ACT
PAST PAPER

Diploma in Treasury Management (AMCT)

Unit 4b: Working capital and trade finance

March 2025

This is a past paper for Unit 4b 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 4b before attempting this past paper.

Students should allow themselves 180 minutes to complete the exam plus an additional 15 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, students should 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 Units 4A and 4B each have 3 mandatory written questions. The papers will be split into sections A and B and will involve a pre-seen case study for Section A that is released no later than two weeks prior to the assessment date. 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	2 shorter case study based questions	50
Total	**3**	**100**

Under exam conditions, **3 hours** (180 minutes) is allowed for the Diploma in Treasury Management assessments plus an additional 15 minutes reading time.

When you take your actual exam, you will be sitting online using your own PC/Laptop. You will 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

Creative Apparel Limited (CAL) is a British clothing manufacturer and retailer. CAL opened its first tailor shop in Bradford in 1953. Capitalising on the industrial strength of Yorkshire, where many textile mills and sewing factories were based, CAL was able to mass produce clothing at low cost. Its unique fashion design also distinguished itself from the competition. CAL was able to expand and became a well-established clothing chain. Since the 1970s, globalisation gradually changed garment production processes. Many clothing manufacturers started shifting production to Asia, where labour costs are much lower.

CAL started building its modern supply chain in the late 1970s. To maintain competitiveness, CAL started to shift manufacturing operations overseas in the 1980s. This allowed CAL to offer more affordable prices to customers while still maintaining good quality. By the early 2000s, CAL became the fourth largest clothing retail chain in the UK. It built a complicated network of suppliers in China, India, Sri Lanka and Vietnam. CAL's supply chain consisted of over 600 overseas suppliers. CAL was also leading the industry in eCommerce. It launched its first online shop in 2001 and became a major online clothing retailer in the UK. To facilitate online sales, CAL started its financing operation, providing credit to its online customers. By 2019, over 20% of CAL's revenue originated from online sales.

During the pandemic, CAL delayed payments to its suppliers overseas, which lead to severe financial difficulties for factory owners and workers. The sudden drop in global demand for clothing during lockdowns caused many factories to shut down, leading to widespread unemployment for garment workers in Asia. CAL was aware of these issues but could not help as most of its retail stores were closed and sales were down significantly. However, CAL did not revert back to the original payment terms to its suppliers after the pandemic. This strategy helped to improve its own liquidity.

By 2025, over 50% of revenues are forecast to come from online sales. To cope with the new reality, CAL closed many retail stores and reduced staffing in existing stores. Its online store was completely overhauled in 2023 to improve the online shopping experience. CAL also extended its financing offering to its shoppers based on its proprietary data. New shoppers are offered credit as long as they pass CAL's in-house credit check. Additionally, all credit sales have a 30-day interest free period.

Abstract from CAL's financial statements:

GBPm	2025 forecast	2024	2023	2022
Sales	4,250	4,056	3,844	3,623
Cost of sales	3,000	2,777	3,128	2,258
Inventory	575	582	457	946
Trade receivables	1,600	1,465	1,286	1,143
Cash and cash equivalents	120	156	327	621
Trade payables	1,050	943	812	643

Cash is centrally managed; 90% of cash balances are kept in a GBP account, earning interest at 5%. The remaining 10% is in foreign currencies to maintain oversee operations. CAL has extensive operations in Asia where its suppliers are based. Cash balances in foreign currencies do not earn any interest. Reported cash is based on exchange rates on the statement date. CAL does not employ any cash management structures. Funds are exchanged into other currencies based on needs.

Sales include three segments of business lines. A breakdown of sales is shown below:

Sales by segment (GBPm)	2025 forecast	2024	2023	2022
Retail	800	1,136	1,436	1,823
Online	2,250	1,893	1,476	1,146
Finance	1,200	1,027	932	654

The revenue in the finance segment is interest on credit sales. CAL's aggressive strategy of offering credit to its shoppers is paying off. Cost of sales are the same for retail and online sales.

Trade payables are to CAL's overseas suppliers. The reported figures are based on exchange rates on the statement date. Forex risk is not actively managed. Foreign currencies are usually bought at spot in exchange for GBP on the same day of payment. Trade payables do not bear interest and have a 60-day payment term. This term was negotiated during the pandemic and is longer than the industry's average of 30 days. CAL generally pays vendors 90 days after the invoice date. Since many suppliers lack other financing options, some have left CAL for other brands which offers much better terms. CAL is aware of the issue, but there are a lot of suppliers who are willing to accept CAL's payment terms. Most importantly, the high turnover of suppliers has little impact on CAL's profitability. If a supplier went bankrupt, CAL could easily find a replacement. The purchasing team, however, is under consistent pressure to onboard new suppliers. CAL is aware of the negative impact on supplier relationships but will not address this until it impacts CAL's baseline profitability.

