

Examination Paper, Solutions and Examiner's Report

**Paper:
Certificate in
International Cash Management**

October 2011

QUESTION 1

Securitie NV (SIN), headquartered in the Netherlands, is a company that provides security services to a varied customer base globally.

The three main business activities are as follows:

Physical Security and Technology:

- manpower
- surveillance
- software solutions

for ensuring the security of buildings, personnel and other installations.

Cash Handling, Notes and Coins:

This includes:

- handling
- transportation
- processing of notes and coins

This service also provides and operates a network of Cash Centres on behalf of a number of financial institutions in several countries. These Cash Centres enable the financial institutions to outsource the collection of notes and coins from customers and to outsource the transportation, validation and counting of notes and coins. The Cash Centres report totals to the customers to allow them to reconcile the amounts and the Cash Centres credit the cash to the customers' accounts on the following working day.

Government and Public Sector:

SIN will provide all the above services, not only to commercial customers but also to government and public sector organisations e.g. transporting notes and coins for Central Banks and managing the security of embassies and their personnel.

Group Structure

The company is headquartered in the Netherlands with its Treasury Centre in Rotterdam. SIN has a presence in over 100 different countries through wholly owned subsidiaries or affiliates. The world is split into six regions and the table below shows the employee and turnover numbers in EUR millions for each region.

Area	Employees	Turnover EUR millions
Africa	70,165	201
Asia	134,467	344
Europe	85,000	2,354
Latin America & the Caribbean	31,347	187
Middle East	34,010	280
North America	34,924	1,052
Total	389,913	4,418

The company is global in its operations although each country acts autonomously in terms of handling its customer base. This means that SIN has little, proportionately, cross border trade.

While each country runs autonomously, the services offered are governed by the policies and guidance of the group headquarters with respect to the standards of service and ethical practices. The majority of services are delivered within an individual country so apart from financial flows of royalties, dividends and liquidity management there are few cross border payments and receipts. The royalties arise from the development of software products.

Within the Security business, software products are developed by the individual companies or at group level. These may be used throughout the group or as part of security packages supplied to third parties. Royalties for using software are paid to the Treasury Centre in the local currency of the user and the Treasury Centre will then pay the subsidiary that developed the software in their own currency. The hardware used is sourced by the subsidiaries to defined quality standards from either local or international suppliers, whichever is the cheapest. In addition there will be high value cross border activities (e.g. providing security for the movement of high value goods cross border) that involve the cooperation of different group companies. This would give rise to the need for one group company to invoice another or to directly invoice a customer in another country. These invoices are either in the currency of the company supplying the service or in USD.

Treasury and Cash Management

The Treasury Centre in Rotterdam is responsible for providing the majority of long term funding and for managing the global cash position of the group. Each subsidiary and affiliate has its own finance department for handling the financial operations of the local company but acts within the guidelines and policies set by the Treasury Centre.

Required:

- a) **How has the role of the 'Treasurer' evolved over time? In what ways has technology helped promote this evolution?**
(4 marks)

- b) **Using the definition of Cash Management and the information on SIN given above, discuss which of the tasks would be the focus for:**
 - i) **the Group Cash Manager**
 - ii) **a Cash Manager based in one of the subsidiaries**(5 marks)

- c) **The Treasury Centre for SIN is located in Rotterdam. What factors would SIN have considered when deciding that Rotterdam was a viable location for their Treasury Centre?**
(6 marks)

d) Using a diagram to illustrate your ideas, describe the structure of accounts that you would recommend for SIN in Europe and Asia. Provide full reasons for your proposals, stating any assumptions made.

(7 marks)

e) What potential risks arise for SIN in its cash handling business? Make specific references to SIN's Transportation and Cash Centre activities. Apart from the fees charged directly, how could SIN generate additional revenue from these activities?

(3 marks)

f) The accounts show the following:

- **days receivable - 70 days**
- **days inventory - 4 days**
- **days payable - 62 days**

Comment on these figures, given your understanding of the nature of SIN's business activities.

(3 marks)

g) What factors are important to the Treasury Centre of SIN when selecting a Global or Regional Cash Management Bank(s)?

(4 marks)

h) Define Multilateral Netting. Discuss whether it would be advantageous to SIN.

(3 marks)

(Total 35 marks)

QUESTION 2

Required:

a) Describe the process of clearing foreign currency cheques by:

- Negotiation
- Collection

Discuss the issues to be considered by the beneficiary when deciding which method to use and the circumstances when one method might be chosen over the other.

(4 marks)

b) Given the following set of circumstances, state how the company would make the required payments and from which account and location. Give full reasons for your decision.

i) Company A, based in the USA has revenues from various EUR based countries. Company A has to make a small number of payments to non European countries in the beneficiaries' local currency. The payments vary in size from USD 5,000 to USD 2,500,000 equivalent.

(2 marks)

ii) Company B, a Pension Fund based in the UK, has a large number of payments to make in GBP, to pensioners in the UK and in EUR to pensioners in the Eurozone. The payments are made to a specific value date no later than the last Wednesday in the month, assuming it is a business day.

(2 marks)

c) What is cheque truncation? Describe the process, illustrating your answer with a diagram. What are the benefits to the parties involved?

(4 marks)

d) Describe how RTGS and NSS systems operate and discuss what the implications are in each system for Value, Availability and Finality.

(4 marks)

e) Explain and use a diagram to illustrate how a payment of USD would be made from a company in the UK to a company in France using the SWIFT Cover Method.

(4 marks)

(Total 20 marks)

QUESTION 3

The Cash Manager of Defco is preparing the cash flow forecast for the next four week period. The following information has already been collected.

Figures in GBP

Week	1	2	3	4
Sales revenue	2,893,000	2,577,000	2,011,000	1,575,000
Trade payments, wages and salaries	2,169,000	2,190,000	1,407,000	1,733,000

Additional information:

- There will be an opening balance at the start of week 1 of GBP 200,000
- The company is required to retain a precautionary cash balance of GBP 10,000
- A borrowing of GBP 3,000,000 plus interest of GBP 11,200 is due to be repaid in week 1
- Tax due for the year is GBP 370,000 and half of this is due in week 3
- A dividend of GBP 600,000 is due to be paid in week 3
- A 6 month deposit of GBP 500,000 at an interest rate of 3.7% is due to mature in week 5

Required:

- a) Using the information given above, produce the cash flow forecast for weeks 1 to 4 inclusive and indicate the cash requirement at the end of each week.

(4 marks)

Controlex, a UK based company, needs to borrow GBP 5,000,000 for 91 days. Controlex has a USD interest bearing account in London with sufficient surplus funds in it to cover the borrowing.

FX Rates:

Spot GBP/USD 1.5616 – 1.5626
 91 day fwd points 12 8

91 day Interbank rates:

GBP 1.20 – 0.90
 USD 0.43 – 0.33

The company is able to borrow at LIBOR plus 0.5%.

Required:

b) Given the rates above, calculate whether Controlex should borrow GBP or utilise the USD it has on deposit.

(4 marks)

c) What further factors would you consider before making a decision?

(2 marks)

Conglom plc has three wholly owned subsidiaries that all have accounts with the same bank. Interest is currently applied on a stepped basis on the surplus balances.

