected by the residual value of the leased property in which the lessee usually has no interest. As a result, to use the interest rate implicit in the lease as the discount rate when it is higher than the lessee's rate for incremental borrowing would produce an amount that is less representative of the value of the asset to the lessee than would be obtained by using the lessee's rate for incremental borrowing as the discount rate. Therefore, the discount rate used by the lessee in determining the present value of minimum lease payments shall be the lower of the lessee's rate for incremental borrowing and the interest rate implicit in the lease, if practicable to determine. Notwithstanding the foregoing, the maximum value recorded for the asset and obligation may not exceed the leased asset's fair value.

.17 The capitalized value of a depreciable asset under a capital lease shall be amortized over the period of expected use, on a basis that is consistent with the lessee's depreciation policy for other similar fixed assets (see PROPERTY, PLANT AND EQUIPMENT, Section 3061). If the lease contains terms that allow ownership to pass to the lessee or a bargain purchase option, the period of amortization shall be the economic life of the asset. Otherwise, the property shall be amortized over the lease term.

.18 An obligation under a capital lease is similar to a loan. Lease payments shall be allocated to a reduction of the obligation, interest expense and any related executory costs. The interest expense is calculated using the discount rate used in computing the present value of the minimum lease payments applied to the remaining balance of the obligation.

The following adjusting entries would be required to correctly account for the lease:

DR Lease asset $53,212
    CR Lease liability $53,212

To set up lease asset and liability for the capital lease. Per paragraphs 15 and 16, this is set up using the present value of the minimum lease payments, which was calculated above.

DR Amortization expense $3,547
    CR Accumulated amortization $3,547

To record amortization for the leased asset. Per paragraph 17, this should be over the lease term of five years. Based on the lease payments on the income statement, there have been four lease payments (4 × $1,000 = $4,000); therefore, we should pro-rate the amortization for one-third (4 months over 12) of the year: $53,212 ÷ 5 × 4/12 = $3,547 of amortization.

DR Lease liability	$3,357	
DR Interest expense	$851	
CR Lease payments		$4,000
CR Accrued interest		$208

To reverse the current accounting for the lease payments and to apply payments against the liability and set up lease interest expense and accrual. See below for interest calculation.

Date	Opening	Payment	Interest	Closing	Note
September 1, 2022	$53,212	$1,000		$52,212	1
October 1, 2022	$52,212	$1,000	$218	$51,430	
November 1, 2022	$51,430	$1,000	$214	$50,644	
December 1, 2022	$50,644	$1,000	$211	$49,855	
December 31, 2022	$49,855		$208	$50,063	2
Total			$851		

Note 1: Payments are at the beginning of the month, so the first payment is entirely principal.

Note 2: Since year end is on December 31, 2022, and the next lease payment is not until January 1, 2023 (the next day), there is $208 of accrued interest as of December 31, 2022, for a total liability of $50,063, once the accrued interest is added to the lease liability.

Total impact on income:

Amortization expense:	$	3,547
Lease payments:		(4,000)
Interest:		851
Net income decrease:	$	398 (for use in adjusted net income for tax return)

For Assessment Opportunity #1 (Financial Reporting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting treatment for the school bus lease.

Competent – The candidate discusses the accounting treatment for the school bus lease.

Competent with distinction – The candidate thoroughly discusses the accounting treatment for the school bus lease.

Assessment Opportunity #2 (Breadth Opportunity)

The candidate calculates taxable income for HAI.

The candidate demonstrates competence in Taxation.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
6.2.2	Advises on taxes payable for a corporation	B

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

To calculate taxable income, we must start with adjustments to net income before tax for accounting purposes.

Net loss before tax – per financial statements	$(121,560)
Accounting adjustments – lease	(398)
Adjusted net loss before tax for accounting purposes	$(121,958)

Adjusted net loss before tax for accounting purposes is the starting point for calculating the taxable income:

			Note
Adjusted net loss before tax for accounting purposes		$ (121,958)	
Add back:			
Amortization	$ 91,107		1
Life insurance	2,400		2
50% of meals and entertainment	1,250		3
Taxable capital gain	4,000		4
Charitable donations in financial statements	7,000		5
Lease interest	851		6
		106,608	
Deductions:			
CCA	$ (74,100)		7
Gain for accounting purposes	(8,000)		4
Lease payments	(4,000)		6
		$ (86,100)	
Net loss for income tax purposes		$ (101,450)	

Since there is a net loss for income tax purposes, the taxable income for the year is nil.

Notes:

1. Amortization is non-deductible, as an amount on account of capital.

Amortization per financial statements	$ 87,560
Lease amortization	3,547
Total	$ 91,107

2. Daniel, you are a key person in the organization, and the life insurance policy is owned by the company. However, the premiums related to your life insurance are not deductible unless they are required for financing, which does not appear to be the case here.

3. Meals and entertainment expenses are only deductible at 50%; therefore, 50% of the expense needs to be added back: $2,500 × 50% = $1,250.

4. The gain of $8,000 included in the financial statements needs to be deducted because it is an amount on account of capital. The taxable capital gain is calculated as follows:

Proceeds	$ 20,000
Adjusted cost base (ACB)	12,000
Gain	8,000
Inclusion rate:	50%
Taxable capital gain	$ 4,000

5. Charitable donations have been expensed in the financial statements. However, they need to be added back to calculate the net income for tax purposes. They would usually be deducted when calculating taxable income, up to a maximum of 75% of the net income for tax purposes. Since HAI has a net loss for tax purposes, no charitable donations may be deducted this year, as charitable donations cannot be used to increase a loss.

6. Lease payments made during the year, rather than amounts accrued for accounting purposes, are deductible for tax. Therefore, the interest expense recorded needs to be reversed, and the actual payments deducted, for income tax purposes.

7. CCA is calculated as follows:

CCA Class	Rate	Opening UCC	Additions	Accelerated Investment Incentive	CCA
1 (Buildings)	4%	500,000	15,000	7,500	20,900
10 (Vehicles)	30%	170,000			51,000
8 (Furniture & Fixtures)	20%	11,000			2,200
Total		**681,000**	**15,000**	**7,500**	**74,100**

Note that, since the business that owned the property was closing after 20 years in business, it is assumed that the building was first used before 2007, and is therefore not eligible for a higher CCA rate.

HAI has incurred several expenses in relation to rescue horses (horse feed, veterinary costs, etc.). ITA 18(1)(a) prohibits the deduction of expenses not incurred for the purpose of gaining or producing income. The above calculation assumes that these costs are deductible on the basis that they are public relations costs that would enhance HAI's reputation in the community, and are therefore laid out for the purpose of earning income from a business.

For Assessment Opportunity #2 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to calculate HAI's taxable income.

Competent – The candidate calculates HAI's taxable income.

Competent with distinction – The candidate thoroughly calculates HAI's taxable income.

Assessment Opportunity #3 (Breadth Opportunity)

The candidate assesses the carryover balances.

The candidate demonstrates competence in Taxation.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
6.2.2	Advises on taxes payable for a corporation	B

CPA Map Enabling Competencies:
6.1.1 Identifies and articulates issues within areas of work responsibility
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

You asked me whether the CRA will send you money since HAI has losses this year. For the current year, this is somewhat accurate. Because HAI has a loss for income tax purposes, it is eligible to recover taxes previously paid.

Non-capital Loss Carryovers

Non-capital losses are eligible to be carried back up to three years. The following is based on the information you provided in the email:

Year	Taxable Income	Status	Taxable Income Usable	At a 9% Federal Tax Rate
2018	$ 65,000	Not available	0	0
2019	45,000	Available to carry back	$ 45,000	$4,050
2020	30,000	Available to carry back	30,000	2,700
2021	25,000	Available to carry back	25,000	2,250
Total	**$165,000**		**$100,000**	**$9,000**

2022 loss	$101,450
Applied against taxable income of other years	(100,000)
Available to carry forward	$ 1,450

Using the small business tax rate of 9%, HAI could be eligible to recover $9,000 in the current year. There will also be provincial income taxes that could be recovered.

The remaining loss can be carried forward to future years when HAI has taxable income again. These losses can be carried forward for 20 years.

Capital Gain

HAI incurred a capital gain this year, but its non-capital losses are allowed to be applied against the gain; therefore, there were no taxes associated with this sale. In addition, the non-taxable portion of the capital gain ($4,000, in this case) is added to the capital dividend account, from which tax-free dividends may be paid to you as the shareholder.

If HAI incurs a capital gain in the future, it would pay tax at a higher rate due to earning investment income, but it would also be able to recover a portion of this tax when it pays dividends to you.

Donations to Registered Charities

Since donations cannot be deducted this year due to the loss, the unused donations from this year may be carried forward up to five years for deduction against taxable income in future years.

For Assessment Opportunity #3 (Taxation), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the tax treatment of the carryover balances.

Competent – The candidate discusses the tax treatment of the carryover balances.

Competent with distinction – The candidate thoroughly discusses the tax treatment of the carryover balances.

Assessment Opportunity #4 (Depth and Breadth Opportunity)

The candidate calculates the minimum price for the day camp.

The candidate demonstrates competence in Management Accounting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
3.5.2	Evaluates sustainable profit maximization and capacity management performance	**A**

CPA Map Enabling Competencies:

6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions
6.3.2 Articulates limitations to recommendations

Minimum Price

You asked me to calculate the minimum price to charge for the camps, to be cash flow neutral. We first need to calculate the total incremental costs for the camp, and then divide them by the number of children you think you will have in the summer camps.

Item	Cost	Note
Staff	$26,000	1
Licensing	500	
Advertising	1,200	2
Insurance	5,000	3
Bus	12,000	4
Fuel	2,200	5
Incidentals	2,000	6
Total incremental costs	**$48,900**	
Total number of children	300	7
Minimum price per child	**$163**	

The minimum price you can charge per child, to be cash flow neutral, is $163 per week.

Notes:

1. If 30 children attend each week, three staff will be required (30 ÷ 12 = 2.5 staff). Licensing requires that at least two accredited staff are hired, so the third staff could be hired at $15 per hour.
   Accredited rate: $25 per hour × 40-hour weeks × 2 staff × 10 weeks = $20,000
   Other staff: $15 per hour × 40-hour weeks × 1 staff × 10 weeks = $6,000
2. Advertising for 12 weeks × $100 per week = $1,200. The $3,000 that is already being spent is not included here as it is not incremental to the summer camps.
3. The insurance is an incremental cost for the camps, so it needs to be included.
4. The bus was leased for the purpose of the summer camps, so the whole cost of the lease should be included ($1,000 per month × 12 months = $12,000).
5. $220 per week × 10 weeks = $2,200
6. $200 per week × 10 weeks = $2,000
7. 30 children per week × 10 weeks = 300 children

Conclusion

According to this calculation, $163 per child per week is the minimum price you could charge, for the camps to be cash flow neutral. Other camps advertise a price of $350 per week per child. Your suggested price of $250 would help out lower-income families. Both of these prices ($350 and $250) are above the minimum price of $163; therefore, the camps would generate a profit.

For Assessment Opportunity #4 (Management Accounting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to calculate the minimum price for the day camp.

Competent – The candidate calculates the minimum price for the day camp.

Competent with distinction – The candidate provides a thorough calculation of the minimum price for the day camp.

Assessment Opportunity #5 (Breadth Opportunity)

The candidate prepares a pre-tax cash flow forecast.

The candidate demonstrates competence in Finance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
5.2.1	Evaluates the entity's cash flow and working capital	A

CPA Map Enabling Competencies:
5.1.1 Applies general business knowledge to enhance work performed
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems

You asked me to prepare a pre-tax cash flow forecast, for you to see if you will have sufficient funds for the tractor and the re-roofing. I prepared a forecast below. I used five years because that is when the stable will need to be re-roofed.

Inflows and Outflows	Year 1	Year 2	Year 3	Year 4	Year 5	Note
Operating inflows						
Horse boarding	$126,000	$126,000	$126,000	$126,000	$126,000	1
Trail rides	53,500	57,245	61,252	65,540	70,128	2
Training and lessons	30,000	30,000	30,000	30,000	30,000	
Day camps	75,000	75,000	75,000	75,000	75,000	3
Operating outflows						
Donations	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)	4
Advertising	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	4
Insurance	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	5
Feed costs	(19,404)	(19,404)	(19,404)	(19,404)	(19,404)	6
Staff costs	(141,500)	(141,500)	(141,500)	(141,500)	(141,500)	
Vet costs	(45,000)	(45,000)	(45,000)	(45,000)	(45,000)	7
Meals and entertainment	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	
Amortization expense						8
Day camps	(48,900)	(48,900)	(48,900)	(48,900)	(48,900)	9
Net operating cash flows	**$(2,804)**	**$941**	**$4,948**	**$9,236**	**$13,824**	
Capital investments						
Re-roofing					70,000	
Tractor	42,000					
Capital reinvestment	40,000	40,000	40,000	40,000	40,000	8
Financing						
Mortgage payments	48,000	48,000	48,000	48,000	48,000	10
Credit card repayment	22,500					10
Shortfall to finance	**$(155,304)**	**$(87,059)**	**$(83,052)**	**$(78,764)**	**$(144,176)**	

Notes:

1. \$350 per month × 12 months × 30 horses.
2. Increases at 7% per year per Travel Canada's projection. This may be overly optimistic; we might want to do more research.
3. Using your suggested price: \$250 × 30 children × 10 weeks.
4. Assuming that these will remain the same as last year.
5. The incremental insurance for the horse camps is included on the day camps line.
6. You now have 77 horses: 30 boarding horses, 25 horses that you own, and 22 rescue horses (20 that you already have plus the 2 arriving today). Therefore, 77 horses × ½ a bale per month × 12 months × \$60 per bale = \$27,720. Note that hay prices could increase or decrease as they are commodities and subject to market changes. This has not been incorporated in the analysis and could alter the results. With the additional land purchased, the hay costs will be reduced by 30% as you can grow more: \$27,720 × 30% = \$8,316. The net feed cost will be: \$27,720 - \$8,316 = \$19,404.
7. You noted that, by taking in more rescue horses, you expect the veterinary costs to increase to \$45,000. If you keep taking in rescue horses, the cost might not stabilize and could be higher than planned, which would affect the cash flows negatively.
8. Amortization is a non-cash item, and is therefore not included. However, the average amount spent on yearly capital expenditures has been included.
9. Day camps incremental costs, as calculated above. For the purpose of this calculation, it is assumed that the bus lease will be renewed.
10. Blended payments for the mortgage are \$4,000 per month × 12 months = \$48,000 per year. These are blended payments, and for cash flow purposes, we need to account for both the interest and principal repayments. I assumed that the credit card debt was going to be repaid, following my advice later in this report.

Interpretation of Results

Based on the analysis above, you will require additional sources of cash for the re-roofing, as well as to maintain your business operations. This analysis did not consider the potential need for transportation of the children once the lease for the bus has expired. I have provided additional information on changes to operations below, as well as sources of financing.

As you start earning again, you will have to pay taxes on those earnings, which will reduce cash flow. Taxes are not included in this projection, as per your request.

For Assessment Opportunity #5 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to prepare a cash flow forecast.

Competent – The candidate prepares a cash flow forecast.

Competent with distinction – The candidate prepares a thorough cash flow forecast.

Assessment Opportunity #6 (Breadth Opportunity)

The candidate provides suggestions for improving HAI's cash flow, and advice on sources of financing.

The candidate demonstrates competence in Finance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
5.1.1	Evaluates the entity's financial state	A
5.2.3	Evaluates sources of financing	B

CPA Map Enabling Competencies:
6.1.2 Uses qualitative and quantitative techniques to clarify the nature of problems
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

You have asked for advice on how to improve your cash flow and whether you should proceed with the unsecured loan, as well as advice on other options.

Potential Inflow Increases

Summer camp

If you increase the price for the summer camp to the market rate, you could earn an additional $30,000 (($350 - $250) × 10 weeks × 30 children) per year. However, this may affect demand and is against your goal of providing a low-cost option for lower-income families. Another option would be to offer a discounted price to lower-income families and charge a higher price to the other families. This would keep the camps accessible to the lower-income families, as you wish, while bringing in more revenue to help solve the cash flow issues.

Boarding fees

If you increase boarding fees to the market rate of $400 per month, HAI would earn an additional $18,000 (($400 - $350) × 30 horses × 12 months). However, this could also affect demand negatively.

Number of boarders

You could bring in additional boarders, since the neighbouring barn closed its doors and there are likely customers needing a place to board their horses. You have capacity for 18 more horses. This could provide you with $75,600 ($350 × 18 horses × 12 months) per year, less the feed cost of $4,536 ($60 × 70% × 1/2 a bale per month × 18 horses × 12 months). You would increase cash flows by an additional $10,800 if you charged $400 per month (($400 - $350) × 18 horses × 12 months).

School use of bus

Although it is thoughtful to not accept funds in the off months when you lend your bus to the local school, you want to improve your cash flow, so I suggest you take the offer of $200 per week, if it is not too late. This can also keep costs down, to ensure that more children can access your programs. This would bring you an extra $7,800 (52 weeks - 10 weeks used by HAI for the camp - 3 weeks winter and spring break = 39 weeks × $200).

Loss carrybacks

The cash flow I prepared does not include the refund that will be coming in after carrying back the losses from the current year to the previous years. I did not include it because you requested a pre-tax cash flow forecast, but these funds will help cover some of the short fall in the first year of the forecast.

Potential Outflow Decreases

Provincial Agriculture School program

You should take advantage of the Agriculture School program that would allow you to have a student work at no cost. This would save you $6,000 (1 staff × $15 per hour × 40-hour weeks × 10 weeks).

Rescue horses

You may want to reconsider the number of rescue horses you are boarding. This goes against your personal goal to help horses, but the costs are significant. Currently, you have 22 horses (20 plus the two that just arrived). The hay cost alone is $7,920 (22 horses × 1/2 a bale per month × 12 months × $60 per bale), or $5,544 if you consider the 30% savings. Veterinary costs will also increase because of these horses.

You could also consider using the rescue horses for trail rides, or other activities that you could charge a fee for, if possible, given their condition. This could be done while still giving these horses a good quality of life, as for the other horses you own.

Charitable donations

HAI made significant charitable donations this year. While it appears that you are active in the community and this may align with your personal values, as well as support the business by creating awareness in the community, you should consider reducing the amount of donations made by the corporation in years with low cash flow. You could also consider making donations personally instead, since they are eligible for the donation credit, which is typically larger than the value of a deduction in the corporation. In addition, if you decide not to charge the school for the use of the bus, or you decide to charge a lower-than-market rate for the summer camps, you could see this as a way to give back instead of making charitable donations.

Conclusion

If you implemented all of the recommendations above, you would be able to bring in a total of $156,208 per year ($30,000 + $18,000 + $75,600 - $4,536 + $10,800 + $7,800 + $6,000 + $5,544 + $7,000), which would make the yearly cash flow positive. All of these items may not be possible to implement, considering demand in the area and your values of giving back to the community, providing affordable services, and preserving the small-barn feel. However, you could pick a few of these changes to implement, or also increase some prices without charging the full market price, to be able to be cash-flow positive and still provide affordable services.

Potential Financing Options

Credit cards

Having unpaid balances on credit cards is not the best source of financing, given the high interest rate that credit card companies charge. You should prioritize paying off the credit card balances immediately, to reduce interest payments.

Mortgage

You mentioned that your property has increased in value and you have a mortgage on the property at 2%. You could consider increasing the mortgage on the property if you can still get the low interest rate of 2%. Usually this is done over a long term and will not offer the flexibility of quick repayment. You can negotiate repayment terms with your bank, such as allowing one-time down payments or increasing your monthly repayments if you are in a position to pay off your loan faster with extra cash.

Shareholder loan

You could continue to invest via your shareholder loan. This may be difficult and is not a sustainable source of financing, as it depends on your personal finances. You have already invested $44,500, which is significant. The benefit of this is that these are usually interest-free, with flexible repayment terms.

Vendor financing

You could finance the new tractor from the vendor or see if a lease or low-rate financing is available. It would reduce the immediate cash outflows. The bus financing was an attractive rate at 5%; perhaps a similar rate is available for the tractor.

Accounts payable

You may also want to speak with some of your suppliers and negotiate payment plans. However, your accounts payable balance has increased significantly in the last year. You should make sure you are paying them, so that you can retain their services and keep your operations running. You might also be charged interest on your outstanding balances, so keeping on schedule for the payments will likely reduce the amount of interest and late charges you pay.

<u>Unsecured loan</u>

The unsecured loan with the bank at 6.5% for $50,000 would be enough to cover your credit card debt, so I would recommend taking this loan. This will help get some cash flow into your business immediately, until you are able to secure financing at a lower rate, such as an increase in your mortgage. This will help to bridge the financing gap, including paying off the $22,500 of credit card debt, until you are able to implement some of the other recommendations above.

For Assessment Opportunity #6 (Finance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate provides some suggestions for improving HAI's cash flow or advice on sources of financing.

Competent – The candidate provides some suggestions for improving HAI's cash flow, and advice on sources of financing.

Competent with distinction – The candidate provides several suggestions for improving HAI's cash flow, and advice on sources of financing.

COMMON FINAL EXAMINATION
JUNE 1, 2023 – DAY 3

Case #3 **(Suggested time: 70 minutes)**

It is June 19, 2023. You, CPA, meet with Bertina Reed, the CEO of Canadian Bobsled Association (CBA), a not-for-profit organization committed to developing the sport of bobsled in Canada. You were recently hired as controller after the previous controller left.

"Thanks for coming, CPA. On June 1, 2022, a large financial institution granted us $1 million to help train bobsledders in preparation for the Olympics. This grant represents a significant portion of our revenue. At our last meeting of the Board of Directors (the board), we faced some tough questions about how these funds have been spent, and I don't think we have the right data to answer those questions. I've sent you CBA's expenditure tracking sheet and a list of approved spending guidelines that the board developed (Appendix I). Can you help us determine if our spending is in line with the guidelines and discuss possible improvements to our tracking process?

"The board also asked if our grant spending is in accordance with each component of our mission to 'cultivate and grow Canadian youth talent, provide world-class coaching, and maintain quality bobsled infrastructure in a financially responsible manner.' Can you help me answer that too, and provide ideas on how to better align the grant spending with the mission?

"Our board chair, whom we recruited after the previous chair retired, has expressed concern that we are not appropriately managing risk. She provided an enterprise risk management template that is used on another board (Appendix II). Can you complete a risk assessment for our organization using the template and evaluate the risks that are not captured in the template?

"I've also emailed you some notes from the board meeting (Appendix III). Can you explain how to account for the items discussed? We follow Accounting Standards for Not-for-Profit Organizations (ASNPO).

