ACT
PAST PAPER

Diploma in Treasury Management (AMCT)

Unit 1: Corporate finance for treasury

March 2025

This is a past paper for Unit 1 of the Diploma in Treasury Management (AMCT)

Based on the syllabus assessed from 1 August 2022.

INTRODUCTION

This past paper has been produced by the Awarding Body at the Association of Corporate Treasurers (ACT) to assist students in their preparation for the Diploma in Treasury Management assessments. It is important to highlight that the answers provided in this paper are not exhaustive and that any other reasonable answers would be awarded marks where necessary in a marked assessment. It contains a past exam for the specified unit as well as past answers. Ideally, students should have completed the majority of their Diploma in Treasury Management studies for Unit 1 before attempting this past paper.

Students should allow themselves 180 minutes to complete the exam plus an additional 25 minutes reading time. They should then review their performance to identify areas of weakness on which to concentrate the remainder of their study time. Although the past exam in this guide is typical of a Diploma in Treasury Management assessment, it should be noted that it is not possible to test every single aspect of the syllabus in any one particular exam.

To prepare properly for the examination, candidates students make full use of the tuition options where available and read as widely as possible to ensure that the whole syllabus has been covered.

ASSESSMENT TECHNIQUE

This paper is a professional paper that as well as testing theory expects application to practice at a managerial level.

The best way to approach written assessments is to work methodically through the questions. You should not spend too much time on any one question if you are struggling to think of an adequate answer. Remember you can flag any question to come back to later should you want to continue your way through the exam.

When all of the questions have been answered, it is prudent to use any remaining time to go through each question again, carefully, to double-check that nothing has been missed. Altering just one response could make the difference between passing and failing.

Please ensure you show your workings within your answer when prompted as this means there are marks available for the workings out. You will be able to make rough workings on a piece of paper during the exam and on screen should you wish to, however these will not count towards your final mark.

ASSESSMENT INFORMATION AND TEST SPECIFICATION

The diploma in treasury management assessments for units 1 and 2 each have 4 written questions, of which you must answer 3, and will involve a pre-seen case study workbook that is released no later than two weeks prior to the assessment date. The papers will be split into sections a and b and can be made up of either one case study or two case studies; each unit exam is worth a total of 100 marks. For the purpose of this past paper the questions follow each case study.

Diploma in treasury management assessment test specification:

Section	Amount of questions	Marks available
Section A	1 case study based question	50
Section B	3 shorter case study based questions, of which candidates chose to only answer two	50
Total	**3**	**100**

Under exam conditions, **3 hours** (180 minutes) is allowed for the Diploma in Treasury Management assessments plus an additional 25 minutes reading time.

When you take your actual exam, you will be sitting online using your own PC/Laptop. You have access to an online scientific calculator, but for the purpose of this past paper, you may use a non-programmable scientific calculator.

In order for you to determine how well you have performed, sample mark schemes are provided after each question. Please note that these are mark schemes only and not model answers. They provide lists of points that are expected to be covered within answers, although the content of your answers must be much more detailed (satisfying the command word used in the question, for example 'analyse'). As with all mark schemes, the content is indicative only, i.e. the lists of points featured are not exhaustive. It is highly likely that there are other perspectives and, provided these are valid and supported fully, marks would be awarded for these in a live exam. There are also references to the relevant Learning Outcomes if you need to revisit the associated material.

SECTION A

1 long form question worth 50 marks based on a pre-seen case study. This question should test knowledge, analysis, application insight, evaluation and justification as appropriate to level descriptors. This is a professional paper and application to practice should be at 'management' level.

Total available for Section A: 50 marks

QUESTION 1: CASE STUDY

Stellar Dream Holdings Plc (SDH) is a prominent leisure and travel group listed on the London Stock Exchange. With operations spanning package holidays, airlines and logistics, SDH serves millions of travellers worldwide each year. This makes SDH a significant player in the global leisure and travel sector.

Its package holiday business includes various brands catering to different market segments, while its airlines provide both scheduled and charter flights. The logistics division takes on off-season logistics contracts to enhance revenue during low-demand periods, optimising its assets year-round.

Corporate governance and financial performance

Since the onset of the COVID-19 pandemic, SDH's performance has improved steadily. SDH has implemented the UK Code on Corporate Governance, ensuring transparency and accountability at the board level, particularly concerning executive pay and shareholder rights. SDH's share performance post-COVID reflects its recovery, though challenges remain in fully restoring pre-pandemic travel demand.

SDH's board of directors has intimated that performance must align with market expectations to maintain its credit rating and share value.

Financial performance

Statement of financial position (GBPm)		
Non-current assets	**2024**	**2023**
Goodwill	8.16	7.48
Property, plant and equipment	354.36	320.76
Derivative financial instruments	1.80	0.44
	364.32	**328.68**
Current assets		
Inventories	2.40	3.41
Trade and other receivables	438.72	314.49
Derivative financial instruments	32.40	1.54

Money market deposits	78.60	57.75
Cash and cash equivalents	284.76	232.32
	836.88	**609.51**
Total assets	**1,201.20**	**938.19**
Current liabilities		
Trade and other payables	102.36	117.70
Deferred revenue	695.52	532.95
Borrowings	0.96	0.88
Interest in joint venture	0.48	-
Provisions	34.44	2.64
Derivative financial instruments	124.56	38.50
	958.32	**692.67**
Non-current liabilities		
Other	0.60	31.33
Deferred revenue	0.84	0.44
Borrowings	9.84	9.90
Derivative financial Instruments	30.12	2.42
Deferred tax	12.84	21.67
	54.24	**65.76**
Total liabilities	**1012.56**	**758.43**
Net assets	188.64	179.76
Shareholders equity		
Share capital	2.16	1.98
Share premium	14.28	12.54
Cashflow hedging reserve	(96.48)	(29.48)
Retained earnings	268.68	194.72
	188.64	**179.76**

Statement of profit and loss (GBPm)		
	2024	**2023**
Turnover	1,503.84	1,344.24
Net operating expenses	(1,443.12)	(1,285.20)
Operating profit	60.72	59.04
Share of loss in joint venture	**(0.48)**	-
Finance income	2.04	1.68
Finance costs	(1.32)	(1.68)
Revaluation of derivative hedges	1.92	(3.96)
Revaluation of foreign currency balances	5.76	(4.56)
Net financing income/(costs)	8.4	(8.52)
Profit before taxation	68.64	50.52
Taxation	(12.96)	(7.44)
Profit for the year	**55.68**	**43.08**
Earnings per share (GBP)	38.06	29.62

The statement of financial position figures INCLUDE aircraft assets.

