INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF RWANDA
Driving Sustainable Performance

Associate of IFAC

CERTIFIED PUBLIC ACCOUNTANT

ADVANCED LEVEL 2 EXAMINATIONS

A2.1: STRATEGIC CORPORATE FINANCE

THURSDAY: 6 JUNE 2019

INSTRUCTIONS:

1. **Time Allowed: 3 hours 45 minutes** (15 minutes reading and 3 hours 30 minutes writing).
2. This examination has **two** sections**; A & B.**
3. Section **A** has **one** Compulsory Question while section B has three optional questions to choose any **two**
4. In summary attempt **three** questions.
5. Marks allocated to each question are shown at the end of the question.
6. Show all your workings.

SECTION A

QUESTION ONE

Tuza Limited (TL) is a listed company based in Rwanda and manufactures dolls of all shapes and sizes, including Russian Bazooka or Matosha dolls. It was founded by Ms. Marie Uwineza about 20 years ago. Uwineza was the chief executive officer (CEO) when TL was listed on the stock exchange 10 years ago. She is now the chairperson of the board of directors. TL became a public company a few years after winning the contract to produce dolls and models based on the hit TV episodes 'Battalions'. The 'Battalions' has been running for 10 years now and TL has done very well as a result, which enabled the company to have surplus cash and marketable securities. It is now time, however, for TL to explore new horizons or return the cash to its shareholders.

Mr. Jean Baptiste Tuyishime (JB) is the current CEO of TL. He is weighing over the decisions made at the board meeting that has just ended. One of the decision was to invest some of the company's large amount of surplus cash into expanding the business. The amount of cash and marketable securities on TL's balance sheet have indeed been bothering JB. The board meeting finished in the past half hour and he is relieved that he has finally persuaded the Board to invest TL's surplus cash. He has further persuaded them to focus on only two alternatives for the expansion of the company.

At the moment, TL's products can be categorised into two types: (a) dolls and (b) toy soldiers. Both lines are sold mainly to prestigious toy stores in Rwanda. Some products are also exported to other countries within the East African region. The producers of 'Battalions' are currently putting finishing touches to a brand new TV series. This series, unlike in 'Battalions', will have lots of specialised weaponry such as light-artilleries, tanks, and transporters of all sizes. In addition to TL having exclusive rights to manufacture the 'Battalions' for the Rwandan market, the producers of the series are also keen to giving TL the exclusive worldwide rights to manufacture all the toys based on the new series. The main market for the toys will be in South Sudan. However, TL has no experience of operating in the South Sudan market.

JB and his management team see this new TV series as a potential blockbuster and are keen to take advantage of the offer of exclusive rights to manufacture the associated toys. The Board has agreed that the South Sudan presence is worth exploring and has asked JB and his team to come back with clear proposals as to how TL would enter the South Sudan market for toys. The Board has specifically asked JB and his team to assess and report to them on whether the South Sudan expansion should be undertaken organically, that is by TL building its own facility in South Sudan, or by TL purchasing a South Sudan toy manufacturing company.

JB and team have invited you as TL's financial advisor to discuss the alternatives. You have been given details about a South Sudan toy company that could be purchased. It is pointed out that this company sells its products – toy guns and action figures, to toy shops all over South Sudan. The company has a good distribution network which TL could use to get started in South Sudan. On the other hand, you have also been given the nature of the new products and informed that the South Sudan factory that TL might have to build will only manufacture products for the South Sudan market. The Kigali plant will make the same products for the Rwandese and the East African markets.

Having had an informative and enjoyable discussion, you are provided with projections for the two proposals. They request that you analyse these projections and develop them so that a decision can be made regarding the best way to proceed. Some members of management are confident that the company should expand based on the contract for the new TV series, but they do not really know the best approach or option to take. JB, on the other hand, clearly favours the takeover of the South

Sudan company saying that it is now time for TL to take a large step forward and put its cash resources to good use in South Sudan. Details of the options A and B are given below.

Option A – Organic Expansion

The estimates of the costs involved here include your own fees of Frw 10 million, which you will receive regardless of whether the project goes ahead or not. Uwineza has identified a plot of land for the new factory which will cost South Sudan Pound (SSP or SS£) 1 billion. The building costs for the factory are estimated at SS£ 2 billion. Twenty five per cent of this amount will be paid now and the balance will be paid in one year's time when the factory is completed. Machinery will have to be purchased for Frw 1 billion. It is proposed that this machinery would be purchased immediately and put in rented premises until TL's new factory is ready. This will ensure that production can commence immediately after assembling. The rent for the temporary premises is estimated to be a one off payment of SS£ 30 million, payable in advance. The cost of moving the machinery to the new factory, when constructed, is estimated at SS£ 10 million.