	Average Monthly Balance
Company A	GBP 355,000
Company B	GBP 400,000
Company C	GBP 250,000

Amount in GBP	Interest Rate
1 to 250,000	0.10
250,001 to 500,000	0.20
500,001 to 1,000,000	0.50
Over 1,000,000	0.90

Required:

d) Given the information above, calculate the annual benefit of introducing a pooling arrangement to Conglom, where interest is applied on a banded basis.

(2 marks)

Spiraxz, a company based in the USA, has customers spread across the USA.

You have the following information:

- monthly sales of USD 4,125,000
- 80 % of customers pay by cheque
- the average payment size is USD 3,000

The company has undertaken a lockbox study and this has shown that, if introduced, three lockboxes would be needed. The costs would be as follows:

- USD 250 per month per lockbox
- 14 cents per cheque processed
- USD 30 per account per month for electronic banking and reporting services

The lockboxes are estimated to produce the following savings:

- 5 days on mail float
- 1 day of clearing
- 1 day of processing time in the company

In addition each cheque currently costs 4 cents for handling by the company and this also would be saved.

Required:

(e) If Spiraxz's cost of borrowing is 2% pa, calculate the financial benefit of introducing this lockbox system.

(3 marks)

The Cash Manager in Protex has produced the following forecast to project daily cash balances over a period of seven days.

Canadian Dollars CAD

	Opening Balance	420,000
Day	Net position of daily movement in cash	End of Day Cumulative Cash Balance
1	120,000	540,000
2	60,000	600,000
3	(84,000)	516,000
4	(156,000)	360,000
5	60,000	420,000
6		420,000
7		420,000

The following interest rates apply, all accrued on a 365 day basis:

- Money at call:
Balances below 100,000 - no interest is paid
Balances above 100,000 - 2.5 % pa is paid on the total balance
- A seven day investment in CP with a face value of CAD 420,000 at a discounted rate of 2.7% pa is available
- Overdraft rate 4% pa

Required:

- (f) What is the Cash Manager's best course of action to maximise the interest return for the period? Show all your workings.**

(4 marks)

(Total 19 marks)

QUESTION 4

Required:

- a) What are Non-Resident Accounts? Why is it important that the Cash Manager is aware of the distinction between Non-Resident and Resident Accounts?**

(3 marks)

- b) Why is the issue of Account Ownership important when establishing an account at home or abroad?**

(2 marks)

- c) In the context of electronic funds transfers, what are 'Templates', how are they used and for what purposes?**

(3 marks)

- d) What are Tax Treaties and why are they important to the Cash Manager?**

(3 marks)

- e) What is Financial EDI and when is it useful in Cash Management?**

(4 marks)

- f) What are the sources of internal liquidity available to a company and what difficulties may internal cross border, cross currency liquidity management create?**

(3 marks)

(Total 18 marks)

QUESTION 5

a) Which of the following statements concerning AML is correct :

- i) Placement is the channelling of illicit funds into a legitimate market
- ii) Layering is the investment of illicit funds into areas such as property purchases
- iii) Integration is the channelling of illicit funds into a legitimate market
- iv) Integration is the investment of illicit funds in areas such as property purchases
- v) Layering is the channelling of the illicit funds into a legitimate market

(1 mark)

b) Which one of the following statements about STEP 1 is correct:

STEP 1 is designed to process payments with the following characteristics:

- i) Multiple euro transactions
- ii) Non-urgent credit transfers where real time settlement is not required
- iii) High value bank to bank transactions where debit caps may be broken
- iv) Payment messages formatted to EBA standards
- v) Payments by banks who meet the requirements of EURO 1 eligibility

(1 mark)

c) Which transactions are covered by the SWIFT MT800 message series?

- i) Customer payments and cheques
- ii) Cash management and customer status
- iii) Securities markets
- iv) Travellers cheques
- v) Precious metals and syndications

(1 mark)

d) Which one of the following statements describes Non-repudiation?

Non-repudiation:

- i) Guarantees that each party is the party they claim to be
- ii) Ensures that access to the information is restricted to certain individuals
- iii) Prevents data from being maliciously amended
- iv) Evidence that the sender of the transaction intended to send the transaction
- v) Determines that the users or entities involved are authorised to perform the action

(1 mark)

e) Which one of the following statements about Letters of Credit is true?

- i) Letters of Credit may be issued for multiple transactions
- ii) With an irrevocable Letter of Credit, documents may be altered by either party to the Letter of Credit
- iii) Letters of Credit still have to be issued in paper form
- iv) Confirmed Letters of Credit are cheaper than unconfirmed Letters of Credit due to the lower credit risk
- v) In a Letter of Credit, only one party will bear the currency risk

(1 mark)

f) Which of the following statements about e-invoicing tools is correct?

- i) EBPP is used for business to business electronic billing
- ii) POP refers to automatic payment on production of an invoice
- iii) EIPP is used for business to consumer invoicing
- iv) E-invoicing is the translation of one electronic invoice into a common standard
- v) Evaluated receipts settlement refers to EDI that occurs when a restocking message is sent when inventory reaches a certain level

(1 mark)

g) An investor purchased a one year GBP denominated CD with a face value of GBP 1,000,000 and a coupon of 4% pa. The CD is sold with 185 days left to maturity when interest rates for the remaining period are 3% pa. What are the proceeds of the sale?

- i) GBP 1,019,726.00
- ii) GBP 1,024,210.10
- iii) GBP 1,024,423.16
- iv) GBP 1,024,757.22
- v) GBP 1,024,970.39

(1 mark)

h) A GBP acceptance is issued at 97.25 for three months (92 days). What is the effective annual rate?

- i) 10.20%
- ii) 10.91%
- iii) 11.07%
- iv) 11.22%
- v) 11.47%

(1 mark)

(Total 8 marks)

Formulae

Leverage ratios

$$\text{Gearing \%} = \frac{\text{Debt}}{\text{Equity}}$$

$$\text{Leverage \%} = \frac{\text{Debt}}{(\text{Debt} + \text{Equity})}$$

$$\text{Interest cover (TIE)} = \frac{\text{Operating profit (or EBIT)}}{\text{Interest charge}}$$

Performance measures

$$\text{ROE} = \frac{\text{Profit after tax}}{\text{Total equity}}$$

$$\text{EPS} = \frac{\text{Profit attributable to ordinary shareholders}}{\text{Number of shares}}$$

Weighted average cost of capital

$$\text{WACC} = (\text{After tax cost of debt} \times \% \text{ Debt}) + (\text{Cost of equity} \times \% \text{ Equity})$$

$$\text{Where: After tax cost of debt} = (1 - \text{Tax rate}) \times \text{Cost of debt\%}$$

Exponential smoothing

$$F_{t+1} = F_t + \alpha (x_t - F_t)$$

Calculating issue proceeds

$$\text{Proceeds} = \frac{\text{Future Value}}{1 + \left[\text{Interest rate} \times \frac{\text{Days}}{\text{Year basis}} \right]}$$

All-in cost of borrowing commercial paper

$$\text{Annualized All-In Cost} = \frac{\text{Total issue costs}}{\text{Issue proceeds}} \times \frac{\text{Year basis}}{\text{Days}}$$

All-in cost of borrowing using a committed credit line

$$\text{Annualized All-In Cost} = \frac{\text{Interest charges} + \text{Commitment fee}}{\text{Average net drawdown}} \times \frac{\text{Year basis}}{\text{Days}}$$

Suggest Solutions for October 2011

QUESTION 1

- a) How has the role of the Treasurer evolved over time? In what ways has Technology helped promote this evolution? Chapter 1.1**

(4 marks)

Originally, the primary role of the Treasurer was to ensure liquidity and ensure that bills were paid when due. It was largely a transactional role. Now, the role demands a greater level of sophisticated analysis of information through information management, risk minimisation and relationship management, thus assisting in underpinning the company's long term financial viability.