Strategic initiatives and projects

Sustainability initiatives: building green hotels and reducing carbon footprint

A growing priority for SDH is to reduce its carbon footprint. SDH has set ambitious goals to align with global sustainability efforts, including the development of green hotels in key markets. SDH is considering two options:

1. building new eco-friendly hotels or
2. acquiring existing hotels and retrofitting (refurbishing) them to meet green standards.

This strategy supports SDH's broader effort to control the entire value chain of its holiday packages, from transportation to accommodation.

Stellar Dream Holdings Plc (SDH) ratcheted bond issuance for green hotels and net zero airline targets

In line with SDH's strategic goals of building green hotels and achieving net-zero targets for its airline operations, SDH plans to issue a Sustainability-Linked Bond (SLB) with proceeds allocated to these sustainability initiatives. Like other SLBs in the market, the bond will feature ratcheted pricing based on achieving key performance indicators (KPIs) related to SDH's sustainability goals.

Bond overview

- **Bond amount**: GBP350m
- **Maturity date**: 30 March 2035
- **Coupon rate**: 2.75% (initial)
- **Rating**: A (Expected)
- **Date of issuance**: 1 April 2025

Use of proceeds
The bond proceeds will be used for two main projects:

1. **green hotel construction and acquisition**: proceeds will fund the construction of eco-friendly hotels in key tourism markets, as well as the acquisition and conversion of existing hotels into sustainable operations
2. **net-zero airline targets**: SDH will invest in new, fuel-efficient aircraft to reduce carbon emissions and expand its pay-as-you-use leasing structure to further optimise fleet efficiency and sustainability.

Sustainability-linked key performance indicators (KPIs)

The ratcheted bond will feature performance targets that, if unmet, will result in an increase in the coupon rate. The KPIs and associated bond adjustments are as follows:

KPI	Target	Coupon adjustment if missed
KPI 1: carbon emission reduction for airlines	Reduce airline carbon emissions by 30% by March 2030	Increase coupon by 0.35%
KPI 2: green hotel portfolio expansion	50% of hotel portfolio to be green by March 2028	Increase coupon by 0.25%
KPI 3: fleet efficiency improvements	20% reduction in fuel consumption per flight by March 2027	Increase coupon by 0.4%

Bond rationale and market position

SDH's SLB is aimed at attracting ESG-focused investors who prioritise environmental sustainability. The inclusion of ratcheted pricing tied to specific sustainability goals provides additional accountability and offers investors transparency regarding SDH's progress on its net-zero and green hotel initiatives. The UK Government's Net Zero by 2050 targets, along with global green finance demand, place SDH's SLB in a favourable position in the market.

Airline Operations

To optimise its fleet utilisation, SDH is negotiating pay-as-you-use airline leases. The pay-as-you-use model allows SDH to manage its aircraft fleet more flexibly, responding to the seasonality of demand in the travel market. During peak holiday periods, SDH can lease additional capacity to meet customer demand without bearing the full-year cost burden of aircraft leasing.

The financial implications of seasonal leasing arrangements involve structuring leases to balance cash flow and maintain high operational efficiency. It also reduces capital expenditures tied to fixed fleet assets. From a cost perspective, the short-term nature of the pay-as-you-use model makes it more expensive on a per nautical mile basis but removes the fixed lease price component typical of other leases.

Digital assets

With the rapid evolution of financial technology, SDH's treasury is considering the incorporation of digital assets such as Bitcoin as a payment method for holiday packages. This strategic move is

driven by customer demand for alternative payment methods, the potential to appeal to tech-savvy travellers, and opportunities to lower payment transaction costs.

In addition to accepting cryptocurrencies, SDH is evaluating the potential launch of Stellar Coin, a blockchain-based token for its loyalty program. Stellar Coin aims to revolutionise the travel and tourism industry by establishing a decentralised loyalty economy. SDH's vision is to create a more efficient and inclusive rewards programme for everyone. By empowering millions of individuals, SDH seeks to redefine commerce, travel, community, and experiences within this sector. Stellar Coin would provide customers with exclusive benefits and incentives, strengthening brand loyalty while leveraging the growing trend of digital economies.

Supply chain management and airline food

SDH operates a complex supply chain across multiple countries. It relies on both local suppliers and global distributors for products and services such as airline catering. Customers are increasingly demanding better in-flight experiences, including higher-quality airline food.

Efficient supply chain management directly impacts costs and service delivery. By investing in relationships with premium food suppliers, SDH can enhance customer experience, potentially justifying higher prices for premium travel packages.

Staff cost management

Given the nature of the travel industry, staff costs are a significant part of SDH's expense structure, especially for its airline and hotel businesses. SDH has implemented measures to control these costs through seasonal staffing contracts, outsourcing non-core services, and exploring automation in logistics and reservations. As SDH expands, managing labour costs while maintaining high service quality remains a delicate balance.

Reducing staff costs improves profitability, but there is a trade-off between cost control and service quality. Sustainable savings must come from efficiency improvements rather than short-term cuts.

Key performance indicators and outlook

Key Performance Indicators (KPIs) for SDH include occupancy rates for hotels, load factors for airlines, carbon emissions reductions and return on invested capital (ROIC) for new projects. SDH wants to closely monitor these metrics to ensure financial and operational targets are met.

