

4.4 Banking and the Expansion of the Money Supply

Name: _____ Class: _____ Date: _____ **Total: 9 marks**

KEY WORDS required reserves 法定准备金 • money multiplier 货币乘数
 • fractional reserve banking 部分准备金银行 • fractional reserve 部分准备金
 • excess reserves 超额准备金

Objective

Build the skills to answer exam questions on **banking and the expansion of the money supply**.

You must be able to:

- explain **fractional reserve banking** 部分准备金银行 and the role of **required reserves** 法定准备金
- use the **money multiplier** 货币乘数 $\left(\frac{1}{\text{reserve ratio}}\right)$
- trace how a new deposit expands the money supply

1 Worked examples

Study these first. Each one shows the method for a question type used later.

■ Fractional reserve banking

A bank keeps only a **fraction** of deposits as **required reserves** and lends out the rest.

■ The money multiplier

$$\text{money multiplier} = \frac{1}{\text{reserve ratio}}$$

■ Deposit expansion

A new deposit is lent, spent, re-deposited, lent again... so the money supply grows by up to (deposit × multiplier). With a reserve ratio of 0.10, the multiplier is 10.

2 Practice

2.1 State what fractional reserve banking means. [1]

2.2 The reserve ratio is 0.20. Find the money multiplier. [2]

2.3 State what happens to the money supply when a bank lends out its excess reserves.[1]

3 Exam-style questions

3.1 The money multiplier is [1]

- **A** the reserve ratio
- **B** $\frac{1}{\text{reserve ratio}}$
- **C** $1 - \text{reserve ratio}$
- **D** $(\text{reserve ratio})^2$

3.2 A lower reserve requirement makes the money multiplier [1]

- **A** smaller
- **B** larger
- **C** zero
- **D** negative

3.3 The reserve ratio is 0.10 and a new \$2000 deposit is made.

(a) Find the money multiplier. [1]

(b) Find the maximum increase in the money supply. [2]

Solutions

2.1 banks keep only a fraction of deposits as reserves and lend the rest.

2.2 $\frac{1}{0.20} = 5$.

2.3 it increases (the loans become new deposits elsewhere).

3.1 B.

3.2 B.

3.3 (a) $\frac{1}{0.10} = 10$. (b) $2000 \times 10 = \$20\,000$.