Technology has provided the tools to enable this to happen via automation of parts of the function, providing interfaces with the outside world for information gathering, data input and transactions and linkages with internal systems.

Optimising cash on a global basis requires better and faster information and transaction ability. In addition there is a need to reduce risk and to connect sources of information, both internally and externally. Some advances have been driven by suppliers, banks, technology and software companies and some by the treasurers themselves.

- b) Using the definition of Cash Management and the information on SIN given above, discuss which of the tasks would be the focus for:**

- i) the Group Cash Manager and**
- ii) a Cash Manager based in one of the subsidiaries Chapter 1.4**

(5 marks)

Cash management is the effective planning, monitoring and management of liquid/near liquid resources, for example:

- Day to day cash control – having information to ensure that payments can be made when due.
- Bank account structures - having an efficient account structure to facilitate collections and payments that minimise borrowing costs, maximise interest earnings and facilitate liquidity management.
- Managing receipts and items in the course of being received to ensure swift receipt of good value.
- Managing payments and items in the course of being paid to ensure that payments are made in the most effective way and controlling liquidity.
- Short term investments to optimise the use of surplus funds with investments of less than one year maturity including bank and money market deposits.

- Short term borrowing to ensure adequate credit facilities with less than one year maturity are available at least cost including intraday, overnight and short term overdrafts

Other activities may include:

- Medium and short term cash flow forecasting
- Monitoring and assisting with risk management
- Short term foreign exchange transactions and hedging
- Managing cash management bank relationships
- Netting and cross border liquidity management
- Trade finance, account reconciliation, receivables management, payables management and selecting and implementing cash management systems

i) Group Cash Manager (GCM)

The GCM would do less day-to-day payables/receivables management but would monitor intercompany flows to ensure timeliness. The GCM would focus on FX risk because of the repatriation of royalties, dividends, profits etc. Also, they would focus on other areas of risk e.g. interest rates and perhaps insurance. The GCM would manage liquidity techniques on a global basis e.g. netting if warranted and would almost certainly effect cross border cash concentration/pooling/interest enhancement. Bank relationships are an important activity for the GCM with regards to the choice of global bank(s) together with the setting of policy for domestic banks. They would also provide guidance on how to choose local domestic banks.

iii) Subsidiary Cash Manager

From the brief description given of SIN, the main difference between the activities of the cash manager and a subsidiary cash manager would be of focus: specifically domestic focus vs an international focus. Each subsidiary would need to manage payables and receivables domestically but may have to have more than one account to do this (but may not). The local cash manager would not have problems with time zones and may not have too much to do with risk management, except for some interest rate risk (assuming long term funding is sourced from the centre, so there would be interest rate risk for up to a year). Monitoring bank accounts, depending on the country, should be relatively simple. The subsidiary cash manager would focus on receivables and payables management and bank relations (especially if running cash centres). Bank relationship management would be simple as they would be given the relationships by the centre. There would be very little cross border liquidity management as that would be the responsibility of the centre. Forecasting would be essential so as not to be defunded unknowingly. Cash management systems would be managed from the centre.

- c) **The Treasury Centre for SIN is located in Rotterdam. What factors would SIN have considered when deciding that Rotterdam was a viable location for their Treasury Centre?**

Chapter 20.11.4

(6 marks)

Chief Examiner's Note: This answer is fuller, for completeness, than was looked for in the exam by roughly a third.

There are a number of criteria that need to be considered when deciding on a Treasury Centre (TC) location.

- The political and economic environment. The TC needs to be located in a politically stable country with a strong economy where frequent political and regulatory changes are unlikely to happen. This is true of the Netherlands and SIN is a Dutch company.
- Exchange controls and banking regulations. Ideally these will not exist at all or be minimal. Whilst not a major focus, SIN will have to undertake a fair volume of FX trading and act as a clearing centre for intercompany payments and will want freedom to do this efficiently.
- Staffing. Whilst many TCs are very thinly staffed, these staff should be well trained and professional. Such staff should be available and willing to work in the Netherlands.
- Premises. Suitable premises with all the necessary communications and computing services should be available. For the TC these could be linked to, or be part of, the corporate head office.
- Taxation. Ideally there should be a beneficial tax environment offering low local taxation on profits and capital gains, low payroll taxes, the ability to carry forward /carry back losses, low or no withholding taxes on interest, dividends or royalties. A good set of double taxation agreements would be beneficial given the global spread of SIN and additionally, no or low value added tax. SIN will need all of these features because it has flows of dividends, interest and royalties payments from and to many countries. The Netherlands has a beneficial tax regime and a large set of double taxation agreements.

Other factors are:

- The legal environment: there should be minimum documentation requirements to start up a company and for annual audits. There should be fast responses from the authorities and dissolution at minimum cost. All this is true of the Netherlands.
- Treasury management environment. There needs to be a well-developed banking environment and Amsterdam is close in geographical and time zone terms to London, Frankfurt etc. SIN also has a large part of its business in Europe.
- A good Infrastructure in terms of transport and communications: Amsterdam has very good road and rail links to Europe and there is an international airport nearby.

- Overall cost. Amsterdam may not be the cheapest to run but a cost / benefit comparison with other centres such as Dublin or Singapore for a regional would clarify this.

d) Using a diagram to illustrate your ideas, describe the structure of accounts that you would recommend for SIN in Europe and Asia. Provide full reasons for your suggestions, stating any assumptions made.

Chapters 5, 6,11,17,22

(7 marks)

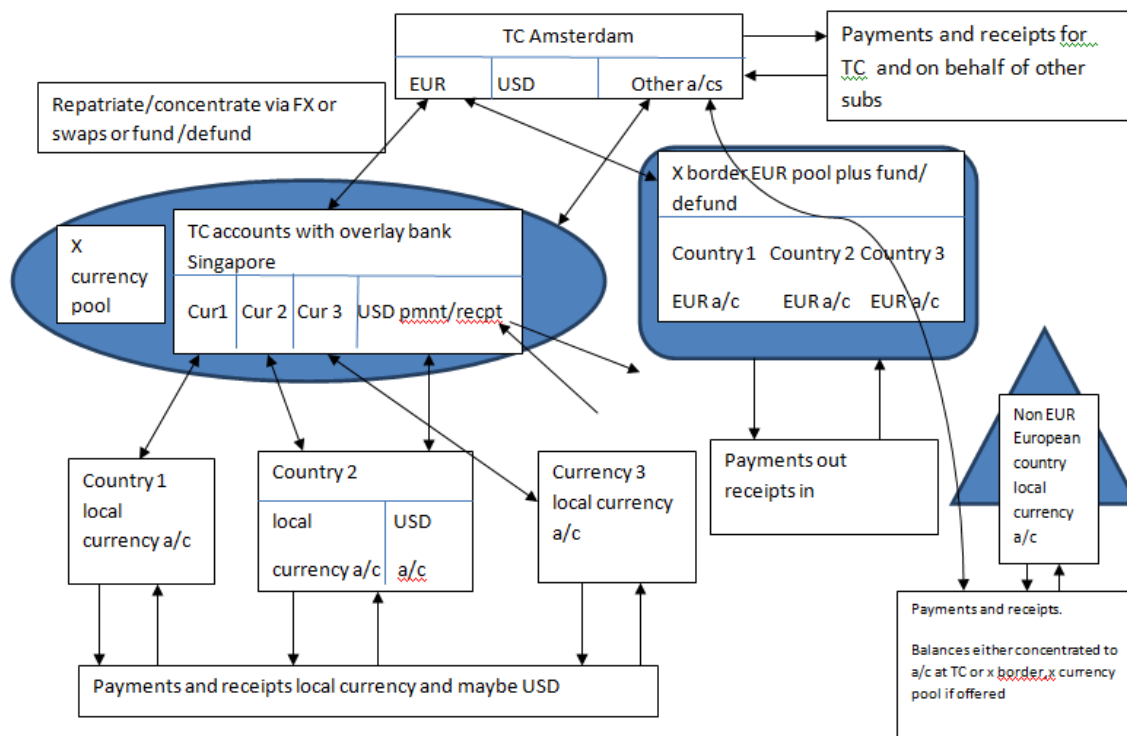
As the operating companies are, in the main, autonomous it is assumed that they all have their own local currency account for paying and receiving local currency. This, due to central policy, would be with the (or one of the) global cash management banks where possible. If the global bank does not have a branch or does not wish to support domestic services (payroll etc) then a suitable local bank would be specified by the centre. The local bank would ideally have a relationship with the global bank and bilateral agreements in place already. In these instances the global bank would act as an overlay bank to maximise regional and global liquidity management.