"The auditors asked for some figures from CBA's draft May 31, 2023, year-end financial statements for planning purposes (Appendix IV). This will be our first audit. Please draft a report for me so I can prepare for our next meeting with the auditors. This report should include an assessment of risk at the financial statement level, an explanation of what the auditors' materiality assessment would likely be, and a discussion of the audit approach."

APPENDIX I
EXPENDITURE TRACKING SHEET AND GUIDELINES

Provided by Bertina

Grant Information and Guidelines

The grant came with no conditions, other than submitting audited financial statements.

However, the board approved the following spending guidelines:

- The funding should last at least three years.
- Categories of approved spending are as follows:
  - Administration and fundraising — no more than 10% of the grant
  - Infrastructure and training equipment — at least 20% of the grant
  - Youth development — at least 50% of the grant
- Canadian vendors must be used for most expenditures.

We track grant expenditures on a spreadsheet that is saved on our network, with its access restricted to the accounting and executive staff and their assistants. We update the spreadsheet as we spend. I am shocked at how much we have spent so far. I am not even sure who authorized some of these expenditures. Our senior accountant said that, based on the general ledger, we have spent $593,500.

APPENDIX I (continued)
EXPENDITURE TRACKING SHEET AND GUIDELINES

Provided by Bertina

Expenditure Tracking Sheet

Date	Description	Note	Amount	Vendor
23-Jun-22	Executive staff team building, Vancouver, Canada		$ 20,000	Luxury Hotel
20-Aug-22	Vintage bobsled decoration		$ 45,000	Canadian Sports Museum
2-Oct-22	Van rental for Canadian schools tour		$ 5,000	Alberta Rent-a-Car
27-Oct-22	Consulting	1	$ 80,000	J. Candy Marketing
2-Jan-23	Two bobsleds	2	$ 75,000	U.S. Bobsled Team
15-Jan-23	Kitchen renovations – head office		$ 110,000	Cool Run Contractors
25-Jan-23	Ice track quality review	3	$ 28,000	German Bobsled Association
14-Feb-23	Ice track rental		$ 125,000	Big Snow Mountain, Alberta, Canada
17-Feb-23	Consulting	1	$ 50,000	J. Candy Marketing
28-Apr-23	Executive team travel to Jamaica – Olympic recruiting		$ 25,000	Jamaica Travel Group
Total			$ 563,000	

Notes:

1. J. Candy Marketing is a strategy consulting firm owned by our COO’s sister-in-law. They help us find ways to fundraise and advertise our organization.

2. We looked at Canadian vendors; however, the two bobsleds would have cost a total of $85,000, and we would have had to wait one year for delivery.

3. The conclusion of the review was that our main training track needs repair work before it can be safely used. The repairs were not approved by the board because we have smaller tracks at our facility and can rent longer tracks. Some bobsledders are still using the main track.

I presented to the board the idea of using funds to host an Olympic training camp, where we would have famous Olympic athletes and renowned coaches at our facility. It would be a great training opportunity and good publicity, but our main track would need to be repaired.

APPENDIX II
RISK MANAGEMENT TEMPLATE

Provided by board chair

This is the risk management template specific to a publicly traded diamond reseller, of which I am a board member.

Risk	Overall Risk Rating (Low/Moderate/ High)	Rationale	Mitigation Strategies
Cyber Security: A failure of IT security or lack of IT resources leads to a security breach, resulting in financial loss.			
Inventory Theft: Inventory could be stolen (by either internal or external parties), resulting in financial loss.			
Key Personnel: The inability to attract or retain staff and plan for succession, impacting the organization's ability to achieve its goals.			
Vendor Fraud: A vendor perpetrates fraud (such as kickbacks), resulting in financial loss.			

APPENDIX III
BOARD MEETING NOTES

Provided by Bertina

In March 2023, one of our bobsleds tipped over during training, and a bobsledder broke his foot. After inspection, we identified some worn-out bolts on the sled. A coach usually inspects sleds before a run, but our only coach was sick that day. The bobsledder filed a lawsuit against us, seeking $100,000 in damages. I think there is little merit to the claim, as our bobsledders are responsible for checking gear and have all signed a waiver. I don't want to pay more than $15,000, but our lawyers think the payout will be around $50,000.

The sled is unusable, and we will spend $13,000 to repair it. The insurance company agreed to pay us $15,000. We originally paid $30,000 for the sled, and the net book value was $8,000 before the accident. The replacement cost for the sled is $32,500.

In May 2023, we were the victims of a phishing scam. Our new senior accountant received an urgent email from me, which I did not actually send, asking to pay one of our vendors. As the email seemed legitimate, the accounting department wired the fake vendor $10,000 and debited the general and administration expense account. I spoke with the bank, and they said we have a 75% chance of recouping the full amount.

APPENDIX IV
DRAFT FINANCIAL INFORMATION

As at and for the year ended May 31, 2023

Item	Amount
Total assets	$ 2,250,000
Total liabilities	$ 785,000
Net assets	$ 1,465,000
Total revenue	$ 2,500,000
Total expenses	$ 2,450,000
Excess of revenues over expenses	$ 50,000

MARKING GUIDE 3-3
CANADIAN BOBSLED ASSOCIATION (CBA)
ASSESSMENT OPPORTUNITIES

To: Bertina Reed
From: CPA, controller
Subject: Various matters

Assessment Opportunity #1 (Depth and Breadth Opportunity)

The candidate assesses whether the grant spending is in line with the guidelines, and discusses possible improvements to the tracking process.

The candidate demonstrates competence in Management Accounting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
3.1.1	Evaluates management information requirements	A
3.1.2	Documents and assesses business processes, systems and data requirements and recommends improvements to meet information needs	B
3.2.3	Computes, analyzes, or assesses implications of variances	A

CPA Map Enabling Competencies:
2.1.3 Identifies the strategic impact of internal decisions and external influences on project plans and initiatives
5.1.1 Applies general business knowledge to enhance work performed
5.1.2 Recognizes the interrelationships among departmental and functional areas within the organization
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders

Alignment between the Grant Spending and the Guidelines

The funding should last at least three years

So far, according to the general ledger (GL), we have spent 59% of the total amount received ($593,500 ÷ $1 million). If we want to ensure that we have funds remaining for the next two years, we will need to slow down the spending, since 59% of the funds have been spent but only 33% of the time (one year out of three) has passed.

<u>Percentage of spending by category</u>

To assess whether we are in line with the rest of the guidelines, we need to categorize the spending data. I have added two columns to the spreadsheet, one showing the spending category and another showing the vendor location.

Date Spent	Description	Amount	Category	Vendor Location
23-Jun-22	Executive staff team building, Vancouver, Canada	$20,000	Administration and fundraising	Canada
20-Aug-22	Vintage bobsled decoration	$45,000	Administration and fundraising	Canada
02-Oct-22	Van rental for Canadian schools tour	$5,000	Youth development	Canada
27-Oct-22	Consulting	$80,000	Administration and fundraising	Canada
02-Jan-23	Two bobsleds	$75,000	Infrastructure and training equipment	International
15-Jan-23	Kitchen renovations – head office	$110,000	Infrastructure and training equipment	Canada
25-Jan-23	Ice track quality review	$28,000	Infrastructure and training equipment	International
14-Feb-23	Ice track rental	$125,000	Youth development	Canada
17-Feb-23	Consulting	$50,000	Administration and fundraising	Canada
28-Apr-23	Executive team travel to Jamaica – Olympic recruiting	$25,000	Youth development	International
Unknown	Unknown variance	$30,500	Unknown	Unknown
Total		**$593,500**		

I assumed that all of the expenditures fell into one of the categories. However, since not all of them seemed to have been approved, all expenditures made so far should be reviewed, and we should make sure that they are actually within the spirit of what the board meant in their definition of the categories. For example, is it reasonable to think of the kitchen renovations as an infrastructure expenditure?

Some of the categorizations are subjective, and more information may be required. For example:

- Is the trip to Jamaica to recruit youth? I assumed that it was.
- Is the ice track rental fee for youth development? I assumed that it was.
- Are J. Candy and Cool Run Canadian vendors? I assumed that they are.

This will affect the overall percentages used in the discussion.

Also, as noted later in my report, the total of this list does not equal the total spent according to the GL. I used the GL amount, as it is likely more accurate, and I have added the $30,500 unknown variance into my assessment and left it uncategorized. However, we should investigate to find out where this $30,500 was spent.

With this information, we can sum the data by category to determine the total spent. Please refer to the table below for the categorization, and the summation and determination of the percentage of the total spent.

Category	**Total Amount**	**% of Total Spent**	**% of Total Grant**	**% as per Guidelines**	**$ as per Guidelines**
Administration and fundraising	$195,000	33%	20%	Max 10%	Max $100,000
Infrastructure and equipment improvements	213,000	36%	21%	At least 20%	At least $200,000
Youth development	155,000	26%	16%	At least 50%	At least $500,000
Unknown	30,500	5%	3%		
Total	**$593,500**	**100%**	**60%**		

<u>No more than 10% spent on administration and fundraising</u>

Based on the summary, 33% of the funds used so far were spent on administration and fundraising, including executive staff team building, decoration, and consulting. This also represents 20% of the total grant. This is higher than the initial 10% allocation, and there is no way that we will be under, or at, the recommended allocation unless some of the spending is removed from the grant spending and other funds are used to cover those costs, assuming there are other funds.

We should communicate this overage to the board in order to come up with a plan, such as to remove this as grant spending (and take it from our normal operating funds or from new sources of fundraising).

At least 20% spent on infrastructure and training equipment

Based on the summary, we have spent 36% of the funds used so far on this category. This includes expenditures for two new bobsleds and for an ice track quality review. If we look at the total grant amount, we have spent 21% of the total grant on infrastructure and equipment improvements. I have categorized the kitchen renovations in this category and will provide additional commentary on this spending later in this report. We have met this target as is.

If we remove the kitchen renovations from the grant spending, as it is questionable whether this qualifies as infrastructure, it drops this category to 17% (($213,000 - $110,000) ÷ $593,500) of our total spending to date, and only 10% of the total grant. This is below board expectations. If we spend a portion of the remaining funds on an ice track renovation, as the review noted, we are more likely to meet the guidelines (depending on the actual repair costs).

At least 50% spent directly on youth development

Items classified as youth spending total 26% of the funds spent so far, and only 16% of the grant total, which is significantly lower than the guideline of at least 50%. Therefore, we will need to increase spending on youth development in the next two years.

I was not sure how to categorize the travel to Jamaica for Olympic recruiting. I assumed it was related to youth development; however, Olympic athletes are often adults. If this was not for youth development, the total spent would be even lower.

If we hire an additional coach (see discussion further in this report), it could be an additional cost toward youth development, which also reduces our enterprise risk and is in line with our vision and mission.

Use Canadian vendors for most expenditures

There is some subjectivity to the categorization by geographical regions that I used. For instance, I assumed that the Jamaica Travel Group was located in Jamaica; however, this could be a Canadian-based company. I also assumed that the track quality consultants were from Germany. We need to complete more research to validate my classifications.

Vendor Location	Sum of Expenditures	% of Total Spend	% of Total Grant
Canadian	$435,000	73%	43%
International	128,000	22%	13%
Unknown	30,500	5%	3%
Total	$593,500	100%	59%

The consultants used to assess the ice track quality were from Germany, and the new bobsleds were purchased from the United States. Up to now, we have spent 73% of the funds in Canada. Clarification on what "most" means is required; for example, some could define "most" as more than one-half of the expenditures, while others could define it as closer to 90%. Also, is "most" based on the number of Canadian vendors over the total number of vendors, or it is in terms of dollar value? The amount spent to date represents 43% of the total grant. To ensure that Canadian vendors are used for most expenditures, we will have to complete some research, to ensure that future vendors are Canadian prior to spending, and also make sure that it aligns with the clarification we will get on what "most" means.

Recommended Improvements to the Process

Tracking sheet access

Weakness: The list of expenditures is maintained in a spreadsheet that is accessible to multiple groups of employees.

Implication: A spreadsheet is a tool that is susceptible to errors, especially when multiple individuals have access. This could result in errors in the data or lead to manipulation of the data, which could result in inappropriate information that would mislead the users when referring to the spreadsheet for decision-making purposes.

Recommendation: We should consider tracking the expenditures within our current accounting system, such as a budget module in our GL. Conversely, we could further restrict access to the spreadsheet to a smaller group of individuals.

Expenditure approval

Weakness: You stated that you were not sure who authorized some of the expenditures.

Implication: Some of the expenditures may not be approved, or spending may not be in accordance with the guidelines. As evidenced by the analysis of the grant spending to date, the expenditures are not quite in line with the guidelines.

Recommendation: We should implement an approval process that would require each expenditure to be approved before the funds are released. We should also add a column for approval of the expenditure on the expenditure tracking sheet, so that we can easily identify who approved the spending. We could also complete periodic checks, to ensure that the approver details are accurate. Lastly, more specific guidelines on what qualifies under each of the categories should be provided, to ensure that the guidelines are followed.

Budget

Weakness: There seems to be no detailed budget on how we are planning to spend the funds.

Implication: As shown in my analysis, the guidelines have not all been met so far, and without a more detailed budget and follow-ups on progress towards the budget, guidelines might not be met by the end of the three years.

Recommendation: A detailed budget should be created for the remainder of the three years, to ensure that we keep on track. This will help ensure that the money is spent over the next two years, and on appropriate items. Regular follow-ups should be done as well, to ensure that we keep on track and that the budget is followed.

Tracking sheet and GL reconciliation

Weakness: The total spending on the expenditure tracking sheet is $563,000, and the GL shows $593,500.

Implication: Some costs are not being included in the expenditure tracking sheet, resulting in poor information for management decision-making.

Recommendation: A monthly process should be implemented to reconcile the GL to the expenditure tracking sheet, to ensure that all costs are included.

Vendor and spending category information

Weakness: There is some information missing in the description of the expenditures that is needed in order to properly assess whether they meet the guidelines set by the board.

Implication: Without more details, it is difficult to assess whether the guidelines are met, and whether we are on track to meet them by the end of the three-year period set by the board.

Recommendation: Two columns should be added to the spreadsheet, one for vendor location and one for the category of spending, which would correspond to the categories established by the board. This will allow proper tracking of the spending according to the guidelines. A summary section that includes the percentage of the total grant spent so far for each category should also be added, so there are up-to-date stats available on whether the guidelines are complied with.

Ambiguity of guidelines

Weakness: Some of the guidelines established by the board are vague.

Implication: There is a lot of room for interpretation in the guidelines, and some expenditures could be seen as fitting within the guidelines when they are not in the spirit of the grant guidelines set by the board. This would reduce the funds available for expenditures that would fit under the guidelines that the board meant to set.

Recommendation: The guidelines should be revised to be more precise. For example, the mention that the funding should last at least three years should be revised to specify a minimum and/or maximum percentage of the grant funds that could be spent in each of the three years. The types of expenditures that fit into each of the categories should be better defined, and potentially include a list of expenditures that would be acceptable in each category. In the guideline about Canadian vendors that must be used for most expenditures, "most" should be defined, to establish if it is based on the number of vendors or the percentage of expenditures. Specific amounts or percentages should also be established.

For Assessment Opportunity #1 (Management Accounting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate assesses whether the grant spending is within the guidelines or discusses possible improvements to the process.

Competent – The candidate assesses whether the grant spending is within the guidelines and discusses possible improvements to the process.

Competent with distinction – The candidate thoroughly assesses whether the grant spending is within the guidelines and discusses possible improvements to the process.

Assessment Opportunity #2 (Breadth Opportunity) The candidate assesses whether the grant spending is in accordance with each component of CBA's mission, and discusses how to better align the grant spending with the mission. *The candidate demonstrates competence in Strategy and Governance.*

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
2.2.1	Assesses whether management decisions align with the entity's mission, vision, and values	B

CPA Map Enabling Competencies: *2.1.1 Applies knowledge of the organization's competitive environment and strategic direction when performing assigned work* *2.1.3 Identifies the strategic impact of internal decisions and external influences on project plans and initiatives* *5.1.1 Applies general business knowledge to enhance work performed* *5.1.2 Recognizes the interrelationships among departmental and functional areas within the organization* *5.1.3 Develops and uses knowledge of the organization, industry and stakeholders*

You also asked if I could help answer the question about whether the grant spending is in accordance with each component of CBA's mission. The mission is to "cultivate and grow Canadian youth talent, provide world-class coaching, and maintain quality bobsled infrastructure in a financially responsible manner."

<u>Cultivate and grow Canadian youth talent</u>

Some of the funds have been spent on youth talent; however, it is only a small portion of the grant funds. In addition, some of the funds were spent on a trip to Jamaica to recruit for the Olympics. This may not be in accordance with the goal to focus on Canadian talent. The trip was for Olympic-level talent, and may not have had a youth focus. We should ensure that future spending is clearly focused on Canadian youth, such as the Canadian schools tour that happened in October 2022. This would help meet the mission.

Provide world-class coaching

Based on the spending summary, it does not appear that any funds have been spent on coaching. An idea to host a training camp was pitched. This is an opportunity to bring in renowned coaches. Perhaps if the training camp idea were amended to include a youth component, we could still bring in world-class coaches and talent, and also meet our mission to cultivate Canadian youth talent. In addition, if the main track maintenance is completed in advance, this training camp would address three of our mission statement components.

I also noted that we only have one coach. An accident happened while the coach was sick. We should consider spending some of the grant on hiring additional, world-class coaches, as this is in line with our mission and has the added benefit of reducing our enterprise risks. Good coaches can also help develop our youth talent, which is an approved spending category.

Maintain quality bobsled infrastructure

Of all the infrastructure spending, a large portion is for a kitchen renovation. It is questionable if this is necessary for bobsled infrastructure. The only clear expenditures toward bobsled infrastructure are the new sleds and the ice track quality review fees. There is an opportunity to increase the spending in this category, to make it more specific to bobsled infrastructure.

The ice track quality review noted that the training track needs repair; however, future spending was not approved based on the availability of our existing smaller tracks and the ability to rent longer tracks. While the existing tracks could be appropriate for youth development, we are also spending money on ice track rental (such as the $125,000 spent at Big Snow Mountain). If we had higher-quality tracks available to us, we could save money on rentals that we could allocate to other areas, such as bringing in coaches for youth development. This would also fit with the board's guideline to spend at least 20% of our grant on infrastructure and training equipment.

Act in a financially responsible manner

Some expenditures do not seem financially responsible:

- The executive staff team building in Vancouver appears to have used luxury accommodation. Considering that we are a not-for-profit organization, we should consider using more basic accommodations.
- Spending money on decoration and a $110,000 kitchen renovation may not be the best use of funds, as these funds could be better used to serve our overall mission of bobsled development, especially given the fact that the main training track requires repair work.
- The consulting costs to generate fundraising and advertising ideas were $130,000 ($80,000 + $50,000). We should research this expenditure to find out if it is appropriate and producing results. For instance, we could look at the total amount of funds raised using J. Candy Marketing's ideas, to determine if the significant expenditures are worthwhile and whether there are more cost-effective methods.
- Additionally, the J. Candy Marketing costs were made to a firm owned by our COO's sister-in-law. It would be good to investigate how this vendor was selected. Do they have a great reputation with not-for-profit organizations? Is their pricing reasonable relative to other, similar vendors? The answers to these questions will help us determine whether this was a financially responsible expenditure.

In addition, the guideline to use Canadian vendors for most expenditures could be in contradiction to spending funds in a financially responsible manner. For example, we looked at buying bobsleds from a Canadian vendor, but they would have cost $10,000 more than the ones we bought from the US, and delivered a year later. Spending more money on those would have gone against our mission to do things in a financially responsible manner, and waiting a year would have potentially delayed training.

We have made some responsible spending decisions, such as choosing the US Bobsled team as our vendor to purchase two bobsleds. This vendor was cheaper than the Canadian equivalent, and purchasing the cheaper option was financially responsible.

In conclusion, there are opportunities for CBA to improve its spending, to better align with its mission.

For Assessment Opportunity #2 (Strategy and Governance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate assesses whether the grant spending is in accordance with some components of the mission or discusses how to better align the grant spending with the mission.

Competent – The candidate assesses whether the grant spending is in accordance with some components of the mission and discusses how to better align the grant spending with the mission.

Competent with distinction – The candidate assesses whether the grant spending is in accordance with several components of the mission and discusses how to better align the grant spending with the mission.

Assessment Opportunity #3 (Breadth Opportunity)

The candidate identifies the risks for CBA, assesses them, and provides mitigation strategies, using the enterprise risk management template.

The candidate demonstrates competence in Strategy and Governance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
2.5.1	Designs an effective risk management program and evaluates its impact on shareholder value	B
2.5.2	Assesses the impact of IT/IS risks on enterprise risk and recommends appropriate risk management strategies	B

CPA Map Enabling Competencies:
2.1.1 Applies knowledge of the organization's competitive environment and strategic direction when performing assigned work
5.1.1 Applies general business knowledge to enhance work performed
5.1.2 Recognizes the interrelationships among departmental and functional areas within the organization
5.1.3 Develops and uses knowledge of the organization, industry and stakeholders
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

You asked me to identify the risks for our organization using the enterprise risk management template provided by the board chair. Here is the completed template:

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
Cyber Security: A failure of IT security or lack of IT resources leads to a security breach, resulting in financial loss.	Moderate	CBA stores important documents, such as the expenditure tracking sheet, on the network; therefore, there is some susceptibility to cyber security failure. The likelihood of a security breach leading to loss for CBA is high, since the organization has already had one cyber security breach with the phishing scandal, showing that our current controls are insufficient. This would have a moderate financial impact on CBA, as we would have to re-create the lost data, and potentially a reputational impact, if personal information on employees or members was revealed.	We should ensure that we have proper IT security controls in place, such as antivirus software, rogue detection, and continuous training for our staff. We should also examine transferring risk by seeking cyber security insurance, so that we can recover or reduce the cost to us if we do have a cyber security breach.

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
Inventory Theft: Inventory could be stolen (by either internal or external parties), resulting in financial loss.	Low or NA	This is not an applicable risk to CBA; as CBA is involved in bobsled training, it is not an inventory-intensive organization (such as the diamond company).	As a low/not applicable risk, it is not a good use of our resources to address this risk.
Key Personnel: The inability to attract or retain staff and plan for succession, impacting the organization's ability to achieve its goals.	High	This risk is relevant to CBA as we have key personnel. There have already been three key personnel changes recently, being: 1) the previous controller. 2) the board chair. 3) the senior accountant. We also noted that our only coach was sick one day, and key training tasks were missed (resulting in injury to a bobsledder). High-quality coaching staff is part of our mission, and only having one is a risk. Therefore, the likelihood of not retaining key personnel appears to be high.	Employees could complete an employee engagement survey, or management could have ongoing conversations with employees to understand if there are any major issues that could lead to turnover. We should also review our compensation to ensure that it is competitive. Another mitigation strategy would be to recruit another high-quality coach. We could use some of the remaining grant funding to do so.

