



CIFA PART III SECTION 6
INTERNATIONAL FINANCE

FRIDAY: 25 May 2018.

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) The balance of payments is a summary of all financial flows between a country and all other countries over a specific period.

In light of the above statement, identify three components of the balance of payments. (3 marks)

- (b) "Africa must unite" wrote Kwame Nkrumah, Ghanaian first President, in 1963, lamenting that African countries sold raw materials to their former colonisers rather than trading among themselves. His Pan-African dream never became a reality. However, that spirit of unity now animates a push for an African Continental-Free-Trade Area (ACFTA), involving all 55 countries in the region of which 44 countries had already signed a pact establishing the free trade area by March 2018.

In relation to the above statement, propose five factors that could have influenced the integration of the African markets. (5 marks)

- (c) Distinguish between "absolute purchasing power parity" and "relative purchasing power parity". (2 marks)
- (d) Assume that the South African Rand (ZAR) exhibits a 6-month interest rate of 6% while the Kenyan shilling (KES) exhibits a 6-month interest rate of 5%. Further, assume that the KES is the home currency.

Required:

- (i) Using the interest rate parity, compute the forward rate premium of the South African Rand (ZAR). (2 marks)
- (ii) Based on your results in (d)(i) above, compute the 6-month forward rate assuming that the South African Rand (ZAR) current spot rate is KES 8.1/ZAR. (2 marks)
- (e) Quantum African Limited is a Kenyan-based multinational company which owns 100% subsidiaries in Mali, DRC, Togo and Chad. Due to DRC and Togo having their general elections in 2017, their cash inflows were relatively lower than the forecasted.

The following were cash flows for the month of December 2017:

Paying subsidiary	Amount Ksh. "million"	Receiving subsidiary
Chad	50	DRC
Chad	40	Mali
DRC	25	Chad
DRC	20	Mali
DRC	30	Togo
Togo	20	DRC
Togo	25	Mali
Mali	40	Chad
Mali	60	DRC
Mali	50	Togo

Required:

- (i) Illustrate how the subsidiaries could benefit from multinational netting. (5 marks)
- (ii) Explain how the subsidiaries could benefit from multilateral netting illustrated in (e)(i) above. (1 mark)

(Total: 20 marks)

QUESTION TWO

- (a) Evaluate three strategies that the government of your country could apply to improve foreign exchange restrictions. (6 marks)
- (b) Explain three economic factors that should be considered when measuring the country risk. (3 marks)
- (c) (i) In relation to international investments, differentiate between “covered interest arbitrage” and “interest hedging”. (2 marks)
- (ii) Royal Airlines is intending to hedge 1,200,000 Kenya shillings (KES) in ticket sales receivable in 90 days. The following exchange and interest rates are applicable.

Spot rate: KES/ZAR	7.9
90-day forward rate KES/ZAR	8.0
90-day Kenya interest rate	2.5%
180-day interest rate in South Africa	7.0%

Note: ZAR stands for the South African Rand.

Required:

Using suitable computations, advise Royal Airlines if there exists any arbitrage opportunity. (6 marks)

- (d) The exchange rate between Japanese Yen (JPY) and the United States Dollar (USD), USD:JPY is 119.05 – 121.95. The exchange rate between the Euro, EUR and the USD, USD:EUR is 0.792 – 0.7932.

Required:

- (i) Calculate the direct quote between the JPY and EUR. (2 marks)
- (ii) Identify the bid price and ask price based on your answer in (d) (i) above. (1 mark)

(Total: 20 marks)

QUESTION THREE

- (a) Propose five factors that could complicate capital budgeting for multinational corporations relative to domestic firms. (5 marks)
- (b) Explain the following Theories of international trade:
- (i) Comparative advantage Theory. (1 mark)
- (ii) New trade Theory. (1 mark)
- (iii) Location Theory. (1 mark)
- (iv) Internalisation Theory. (1 mark)
- (c) Tembo Limited, a company based in Kenya intends to invest in the United States of America (USA). The project will entail an initial cash outlay of 250 million United States dollars (\$). The project is expected to generate the following cash flows over its five-year life:

Year	Cash flow (\$ “million”)
1	70
2	90
3	100
4	120
5	80

The current spot exchange rate is 100 Kenya shillings per United States dollar (\$). The risk-free rate in Kenya is 10% and the risk-free rate in the U.S. is 6%. Tembo Limited’s required rate of return on the project is 16%.