Looking ahead, SDH's outlook remains optimistic as the global economy recovers from the pandemic. SDH is well-positioned to capitalise on the growing demand for sustainable travel experiences, and its innovative use of digital assets could provide a competitive edge in attracting younger, tech-savvy consumers.

QUESTION 1

a.	Calculate the total coupon payments over the ten-year bond tenure based on the minimum and maximum coupon rates. You must show your workings.	10 marks
b.	Discuss the impact of ratcheting on SDH's KPIs and overall business performance. You must include within your answer a discussion on how this structure will incentivise operational improvements.	10 marks
c.	Examine SDH's financial health using DuPont analysis on the 2023 and 2024 financial information provided.	10 marks
d.	Evaluate SDH's strategy for its digital asset payment system and loyalty programme initiatives.	10 marks
e.	Evaluate the pay-as-you-use leasing arrangement for SDH's airline operations. You are required to include within your evaluation discussion on how treasury could assess the financial and operational impacts of the arrangement on SDH.	10 marks
		Total: 50 marks

Mark scheme

Q1a

Years	Coupon rate (min scenario)	Coupon rate (max scenario)	Annual payment (Min)	Annual payment (Max)	Total payment (Min)	Total payment (Max)
Years 1-2	2.75%	2.75%	9.625m	9.625m	19.25	19.25
Years 3	2.75%	3.15% (fleet efficiency missed)	9.625m	11.025m	9.625	11.025
Years 4-5	2.75%	3.40% (Green Hotel Missed)	9.625m	11.9m	19.25	23.8
Years 6-10	2.75%	3.75% (Airline Emission Missed)	9.625m	13.125m	48.125	65.625
Total	**2.75% (all KPIs met)**	**3.75% (all KPIs missed)**	**96.25m**			**119.7**

2 marks per correct line.

Total marks: 10

Q1b

The ratcheting mechanism directly ties SDH's borrowing costs to its sustainability KPIs, creating financial incentives to meet environmental goals. If SDH misses any of the three KPIs, the coupon rate increases, raising debt servicing costs. The KPIs—carbon emission reduction for airlines, green hotel portfolio expansion, and fleet efficiency—are critical to SDH's long-term sustainability and brand image in the market.	2 marks
Carbon emissions (KPI 1): A 30% reduction in airline carbon emissions by 2030 would require investments in fuel-efficient aircraft and sustainable operational practices. Missing this target would increase the coupon by 0.35%, translating to higher borrowing costs and reputational damage.	2 marks
Green hotel expansion (KPI 2): SDH aims to have 50% of its hotel portfolio classified as green by 2028. Failing to achieve this would raise the coupon by 0.25%, pushing SDH to invest in eco-friendly infrastructure or retrofitting existing properties.	2 marks
Fleet efficiency (KPI 3): A 20% reduction in fuel consumption per flight by 2027 would drive operational efficiency and align SDH with environmental standards. Missing this goal would add 0.4% to the coupon rate.	2 marks
Overall impact: By embedding ratcheting into the bond structure, SDH aligns its financial goals with sustainability, ensuring that poor environmental performance has direct financial consequences. This setup compels management to prioritize sustainability initiatives, contributing to long-term resilience in a competitive and eco-conscious market.	2 marks **Total marks: 10**

Q1c

The DuPont Analysis is a financial assessment framework used to break down a company's return on equity (ROE) into its component parts. The formula for DuPont Analysis is:

2 marks

ROE = Net Profit Margin × Asset Turnover × Financial Leverage

Metric	2024	2023	Notes
Net profit margin	3.70%	3.20%	SDH's net profit margin increased from 3.2% in 2023 to 3.7% in 2024, showing improved profitability. This improvement could be attributed to better cost control and/or higher revenue generation post-COVID recovery.
Asset turnover	1.25	1.43	Asset turnover was higher in 2023 (1.43) compared to 2024 (1.25), indicating that in 2023, SDH was more efficient in using its assets to generate revenue. In 2024, despite revenue growth, SDH added more assets, likely tied to its strategic investments, reducing asset turnover slightly.
Financial leverage	6.37	5.22	Financial Leverage: The equity multiplier increased from 5.22 in 2023 to 6.37 in 2024, reflecting greater use of debt financing. This higher leverage amplifies the ROE but also implies increased financial risk.
Return on equity (ROE)	29.52%	23.97%	Return on Equity (ROE): ROE improved from 23.97% in 2023 to 29.52% in 2024. The increase is primarily driven by higher profitability (Net Profit Margin) and greater leverage (Equity Multiplier), despite a slight drop in asset efficiency (Asset Turnover). This demonstrates that SDH's ability to leverage its assets and debt has enhanced shareholder returns in 2024.

2 marks

2 marks

2 marks

2 marks

Total marks: 10

Q1d

SWOT Category	Points	Comments
Strengths	Innovative use of blockchain to create a decentralised loyalty system	Blockchain allows for secure, transparent, and tamper-proof transactions, building trust in the system.
	Potential to enhance customer engagement and loyalty through Stellar Coin rewards	Customers gain flexibility and value in how they use loyalty points, driving stronger brand loyalty.
	Ability to appeal to tech-savvy, younger consumers	By leveraging cutting-edge technology, SDH can capture a more digital-friendly audience.
	Potential for cost savings by reducing traditional transaction fees	Blockchain reduces the need for intermediaries, lowering costs associated with payment processing.
Weaknesses	High volatility in the value of digital currencies may deter some customers	Cryptocurrencies are prone to large price swings, which could make customers hesitant to adopt the system.
	Integration with existing systems may be technically challenging and expensive	Adopting blockchain across SDH's's operations could involve significant upfront investment.
	Lack of understanding of blockchain among many users	Many customers may not be familiar with how blockchain works, leading to slow adoption or mistrust.
Opportunities	First-mover advantage in the travel and tourism industry with blockchain-based loyalty programs	SDH can position itself as a leader in digital innovation in the travel sector.
	The growing trend toward digital assets	As digital currencies and blockchain gain