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
		As these are important roles in an organization and high turnover could result in errors in accounting and reporting, the impact of this risk is high.	
Vendor Fraud: A vendor perpetrates fraud (such as kickbacks), resulting in financial loss.	High	This is a relevant risk to CBA, considering the questions about which individuals are approving expenditures. We also have an overall mission to spend funds in a financially responsible manner and have some significant potential projects forthcoming (training camp and ice track renovation). The likelihood of this risk occurring is high, given the apparent lack of controls over this area. Therefore, the impact of this risk is high.	We can implement some procurement controls, such as competitive bidding and vendor background checks, to ensure that our vendor selection process is appropriate.

I have also identified some additional risks not previously contemplated in the risk management template provided

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
Health and Safety Risk: The risk that an individual is injured while working for, or participating in, events held by our organization.	High	CBA has had a training incident that resulted in injury of a bobsledder. Therefore, this risk is relevant to CBA. The likelihood of this happening again is high due to having only one coach, and because the main training track, which is still being used by some bobsledders, needs repair work before it can be safely used. If this situation recurs, it could have a significant financial impact on CBA, since we would have to pay out money.	We should have safety training and protocols in place. We could conduct a safety audit and ensure that recommendations are implemented. We should continue to transfer risk by ensuring that our insurance coverage is appropriate, for both third-party liability and replacement cost of damaged equipment. We should also consider removing the ice from the main track or restricting access to it, so it cannot be used until it is repaired, to eliminate the risk of accidents.

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
		As CBA is working on youth development, there are specific risks related to working with minors that need to be considered. CBA is liable for the actions of its employees, and there is a risk that they do not provide the appropriate level of care for minors, or may cause them harm with inappropriate behaviour or negligence.	Lastly, all personnel working with minors should have a background check done, to identify any past inappropriate behaviours.
Funding Risk: The risk that we do not have sufficient funds to continue our operations.	High	CBA noted that the grant was really needed, and will be a significant portion of our revenue. We need to consider funding sources as a risk so that we can ensure we have additional sources to keep our program operational and financially stable. In addition, although our current funding does not have any strings attached, it might not be the case for future funding.	We need to dedicate resources to seeking out additional sources of funding, and confirm that we are spending our funds in a responsible manner, to ensure the future viability of our programs and the availability of future funding.

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
		There is a risk that future funding would have external requirements, which could reduce the funding available. This means that the likelihood of this risk is currently high. The impact of this risk is also high, as not having sufficient funds would mean operations would likely have to shut down.	
Reputational Risk: The risk that our reputation would be negatively impacted by events or actions that would be made public, and that could negatively impact future funding.	Moderate	We have noted that $130,000 of our grant spending has gone to a vendor who is related to our COO. This could be perceived as a conflict of interest that would affect our reputation if this became public knowledge. The potential safety issues mentioned above could affect CBA's reputation if it is not seen as a safe organization.	The mitigation strategies mentioned above, in the vendor fraud risk and the health and safety risk sections, would apply to mitigate the reputational risk.

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
		Also, the occurrence of fraud mentioned above would be detrimental to CBA, as it would limit the resources available for the programs and have a negative effect on its reputation if the funds collected from grants and other sources are not aligned with the mission established.	
PP&E Reinvestment Risk: The risk that we do not invest sufficient funds into our PP&E.	Moderate	The likelihood of this risk is moderate, as CBA seems to be aware of the condition of its PP&E and what needs to be done. However, it seems that the board was reluctant to approve repair work to the main track because other smaller tracks were available.	We should monitor this risk, as we have plans in place for the short term. However, if we continue to lose out on opportunities to host training camps, or if safety incidents occur due to a track in disrepair, we could elevate the risk rating and treat it.

Risk Title	Risk Rating (High/Moderate/Low)	Rationale for Rating	Mitigation Strategies
		If we do not invest sufficient funds into our PP&E, we could lose out on opportunities, such as the Olympic training camp, which requires the use of our main track. It could also result in more safety incidents, as we know that some athletes are still using the track. We do have other options, however, such as using rentals or the short tracks only, which reduces the risk.	

For Assessment Opportunity #3 (Strategy and Governance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate identifies and assesses some of the risks or provides some mitigation strategies.

Competent – The candidate identifies and assesses some of the risks and provides some mitigation strategies.

Competent with distinction – The candidate identifies and assesses several of the risks and provides several mitigation strategies.

Assessment Opportunity #4 (Depth and Breadth Opportunity)

The candidate discusses the accounting treatment for the lawsuit, sled repair, insurance proceeds, and wire fraud.

The candidate demonstrates competence in Financial Reporting.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
1.2.2	Evaluates treatment for routine transactions	**A**

CPA Map Enabling Competencies:
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

We follow ASNPO; however, as per the introduction ASNPO III.10 (in the Introduction): *"A not-for-profit organization applying this Part of the Handbook also applies the standards for private enterprises in Part II of the Handbook to the extent that the Part II standards address topics not addressed in this Part."*

Therefore, we will apply ASPE when a topic is not specifically addressed in ASNPO.

Based on the information in Appendix III, there are a few accounting issues.

Lawsuit

As per ASPE 3290, paragraph 5, *"A contingency is an existing condition or situation involving uncertainty as to possible gain or loss to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur. Resolution of the uncertainty may confirm the acquisition of an asset or the reduction of a liability or the loss or impairment of an asset or the incurrence of a liability."*

The lawsuit situation meets the definition of a contingency as we have a possible loss of up to $100,000 when the lawsuit is resolved. As per paragraph 12 of ASPE 3290:

> *.12 The amount of a contingent loss shall be accrued in the financial statements by a charge to income when both of the following conditions are met:*
>
> *(a) it is likely that a future event will confirm that an asset had been impaired or a liability incurred at the date of the financial statements; and*
>
> *(b) the amount of the loss can be reasonably estimated.*

The first item to consider is the likelihood. You stated that you feel it is unlikely that the future event (resolution of the lawsuit) will confirm a liability, as CBA has a signed waiver from the injured bobsledder. There is also an argument that the bobsledder who was injured bears partial responsibility for the accident because he was responsible for checking his gear. However, this assessment of likelihood is an internal estimate, and we may be biased in our desire to lower expenses.

The lawyers have stated that it is likely that we will have to make a payout on the lawsuit. As they are independent, it is reasonable to rely on their assessment. Therefore, this future event should be considered likely.

We also have to consider if the amount can be reasonably estimated. We have three potential estimates:

- $100,000, which is the amount of the lawsuit
- $15,000, which is the amount you would be comfortable paying
- $50,000, which is the amount the lawyers think the payout will be

As per paragraph 13 of ASPE 3290, *"The estimation of the amount of a contingent loss to be accrued in the financial statements may be based on information that provides a range of the amount of loss. When a particular amount within such a range appears to be a better estimate than any other, that amount would be accrued. However, when no amount within the range is indicated as a better estimate than any other, the minimum amount in the range would be accrued."*

We do have a range, so we need to determine if we have a reasonable estimate or if we should use the minimum. As one estimate is provided by external, independent legal counsel, we can consider it the most reasonable estimate.

Conclusion: We should accrue an amount of $50,000. This will increase our expenses in the current year.

DR Contingent loss $50,000

CR Provision for contingent loss $50,000

From a note disclosure standpoint, the following information should be disclosed:

.18 The existence of a contingent loss at the date of the financial statements shall be disclosed in notes to the financial statements when:

(a) the occurrence of the confirming future event is likely but the amount of the loss cannot be reasonably estimated;

(b) the occurrence of the confirming future event is likely and an accrual has been made but there exists an exposure to loss in excess of the amount accrued; or

(c) the occurrence of the confirming future event is not determinable.

.19 At a minimum, the note disclosure shall include:

(a) the nature of the contingency;

(b) an estimate of the amount of the contingent loss or a statement that such an estimate cannot be made; and

(c) any exposure to loss in excess of the amount accrued.

Therefore, we should disclose the additional exposure of $50,000 in excess of the amount accrued.

Insurance Proceeds

There is no specific ASNPO or ASPE section that addresses insurance proceeds; therefore, we can consider basic accounting principles.

First, since the sled is unusable, we need to write it down to $0 at the date of the accident. As per ASPE 3063 – Impairment of long-lived assets, paragraphs 04 and 05:

.04 An impairment loss shall be recognized when the carrying amount of a long-lived asset is not recoverable and exceeds its fair value.

.05 The carrying amount of a long-lived asset is not recoverable if the carrying amount exceeds the sum of the undiscounted cash flows expected to result from its use and eventual disposition. This assessment is based on the carrying amount of the asset at the date it is tested for recoverability, whether it is in use or under development.

Then, at the date the insurance company accepted the claim on the sled and agreed to pay us $15,000, we can accrue the amount receivable in our books. As they have agreed to the payment amount, this is not a contingency and would be considered a gain and recognized in income.

Section 1000.34 states, *"Gains are increases in equity from peripheral or incidental transactions and events affecting an entity and from all other transactions, events and circumstances affecting the entity except those that result from revenues or equity contributions."*

Finally, when the repairs are going to be completed, we will need to assess whether this is a repair and maintenance expense or if it is capital in nature.

ASPE 3061 paragraph 14 defines betterments as *"The cost incurred to enhance the service potential of an item of property, plant and equipment is a betterment. Service potential may be enhanced when there is an increase in the previously assessed physical output or service capacity, associated operating costs are lowered, the life or useful life is extended, or the quality of output is improved. The cost incurred in the maintenance of the service potential of an item of property, plant and equipment is a repair, not a betterment. If a cost has the attributes of both a repair and a betterment, the portion considered to be a betterment is included in the cost of the asset."*

Since the sled was unusable and written down to $0 as per our recommendation above, and the cost of the repair will allow for it to be used again, the $13,000 is a betterment and should be capitalized.

We should record the transactions as follows:

When the sled was damaged:

DR Impairment loss	$8,000	
DR Accumulated amortization	22,000	
CR Equipment		$30,000

When the insurance company accepts the claim:

DR Insurance proceeds receivable	$15,000	
CR Gain on insurance proceeds		$15,000

When the repairs are completed:

DR Equipment	$13,000	
CR Cash		$13,000

When the insurance proceeds are received:

DR Cash	$15,000	
CR Insurance proceeds receivable		$15,000

Wire Fraud

This issue is also considered a contingency, since we have a possible gain of $10,000 if we can recuperate funds from the phishing fraud. Section 3290 – Contingencies can be used to assess the accounting treatment: *".17 Contingent gains shall not be accrued in financial statements."*

Therefore, we should not accrue anything in the statements for this potential gain.

From a disclosure standpoint:

.22 When it is likely that a future event will confirm that an asset had been acquired or a liability reduced at the date of the financial statements, the existence of a contingent gain shall be disclosed in notes to the financial statements.

.23 At a minimum, the note disclosure shall include:

(a) the nature of the contingency; and

(b) an estimate of the amount of the contingent gain or a statement that such an estimate cannot be made.

As there is a 75% chance for this gain to be realized, it is considered likely that we will receive the funds in the future. Therefore, disclosure of the existence of the contingent gain is required, and the only required adjustment would be to change the original general and administration expense account used to a more appropriately named account, such as fraud expense. This would not have an impact on excess of revenues over expenses for the year ended May 31, 2023.

For Assessment Opportunity #4 (Financial Reporting), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to discuss the accounting issues.

Competent – The candidate discusses the accounting issues.

Competent with distinction – The candidate thoroughly discusses the accounting issues.

Assessment Opportunity #5 (Breadth Opportunity)

The candidate drafts a report to prepare for the next meeting with the auditors.

The candidate demonstrates competence in Assurance.

CPA Map Technical Competencies (based on the 2022 CPA Competency Map):		**Core**
4.3.4	Assesses materiality for the assurance engagement or project	B
4.3.5	Assesses the risks of the project, or, for audit engagements, assesses the risks of material misstatement at the financial statement level and at the assertion level for classes of transactions, account balances, and disclosures	B
4.3.6	Develops appropriate procedures, including Audit Data Analytics (ADA), based on the identified risk of material misstatement	B

CPA Map Enabling Competencies:
6.1.3 Demonstrates skepticism, objectivity, due care and persistence when identifying issues
6.2.1 Maintains an objective and questioning mindset to avoid biased analyses
6.2.4 Completes thorough quantitative and qualitative analyses to identify and evaluate potentially viable alternatives
6.3.1 Uses evidence and judgment to recommend and justify solutions or conclusions

You have asked me to draft a report to you, so that you can prepare for the next meeting with the auditors, especially since this is the first audit. Here is the assessment of the risk at the financial statement level, the explanation of what the auditors' materiality would likely be, and the discussion of the audit approach that you asked for.

Risk Assessment

Risk is assessed at the financial statement level by considering factors that increase or decrease the risk of material misstatement. The following financial-statement-level risks may be identified by the auditors for CBA:

- This is a first-year audit. Therefore, there is increased risk that our opening balances could contain undetected errors or omissions, since they have never been audited before.
- The auditors may determine that our system of internal control contains some overall deficiencies (as evidenced by the lack of control over expenditures, our grant spending not being reconciled to the GL, the data security breach from the phishing scam, the lack of access controls over the expenditure tracking sheet, etc.). This may be considered a risk at the financial statement level that requires an overall response.
- We have had staff turnover in the accounting department and on the board. This increases the risk that errors may occur in the financial statements and that they will not be prevented or detected in a timely manner.
- There seems to be a lack of board oversight, where the expenditures made for the grant were not always in line with the guidelines set, and also not aligned with the mission.

The auditors will be required to respond to the above risks during the audit by performing audit procedures that address those risks.

Materiality

The auditors will determine audit materiality based on their assessment of the users of the financial statements and their sensitivity to misstatements. As CBA is a not-for-profit organization, an appropriate base would be total expenses or possibly total revenue. The base should be linked to what is important to the users of the financial statements.

The users at CBA are the board, management, donors, and the financial institution that provided the grant. These users would be most interested in knowing that CBA is spending the grant revenue and overall funds appropriately. Therefore, we should select total expenses as our materiality base.

An appropriate rate to apply to the base of total expenses is between 1% and 3%. Within that range, we need to determine the sensitivity of the users to error or misstatement. As our users overall do not seem overly sensitive to misstatements (e.g., the financial institution had no conditions attached to the grant), I suggest we use 3%.

Total expenses of $2,450,000 can be used as the base for the calculation. An adjustment should be made to remove the $10,000 expense that was recorded for the wire transfer, since this is a non-recurring item that should not be taken into account in the calculation of materiality. For the rest of the accounting adjustments discussed earlier in this report, no adjustment needs to be made, since nothing was recorded yet and they are non-recurring items that should not be included for the purpose of the materiality calculation. Materiality for the engagement would be $73,000, rounded ([$2,450,000 - $10,000] × 3% = $73,200).

The auditors will also calculate performance materiality. According to CAS 320, performance materiality means *"the amount or amounts set by the auditor at less than materiality for the financial statements as a whole to reduce aggregation risk to an appropriately low level."* Aggregation risk is further defined in CAS 600 as *"the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the financial statements as a whole."* Although it is also a matter of professional judgment, the acceptable range for performance materiality is 50% to 90% of overall materiality. Given that this is a first-year audit (so there may be significant misstatements in opening balances), I have selected a percentage at the lower end of the range (65%), resulting in performance materiality of $47,450 ($73,000 × 0.65).

Audit Approach

Auditors need to also determine an appropriate audit approach. There are two approaches: a combined approach, and a substantive approach. In either case, the auditors must first gain an understanding of CBA's business, industry, and the overall system of internal control, including the control environment, the entity's risk assessment process, the information system, monitoring of controls, etc. Based on that understanding, they will decide if it makes sense to use a combined approach (which tests the operating effectiveness of controls) or a substantive approach.

For CBA, since we have a number of control issues (grant spending not reconciled to the GL, deficiencies with the invoice approval, fraudulent wire payment issued), it is unlikely that the auditors will be able to rely on controls. In addition, given the volume of transactions at CBA, it would likely be inefficient to test internal controls, as sufficient appropriate audit evidence could feasibly be obtained through substantive procedures alone. Therefore, the auditors will likely take a substantive approach, and perform substantive audit procedures to address the risks identified above.

For Assessment Opportunity #5 (Assurance), the candidate must be ranked in one of the following five categories:

Not addressed – The candidate does not address this assessment opportunity.

Nominal competence – The candidate does not meet the standard of reaching competence.

Reaching competence – The candidate attempts to draft a report to prepare for the next meeting with the auditors.

Competent – The candidate drafts a report to prepare for the next meeting with the auditors.

Competent with distinction – The candidate drafts an in-depth report to prepare for the next meeting with the auditors.

APPENDIX E

RESULTS BY ASSESSMENT OPPORTUNITIES FOR DAY 2 AND DAY 3 (FOR ALL WRITERS)

THE LEVEL 2 DEPTH TEST (DAY 2 and DAY 3)

Financial Reporting:		NA	NC	RC	C	CD	C+CD
Day 2 Common							
AO4	**Revenue Recognition**	1%	3%	48%	48%	0%	48%
AO5	**Intangible Asset**	1%	12%	56%	31%	0%	31%
AO6	**Accounts Receivable**	3%	13%	33%	50%	1%	51%
Day 3 – Q1 HG							
AO2	**Revenue Recognition**	5%	13%	40%	39%	3%	42%
Day 3 – Q2 HAI							
AO1	**Lease**	2%	21%	46%	27%	4%	31%
Day 3 – Q3 CBA							
AO4	**Lawsuit & Wire Fraud**	13%	19%	35%	29%	4%	33%

Management Accounting:		NA	NC	RC	C	CD	C+CD
Day 2 Common							
AO1	**Cost of Quality Management**	3%	10%	23%	63%	1%	64%
AO2	**Activity-Based Costing**	5%	10%	27%	58%	0%	58%
AO3	**Cash Budget**	5%	14%	22%	57%	2%	59%
Day 3 – Q1 HG							
AO1	**Variances**	2%	26%	29%	34%	9%	43%
Day 3 – Q2 HAI							
AO4	**Minimum Price**	9%	10%	23%	52%	6%	58%
Day 3 – Q3 CBA							
AO1	**Spending vs. Guidelines**	2%	12%	35%	46%	5%	51%

THE LEVEL 3 DEPTH TEST ROLES (DAY 2)

Performance Management		Papers	NA	NC	RC	C	CD	C+CD
AO7	Suppliers - Quantitative	732	0%	25%	23%	43%	9%	52%
AO8	Suppliers - Qualitative	732	0%	5%	27%	66%	2%	68%
AO9	Recycling - Quantitative	732	3%	25%	27%	37%	8%	45%
AO10	Recycling - Qualitative	732	4%	14%	29%	51%	2%	53%
AO11	Environmental Performance - Disclosure	732	3%	21%	32%	42%	2%	44%
AO12	Pricing - Bundled Service	732	5%	31%	34%	28%	2%	30%
AO13	Strategic Direction and Governance Issues	732	2%	32%	39%	27%	0%	27%

Taxation		Papers	NA	NC	RC	C	CD	C+CD
AO7	Accounting Issues	112	12%	34%	30%	24%	0%	24%
AO8	Taxable Income and Taxes Payable	112	3%	4%	24%	65%	4%	69%
AO9	GST/HST Return	112	1%	19%	23%	55%	2%	57%
AO10	Stock Options	112	4%	14%	28%	48%	6%	54%
AO11	QBS & T4	112	4%	14%	32%	46%	4%	50%
AO12	Personal Services Business	112	2%	26%	43%	29%	0%	29%
AO13	Sale-Leaseback	112	7%	21%	42%	27%	3%	30%

THE LEVEL 3 DEPTH TEST ROLES (DAY 2)

Audit and Assurance		Papers	NA	NC	RC	C	CD	C+CD
AO7	Forward Contract	1250	9%	50%	19%	21%	1%	22%
AO8	Audit Plan	1250	0%	10%	34%	53%	3%	56%
AO9	Procedures - Actg Issues	1250	2%	37%	22%	37%	2%	39%
AO10	Internal Controls	1250	1%	20%	47%	31%	1%	32%
AO11	Manual JEs	1250	8%	39%	26%	26%	1%	27%
AO12	Review of work - AP and G&A	1250	5%	30%	27%	36%	2%	38%
AO13	Procedures - Sustainability	1250	4%	28%	24%	41%	3%	44%

Finance		Papers	NA	NC	RC	C	CD	C+CD
AO7	Liquidity & Solvency Ratios	194	1%	23%	44%	31%	1%	32%
AO8	Financial Risk Program	194	5%	4%	22%	65%	4%	69%
AO9	BPM Royalty Agreement	194	2%	6%	39%	50%	3%	53%
AO10	JV Proposal	194	8%	15%	30%	41%	6%	47%
AO11	Pine Bluffs Assumptions	194	8%	15%	35%	38%	4%	42%
AO12	RoboCarton Asset Value	194	12%	12%	31%	42%	3%	45%
AO13	Short-Term Financing	194	12%	15%	31%	40%	2%	42%

THE LEVEL 4 BREADTH TEST (DAY 2 AND DAY 3, BY COMPETENCY AREA)

Financial Reporting:		NA	NC	RC	C	CD	RC+C+CD
Day 2 Common							
AO4	**Revenue Recognition**	1%	3%	48%	48%	0%	96%
AO5	**Intangible Asset**	1%	12%	56%	31%	0%	87%
AO6	**Accounts Receivable**	3%	13%	33%	50%	1%	84%
Day 3 – Q1 HG							
AO2	**Revenue Recognition**	5%	13%	40%	39%	3%	82%
Day 3 – Q2 HAI							
AO1	**Lease**	2%	21%	46%	27%	4%	77%
Day 3 – Q3 CBA							
AO4	**Lawsuit & Wire Fraud**	13%	19%	35%	29%	4%	68%

Management Accounting:		NA	NC	RC	C	CD	RC+C+CD
Day 2 Common							
AO1	**Cost of Quality Management**	3%	10%	23%	63%	1%	87%
AO2	**Activity-Based Costing**	5%	10%	27%	58%	0%	85%
AO3	**Cash Budget**	5%	14%	22%	57%	2%	81%
Day 3 – Q1 HG							
AO1	**Variances**	2%	26%	29%	34%	9%	72%
Day 3 – Q2 HAI							
AO4	**Minimum Price**	9%	10%	23%	52%	6%	81%
Day 3 – Q3 CBA							
AO1	**Spending vs. Guidelines**	2%	12%	35%	46%	5%	86%

THE LEVEL 4 BREADTH TEST (DAY 2 AND DAY 3, BY COMPETENCY AREA)

Strategy and Governance		NA	NC	RC	C	CD	RC+C+CD
III-1 AO4	SWOT	3%	14%	26%	51%	6%	83%
III-3 AO2	Spending vs. Mission	7%	17%	39%	33%	4%	76%
III-3 AO3	Enterprise Risks	4%	28%	34%	31%	3%	68%

Audit and Assurance		NA	NC	RC	C	CD	RC+C+CD
III-1 AO5	Compilation vs. Audit	2%	9%	53%	31%	5%	89%
III-1 AO6	Audit Procedures	5%	17%	30%	42%	6%	78%
III-3 AO5	Risk, Materiality & Approach	5%	17%	33%	41%	4%	78%

Finance		NA	NC	RC	C	CD	RC+C+CD
III-1 AO3	Payback	5%	16%	40%	36%	3%	79%
III-2 AO5	Cash Flow Forecast	5%	17%	24%	48%	6%	78%
III-2 AO6	Advice Cash Flow & Financing	4%	17%	28%	48%	3%	79%

Taxation		NA	NC	RC	C	CD	RC+C+CD
III-1 AO7	Sole Proprietorship vs. Incorporation	6%	19%	33%	39%	3%	75%
III-2 AO2	Taxable Income	2%	14%	27%	53%	4%	84%
III-2 AO3	Carryover Balances	14%	34%	17%	34%	1%	52%

APPENDIX F

BOARD OF EXAMINERS' COMMENTS ON DAY 2 AND DAY 3 SIMULATIONS

BOARD OF EXAMINERS' COMMENTS ON DAY 2 SIMULATION

Paper/Simulation:	**Day 2, Common Role (UBI)**
Estimated time to complete:	300 minutes
Simulation difficulty:	Easy to Average
Competency Map coverage:	Management Accounting (3); Financial Reporting (3)

Evaluators' comments by Assessment Opportunity (AO)

AO#1 (Cost allocations)

Candidates were asked to determine UBI's total costs of each of UBI's four quality management categories, and to discuss any potential issues identified with the quality management process. A list of costs related to quality management was provided in Appendix III (Common), and further details related to quality management were provided in the industry and company background in Appendix I (Common). To demonstrate competence, candidates had to logically allocate the quality management costs across the four categories for both 2022 and 2021, and discuss potential issues identified with UBI's quality management process.