Trade receivables

GBPm	2025 forecast	2024	2023	2022
Gross trade receivables	1,750	1,726	1,432	1,254
Allowance for credit loss	150	261	146	111
Trade receivables	1,600	1,465	1,286	1,143

All trade receivables relate to credit sales. No interest is charged on receivables if customers pay in full during the interest free period. All customers have a direct debit set up, but many cancel it after a few payments. Chasing up customers individually is very costly as CAL has over 80,000 credit accounts. The

weighted average interest rate on receivables is 24.6%. Managing credit losses is one of the most important tasks of 2025. However, the treasury team is not confident that credit losses will be lower than 10% of receivables in 2025.

Breakdown of inventories

GBPm	2025 forecast	2024	2023	2022
Finished goods	595	614	1,246	963
Write downs	20	32	789	17
Inventories	575	582	457	946

CAL's inventories were optimised with a data-driven forecasting model. It has worked well for CAL in the past, however, the model has consistently over-estimated demand since the start of the pandemic. This caused a build-up of inventories. By the time the model was reconfigured and recalibrated in 2023, some inventories had been in the warehouse for over 48 months and were effectively obsolete. Whilst it is still possible to sell such obsolete clothing items at discounted prices, the high level of inventories could reduce sales in other sales lines. It is also possible to donate old inventories to charities, but CAL has done this before and much of the donated clothing simply ended up in second-hand clothing shops. Furthermore, the logistics of donating large quantities of clothing is rather complex as no single charity can absorb large volumes. Considering all options, CAL has decided to destroy these old inventory items and post the write downs to cost of sales. This appears to CAL to be the best option in terms of financial savings and efficiencies. While this may be good for CAL's revenues and profits, there is public outcry that CAL is putting profitability before environmental and social considerations.

QUESTION 1

a.	Analyse CAL's trade finance and working capital position. You must include in your answer analysis of the areas CAL is managing well and areas where CAL needs to make improvements.	25 marks
b.	Recommend and justify actions CAL can take to improve its trade finance and working capital position.	18 marks
c.	Assess CAL's decision to destroy inventory for financial saving. Within your answer you are required to make reference to economic theory.	7 marks
		Total: 50 marks

Mark scheme

Q1a

DIO	70.0	76.5	53.3	152.8
DSO	137.4	131.9	122.1	115.1
DPO	127.8	124.0	94.8	103.9
CCC	79.6	84.4	80.6	164.1

4 marks

When finance is excluded from CCC calculation. Finance sales is different from traditional sales, they do not have inventory, nor cost of goods sold, so they should be excluded in calculating CCC.

DIO	70.0	76.5	53.3	152.8
DSO	191.5	176.6	161.2	140.5
DPO	127.8	124.0	94.8	103.9
CCC	133.7	129.1	119.7	189.4

3 marks

Areas that are managed well:

CCC is gradually decreasing over the years, from 164 in 2022 to 79.6 in 2025. Even if finance is excluded from this calculation, CCC is still gradually decreasing, this just shows CAL is managing the trade carefully (though treatment of suppliers may be extreme, it could backfire in the long term and that may turn into a weakness). Breaking this down, DIO is improving and DSO is also improving when finance is excluded.

2 marks

Trade payables is gradually increasing. DPO is also increasing from 2022 to 2025, which means CAL is finding better terms for payment (though this strategy may not work in the long term and could damage supplier relationship).

1 mark

By writing down inventories (this could also be a weakness) shows management is not afraid of making tough decisions. DIO improved after the write down.

