



BACHELOR OF FINANCIAL SERVICES
END OF SEMESTER EXAMINATION
BFS 1201: MONETARY AND FINANCIAL SYSTEMS

Date: Wednesday, 27th January, 2021

Duration: 2 hours

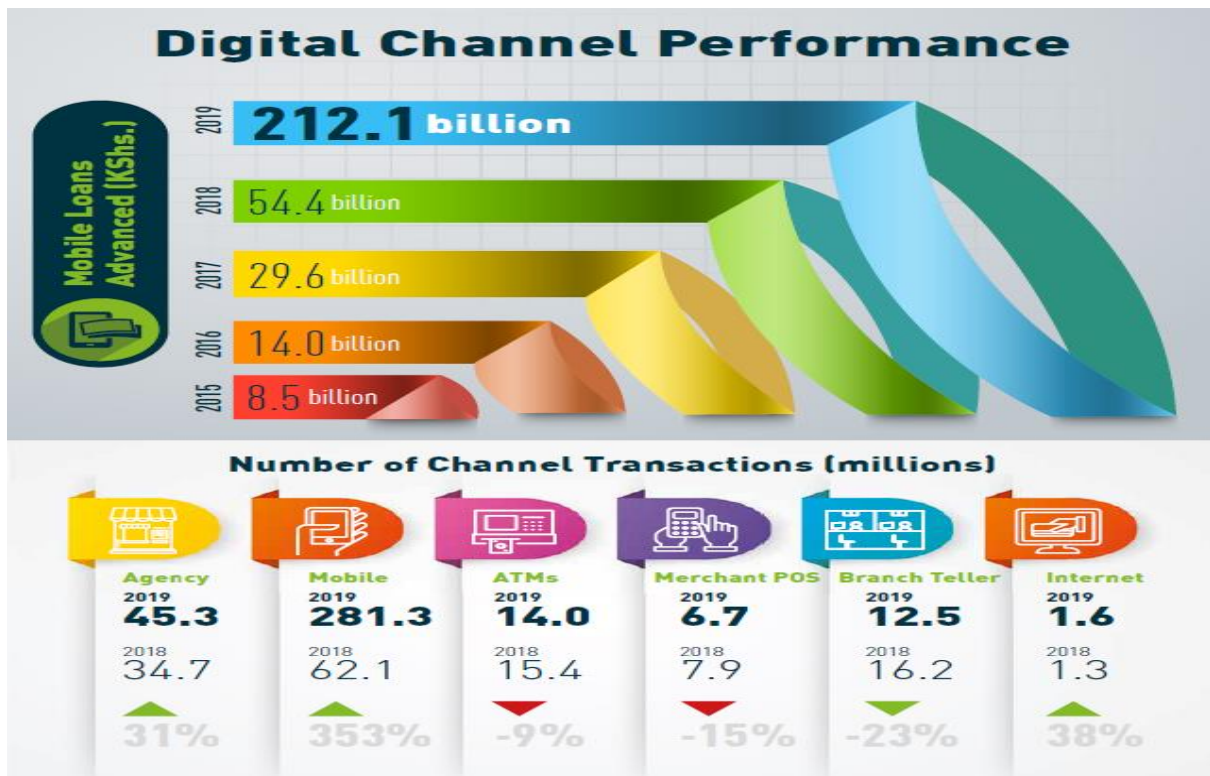
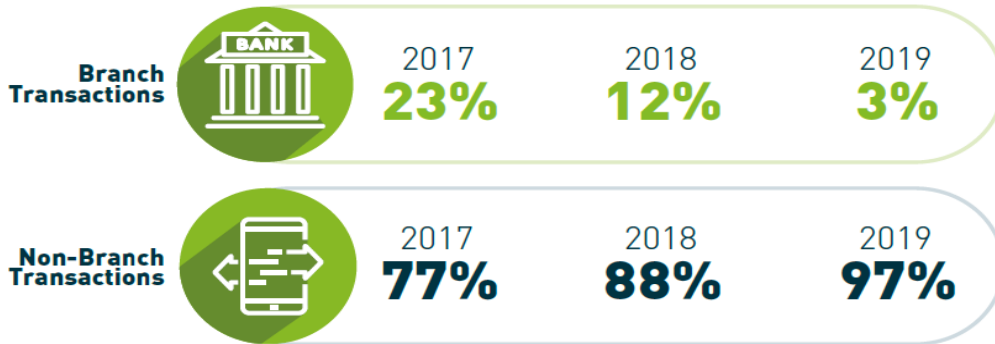
INSTRUCTIONS:

Answer question one (compulsory) and any other two questions

Question 1

- i. The fintech space in Kenya is vibrant. In the recent past, the space has been the banking sector transformation driving force. KCB has evolved to be East Africa's largest commercial bank. Headquartered in Nairobi, it operates in Kenya, Tanzania, South Sudan, Uganda, Rwanda, Burundi and Ethiopia (representative office). The banks' 2019 integrated annual report disclosed information below.