Candidates performed well on this AO. Most candidates were able to reasonably allocate the total quality management costs across the four categories for both 2022 and 2021. Most candidates discussed at least one issue related to the quality management process, most commonly linking the decrease in prevention expenditures to the increase observed in internal and external failure costs.

Strong candidates were more likely to discuss additional issues related to the quality management process, such as the possible link between the loss of a large contract and the decrease in total quality management costs, or noting that the high costs in 2021 for rework and scrapped lids were the result of the quality issues with a previous plastic-bottle supplier. Strong candidates were also more likely to provide recommendations for resolving the issues identified, such as suggesting making regular visits to the suppliers' plants to help identify issues earlier in the quality management process.

Weak candidates were less likely to provide a reasonable allocation of the quality management costs. These candidates often disregarded the 2021 costs and provided an allocation for 2022 only, which made it more difficult to identify and discuss issues in UBI's quality management process as they were unable to identify changes from year to year. Weak candidates often focused their discussions on why certain costs were allocated to the various categories, rather than discussing the potential issues the expenditure trends might indicate, which was the request from Lisa. Weak candidates who noted trends in the quality management costs were more likely to simply restate the results of their allocations without explaining why the trend might have occurred.

AO#2 (Customer quote)

Candidates were asked to discuss and quantify the problems with the existing customer quote method, and recommend whether UBI should implement changes to its method going forward. Information regarding the existing customer quote method was presented in Appendix IV (Common). To demonstrate competence, candidates were expected to recalculate quote #1793 using the activity-based-costing (ABC) method, and discuss issues with the existing quote method. Candidates were also expected to recommend a method for UBI to use going forward.

Candidates performed well on this AO. Most candidates were able to recalculate quote #1793 using the ABC method, and discussed at least one issue with the current method, most commonly discussing how the current method overestimates the cost for the current customer and results in a higher quote price, impacting UBI's competitiveness. Most candidates provided a supported recommendation for why UBI should use the ABC method going forward, although supported recommendations for the existing method were also considered valid.

Strong candidates discussed additional points in relation to why the ABC method would be more appropriate for UBI. For example, in addition to noting the impact the method could have on UBI's competitiveness, these candidates noted that the ABC method would lead to greater accuracy for UBI's budgeting and tracking purposes. These candidates were also more likely to question whether the $1,000 allocation minimum was appropriate, again linking it to the impact it would have on UBI's competitiveness.

Weak candidates were less likely to perform a reasonable recalculation of quote #1793 using the ABC method. For example, these candidates would attempt to allocate the quote's indirect costs using a set percentage, or use inappropriate drivers for the cost types, such as using customer orders for machine costs. Weak candidates often did not discuss the issues with the current method and jumped to a conclusion as to why the ABC method would be more appropriate for UBI. These candidates were less likely to provide a justification for their recommendation, often simply stating that the ABC method would be more accurate without explaining why a more accurate quote would be important for UBI.

AO#3 (Cash budget)

Candidates were asked to review the draft of the third quarter cash budget, and make any necessary revisions. Information relevant to the cash budget was presented in Appendix V (Common), and additional relevant details were provided in the notes to the financial statements in Appendix II (Common). To demonstrate competence, candidates were expected to make a reasonable number of revisions to the current budget.

Candidates performed well on this AO. Most candidates were able to make numerous correct adjustments to the cash budget, most commonly to exclude property tax and insurance paid in Q1, to exclude amortization as a non-cash expense, and to adjust for tax instalments to be paid each month. Most candidates also used the opening cash balance and the net cash flows from their revised budget to calculate an ending cash balance for the quarter.

Strong candidates were more likely to adjust for the timing of the cash receipts from sales and the cash payments for direct materials, recognizing that not all the cash pertaining to these items would be collected or disbursed in the current quarter. These candidates were able to make a reasonable adjustment for these items using the normal trade terms listed in the notes to the financial statements. Strong candidates were also more likely to adjust for the equipment purchase of $2.6 million, and to recognize that bad debt was a reduction in sales collected and thus needed to be included in the cash budget.

Weak candidates typically attempted to make fewer adjustments in their revision of the budget, or demonstrated a lack of understanding regarding cash budgets. For example, weak candidates often left amortization in their cash budget or added in additional amounts for amortization related to the equipment purchase. Weak candidates did not integrate the case facts presented for sales and materials, and as a result, did not adjust for these balances. Other weak candidates removed bad debt, stating that it was a non-cash expense, despite the fact that collectability of credit sales does impact cash. Weak candidates were also less likely to explain their adjustments to the cash budget, which made it more difficult for them to demonstrate their understanding of why they were making these adjustments.

AO#4 (Revenue recognition)

Candidates were asked to assess the financial reporting issues related to the Yarley's Jams and Mustards Inc. (YJMI) contract. Details related to this contract were provided in Appendix VI (Common). To demonstrate competence, candidates were expected to analyze the transaction using *ASPE 3400 – Revenue*. Candidates were expected to support their analysis of the bill-and-hold arrangement with the various case facts provided, and conclude consistently.

Candidates generally performed adequately on this AO. Roughly half of the candidates were able to identify that, while delivery had not occurred, the transaction represented a bill-and-hold arrangement and there was specific guidance under ASPE 3400 that could be used to assess the situation. The average candidate who recognized that the arrangement was a bill-and-hold one brought in some case facts to support their discussion, such as YJMI's request for UBI to delay delivery as evidence that the risks of ownership had been transferred. Candidates who did not recognize that the situation would constitute a bill-and-hold arrangement typically used general revenue recognition criteria, which at times limited the depth of their discussions.

Strong candidates were more likely to identify that the situation was a bill-and-hold arrangement, and applied a greater number of case facts to their bill-and-hold discussions. For example, these candidates were more likely to note the flood at YJMI's premises as a business purpose for the arrangement to be requested, or to recognize that there is a potential schedule for delivery, as YJMI requested that delivery occur on January 27, 2023. Strong candidates were also more likely to note the segregation of the order from the rest of UBI's inventory in their warehouse as evidence that the units will not be used to fill other orders.

Weak candidates were less likely to use the bill-and-hold criteria to frame their discussions, or applied fewer case facts in their analysis of the bill-and-hold criteria. Weak candidates often analyzed the transaction using the general revenue recognition criteria, which, while considered to be a valid approach, typically did not lead candidates to use the available case facts to adequately support their discussion. For example, weak candidates often concluded that performance was not complete, despite there being a number of case facts to support why the risk of ownership might have transferred, despite delivery not having taken place. They would then go on to conclude that the revenue from the 8,000 units not yet delivered at year end should not be recognized.

AO#5 (Intangibles)

Candidates were asked to assess the financial reporting issues related to the contract with Peak Performance Inc. (PPI). Details of the contract with PPI were provided in Appendix VI (Common). To demonstrate competence, candidates were expected to assess the three criteria for definition of an intangible asset under *ASPE 3064 – Goodwill and Intangible Assets,* to reach a supported conclusion. Candidates could also demonstrate additional competence in their discussions of training and reconfiguration costs.

Candidates struggled with this AO. While most candidates attempted to discuss the costs incurred from the PPI contract using APSE 3064, many had difficulty demonstrating their understanding of the criteria. For example, many candidates assumed that the control criterion was dependent on UBI having control over the existing machines and equipment rather than on having the power to obtain the future economic benefits of the assembly line design, and the ability to restrict others' access to those benefits. Other candidates simply repeated the Handbook criteria without attempting to apply any relevant information from the case in order to analyze the situation. Most candidates understood that the Handbook explicitly excludes training costs from being capitalized, but struggled to discuss the reconfiguration costs in any depth by failing to apply case facts or the Handbook guidance. Candidates typically concluded consistently with their analysis.

Strong candidates were able to demonstrate their understanding of the nature and intent of the various intangible definition criteria. These candidates assessed the criteria using case facts or relevant details inferred from the case, such as noting the existence of the contract to explain why the asset was identifiable, or pointing to the improved efficiency and space savings as evidence of future economic benefits to be realized from the assembly line. Some strong candidates noted UBI's ability to obtain these future economic benefits as evidence that the control criterion was met, or questioned UBI's ability to restrict others' access to the future economic benefits, although this was relatively rare. Strong candidates were more likely to discuss the reconfiguration costs in some depth, often by noting that these costs could be included in the costs to prepare the asset.

Weak candidates were less likely to assess the intangible definition criteria in depth. These candidates were more likely to simply repeat the Handbook criteria, for example, stating that the design costs were separable rather than explaining why (i.e., since they could be potentially sold to another company). Other weak candidates assessed only one of the definition criteria, typically the identifiable criterion, and then moved on to another section of ASPE 3064, such as the recognition and measurement sections. Weak candidates were also more likely to use the internally developed intangible asset criteria of ASPE 3064, even though the redesign was developed entirely by an external organization.

AO#6 (Accounts receivable)

Candidates were asked to assess the financial reporting issues related to two specific accounts receivable balances. Details of the two accounts receivable balances were provided in Appendix VI (Common). One balance dealt with a foreign currency transaction with Savory Foods Inc., while the other balance dealt with an impairment issue with a receivable from Lowesons Preserves Inc. (Lowesons). To demonstrate competence, candidates were expected to discuss one accounts receivable balance in depth, and attempt to discuss the other accounts receivable.

Candidate performance on this AO was mixed. While most candidates were able to discuss the accounting treatment of the foreign exchange transaction in reasonable depth, many candidates struggled with how to approach the impairment issue. For example, many candidates framed their discussions from a subsequent events or presentation perspective, which, while considered a valid approach, provided fewer opportunities for them to demonstrate their complete understanding of the key issue, which was the potential impairment of the receivable. Some candidates were able to provide a reasonable adjustment for the Lowesons receivable based on the price offered by the factoring agency, although few candidates identified the fact that they should also calculate the present value of the receivable, as the Handbook requires that the carrying amount of the account receivable should be reduced to the highest of the present value, the amount that can be realized by selling the asset, and the value of security held as collateral. Very few candidates noted the lack of collateral against the receivable, which was a factor to consider, both in whether the account receivable was impaired and in the determination of the carrying amount, as noted above.

Strong candidates were more likely to use the correct foreign exchange rates for the Savory Foods Inc. transaction, at the transaction date and year end, and made appropriate adjustments on those dates. Strong candidates were also more likely to provide a reasonable discussion of the impairment issue, for example, by noting Lowesons' request for a revised payment plan or their collection issues with a customer that had declared bankruptcy. Strong candidates were able to conclude that the change in the expected timing and amount of future cash flows would result in the receivable needing to be adjusted at year end.

Weak candidates often only adjusted the foreign exchange transaction at the transaction date and did not attempt a year-end adjustment, or instead, adjusted the transaction at the payment date. Weak candidates often limited their discussion of the impairment issue to a presentation perspective, such as discussing whether the receivable should be classified as a current versus long-term asset or disclosed in the notes. Other weak candidates addressed the impairment issue from a management accounting or operational perspective, commenting on whether UBI should sell the receivable to the factoring agency, despite Jessica's specssess the financial reporting issue.

Paper/Simulation: **Day 2, Assurance Role (UBI)**

Estimated time to complete: 300 minutes

Simulation difficulty: Average

Competency Map coverage: Audit and Assurance (7)

Evaluators' comments by Assessment Opportunity (AO)

AO#7 (Forward contract)

Candidates were asked to discuss the accounting policy options that could be applied in the future to account for a foreign currency forward contract. Additional details on a foreign currency forward contract that was entered into on December 1, 2022, were provided in Appendix VII (Assurance). To demonstrate competence, candidates were expected to discuss the accounting policy options for foreign currency forward contracts.

This was the most difficult AO on the Assurance exam, and candidates struggled with it. Many candidates demonstrated technical weaknesses in their analysis by not identifying the relevant guidance (*ASPE 3856 – Financial instruments*), or not identifying that there is specific guidance for the treatment of derivatives, as opposed to other financial assets/liabilities. Many candidates concluded that one option is to record the forward contract at fair value; however, candidates were often unable to adequately explain how fair value is determined and recorded for a forward contract.

Strong candidates demonstrated the technical knowledge required to assess this issue by identifying that hedge accounting was an option to account for foreign currency forward contracts. Strong candidates were also able to apply case facts to support their discussion of hedge accounting, either through analyzing the relevant Handbook criteria or explaining how the application of hedge accounting would impact the financial statements.

Weak candidates did not identify the relevant Handbook section, and were therefore limited in the depth of their analysis. They generally provided very poor analysis for only one treatment option (for example, with limited use of case facts or incorrect application of the technical guidance), or attempted Handbook guidance that was not applicable, such as *ASPE 1651 – Foreign currency translation.* Weak candidates also tended to skip this AO altogether, either due to a lack of technical understanding or poor time management.

AO#8 (Audit plan – risk, materiality, and changes from prior year)

Candidates were asked by Landen to draft an audit planning memo, discussing the risks of material misstatement at the financial statement level and materiality, including how changes in these areas from the prior year will affect the 2022 year-end audit. Information relevant to the audit plan, such as risk factors, users, and notes from the predecessor auditor file, was provided throughout the case, both in the Common and Assurance sections. Candidates were expected to use specific case facts regarding UBI's operations and stakeholders in their discussion of the audit plan. To demonstrate competence, candidates were expected to provide an audit planning memo that included a reasonable discussion of risks of material misstatement at the financial statement level and materiality, including how changes in these areas from the prior year will impact the current-year audit.

Candidates performed adequately on this AO. Most candidates provided a reasonable risk discussion that included several risk factors and explained how each factor impacted the risk of material misstatement at the financial statement level. The most commonly discussed risk factors were the retirement of UBI's controller in November 2022, management's bias to manipulate financial statements to attract new financing and prevent Callum from retracting his preferred shares, and the fact that there were already several accounting errors noted. Most candidates also provided a reasonable materiality analysis by discussing multiple users of the financial statements and choosing an appropriate basis that would address their needs, adjusting the basis for the accounting errors identified, and calculating a planning materiality using an appropriate percentage, given their selected basis. Most candidates also provided a discussion of the audit approach; however, this analysis was not requested as part of the required. Furthermore, most candidates did not specifically address the third element of the required, which was to discuss how changes in risk and materiality from the prior year will impact the current-year audit.

Strong candidates provided more risk factors in their risk assessment and often provided better explanations for the impact each of those factors would have on the risk of material misstatement. Strong candidates also identified more of the relevant users when discussing materiality and provided a more in-depth discussion of them. They discussed each user's needs in greater detail, using specific case facts, and often justified the basis they chose according to the users' needs, as well as why they chose a specific percentage within the acceptable range by linking their choice to the sensitivity of the users. Some strong candidates also provided a good discussion and calculation of performance materiality. Regarding the changes from the prior year, some strong candidates were able to incorporate the notes from the predecessor auditor file throughout their discussion of the current-year audit plan. For example, they noted that materiality was calculated at 7% of net income before income tax in the prior year, and identified the need to use a lower percentage in the current year to respond to the increased sensitivity of the users, primarily Callum and the potential lender of additional financing.

Weak candidates generally did not provide an adequate risk assessment, and often listed risk factors without explaining how they would impact the overall financial statement risk. Some weak candidates also provided business risk factors instead of focusing on financial statement risk factors, and therefore had difficulty providing a useful analysis. Some of the business risks discussed by candidates included the fact that UBI lost two major customers in the past two years and the customer complaints related to quality. Weak candidates also often had materiality discussions that lacked depth. For example, some weak candidates did not identify users of the financial statements that were specific to UBI, and therefore struggled to discuss each user's needs. Some weak candidates had materiality discussions that contained technical errors, such as attempting to justify their choice of percentage based on the overall financial statement risk, instead of basing it on the sensitivity of the users, making it difficult to demonstrate their competence in this area.

AO#9 (Procedures – accounting issues)

Candidates were asked to provide audit procedures for the financial reporting issues they were asked to address (the Yarley's Jams and Mustards Inc. contract, the Peak Performance Inc. contract, the two specific accounts receivable balances, and the forward contract). Information on the financial reporting issues was provided throughout the case, both in the Common and Assurance sections. To demonstrate competence, candidates were expected to discuss several procedures that would address the specific risks related to the financial reporting issues identified.

Candidates performed adequately on this AO. Most candidates demonstrated sufficient breadth by providing one or two procedures for three or four of the financial reporting issues. Many candidates were also able to adequately explain their procedures by discussing what audit evidence they would obtain, and what they would do with that audit evidence. The procedures that were most often adequately explained were related to the Yarley's Jams and Mustards Inc. contract and the two specific accounts receivable balances, as these areas are more straightforward to audit.

Strong candidates clearly demonstrated that they understood the significant audit risks of each financial reporting issue. For example, for the Peak Performance Inc. contract, instead of simply verifying the amounts to related invoices, strong candidates focused their audit procedures on whether it was appropriate to record the costs as an intangible asset by obtaining the contract and reviewing the terms, to determine whether UBI can transfer the design to another entity, to address the control criterion. Strong candidates also provided precise and well-described procedures, clearly noting what external evidence would be obtained and what the auditor should do with that evidence.

Weak candidates tended to provide vague procedures without suggesting what specific audit evidence needed to be obtained, and what information needed to be verified, which made it difficult to determine exactly what they were proposing, and what risk they were trying to address. In addition, some weak candidates provided generic audit procedures for the relevant financial statement accounts (revenue, intangible assets, all US transactions, etc.), instead of focusing their procedures on the specific risks associated with the financial reporting issues. For example, some weak candidates recommended selecting a sample of sales before and after year end, and obtaining the delivery slip to confirm that the revenue was recorded in the correct period; however, this procedure tested the cut-off of all revenue and did not address the risks specifically associated with the bill-and-hold arrangement with Yarley's Jams and Mustards Inc.

AO#10 (Internal controls)

Candidates were asked to discuss any internal control weaknesses identified in UBI's accounting processes, and provide recommendations that would address them. A process description was provided in Appendix VII (Assurance). To demonstrate competence, candidates were expected to identify several internal control weaknesses, explain the implication of each weakness, and provide a reasonable recommendation for addressing each weakness.

Candidates struggled with this AO. Most candidates identified many of the weaknesses; however, many candidates struggled to explain the implications of the internal control weaknesses identified, and also struggled to provide specific recommendations for addressing the weaknesses. For example, candidates often identified that the purchase order (PO) fields for the materials expense account, and expenditure budget (EB) number, being left blank could result in errors in the financial statements, but did not explain how the blank fields would cause errors. In addition, many candidates simply recommended that the fields should not be left blank or that all POs should be reviewed; however, their discussions did not specify how the proposed recommendation would ensure that there were not blank fields on the POs.

Strong candidates better explained the implications of each weakness identified. For example, instead of simply stating that the PO fields for the materials expense account and EB number being left blank could result in errors in the financial statements, strong candidates explained that the blank field on the PO can result in the expense code not being included on the vendor's invoice. Therefore, the missing information on the invoice will lead to the amount being debited to a miscellaneous materials expense account, which will result in the expense being mis-classified in the financial statements. Strong candidates also often provided clearer and more practical recommendations. For example, relating to the purchasing system prepopulating POs based on past orders, strong candidates recommended that some vendor information was appropriate to be prepopulated (vendor address and phone number), but that order-specific information should be entered for each PO (cost coding, EB number, types of materials ordered, and the quantity ordered).

Weak candidates often did not explain how the internal control weakness could cause fraud or errors to occur. In addition, the recommendations they provided were often not sufficiently specific or practical. For example, weak candidates often suggested that invoices in InvoiceHub should be reviewed individually rather than in bulk; however, they did not recommend how the payables clerk should be performing their review (i.e., by matching the invoice to the PO and receiving documents, to verify the correct quantity and prices have been included on the invoice). Some weak candidates also spent time discussing case facts that were not problematic, and as a result, provided discussions with limited value to the user. Some of these discussions were a result of candidates combining information from AOs #11 or #12, but there were not sufficient case facts to support a complete discussion. For example, some weak candidates discussed how UBI records a high number of manual journal entries; however, it is not possible to determine whether the number is actually high without additional information. These candidates would then recommend not allowing manual journal entries at all, which was impractical and did not address an existing problem.

AO#11 (Manual journal entries)

Candidates were asked to discuss any risk areas identified in their review of the isolated manual journal entries over $50,000 for the period after the controller retired. The isolated manual journal entries were provided in Appendix VII (Assurance). To demonstrate competence, candidates were expected to discuss several risk areas identified in the manual journal entries isolated.

Candidates struggled with this AO. Most candidates identified some of the items in the manual journal entries that suggested a concern; however, candidates were often unable to discuss how the case facts presented would suggest a risk to the financial statements. For example, candidates often identified that journal entry #10 was missing initials; however, they would focus on the fact that this suggested the clerks were not following the internal controls process, instead of explaining why the missing initials suggests an increased risk of fraud and/or error. The risks that were most often adequately explained were related to the annual insurance being booked fully to expense, the inappropriate use of the prepaid expenses account when coding was not known, and the manual entries that were posted late at night.