1 mark per valid point

Max marks: 10

	and blockchain presents a rapidly expanding market	mainstream acceptance, SDH can capitalize on this growing trend.
	Potential to create a decentralised ecosystem for rewards, where customers can exchange and trade points	Blockchain can enable customers to trade or transfer loyalty points, increasing the flexibility of rewards.
	Reduction in cross-border transaction costs, enabling seamless global rewards	Blockchain's borderless nature allows SDH to offer loyalty benefits internationally without currency conversion fees.
Threats	Regulatory risks and evolving legal landscape concerning blockchain and digital currencies	Governments and regulators are increasingly scrutinising cryptocurrencies, which could limit adoption.
	Cybersecurity threats and the risk of hacking	While blockchain is generally secure, the digital wallet infrastructure could still be vulnerable to hacking.
	Potential customer resistance due to concerns about cryptocurrency security or privacy issues	Some customers may avoid digital loyalty programs due to fears about privacy breaches or security risks.
	Competition from other companies adopting similar blockchain-based loyalty systems	Other travel companies could replicate the concept, diluting SDH's first-mover advantage.

Q1e

a) The pay-as-you-use leasing model offers SDH flexibility in managing its fleet by allowing it to lease additional aircraft during peak periods without the fixed cost burden of year-round leases. To appraise the financial impact and potential savings, SDH's treasury team should incorporate financial modelling based on historical flight data and demand forecasts. Forecasts should also include sensitivity analysis. It could run Monte Carlo and VaR analyses.

b) Cashflows: Unlike traditional leases, pay-as-you-use leases increase variable costs. The treasury must assess whether SDH can generate sufficient cashflow during peak seasons to cover higher per-flight costs. This may require scenario planning to evaluate cashflow under different demand conditions.

c) Cost Efficiency: Although the short-term cost per flight may be higher, this model could result in overall cost savings by reducing the need for long-term capital expenditures on aircraft. SDH avoids paying for unused capacity during off-peak seasons, which enhances operational efficiency.

d) Risk Management: Seasonal fluctuations in travel demand introduce volatility into fleet costs. The treasury should consider the risk of underutilising the fleet during periods of low demand. Furthermore, SDH must ensure that aircraft availability aligns with peak demand periods to avoid service disruptions.

e) Strategic Fit: Aligning the leasing arrangement with SDH's broader strategic goals—such as sustainability and cost efficiency—can improve long-term profitability. If the flexibility of the pay-as-you-use model enables SDH to meet its sustainability KPIs (e.g., by leasing more fuel-efficient aircraft during peak seasons), it could also positively impact its ratcheted bond coupon rates. It might be more profitable to buy aircraft to capture tax benefits and save on high leasing costs, and use these for core demand, and to use leased aircraft for the variable demand.

This mark scheme is not exhaustive – all valid points within answers will be awarded marks.

Syllabus Refs: 1.1.1, 1.1.2, 1.2.1, 1.4.1, 1.4.2, 1.4.4, 1.5.1

2 marks per valid point.

Total marks: 10

Total: 50 marks

SECTION B – 50 MARKS

Answer TWO of the following THREE questions. (2 x 25 marks).

Questions test knowledge, analysis, application, insight, evaluation and justification as appropriate to level descriptors. This is a professional paper and application to practice should be at 'management' level. Candidates are expected to be able to synthesise knowledge from different elements of the syllabus rather than be tested on discrete areas.

Total available for Section B: 50 marks

QUESTION 1: CASE STUDY

Etoile Bleu Paris FC (EBP) is a privately owned football club, based in Paris, that competes in the top division of French football. The club has a long, a strong fanbase and a globally recognised player development academy. EBP is experiencing declining revenues due to increased competition, inconsistent on-pitch performance, and a saturated sponsorship market.

To reverse this trend and regain its competitive edge, the club is considering several financial strategies to restructure its balance sheet and raise EUR500m. These funds will be used as set out below.

Current financial situation

Declining revenue: While EBP has a dedicated support base, its revenue has been impacted by a dip in matchday earnings, broadcasting rights, and sponsorships. The club relies heavily on discounted season ticket presales, which may signal to potential investors a lack of pricing power.

Player development: The club remains one of the best in the world at developing young talent, providing a strong competitive advantage. However, this area of the business requires significant and sustained investment.

Support base: The fanbase remains loyal, providing some stability to revenue streams like merchandise sales, but with overall revenues in decline, the club must act swiftly to raise capital.

Capital requirement

EBP needs EUR500m to:

- **acquire players**: talent acquisition is critical to maintaining on-field success and increasing matchday and commercial revenues
- **invest in infrastructure:** this includes modernising the training grounds, expanding the stadium and investing in technology to improve scouting and player performance analytics
- **enhance player development**: EBP aims to refine its already successful academy by recruiting talent at earlier ages and expanding global scouting networks
- **refinance existing debt:** EBP has a term loan of EUR120m which matures in 2027. The interest rate of the loan is set at 10% per annum. Interest is paid each year, with a bullet repayment to be paid at maturity.

EBP is considering three different potential funding options to raise the required EUR500m. Each option has its pros and cons, and the club must weigh them carefully.

The first option is debt financing. However, the club must demonstrate an ability to service the debt, which may be difficult given its declining cash flows. The potential sources for debt could include syndicated bank loans or the issuance of bonds. The current syndicated debt offer is priced at 7% per annum (including all costs) fixed over 10 years with a bullet payment at the end of year 10.

The second option under consideration is taking the club public by listing it on the French stock exchange via an initial public offering (IPO). The third option would be to seek private equity (PE) investment. An American private equity fund is keen to engage EBP. It has also given indications that its hurdle rate currently stands at 20%.

Key assumptions:

- **revenue**: EUR300m (current annual revenue, assumed to remain stable)
- **EBITDA margin**: 30% (EUR90m annual EBITDA)
- **EBITDA growth rate**: 5% annually (modest growth assumption due to investments in players and infrastructure)
- **net income margin**: 10% (EUR30m annual net income)
- **tax rate**: 25%
- **risk-free rate (Rf):** 1% (based on long-term French government bonds)
- **indicative beta (β):** 1.5 (football clubs are generally riskier than the overall market)
- **market (equity) risk premium:** 6%
- **independent equity valuation**: EUR600m.

