

COMPULSORY

New Senior Secondary

Exploring

ECONOMICS

Exam Practice

6

Money and Trade



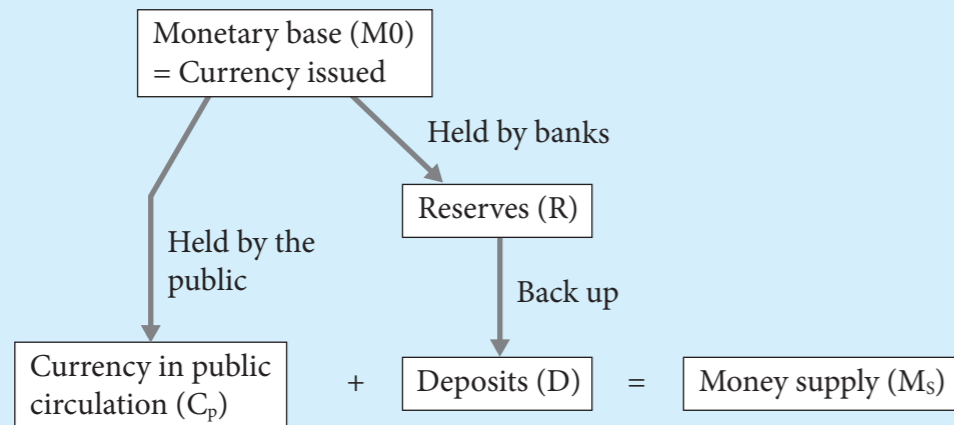
PEARSON

Longman 朗文

Note:

- Reserves held by banks are not included in the money supply because they are not used by the non-bank public as a medium of exchange or means of payment.
- Deposits are money available for use by the non-bank public.

The relationship between the above monetary concepts is summarised as follows:



2. 'Deposits are cash held by banks.'



Correction

Reserves are cash held by banks, while deposits are monetary assets held by the non-bank public.



Explanation

When a bank client deposits cash into a bank, the cash will become the reserves of the bank. The cash held by banks is reserves, instead of deposits. A deposit is the amount a bank owes its clients. Hence, the deposit becomes an asset available for use as money by the client.

3. Refer to Typical Question 6 in Section B:

Assets (\$)		Liabilities (\$)	
Reserves	300	Deposits	1,000
Loans	700		

'When \$100 worth of deposits is withdrawn, deposits will fall to \$900. Given rrr = 25%, the reserves will be \$225 (= \$900 × 0.25). As a result, the final amount of loans will be \$675 (= \$900 – \$225).'



Correction

When \$100 worth of deposits is withdrawn, reserves will fall to \$200. Given rrr = 25%, deposits will decrease to \$800 (= \$200 ÷ 0.25). As a result, the final amount of loans will be \$600 (= \$800 – \$200).

Explanation

Students should avoid starting the calculation with the new deposits that immediately result from the withdrawal. This is because the withdrawal lowers the reserves and may lead to a multiple contraction of deposits.

Referring to the example, when \$100 worth of deposits is withdrawn, banks do not have enough reserves and will call back loans. As a result, deposits and loans will fall to a level where the reserve requirement is met.

Thus, we should first determine the new reserves in the calculation of final deposits. Bear in mind that reserves are used to back deposits. Using the following formula, we can find the final deposits from the reserves:

$$\text{Final amount of deposits} = \frac{\text{Final amount of reserves}}{\text{rrr}}$$

Referring to the example, after the \$100 withdrawal, the reserves will decrease to \$200 (= \$300 – \$100). As the required reserve ratio is 0.25, the maximum amount of deposits (D) that can be backed by \$200 (R) is given by the following formula:

$$D = \frac{R}{\text{rrr}} = \frac{\$200}{0.25} = \$800$$

We may calculate the final amount of loans using the following equation:

$$\text{Reserves (R)} + \text{Loans (L)} = \text{Deposits (D)}$$

To summarise, the correct procedures are:

- Determine how the changes mentioned in the question affect the reserves and find the new actual reserves.
- Calculate the maximum deposits by using the following formula:

$$D = \frac{R}{\text{rrr}}$$

- Calculate the amount of loans using the following equation:

$$R + L = D$$

- 'When banks loan their excess reserves, reserves will decrease.'
 - 'When bank clients use their deposits to repay bank loans, reserves will increase.'