It could be assumed that whilst there is a TC in the Netherlands, there is also a regional TC in Singapore, controlled by the centre, for time zone reasons and to make currency payments on behalf of the subsidiaries in the region.

Foreign currency payments or receipts might mean that some of the companies may need an USD account or another currency account either held domestically or in the currency centre. However, unless there are very regular payments and /or receipts, it may be better for the TC to either hold currency accounts to which memo accounts are attached or to undertake the FX when required.

The overlay bank would offer either cross currency pooling at the regional level and/or cash concentration. The TC would hold a TC EUR account in Amsterdam and probably an USD a/c in Amsterdam as well. For Europe, there would be an EUR pool, possibly cross border, for EUR if all accounts are with same bank. There would be a cross currency pool with cash concentration for other currencies where allowed or where necessary. Where there is more than one account in a country, use pooling if possible. If timing is a problem for pooling at the regional or group level, then Intercompany payments could be handled via debit/ credit across the TC accounts with the overlay bank.

Chief Examiners note: Some answers split the Asian countries between restricted and non restricted countries. If any funds are blocked, it is assumed that these are repatriated when possible.



e) What potential risks arise for SIN in its cash handling business? Make specific references to SIN's Transportation and Cash Centre activities. Apart from the fees charged directly, how could SIN generate additional revenue from these activities?

Chapter 2

(3 Marks)

SIN is responsible for any cash it holds for its customers and therefore it is also responsible for:

- Any physical loss through theft or other means e.g. fraud, physical damage to staff or property
- Any mistakes in verification (forgeries, foreign coins) or in processing and therefore reconciliation
- Commodity risk for fuel
- FX risk if collecting foreign currency
- Any delays causing loss of float given that customers expect next working day credit and presumably value e.g. breakdowns, human error, traffic jams

Against these, any fees earned and any funds obtaining value today, rather than the next day, whilst held in escrow account, will benefit SIN.

f) The accounts show the following:

- days receivable - 70 days
- days inventory - 4 days
- days payable - 62 days

Comment on these figures, given your understanding of the nature of SIN's business activities.

**Chapter 2
(3 marks)**

Trade payables at 62 days are shorter than receivables. We can guess that, whilst not knowing the nature of these, fuel payments for vehicles, the vehicles themselves and repairs may need to be paid promptly. The employee figures indicate that this service business is very people intensive which would explain the low days inventory. Wages and salaries could be paid weekly but it is assumed that they are paid monthly. This will produce pressure on cash flows towards the end of each month. The business will deal with many very large customers so this may explain the longer days receivables. The operating cycle is 4 days + 70 days = 74 days and the cash conversion cycle is found by subtracting days payables ie 62 days, therefore the cash conversion cycle is 12 days. While this is a fairly short time to finance, it is critical to have liquidity given the wages pressure.

g) What factors are important to the Treasury Centre of SIN when selecting a Global or Regional Cash Management Bank(s)?

Chapter 21.3

(4 marks)

SIN has a very wide footprint and it will need local banks willing to undertake payroll, operate current accounts and issue cheque books etc. It will also need a bank capable of operating a global cash management system.

In particular, the following factors would be considered very important:

- The relationship with the group. As well as cash management activities the bank(s) chosen must be willing to offer credit facilities and other services on a global basis or through associations, to SIN subsidiaries.
- The branch network. Given the large number of countries involved, many with different regulatory and operational environments, SIN would want a bank with a presence in as many places as possible or where the local bank is part of, and integrated with, the global bank. Service levels would need to be similar throughout the group.
- Payment cut off times. No matter where the various accounts are held, SIN would wish to obtain the best cut off times to make its banking across time zones easier.
- Value pricing. Although price is not the most important consideration, the bank must be competitive and SIN should have some leverage and access to economies of scale.
- Cash management culture. To manage liquidity on the global scale needed by SIN, the bank must be committed to cash management and offer innovative approaches.
- Operational culture and customer service. Service levels must be high and constant across the globe although there will be differences from branch to branch.

- Credit and related risks. The bank will need to be highly rated as SIN will be paying large sums through the bank on a daily basis.
- Delivery system. The bank must have the capability to provide balance and transaction reporting/initiation capability.
- Cash management products and services. The bank must be able to provide liquidity solutions i.e. cross border pooling/cash concentration, interest enhancement etc.

h) Define Multilateral Netting. Discuss whether it would be advantageous to SIN.

Chapter 16

(3 marks)

Multilateral netting is defined as the offsetting of payables and receivables arising from three or more parties trading with each other. They net their obligations. When performed within a company it improves cross border liquidity management, centralises management of foreign currency risk management and reduces banking costs, foreign exchange commissions, spreads and float.

Whether of benefit to SIN or not depends on whether there is a high volume of intercompany transactions. It is not easy to tell from the description but one would look at where subsidiaries have undertaken work for others, where there are cross border payments of royalties e.g. for use of software and the other dividend/ intercompany financial flows of principal and interest. Are there any third party flows that could be included? Would the subsidiary have any exposure management role or funding role? There seems to be little FX exposure and this could probably be handled centrally without a netting system. There would need to be a cost benefit but it is doubtful whether there is a huge amount of 'nettable' transactions in SIN although the expense to set up netting is not great. There may be some benefits arising from the behavioural/discipline aspects.

(Total 35 marks)

QUESTION 2

a) Describe the process of clearing foreign currency cheques by:

- **Negotiation**
- **Collection**

Discuss the issues to be considered by the beneficiary when deciding which method to use and the circumstances when one method might be chosen over the other.