Branch vs Non-Branch Transactions



Required:

Giving examples, explain what the above information indicate as far as delivery of banking services in Kenya is concerned. (10 marks)

- ii. Money can be defined as anything that is generally accepted as payment for goods and services or in the repayment of debts, and is distinct from income and wealth. Discuss **three** primary functions of money. (6 marks)
- iii. You are provided with the following extract from the CBK annual report FY 2019/2020 showing the reserve money and its components for the FY 2018/19 and FY 2019/20.

	End Month Level		Annual Growth Rate		Annual Absolute Change (KSh Billion)	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
1. Net Foreign Assets	941.0	918.1	20.1	-2.4	157.4	-22.9
2. Net Domestic Assets	-501.2	-491.2	41.4	-2.0	-146.8	10.1
2.1 Government Borrowing (net)	-189.6	-89.2	-7.2	-53.0	14.8	100.5
2.2 Commercial banks (net)	-21.3	-131.0	-174.3	514.1	-50.1	-109.7
2.3 Other Domestic Assets (net)	-293.7	-274.3	61.3	-6.6	-111.6	19.3
3. Reserve Money	439.8	426.9	2.5	-2.9	10.6	-12.9
3.1 Currency outside banks	196.9	210.9	-9.8	7.1	-21.3	13.9
3.2 Bank reserves	242.8	216.0	15.1	-11.0	31.9	-26.8
3.2.1 Required Reserves	175.0	153.5	11.5	-12.2	18.0	-21.4
3.2.2 Cash in Till	52.6	46.9	18.9	-10.7	8.3	-5.6
3.2.3 Excess Reserves	15.3	15.5	56.7	1.6	5.5	0.2

Source: CBK

The checkable/ demand deposits amounted to 1212.8 billion in FY 2018/19 and 1350 billion in FY 2019/20.

Required:

(a) Calculate the value of the currency deposit ratio (c) for the two financial years.

(2 marks)

(b) Calculate the value of the excess reserve ratio (e) for the two financial years.

(2 marks)

(c) Given a Cash Reserve Requirement (CRR) of 5.25 % , calculate the value of the money multiplier (m) for the two financial years. **(2 marks)**

(d) What does the money multiplier for both years tell us? **(2 marks)**

iv. Discuss the **four factors** that determine money demand according to the portfolio theories of money demand. State whether an increase or decrease in each factor can increase the demand for money. **(6 marks)**

Question 2

i. Below is Equity Group Holdings Plc balance sheet or statement of consolidated statement of financial position as of 30 September 2020. Compare the two balance sheets for period ending 30 September 2020 and 30 September 2019 and answer the question below.

