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LESSON NOTES - Worksheet 7

Subject: Economics Year / Level: 13 Name: ________________________

Strand	3 - Macroeconomics
Sub Strand	Investigate how an economy operates and functions to achieve its economic growth.
Content Learning Outcome	Explore the effects of money supply in the economy.

Change in Money Supply

SECONDARY FACTORS AFFECTING MONEY SUPPLY

Secondary expansion of money supply results from **credit creation process**.

The banking system as a whole can create **credit** which is several times more than the original increase in the deposits of a bank.
The banks also prepare a balance sheet showing the financial position of bank, hence what the banks owns and owes. A deposit by customer is assets for the customer but for the bank it is considered as liabilities since bank owes the customer. Detailed balance sheet of registered bank and reserves appears like this:
A simple balance of trading bank which appears like this.

Balance sheet interpretation:

Liabilities: side of balance sheet shows where the banks got the financing from. It consists of customer's deposit which has to be repaid to depositors.

Assets: this side shows what the bank did with its sources of funds.

(i) Notes and coins (tilt/vault money)-notes and coins kept by the bank.
(ii) Demand deposits (with RBF)-cheques account of commercial banks kept with RBF
(iii) Time deposits (with RBF)-act as fixed term deposit and left undistributed for fixed term to earn interest.
(iv) Government securities-loan to government. Long term government loans/securities known as government stock and short term as treasury bills.
(v) Overseas assets-foreign currency held by banks which gain to those who import goods and services.
(vi) Advance-overdraft or customer loan.

Credit creation process- banks do not create notes and coin but they create credit or deposits and this requires reserve ratio. The cycle of credit creation is called a **credit multiplier**. The multiplier causes an increase in money supply.

Reserve ratio is used to find credit multiplier. ***Reserve ratio*** is percentage of deposits retained by commercial banks as requirement of RBF. **Reserve ratio** is also known as **required reserve ratio, prudent asset ratio or required asset**

Formula for reserve ratio (RR) = $\frac{\text{Reserve}}{\text{Total Deposit}} \times 100$

Credit multiplier-is an indicator of final changes in the bank deposit which originated from initial change.

Formula for credit multiplier (CM) = $\frac{1}{RR}$

Assumptions of Credit Creation Process

1. Loans borrowed from one bank are deposited in another bank. The second keeps its required reserves and lends the rest. The cycle continues until no more loans can be made.

2. If money creation continues in geometric progression, then the total MS created would be:

Formula to calculate the secondary expansion $= \frac{\text{Initial deposit } (1 - RR)}{RR}$

3. Banks must keep as minimum required reserve. All people deposit money and get loans.
4. There is no leakage.
5. People should willingly take loans.

<u>Illustrative Example of Credit Creation Process</u>

Bank 1 -Initial Balance Sheet

Liabilities	$	Assets	$
Deposit	1000	Reserve	200
		Advance	800
	1000		1000

Calculate the following:

1. Reserve Ratio
2. Credit Multiplier
3. Total increase in demand deposit → This is the Increase in Money Supply
4. Total Increase in credit created → This is the secondary Expansion

<u>Solution</u>

1.RR = <u>Reserves</u> = <u>200</u> **Total Deposit 1000** **<u>0.2 or 20%-</u>** Children here we write the answer both in <u>decimal and as percentage.</u>	2.___ CM = 1/ RR = 1/02 **5 Times** – Students must make sure to write the word **Times**
<u>3.</u>**Total increase in demand deposit = Initial deposit x CM** **= 1000 X 5 = $5000**	**3. Total Increase in credit created** **= Increase in Demand Deposit – Initial Deposit** = 5000 - 1000 = **$ 4000**

<u>ACTIVITIES</u>

1. Explain the process of credit creation. (2 marks)

2. RBF is required to keep reserve. The initial deposit is $5000. Therefore the initial balance sheet of a particular bank looks like this:

Bank 1 – Initial Balance Sheet			
Liabilities	**$**	**Assets**	**$**
Deposit	5000	Reserve	1000
		Advance	4000
	<u>$5000</u>		**<u>$5000</u>**

(i) Calculate the following:

a. Reserve ratio

b. Credit multiplier

c. Increase in demand deposit

d. Total increase in credit created

(4 marks)

(ii) What is the amount of:

a. Primary expansion

b. Secondary expansion

c. Increase in money supply

(3 marks)

(iii) Suppose the RBF required reserve ratio is 8%. Calculate the excess reserve. (1 mark)