Strong candidates demonstrated an understanding of financial statement risks, and described the potential risks suggested by the issues presented in the manual journal entries isolated. They also integrated their discussion with information provided in other areas of the case. For example, strong candidates assessed the journal entries for contract #2819 against their financial reporting discussion of the Yarley's Jams and Mustards Inc. contract, to identify potential issues. In addition, some strong candidates understood the segregation-of-duties issues with the payables clerk and the treasury clerk, and could identify risks associated with one of the clerks preparing entries outside of the scope of their role and responsibilities.

Weak candidates often identified potential issues in the manual journal entries, but did not discuss a risk associated with the issues identified. Some weak candidates were clearly not focused in the context of risks. Some of these candidates were focused on internal controls, and provided recommendations for how UBI could better manage the journal entry process in the future. Other weak candidates provided procedures to verify whether the journal entries were correct for the issues they identified in manual journal entries, without describing the risk they were addressing.

AO#12 (Review of junior associate's work)

Candidates were asked to review the junior associate's audit work on the trade payables and accrued liabilities, and general and administrative balances, and recommend how to address any deficiencies identified in their work. Information on the junior associate's work was provided in Appendix VII (Assurance). To demonstrate competence, candidates were expected to identify several deficiencies in the audit work performed, and recommend how to address those deficiencies.

Candidates performed adequately, given that this AO was expected to be more challenging for candidates, as they were asked to review and critique the work of a junior, which is more difficult. Most candidates recognized that there were significant deficiencies in the audit work performed by the junior associate, although many struggled to adequately explain why the work was not sufficient. For example, many candidates noted that the junior associate only performed management inquiry, but did not further explain why this was an issue, that is, that this is not sufficient, appropriate audit evidence. However, most candidates were able to provide additional audit procedures that should have been performed over the two financial statement balances to address the deficiencies in the junior associate's work. Candidates most commonly suggested obtaining a larger sample for trade payables and performing further testing on payroll, either covering January to August or testing individual payments to timesheets and wage rates per employee contracts. Many candidates also suggested extrapolating the errors found in general and administrative expenses to assess whether the projected difference is material.

Strong candidates were able to adequately explain why the work performed by the junior associate was not sufficient; for example, that the errors identified in general and administrative expenses being individually immaterial is not sufficient justification for not performing additional audit work, and that there was excessive reliance on management inquiry. Strong candidates then provided valid, well-explained additional audit procedures to be performed. Strong candidates typically provided more procedures covering the different deficiencies, both in trade payables and accrued liabilities, and general and administrative expenses.

Weak candidates often did not provide a complete analysis. Many weak candidates provided procedures to be performed but did not address why the junior associate's work was insufficient. Some weak candidates described a risk associated with the account balance, but did not link this to the work that was previously performed by the junior associate. For example, some commented that the accrued liability for professional services decreased from $85,000 in 2021 to $0 in 2022 and therefore may be understated, but they did not discuss why the junior associate's work had not addressed this financial statement risk. In addition, some weak candidates struggled to recommend additional audit procedures to be performed. For example, some of the recommendations provided by weak candidates repeated the work that was already performed by the junior associate, such as selecting a sample of general and administrative expenses and agreeing the amount to the invoice or other supporting document.

AO#13 (Procedures – sustainability)

Candidates were informed that UBI plans to include some statements regarding environmental sustainability initiatives on the company's website, and candidates were asked to recommend audit procedures to audit the statements. The statements that UBI plans to include on the company's website were provided in Appendix VII (Assurance). To demonstrate competence, candidates were expected to discuss several procedures that would verify the statements.

Candidates performed adequately on this AO. Most candidates demonstrated sufficient breadth by providing procedures for four or five of the statements on UBI's environmental sustainability initiatives. Many candidates were also able to adequately explain their procedures by discussing what evidence they would obtain and what they would do with the evidence. The procedures that were most often adequately explained were related to the committee, the packaging waste brought to a recycling plant, and the reduction in water consumption, as these statements are more straightforward to audit.

Strong candidates clearly demonstrated that they understood the risks of each statement. For example, instead of simply obtaining the committee meeting minutes and verifying the frequency of the meetings, strong candidates further validated that the two managers from each of the purchasing and sales departments were listed as attendees for each. Strong candidates also provided precise and well-described procedures, clearly noting what external evidence would be obtained and what the auditor should do with that evidence.

Weak candidates tended to provide vague procedures without suggesting what specific evidence needed to be obtained, and what information needed to be verified in order to do so. Some weak candidates provided procedures that only involved inquiry or observation, with no further testing. For example, related to the statement that UBI has been effective in encouraging employees to use less paper and to recycle any used paper, some weak candidates simply recommended that the auditor visit UBI and discuss with employees if they are using less paper. This was not a sufficient audit procedure as it did not verify that UBI is using less paper or verify that UBI is recycling used paper.

Paper/Simulation: **Day 2, Finance Role (UBI)**

Estimated time to complete: 300 minutes

Simulation difficulty: Average

Competency Map coverage: Finance (7)

Evaluators' comments by Assessment Opportunity (AO)

AO#7 (Liquidity and solvency ratios)

Candidates were asked to assess UBI's liquidity and solvency against a list of the most relevant companies, and to provide recommendations for improvement. Details on the comparable companies and their liquidity and solvency ratios were provided in Appendix VII (Finance). Candidates were expected to utilize the draft financial statements provided in Appendix II (Common) to calculate UBI's ratios. To demonstrate competence, candidates were expected to discuss most of the comparable companies and conclude on which company (or companies) was most relevant to UBI. Candidates also had to calculate and discuss a number of relevant liquidity and solvency ratios, and provide recommendations on how UBI could improve on its liquidity and solvency position.

Candidates performed as expected on what was expected to be a more difficult AO. Most candidates discussed some of the comparable companies and provided a recommendation on which company (or companies) represented the most appropriate benchmark for UBI. Most candidates calculated some of the relevant liquidity and solvency ratios for UBI (including the quick ratio, debt-to-equity ratio, and times interest earned ratio), discussed UBI's ratios relative to the comparable companies, and attempted to provide a recommendation on how UBI could improve its liquidity and solvency position.

Strong candidates considered all of the comparable companies and supported their selected benchmark company (or companies) by integrating case facts with the background information on UBI. Strong candidates integrated case facts into their discussion of the ratios and were able to provide more specific recommendations (for example, paying down its line of credit with long-term borrowing), across a broader range of ratios (including days in receivables, payables, and/or inventory), while ensuring that their recommendations were specific to UBI and realistic (for example, taking into account UBI's existing significant outstanding debt position and recognizing that UBI may not be able to make additional investments, or considering its relationship with its customers, which may limit UBI's ability to collect faster).

Weak candidates did not discuss the comparable companies, or selected benchmarks without clearly explaining why their selected benchmarks were relevant to UBI. Weak candidates sometimes demonstrated technical errors in ratio calculations, for example, including all current assets in calculating the quick ratio. The ratio analysis was also sometimes limited to an assessment of the formula without integrating case facts, or recommendations were superficial or unrealistic (for example, suggesting that UBI reduce its outstanding debt without explaining how UBI could do this, given its significant outstanding debt position and current cash deficit).

AO#8 (Financial risk program)

Candidates were asked to discuss the financial risks in UBI's current financial risk management program, and provide recommendations for improving it. Information on the macroeconomic landscape and excerpts from UBI's financial risk management program were provided in Appendix VII (Finance). To demonstrate competence, candidates were expected to discuss most of the areas (hedging, procurement, borrowing) addressed in UBI's financial risk management program, including recommendations on changes UBI should make to each component of the program.

Candidates performed well on this AO. Most candidates attempted to discuss most or all of the areas of the financial risk program, explaining why the guidelines are not appropriate, given UBI's current operations and the current macroeconomic landscape. Most candidates provided a clear recommendation on how UBI could modify its financial risk management program to address these weaknesses.

Strong candidates discussed all three areas of the financial risk management program and consistently integrated case facts regarding UBI and the current macroeconomic conditions. They also recognized that the underlying issue is that the financial risk management program had not been updated since 2017; strong candidates further recommended that it be updated periodically.

Weak candidates did not discuss all areas of the financial risk management program, or provided only a superficial discussion that repeated case facts on the existing financial risk management program without incorporating case facts regarding the macroeconomic landscape or UBI's operations (for example, the percentage of international sales). Weak candidates also provided no recommendations, or provided only superficial recommendations, such as recommending that UBI further investigate issues.

AO#9 (BPM Royalty agreement NPV)

Candidates were asked to analyze, from a quantitative and qualitative perspective, the proposed royalty agreement with Blue Planet Materials Inc. (BPM). Information on the proposed royalty agreement with BPM was provided in Appendix VII (Finance). To demonstrate competence, candidates were expected to calculate the net present value of the royalty agreement, incorporating a sufficient number of components into their analysis (including an incremental analysis of the gross margins, relevant incremental expenses, and upfront costs), discuss some relevant qualitative considerations, and provide a supported conclusion.

Candidates performed adequately on this AO. Most candidates applied the net present value technique, incorporating an appropriate discount rate of 11%, as provided in the case. Most candidates calculated the sales and cost of goods sold under the proposed royalty agreement, and correctly incorporated incremental expenses (such as the marketing spend and royalty) and upfront costs (such as the retrofit and employee training costs) in their analysis. Most candidates also correctly incorporated only the incremental expenses into their analysis. Most candidates identified and discussed some relevant qualitative considerations in their analysis (most often discussing the use of sustainable materials, quality/reputation considerations, and financing requirements), typically segmented into advantages and disadvantages, and considered their quantitative and qualitative analysis in providing a supported conclusion.

Strong candidates incorporated an incremental gross profit analysis, which recognized that the new sales replace existing sales in UBI's plastic division, and therefore considered both the existing sales and cost of sales. Strong candidates incorporated annual taxes and tax shield adjustments in their net present value analysis. Strong candidates also discussed more relevant considerations and explained the implication of each item on their recommendation; their qualitative analysis was more balanced and considered both advantages and disadvantages of the proposed royalty agreement.

Weak candidates attempted a net present value analysis but made technical errors (such as errors in calculating the present value factor), or utilized a discount rate that could not be supported, given the case facts provided. Weak candidates did not incorporate a sufficient number of items in their net present value analysis, or made errors in their calculation, such as making adjustments in the wrong direction, or applying an incorrect cost of goods sold or royalty percentage. Some weak candidates did not discuss qualitative factors, or provided only a brief discussion of qualitative factors, which repeated case facts without further analysis. Some weak candidates did not provide a conclusion, or provided a conclusion that was based only on their quantitative analysis.

AO#10 (Joint venture proposal)

Candidates were asked to qualitatively assess a proposed joint venture proposal with BPM. Information on the joint venture proposal was provided in Appendix VII (Finance). To demonstrate competence, candidates were expected to discuss a sufficient number of qualitative considerations while being balanced in their analysis (i.e., discussing both advantages and disadvantages of the proposed joint venture structure).

Candidates performed adequately on this AO. Most candidates discussed some of the relevant qualitative considerations associated with the joint venture proposal; most often, the expert management team that is familiar with emerging technologies, BPM contributing $1 million of the upfront costs, BPM having decision control as UBI only owns 30% of the shares, and BPM offering new plastic bottle products to UBI first.

Strong candidates discussed a wider variety of relevant qualitative considerations (sometimes discussing additional considerations, such as the commitment to collaborate and the exit price needing to be negotiated), and demonstrated depth by explaining why each of these considerations would be advantageous or disadvantageous to UBI in assessing the joint venture proposal.

Weak candidates identified some relevant considerations, but often stated case facts only and did not explain how they were advantageous or disadvantageous to UBI. As a result, their response was often superficial, with very little value added.

AO#11 (Pine Bluffs assumptions)

Candidates were asked to review the Pine Bluffs valuation analysis (without a quantitative analysis), which included the key assumptions around revenues and cost of sales, and provide a recommendation on how UBI should proceed with Pine Bluffs. A valuation of Pine Bluffs, including notes on the key assumptions, was presented in Appendix VII (Finance). To demonstrate competence, candidates were expected to discuss some of the relevant assumptions, analyze the directional impact on the value of Pine Bluffs, and provide a conclusion on how UBI should proceed.

Candidates performed adequately on this AO. Most candidates attempted to discuss some of the relevant assumptions, most frequently the sales, cost of sales, and adjustment for management bonuses, and incorporated case facts to explain why the assumptions used in the valuation were not appropriate. Most candidates discussed the directional impact of each assumption on the value of Pine Bluffs, and provided a recommendation on what UBI should do regarding Pine Bluffs.

Strong candidates discussed a wider variety of relevant assumptions, including less common items, such as selling and marketing expenses and capital expenditures. Strong candidates provided a view on the offer price as part of their recommendation by indicating that UBI should make an offer lower than the $16 million suggested by Pine Bluffs, and providing some indication of whether their offer should be significantly lower or slightly lower, consistent with their analysis.

Weak candidates did not discuss a sufficient number of relevant assumptions (either by not identifying the issue or by providing a superficial discussion, for example, by stating that the sales forecasts were too high but not identifying specific considerations, such as the loss of a major customer, or considering historical annual growth). Some weak candidates attempted to quantify the impact of the change on the value of Pine Bluffs (although the case explicitly asked candidates not to prepare any quantitative analysis), or discussed whether UBI should acquire Pine Bluffs (discussion of pros/cons), although this was not part of the required.

AO#12 (RoboCarton asset value)

Candidates were asked to provide an analysis of the various valuation approaches that could be used to assess the price of the RoboCarton machine, and recommend the price that UBI should offer for the machine. Information on the RoboCarton machine that UBI is considering, along with market information, replacement cost, and other data, was provided in Appendix VII (Finance). To demonstrate competence, candidates were expected to discuss some of the valuation approaches, analyze the implied value of the RoboCarton machine based on each of the valuation approaches, and provide a conclusion on UBI's counteroffer.

Candidates performed adequately on this AO. Most candidates attempted to discuss each of the valuation approaches for tangible assets, typically focusing on the market approach and comparing each potential comparable machine against the one UBI is considering. Most candidates touched on the replacement cost approach and income-based approach, but often had difficulty explaining why each of these approaches are relevant and how they should factor into the valuation of the asset. Most candidates provided a supported conclusion on the offer that UBI should make on the RoboCarton machine.

Strong candidates discussed all three valuation approaches and used their analysis to determine an appropriate price that UBI should be willing to pay for the RoboCarton machine, and provided a recommendation on the counteroffer, consistent with their analysis.

Weak candidates provided a superficial analysis that repeated case facts but was often disorganized and did not explicitly consider the three valuation approaches, or identified the valuation approaches but did not use the case facts to assess the value of the

RoboCarton machine under each of the valuation approaches. Some weak candidates focused on the net present value and attempted to compare all other values to it, despite this AO requiring candidates to discuss the value of the asset, of which net present value is only one component. Some weak candidates made recommendations not aligned with the required (for example, suggesting that UBI build the machine).

AO#13 (Short-term financing)

Candidates were asked to assess various short-term financing options available to UBI, to purchase the RoboCarton machine, and to provide a recommendation on which option UBI should pursue. Information on the short-term financing options was provided in Appendix VII (Finance). To demonstrate competence, candidates were expected to discuss some of the short-term financing options, providing a balanced analysis by discussing both advantages and disadvantages, and provide a supported conclusion on the financing option UBI should proceed with.

Candidates performed adequately on this AO. Most candidates attempted to discuss the terms of each of the financing options, often categorizing them into advantages and disadvantages, and typically focusing on the interest rate, term, and amount available. Most candidates provided a supported recommendation based on their analysis.

Strong candidates discussed a broader range of relevant advantages and disadvantages, including the factoring option, taking into consideration that the terms of each financing option are quite different (such as the limitations of the factoring arrangement, given that Trusty Andy's Collections' appetite excludes customers outside of Canada), and therefore providing a discussion specific to each financing option.

Weak candidates attempted to discuss the financing options but often repeated case facts without comparing the financing options, or attempted to compare the options directly. Given that the short-term financing options are quite different from traditional financing options (debt and equity), comparing only common terms (such as the interest rate, without recognizing that an effective interest rate needed to be calculated for the factoring arrangement as it is not provided, or the amount available under each financing option) limited the breadth of their analysis, given that some of the financing options had unique terms, such as personal guarantee requirements or limitations around the accounts that UBI would be able to factor.

Paper/Simulation: **Day 2, Performance Management Role (UBI)**

Estimated time to complete: 300 minutes

Simulation difficulty: Average

Competency Map coverage: Performance Management (7)

Evaluators' comments by Assessment Opportunity (AO)

AO#7 (Suppliers – quantitative)

Candidates were asked to perform a quantitative analysis of the impact of potentially changing suppliers for the plastic bottle division. They were specifically instructed to consider quality management costs in their calculation. Information related to the existing supplier and the new potential supplier was presented in Appendix VII (Performance Management), including information on the various quality management costs caused by the current supplier. In addition, Appendix III (Common) was also useful to candidates in quantifying the quality management costs linked to each considered supplier. To demonstrate competence, candidates were expected to calculate the cost of the plastic bottles to be purchased in the upcoming year for each supplier, taking into account the cost of the bottles themselves, the shipping costs, and the quality management costs. The calculation could be performed on a per-bottle basis, or in total dollars.

Candidates performed reasonably well on this assessment opportunity. Candidates were generally able to understand the required, and to realize that the three components of the cost of purchasing bottles (the cost of the bottles, shipping costs, and quality management costs) needed to be added to provide a comprehensive assessment of the quantitative component of the decision to potentially change suppliers. Most candidates correctly determined the cost of the bottles, incorporated shipping costs, and made a reasonable attempt at quantifying the quality management costs associated with each supplier, which was the most difficult component of the calculation. However, most candidates failed to realize that the shipping costs under the current supplier were very volatile, and that a sensitivity analysis was more appropriate than averaging the high and the low estimates provided in the case. They also mistakenly included a portion of the quality supervisor's salary, on the basis of the time spent resolving quality issues caused by the current supplier, not realizing that it was a sunk cost that was common to both options.

Strong candidates were able to provide a near-perfect calculation of the overall costs of purchasing bottles from both suppliers, provided multiple scenarios for the current supplier on the basis of the volatility of shipping costs, and concluded on which supplier was the less expensive one. Strong candidates were more likely to correctly omit from their analysis the quality management costs that were similar for both suppliers, rather than including them in both options.

Many weak candidates failed to incorporate the quality management costs in the calculation, either for both suppliers or, more frequently, for the potential new supplier. The case had mentioned that some quality management steps had to be performed regardless of the supplier chosen, and weak candidates failed to incorporate that information in their calculation. Some weak candidates presented a confusing calculation, not clearly realizing that the cost of the bottles included the three components (bottles, shipping, and quality management), and instead, attempted to calculate UBI's profit under both scenarios, not realizing that the revenues generated were the same under both options.

AO#8 (Suppliers – qualitative)

Candidates were asked to perform a qualitative analysis of the impact of potentially changing suppliers for the plastic bottle division. Information related to the existing supplier and the new potential supplier was presented in Appendix VII (Performance Management). In addition, candidates could also use information on the quality issues experienced in 2022 with the existing supplier, mentioned in Appendices I (Common) and III (Common). To demonstrate competence, candidates were expected to provide a reasonable analysis of the qualitative elements that could help them choose the supplier of plastic bottles, and provide a supported recommendation that would also consider the quantitative analysis performed in AO#7.

Candidates performed well on this relatively easy AO. Most candidates provided arguments for and against each of the two options being considered, using the information provided to them, and recommended a supplier based on their analysis. Most candidates concluded that, despite a higher cost, the qualitative considerations pointed toward recommending adopting the new supplier. Most candidates provided a number of arguments; however, some of the arguments identified were simply repeating the case facts, while others were analyzed in more depth. The most commonly discussed considerations were the shorter distance between the new supplier and UBI, the reduction in shipping delays, the reduction in shipping cost volatility, and the ability for easier monitoring of the supplier through visits to their premises. Most candidates also discussed other factors, such as the presence of harmful substances in bottles provided by UBI's supplier in the past, the general quality issues having taken place during the year with the current supplier, the reduced time spent by UBI's quality supervisor monitoring these issues, the adaptation to the new supplier's production process, and the necessity to create new prototypes. However, most candidates often repeated the same arguments, as a pro of one supplier, and as a con of the other supplier.

Strong candidates were generally able to not only provide more arguments supporting their recommendation, but also general depth in their analysis. Their arguments went beyond the case facts presented, and explained in depth how the arguments presented were beneficial or detrimental to UBI, often making links to other facts. Strong candidates integrated UBI's shareholder objectives, as well as the industry's key success factors, in their discussion of the individual factors being considered. For example, as an argument supporting the change to the new supplier, most candidates mentioned that the proximity of the new supplier would reduce shipping times, and the volatility and magnitude of shipping costs. Strong candidates would mention the same idea, but would link it to the key success factor in the industry of adapting to customer needs, and to the quality issues having already created client dissatisfaction in the past year.

Weak candidates provided fewer arguments, and the depth provided in each of them was often insufficient. They generally presented their response as a bullet-point list of pros and cons, merely repeating the case facts without explaining them or integrating them with pertinent decision factors. For example, they would argue that a pro of changing suppliers was that the new supplier had a reputation for producing high-quality products. However, this was mentioned directly in the case, and the weaker candidates often simply repeated this case fact as an argument without expanding on it further in any way, such as explaining that, as a result, the products from the new supplier would more likely be able to withstand the Canadian conditions.

AO#9 (Recycling – quantitative)

Candidates were asked to provide a quantitative analysis of two proposals related to recycling/reusing glass bottles: the first project consisting of having consumers bring back their used bottles for UBI to refill (operated by Refill IT); and the second project consisting of consumers bringing back their used bottles and UBI selling those empty bottles to a recycling company (DePoly). Information related to the two proposals was provided in Appendix VII (Performance Management). To demonstrate competence, candidates were expected to calculate the incremental operating income generated by each project, and compare both proposals on that basis.

Candidate performance on this AO was mixed. Most candidates performed a reasonable calculation of the DePoly option, recognizing that this option required an upfront expenditure of $50,000, and generated annual incremental income of $40,000, coming from the sale of the empty bottles to De Poly. Most candidates struggled with the other option (Refill IT), not demonstrating a full understanding of the business model behind the proposal. Candidates were expected to compare the cost of providing consumers with a 5% discount on the sale of the refilled bottle and the monthly costs of the system itself, to the savings generated by not having to manufacture the returned bottles, and the electricity costs saved by reducing production.

