



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF ECONOMICS
AND FINANCE

EAE 817: CORPORATE FINANCE AND INVESTMENT II

DATE: MONDAY 20TH NOVEMBER 2017

TIME: 9.00 A.M. – 12.00 P.M.

INSTRUCTIONS:

1. Answer ALL Questions
2. Each Question carries 15 marks

QUESTION ONE – (15 marks)

Assume the following information for a stock and a call option written on the stock:-

Stock Price (P_s)	\$52
Strike price (P_e)	\$50
Time to expiration (T)	0.25 (three months)
Standard deviation (σ)	0.2
Risk-free interest rate (r)	0.10 (10% annually)

- a) Use the Black-Scholes model to determine the value of the call option. [10 marks]
- b) In Using the Black-Scholes call option formula, what would be the effect on the call option value in each of the following situations?
 - i. If σ rises, other things remaining the same. [1 mark]
 - ii. If t falls, other things remaining the same. [1 mark]
 - iii. If the current stock price rises, other things remaining the same. [1 mark]
- c) Describe the Black-Scholes framework. [2 marks]

QUESTION TWO – (15 marks)

Kenya Airways is comparing two different capital structures. Plan I would result in 1,100 shares of equity and €16,500 in debt. Plan II would result in 900 shares of equity and €27,500 in debt. The interest rate on the debt is 10 percent.

- a) Ignoring taxes compare both of these plans with an all-equity plan assuming that EBIT will be €10,000. The all-equity plan would result in 1,400 shares of equity outstanding. Which of the three plans has the highest EPS? The lowest? [6 marks]
- b) In part (a) what are the break-even levels of EBIT for each plan as compared with that for an all-equity plan? Is one higher than the other? Why? [1 marks]
- c) Ignoring taxes, when will EPS be identified for plan I and II? [2 marks]
- d) Repeat parts (a), (b) and (c) assuming that the corporate tax rate is 31.4 percent. Are the break-even levels of EBIT different from before? Why or why not? [6 marks]

QUESTION THREE – (15 marks)

- a) The *Business Daily* reported the following spot and forward rates for the Swiss franc (\$/SF).

Spot	\$0.8363
30-day forward	\$0.8496
90-day forward	\$0.8540
180-day forward	\$0.8600

- i. Was the Swiss franc selling at a discount or premium in the forward market? [1 mark]
- ii. What was the 30-day forward premium (or discount)? [1 mark]
- iii. What was the 90-day forward premium (or discount)? [1 mark]
- iv. Suppose you executed a 90-day forward contract to exchange 100,000 Swiss franc into U.S. dollars. How many dollars would you get 90 days hence? [2 marks]
- v. Assume a Swiss bank entered into a 180-day forward contract with Citicorp to buy \$100,000. How many francs will the Swiss bank deliver in six months to get the U.S. dollars? [2 mark]
- b) Suppose a Polish zloty is selling for \$0.4120 and a British pound is selling for \$1.55. What is the exchange rate (cross rate) of the Polish zloty to the British pound? That is, how many Polish zlotys are equal to a British pound? [3 marks]
- c) You are interested in buying Swedish krona (SKr). Your bank quotes "SKr7.5050/\$ Bid and SKr7.5150/\$ Ask." What would you pay in dollars if you bought SKr10,000,000 at the current spot rate? [3 marks]

- d) The Danish kroner is quoted in New York at \$0.18536/DKr spot, \$0.18519/DKr 30 days forward, \$0.18500D/Kr 90 days forward, and \$0.18488/DKr 180 days forward. Calculate the forward discounts or premiums on the kroner. [2 marks]

QUESTION FOUR – (15 marks)

- a) Eurasion Natural Resources Corporation currently has 2.4 million shares outstanding that sell for £5.16 per share. Assuming no market imperfections or tax effects exist, what will the share price be after:
- i. A three-for-two stock split? [1 mark]
 - ii. An 8 percent stock dividend? [1 mark]
 - iii. A 20 percent stock dividend? [1 mark]
 - iv. A two-for-three reverse stock split? [1 mark]
 - v. Determine the new number of shares outstanding in parts (i) through (iv). [4 marks]
- b) If increases in dividends tend to be followed by (immediate) increases in share prices, how can it be said that dividend policy is irrelevant? [2 marks]
- c) Discuss the pros and cons of paying dividends. [5 marks]

EXHIBIT 14.11

[illegible]