QUESTION 1

a.	Evaluate the THREE funding options under consideration by EBP, highlighting the advantages and disadvantages of each. You are also required to recommend and justify the best option for EBP.	12 marks
b.	Calculate EBP's WACC assuming it proceeds with a syndicated loan. You are required to show your workings. In your answer, you are also required to discuss THREE features of syndicated loan documentation.	8 marks
c.	Examine EBP's performance in the context of Porter's Five forces.	5 marks
		Total: 25 marks

Mark Scheme

Q1a

	Advantages	Disadvantages	
Syndicated loan	- Full control retained by EBP's owners. - Predictable fixed interest rate (7%) over 10 years. - Tax shield from interest payments as long as there are profits to be shielded.	- Bullet repayment creates liquidity risk, especially with declining revenues. - Loan covenants could limit financial flexibility.	3 marks
IPO (initial public offering)	- Access to a broader pool of capital beyond EUR 500m assuming they subscribe to the share offer. - Retains control if structured correctly. - Enhanced public profile and potential valuation growth over time. -Opportunity to attract fan base and loyalty if the IPO includes retail offer.	- Loss of privacy and increased scrutiny from shareholders. - Potential dilution of ownership. - Significant upfront costs and ongoing compliance burdens. - An IPO is a lengthy process. The shares might be illiquid if no market-maker.	3 marks
Private equity (PE)	- Large, immediate capital injection.	- PE firms typically demand significant control and	

	- Potentially quicker process than an IPO.	decision-making power. - 20% hurdle rate is too high and costly compared to other options. - Potential loss of strategic direction for the club.	3 marks

Recommendation:

- **Syndicated loan**: Given the predictable cost structure, tax benefits, and control retention, this is a highly favourable option. EBP would need to manage the liquidity risk associated with the bullet repayment at maturity and ensure it can meet covenants.

- **IPO:** While the IPO provides a long-term solution with broader access to capital, it comes with significant risks, including dilution and increased regulatory burdens. If EBP opts for the IPO, careful consideration should be given to maintaining control.

- **Private equity:** Due to the high 20% hurdle rate, private equity is not an ideal solution for EBP. The loss of control and high cost of capital make this a less attractive option compared to debt or an IPO.

EBP should begin by evaluating its ability to service the syndicated loan and its appetite for risk in taking on more debt. If the club is confident in its revenue recovery, the loan option provides immediate access to funds while retaining control. However, if public capital markets seem attractive and revenue projections improve, an IPO could be a viable long-term strategy. 3 marks

Alternative: Refinance the maturing debt with a syndicated loan. Launch an IPO on AIM (to lower costs and compliance) aimed at retail investors (the fans) to increase loyalty and reward them for that loyalty, and attract new fans, in addition to institutional investors. An IPO would increase brand awareness, reduce interest payment risk and principal repayment stress, and require nil security, and it is also longer-term funding. An IPO will also manage gearing better than using only debt. The IPO could be underwritten to remove funding risk.

Total marks: 12

Q1b

Cost of Equity (using CAPM): Cost of Equity=1%+1.5×6%=1%+9%=10%	2 marks
After-tax Cost of Debt: Cost of Debt (after tax) =7%× (1−0.25) =7%×0.75=5.25%	1 marks
WACC= (600/(500+600)×10%)+(500/(600+500)×5.25%) **WACC**=5.45%+2.39%=7.84%	2 marks
1. Covenants: Syndicated loan agreements typically include both financial and non-financial covenants. Financial covenants set limits on key ratios such as Debt/EBITDA or Interest Coverage, ensuring that the borrower maintains sufficient cashflow and financial health to meet debt obligations. For instance, EBP might have to keep its Debt/EBITDA ratio below a certain threshold (e.g., 5x). Non-financial covenants might restrict EBP from undertaking certain actions (like acquiring more debt or selling significant assets) without lender approval. 2. Security package: Syndicated loans often require a security package where specific assets are pledged as collateral to secure the loan. In EBP's case, this could include pledging revenues from season ticket sales, broadcasting rights, or future transfer fees as security for the loan. These assets act as a safeguard for the lenders in case the club defaults on its debt obligations. The stronger the security package, the lower the interest rate might be. 3. Interest rate structure: Syndicated loans may come with a floating interest rate, typically based on a benchmark like EURIBOR (Euro Interbank Offered Rate) plus a margin, which is determined by the risk profile of the borrower. For EBP, the loan is fixed at 7%. Loan agreements often include provisions for interest rate hedging to mitigate this risk.	3 marks **Total marks: 8**

Q1c

• **Threat of new entrants**: moderate-high, given the high barriers to entry in professional football, but the rise of other competitive teams from junior divisions affects revenue. • **Bargaining power of suppliers**: Moderate to high, as key players, agents, and infrastructure providers can exert pressure. Player injury could reduce	1 mark per point

performance and lead to relegation and hence revenue and sponsorship and media revenue

- **Bargaining power of buyers**: High, as fans have multiple entertainment options, and the reliance on discounted season tickets indicates weak pricing power. Fans and sponsors exert substantial pressure, influencing pricing and sponsorship revenue. Also, effect of economy and employment on disposable income levels of buyers
- **Threat of substitutes**: High, as other sports and entertainment compete for attention and revenue. Alternative football leagues and competitions that draw away sponsors and fans. Major competitions such as Olympics resulting in poor match attendance.
- **Industry rivalry**: Intense, with EBP facing strong competition for players, sponsorships, and broadcasting rights.

This mark scheme is not exhaustive – all valid points within answers will be awarded marks.