The average contribution per unit is estimated at SS£ 5,000. This contribution takes into account the royalty of Frw 1,000 to be paid to the producers of the new TV series. The producers will also be paid an annual fixed fee of SS£ 50 million in arrears. It is estimated that 200,000 units would be sold in the first year. This would rise to 400,000 units in year 2 and 500,000 units in year 3. Sales would remain at this level for year 4 but in year 5 it will drop back to 250,000 units. It is expected that the NPV of the cash flows after year 5 will be zero. 5 machine operators will be required to operate the machinery in the first year. This will increase to 10 operators for years 2 - 4. The salary for each operator is SS£ 5 million per annum. However, it is expected that 2 of the operators will be made redundant in year 5 when production declines. Redundancy costs are estimated as being approximately equal to one year's salary. A production manager would be recruited to oversee the operation of the plant, with an annual salary of SS£ 20 million. Fixed production costs would be SS£ 100 million per annum. It is expected that JB and Uwineza would each devote 20% of their time to the South Sudan operation should TL decide in favour of organic growth in the South Sudan. JB receives a salary of Frw 250 million per annum while Uwineza earns a director's fee of Frw 200 million per annum. Airfares for JB and Uwineza to the South Sudan are expected to be in the region of Frw 82.8 million each per annum.

Option B – Purchase of South Sudan company (Tinga Tinga Ltd - (TTL)

TTL is listed on the stock exchange in South Sudan. The company is controlled by Mr. Bazilio Tieng and it manufactures toy guns sold to toy shops in South Sudan but does not have any products like the 'Battalions' soldiers that TL manufactures. JB thinks it would be a good fit since its existing distribution channels could be used to expedite the distribution of 'Battalions' and the new products to toy shops in South Sudan. Its plant, however, would not be adapted to produce the toys based on the new TV series.

If TL purchased TTL, it would save SS£ 1 billion on the cost of the factory. This is because TTL has additional land on which its productive capacity could be expanded. TTL would also be able to sell 100,000 extra units in years 1 and 2. Sales thereafter, and the remaining costs and revenues would remain the same as outlined in Option A above.

Tieng is approaching retirement age and is willing to sell his interest in TTL at the right price. He has met the TL team and has informed them that he would be very happy to sell his controlling interest in TTL for SS£ 6,000 per share. Tieng reckons that the toy market in South Sudan will continue to grow at a rate of 2% per annum for the foreseeable future. The latest price quoted for one of TTL's 10 million shares is SS£ 5,300 although it is worth SS£ 5,230. This would give him

(Tieng) a premium of SS£ 700 or approximately 13.2% on the current share price. It is anticipated that once Tieng accepts to sell his interest, other shareholders would also follow suit and this would give TL full control of TTL and run the company as it saw fit..

Additional Information:

1. The beta of TL's stock is estimated at 0.9 by its stockbrokers.
2. The market risk premium in both the South Sudan and in Rwanda is estimated at 5%.
3. The risk free rate of interest in the South Sudan is 10% and in Rwanda it is 6%.
4. You can take the exchange rate between the SS£ and the Frw to be Frw 6.90/ SS£ 1.
5. The beta of TTL is 0.95.
6. TTL pays interest on its debt at 14%.
7. TL has 100 million shares in issue and these are currently trading at Frw 120 per share.
8. Uwineza owns 15 million shares and JB owns 50,000 shares in TL.

REQUIRED:

As a finance consultant, you have been approached by TL management and you have been asked to prepare a detailed report on the current investment options as implied in the above case:

(a) Advising TL on the viability of constructing a factory to manufacture toys in South Sudan and the synergies that the purchase of TTL is likely to bring. **(24 Marks)**

(b) Analysing the reasons why TL's surplus cash should be a concern to JB. **(6 Marks)**

(c) Discussing the various ways in which TL's proposed takeover of TTL might be classified, bearing in mind that mergers and acquisitions may be classified in several ways **(4 Marks)**

(d) Evaluating the extent to which TL's current activities expose the company to foreign exchange risk. **(4 Marks)**

(e) Appraising the additional foreign currency risks that TL could be exposed to, arising from the construction of a manufacturing facility in South Sudan or the acquisition of TTL **(4 Marks)**

(f) Recommending appropriate action that TL should take to mitigate the foreign currency risks referred to in (d) and (e) above. **(3 Marks)**

(g) Assessing the gain or loss to TL's shareholders and the consequences to TTL's shareholders if TL pays SS£ 7,000 per share of TTL.