-2.71	0.0034	-2.13	0.0166	-1.55	0.0606	-0.97	0.166	-0.39	0.3483	0.19	0.5753	0.77	0.7793	1.32	0.9066	1.87	0.9693	2.42	0.9922	2.97	0.9985
-2.7	0.0035	-2.12	0.0170	-1.54	0.0618	-0.96	0.1685	-0.38	0.352	0.2	0.5793	0.78	0.7823	1.33	0.9082	1.88	0.9699	2.43	0.9925	2.98	0.9986
-2.69	0.0036	-2.11	0.0174	-1.53	0.063	-0.95	0.1711	-0.37	0.3557	0.21	0.5832	0.79	0.7852	1.34	0.9099	1.89	0.9706	2.44	0.9927	2.99	0.9986
-2.68	0.0037	-2.10	0.0179	-1.52	0.0643	-0.94	0.1736	-0.36	0.3594	0.22	0.5871	0.80	0.7881	1.35	0.9115	1.9	0.9713	2.45	0.9929	3	0.9987
-2.67	0.0038	-2.09	0.0183	-1.51	0.0655	-0.93	0.1762	-0.35	0.3632	0.23	0.591	0.81	0.791	1.36	0.9131	1.91	0.9719	2.46	0.9931	3.01	0.9987
-2.66	0.0039	-2.08	0.0188	-1.50	0.0668	-0.92	0.1788	-0.34	0.3669	0.24	0.5948	0.82	0.7939	1.37	0.9147	1.92	0.9726	2.47	0.9932	3.02	0.9987
-2.65	0.004	-2.07	0.0192	-1.49	0.0681	-0.91	0.1814	-0.33	0.3707	0.25	0.5987	0.83	0.7967	1.38	0.9162	1.93	0.9732	2.48	0.9934	3.03	0.9988
-2.64	0.0041	-2.06	0.0197	-1.48	0.0694	-0.90	0.1841	-0.32	0.3745	0.26	0.6026	0.84	0.7995	1.39	0.9177	1.94	0.9738	2.49	0.9936	3.04	0.9988
-2.63	0.0043	-2.05	0.0202	-1.47	0.0708	-0.89	0.1867	-0.31	0.3783	0.27	0.6064	0.85	0.8023	1.40	0.9192	1.95	0.9744	2.5	0.9938	3.05	0.9989
-2.62	0.0044	-2.04	0.0207	-1.46	0.0721	-0.88	0.1894	-0.88	0.3821	0.28	0.6103	0.86	0.8051	1.41	0.9207	1.96	0.975	2.51	0.994	3.06	0.9989
-2.61	0.0045	-2.03	0.0212	-1.45	0.0735	-0.87	0.1922	-0.29	0.3859	0.29	0.6141	0.87	0.8078	1.42	0.9222	1.97	0.9756	2.52	0.9941	3.07	0.9989
-2.60	0.0047	-2.02	0.0217	-1.44	0.0749	-0.86	0.1949	-0.28	0.3897	0.3	0.6179	0.88	0.8106	1.43	0.9236	1.98	0.9761	2.53	0.9943	3.08	0.999
-2.59	0.0048	-2.01	0.0222	-1.43	0.0764	-0.85	0.1977	-0.27	0.3936	0.31	0.6217	0.89	0.8133	1.44	0.9251	1.99	0.9767	2.54	0.9945	3.09	0.999
-2.58	0.0049	-2.00	0.0228	-1.42	0.0778	-0.84	0.2005	-0.26	0.3974	0.32	0.6255	0.90	0.8159	1.45	0.9265	2	0.9772	2.55	0.9946		
-2.57	0.0051	-1.99	0.0233	-1.41	0.0793	-0.83	0.2033	-0.25	0.4013	0.33	0.6293	0.91	0.8186	1.46	0.9279	2.01	0.9778	2.56	0.9948		
-2.56	0.0052	-1.98	0.0239	-1.40	0.0808	-0.82	0.2061	-0.24	0.4052	0.34	0.6331	0.92	0.8212	1.47	0.9292	2.02	0.9783	2.57	0.9949		
-2.55	0.0054	-1.97	0.0244	-1.39	0.0823	-0.81	0.209	-0.23	0.409	0.35	0.6368	0.93	0.8238	1.48	0.9306	2.03	0.9788	2.58	0.9951		
-2.54	0.0055	-1.96	0.0250	-1.3	0.0838	-0.80	0.2119	-0.22	0.4129	0.36	0.6406										
-2.53	0.0057	-1.95	0.0256	-1.37	0.0853	-0.79	0.2148	-0.21	0.4168	0.37	0.6443										
-2.52	0.0059	-1.94	0.0262	-1.36	0.0869	-0.78	0.2177	-0.20	0.4207	0.38	0.648										

Critical Values of z for

Significance Level	Critical Values of z for		
	Two Tails	Lower Tail	Upper Tail
0.10	±1.65	-1.28	+1.28
0.05	±1.96	-1.65	+1.65
0.01	±2.58	-2.33	+2.33