Syllabus Refs: 1.1.3, 1.2.1, 1.2.2, 1.2.3, 1.3.2, 1.4.1, 1.4.2

Total marks: 5

Total: 25 marks

QUESTION 2: CASE STUDY

Tierra Andes Verda, Inc. (TAV) is a New York Stock Exchange (USA) listed, Mexican agricultural company specialising in the production and distribution of fresh avocados and avocado processed products. With a strong foothold in the industry, TAV operates primarily from Mexico and sources avocados from regions such as California, and its domestic Mexican market, and others worldwide. TAV is involved in the processing, packaging, and distribution of fresh avocados, melons, and peaches, and a range of healthy, prepared foods, including guacamole.

Operational overview

TAV divides its operations into two key business segments: farming and processing. The farming segment focuses on fresh produce, such as avocados, melons and peaches, while the processing segment handles value-added products, including processed avocados, fresh-cut fruits, and ready-to-eat food items. TAV's distribution network spans both domestic and international markets, supplying retail grocery chains, food service businesses, wholesalers, and more on a just-in-time basis (JIT).

Patents and trademarks

TAV has built strong brand recognition through its trademarks, including its flagship brand, Andes Verda Tierra, alongside other trademarks, such as Avo Freshpro, Bueno Avo, Andres Premium, and Fresh Fruit Essentials. These trademarks are crucial in maintaining its competitive edge in the fresh food market.

Working capital management

TAV relies on a mix of operating cash flows and bank borrowings to manage its working capital needs, particularly in bridging the timing gap between vendor payments and customer receipts. TAV also provides crop loans and other financial advances to its growers, funded through operating cash flows and borrowings.

Challenges and risks

TAV faces several risks that could impact its financial performance and operational capacity:

1. **interest rate sensitivity**: TAV's credit facility is subject to variable interest rates, which could increase its debt servicing cost. Rising interest rates also can influence consumer behaviour, potentially affecting demand for TAV's products. Higher borrowing costs and volatile market conditions could adversely affect TAV's profitability and financial stability
2. **seasonality and fluctuations**: TAV's earnings are highly seasonal, influenced by the availability and price of raw materials, particularly fresh produce. The timing of product ripening, perishability issues, and consumer demand fluctuations further contribute to quarterly earnings variability
3. **price volatility and external factors**: TAV operates in a market where the prices of fresh produce are subject to extreme volatility due to weather conditions, pests, diseases, and external market factors like transportation costs and government regulations. TAV is also vulnerable to public perceptions of food safety, which can dramatically shift consumer demand and product prices

4. **infrastructure dependence**: TAV's production capacity is heavily reliant on its core facilities, particularly its guacamole manufacturing plant in Mexico. Any disruptions to this facility due to natural disasters or mechanical failures could limit TAV's production capacity and have a material adverse effect on its operations.

Research and development

TAV's product innovation is driven by both market demands and customer requests. TAV collaborates with its suppliers and customers to refine its processes and products through extensive research and development, which includes sensory and shelf-life testing. Despite its importance, TAV's total research and development expenditure has remained modest, amounting to approximately USD300,000 for fiscal years 2024 and 2023, down from USD500,000 in 2022.

Share price performance

Date	24-Mar	24-Apr	24-May	24-Jun	24-Jul	24-Aug	24-Sep	24-Oct	24-Nov	24-Dec	25-Jan	25-Feb
Closing share price	10.00	11.00	9.50	8.00	10.00	10.50	11.75	11.00	10.50	10.50	10.75	11.25

Dividend paid: D_0 = USD0.50 in the year ending February 2025

Growth rate: 7% per annum

QUESTION 2

a.	Calculate TAV's average cost of equity for the 12 months. You are required to show your workings.	5 marks
b.	Discuss FIVE challenges TAV might face in implementing Sarbanes-Oxley compliance measures. You are also required to recommend how TAV can overcome the challenges while operating as a Mexican company listed in the US.	10 marks
c.	Analyse TAV's working capital management strategies how its approach to research and development impacts its operating cash flow. Within your analysis, you must consider the relationships between TAV's operating cash flows, borrowings and seasonal business factors.	10 marks
		Total: 25 marks

Mark Scheme

Q2a

D1 = USD0.50 x 1.07 = 0.535	1 mark
Average Share price = USD124.75/12 = 10.39583	2 marks
Ke = (0.535/10.39583)+ 0.07 = 12.15%	2 marks
	Total marks: 5

Q2b

1. **Different standards**:
   TAV faces different governance standards between Mexico and the US.
   Solution: Hire advisors with expertise in both jurisdictions.
2. **Internal control overhaul**:
   SOX requires robust internal financial controls, which TAV may lack.
   Solution: Implement phased improvements to internal control systems.
3. **High compliance costs**:
   Compliance with SOX can be expensive, impacting operational budgets.
   Solution: Prioritize key areas for compliance to spread out costs.
4. **Staff training**:
   Employees may lack knowledge of SOX requirements.
   Solution: Provide targeted SOX training to key personnel.
5. **Increased audit scrutiny**:
   SOX mandates more rigorous audits, increasing costs.
   Solution: Engage specialized auditors familiar with foreign SOX issuers.

2 marks per point with explanation and solution.

Max marks: 10

6. **Transparent documentation**:
   SOX demands detailed financial reporting which must be transparent, accurate, and reliable. Information must be detailed and comprehensive, for example in relation to policies and procedures and in relation to financial risks and control., which TAV may not have.
   Solution: Invest in software to automate and streamline reporting.
7. **Board independence**:
   TAV may need to adjust its board structure for SOX compliance.
   Solution: Recruit independent directors with SOX experience.
8. **CEO/CFO accountability**:
   SOX requires CEOs/CFOs to personally certify financial reports.
   Solution: Provide legal and financial advisory support for certification.
9. **Communication gaps**:
   Cross-border operations can lead to communication breakdowns.
   Solution: Establish dedicated teams to ensure clear, consistent communication.
10. **Risk of non-compliance**:
    Non-compliance with SOX could damage TAV's reputation in the US.
    Solution: Regularly audit compliance efforts to maintain investor confidence.
11. **Technology upgrades**:
    TAV may need new technology to meet SOX standards in order to eliminate excel models in financial processes.
    Solution: Invest in compliance and financial management software.
12. **Seasonal revenue fluctuations**:
    SOX demands steady and effective financial controls, which could be difficult due to seasonal business.
    Solution: Implement flexible control measures that accommodate seasonal variations.
13. **Supply chain complexity**:
    Monitoring suppliers for SOX compliance could be challenging.
    Solution: Develop a supplier compliance program aligned with SOX.
14. **Legal and regulatory understanding**:
    Understanding US regulations may be complex for a Mexican company.
    Solution: Retain legal counsel specialising in SOX for international firms.
15. **Stock price volatility**:
    SOX compliance failures could negatively impact TAV's stock price.
    Solution: Publicise compliance initiatives to reassure investors and maintain trust.