STATEMENT OF FINANCIAL POSITION AS AT	BANK				
	30 th Sept 2019	31 st Dec 2019	31 st Mar 2020	30 th June 2020	30 th Sept 2020
	Shs. '000'	Shs. '000'	Shs. '000'	Shs. '000'	Shs. '000'
	(Unaudited)	(Audited)	(Unaudited)	(Unaudited)	(Unaudited)
A. ASSETS					
1. Cash (both local & foreign)	7,800,212	10,294,829	10,691,593	8,345,301	9,864,622
2. Balances due from Central Bank of Kenya	39,091,406	22,299,710	15,375,969	15,865,945	15,201,432
3. Kenya Government and other securities held for dealing purposes	-	-	-	-	-
4. Financial assets at fair value through profit and loss	-	-	-	-	-
5. Investment securities:	152,643,852	154,964,387	173,241,943	198,148,184	202,182,758
a) Held to maturity:	15,800,703	15,798,028	15,813,900	14,454,454	14,516,264
a. Kenya Government securities	15,187,990	15,183,690	15,196,620	14,454,454	14,516,264
b. Other securities	612,713	614,338	617,280	-	-
b) Available for sale:	136,843,149	139,166,359	157,428,043	183,693,730	187,666,494
a. Kenya Government securities	119,882,612	123,389,271	142,385,141	166,460,811	170,433,575
b. Other securities	16,960,537	15,777,088	15,042,902	17,232,919	17,232,919
6. Deposits and balances due from local banking institutions	2,500,000	4,000,974	2,579,500	809,849	4,256,800
7. Deposits and balances due from banking institutions abroad	13,142,467	6,800,293	8,793,030	9,995,689	18,333,398
8. Tax recoverable	-	-	-	-	-
9. Loans and advances to customers (net)	263,385,715	276,863,043	284,234,137	293,741,008	302,424,380
10. Balances due from group companies	948,890	925,602	4,688,379	1,283,328	2,649,598
11. Investments in associates	-	-	-	-	-
12. Investments in subsidiary companies	-	-	-	-	-
13. Investments in joint ventures	-	-	-	-	-
14. Investment properties	-	-	-	-	-
15. Property and equipment	5,433,108	5,725,566	5,727,060	5,700,234	5,465,703
16. Prepaid lease rentals	12,111	-	-	-	-
17. Intangible assets	6,381,042	6,191,571	6,708,922	6,565,858	6,530,740
18. Deferred tax asset	4,925,505	5,064,277	6,016,906	6,769,536	7,215,538
19. Retirement benefit asset	-	-	-	-	-
20. Other assets	15,564,722	14,394,985	12,628,819	14,786,211	24,807,152
21. TOTAL ASSETS	511,829,030	507,525,237	530,686,258	562,011,143	598,932,121
B. LIABILITIES					
22. Balances due to Central Bank of Kenya	-	-	-	-	-
23. Customer deposits	367,404,116	380,603,583	399,431,891	423,822,908	445,318,443
24. Deposits and balances due to local banking institutions	-	-	-	-	-
25. Deposits and balances due to foreign banking institutions	-	-	-	-	-
26. Other money market deposits	9,279,861	534,216	5,026,430	-	2,000,000
27. Borrowed funds	42,475,546	41,542,934	39,832,786	45,962,394	54,317,025
28. Balances due to group companies	231,960	176,118	434,925	586,010	632,837
29. Tax payable	750,568	1,257,482	3,355,773	443,305	237,520
30. Dividends payable	-	-	-	-	-
31. Deferred tax liability	-	-	-	-	-
32. Retirement benefit liability	-	-	-	-	-
33. Other liabilities	13,195,206	13,496,534	9,975,964	13,019,226	12,608,866
34. TOTAL LIABILITIES	433,337,257	437,610,867	458,057,769	483,833,843	515,114,671
C. SHAREHOLDERS' FUNDS					
35. Paid up / assigned capital	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000
36. Share premium / (discount)	9,964,132	9,964,132	9,964,132	9,964,132	9,964,132
37. Revaluation reserve	3,322,847	2,380,913	1,246,547	3,470,579	5,655,356
38. Retained earnings / accumulated losses	35,204,794	27,569,325	31,417,810	34,742,590	38,197,962
39. Statutory loan loss reserve	-	-	-	-	-
40. Other reserves	-	-	-	-	-
41. Proposed dividends	-	-	-	-	-
42. Non-controlling interests	-	-	-	-	-
43. TOTAL SHAREHOLDERS' FUNDS	78,491,773	69,914,370	72,628,489	78,177,301	83,817,450
44. TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS	511,829,030	507,525,237	530,686,258	562,011,143	598,932,121

- a) Compute the percentage changes for item 1 under assets (Cash (both local & foreign) for both periods. Considering the COVID-19/pandemic environment, are the changes between 30 September 2019 and 30 September 2020 as would be expected? **(3 marks)**
- b) Item 9 under Assets is Loans and advances to customers (net). What was the percentage change between September 2019 and September 2020? Explain reasons why there was such a movement. **(3 marks)**
- c) Below is an extract of Equity's Group Holdings Plc Income Statement as at September 2020 and September 2019.

6. OPERATING EXPENSES					
6.1 Loan loss provision	1,100,911	3,969,783	2,629,002	6,725,334	12,333,242
6.2 Staff costs	6,091,787	8,579,853	2,033,679	4,505,033	6,919,288
6.3 Directors' emoluments	18,637	18,865	4,478	10,436	16,268
6.4 Rental charges	1,107,096	180,994	58,342	113,174	166,502
6.5 Depreciation on property and equipment	1,401,169	2,918,655	758,079	1,485,226	2,190,034

Required:

- d) Compute the percentage changes in the percentage of Loan Loss Provision and briefly explain why there was such a movement. **(4 marks)**
- ii. Inflation targeting is a monetary policy strategy used by central banks that focuses on maintaining price stability. Briefly explain how inflation targeting helps reduce the time-inconsistency problem of discretionary policy. **(2 marks)**
- iii. The Monetary Policy Committee sets the Central Bank Rate (CBR) which influences the interest rates banks charge borrowers. Briefly explain the effect of banks increasing the lending rates that they charge borrowers on inflation. **(2 marks)**
- iv. Absa Bank receives new demand deposits of 15 million in addition to the existing deposits of 5 million. Additionally, the bank has 500,000 as cash in till and 800,000 as deposits with the Central Bank. This deposits are not yet invested. The current cash reserve requirement (CRR) is 4.25%.