Chapter 7

(4 marks)

- **Negotiation (Chapter 7.3.4.)** With this method the beneficiary effectively sells the cheque to the collecting bank for immediate value. The bank purchases the cheque with recourse. Charges will reflect the float the bank expects to suffer due to the time it takes to clear, plus something for the FX rate and commission charges. The beneficiary is given value with recourse, should the cheque be returned unpaid. If the cheque is returned unpaid the bank will charge a presentment fee. The benefits are that this method gives immediate value, therefore providing funds and removes FX exposure, however it is more expensive and it is with recourse.
 - **Collection (Chapter 7.3.2)** involves the bank sending the cheque for clearing, usually with many others in a cash letter, to the bank it is drawn on for clearing. Once notified that the cheque has been cleared, the beneficiary will be given value on their account or will be notified if an FX deal is required. If the cheque is returned unpaid the bank will charge a presentment fee. The benefits of this method are that it is cheaper and funds arrive with finality but the company may be getting a poor rate on the FX and will have FX risk until it clears. SIN may have to wait a long time for the cheque to clear. If there is no currency account, it will need coordination on the FX to avoid further float.
 - **Negotiation** would be used where the beneficiary needs the funds immediately and is unwilling to take the FX risk. **Collection** will be used where funds are not needed urgently, costs need to be kept down, FX risk is not too great and where the cheque will be cleared quickly e.g. in USD rather than an exotic currency which may have longer clearing times.
- b) **Given the following set of circumstances state how the company would make the required payments and from which account and location. Give full reasons for your decision.**

Chapter 7, 8 and 11

- (i) **Company A, based in the USA has revenues from various EUR based countries. Company A has to make a small number of payments to non EUR countries. The payments vary in size from EUR 5,000 to EUR 2,500,000 equivalent.**

(2 marks)

The company would open a Euro account, the location dependent on volumes and the manner of payment (eg are cheques being used?) to collect the receipts.

For payments, assuming there are a very small number in each different currency, the company would do a cost analysis of opening vs not opening an account. It would **not** open a currency account and would make the larger payments from the EUR account via a FX deal rather than from the USA to avoid round tripping. For the smaller payments the company might do the same or use a currency cheque, drawn on an account convenient for the beneficiary, if the beneficiary agrees.

- (ii) **Company B, a Pension Fund based in the UK, has a large number of payments to make in GBP to pensioners in the UK and in EUR to pensioners in the Eurozone. The payments are made to a specific value date no later than the last Wednesday in the month, assuming it is a business day.**

Chapter 7,8 & 11

(2 marks)

The question does not state where the income originates from but assuming it is GBP and EUR premiums, then the company would have an account in each currency in, say, London and Frankfurt respectively. EUR payments would be made by SEPA credit transfers at low domestic rates and the GBP would be made by BACS to keep costs low and hit value dates. Any shortfall in either account would be funded from the other account.

Chief Examiners note: other assumptions might be that all funds are in GBP or EUR and these would give rise to slightly different answers accordingly.

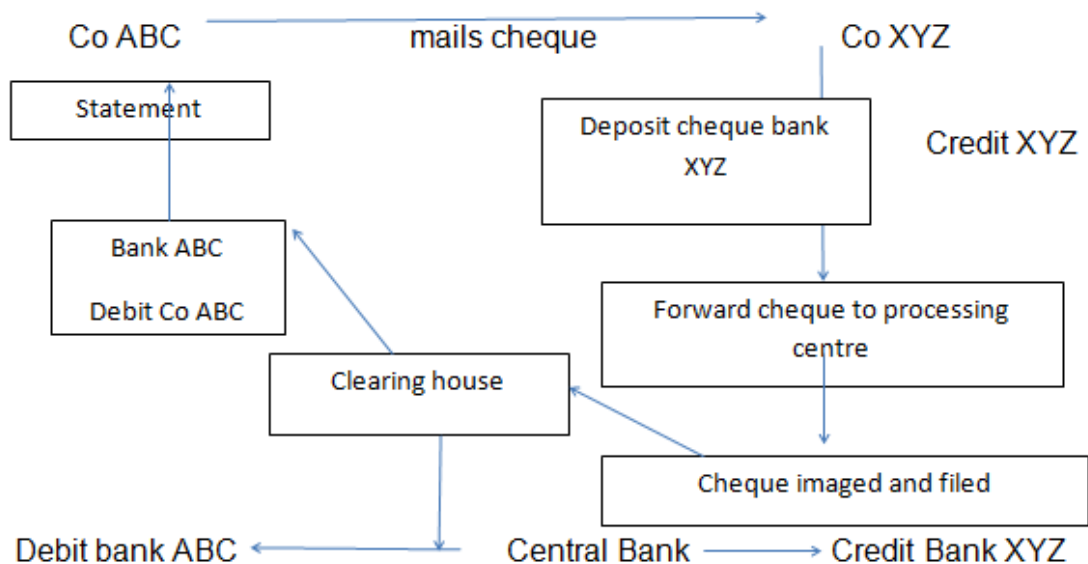
- c) What is cheque truncation? Describe the process, illustrating your answer with a diagram. What are the benefits to the parties involved?

Chapter 8.5

(4 marks)

Cheque truncation is the electronic imaging and clearing of cheques. The process involves capturing essential information contained on a conventional cheque electronically. The electronic information is then sent through the system instead of the paper cheque.

Cheque truncation removes the need for the physical handling of cheques (and paper credits). The items paid into an account have their data captured by the depositing bank (e.g. BICs etc. MICR or OCR codes plus the item amount) and are sent through the clearing system



- d) Describe how RTGS and NSS systems work and discuss what the implications are in each system for Value, Availability and Finality.

Chapters 2.5.1, Chapters 8.4 and Chapter 8.6

(4 marks)

Net Settlement Systems are used for clearing payments on a net basis where at the end of the day (or period) payments to/from the participants are netted and the net amount is settled across accounts at the Central Bank.

Real Time Gross Settlement systems are when each individual transaction is settled singly and bilaterally across accounts at the Central Bank thus removing settlement risk.

Value is when the beneficiary has the use of the money in the sense that it starts to accrue interest or reduce an overdraft (or the payor loses the use of it).

Availability is when the beneficiary is able to use the money to make payments.

Finality is when the money cannot be reversed off the beneficiary's account without their permission.

The implications for these under the two systems will vary depending on the instrument and the system being used. With RTGS availability, value and finality should all be the same unless the banks involved are playing games with forward or back value dating. With NSS systems, it will vary depending on the actual system, the instrument used i.e. whether paper or electronic and the type of payment (i.e. BACS is a two day cycle but for credit transfers debit and credit are on the same day but direct debits may not have finality).

- (e) Explain and use a diagram to illustrate how a payment of USD would be made from a company in the UK to a company in France using the SWIFT Cover Method.**

