

# KASNEB

## CIFA PART III SECTION 6

### INTERNATIONAL FINANCE

FRIDAY: 26 May 2017.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

#### QUESTION ONE

- (a) Examine four reasons that could motivate a company to consider engaging in international business. (4 marks)
- (b) Among the factors that affect the financial account of a country is changes in the investment climate.

In relation to the above statement, describe four desired attributes of a good investment climate for a multinational corporation (MNC). (4 marks)

- (c) Distinguish between the following terms as used in international trade:
- (i) "Comparative advantage" and "absolute advantage". (2 marks)
- (ii) "Currency cocktail bonds" and "syndicated loans". (2 marks)
- (d) Victoria Gakii, a Certified Investment and Financial Analyst (CIFA) has been invited by the Pan African Chamber of Commerce (PACC) to their annual investment conference and has been requested to make a presentation on "The benefits of East African Community trading block".

**Required:**

Assess four benefits that she would mention in her presentation. (8 marks)

(Total: 20 marks)

#### QUESTION TWO

- (a) (i) Highlight four factors that could affect the spread at the forex market. (4 marks)
- (ii) Joan Lesuda, an international money market investor is presented with a bid price of 1.0578 United States Dollar (USD) per Euro against an ask price of 1.0587 USD per Euro.

**Required:**

The bid-ask spread as a direct quote from the perspective of a European investor. (2 marks)

- (b) Digimax Ventures Limited specialises in the importation of computers from Argentina for sale in selected outlets in Kenya. On 1 March 2017, the company imported a consignment worth 2,000,000 Argentine Peso (ARS). The company would be expected to settle the amount by 1 June 2017 as it enjoys three months credit.

The spot rates on 1 March 2017 and 1 June 2017 are as shown below:

Date:	Quote: KES/ARS
1 March 2017	0.0125
1 June 2017	0.0122

On June 2017, the shillings futures are forecasted to trade at 0.01275 KES/ARS (Contract size: KES,2,402,000) as at 1 March 2017.

**Required:**

- (i) Illustrate how Digimax Ventures Limited could have used a futures contract as a hedging tool indicating any hedging gain or loss. (6 marks)
- (ii) The number of futures contracts that Digimax Ventures Limited would have purchased assuming the contract size was KES 4,000,000. (2 marks)

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- (c) Dominic Mwamba, a treasury manager at Bebra Ltd., a multinational corporation, is planning to invest the firm's excess cash in a foreign deposit account.

**Required:**

In relation to the above statement, justify why Dominic Mwamba would prefer to use effective yield compared to interest rate when negotiating a deposit rate with the foreign bank. (2 marks)

- (d) Baraka Multinational Corporation (MNC) has excess cash of Sh.100 million which could be invested in Kenya at the prevailing interest rate of 8% per annum but is attracted to higher interest rates in Uganda.

**Required:**

The effective yield assuming that the Ugandan interest rate on deposit is 9.5% per annum and the exchange rate at the time of deposit is 30 Uganda Shillings per Kenya Shilling (UGS/KES) and that one year later the KES depreciates to 28.50 UGS/KES. (2 marks)

- (e) Winnie Leticia, a foreign exchange trader assesses the euro exchange rate for three months as shown below:

Spot rate (\$)	Probability
1.10	0.25
1.13	0.50
1.15	0.25

The 90-day forward rate is \$ 1.12.

**Required:**

Determine whether Winnie Leticia should buy or sell Euros forward against the Dollar assuming that the trader is concerned solely with expected value. (2 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Evaluate four ways in which an investor could benefit from understanding the international parity relationship. (4 marks)

- (b) (i) Compare and contrast the three basic types of taxation that governments levy within their tax jurisdiction. (6 marks)

- (ii) Affiliate A sells 20,000 units to Affiliate B per year. The marginal tax rates for Affiliate A and Affiliate B are 20 percent and 30 percent, respectively. The transfer price per unit is currently set at 1,500 US Dollars (\$) but it can be set at as high as \$1,750.

**Required:**

The increase in the annual after-tax profits assuming that the higher transfer price of \$1,750 per unit is used. (2 marks)

- (c) (i) Assess four benefits of interest rate swaps and currency swaps to a multinational corporation (MNC). (4 marks)

- (ii) Johazi Limited intends to borrow 30 million US dollars for a period of six years with interest payable within six monthly intervals. The company could borrow from a bank at a floating rate of 182-day Treasury bill plus 1% but would wish to obtain a fixed rate for the full year period.