Q2c

Analysis of working capital management strategies

1. TAV utilises operating cashflows to manage the timing gap between vendor payments and customer receipts, ensuring liquidity.
2. TAV supplements these cashflows with bank borrowings, allowing for flexible working capital management during peak demand periods.
3. TAV provides crop loans and advances to growers, funded by its operating cashflows and borrowings, to secure a consistent supply of quality produce.
4. TAV actively monitors seasonal trends in produce availability and pricing, adjusting its inventory management accordingly to optimise cashflow.
5. TAV employs efficient inventory management techniques, such as just-in-time (JIT) systems, to minimise holding costs and reduce waste.

Impact of research and development on cash flow

6. TAV strategically invests in research and development (R&D) to foster innovation and improve its product offerings, which can lead to increased revenue streams.
7. While R&D expenditures are charged to expense immediately, successful product launches can significantly enhance cashflow over time.
8. The timing of R&D investments requires careful planning to maintain positive cashflow, especially when introducing new products to the market.
9. A positive market response to TAV's innovative products can drive sales growth, ultimately boosting operating cashflows.
10. Overall, TAV's focus on R&D, coupled with effective working capital management, reinforces its financial stability and competitiveness in the fresh produce market.

This mark scheme is not exhaustive – all valid points within answers will be awarded marks.

Syllabus Refs: 1.1.2, 1.1.3, 1.2.1, 1.2.2, 1.3.2, 1.5.3

1 mark per point

Total marks: 10

Total: 25 marks

QUESTION 3: CASE STUDY

Fission Power Grids (FPG) is a prominent British nuclear energy company that has pioneered cutting-edge technology in the nuclear power sector. Utilising innovative liquid sodium-based cooling systems instead of traditional water cooling, FPG has demonstrated significant improvements in efficiency and a markedly lower environmental impact. Unlike solar energy, which is dependent on sunlight and only generates power during the day, FPG's small modular reactors (SMR) operate continuously, providing reliable energy 24 hours a day, 365 days a year.

Technological advancements

The liquid sodium cooling technology employed by FPG represents significant advancement in the nuclear energy field. This method not only enhances thermal efficiency but also reduces the environmental footprint associated with nuclear power generation. By opting for liquid sodium over water, FPG has minimised the risks typically associated with water cooling systems, such as thermal pollution and water resource depletion. Furthermore, sodium has a high heat transfer capability, allowing for smaller and more compact reactor designs that further enhance efficiency.

However, despite the technological advantages and small modular structure, installing FPG's SMRs is capital-intensive, with each SMR costing approximately GBP1bn. The SMR is manufactured and prefabricated in the UK before being shipped to the customer's location. This high cost presents a considerable financial challenge, particularly in securing the GBP5bn necessary for FPG's latest project in Canada, where it has been engaged to install five new SMRs through a strategic 25-year power purchase agreement where FPG finances the installation and bills the Canadian government for the power generated and consumed.

The Canadian Project

The Canadian government has committed to advancing nuclear power as part of its energy strategy, and FPG's innovative technology aligns well with this vision. The five new installations will enhance Canada's energy security and sustainability. However, the Canadian government has indicated that it cannot provide pre-financing for these projects. Instead, it is prepared to offer a sovereign guarantee to FPG, which would assist in securing financing from third-party sources. The Canadian government has also agreed to a 5% escalation on its net payment year on year over the tenure of its power purchase agreement with FPG.

FPG's treasurer has emphasised Canada's AA+ investment-grade long-term credit rating as a critical positive factor for raising the necessary finance.

Funding strategies

In considering the funding options for this substantial investment, FPG faces a dilemma: whether to pursue financing through the Canadian sovereign guarantee-backed debt or engage with a third-party green energy project equity investor.

On one hand, the Canadian sovereign guarantee could facilitate access to low-cost financing, given the country's strong credit profile. The treasurer has expressed confidence that FPG's established relationships with key players in the UK debt capital markets could enable it to raise the required funds in the UK market in any currency. As an example, a Medium-Term Note (MTN) issuance has been proposed as a viable strategy, with indications of pricing between 5% and 7% per annum, including the sovereign guarantee. This approach could allow FPG to secure funds at competitive rates, providing the capital needed to move forward with the projects in Canada.

However, on the other hand, partnering with a third-party energy project equity investor presents its own advantages. The green energy equity investor has indicated that they have a hurdle rate of 10% per annum). The current GBP/CAD exchange rate IS GBP 1 to CAD 1.80. Engaging a project

equity investor may also bring additional expertise and operational efficiencies to the table, potentially enhancing the long-term viability of the installations.

Project cash flows per each SMR

Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Cash flows (CADm)	140.00	147.00	154.35	162.07	170.17	178.68	187.61

Environmental impact considerations

FPG's commitment to sustainable energy solutions aligns well with global efforts to mitigate climate change. The environmental impact data associated with FPG's liquid sodium cooling technology is promising, particularly when compared to traditional nuclear and fossil fuel power generation methods. Studies have shown that nuclear energy is one of the lowest emitters of greenhouse gases, and the adoption of advanced cooling technologies like those used by FPG further diminishes environmental harm.

Moreover, the ability of FPG's systems to operate continuously means FPG can significantly reduce its reliance on fossil fuels, particularly during peak demand periods. As such, the new plants will contribute to a more balanced and sustainable energy mix in Canada.

