

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)

"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 Ban-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 "clative purchasing power parity". (2 marks)
- (d) Assume that the South African Rand (ZAR) exhibits a 4 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)(t) above, compute the 6-month forward rate assuming that the South African Rand (ZAR) current spot rate is SES 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)

QUEST	ION TW			
(a)	Evaluate	three strategies that the government of yo	ur country could apply to improve foreign exchange restric	
				(6 marks)
(b)	Explain	three economic factors that should be cons	idered when measuring the country risk.	(3 marks)
(c)	(i)	In relation to international investments hedging".	s, differentiate between "covered interest arbitrage" ar	nd "interest (2 marks)
	(ii)	Royal Airlines is intending to hedge 1,20 following exchange and interest rates are	0,000 Kenya shillings (KES) in ticket sales receivable in 9 applicable.	0 days. The
		Spot rate: KES/ZAR	7.9	
		90-day forward rate KES/ZAR	8.0	
		90-day Kenya interest rate	2.5%	
	1.31	180-day interest rate in South Africa	7.0%	
	Note: Z	AR stands for the South African Rand.		
	Require		if there exists only subiting a comparturity	(6 marks)
	Using st	itable computations, advise Royal Airlines	if there exists any arburage opportunity.	(o marks)
(d)	The exc exchang	hange rate between Japanese Yen (JPY) ar e rate between the Euro, EUR and the USI	nd the United States Dollar (USD), USD PY is 119.05 – 10, USD:EUR is 0.792 – 0.7932.	121.95. The
	Require	.4.		
	(i)	Calculate the direct quote between the JP	O, USD:EUR is 0.792 – 0.7932. Y and EUR.	(2 marks)
	(ii)	Identify the bid price and ask price based	on your answer in (d) (pabove.	(1 mark) 20 marks)
OUEST	TION TH	REE	an.t	
(a)			oudgeting for multinational corporations relative to domesti	ic 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)

OUESTION 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) of 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>
	238,000
Liabilities:	and
Accounts payable	28,000
Short-term debts	16,000
Long-term debts	90,000
Equity	104,000
according to the second se	238,000

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 In the context of international tax environment, illustrate how double taxation could affect all countries of the (i) world if they were to tax their residents worldwide income and the income they earn within their territorial boundaries. Discuss two methods that could be used by the tax authorities to eliminate the negative effects of double (ii)

- taxation.
- (b) Assess three methods that could be used by multinational corporations (MNCs) to repatriate blocked funds from a host (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)

(4 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:

Cost of Kenyan shilling-denominated debt. (i)

(1 mark)

(ii) Cost of Rwandan Franc-denominated debt.

(1 mark)

(iii) Cost of Kenyan-shilling denominated equity.

(1 mark) (Total: 20 marks)

Present Value of 1 Received at the End of *n* Periods: $PV1F_{r,n} = 1/(1+r)^n = (1+r)^n$

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	1.					
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561		.8475	.8333	.8065	7813	.7576	.7353
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.7432 .6407	.7182	.6944	.6504	.6104	5739	.5407
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.6086	.5787	.5245	.4768	.4348	.3975
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209		5194		.4761	.5158 .4371	.4823	.4230	.3725	3294	.2923
									.000	.0205	.50,4	3134.	.4312	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	4556	.4323	.4104	2704	2240	0754			
· · 7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	5835	5470	.5132	.4523	.3996	.3759	.3538	.3704 .3139	.3349	.2751	.2274	.1890	.1580
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2791	.2218	:1776	.1432	.1162
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	.2326	.1789	.1388	.1085	.0854
10	9053	8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	3220	2697	.2472	.2267	.1911	.1938	.1443	.1084	.0822	.0628
												.2001	.4412	.2201	.1311	11615	.1164	.0847	.0623	.0462
. 11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	1954	1619	1246	0020	0000	0.170	
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	2076	.1869	1685	.1372	.1346 .1122	.0938 .0757		.0472	.0340
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0517	.0357	.0250
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779		.0404	.0271	.0184
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827		.1229	1079	.0835		.0492	.0316	.0205	.0135
	٠.		٠	4, ,	* 1							1701	.1223	.1073	.0633	.0649	.0397	.0247	.0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	0400		
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	4	.0193	.0118	.0073
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	•	.0150 .0118	.0089	.0054
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168		.0068	.0039
20	.8195	,6730	.5537	.4564	.3769	.3118		.2145	.1784	.1486	1037	.0728	.0611	.0514		8-9-		.0092	.0051	.0029
		7 H .	1.4	14.5					,			.4720	.0011	.0314	.0365	0.201	0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	0040	0004	0040	
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	~ ()	.0042	.0046	.0021	.0010	0005
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	.0107	.0053	.0037	.0026	7		.0016		.0002	.0001
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0033	.0009	.0026	.0013	.0007	.0002	.0001		
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0033	.0004	.0003	VIV.	.0003	.0001	•	٠		
								.5055	.5051	.0000	.5011	.0004	.0002	20001	•	•	• •	•		•