Most candidates were able to correctly calculate the impact on operating income of the acceptance of the DePoly project, but had difficulty doing the same for the Refill IT project. They generally mistakenly considered the cost of $1.60 per bottle as an incremental cost (instead of as a cost savings), or omitted that variable altogether. Many candidates considered the discount offered to the consumers returning their bottles as an incremental income instead of as an incremental cost of the project. However, most candidates correctly understood the impact on UBI's operating income of the monthly cost of the Refill IT system, and the electricity savings generated by the Refill IT project.

Strong candidates were able to correctly calculate the incremental profit generated by both proposals, and made a useful comparison of the two numbers. They understood that the $1.60 per-bottle cost was a benefit generated by the project, since the returned bottles would not have to be manufactured by UBI before they were filled. They also correctly understood that the only cost (other than the monthly cost of the system itself) was the 5% discount on the filled bottles provided to the ultimate consumers, and correctly considered it as a cash outflow for the company. They understood that the $50,000 upfront cost of the DePoly option was a one-time cost only, and correctly incorporated that cost in their comparative analysis.

Weak candidates struggled to understand the business model behind the two proposals, and this affected their calculations. Many weak candidates mistakenly thought that the Refill IT project generated additional sales of filled containers (of medicine or vitamins), which was not the case. This mistake made them think that the Refill IT project was significantly more profitable than the DePoly project. In addition, many weak candidates thought that the Refill IT project generated an additional cost of manufacturing bottles whereas it was the opposite; the project reduced the cost of producing bottles. Weak candidates also did not consider the one-time nature of the $50,000 initial cost of implementing the DePoly project, which significantly reduced the incremental profit generated by that project.

AO#10 (Recycling – qualitative)

Candidates were asked to provide a qualitative analysis of two proposals related to recycling/reusing glass bottles: Refill IT and DePoly. Information related to the two proposals was provided in Appendix VII (Performance Management). To demonstrate competence, candidates were expected to provide a reasonable analysis of qualitative factors to consider for each of the two proposals, and to provide a supported recommendation on which proposal to undertake.

Candidates performed relatively well on this AO. Most candidates provided arguments for and against each of the two options being considered, using the information provided to them, and concluded and recommended a project based on their analysis. Like AO#8, most candidates provided a number of arguments; however, some of the arguments identified were simply repeating the case facts, while others were analyzed in more depth. The most commonly discussed considerations were the reduced electricity consumption generated by the Refill IT project being in line with shareholders' objectives and customer preferences for environmentally-friendly products, the ability to track inventory more precisely, including inventory being sent to landfill sites, and the increased rate of return (50% versus 20%) generated by the same project, and how it impacts the qualitative considerations.

Again in this AO, however, most candidates often repeated the same arguments, as a pro of one supplier, and as a con of the other supplier.

Like AO#8, strong candidates were generally able to provide more arguments supporting their recommendation, and also general depth in their analysis. Their arguments went beyond the case facts presented and explained in depth how the arguments presented were beneficial or detrimental to UBI, often making links to other facts. Strong candidates integrated UBI's shareholder objectives, as well as the industry's key success factors, in their discussion of the individual arguments being made. For example, most candidates argued that the Refill IT option would generate a higher rate of bottles being returned. Strong candidates would go further and link this characteristic to shareholders' preference for reduced waste, and to customers' preference for environmentally-friendly products/processes.

Again like AO#8, weak candidates provided fewer arguments, and the depth provided in each of them was often insufficient. They generally presented their response as a bullet-point list of pros and cons, merely repeating the case facts without explaining them or integrating them with pertinent decision factors. For example, they would state that a pro for the Refill IT option was that implementing this program would reduce UBI's electricity usage for glass bottle manufacturing by 15%. However, this was mentioned directly in the case, and the weaker candidates often simply repeated this case fact as an argument, without expanding further on it in any way.

AO#11 (Environmental performance – disclosure)

Candidates were asked to assess the environmental performance of UBI's standard glass division, using four metrics: CO2 emissions; electricity consumption; waste sent to landfill; and the number of products containing harmful substances. They were also asked to address the considerations linked with publishing this information. Information related to UBI's environmental performance, as well as industry performance, was provided in Appendix VII (Performance Management). To demonstrate competence, candidates were expected to perform a reasonable analysis of the environmental performance of UBI's standard glass division based on the four metrics presented, and to provide a reasonable analysis of the considerations linked with publishing this information.

Candidates performed adequately on this AO. Most candidates attempted to calculate the two metrics that could be calculated using case facts (electricity consumption and CO2 emissions), and attempted to assess the other two as well (waste to landfill—that UBI did not track, and the number of products containing harmful substances—zero). Most candidates were able to correctly assess one of the two quantitative metrics, and adequately discuss one of the other two metrics provided. Most candidates performed an analysis of the considerations associated with publishing this information, but with limited depth. Many candidates presented arguments already provided in the case by Jessica or Lisa (the two co-CEOs) without providing much added value.

Strong candidates correctly calculated both quantitative metrics, and were able to adequately discuss one of the two other metrics mentioned. The metric most often correctly calculated was electricity consumption. They were also able to adequately discuss the considerations associated with publishing UBI's environmental performance, making links with the performance that they had just measured in the first part of the AO, or addressing themes mentioned in the case, such as the possibility of this disclosure becoming mandatory in the future, customers' desire to be informed on environmental performance, the possibility of becoming a leader in the field, or considerations linked with the cost of tracking the information.

Weak candidates made numerous errors in the calculation of the two metrics, and provided little or no discussion on the metrics that UBI could not quantify. For example, they mistakenly multiplied the $0.08/kwH electricity cost provided in the case by the number of kg of glass bottles manufactured (650,000 kg) in order to determine the electricity consumption in kwH/kg. The correct approach was to divide the total electricity cost of $2,715,000 by the $0.08/kwH rate to obtain the number of kwH consumed, and then divide this consumption by the 650,000 kg produced. Their discussion around the considerations related to publishing the information was also generally lacking depth, consisting of case facts presented in a bullet-form list of pros and cons, without much additional explanation.

AO#12 (Pricing – bundled services)

Candidates were asked to perform a quantitative and qualitative assessment of two pricing options for a proposed new bundled service to be offered by UBI. Candidates were provided with sales volume projections from market research at different price points, for two distinct pricing options: 1) a standard "cost-plus" formula, where the cost would be marked up by 40%; and 2) a demand-based pricing method, where the selling price would depend on the timing of the customer's order, with higher prices for last-minute orders. Information on these projections was provided in Appendix VII (Performance Management). In addition, candidates could use information on the industry provided in Appendix I (Common), as well as information presented in other sections of Appendix VII (Performance Management).

Candidate performance on this AO was disappointing. Most candidates based the comparison between the two pricing approaches on revenues, as opposed to contribution margins. Most candidates ignored the cost of $85 per carton mentioned in the case, and proceeded to simply calculate the revenues generated by both pricing scenarios, and compare them. Since the sales volume was different under both pricing options, the total variable costs were relevant, as they were different from one scenario to the other. Most candidates performed a short, but reasonable, qualitative analysis of the pricing decision, making links with the high demand for such bundled services, with the fact that very few suppliers provided them, with shareholders' objectives, and with key success factors in the industry.

Strong candidates generally differentiated themselves on the quantitative portion of this AO. For example, they recognized that the quantitative analysis performed had to be based on the contribution margin generated by each pricing option, and were able to perform a reasonable calculation. Some strong candidates made minor calculation mistakes in determining the volume sold under each pricing point of the second option, but most strong candidates provided a near-perfect calculation of the contribution margin generated under both options.

Weak candidates not only based their quantitative analysis on revenues instead of contribution margins, but also made mistakes in the calculation of the revenues generated by both options, often forgetting to take into account the percentage of the warehouse space that would translate into sales, or mixing up these percentages with the percentages of the warehouse space devoted to each type of order. Many weak candidates also struggled in determining the selling price based on the cost provided plus a determined markup percentage. Many weak candidates provided little or no qualitative analysis. Those that did generally repeated their quantitative analysis in a narrative form.

AO#13 (Strategic direction and governance)

Candidates were asked to assess and discuss two things: 1) the strategic direction proposals prepared by each of the two co-CEOs (Jessica and Lisa); and 2) governance issues at UBI. Information related to the strategic direction proposals was presented in Appendix VII (Performance Management), whereas information related the governance portion of the required was presented throughout the case, especially in the background page of the Common section of the case. To demonstrate competence, candidates were expected to provide a step-back analysis of the two strategic proposals, realizing that they were based on two very different views of the future of the company, and explain which one was a better fit with the company's external and internal environment, the key success factors of the industry, and the shareholders' objectives. They were also expected to provide insightful observations on the governance issues at UBI, and provide useful recommendations where needed.

Candidates struggled with this assessment opportunity, especially the first part of the required (strategic direction). This AO was expected to be the most difficult AO in the Performance Management role. Many candidates addressed the first part of the required using a templated "pros versus cons" approach, which did not lead to the comprehensive, integrated analysis that was requested. They analyzed each of the two proposals on an item-by-item basis and gave their analysis on each item, rather than analyzing the proposals as a whole and attempting to link the proposals with elements of UBI's environment, the industry's key success factors, or other proposals analyzed earlier in their response. Other candidates, rather than critique the strategic orientation suggested by each co-CEO, proceeded to rewrite the proposals in their own words, and explain them to the user. For the second component of the required (governance), most candidates discussed issues related to the composition of the Board of Directors, and the points made were often very generic; they were most often not case-specific, and could have applied to any company. For example, they would state that financial expertise should be present on the board, and that most board members would ideally be independent from the company, without making links to the current board at UBI and how their members met these ideal characteristics.

Strong candidates recognized that the two co-CEOs had fundamentally different opinions on the strategic direction to take going forward, and that they were mutually exclusive. They proceeded to argue for and against each of these views, using shareholders' objectives and the industry's key success factors as anchors to their analysis. They also made links to UBI's external and internal environment, such as client dissatisfaction with the quality of the products, price sensitivity in the industry that led UBI to lose orders because its quote was too high, client preference for environmentally-friendly solutions, and the company's environmental performance. Strong candidates were able to integrate the various components of each proposal, see the common thread that guided each proposal, and critique the proposal rather than item by item. Instead of giving their personal opinion on the preferred option, they attempted to determine which was the best fit with the company's environment and the industry's key success factors. For the governance issues, strong candidates saw the bigger picture, and noted that a structure comprised of two co-CEOs was problematic in general, and that it was even more problematic when the co-CEOs had such conflicting views on where the company should be heading. They addressed the board composition issue with that in mind, and their recommendations were specific to UBI's situation.

Weak candidates had little to say on the two proposals, other than their personal opinion on each of the proposal's components, one by one. Their responses were generally very short, presented as a bullet-point list of pros and cons for each element, with little or no links to UBI's environment or industry success factors. The governance issues noted were generally limited to the small number of board members and the necessity for the board to have financial expertise, which were generic and did not add much value in this particular case, when there were more significant issues to discuss.

Paper/Simulation: **Day 2, Taxation Role (UBI)**

Estimated time to complete: 300 minutes

Simulation difficulty: Average

Competency Map coverage: Taxation (7)

Evaluators' comments by Assessment Opportunity (AO)

AO#7 (Accounting issues)

Candidates were asked to determine the tax treatment of the financial reporting issues, which were the Yarley's Jams and Mustards Inc. contract, the Peak Performance Inc. (PPI) contract, and two specific accounts receivable balances. Information on the financial reporting issues was provided throughout the Common section of the case. To demonstrate competence, candidates were expected to discuss several of these items from an income tax perspective.

Candidates performed below expectations on this AO, frequently failing to provide much discussion at all. Many candidates simply stated that the accounting adjustment would increase/decrease income and taxes would therefore be higher or lower, without attempting to apply the tax concepts involved to determine if the treatment would be different from the accounting treatment. Those who did attempt tax-specific discussions generally provided only very brief descriptions of the tax treatment, without explaining why they arrived at that conclusion (for example, concluding that the PPI contract costs would be added to Class 14 without identifying what kinds of costs they were, or why they qualified for that class).

Strong candidates discussed the tax implications of the financial reporting implications by discussing, specifically from a tax perspective, the nature of each of the four transactions, usually providing some depth on one or two (such as discussing what tax reserves might be available for bad debts, or the tax treatment of foreign exchange on operating accounts).

Weak candidates rarely attempted to discuss the tax treatment of the financial reporting issues at all, and those that did simply stated that the taxes would go up because financial statement income went up, or vice versa. Surprisingly, a significant number of candidates (12%) did not address this AO at all, despite the clear request to do so and the straightforward nature of the request.

AO#8 (Taxable income and taxes payable)

Candidates were asked to calculate taxable income and federal taxes payable for UBI for the taxation year ended December 31, 2022. Information required to perform this calculation was provided throughout both the Common and Taxation sections of the case. To demonstrate competence, candidates were expected to calculate taxable income, incorporating several valid adjustments, and to provide a reasonable calculation of taxes payable.

Candidates performed well on this AO. Most candidates attempted a calculation of income and taxes payable, making some of the simpler adjustments to income (amortization, meals and entertainment, and the integration of the accounting income adjustments), although they often did not adjust for the difference between the accounting treatment and tax treatment of the financial reporting issues. Most candidates usually calculated CCA appropriately on the opening balances, but often struggled to determine the deduction with respect to the current year additions (which were eligible for immediate expensing). Most candidates calculated taxes payable reasonably by calculating the basic rate, provincial abatement, and general rate reduction, although many failed to identify that UBI's taxable capital was such that it would not be eligible for any amount of small business deduction.

Strong candidates calculated net income for tax purposes and taxable income, adjusting for most of the adjustments (including adjustments for the difference between the accounting treatment and tax treatment of the financial reporting issues), and calculating CCA and immediate expensing correctly. These candidates also calculated taxes payable correctly by calculating the basic rate, provincial abatement, and general rate reduction, often adding some depth by explaining why other items were not included (such as explaining that there is no small business deduction because UBI's taxable capital is too high).

Weak candidates typically attempted a calculation of net income for tax purposes and taxable income, usually attempting most of the simpler tax adjustments but rarely attempting to adjust for the difference between the accounting treatment and tax treatment of the financial reporting issues. These candidates frequently made multiple errors on CCA, failing to apply the immediate expensing provisions, and often even using the half-year rule instead of the accelerated investment incentive. Weak candidates either did not attempt a calculation of taxes payable or made multiple errors in their attempt (such as including the small business deduction or failing to apply the general rate reduction).

AO#9 (GST/HST return)

Candidates were told that a junior accountant drafted the GST/HST return for January 2023, and that they needed to review it. They were also asked to remind Lisa of the GST/HST filing and payment deadlines, and of the penalties if UBI files or pays late. A working copy of the January 2023 GST/HST return, along with supporting reports, was provided in Appendix VII (Taxation). To demonstrate competence, candidates were expected to perform a reasonable recalculation of the net tax for January, or attempt a calculation of the net tax for January, and to comment on the applicable deadlines and penalties.

Candidates performed below expectations on this relatively straightforward AO. Most candidates identified the required, and were able to provide some, but not many, explanations of the errors present in the draft GST/HST return. Those who attempted to discuss the deadlines and penalties often did not extend their technical knowledge (returns are due at the end of the next month) to the case facts (the January return is due on February 28).

Strong candidates attempted a recalculation of net tax for the period. They usually revised the return for multiple identified errors (most commonly addressing the revenues, the GST/HST collected, and either the ITC or the bad debt), explaining briefly what was being adjusted for and why. These candidates also identified that the GST/HST return was due at the end of February and explained what the penalties would be for filing late.

Weak candidates sometimes provided critiques of the items in the GST/HST return, but usually did not attempt to recalculate it. These candidates often focused mainly on the deadlines and penalties, although even those discussions were often superficial, identifying only one of the two (filing, payment) deadlines theoretically without applying it to the case facts, and rarely discussing penalties. Often, weak candidates simply provided irrelevant technical knowledge of GST/HST issues not related to this case (such as the small supplier threshold and annual versus quarterly versus monthly filer rules).

AO#10 (Stock options)

Candidates were asked to analyze the tax consequences of a proposed employee stock option plan, for both the employees and UBI, and to recommend whether to proceed with it. Details of the proposed plan were provided in Appendix VII (Taxation). To demonstrate competence, candidates were expected to explain several tax aspects of the stock option plan presented.

Candidates performed adequately on this AO. Most candidates explained that an employment benefit would be calculated based on the difference between fair value at the date of exercise and the option exercise price, and identified that the benefit would not be included in income until the sale of the underlying shares took place, since UBI is a CCPC. They also either identified the potential availability of the stock option deduction or discussed the subsequent capital gain. Most candidates attempted to discuss the implications to UBI, but often failed to understand that UBI would not receive a deduction related to this plan.

Strong candidates clearly explained each component of the stock option plan: that an employment benefit would be calculated based on the difference between fair value at the date of exercise and the option exercise price; that the benefit would not be included in income until the sale of the underlying shares took place, since UBI is a CCPC; that the stock option deduction (of 50% of the employment income inclusion) would be available because the options were not in the money at the time of grant; that taxable capital gains would occur when the shares were sold; and that the corporation could not deduct any expense for tax purposes. These candidates also provided an overall conclusion, often linking their conclusions to the potential dilution of share ownership.

Weak candidates frequently made significant technical errors. These varied from response to response, but included incorrect descriptions of the employment benefit calculation (often stating that the employment benefit was the difference between the exercise price and the fair market value at the time of the grant—which was actually lower than the exercise price—or that the entire difference between exercise price and disposition value was a taxable benefit or a capital gain), erroneous discussions of the timing of the benefit and/or the deduction (often concluding that 100% of the employment benefit was deductible), and explicit statements that the stock option expense to be recorded on the income statement would be deductible by UBI.

AO#11 (QBS and T4)

Candidates were asked to review a sample draft T4 slip, prepared by UBI's new payroll provider (QBS), to identify the errors. The sample T4 slip, along with additional payroll information, was provided in Appendix VII (Taxation). To demonstrate competence, candidates were expected to discuss several of the elements of the T4 (errors and/or correct items).

Candidates performed better than expected on this AO. They did not seem to be thrown by having to review a specific tax form, as the board was concerned might happen. Most candidates identified many errors in the T4 presented to them, usually a mix of clerical/system errors and more technical tax items (like taxable benefits), explaining why the amounts needed to be revised. Most commonly, they identified that the bonus had been excluded from employment income, the tax withheld was incorrect on the T4 slip, the donations had not been recorded, the barbeque would not be a taxable benefit, and the life insurance premiums were taxable to the employee.

Strong candidates often went box by box through the draft T4, identifying whether boxes were correct or incorrect, and always explaining why they concluded that way. In addition to the items discussed by most candidates, strong candidates also correctly discussed the private health services plan (PHSP) premiums, for both the employer and employee contributions, as well as some other items. Strong candidates often identified that the request not to deal with the T4 until March was inappropriate, because the T4s needed to be distributed by the end of February, and/or that there could have been systemic problems with QBS that caused the errors they identified.

Weak candidates often attempted to critique some of the items in the T4, but usually did not provide explanations for any changes they proposed—many simply listed the box numbers and what they thought should be the revised numbers, without any explanation. These candidates also often made technical errors, for example, treating the PHSP premiums as a taxable benefit and the life insurance premiums as non-taxable.

AO#12 (Personal services business)

Candidates were told that a friend told Lisa she could pay less tax if, instead of receiving a salary from UBI, she incorporated a new corporation (LisaCo), which would charge a management fee to UBI. LisaCo would then pay Lisa a smaller salary. Candidates were asked to analyze the tax impacts of this structure for Lisa and LisaCo. Additional information regarding Lisa's remuneration was provided in Appendix VII (Taxation). To demonstrate competence, candidates were expected to identify that this structure would result in LisaCo's income being from a personal services business (PSB), and to demonstrate that they understood the implications of this through explanations and/or calculations.

Candidates performed as expected, although they struggled, as this AO was a more difficult one. Most candidates identified that the PSB rules would apply, although they often struggled to correctly explain or quantify what the implications of this would be. Many candidates concluded that LisaCo would pay the highest rate of personal tax (33%), without explaining any of the mechanics behind that (the denial of the SBD and GRR, and the imposition of the PSB surtax). They sometimes identified other impacts, such as the denial of deductions. If they attempted calculations, they were often one-sided, dealing with either personal tax or corporate tax, but not both.

Strong candidates explained that LisaCo would be earning PSB income, and used case facts to show why they concluded that way. They went on to explain that LisaCo would be denied most deductions, specifically identifying which of the costs identified in the case could be deducted (only Lisa's salary), and which could not (the professional fees and CCA). They also usually attempted a calculation of the taxes to be incurred by both LisaCo and Lisa.

Weak candidates frequently failed to identify that the income earned by LisaCo would be PSB income. Instead, they provided generic discussions of the taxation of corporations and self-employment income. If they attempted calculations at all, they did not reflect any of the elements of the taxation of PSB income, and their calculations were often one-sided (only personal or only corporate tax).

AO#13 (Sale and leaseback)

Candidates were asked to tell Lisa the income tax and GST/HST consequences of a proposed sale and leaseback of UBI's land and building. Additional details on the sale and leaseback were provided in Appendix VII (Taxation). To demonstrate competence, candidates were expected to calculate the terminal loss and capital gain on the disposition of the land and building, and to provide some depth by calculating the revised amounts under ss. 13(21.1), calculating tax, or discussing some of the other issues.

Candidates struggled with this AO. The nature of the request was relatively unstructured, and there were many different approaches that candidates could take to respond to this request, most of which were valid. Most candidates identified that there would be a gain on the disposition of the land, but many struggled to perform the calculations correctly for the building. Often, for example, candidates would calculate a capital loss on the building and apply it against the capital gain on the land, even though capital losses on depreciable property are denied by the Income Tax Act. Most candidates struggled to provide valid discussions, often providing only brief conclusions that the sale would be subject to GST/HST and that lease payments would be deductible, without much explanation.

Strong candidates calculated the initial capital gain and terminal loss on the disposition of the land and building, respectively, and identified that ss. 13(21.1) would deny the terminal loss and force a reallocation of the proceeds. These candidates usually went on to recalculate the capital gain (and reduce the terminal loss to zero), and often calculated the income taxes and GST/HST on the transaction. They typically also discussed the income tax and GST/HST implications of the subsequent lease payments to be made.

Weak candidates often attempted a calculation of the capital gain on the land and calculated a capital (not terminal) loss on the building and netted the two (even though capital losses on depreciable property are denied). These candidates rarely addressed any of the other potential discussions in this AO.