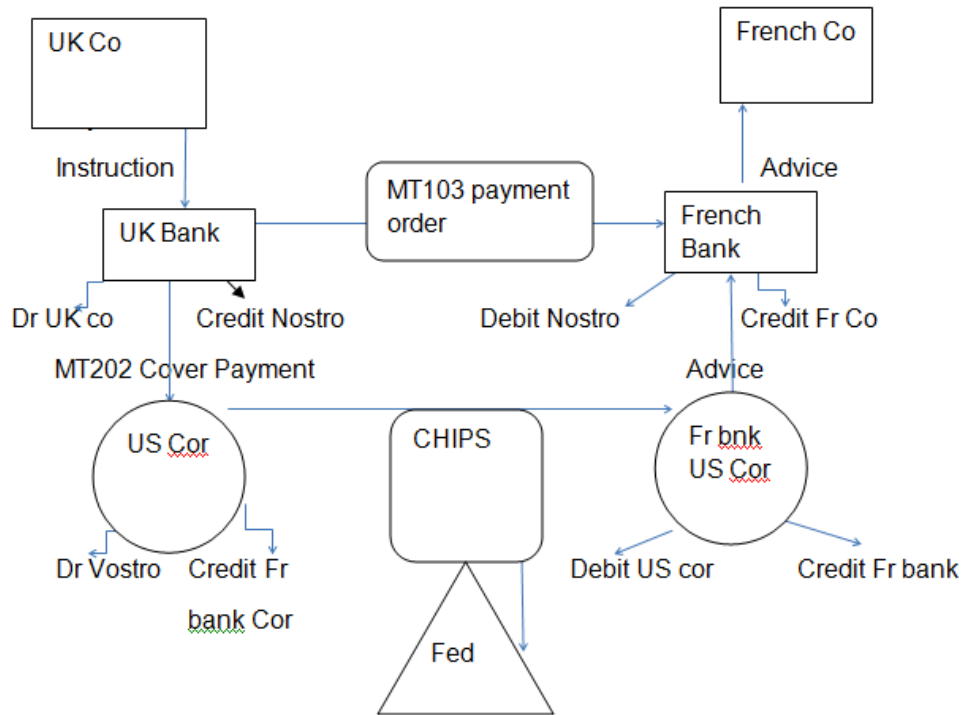
Chapter 9.4.2

(4 marks)

The GBP Co would instruct its bank to debit its USD account if it has one or its GBP account for the USD equivalent and pay to the company in France. The UK bank would debit the UK Co account and credit their nostro account at their correspondent in New York using an MT202 cover payment message. They would at the same time send an MT103 Payment Order to the French company's bank telling them to expect the funds.

The US correspondent will then debit the UK bank's vostro account and pay the French bank's correspondent settling via Chips/ the Fed. The Fed will debit the US bank correspondent and credit the French bank correspondent. French bank correspondent will then credit the French banks vostro account for account of the French Co. The French bank will then debit its nostro account and credit the French Co account via FX If the USD are going into an EUR account and it is pre agreed to automatically undertake the FX. If there is no agreement then they will ask the customer what to do with the funds. If there is an USD account then directly credit to the USD account and inform them of the arrival of funds.

For diagram, see next page.



(Total 20 marks)

QUESTION 3

The Cash Manager of Defco is preparing the cash flow forecast for the next four week period. The following information has already been collected.

Figures in GBP

Week	1	2	3	4
Sales revenue	2,893,000	2,577,000	2,011,000	1,575,000
Trade payments, wages and salaries	2,169,000	2,190,000	1,407,000	1,733,000

Additional information:

- There will be an opening balance at the start of week 1 of GBP 200,000
- The company is required to retain a precautionary cash balance of GBP 10,000
- A borrowing of GBP 3,000,000 plus interest of GBP 11,200 is due to be repaid in week 1
- Tax due for the year is GBP 370,000 and half of this is due in week 3
- A dividend of GBP 600,000 is due to be paid in week 3
- A 6 month deposit of GBP 500,000 at an interest rate of 3.7 % is due to mature in week 5

Required:

- a) Using the information given above, produce the cash flow forecast for weeks 1 to 4 inclusive and indicate the cash requirement at the end of each week.

Chapter 13

(4 Marks)

Figures in GBP

Week	1	2	3	4
Sales Rev	2,893,000	2,577,000	2,011,000	1,575,000
Trade pays and salaries	(2,169,000)	(2,190,000)	(1,407,000)	(1,733,000)
Open balance	200,000	(2,087,200)	(1,700,200)	(1,881,200)
Loan	(3,011,200)			
Tax			(185,000)	
Dividend			(600,000)	
Total	(2,087,200)	(1,700,200)	(1,881,200)	(2,039,200)
Precautionary cash balance	(10,000)	(10,000)	(10,000)	(10,000)
Borrowing	(2,097,200)	(1,710,200)	(1,891,200)	(2,049,200)

Controlex, a UK based company, needs to borrow GBP 5,000,000 for 91 days. Controlex has a USD account in London with sufficient surplus funds in it to cover the borrowing.

FX Rates:

Spot GBP/USD 1.5616 – 1.5626
 91 day points 12 8

91 day Interbank rates:

GBP 1.20 – 0.90
 USD 0.43 – 0.33

The company is able to borrow at LIBOR plus 0.5 %.

Required:

- b) Given the rates above, calculate whether Controlex should borrow GBP or utilise the USD it has on deposit.

Chapter 19

(4 marks)

Borrow directly $5,000,000 \times (.012 + .005) \times 91/365 = 21,191.78$
 Total $5,021,191.78$
 Borrow via the swap:
 $5,000,000 \times 1.5616 = 7,808,000$
 $7,808,000 \times .0033 \times 91/360 = 6,513.17$
 To pay back $7,814,513.17 / 1.5604 = 5,008,019.21$
 Net benefit of swap is $= 13,172.57$
 Therefore utilise USD for borrowing.

c) What further factors would you consider before making a decision?

Chapter 19

(2 marks)

Factors to consider are:

- How certain is the information both on the need for the GBP for the whole period and on the availability of the USD: ie what further flows in either currency might there be in the UK or the rest of the group?
- What transaction charges are there and what would the remaining balance of USD earn on deposit: i.e. is there a tiered interest rate structure?
- Which way are interest and FX rates going? *Examiners Note: I would not expect there to be a withholding tax implication although there might be a corporation tax implication in a minor way.*

Conglom plc has three wholly owned subsidiaries that all have accounts with the same bank. Interest is currently applied on a stepped basis on the surplus balances.

	Average Monthly Balance
Company A	GBP 355,000
Company B	GBP 400,000
Company C	GBP 250,000

Amount in GBP	Interest Rate
1 to 250,000	0.10
250,001 to 500,000	0.20
500,001 to 1,000,000	0.50
Over 1,000,000	0.90

Required:

- d) Given the information above, calculate the annual benefit of introducing a pooling arrangement to Conglom, where interest is applied on a banded basis.**

Chapter 17

(2 marks)

Amount in GBP		Interest Rate		
1	to 250,000	0.10		
	250,001 to 500,000	0.20		
	500,001 to 1,000,000	0.50		
	Over 1,000,000	0.90		
Company	Balance	Tier	Interest rate	Interest
A	355,000	250,000	.001	250
		105,000	.002	210
B	400,000	250,000	.001	250
		150,000	.002	300
C	250,000	250,000	.001	250
Total				1,260
Pooled	1,005,000		.009	9,045
Benefit				7,785

Spiraxz, a company based in the USA, has customers spread across the USA.

You have the following information:

- monthly sales of USD 4,125,000
- 80% of customers pay by cheque
- the average payment size is USD 3,000

The company has undertaken a lockbox study and this has shown that, if introduced, three lockboxes would be needed. The costs would be as follows:

- USD 250 per month per lockbox
- 14 cents per cheque processed
- USD 30 per account per month for electronic banking and reporting services

The lockboxes are estimated to produce the following savings:

- 5 days on mail float
- 1 day of clearing
- 1 day of processing time in the company

In addition each cheque currently costs 4 cents for handling by the company and this also would be saved.

The Cash Manager in Protex has produced the following forecast to project daily cash balances over a period of seven days.