Present Value of an Annuity of 1 Per Period for 11 Periods:
$$PVIF_{r1} = \sum_{j=1}^{n} \frac{1}{(1+r)^{j}} = \frac{1}{r} \frac{1}{(1+r)^{j}}$$

Plumber at									 										
Dayments	1%	2%	3%	4%	5%	6%	7%	× 8% € 8%	9%	10%	12%	14%	15%	16%	404	244	•		
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	_	<u> </u>					10%	10%	18%	20%	24%	28%	32%
2	1.9704	1.9416	1.9135				- 17					0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
3	2.9410	2.8839	2.8286				2.6243		-			1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	
4	3.9020	3.8077	3.7171			7	3.3872					2.3216		2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
5	4.8534	4.7135	4.5797		4.3295		4 4000	3.3121	3.2397					2.7982	2.6901	2.5887	2.4043	2.2410	
					1.0200	25	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454		2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4 7665	4 6220	4.4859	4 2552									
7	6.7282	6.4720	6.2303	6.0021										3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
8 '	7.6517	7.3255	7.0197	6.7327						4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
9	8.5660	8.1622		7,4353								4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
10	9.4713	8.9826	8.5302	8.1109	7.7217								4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
							7.0250	0.7101	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 9052	6.4951									
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427						5.2337	5.0286	4.6560		3.7757	3.3351	2.9776
13	12.1337	11.3484	10.6350	9.9856		8.8527	8.3577		7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
14		12.1062				9.2950	8.7455			7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
15		12.8493				9.7122	9 1079					6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
		•				J.7 122	3.1073	0.3393	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	
16	14.7179	13.5777	12.5611	11,6523	10.8378	10 1059	9 4466	0.0544	0.3400		6.9740	•							
17	15.5623	14.2919	13,1661	12,1657	11.2741	10.1000	9 7632	9.1316	0.3126				5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.9776	10.0501	9.1210	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
19	17.2260	15.6785	14.3238	13.1339	12 0853	11 1581	10.0051	0.000	8.7556		7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
20	18.0456	16,3514	14.8775	13.5903	12 4622	11.4699	10.5556	9.0036	8.9501	8.3649	7.3658 7.4694	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
						(1.4033	10.5540	3.0101	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 6740	0.0000		7.8431								
30	25.8077	22.3965	19,6004	17,2920	15.3725	13 7648	12.4090	11 2670	3.0220	9.0770			6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
40	32.8347	27.3555	23,1148	19,7928	17.1591	15 0463	13 3317	11 9246	10.2/3/	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3 1242
50	39.1961	31.4236	25.7298	21.4822	18.2559	15 7619	13.8007	12 2226	10.7574	9.7791	8.2438		6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16 1614	14 0392	12 2766	14.0400	9.9148	8.3045 8.3240	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
						. 0.1014	. 4.0332	14.3766	11,0480	9.9672	₹.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	
																			4