1 mark

	Profit is very small during the year of write down due to the write down, but improved afterwards. DIO reached a manageable level from 152.8 in 2022 to 53.3 in 2023.	
	Payment terms to suppliers is very generous in favour of CAL, though this could be a weakness too.	1 mark
	The Finance segment brings in a lot of revenue that improves CAL's baseline.	1 mark
	A well-positioned supplier base: competitive suppliers mean lower cost to the CAL and longer terms of payment.	1 mark
	A streamlined process of offering credit to customers. This increases sales to also bring in more revenue in the finance segment.	1 mark
	Areas to improve While CCC is decreasing, it is quite high generally, even after the reduction which happened in the last 4 years. CCC is still at 80 when finance sales are included. When finance sales are excluded, the CCC is over 200 days in the 2025 forecast. It looks like CAL is struggling trade wise. DPO increased which is good for CAL's trade, but DSO is getting worse. CAL is not that much better in 2025 compared to 2022, CCC is half so improved but gross margin is 29% in 2025 vs 38% in 2022 which is worse.	2 marks
	High credit losses, likely over 10% in 2025. Losses in 2025 are expected to be 8.6% (150/1750) and this is around HALF what they were in 2024 (261/1726), so a good result year on year.	1 mark
	Cash is getting lower and lower with no obvious explanation why cash has dropped so much over the period. CAL should have committed facilities in place to cover further cash falls and/or sudden demands such as high retail sales, or loss of key suppliers and immediate payments instead of 90-days to pay them. CAL needs to investigate where the cash went and whether this is an isolated event or ongoing. It needs to improve its cash forecasting given the deterioration in cash. The loss of cash could indicate theft or fraud (fake sales).	1 mark
	Significant sales come from the finance segment. Without finance sales, CAL is barely profitable in 2025, forecasted.	1 mark
	Whilst pushing suppliers very hard in terms of payment terms may give short term benefits. Without actively managing supplier relationships, this could backfire in a few years.	1 mark
	Modelling failure, the forecasting models are not regularly back tested.	1 mark
	Mismanagement of inventory resulting in write off of inventory It is too costly to chase up late paying customers, or just no systematic approach to late payments.	1 mark

Other points that also earn marks: exchange rate risk is not actively managed no cash management structure	2 marks **Total: 25 marks**

Q1b

The usual aim in working capital management and trade finance is to reduce DIO and DSO, increase DPO, though it is not always the case.	1 mark
Ways that can improve receivables:	
Better credit check models, maybe employ external credit information too.	1 mark
Better management of existing customers, setup an automated system to send reminders and chase up customers.	1 mark
Discount to speed up payment, if margin is high then it is a good idea to reduce margin in exchange of faster payment.	1 mark
Can introduce late payment charges, though this needs to be carefully positioned as the interest rate on receivables is already very high.	1 mark
In the extreme case, if receivables do not improve or too costly to manage, can sell the sales ledger to an asset manager to then take responsibility (risk and rewards) of those assets, but the problem here is the customer relationship might be severed so no repeat sales opportunities for CAL from repeat buyers. Though benefits and cost needs to be carefully assessed. Improving internal credit collection processes and compare this versus outsourcing credit collection while retaining the customer for future sales. Outsourcing could be either retaining credit risk or transferring that risk (at a higher cost). Since CAL treasury believes credit loss is going to be higher than 10%, it is probably worthwhile factoring the receivables ledger.	2 marks 1 mark
With better credit modelling, expected credit losses should be estimated with better accuracy. This would provide information to whether a non-course factor should be used.	1 mark
Ways to improve inventory management:	
Better inventory forecasting model, which should be regularly back-tested and validated. Sensitivity and variance needs to be closely checked. Model parameters need to be updated and stay current.	1 mark
Write down of inventory should be regular and provisioned. This gives a more realistic view of CAL's inventory standing. It also avoids volatility of reported profits and keeps shareholders quiet.	1 mark

Ways to improve payables:

In most cases, payables should be increased to improve CCC. But in the case of CAL, a fine balance should be achieved. — 1 mark

Should start using trade finance instruments. — 1 mark

Supply chain finance programme should be rolled out to most significant suppliers, those most critical to ensuring supplies and production, and keep the list up-to-date (80/20 principle). When choosing supplier to give supply chain finance programme, consider geopolitical implications and their impact on supply chain disruptions (e.g., US-China; EU-China trade conflicts). The success of this depends on CAL's credit strength vs that of each supplier. This will reduce supplier stress and also help establish a stable group of suppliers, i.e. supplier loyalty. — 1 mark

It might be better to reduce the payment terms with CAL's suppliers in exchange of some discount. This should reduce cost and boost profit margin. This will worsen CCC but that might be better than losing suppliers that are critical and hence affecting revenues and profits. CAL needs to take a longer-term view and be more relationship-oriented not transaction-oriented. — 1 mark

Use supply chain finance tools such as letter of credit to protect purchases, in case supplier bankruptcy. Especially for new suppliers or those in countries with high sovereign risk. — 1 mark

Ways to improve cash:

CAL may actively manage exchange rate risk since suppliers are all overseas, then again cost and benefits needs to be analysed. With so many overseas suppliers and 90 days to payment, CAL has significant FX risk, so as a min it must quantify this FX risk and by currency and by time. It must also decide whether to manage each quantified risk and how to manage it (such as internally or with derivatives). It must have a treasury FX risk policy to guide it. — 1 mark