Canadian Dollars CAD

	Opening Balance	420,000
Day	Net position of daily movement in cash	End of Day Cumulative Cash Balance
1	120,000	540,000
2	60,000	600,000
3	(84,000)	516,000
4	(156,000)	360,000
5	60,000	420,000
6		420,000
7		420,000

The following interest rates apply, all accrued on a 365 day basis:

- Money at call
Balances below 100,000 - no interest is paid
Balances above 100,000 - 2.5 % pa is paid on the total balance
- A seven day investment in CP with a face value of 420,000 CAD at a discounted rate of 2.7% pa is available
- Overdraft rate 4% pa

Required:

- f) What is the Cash Manager's best course of action to maximise the interest return for the period? Show all your workings.

Chapter 5 and 14

(4 marks)

(Total 19 marks)

All at Call

	Opening Balance	420,000	
Day	Net position for the day	End of day Cumulative Cash Balance	Interest if all at call
1	120,000	540,000	36.986
2	60,000	600,000	41.096
3	(84,000)	516,000	35.342
4	(156,000)	360,000	24.657
5	60,000	420,000	28.767
6		420,000	28.767
7		420,000	28.767
Total		3,276.000	224.382

Therefore: $3,276,000 \times .025/365 = 224.38$

CP Investment

420,000 face value invested in CP at 2.7 for 7 days =
 $420,000 \times .027 \times 7/365 = 217.48$

NB: CAD uses a 365 daycount basis

Therefore invested today $420,000 - 217.48 = 419,782.52$

	Cumulative Cash Balance	Int rate	Int
Cumulative Cash Balance	Less 419,782.52		
540,000	120,217.48	2.5	8.23
600,000	180,217.48	2.5	12.34
516,000	96,217.48	-	-
360,000	(59,782.53)	4 OD	(6.55)
420,000	217.48	-	-
420,000	217.48	-	-
420,000	217.48	-	-

Therefore total earned is $217.48 + 8.23 + 12.34 - 6.55 = 231.50$

A benefit of: $231.50 - 224.38 = 7.12$

QUESTION 4

- a) **What are Non-Resident Accounts? Why is it important that the Cash Manager is aware of the distinction between Non-Resident and Resident Accounts?**

Chapter 5.6.7

(3 marks)

In many countries banks differentiate between accounts owned by residents and those owned by non-residents. Non-residents may be restricted as to the type of accounts they may open and the services that may be offered to them or that they may use (for example in China). Different fee structures may apply (for example, in France) and movements of funds overseas or between resident and non-resident accounts may be subject to Central Bank reporting (for example in Germany) and control. Approval may need to be sought from the Central Bank to move funds overseas or between resident and non-resident accounts. All these issues will affect the Cash Manager in terms of interest earned, pooling, cash concentration etc and may also incur extra costs.

b) Why is the issue of Account Ownership important when establishing an account at home or abroad?

Chapter 11.10

(2 marks)

Ownership determines the status of the account and that in turn determines issues such as:

- Whether the account is resident or non-resident
- What central bank reporting is required
- Whether there is withholding tax liability
- Additional non-resident charges such as lifting charges
- Restrictions on non-resident activities and transactions
- Applicable pooling regulations
- Availability of credit interest
- Access to the account and how access is allowed
- Whether a taxable presence is created
- Implications for KYC and AML

c) In the context of electronic funds transfers, what are 'Templates', how are they used and for what purposes?

Chapter 12.26

(3 marks)

EFT systems are a way of initiating domestic and international payments in a controlled environment. They provide offline batch processing of payments or are browser based.

Many EFT systems enable users to establish a database, on templates, of predetermined beneficiaries which will include such data as sort code, account number /IBAN, BIC and remitters/beneficiaries names for their repeat payments. When inputting (or uploading) payments these templates are selected and the users only need then add the amount and value date plus any specific remittance information. The use of templates helps avoid the need to continuously set up instructions and so saves time, avoids error and fraud assuming accurate account details are set up initially and for each new payment.

d) What are Tax Treaties and why are they important to the Cash Manager?

Chapter 18.2

(3 marks)

Tax treaties, also known as double taxation treaties, are a set of bilateral agreements between two countries that set out the taxation rights of each country in respect of tax charged in the other. They are designed to facilitate international trade by avoiding double taxation where each country will seek to tax the same income or company twice.

They can result in no or lower taxes being paid in the home country. To take advantage a company may need to seek prior approval from the tax authorities in each country before making remittances. It is important when selecting a Treasury Centre location to seek a location with a broad range of tax treaties. The net effect on interest payments, dividends, cash concentration, pooling etc is important. Three forms of relief may be available, profit already taxed is not taxed further, on profit already taxed there will only be further tax on the difference, and on profit already taxed, the tax paid will be deducted from taxable profit.

e) What is Financial EDI and when is it useful in Cash Management?

Chapter 6.3.6

(4 marks)

Financial Electronic Data Interchange is the transmission of payment information in standard formats from customer to bank, bank to bank or bank to customer. FEDI encompasses business transactions such as invoices, payment initiation and remittance information. Using FEDI to send payments is becoming more common and important with large corporations. Payment instructions are transmitted either directly through a bank's own telecoms network, through third party value added networks or both. FEDI opens up new opportunities for payments enabling the use of 'just in time' technology to be applied to financial transactions. FEDI can allow potentially limitless amounts of transaction data to be included with one consolidated electronic payment so a single payment can represent hundreds of individual invoices. The data included allows the invoice details to be included to assist the supplier with information for reconciliation thus aiding cash management through timing and accuracy of payments.

f) What are the sources of internal liquidity available to a company and what difficulties may internal cross border, cross currency liquidity management create?

Chapter 15.6

(3 marks)

Internal funding is available from

- Cash pools elsewhere in the company
- Cash from on-going sales
- Acceleration of accounts receivable
- Extending disbursements
- Disposing of inventory
- Liquidation of short term investments
- Internal borrowing from subsidiaries/ sister companies

Problems can arise from tax authority scrutiny of intercompany interest and foreign exchange rates which need to be at arms-length.

For example:

- Different treatment of withholding taxes on interest between resident and non-resident accounts
- The presence or absence of tax treaties and double taxation agreements
- Exchange controls that may mean prior Central Bank approval is needed
- Currency and interest rate exposure
- Other risks associated with cross border transactions such as repayment of interest embargoes
- Different accounting treatment for FX gains and losses

(Total 18 marks)

QUESTION 5 Solutions in Bold

a) Which of the following statements concerning AML is correct :

- i) Placement is the channelling of illicit funds into a legitimate market
Layering is the investment of illicit funds into areas such as property purchases
- ii) Integration is the channelling of illicit funds into a legitimate market Chapter 5.11.1**
- iii) Integration is the investment of illicit funds in areas such as property purchases
- iv) Layering is the channelling of the illicit funds into a legitimate market

(1 mark)

b) Which one of the following statements about STEP 1 is correct:

STEP 1 is designed to process payments with the following characteristics:

- i) Multiple euro transactions
- ii) Non-urgent credit transfers where real time settlement is not required Chapter 10.3.7**
- iii) High value bank to bank transactions where debit caps may be broken
- iv) Payment messages formatted to EBA standards
- v) Payments by banks who meet the requirements of EURO 1 eligibility

(1 mark)

c) Which transactions are covered by the SWIFT MT800 message series?

- i) Customer payments and cheques
- ii) Cash management and customer status
- iii) Securities markets
- iv) Travellers cheques Chapter 9.3.2**
- v) Precious metals and syndications

(1 mark)

d) Which one of the following statements describes Non-repudiation?