Required:

- (i) The net present (NPV) of the project. (10 marks)
- (ii) Advise the management of Tembo Limited on whether to undertake the project based on your answer in (c) (i) above. (1 mark)

(Total: 20 marks)

QUESTION FOUR

- (a) Distinguish between “Eurobonds” and “dual-currency bonds” as used in international financial markets. (2 marks)
- (b) Philip Mackenzie, a United States (US) resident, holds a piece of land in the city of London which he intends to sell in one year’s time. It is expected that, the British economy will boom in the near future and the value of the land will be £2,000 while the value of the British Pound (£) will be worth \$1.40/£. If the British economy slows down, on the other hand, the land will be worth £1,500 but the exchange rate will be \$1.50/£. Philip estimates that the British economy will experience a boom with 60% probability and a slow down probability of 40%.

Required:

- (i) Estimate Philip Mackenzie’s exposure to the exchange rate risk. (4 marks)
- (ii) Compute the variance of the dollar value of land that is attributable to the exchange rate uncertainty. (2 marks)
- (iii) Explain how Philip could hedge against foreign exchange exposure based on your answer in (b) (i) above. (1 mark)
- (c) Many financial managers prefer to use options to hedge their exposure because it allows them to capitalise on favourable movements in the exchange rates. In contrast, a company using forward contracts avoids the downside but also loses the upside potentials as well.
- Comment on this strategy. (3 marks)
- (d) Johnson Mwandawiro is a portfolio manager at Amanda Asset Managers (AAM), a firm based in the United States. AAM manages a portfolio of \$100 billion from its high net worth clients. Mwandawiro is contemplating investing part of the funds in emerging markets equities to maximise its investors returns.

Required:

Advise the portfolio manager on two major factors that he should consider before investing in the emerging stock markets. (4 marks)

- (e) HZ Ltd., a subsidiary of a Kenyan company based in Uganda had the following balance sheet as at 31 December 2017:

Assets:

	UGX “000”
Cash and marketable securities	14,000
Accounts receivable	36,000
Inventory	62,000
Net fixed assets	<u>126,000</u>
	<u>238,000</u>

Liabilities:

Accounts payable	28,000
Short-term debts	16,000
Long-term debts	90,000
Equity	<u>104,000</u>
	<u>238,000</u>

The current spot rate is KES 0.02745/UGX

Note: UGX is the symbol for the Uganda shilling.

Required:

Calculate HZ Ltd.’s accounting exposure under the following methods:

- (i) Current/non-current method. (1 mark)
- (ii) Monetary/non-monetary method. (1 mark)
- (iii) Temporal method. (1 mark)
- (iv) Current rate method. (1 mark)

(Total: 20 marks)

QUESTION FIVE

- (a) (i) In the context of international tax environment, illustrate how double taxation could affect all countries of the world if they were to tax their residents worldwide income and the income they earn within their territorial boundaries. (4 marks)
- (ii) Discuss two methods that could be used by the tax authorities to eliminate the negative effects of double taxation. (2 marks)
- (b) Assess three methods that could be used by multinational corporations (MNCs) to repatriate blocked funds from a host country. (6 marks)
- (c) Naibu Bank intends to open an overseas branch in the next two years.
Examine five benefits that could accrue to the bank from undertaking such a move. (5 marks)
- (d) Babito Limited, a successful Kenyan multinational corporation is considering to seek for financing for a project based in Rwanda. The following information is provided:
- | | | |
|----|--|-----|
| 1. | Kenyan risk-free interest rate. | 6% |
| 2. | Rwandan risk-free interest rate. | 10% |
| 3. | Risk premium on Kenyan shilling (KSh.) denominated debt provided by Kenyan creditors. | 3% |
| 4. | Risk premium on Rwandan Franc (FRw) denominated debt provided by Rwandan creditors. | 5% |
| 5. | Beta of the project. | 1.5 |
| 6. | Expected Kenyan market return. | 14% |
| 7. | Corporate tax rate in Kenya. | 30% |
| 8. | Creditors will likely not allow more than 50 percent of the financing to be in the form of debt. | |

Required:

- (i) Cost of Kenyan shilling-denominated debt. (1 mark)
- (ii) Cost of Rwandan Franc-denominated debt. (1 mark)
- (iii) Cost of Kenyan-shilling denominated equity. (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	.6489	.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	.0160	.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	.0026	.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	2.1065	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	5.0757	4.9173	4.7655	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	3.3868	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	14.8775	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	10.2737	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	6.6605	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