May be worthwhile to introduce a cash management structure to earn some interest on foreign cash balances. With cash of around £12m equiv in FX, CAL should look to earn int on FX balances. Cash has been as high as £621m so £62m (10%) in FX is a significant opportunity cost if no int is earned. CAL should looks at account configuration to improve cash collection, i.e., consider cash pooling or zero balancing, and sweeping. Clearly, this will depend on regional laws and systems and practices. CAL will need to consider treasury training or hiring staff to undertake these key roles competently. — 1 mark

Total marks: 18

Q1c

The question is closely related to the theory of supply and demand, and theory of elasticity of demand.	1 mark
The demand of CAL's clothing is influenced by a number of factors, such as the price of other goods, consumer income, taste, etc. When a large chunk of inventory flooded into the market at a discounted price, it will eat up demand and create a shift in the demand curve. This is likely to shift the demand for clothing sold by CAL will shift to the right. This is not good for the entire industry and should be avoided.	1 mark
The supply of clothing is also affected by a number of factors, such as technology, input costs, regulations, etc. CAL's excessive inventory increases supply and shifts supply to the right. The combined effect of shifting demand to the left and supply to the right is to significantly reduce price.	1 mark
The financial savings depend on elasticities of demand. If revenues from an additional quantity sold is greater than loss of sales caused by reduced price, then CAL should consider selling these inventories at a discounted price. However, if revenue from the additional quantity sold is much lower than the loss of revenue from reduced prices, then CAL should not release these inventories to the market.	2 marks
Other points that also earn marks:	
Cost of selling the inventory should be factored into the decision as well, this includes logistics of distributing and sorting inventory	1 mark
Donating clothing to charity is noble, but second hand clothing will resurface and may be equivalent to CAL releasing these inventories directly to the market, so this should also be considered.	1 mark
	Total marks: 7
This mark scheme is not exhaustive – all valid points within answers will be awarded marks. **Syllabus refs: U4b.1.1.21, U4b.1.3.21, U4b.2.1.22, U4b.2.2.22, U4b.2.3.22, U4b.2.4.22, U4b.4.1.24, U4b.4.3.24**	

Total: 50 marks

SECTION B – 50 MARKS

2 longer form questions, based on mini case studies, of which both are compulsory (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

Designer Electric Gadget (DEG) is a security gadget manufacturer based in Seoul, Korea. DEG was established in 2022 as a spin-off from Busan Security Corporation (BSC), one of South Korea's largest defence and security equipment companies. BSC was too large, and many products were not competitive. BSC has not been profitable for the past three years. DEG was formed as BSC was restructuring its supply chain to focus on strategically more important industries. DEG specialises in the development and manufacturing of surveillance and security cameras. The company produces a wide range of products, including IP cameras, analogue HD cameras, and advanced night-vision cameras. Before the spin-off, DEG was one of BSC's internal divisions. All of DEG's supplies came from divisions in BSC. All finished products were sold to divisions in BSC too. DEG did not have any external customers. At that time, DEG's products were not competitively priced and BSC could save costs by buying from external suppliers.

Once it became independent, DEG still received sales orders from BSC. Though the volume shortfall was large, DEG needed to generate demand from other customers. To build a solid client base, DEG attended trade conferences in Europe and North America. One of its high-quality imaging cameras even won the best innovative prize at one of the conferences. DEG also started using social media to market products to international audiences. DEG however needed to cut costs as its products were not price competitive. DEG consequently changed suppliers from BSC to overseas suppliers, achieving significantly lower prices for supplies.

By 2023, DEG already had a healthy number of orders from overseas buyers. Sales orders were delivered after buyers paid small deposits, usually 5% of the total order. The rest of the balances were paid once orders were delivered. This worked well for a few months until DEG encountered its first bad debts in February 2023. As DEG's products became more widely recognised, the risks of non-payment increased. As a result, DEG changed its deposit policy and now requires buyers to pay the balance in full before shipment. While this has eliminated risk of non-payment, it has also impacted DEG's sales negatively as not many buyers in this market have finances to make payment up front.

In October 2023, DEG learned about bills of exchange. Since then, all orders come with an issuance of bill of exchange. Shipments will only commence if the buyer accepts the bill of exchange. While this approach offers some protection to DEG and does not require buyers to finance full order cost upfront, it also has problems. Some buyers have dishonoured the bill of exchange after collection of their orders. DEG has consequently incurred substantial legal costs in resolving unpaid amounts due.

On the supply side, purchasing from overseas suppliers has reduced DEG's cost base. DEG however lacks an international reputation. In most cases, DEG has to pay suppliers in advance. This has put a huge strain on the company's liquidity. DEG is aware that suppliers have different policies regarding payment and some offer trade finance solutions to customers. DEG lacks experience in international trade and is confused about the many options for managing its suppliers.