A swap bank has indicated that it would be willing to receive a fixed rate of 9% in exchange for payments of 182-day Treasury bill.

**Required:**

The fixed interest six monthly payment with the swap in place. (4 marks)

**(Total: 20 marks)**

#### QUESTION FOUR

(a) Explain the following terms in the context of international capital structure and the cost of capital:

- (i) Pricing spillover effect. (1 mark)
- (ii) Pricing-to-market (PTM) phenomenon. (1 mark)

(b) The following information relates to Aquiva Limited, an electrical company located in Kenya, Nairobi Securities Exchange (NSE) market index, and the world market index, together with the standard deviation (SD) of returns and the expected return ( $\bar{ER}$ ):

	Correlation coefficients			SD(%)	$\bar{ER}$ (%)
	Aquiva Limited	Kenya	World		
Aquiva Limited	1.00	0.80	0.60	16	?
Kenya		1.00	0.75	15	13
World			1.00	12	14

The risk-free rate is 5%.

**Required:**

- (i) The domestic country beta of Aquiva Limited. (2 marks)
  - (ii) The World beta. (2 marks)
  - (iii) The equity cost of capital of Aquiva Limited using the capital asset pricing model (CAPM) assuming that the Kenyan securities market is segmented from the rest of the world. (2 marks)
  - (iv) Aquiva Limited's equity cost of capital using CAPM assuming that the Kenyan securities market is integrated with the rest of the world. (2 marks)
  - (v) Discuss the possible effects of international pricing of Aquiva Limited shares on the share prices and the firms investment decision based on results obtained in (b)(iii) and (b)(iv) above. (2 marks)
- (c) (i) Accounting for cost of capital for multinational corporations differs to a certain extent from that of domestic firms.

In relation to the above statement, explain three approaches in which transfer risk could be accounted for in the net present value (NPV) calculations. (3 marks)

- (ii) Medusa Limited intends to invest in a project costing 100 million United States Dollars (\$) with an expected after tax cash flows of \$20 million to perpetuity.

**Additional information:**

1. The risk free rate is 6%.
2. The asset beta is 1.5.
3. The required return on market is 12%.
4. The cost of debt is 8%.
5. The annual interest costs related to the project are \$4 million.
6. The corporation tax rate is 30%.

**Required:**

The adjusted present value (APV) of the project.

(5 marks)

(Total: 20 marks)

**QUESTION FIVE**

- (a) The aftermath of the international debt crisis triggered a wide range of reforms particularly to the international banking sector. One of the requirements was the formulation of Basel III Accord framework.

**Required:**

- In relation to the above statement, describe three elements of Basel III Accord. (3 marks)
- (b) Discuss six strategies that could be used by a company intending to invest in a foreign market. (6 marks)
- (c) Highlight five disadvantages of the fixed exchange rate system. (5 marks)
- (d) Sunset Limited is a Kenyan based multinational company that purchases spices in bulk from foreign countries, packages them, and sells them through three other sales affiliates namely: Uganda, Tanzania and Rwanda. The four affiliates experience major cash flows amongst themselves.

The following payment matrix relates to the inter-affiliate cash flows for the month of April 2017:

Sunset Limited payment matrix					
Disbursements					
Receipts	Kenya	Uganda	Tanzania	Rwanda	Total Receipts
	Sh. "million"	Sh. "million"	Sh. "million"	Sh. "million"	Sh. "million"
Kenya	-	40	75	55	170
Uganda	8	-	-	22	30
Tanzania	15	-	-	17	32
Rwanda	<u>11</u>	<u>25</u>	<u>9</u>	<u>-</u>	<u>45</u>
Total disbursements	<u>34</u>	<u>65</u>	<u>84</u>	<u>94</u>	<u>277</u>

**Required:**

- (i) Using appropriate tables, illustrate how Sunset Limited could use multilateral netting to minimise the foreign exchange transactions necessary to settle inter-affiliate payments. (5 marks)
- (ii) Determine the savings from the multilateral netting assuming that the foreign exchange transactions cost the company 0.5%. (1 mark)
- (Total: 20 marks)**
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Present Value of 1 Received at the End of  $n$  Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0168	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0028	.0013	.0007	.0002	.0001		
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001				
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001						

\* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for  $n$  Periods:

$$PVIF_{r,n} = \sum_{t=1}^n \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1055	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0764	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3668	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8771	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.4269	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6505	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250