(Assume that there are synergies of SS£ 20 billion arising from the takeover of TTL by TL and that the costs involved amounted to SS£ 2 billion)**.** **(5 Marks)**

(Total 50 Marks)

SECTION B

QUESTION TWO

Save the Future Funds (SFF) Ltd has a portfolio of short-term investments in four quoted companies as follows:

Company:	Shares held
Tomico Ltd. (T)	200,000
Pax Ltd. (P)	310,000
Bintex Ltd. (B)	520,000
Yeza Ltd. (Y)	840,000

You are given the following additional information:

	Company			
	T	P	B	Y
Beta	1.65	0.75	1.36	1.24
Market value per share (Frw)	560	780	300	19
Expected total return on investment per annum (%)	22	15.25	21	22.5

The market risk premium and the risk free rate are 11% and 7% per annum respectively.

As a finance specialists, SFF relies on your expert advice and has approached you on matters of interpretation and application.

REQUIRED:

(a) Determine the Beta of SFF's short-term investment portfolio. **(6 Marks)**

(b) Evaluate the composition of SFF's short-term investment portfolio using relevant computations. **(12 Marks)**

(c) Appraise the role of the capital asset pricing model in portfolio theory and its relevance to the current investment practice. **(7 Marks)**

(Total 25 Marks)

QUESTION THREE

The East African Community (EAC) is a regional organisation comprising of Kenya, Tanzania, Uganda, Rwanda and Burundi which is implementing integration programmes on economic, social and political arenas. The member countries have committed to creation of an enabling environment within which the private sector can flourish and generate faster growth in individual countries. One of the pillars of this effort is the pursuit of financial markets development, with a view to maximising the ability of financial sectors to mobilise resources and efficiently allocate them to most productive sectors of the respective economies. The EAC has also taken several steps to increase regional financial integration. However, despite the benefits associated with the move towards financial integration, the EAC has faced numerous challenges basically because financial intermediaries and financial systems in Africa suffer from diseconomies caused by small scale investments.

REQUIRED:

Prepare a detailed presentation to a stakeholders' engagement seminar:

(a) Analyzing the benefits and challenges of financial markets integration in the EAC. **(20 Marks)**

(b) Recommending policies that the Rwanda government should pursue in order to overcome diseconomies caused by small scale investments. **(5 Marks)**

(Total 25 Marks)

QUESTION FOUR

The Rwanda Stock Exchange in partnership with the Capital Market Authority and the United States Agency for International Development (USAID) launched a two-month campaign in the year 2018, dubbed "Access and Grow". The campaign targeted about 300 small and medium-sized entities (SMEs) from all sectors of the economy, encouraging them to access long-term investment capital from the capital market. Following this campaign, the managers of Cyangugu Young Entrepreneurs Limited (CYEL), an SME, are considering the possibility of listing the company's shares on the Rwanda Stock Exchange; all they need now is assurance that their company is financially healthy and attractive.

The following information is available about CYEL:

Statement of comprehensive income for the year ended 30 June, 2018

	Frw 'million'
Turnover	9,125
Cost of sales	(7,900)
Profit before interest and taxation	1, 225
Interest expense	(325)
Profit before taxation	900
Taxation	(270)
Profit attributable to ordinary shareholders	630
Dividend	(75)
Retained profit	555

Statement of financial position as at 30 June, 2018

	Frw 'million'	Frw 'million'
Non–current assets (net book value):		
Land & buildings		900
Plant & machinery		2,475
		3,375
Current assets:		
Inventories	1,100	
Accounts receivable	1,175	
Cash at bank	250	
Total current assets		2,525
Total assets		5,900
Shareholders' equity:		
Ordinary shares Frw 1 per share		675
Reserves		2,425
Liabilities:		3,100
Accounts payable due after more than one year:		
12% debenture 2018		550
Current liabilities:		
Trade accounts payable	1,750	
Bank overdraft	500	
Total current liabilities		2,250
Total equity & liabilities		5,900

Average performance ratios for the industry in which CYEL operates are as stated below:

Return before interest and tax on long term-capital employed (%)	24
Return after tax on equity (%)	16
Operating profit as percentage of sales (%)	11
Current ratio	1.6:1
Quick (acid test) ratio	1.0:1
Total debt: equity (gearing) (%)	24
Dividend cover (times)	4
Interest cover (times)	4.5

Additional information

CYEL has also invested in 10,000,000 shares in Gatsibo Oil Ltd. (GOL) but the company is concerned about the recent volatility in GOL's share price due to the recent instability in the global oil market. The company intends to protect its investment for a possible fall in GOL's share price for the next three months and they have no intentions of selling the shares at present.

The following information is also available:

GOL's current share price	Frw 1000
Call option's current share price	Frw 1100
Option expiry	3 months
Interest rate (annual)	8%
GOL's share annual standard deviation	64%

REQUIRED:

As a securities consultant;

(a) Assess the financial health of CYEL.

(15 Marks)

(b) Determine the call options the company needs to buy or sell in order to delta-hedge the company's position.

(10 Marks)

(Total: 25 Marks)

(Hint: Delta may be estimated using $N(d_1)$)