QUESTION 1

a.	Discuss the actions DEG could take when a bill of exchange is dishonoured.	6 marks
b.	Assess risks and challenges that DEG might encounter when conducting international trade.	8 marks
c.	Identify and discuss techniques DEG might employ to mitigate the risks and challenges in relation to collections from its customers.	11 marks
		Total: 25 marks

Mark Scheme

Q1a

A bill of exchange is dishonoured if the drawee refuses (DEG's buyer) to pay or accept a draft on the due date. An unpaid or unaccepted bill of exchange is usually taken in most legal jurisdictions as evidence of debt and the holder (usually the drawer) can mount a valid legal claim in most courts by simply producing the dishonoured bill of exchange as evidence.	2 marks
If a bill of exchange is not accepted or paid when due, in some countries it is legally necessary to 'note' or 'protest' the bill of exchange to preserve the holder's legal rights. In this instance, DEG must protest the bill of exchange. The specific rules for noting and protesting dishonoured bills of exchange vary in different jurisdictions, depending upon their sources of law. Often this process has to be initiated within 24 hours of non-payment, or non-acceptance, to preserve the legal rights of the drawer of the bill. DEG is likely to incur legal costs employing local legal experts.	2 marks
If noting and protesting is required, it is usually necessary for an official, generally known as a notary public in some countries, to present the bill to the drawee (in this case, DEG's buyer). If the drawee refuses to pay or accept the bill, the notary public must 'note' the dishonour by writing the reason for non-payment, or non-acceptance, on the bill of exchange.	2 marks
Other points that also earn marks: The 'note' must be done within a stipulated period, usually 24 hours from the drawee's refusal to pay or accept the bill. Protest may be done later and is a more formal record of non-payment or non-acceptance. Failure to comply when noting/protesting can result in the drawee (DEG's buyer) being absolved from liability to pay.	**Total marks: 6**

Q1b

DEG has customers overseas; it is an international supplier, so the risk of suppliers are:	1 mark
Low liquidity: This is perhaps a generic issue but essentially any organisation must have capital to be able to trade, to pay wages, rent, etc. When liquidity is expensive or scarce, or both, then choices and risks arise. DEG needs to pay its suppliers first before it can get paid by its customers, which is a drain on liquidity. Funds tied up in receivables: not getting paid quick enough could be an issue for DEG.	1 mark 1 mark
Funds tied up in inventory or work in progress (WIP): this was not mentioned in the case, but DEG could face this problem if production was delayed or there was disruption.	1 mark
Dependence on specific customers: If most of DEG's orders come from a limited number of customers, then this represents a commercial exposure.	1 mark
Credit risk of customers, especially given the dependence on a low number of customers.	1 mark
Political risk: If the country of a customer experiences political difficulties, and imposes payment or import restrictions, the supplier will lose out, however strong the customer was before any adverse political event.	1 mark
Bond fraud risk: To the extent that bid bonds, advance payment bonds and performance bonds have been issued, there is always the risk of a fraudulent or malicious call on the bonds, which are usually payable on demand to the issuing bank.	1 mark
DEG has suppliers overseas and is an international buyer, so the risk of buyers are:	1 mark
Dependence on suppliers: If DEG's rely on a few suppliers, then its production depends on these suppliers.	1 mark
Credit risk of the suppliers: DEG has to make some payments in advance of product delivery, exposing DEG to risk of supplier non-delivery.	1 mark
Delivery risk: Timely delivery of order is essential to DEG's production efficiency, late delivery means disruption and additional production costs.	1 mark
Political risk on country: If the country of a supplier experiences political difficulties, and imposes payment or export restrictions, the buyer will lose out, however strong the supplier was before any adverse political event.	**Max marks 8** **(4 marks for risk as supplier and 4 marks for risk as buyer)**

Q1c

One method for DEG is to simply demand payment from importers in advance, especially those with high credit risk. However, if that does not work then, DEG can employ the following techniques to mitigate payment and collection problems:

Documentary collection

Documentary collection is an international payment method that processes the collection of a draft and accompanying shipping documents through international correspondent banks.

it is helpful to DEG:

Potentially accelerated collections.
Less expensive than letters of credit.
Less complicated than letters of credit.
Substantial security.
Exporter retains title to goods, pending payment, or acceptance of a bill of exchange, by the importer.

However, it does not provide full protection:
If the buyer refuses to pay, is unable to pay, or refuses to accept the bill of exchange, the seller has three choices, all of which could be expensive:

- find another buyer
- pay for return transportation
- abandon the goods.

If the buyer accepts a bill of exchange on documents against acceptance collection, the seller loses control of the goods before payment is made.