Required:

Compute the excess reserves of the bank. **(3 marks)**

- v. Distinguish between the following terms **(3 marks)**
- (a) Hierarchical mandates and dual mandates
- (b) Structural unemployment and frictional unemployment
- (c) Transaction costs and double coincidence of wants

Question 3

- i. Assume that Monetary Base (MB) is given as 10,000. The amount of demand deposits (D) is at 60,000 and the total amount of reserves (R) is at 3,000. What is the level of the money supply as measured by monetary aggregate M1? **(3 marks)**
- ii. How will the money supply M1 computed above change if you are provided with additional information that the amount of time deposits has increased from 0 to 15000 (everything else is constant). **(1 mark)**
- iii. The Central Bank uses various tools of monetary policy to affect the Money supply and interest rates. Explain how the Central Bank controls money supply in the economy through open market operations and the Central bank rate. **(6 marks)**
- iv. Central banks strive to get the monetary policy right as this is crucial to the health of the economy. Discuss **four** main goals of central banks in their conduct of monetary policy. **(8 marks)**
- v. Monetary policy changes made through the central bank rate occur with a lag. This makes policymakers to be more concerned with adjusting policy according to changes in the expected inflation rate rather than the current inflation rate. In light of this, assume that the monetary policy committee employs the Taylor's rule, what should be the Central Bank Rate target if the equilibrium real CBR is 4 %, the positive output gap is 4%, the target inflation rate is 4% and the actual inflation rate is 5%. **(2 marks)**

Question 4

- i. You are provided with data below for money supply and the annual nominal Gross Domestic Product for four years. The money supply (M) has been growing at 5% per year and the nominal GDP (PY), has been growing at 10% per year.

:P is the price level and Y is aggregate output (income).

	2017 (Billion)	2018 (Billion)	2019(Billion)	2020 (Billion)
M	190	200	210	220.5
PY	1,800	2,000	2,200	2,420

Required:

- (a) In accordance with the quantity theory of money demand, define velocity of money and compute the same for each year. **(4 marks)**
- (b) Calculate the nominal GDP for the year 2021 assuming that the velocity remains the same as that of 2020 and the money supply still grows by 5%. **(2 marks)**

- ii. Discuss the **three motives** for holding money according to Keynes in his liquidity preference theory of the demand for real money balances. Further distinguish the Keynesian theories of the demand for money from the quantity theory of money. **(6 marks)**
- iii. List and explain **three factors** that can shift the aggregate demand curve to a new position and discuss their effect on aggregate demand. (The factors are also known as demand shocks) **(6 marks)**
- iv. Briefly discuss the benefit(s) of using a nominal anchor for the conduct of monetary policy? **(2 marks)**

Question 5

- i. Discuss **two** main criteria considered by the Central bank while choosing a policy instrument. **(4 marks)**
- ii. Briefly explain the relationship between well-performing financial markets and economic growth. **(2 marks)**
- iii. In your opinion, do managers of financial institutions care so much about the activities of the Central Bank? Explain **(2 marks)**
- iv. You are provided with the following data from the FY 2018/19 and FY 2019/2020 of an economy showing various components.

Component	Amount (Billions) 2017/2018	Amount (Billions) 2018/2019
Currency in circulation	430	500
Government Borrowing	240	360
Demand deposits	1350	1500
Imports	550	700
Residents foreign currency deposits	550	630
Time deposits	430	540
Exports	650	900
Savings deposits	460	680
Tax revenues	680	940

Required:

Compute the M0, M1, M2 and M3 aggregates for the two years. **(4 marks)**

v. Differentiate the following terms as used in monetary theory. **(4 marks)**

(a) Aggregate demand curve and aggregate supply curve

(b) IS curve and Monetary policy curve (MP)

(c) Real interest rates and nominal interest rates

(d) Fiscal policy and monetary policy

vi. Discuss two primary concerns of bank managers in their pursuit to manage the bank assets and liabilities in order to earn highest possible profits **(4 marks)**