BOARD OF EXAMINERS' COMMENTS ON DAY 3 SIMULATIONS

Paper/Simulation: **Day 3, Case 1 (HG)**

Estimated time to complete: 90 minutes

Simulation difficulty: Average to Hard

Competency Map coverage: Management Accounting (1);
Financial Reporting (1);
Finance (1);
Assurance (2);
Taxation (1);
Strategy and Governance (1)

Evaluators' comments by Assessment Opportunity (AO)

AO#1 (Variances)

Candidates were asked to calculate the efficiency and rate variances for two services (quick clean and deep clean), and to explain the results and potential causes for those variances. They were also asked to provide an actual-versus-standard analysis of the ratio of labour cost to revenue. In Appendix I, candidates were provided with all of the information required to perform their calculations and explain the causes of the variances. To demonstrate competence, candidates were expected to perform a reasonable calculation of the rate and efficiency variances, and to discuss the potential causes for those variances. Performing the actual-versus-standard analysis of the ratio of labour cost to revenue could also help candidates with their interpretation of the potential causes for the variances.

Candidates struggled with this AO. Although most candidates knew the formulas for the rate and efficiency variances, they had difficulty applying the formulas they had laid out to the data provided. Most candidates attempted to calculate the variances for both types of cleaning; however, their calculations often contained technical errors. Although most candidates attempted an interpretation of their variance analysis, their discussions were often generic, and they had difficulty identifying proper causes for the variances from the case facts that were presented to them. For example, some candidates mentioned that the efficiency variance is unfavourable because more time was spent on the cleanings than planned, but did not further their discussion to include case facts that would help explain why more time was spent. Fewer candidates also attempted the actual-versus-standard analysis of the ratio of labour cost to revenue. Most of the candidates who did were able to properly calculate the actual ratio, but were unable to calculate the standard ratio, so their analysis generally did not yield useful information, to help identify the causes of the variances.

Strong candidates provided a reasonable rate and efficiency variance calculation for both the deep and quick cleans, with minimal errors. They also explained the potential causes for the variances, integrating relevant case facts into their discussions, such as HG's good employee retention rate, the disappointment with the quick clean expressed by customers, the difficulty for cleaning staff to switch between the expectations of a deep clean to those of a quick clean, or employees' comments about the three quick cleans in a day being tiring. This integration of case facts in their interpretation of the results of their calculation enabled them to provide useful explanations to Olive of why HG's labour costs for residential cleaning services have been higher than budgeted.

Weak candidates either did not perform any variance calculations, or provided a variance analysis that contained multiple technical errors. The weak candidates who attempted the rate and efficiency variance calculations usually struggled to properly integrate the case data into their calculation. Those candidates exhibited conceptual errors, such as multiplying the hour difference in the efficiency variance calculation by the total labour cost (instead of the standard rate), or multiplying the rate difference in the rate variance calculation by the revenue per cleaning (instead of the actual quantity of hours). Some weak candidates also combined the quick clean and the deep clean while calculating the variances, which made their analysis less useful for Olive. Many weak candidates were unable to provide a discussion of the causes for the variances that was logical and consistent with the results of their calculation. Many simply restated the results, or their calculation, without providing any insight as to what could have caused those variances.

AO#2 (Revenue recognition)

On the first page of the case, candidates were told that HG began selling a subscription to a new product in 2022, the Green Baskets. In Appendix II, candidates were provided with information on the Green Baskets subscriptions, and were asked how to account for the sale of the Green Baskets. To demonstrate competence, candidates were expected to discuss, in reasonable depth, the performance obligations of the contracts and the amount of revenue to recognize, using appropriate guidance from *IFRS 15 Revenue from contracts with customers*. They were also expected to address the right to return the baskets for a full refund, and how this would impact the transaction price and the revenue to recognize.

Candidates struggled with this AO. Most candidates listed the correct steps for revenue recognition under IFRS 15, and were able to integrate case facts into their discussions under each relevant step. However, the level of depth of discussion was insufficient for many candidates, who were unable to explain how the case fact they stated was making a difference in whether the criterion they were discussing was met. While most candidates attempted to provide an appropriate adjustment to the revenue recorded, this was not sufficient to offset the deficiencies noted elsewhere in their response. Most candidates also addressed the right of return but with limited depth, often only providing a calculation of the amount that should be recorded for the refund liability, or only providing a conclusion, with minimal *Handbook* support. Many candidates also provided journal entries, which at times helped to further illustrate their understanding of the revenue recognition issues.

Strong candidates provided an in-depth analysis of the accounting treatment for the Green Baskets by providing IFRS 15 guidance and bringing in appropriate case facts to support their analysis. For example, strong candidates were able to support why there were 12 distinct performance obligations in the contract, explaining how customers could benefit from each monthly basket on its own. These candidates were more likely to allocate the transaction price to each performance obligation evenly, and to conclude that the revenue should be deferred until the monthly baskets were delivered. Strong candidates were also more likely to discuss in sufficient depth the right of return in the contract, and its impact on the accounting treatment of the transaction, integrating case facts to support the rate to be used to account for the potential returns.

Weak candidates provided a superficial analysis of the accounting treatment for the Green Baskets. These candidates were more likely to discuss only one of the two main issues, usually the performance obligations and not the right of return, or to provide an analysis with technical errors. For example, some weak candidates concluded that there was only one performance obligation in the contract, and revenue could thus be recognized upon the delivery of the baskets, not realizing that there were 12 baskets to be delivered in each contract. Other weak candidates only discussed the right of return, and many provided a conclusion without support. For example, many concluded that 100% of the revenue could be recognized after 45 days, not realizing that the performance obligations were satisfied over time, since the Green Baskets were a monthly subscription, and that customers could return each basket for a full refund up to 45 days after delivery.

AO#3 (Payback)

Candidates were told that Olive was approached by Lily, the owner of Creases, a laundry service in a neighbouring town, to expand her business to include a similar service. They were asked to calculate the payback period for the potential investment, taking into account the financing costs. In Appendix III, candidates were provided with the terms of the bank loan, the estimated revenue of the laundry service, and the different costs (fixed and variable). To demonstrate competence, candidates were expected to prepare a reasonable cash flow analysis that included several items, and to demonstrate their understanding of how to calculate the payback period for the investment.

Candidates performed poorly on this AO. Most candidates were able to provide a reasonable cash flow calculation, but they demonstrated technical weaknesses in calculating the payback period for the investment. Although most candidates attempted a calculation of the payback period, a significant proportion of candidates were unable to perform the calculation correctly.

Strong candidates were able to provide a complete calculation of the cash flows associated with the potential expansion, incorporating most of the cash flow items that were provided to them in the case, and including some of the more challenging items that required adjustments, such as the revenue, direct labour, royalties, and interest costs. Strong candidates were also able to demonstrate their understanding of the payback period, recognizing that the cumulative yearly cash flows would impact the payback period, and concluded properly on the number of years it would take to pay back the investment.

Weak candidates were unable to provide a complete cash flow analysis, and were unable to demonstrate their understanding of the payback period concept. For example, those candidates only integrated a few of the cash flow items that were presented to them in the case, and struggled with calculating a logical payback period. A common mistake was to include the loan principal repayments in the cash flow analysis, a conceptual error that prevented candidates from accurately determining the payback period. Some candidates also provided a net present value calculation, and concluded on whether to go ahead with the project without answering the question about the payback period. Weak candidates also struggled with a few of the cash flow items that were not directly provided to them, such as the calculation of the interest costs, which decreased over time as the principal balance was paid down.

AO#4 (SWOT analysis)

Candidates were asked to provide a SWOT analysis of HG, to help determine if the expansion is worth pursuing from a strategic standpoint. Throughout the case, candidates were provided with case facts that could be discussed in each category of the SWOT. To demonstrate competence, candidates were expected to identify some elements of the SWOT, using specific information provided in the case, and to explain those elements, going beyond sorting case facts into the four categories.

Candidates performed below expectations, given that the board expected this to be a relatively easy AO. Most candidates completed an analysis that was well organized, and were able to appropriately classify the case facts into all categories of strengths, weaknesses, opportunities, and threats. The most discussed point in each SWOT category was the clear mission of HG as a strength, the customer complaints received about the quick clean service as a weakness, the possibility to be the first mover in the area as an opportunity, and the potential lack of market in the area as a threat.

Strong candidates addressed all of the areas of a SWOT within their analysis, and provided multiple points in each category. These candidates were able to go beyond classifying each case fact into a category, as they explained each point and why it belonged to a specific category. For example, strong candidates would not only mention the fact that customers have been disappointed with the quick clean, but also explain that this is a weakness that could harm HG's reputation and cause a loss of potential customers for the new laundry service.

Weak candidates lacked depth in their analysis, organizing case facts into the SWOT categories without providing further explanations. Weak candidates also covered fewer categories, by either not providing any factors for a specific category or providing factors that were not valid, as they struggled to find any that fit that category. Weak candidates struggled in general to find information in the case that could be included in their SWOT analysis, which demonstrated a lack of governance and integration skills. Weak candidates identified elements that were either not supported by case facts or were in contradiction to them. For example, they would mention that labour might be hard to find, when there was no indication of this in the case, and they were told that HG had a good employee retention rate.

AO#5 (Compilation versus audit)

Candidates were asked to explain the difference between a compilation and an audit, and the implications of the change of engagement type for HG. On the first page of the case, candidates were told that one of HG's shareholders, Margaret, who is a CPA and a partner in an accounting firm, required the financial information of all companies she invests in to be compiled by her firm. Candidates were also told that Olive feels confident that Margaret will be able to do the audit quickly as she is very familiar with HG. To demonstrate competence, candidates had to discuss some of the differences between a compilation and an audit engagement. Candidates were also expected to discuss the implications of the change for HG.

Candidates performed poorly on this AO. Most candidates attempted to address some of the differences between a compilation and an audit, the most frequent discussions being on the assurance level and the cost of the engagement. Most candidates did not address the difference in the type of work or the independence requirements between the two types of engagement, or struggled to explain the difference. Many candidates did not attempt to discuss the implications of the change for HG. When they did, they usually recognized that there was an issue with Margaret potentially performing the audit, but they were unable to clearly explain how the independence requirements were different between an audit and a compilation.

Strong candidates identified several differences between a compilation and an audit engagement, such as the level of assurance, type of work, fees, and the independence requirements. They provided complete explanations of those differences, for example, explaining in detail the type of procedures done in an audit engagement, and how it differed from the work done in a compilation engagement. Strong candidates also discussed the implication of the change in the type of engagement on HG, providing a clear discussion of the issue with Margaret's independence. Some strong candidates also discussed the impact of the change in engagement on the work the practitioner would have to perform on the opening balances, or the comparative information presented in the financial statements.

Weak candidates identified only a few differences between a compilation and an audit engagement, and did not go into depth in their analysis of these differences. Most weak candidates provided a generic response, focusing only on the technical differences between the two engagements, and not discussing the impact that a change of engagement would have on HG. Some weak candidates also appeared to be unfamiliar with a compilation engagement, and confused it with a review engagement. For example, these candidates stated that a compilation engagement provided a limited level of assurance.

AO#6 (Audit procedures)

Candidates were asked to provide audit procedures that will likely be performed over cleaning and tailoring revenue, Green Baskets revenue, and employee wages and deductions. Appendix II provided a description of the new Green Baskets subscriptions, and Appendix IV provided a description of HG's processes, in order to help candidates design their audit procedures. To demonstrate competence, candidates had to provide some valid audit procedures that would be performed over the revenue items and employee wages.

Candidates performed adequately on this AO. Most candidates provided a sufficient number of procedures, and most attempted to provide procedures in the three identified areas of the required. Candidates appeared to be more comfortable providing audit procedures on the wages and deductions and on the Green Baskets revenue. They had more difficulty providing clear procedures on the cleaning and tailoring revenue, since they often addressed these two together, and did not always seem to understand the processes around these revenue streams. When candidates attempted to provide procedures on the cleaning and tailoring revenue, they often suggested procedures that focused solely on cash rather than on the recording of the revenue.

Strong candidates provided precise procedures that included specific and clear audit evidence, such as invoices, customer agreements, and payroll reports. They were also able to clearly explain how the work would be performed. Strong candidates offered multiple procedures per area, for example, providing procedures on both wages and deductions. Their procedures also addressed multiple assertions, such as occurrence, cut-off, and completeness, and were more complete, providing a better coverage of the risk. When analytical procedures were provided, strong candidates explained the specific steps necessary to determine the expectation and what it would be compared to.

Weak candidates provided procedures that were vague and not well explained. These candidates were unable to suggest clear audit evidence. For example, they would suggest obtaining the Green Baskets documentation and verifying that revenue is recorded properly. Weak candidates also attempted fewer procedures overall, and did not cover all three areas included in the required. Many weak candidates provided generic procedures on balances that were not included in the required, such as cash. Some weak candidates misunderstood their role, and suggested improvements to the internal controls over the wages and deductions, or the cleaning and tailoring revenue, instead of providing procedures.

AO#7 (Sole proprietorship versus incorporation)

Candidates were asked to help HG's contracted tailor to understand, from a tax perspective, if it would be better to incorporate or to remain as a sole proprietor, and to explain the differences between the two options. To demonstrate competence, candidates had to discuss some of the differences between a sole proprietorship and a corporation.

Candidates struggled with this AO. Most candidates discussed the fact that corporations provide limited liability and protection of personal assets but have higher administrative costs than sole proprietorships. Many candidates also addressed the difference in the tax rate under both structures, due to the corporation's ability to claim the small business deduction. However, most candidates struggled to provide additional information beyond those basic points; as a result, there was not sufficient information provided that would have been useful to the client. When candidates did go further in their discussion, they often only mentioned the points without providing explanations. For example, some candidates identified the potential for tax deferral under a corporation, but struggled to explain how this would work.

Strong candidates discussed a greater number of differences in their response. In addition to the differences mentioned by most candidates, strong candidates explained that one of the main advantages of incorporation was the opportunity for tax deferral on any amounts left in the corporation, and they were able to explain the tax mechanisms under which this was possible. They also provided useful discussions about the ability to use a mix of salary and dividends for tax planning purposes. Strong candidates recognized that a potential benefit of a sole proprietorship was the ability to offset business losses against other sources of income. A few strong candidates recognized that integration in the tax system would likely mean amounts paid under either structure would be equivalent, especially in cases where most income would be removed from the corporation.

Weak candidates demonstrated a lack of technical knowledge and struggled to identify valid differences between a corporation and a sole proprietorship. For example, these candidates concluded that more business expenses could be deducted under a corporation or that a corporation was required to register for GST/HST, not recognizing that sole proprietors are subject to the same allowable deductions and GST/HST registration requirements. Conversely, many weak candidates focused on the ability to make RRSP contributions and deduct childcare expenses as a sole proprietor, failing to recognize that this would also be an option if the tailor paid himself a salary via the corporation. When they did recognize valid differences, weak candidates did not explain the points they raised. Some weak candidates also discussed minor differences in tax rules, for example, regarding filing and payment deadlines, or instalment requirements. While some of these administrative differences were technically accurate, these points were not as relevant and important in making a choice between the two business structures.

Paper/Simulation: **Day 3, Case 2 (HAI)**

Estimated time to complete: 80 minutes

Simulation difficulty: Average

Competency Map coverage: Management Accounting (1);
Financial Reporting (1);
Finance (2);
Taxation (2)

Evaluators' comments by Assessment Opportunity (AO)

AO#1 (Bus lease)

Candidates were asked to look at the accounting treatment for a school bus lease (under ASPE). In Appendix I, the notes to the financial statements provided information regarding the bus itself along with the lease contract, including the contract's duration, payment terms, and end-of-lease buyout amount. To demonstrate competence, candidates were expected to analyze each of the three criteria from *ASPE 3065 - Leases*, using the available case facts to support their analysis, and conclude on whether the lease was an operating or capital lease.

Candidates performed poorly on this AO. Most candidates identified that they needed to determine if this was a capital lease or an operating lease, and referred to ASPE 3065. However, they had difficulty addressing all three criteria appropriately. In particular, candidates struggled with the transfer of ownership criterion, and most were unable to accurately assess whether the lease contained a bargain purchase option. These candidates typically concluded that a bargain purchase option existed because HAI had the option of purchasing the bus at the end of the lease. However, they failed to consider whether the price at which the bus could be purchased represented a true bargain for HAI, or whether this amount was simply equivalent to the market value of the bus after 15 years. Most candidates also attempted to assess whether the lease payments were substantially equal to the fair value of the bus, but some struggled with the required calculation of the present value of the minimum payments, which was required to assess whether the criterion was met. These candidates showed inconsistency in the inputs to their calculation, for example, using an annual interest rate when the payments were monthly, or including the buyout amount in the calculation when they had concluded that no bargain purchase option existed. Some candidates correctly assessed the duration criterion, although many were confused as to which duration to use for the economic life, i.e., the remainder of the economic life, or the full economic life. This criterion was of a higher difficulty to assess, since it involved a used asset.

Strong candidates addressed all three capital lease criteria and appropriately applied specific case facts to each criterion to support their analysis. These candidates correctly assessed whether the purchase option price was indicative of a bargain purchase option, and supported their conclusion. They also provided an accurate calculation of the present value of the minimum payments required under the lease, and correctly assessed the duration criterion. Strong candidates included a clear conclusion on whether the bus was under a capital or operating lease, that was consistent with their analysis. Some strong candidates also demonstrated their technical knowledge by providing detailed adjusting entries to correctly account for the lease.

Weak candidates were unable to correctly analyze the capital lease criteria, often making an unsupported conclusion about the existence of a bargain purchase option, or performing an unreasonable calculation of the present value of the lease payments. For example, many weak candidates simply multiplied the payment amount by the number of payments, without any attempt to present value those payments. Many weak candidates jumped to a conclusion without supporting it through reference to *Handbook* criteria and case facts, or arrived at a conclusion that was inconsistent with their analysis. Some weak candidates attempted to apply *Handbook* guidance that was not relevant in this case, such as IFRS. Given that IFRS guidance for leases is significantly different compared to ASPE, these responses typically provided little value.

AO#2 (Taxable income)

Candidates were asked to calculate HAI's taxable income for 2022. In Appendix I, they were provided with financial statements, property, plant, and equipment additions, and life insurance information. Appendix II provided information on a capital gain, and details on previous years' taxes. To demonstrate competence, candidates were expected to perform a reasonable calculation of taxable income.

Candidates performed adequately on this AO. Most candidates were able to calculate taxable income, considering the more common adjustments related to meals and entertainment, depreciation, and CCA. Most candidates were able to demonstrate a basic understanding of CCA by applying an appropriate CCA rate to the correct opening UCC in their CCA calculation. However, many candidates demonstrated technical weakness in their understanding of the taxation of the capital gain. HAI's financial statements included a gain on sale of securities of $8,000. Many candidates deducted this gain without adding back the 50% taxable portion, or added the taxable portion without deducting the original accounting gain. Many candidates also provided superficial CCA calculations, failing to appropriately address the building additions that occurred in the year, or to apply the accelerated investment incentive to these additions. Finally, although most candidates considered the donations and the life insurance premium in their calculation, many failed to provide an explanation as to why these items were not deductible to HAI.

Strong candidates included many adjustments in their taxable income calculation, and included technically correct explanations for items such as life insurance, donations, and the bus lease. Strong candidates accurately addressed the capital gain, by either deducting the accounting gain and adding back the taxable capital gain, or deducting 50% of the accounting gain, leaving only the taxable portion in taxable income. Strong candidates also demonstrated better technical knowledge in the calculation of CCA, correctly determining CCA classes and rates for the three asset groups, recognizing the correct addition to buildings during the year, and correctly applying the accelerated investment incentive to this addition.

Weak candidates included fewer adjustments, and most of them did not adjust the taxable income accurately for the adjustments they attempted. Most weak candidates also failed to explain the rationale for their adjustments. Weak candidates demonstrated technical weaknesses in their tax knowledge, particularly in their CCA calculation. For example, some weak candidates used the closing net book value of HAI's assets instead of the opening UCC that was provided in the case, to calculate the CCA for the year.

AO#3 (Carryover balances)

Candidates were asked whether CRA would send HAI money for once, due to the loss incurred in the year, and if so, how that would work. This required was found in Appendix II of the case, and was followed by information on HAI's taxable income for the last four years. The case also provided information on donations made during the year, in Appendix I. To demonstrate competence, candidates were expected to discuss the tax treatment of carryover balances, and explain how these carryovers would apply to HAI.

Candidates performed poorly on this AO. Most candidates recognized that non-capital losses could be carried back or forward. Candidates typically identified the appropriate three-year carry back timeframe, but were confused about the number of years the losses could be carried forward. Although most candidates identified the three-year carry back period, they demonstrated minimal ability to apply the carryover rules to HAI's situation. Most candidates were not able to correctly apply the losses to the taxable income from the past three years, either applying it to the last four years, or not performing any allocation at all. Candidates also had the opportunity to demonstrate tax knowledge by explaining that the donations could be carried forward by HAI for a period of up to five years, but very few candidates addressed this.

Strong candidates were able to explain that HAI could carry back its 2022 loss for tax purposes, and apply it against its taxable income from the previous three years. Most strong candidates identified that the taxable income amount available for these three years totaled $100,000, and concluded that the 2022 tax loss in excess of this amount could be carried forward for a period of 20 years. Strong candidates applied the small business tax rate of 9% to the carryover amount, to calculate the total amount of tax that HAI would recover. Some strong candidates explained that the loss should be applied against 2019 income first, as it would be the first to expire under the three-year carry back timeframe.

Weak candidates either did not address this client request at all, or provided very little information on how the carryover process works. Many weak candidates concluded that CRA would send money back but did not explain why this was the case or how it would work. Other weak candidates provided brief statements about the loss carryover rules but did not apply any case facts to this technical knowledge. Some weak candidates failed to understand the client's inquiry, and simply stated that CRA would not send any money to HAI.

AO#4 (Minimum price)

Candidates were told that HAI is launching a summer day camp in order to bring in more revenue, and were referred to Appendix III, where they were asked to calculate the minimum price that could be charged for the day camp in order for it to be cash-flow neutral. Appendix III provided information about the expected number of campers and day camp costs. A few other costs related to the day camp were provided in Appendix I. To demonstrate competence, candidates were expected to forecast the day camp cash outflows by including some of the relevant costs, and calculate the minimum weekly price to charge, per camper, in order to cover the cash outflows.

Candidates performed well on this AO. Most candidates calculated a reasonable minimum price to charge by including some relevant summer camp costs in their analysis. Most candidates appropriately addressed the more obvious costs related to licensing, fuel, incidentals, and accredited staff. Most had more difficulty with additional staffing costs and incremental costs related to advertising. For example, some candidates included the entire advertising cost, instead of only the incremental portion that related to the camp. Very few candidates identified the need to include the cost for the leased bus in their analysis, or the additional insurance cost related to the camp. These were relevant costs for the day camp, but the information related to them was presented outside of the main day camp section in the case, and most candidates failed to integrate them into their analysis.

Strong candidates were able to calculate an accurate minimum price by including many relevant costs in their analysis. These candidates were better able to determine the number of additional staff needed and, therefore, to accurately calculate the cost of this staffing. Strong candidates were also more likely to include incremental costs related to advertising or insurance in their calculation. Strong candidates were able to answer the client's question by providing a clear conclusion on what the minimum price was.