3 marks

Letter of credit (documentary credit)

Letter of credit is a promise document issued by a bank or another issuer to a third party to make a payment on behalf of a customer in accordance with specified conditions.

Pros:
The documentary credit is a conditional guarantee of payment to the beneficiary by the issuing bank. This transfers counterparty risk from the importer to the issuing bank. This gives substantial security if the issuing bank is sound. In simple terms, LOC is similar to sales insurance.

Cons:
More expensive than documentary collection, unless the buyer agrees to pay bank fees.

3 marks

More complicated than documentary collection.
Country risk can result in a documentary credit not being honoured by the issuing bank due to restrictions imposed by its government

Back-to-back letters of credit

Back-to-back letters of credit are also used when the supplier of goods sells them through an intermediary and does not deal directly with the ultimate buyer. This only applies once DEG gain more bargain power and can force buyers to accept terms of the letters of credit. 1 mark

A back-to-back letter of credit is in effect two separate letters of credit (LC) which are as follows: 1 mark

- first credit: the applicant is ultimate buyer, the issuing bank is the ultimate buyer's bank, and the beneficiary is the intermediary
- second credit: the applicant is the intermediary, the issuing bank is the intermediary's bank and the beneficiary is the supplier.

Revolving credits

Revolving credits are used when two parties enter into a sales contract for regular shipments, with payment being on documentary credit terms. Arranging a separate documentary credit for each shipment would be costly and time consuming, so in such cases it may be easier and more cost effective to arrange a single revolving letter of credit. 1 mark

Standby letters of credit

A standby letter of credit can be used as protection for most debts and other financial obligations, and is not limited to protection against a failure to pay for a consignment of goods. An example of a document required to trigger payment could be a dishonoured bill of exchange, duly noted and protested. In this case, the issuing bank has effectively agreed to pay should the debtor not honour bills of exchange drawn by the creditor. 1 mark

Factoring

DEG can send all its invoices to the factor (this may be a bank affiliate or may be a specialist factoring company). 1 mark

- On receipt of the invoice, the factor advances up to 80% of the invoice value to DEG at once.
- The factor then collects the debt itself by sending its own invoice to the debtor.
- The debtor sends its remittance directly to the factor.
- The factor then pays the DEG the balance (the invoice value less the amount
- already advanced, less interest and charges).

Get help from credit agencies

An export credit agency (ECA) is a government, or government backed, agency which exists to support the country's exports by providing facilities such as guarantees and advice. Many countries have such agencies and in the UK the ECA is UK Export Finance (UKEF). There must be similar governmental bodies in Korea that can help with DEG's problem.

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

Syllabus refs: U4b.2.4, U4b.3.3, U4b.4.1, U4b.4.3, U4b.4.5

1 mark

Max marks: 11

Total: 25 marks

QUESTION 2: CASE STUDY

Sun Engineering Solutions (SES) is a German-based software development company founded in 2006. SES offers software solutions in the fields of digital transformation and has clients in various industries including automotive, finance and energy. In its early years, SES expanded its business by entering the automotive and financial sectors, where it gained recognition for its expertise in digital transformation projects. It became known for developing custom software solutions that help businesses optimise processes.

By 2015, SES was one of the key players in digitally transforming the German economy. However, since 2022, it has become increasingly difficult to secure new contracts. Competition for contracts has become intensive as several companies that are considered global giants have targeted Germany and launched a series of price wars. These global giants also pay higher salaries than SES to attract talent.

Some of SES's long-term clients have switched to bigger software companies to save costs. Once clients switch to these giants, which offer connected services in their software ecosystem, it is very difficult for SES to win them back again.

To remain competitive and reduce costs, SES has started hiring staff who work remotely in low-cost countries. Remote engineers are managed by a team leader based in Germany. SES has also adopted an agile approach of software development and recruited some talented team leaders. This approach has worked well with lead time on development reducing by 30% and software coding quality has improved, as reported in the latest audit. Project completion rates have increased by 18%. At the same time, SES has cut costs by 14%.

However, SES is now faced with new challenges under this new structure. With over 30% of the workforce based overseas, problems arise when paying contractors in another country. These include;

banking fees since contractors have a high turnover rate, SES must pay small amounts, multiple times in many different countries. When contractors are located in a developed country with well-established banking institutions, this is not an issue. However, many contractors are based in developing countries where fees for frequent exchange are considerable

compliance costs SES does not want to create local offices to minimise administration costs, but complying with local regulation requires some sort of local expertise. There are instances where funds are frozen for weeks due to a breach of local regulations and contractors could not be paid on time

limitation on payment methods not all payment methods are universally accepted or accessible. Some countries have limited options for receiving payments due to their infrastructure and regulations. For this reason, SES has to work with 18 banks in 34 different countries to make sure that contractors are paid.