QUESTION 3

a.	Examine how Canada's sovereign credit rating (AA+) and the associated sovereign guarantee could affect FPG's ability to raise funding for its nuclear energy projects.	7 marks
b.	Evaluate the funding options that have been presented to FPG. You are also required to recommend and justify the optimum funding solution for FPG.	8 marks
c.	Calculate: (i) The Internal Rate of Return (IRR) for the project over 25 years of cash flows by extrapolating the figures provided in the table for seven years; and (ii) The energy project equity investor estimated the project value. Discuss whether this investment would be a prudent choice for the investor.	2 marks 4 marks 4 marks 10 marks
		Total: 25 marks

Mark Scheme

Q3a

a) Significance of sovereign credit rating: The Canadian government's AA+ credit rating indicates strong financial stability and reduces perceived risk for investors and lenders. b) Lower cost of debt: A high sovereign credit rating allows FPG to secure financing at lower interest rates, decreasing the overall cost of capital for the project. c) Enhanced access to capital markets: The sovereign guarantee provides confidence to lenders, facilitating access to a wider range of debt capital markets, including institutional investors. d) Increased investor confidence: A strong credit rating and sovereign support boost investor confidence, potentially leading to oversubscription of debt offerings and a favourable market environment. e) Reduced equity risk premium: The backing of a highly rated government may lower the risk premium required by equity investors, resulting in more favourable valuations for FPG. f) Attraction of institutional investors: The sovereign guarantee can attract low-risk-focused institutional investors, enhancing equity capital availability for the project. g) Positive market perception: Overall, the combination of a strong credit rating and government support can lead to improved investor sentiment, positively influencing FPG's ability to raise both debt and equity financing.	1 mark per point **Total marks:7**

Q3b

1. **Medium term note (MTN) flexibility**: The MTN option allows FPG to issue debt in tranches over time, giving it greater flexibility to access capital as needed for each stage of the project. This staggered funding approach can be highly beneficial, allowing FPG to align capital inflows with project milestones.
2. **Favourable pricing on MTN**: The pricing on the GBP20 billion MTN has been indicated between 5% and 7%, offering a competitive range, particularly if FPG can secure funds at the lower end of this scale. This makes it an attractive option when compared to other sources of capital.
3. **Leveraging the Canadian sovereign guarantee**: The Canadian government's AA+ credit rating adds a layer of security to the transaction. With a sovereign guarantee in place, FPG is likely to receive favourable terms from lenders, potentially lowering the overall cost of borrowing.
4. **Investor engagement and discount rate**: The energy project investor offers a discount rate of 10% I which is higher than the cost of debt.
5. **Risk of currency fluctuation**: The FPG treasury will need to carefully evaluate its approach to managing potential currency risks, potentially by aligning its borrowing strategy with PPA receivables to optimize exposure. Especially given the current exchange rate of GBP1: CAD1.80.
6. **Control over financing**: The MTN allows FPG to retain more control over its financing compared to bringing in a third-party investor. While an investor may offer operational expertise, they could also demand a level of oversight or influence that FPG may not want to cede.
7. **Capital availability**: Issuing an MTN enables FPG to tap into a broader base of debt investors, potentially increasing the amount of capital available for the project. This wider access to debt markets can be crucial for funding large-scale projects like the Canadian installations.
8. **Cost certainty vs investor involvement**: While MTN pricing can provide a clearer outline of financing costs over time, both MTN agreements and equity investor arrangements carry the potential for interpretation risks if the terms and conditions are not meticulously detailed. An equity investor's involvement may introduce other dynamics, such as profit-sharing or future funding expectations, which could be more complex to navigate compared to the typically fixed repayment obligations of MTNs, provided all terms are explicitly agreed upon upfront.

1 mark per point

Total marks: 8

Q3c

IRR Per Excel.

-1800m
5% Escalation over 25 cashflow cycles
IRR = 10.71%

2 marks

Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	
Cashflows (CADm)	140.00	147.00	154.35	162.07	170.17	178.68	187.61	½ mark
Discount Factor for CAD	0.9090909	0.826446	0.751315	0.683013	0.620921	0.564474	0.5131581	½ mark
PV of cashflows	127.27	121.49	115.97	110.69	105.66	100.86	96.28	½ mark
Sum of PVs	778.22							½ mark
Future value of project value (CAD)							3,939.88	½ mark
Project PV **CAD**	**2,800.00**							½ mark
NPV (CADm)	**1,000.00**							1 mark

- **Strong financial returns**: The projected 25-year IRR of 10.71% which is above its current hurdle rate of 10% and a positive NPV of CAD1 billion indicate that the investment is expected to generate solid long-term financial returns. These figures suggest the project will create value for investors over its lifecycle.
- **Technological advantage**: FPG's liquid sodium cooling technology enhances nuclear reactor efficiency and reduces environmental impact. This innovation positions FPG as a leader in the nuclear energy market, offering both operational benefits and differentiation in the global shift toward clean energy.
- **Reduced project risk**: The Canadian sovereign guarantee provides a strong credit backing, enabling the investor to secure lower-cost financing through a leveraged debt position to support its investment.
- **Reliable cashflow projections:** The project's cashflows are expected to grow steadily, starting at CAD 140 million in Year 1 and rising to CAD187.61 million by end of Year 7, with a 5% annual payment escalation. This predictable revenue stream supports long-term debt repayment and equity distributions, minimizing the risk of revenue shortfalls.
- **Alignment with ESG and energy trends**: FPG's environmentally friendly technology and continuous power generation align with global ESG investment trends and the increasing demand for clean, reliable energy. This makes the investment attractive to sustainability-focused investors and positions it well for future growth in the nuclear energy sector.

1 mark per point

Total marks: 11

This mark scheme is not exhaustive – all valid points within answers will be awarded marks.

Syllabus Refs: 1.2.4, 1.4.2, 1.4.3, 1.5.4, 1.24

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