Weak candidates were unable to calculate a reasonable minimum price. Many only forecasted the cash flows generated by the summer camp, without further calculations. Weak candidates who did attempt a calculation of the minimum price did not consider a sufficient number of costs in their analysis. These candidates only addressed costs that were clearly laid out in the case and that required no complex calculations, such as those related to the camp licensing fee, gas, and incidentals, and left out the items that required calculations or adjustments. Some weak candidates also used units of measurement that were not consistent across their analysis. For example, they used annual costs for the licensing, and weekly costs for the fuel, without recognizing the need to multiply the weekly costs by the number of weeks the camp is offered. Some weak candidates performed a contribution margin calculation, which assumed a price of $250 per camper, rather than determining a minimum price calculation. Other weak candidates provided a breakeven calculation, which was not useful to the client.

AO#5 (Cash flow forecast)

Candidates were asked to prepare a pre-tax cash flow forecast, so that the client could see if HAI will have sufficient funds to pay for upcoming capital expenditures. Candidates were told that HAI needs $42,000 for a new tractor this year, and $70,000 to re-roof the stables in five years. In Appendix I, they were provided with a draft income statement, along with information in the notes to the financial statements about anticipated cash flow changes, including revenue growth, reduced feed prices, increased vet costs, and mortgage payments. To demonstrate competence, candidates were expected to prepare a cash flow forecast that included several items, and demonstrate an understanding of the difference between cash flow and income.

Candidates performed adequately on this AO. Most candidates prepared a reasonable cash flow forecast that incorporated some of the anticipated changes from HAI's 2022 operations. These candidates typically started from HAI's 2022 income statement and adjusted it for expected increases to trail ride revenue and vet costs. Most candidates demonstrated an understanding of the difference between cash flow and income by adjusting income for non-cash items, such as amortization. Despite being told the client wished to assess available resources for re-roofing in five years, most candidates presented only a one-year cash flow projection.

Strong candidates were able to accurately forecast most cash inflows and outflows, including many that were expected to change in 2023, such as trail ride revenue, veterinary costs, bus lease costs, and horse feed costs. These candidates demonstrated a better understanding of the difference between income and cash flow by integrating more case facts from outside of the income statement, such as the mortgage principal and the average investment in PP&E. Strong candidates often performed a five-year cash flow projection, recognizing the need to determine available resources for re-roofing at that time.

Weak candidates provided an incomplete cash flow projection that incorporated almost none of the inflows and outflows that were expected to change in 2023, or they incorrectly calculated many of the forecasted figures. Weak candidates did not demonstrate an understanding of the difference between cash flow and income, since their cash flow forecast was based on the income statement provided and was not adjusted for items such as depreciation, capital expenditures, or mortgage payments. Many weak candidates misinterpreted the client's request and, instead of projecting cash flows for HAI as a whole, provided a cash flow forecast for the summer day camp only.

AO#6 (Advice on cash flow and financing)

Candidates were advised that the client needed to have a positive cash flow again, and were asked to find ways to improve HAI's cash flow. They were also given information about the terms of an unsecured loan offered by the bank, and asked if HAI should go ahead with the loan and whether there were other options. Potential discussion points were found throughout the case. Appendix I provided information on HAI's below-market rate pricing, excess unused capacity, and money spent on rescue horses, along with information about its current credit card and mortgage. Appendix III provided information about HAI's plan to charge below-market rate amounts for the day camp, to not charge the local school for use of HAI's school bus, and a program where summer students work for school credit instead of money. To demonstrate competence, candidates were expected to provide some suggestions for improving HAI's cash flow, and advice on sources of financing.

Candidates performed adequately on this AO. Most candidates suggested some specific operating changes that HAI could make to improve cash flow, such as charging market rates for services or maximizing HAI's unused boarding capacity. However, candidates often failed to quantify the impact of these suggestions, despite having sufficient information to do so. Most candidates were able to discuss at least one source of financing, generally focusing on the unsecured loan. These discussions typically focused on how the loan would decrease interest costs and be a much cheaper source of financing than the credit card currently used by HAI.

Strong candidates were able to suggest several specific operating changes that HAI could make to improve cash flow, and to quantify the cash flow increase that would result from these changes. Strong candidates also went beyond discussing the unsecured loan and provided other potential financing alternatives, such as renting the tractor, or increasing the mortgage on HAI's existing property, given the recent growth in the property's value.

Weak candidates provided generic recommendations, and frequently failed to address all components of the client's request. Many weak candidates only analyzed the unsecured loan proposal without providing suggestions to improve HAI's cash flow. When weak candidates did attempt to provide cash flow improvements, their suggestions were generic and not linked to any specific case facts. For example, some weak candidates recommended lowering staff salaries or reducing capital expenditures, but there was no evidence in the case to suggest these were feasible options for HAI. Weak candidates also provided generic financing alternatives, such as issuing equity, rather than using case facts to provide more suitable financing options for HAI.

Paper/Simulation: **Day 3, Case 3 (CBA)**

Estimated time to complete: 70 minutes

Simulation difficulty: Average to Hard

Competency Map coverage: Management Accounting (1);
Financial Reporting (1);
Assurance (1);
Strategy and Governance (2)

Evaluators' comments by Assessment Opportunity (AO)

AO#1 (Spending versus guidelines)

Candidates were asked to help determine if the grant spending was in line with the guidelines that the board developed, and to discuss possible improvements to the tracking process. Details on the guidelines, the expenditure tracking process, and the expenditures incurred so far were provided in Appendix I. To demonstrate competence, candidates were expected to analyze whether the spending was in line with the guidelines by performing a reasonable allocation of expenditures to the approved spending categories, and discuss improvements to the tracking process.

Candidates performed adequately on this AO. Most candidates were able to allocate the spending to specific categories, conclude on whether the guidelines were met, and provide at least one tracking process improvement. However, many candidates struggled with the allocation as there was judgment involved in deciding which expenses belonged to which categories. Many candidates failed to recognize that the infrastructure and training equipment guideline was a minimum of 20%, and instead discussed this guideline as a maximum of 20%. Candidates seemed more comfortable addressing the guidelines that did not require allocation between spending categories, such as the requirement that funding last at least three years, and that Canadian vendors be used for most expenditures. With respect to tracking process improvements, most candidates provided brief improvements that were not discussed in depth, often offering recommendations without explaining why there was an issue with the current process. The most commonly addressed improvements related to approval of expenditures and access controls.

Strong candidates were able to use judgment to reasonably allocate the spending to the approved categories, and provided clear conclusions on whether the guidelines were met. Strong candidates demonstrated greater depth by questioning whether some of the expenditures should be part of the grant spending at all, or justifying why they were allocating a certain expense to a given category. Many strong candidates questioned the validity of the consulting fees paid to J. Candy Marketing, which is owned by the COO's sister-in-law. Strong candidates also demonstrated more breadth and depth in their tracking process improvement discussions by providing several valid improvements, supported by an explanation of how each would enhance the tracking process.

Weak candidates did not perform an allocation of the spending according to the guidelines developed by the board, and instead discussed the specific expenditures individually. Therefore, these candidates often provided conclusions without any support. For example, some concluded that insufficient funds were spent on youth development without any information to support their claim. Weak candidates did not provide sufficient breadth of coverage, often only addressing the requirement for funding to last at least three years, and that Canadian vendors be used for most expenditures. Further, most weak candidates did not provide any improvements to the tracking process.

AO#2 (Spending versus mission)

Candidates were asked to help assess whether the grant spending was in accordance with each component of the mission, and to provide ideas on how to better align the grant spending with the mission. The mission statement was provided on the first page of the case, and the expenditure tracking sheet, which contained information on the expenditures incurred so far, with notes, was provided in Appendix I. To demonstrate competence, candidates were expected to analyze whether current spending aligned with some components of the mission, and to recommend ways to improve alignment.

Candidates struggled with this AO. Most candidates attempted to analyze the spending against some of the components of the mission, using the results from their AO#1 analysis, but the discussions were often brief. The most commonly addressed mission components were those related to growing Canadian youth talent and maintaining quality bobsled infrastructure. Many candidates also attempted to provide suggestions for better aligning grant spending with the mission, and some provided valid overarching recommendations, such as creating a budget to better plan spending, or changing the board's spending guidelines to better match the components of the mission. Many candidates, however, provided suggestions that were too general to be helpful. For example, some candidates simply suggested spending more on Canadian youth talent, without providing more details.

Strong candidates analyzed the spending against each specific component of the mission, using data and facts from the case to explain whether it was aligned. For example, they used the fact that the ice track had not been repaired to conclude that spending was not in line with maintaining quality bobsled infrastructure. Strong candidates also provided practical and actionable improvements for each component of the mission. Many recommended repairing the ice track to maintain quality infrastructure, and recognized that this repair served other components of the mission as well, since it allowed CBA to host an Olympic training camp, which would attract renowned coaches.

Weak candidates analyzed the spending of the whole mission rather than breaking down their analysis by each component of the mission. Although some of these candidates were able to provide valid comments on whether the spending aligned with the mission, it made it more difficult for them to suggest specific improvements that were relevant to the components of the mission. Many of these candidates provided generic improvements, such as simply suggesting spending more on the mission. Other weak candidates took each individual grant expenditure item and determined whether it was in line with the mission. This was not the most efficient approach, as it was time consuming and did not add significant value to the candidates' discussion. Other weak candidates misunderstood the request and analyzed whether the spending guidelines, rather than the actual expenditures to date, were in line with the mission.

AO#3 (Enterprise risks)

Candidates were asked to complete a risk assessment for the organization, using a template supplied by the new board chair. The template, provided in Appendix II, came from another board that the chair sits on, and was originally developed for a publicly-listed diamond reseller. Candidates were also asked to evaluate risks for CBA that were not captured in the template. To demonstrate competence, candidates were expected to assess some risks, explain the rationale behind their risk rating, and provide valid mitigation strategies for addressing them.

Candidates struggled with this AO. Most candidates attempted to perform a risk assessment for CBA; however, discussions were mostly focused on the risks listed in the template. Cybersecurity and vendor fraud were the most commonly addressed risks. In addition, most candidates did not discuss any additional risks, despite being explicitly asked to do so. Many candidates also failed to realize that the inventory risk presented in the template was not as high of a risk for CBA as it would be for a diamond reseller. While many candidates were able to provide a relevant rationale for their risk rating, the support they provided for that rating was generic and did not incorporate case facts. For example, many candidates thought that the cybersecurity risk was moderate to high because it would lead to information being lost, but they did not support their rating with case facts to justify why this was a risk for CBA, such as the phishing scam that had happened at CBA. Most candidates were able to provide valid mitigations for some of the risks identified.

Strong candidates applied relevant case facts to support their rating of each risk in the template and suggested valid mitigations for those risks. They were able to assess the appropriateness of this template for CBA in their discussion of inventory theft, recognizing that inventory was not a significant risk area for them. Some strong candidates identified additional risks and provided valid mitigation strategies for them. The most common additional risk discussed was in relation to health and safety. Candidates discussing this risk recognized that recent injuries and failure to maintain infrastructure were exposing CBA to further lawsuits and other negative outcomes. They suggested mitigations that would lower the threat of injury, such as repairing the ice track or hiring extra coaches to ensure that bobsled inspections took place. Very few other valid risks were discussed.

Weak candidates addressed the risks provided in the template and very rarely addressed risks beyond those provided. They attempted to address each risk presented in the template without first assessing whether it was relevant to CBA. Most weak candidates provided risk ratings but were unable to explain the rationale for their ratings, often going straight to the mitigation strategy. Weak candidates often attempted to provide mitigation strategies, but their recommendations were impractical or ineffective in the context of the risk in question. For example, in relation to the cybersecurity risk, weak candidates discussed that the expenditure spreadsheet was accessible to many individuals at CBA, and recommended restricting access as a mitigation. These candidates demonstrated a poor understanding of cybersecurity risk at the enterprise level, and confused it with an internal control deficiency. A more appropriate mitigation strategy would have been to improve the IT security or hire an IT expert, to ensure that CBA's networks and servers are secure.

AO#4 (Lawsuit and wire fraud)

Candidates were asked how to account for the items discussed during a board meeting. Notes made during a board meeting, which included the details on a lawsuit, a damaged sled, and a phishing scam, were provided in Appendix III. To demonstrate competence, candidates were expected to provide a reasonable analysis of the accounting treatment for some of these issues, using Handbook guidance and case facts to support their discussion.

Candidates struggled with this AO. Although there were three main issues where they could demonstrate their competence, most candidates did not attempt to analyze more than one or two issues, and their responses were generally very brief. CBA followed the Accounting Standards for Not-for-Profit Organizations (ASNPO), and some candidates seemed unaware that ASPE guidelines needed to be used for the accounting issues presented in the case, as ASNPO refers to ASPE in these cases. These candidates usually provided unsupported conclusions, since they were unable to tie their analyses to specific guidance in the Handbook. Candidates who used ASPE guidance in their discussions seemed more comfortable with the lawsuit and the phishing scam discussions. Many candidates were confused with the accounting treatment of the damaged sled, and were unable to provide a useful analysis of this issue. These candidates were not able to sort through the information provided, such as the net book value of the sled, the cost to repair the sled, the insurance repayment, the original cost of the sled, and the replacement cost of the sled, and could not identify what was relevant to the appropriate accounting treatment, which led them to provide a wrong conclusion.

Strong candidates provided a more in-depth analysis of the lawsuit and the phishing scam issues, using guidance from *ASPE 3290 – Contingencies,* and bringing in appropriate case facts to support their analysis. For example, they were able to explain why the lawsuit was a contingent loss that should be recorded at $50,000 by using the criteria from the Handbook, and integrating relevant case facts, such as the lawyers' estimation that CBA will likely have to make a $50,000 payout on the lawsuit. Strong candidates also realized that the possible gain of $10,000 associated with the possible recovery of funds from the phishing scam was a contingent gain. These candidates recognized that it should not be accrued in the financial statements but rather disclosed, since it can be considered likely that CBA will receive the funds in the future. A larger number of strong candidates also attempted to analyse the sled damage issue, but their analysis usually lacked depth, often reaching a conclusion on whether or not the cost should be written down without much analysis.

Weak candidates only provided a brief conclusion, with no attempt at applying any guidance from the Handbook, and did not integrate case facts to support their conclusion. Many weak candidates only attempted to discuss one issue, typically the lawsuit, and were therefore unable to provide coverage of the issues they were asked to discuss. Some weak candidates did not use proper guidance in their analyses. For example, they used the guidance in *ASNPO 4410 – Contributions – revenue recognition* to discuss the accounting treatment of the insurance proceeds, not realizing that this payment was not a contribution, or *ASPE 3031 – Inventories* for their discussion on the impairment of the sled. Weak candidates also demonstrated weak technical knowledge. For example, some concluded that the contingent gain of $7,500 from the possible recovery of funds from the phishing scam could be recognized.

AO#5 (Risk, materiality, and approach)

Candidates were asked to draft a report, in preparation for a meeting with the auditors, that included an assessment of the risk at the financial statement level, an explanation of what the auditors' materiality assessment would likely be, and a discussion of the audit approach. Information relevant to audit risk, approach, and materiality was provided throughout the case. To further support their materiality discussion, candidates were also given draft financial information on CBA in Appendix IV. To demonstrate competence, candidates were expected to provide a reasonable discussion of the risk assessment at the financial statement level and what the auditors' materiality assessment would likely be, as well as the audit approach.

Candidates performed adequately on this AO. Most candidates appeared familiar with an audit planning memo and knew what needed to be discussed. For example, most candidates understood that a materiality assessment included a discussion on users, basis, percentage, and performance materiality, and discussed these items. Most candidates also explained that the first-time nature of the audit increased risk at the financial statement level. Some candidates had more difficulty identifying other valid risks at the overall financial statement level, and instead discussed very specific issues such as the lack of proper approval over grant spending. Candidates who did identify other appropriate, financial statement level risks often struggled to explain how these factors impacted risk. For example, some candidates noted that CBA had had some staff turnover, but did not explain how that posed a risk to the financial statements. Most candidates addressed the audit approach, and they usually proposed a substantive approach based on weak internal controls.

Strong candidates identified many financial statement level risks and analyzed them using appropriate case facts. These candidates most frequently discussed the risk introduced by the first-time audit, weak internal controls, and the new controller. Some also discussed the increased risk associated with new complex transactions in the year, or the potential management bias to meet grant spending guidelines. Strong candidates were also able to provide a materiality assessment, recognizing the users, their needs, and a materiality basis that was relevant for CBA as a not-for-profit organization. These candidates recognized that users would be interested in how the funds were spent, so expenses would be the most relevant basis to use for materiality. Strong candidates also appropriately addressed the audit approach, most commonly recommending a substantive approach due to the many control weaknesses at CBA, and provided examples of control weaknesses at CBA to support their conclusion. In general, strong candidates were able to tailor their discussion to CBA by using the information found throughout their response to other requests in the case to support their conclusion.

Weak candidates did not use case facts to address the financial statement level risk, materiality, or approach. It was clear that weak candidates understood the three components that were requested, but many failed to tailor it specifically to CBA. Weak candidates did not integrate any risks from issues noted throughout the case. Many weak candidates based materiality on risk rather than on user needs, and showed a lack of case fact integration by suggesting net income or net assets as a basis for materiality, which would not be relevant for CBA as an NPO. Weak candidates sometimes suggested a substantive approach but did not have clear, supported justifications for the use of that approach. Many weak candidates seemed pressed for time and overall had brief unsupported discussions.

APPENDIX G

CPA COMMON FINAL EXAMINATION REFERENCE SCHEDULE

CPA COMMON FINAL EXAMINATION REFERENCE SCHEDULE

1. PRESENT VALUE OF TAX SHIELD FOR AMORTIZABLE ASSETS

Present value of total tax shield from CCA for a new asset acquired after November 20, 2018, and before January 1, 2024, other than those eligible for immediate expensing.

$$= \frac{CdT}{(d+k)}\left(\frac{1+1.5k}{1+k}\right)$$

Notation for above formula:
C = net initial investment
T = corporate tax rate
k = discount rate or time value of money
d = maximum rate of capital cost allowance

2. SELECTED PRESCRIBED AUTOMOBILE AMOUNTS

	2022	**2023**
Maximum depreciable cost — Class 10.1	\$34,000 + sales tax	\$36,000 + sales tax
Maximum depreciable cost — Class 54	\$59,000 + sales tax	\$61,000 + sales tax
Maximum monthly deductible lease cost	\$900 + sales tax	\$950 + sales tax
Maximum monthly deductible interest cost	\$300	\$300
Operating cost benefit — employee	29¢ per km of personal use	33¢ per km of personal use
Non-taxable automobile allowance rates		
— first 5,000 kilometres	61¢ per km	68¢ per km
— balance	55¢ per km	62¢ per km

3. INDIVIDUAL FEDERAL INCOME TAX RATES

For 2022

If taxable income is between			Tax on base amount	Tax on excess
\$0	and	\$50,197	\$0	15%
\$50,198	and	\$100,392	\$7,530	20.5%
\$100,393	and	\$155,625	\$17,820	26%
\$155,626	and	\$221,708	\$32,180	29%
\$221,709	and	any amount	\$51,344	33%

For 2023

If taxable income is between			Tax on base amount	Tax on excess
\$0	and	\$53,359	\$0	15%
\$53,360	and	\$106,717	\$8,004	20.5%
\$106,718	and	\$165,430	\$18,942	26%
\$165,431	and	\$235,675	\$34,208	29%
\$235,676	and	any amount	\$54,579	33%

4. SELECTED INDEXED AMOUNTS FOR PURPOSES OF COMPUTING INCOME TAX

Personal tax credits are a maximum of 15% of the following amounts:

	2022	2023
Basic personal amount, and spouse, common-law partner, or eligible dependant amount for individuals whose net income for the year is greater than or equal to the amount at which the 33% tax bracket begins	$12,719	$13,521
Basic personal amount, and spouse, common-law partner, or eligible dependant amount for individuals whose net income for the year is less than or equal to the amount at which the 29% tax bracket begins	14,398	15,000
Age amount if 65 or over in the year	7,898	8,396
Net income threshold for age amount	39,826	42,335
Canada employment amount	1,287	1,368
Disability amount	8,870	9,428
Canada caregiver amount for children under age 18, and addition to spouse, common-law partner, or eligible dependant amount with respect to the Canada caregiver amount	2,350	2,499
Canada caregiver amount for other infirm dependants age 18 or older (maximum amount)	7,525	7,999
Net income threshold for Canada caregiver amount	17,670	18,783
Adoption expense credit limit	17,131	18,210

Other indexed amounts are as follows:

	2022	2023
Medical expense tax credit — 3% of net income ceiling	$2,479	$2,635
Old age security repayment threshold	81,761	86,912
Annual TFSA dollar limit	6,000	6,500
RRSP dollar limit	29,210	30,780
Lifetime capital gains exemption on qualified small business corporation shares	913,630	971,190

5. PRESCRIBED INTEREST RATES (base rates)

Year	Jan. 1 – Mar. 31	Apr. 1 – June 30	July 1 – Sep. 30	Oct. 1 – Dec. 31
2023	4	5		
2022	1	1	2	3
2021	1	1	1	1

This is the rate used for taxable benefits for employees and shareholders, low-interest loans, and other related-party transactions. The rate is 4 percentage points higher for late or deficient income tax payments and unremitted withholdings. The rate is 2 percentage points higher for tax refunds to taxpayers, with the exception of corporations, for which the base rate is used.

6. MAXIMUM CAPITAL COST ALLOWANCE RATES FOR SELECTED CLASSES

Class 1	4%	for all buildings except those below
Class 1	6%	for buildings acquired for first use after March 18, 2007, and ≥ 90% of the square footage is used for non-residential activities
Class 1	10%	for buildings acquired for first use after March 18, 2007, and ≥ 90% of the square footage is used for manufacturing and processing activities
Class 8	20%	
Class 10	30%	
Class 10.1	30%	
Class 12	100%	
Class 13	n/a	Straight-line over original lease period plus one renewal period (minimum 5 years and maximum 40 years)
Class 14	n/a	Straight-line over length of life of property
Class 14.1	5%	For property acquired after December 31, 2016
Class 17	8%	
Class 29	50%	Straight-line
Class 43	30%	
Class 44	25%	
Class 45	45%	
Class 50	55%	
Class 53	50%	
Class 54	30%	

The CPA certification program prepares future CPAs to meet the challenges that await them. For more information on the qualification process, the common final examination (CFE), and the specific education requirements for your jurisdiction, contact your provincial/regional CPA body.

CPA PROVINCIAL/REGIONAL BODIES AND CPA REGIONAL SCHOOLS OF BUSINESS

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