Some remote contractors proposed that they would accept payment in cryptocurrencies. SES was initially hesitant but decided to try. After paying a few contractors in cryptocurrencies, SES found that cryptocurrencies are simple to use and offer a few advantages over traditional banking services, such as:

low fees cryptocurrency transactions have lower fees compared to traditional banking, especially for large amounts. Fees are often independent of the transaction amount, making small transfers more economical. In most cases, SES pays less than EUR0.25 per transfer

unlimited access anyone with internet access can use cryptocurrencies, accessible even to people without a bank account. SES no longer needs to work with local banks to ensure a payment goes through

- **minimal regulation** most cryptocurrencies work independently of any sovereign nation and are not limited by financial restrictions or regulations. SES does not need local expertise when making payment
- **universal payment methods** once SES adopts a cryptocurrency for payment, for example, Bitcoin, all payments are executed in the Bitcoin blockchain and there is no need to work with multiple banks in various countries. This saves administrative costs for SES.

SES plans to switch to cryptocurrencies for all future payments. However, the treasurer has some reservations. As there are no central authorities in most cryptocurrencies, no one would be able to provide support if there was an issue in the payment process. The fact that some cryptocurrencies do not belong to any sovereign nation and some are managed by a corporation, deeply concerns the treasurer. Managing and holding cryptocurrencies also requires additional IT security that SES does not currently have.

QUESTION 2

a.	Evaluate the role of cryptocurrencies in SES's cash flow management, investment and payment functions.	13 marks
b.	Discuss the SES treasurer's concerns in relation to the future direction, nature and role of money.	6 marks
c.	Analyse the security considerations for SES in managing its crypto-assets.	6 marks
		Total: 25 marks

Mark Scheme

Q2a

Of all the emerging technologies, cryptocurrency and crypto assets are most likely to have an impact on this aspect of cash management. SES is planning to make all payment in cryptocurrencies, which is a huge deviation from traditional approaches of cashflow management. If all of SES's cash payments can be completed in cryptocurrencies, complex structures such as cash pooling and cash concentration may be no longer needed. Instead, large balances of cash may be stored in the value of cryptocurrencies. The treasury team needs a completely different set of skills to manage cryptocurrencies.	2 marks
The western world does not necessarily benefit from the main feature of cryptocurrency, that of an open, borderless, neutral, censorship-resistant means of peer-to-peer exchange. However, in countries with volatile sovereign currencies and ineffective fiscal systems there is a clear use case as a means of a store of value. In Venezuela, citizens who are able to do so are commonly converting their earnings to more stable Bitcoin as the Bolivar devalues. This especially true for SES's contractors who may live in a developing world with unstable currencies.	3 marks
SES's treasurers should be aware that cryptocurrencies are not currently treated in the same way as foreign exchange, so gains and losses on exchange are not processed as an expense to the business. Currently, transactions in cryptocurrency use the rate at the time of the transfer, and gains and losses are treated the same as equivalent real-world assets. If the transaction amount is large, then this is a risk which SES must actively manage as cryptocurrency values are volatile. This is similar to the risk management of foreign exchange risk, but with more volatility and few regulated instruments to hedge.	3 marks
There are fine lines between commodity and security in many cases. SES must be aware of potential liabilities which may arise from investment strategies.	1 mark

SES also needs to actively examine new (and/or different) cryptocurrencies. The prominent ones are Bitcoin and Ethereum, but others could be faster and lower cost for international transfer. For both traditional and challenger banks, there are applications using payments-specific blockchains such as Ripple (XRP) and Stellar Lumens (XLM) to manage cross-border transactions. Each of these blockchains uses a token embedded within the chain to affect the transfer from one currency to another. Ripple has traditionally partnered with mainstream banks. Its partnership with Santander underpins One Pay FX, handling half of the bank's annual international transfers. Stellar has been working closely with developing countries to improve payments processing.

2 marks

Stellar (2020) is a blockchain which carries cross-border remittances. It has a number of unique features which align with the needs of the finance industry, including KYC, escrow services, multi- signature accounts and compliance with SEC regulations. Institutions worldwide are using the Stellar blockchain to underpin their international funds transfers, reducing costs and satisfying a higher demand for fast transactions. Siam Commercial Bank (SCB) is using the Stellar blockchain for a transfer corridor between South Korea and Thailand. Bankhaus von der Heydt, one of the oldest banks in the EU, is developing a stable cryptocurrency on Stellar, pegged to the Euro. A number of African fintechs including ClickPesa and Uhuru Wallet have developed business and consumer payment systems on this blockchain.