- i) Guarantees that each party is the party they claim to be
- ii) Ensures that access to the information is restricted to certain individuals
- iii) Prevents data from being maliciously amended
- iv) Evidence that the sender of the transaction intended to send the transaction Chapter 12.36**
- iv) Determines that the users or entities involved are authorised to perform the action

(1 Mark)

e) Which one of the following statements about Letters of Credit is true?

- i) Letters of Credit may be issued for multiple transactions Chapter 7.22**
- ii) With an irrevocable Letter of Credit, documents may be altered by either party to the Letter of Credit
- iii) Letters of Credit still have to be issued in paper form
- iv) Confirmed Letters of Credit are cheaper than unconfirmed Letters of Credit due to the lower credit risk
- v) In a Letter of Credit, only one party will bear the currency risk

(1 mark)

f) Which of the following statements about e-invoicing tools is correct?

- i) EBPP is used for business to business electronic billing
- ii) POP refers to automatic payment on production of an invoice
- iii) EIPP is used for business to consumer invoicing
- iv) E-invoicing is the translation of one electronic invoice into a common standard
- v) Evaluated receipts settlement refers to EDI that occurs when a restocking message is send when inventory reaches a certain level Chapter 12.34**

(1 mark)

- g) An investor purchases a one year GBP denominated CD with a face value of GBP 1,000,000 and a coupon of 4% pa. The CD is sold with 185 days left to maturity when interest rates for the remaining period were 3% pa. What are the proceeds of the sale?

Chapter 14

- i) GBP 1,019,726.00
- ii) GBP 1,024,210.10
- iii) GBP 1,024,423.16 = 1,040,000 / (1 + (.03 x 185/365))**
- iv) GBP 1,024,757.22
- v) GBP 1,024,970.39

(1 mark)

- h) A GBP acceptance is issued at 97.25 for three months (92 days). What is the effective annual rate?

Chapter 15

- i) 10.20%
- ii) 10.91%
- iii) 11.07%
- iv) 11.22% = ((100-97.25) / (97.25 x 92/365)) x 100**
- v) 11.47%

(1 mark)

(Total 8 marks)

Examiners Report

Certificate in International Cash Management October 2011

General

The overall pass rate was 51 % down from 55% for April 2011. This is disappointing but there were some excellent papers and 10 candidates were awarded distinctions. The average marks were brought down by some very weak papers at the bottom end of the distribution.

There is some evidence to suggest that too much time is being allocated to Question 1. Important though it is to pass this question, enough time must be left to give sufficient attention to the remaining questions. At this sitting, there were fewer candidates who left Question 1 until the end.

QUESTION 1

62% passed this question with an average mark 18.5. The standard deviation (SD) was 4.6.

- a) This question was about 'How' the role of the corporate treasurer had changed and the part technology had played in this. Note: the question was not about "Why" which was the question many answered. While there were some excellent answers, many were very weak on the 'how' element and weak on the role of technology.
- b) The definition and the differences in focus between a cash manager based in the centre or a subsidiary. On the whole this question was well answered.
- c) Treasury centre location. This question was not well answered. Whilst SIN's location was in Amsterdam, the factors to be considered are independent of the location. Very few mentioned issues beyond tax and the fact that a fair proportion of the business was in Europe.
- d) This question was specifically about accounts in Europe and Asia therefore answers relating to the rest of the world were not to the point. There were some good answers but there was a tendency to put down on the diagram anything that might have been relevant but without making it relevant in either the diagram or the description e.g. there was a tendency to say 'a cross currency notional pool'...' but without specifying what the underlying accounts that were part of the pool were or where they were located. The description should have provided the rationale for the diagram but often it did not.
- e) This question was reasonably well answered. However there was a tendency to say 'transporting cash is a risky business' without specifying what the risks were. Relatively few candidates picked up on the potential to pick up an extra day's float to boost revenues.
- f) Most candidates worked out the CCC and gave a reasonable comment. A lot of answers mentioned the cash nature of SIN's business but remember! - it is not their cash.

- g) This was a straightforward question about bank selection criteria and it was reasonably well answered.
- h) A question on multilateral netting. This was not well answered given it was a reasonably straightforward question.

QUESTION 2

59% passed this question, with an average mark 9.8 out of 20. The standard deviation was 3.6.

This was a disappointing result as this question was relatively straightforward covering money transfers, accounts etc.

- a) Negotiation and collection. On balance, the answers were acceptable however with regard to negotiation, it is not enough to say that the bank negotiates the cheque: more detail is required. Most answers missed the foreign exchange implications of each method.
- b) This was a normal 'how would you pay' question':
 - i) This was well answered but not everyone read the question carefully. For example, how would an ACH system help for non SEPA cross border payments? The payments were to non-Euro countries.
 - ii) This question was well answered with a range of legitimate assumptions about where the revenues originated from.
- c) Cheque truncation. The process was not often described and sometimes no diagram or a very sparse diagram was provided. The ideal answer needed to include some detail about the information being transmitted. Some answers did not contain enough detail on the benefits. Candidates are reminded to answer the last little bits of the question!
- d) This was a straightforward question, and although the answers were acceptable, they often lacked sufficient detail. For example, it is not enough to say 'settle net' without explaining what this means. Similarly, it was not enough to say settle on a real time basis. More explanation on what this *actually means* was required.
- e) The standard of answers was mixed. There were some very full answers, however some answers mixed up (and this is easy to do) the MT103 and the MT 202. The fuller answers mentioned Nostros and Vostros.

QUESTION 3

70% passed this question with an average mark 10.6 out of 19. The standard deviation was 4.0

- a) The cash forecast. This was well answered. The commonest errors were i) to compound the precautionary balance and ii) to take all of the tax due.

- b) The swap. This was well answered although a few divided by the USD rate and so borrowed far too few USD. It is not correct to state that no interest rates were given!
- c) Further factors. This question was not well answered.
- d) Benefit of pooling. Some candidates gave monthly answers but the question asked for *annual*. The most frequent error was not to calculate the pre pooling interest on a stepped basis.
- e) Lockbox. This question was well done. The most common errors were: i) forgetting to multiply revenue by 80% to obtain cheque revenue and ii) forgetting the 4 cent reduction in costs on cheque handling.
- f) There were mixed results for this question about alternative investment strategies. The most common errors were i) missing the 2.5% paid on all balances above 100,000 and ii) missing the fact that because CP is issued at a discount you do not need the full 420,000 to invest in CP - therefore there is a little bit more on call.

QUESTION 4

16% passed this question with an average mark of 5 out of 18. The standard deviation was 2.6.

Given the low pass rate, it was clear that Question 4 was a stumbling block for many candidates.

- a) Non-resident accounts. This question was not too badly answered.
- b) Account ownership. This question was badly answered with some repetitive answers from a) above (note: there was some intentional overlapping but not too much).
- c) Templates. This question was better answered but many missed the 'how are they used' element of the question.
- d) Tax treaties. This question was reasonably well answered and some candidates gave very full answers.
- e) Financial EDI. This question was not well answered and with many candidates not saying what the EDI stands for.
- f) Internal liquidity. This question was not badly answered however but many answers gave very brief descriptions on sources, sticking mainly to internal balances, no doubt given the clue embedded in the question.

QUESTION 5 MCQ'S

60 % passed this question with an average mark of 4.8 out of 8. The standard deviation was 2.

One or two candidates managed to answer all questions correctly which was excellent.