2 marks

Total marks: 13

Q2b

The treasurer of SES is concerned that cryptocurrencies do not have central authority, and many do not belong to any sovereign nation. This is a natural evolution of money that challenges the established and regulated monetary systems.

Blockchain and cryptocurrencies are impacting fintech innovations in several ways as the technology matures. While blockchain emerged from the creation of cryptocurrency, it stands alone as a technology whose core properties of transparency, immutability and consensus are applicable to non-financial transactions. Cryptocurrencies are becoming increasingly complex, with new classes of unique crypto assets emerging and different degrees of decentralisation being observed. Andreas M. Antonopoulos refers to three types of cryptocurrencies: Money of the People, Money of the Government and Money of the Corporation.

1 mark

Money of the people

Bitcoin and Ethereum are a fully decentralised cryptocurrencies, Money of the People. They are open, borderless, neutral and censorship resistant. Transactions are verified by peer nodes on the network and each batch (block) confirmed by a random node using a system called Proof of Work. The right to confirm and close one block and open the next is conferred on the first node to solve an algorithmic puzzle (finding a value which, when inserted in the block and hashed with the rest

2 marks

of the contents, will return a string with n leading zeros). This form of money is independent of any nation and does not have central entity of power.

Money of government

Our currency monetary system is based on money of the government, which is the central authority of a currency. GBP, USD and EUR are all examples of this type of money. However, evolution is also happening with this type of currencies.

2 marks

Central Bank Digital Currencies (CBDC) for major powers have been under discussion for several years. CBDC are basically the same currencies we use everyday but with an added blockchain backend. The concern that central banks would be left behind has accelerated the development of CBDC around the world. The Bank of England laid out its case for the development of a CBDC in a discussion paper in March 2020. Opportunities identified include:

- supporting a resilient payments landscape
- avoiding the risks of new forms of private money creation
- supporting competition, efficiency and innovation in payments
- meeting future payment needs in a digital economy
- improving the availability and usability of central bank money
- addressing the consequences of a decline in cash
- as a building block for better cross border payments.

Money of corporate

One of the prime examples was proposed by Meta in its Libra consortium, where the very real possibility of a cryptocurrency being made easily available to a consumer base of 2.7 billion global Meta users. Even though the currency was stillborn due to various factors, the incidents demonstrate the possibility that money creation is no longer a monopoly of government.

1 mark

SES's treasurer is concerned about the very nature of cryptocurrency, which is the very point of new money, to evolve beyond limitation of current money. Though the treasurer's worry about store of value is still valid, as of 2020, no publicly traded companies store their surplus cash in cryptocurrencies. While crypto assets are fine for exchange and payment, SES should be cautious to trust their store of value vs GBP, USD or EUR - especially as cryptocurrencies are always a different currency from a company's functional currency.

Total marks: 6

Q2c

Security of crypto assets

Custodianship and management of crypto assets is the responsibility of the owner, and this will involve treasurers in organizations holding such assets. This is very different from holding traditional assets such as cash in a bank. SES's treasurer must have technological knowledge about how to store cryptocurrencies and how to keep them safe.

1 mark

Protection of keys is paramount. If you do not hold the keys to your wallets, for instance if you are reliant on an exchange acting as custodian, there are potential risks if that exchange is compromised. On the other hand, if you hold your own keys they must be protected. Hard (cold) wallets hold private keys offline for safety. Online wallets may be used in conjunction with offline authorisation. Many blockchain applications aimed at enterprises feature multi-sig wallets, an additional security feature which ensures that control of an organisation's assets on the blockchain is not devolved to a single individual.

2 marks

Cybersecurity considerations

The rise in value of cryptocurrency has brought with it a predictable wave of scams and cons. For example, FTX – Alameda scandal is a recent well-publicised example of fraud and mismanagement involving crypto. SES needs to be very careful when sending payments, as cryptocurrency transactions are irreversible.

1 mark

There are a number of tools available to mitigate risk. Some of the simplest include the bitcoin.org validator, which checks each block of transactions received by the Bitcoin blockchain to ensure that everything in that block is valid on the network. The Bitcoin Abuse Database Index is another useful tool listing Bitcoin wallet addresses known to be used by hackers and scammers. This should be a standard security check before SES sends a payment.

1 mark

Ultimately, the security of the treasury function must be fit for purpose in this era of complex digital interactions. Protecting all systems and minimising human error, omission and fraud risk is essential regardless of the technology being employed.

1 mark

Total marks: 6

Syllabus refs: **U4b.5.2**

Total: 25 marks

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