Correction

- When banks loan their excess reserves, reserves may not change.
- When bank clients use their deposits to repay bank loans, reserves will not change.

b. Hong Kong money supply is fully backed by foreign exchange reserves. Do you agree? (5 marks)

2. a. What is it meant by liquidity? (2 marks)

b. M2 is said to be a broader definition of money supply than M1 in Hong Kong. Explain, in terms of liquidity, the meaning of breadth in the money supply definition. Why is M2 a broader definition than M1? (5 marks)

3. How do the following affect the HK dollar M1, M2 and M3 money supply?

a. Miss Chan sells her HSBC shares for \$400,000 cash and deposits half of the amount with a deposit-taking company and half into her demand deposit account. (3 marks)

b. Mr Kwok withdraws \$100,000 from his savings account and remits the full amount to the US. (3 marks)

c. Mrs Kong borrows HK\$100,000 from Bank A. Then, she converts 80% of the amount into Australian dollars and saves this in an Australian dollar savings account and keeps the rest in her safe at home. (3 marks)

4. The following table shows the money supply in Hong Kong dollars and foreign currency at the end of 1st Quarter 2010:

Money Supply (HK\$ million) 1st Quarter 2010					
M1		M2		M3	
HK dollars	Foreign currency	HK dollars	Foreign currency	HK dollars	Foreign currency
713,252	231,265	3,602,795	2,994,147	3,622,839	3,000,767

Source: The Census and Statistics Department

a. Calculate the sum of savings deposits, time deposits and NCDs with licensed banks in Hong Kong dollars. (2 marks)

b. Let PE_{M1} , PE_{M2} and PE_{M3} be the proportion of M1 in foreign currency to M1 in all currencies (including HK\$), the proportion of M2 in foreign currency to M2 in all currencies and the proportion of M3 in foreign currency to M3 in all currencies, respectively. PE_{M2} and PE_{M3} are obviously higher than PE_{M1} . Explain this phenomenon in terms of the functions of money. (4 marks)

B Tackling Typical Questions



Typical Question 1 Calculation related to comparative advantage (from the amount of output produced per unit of input)

The following table shows the output of Good X and Good Y per unit of input in Country A and Country B.

	Good X (units)	Good Y (units)
Country A	6	8
Country B	9	16

- Find the country which has an absolute advantage in the production of Good X and Good Y.
- Find the country which has a comparative advantage in the production of Good X and Good Y.
- State the principle of comparative advantage and determine the direction of trade between the two countries.
- Calculate the respective range of the exchange ratio between Good X and Good Y in order for both countries to gain from trade.

1. Question analysis

Key words: 'output ... per unit of input'

- 'absolute advantage' and 'Good X and Good Y'
- 'comparative advantage' and 'Good X and Good Y'
- 'principle of comparative advantage' and 'direction of trade'
- 'range of exchange ratio' and 'both ... gain from trade'

2. Answering techniques

- Find the country which can produce more units of the good per unit of input.
- Find the country which can produce the good at a lower cost.
- State the principle. The good will flow from the country with lower production costs to the country with higher production costs.
- The mutually beneficial exchange ratio lies between the production costs of the two countries.

3. Suggested answer

- For Good X, Country A can produce **6 units** per unit of input, while Country B can produce **9 units**. Hence, Country B has an absolute advantage (higher productivity) in the production of Good X.

For Good Y, Country A can produce **8 units** per unit of input, while Country B can produce **16 units**. Hence, Country B also has an absolute advantage in the production of Good Y.

- In Country A, a unit of input can produce either 6 units of Good X or 8 units of Good Y. The cost of producing 1 unit of Good X is **1.33 (= 8 / 6) units** of Good Y. In Country B, a unit of input can produce either 9 units of Good X or 16 units of Good Y. The cost of producing 1 unit of Good X is **1.78 (= 16 / 9) units** of Good Y. Thus, Country A has a comparative advantage (lower cost) in the production of Good X.

Similarly, the cost of producing 1 unit of Good Y in Country A is **0.75 (= 6 / 8) units** of Good X. The cost of producing 1 unit of Good Y in Country B is **0.56 (= 9 / 16) units** of Good X. Thus, Country B has a comparative advantage in the production of Good Y.

- The principle of comparative advantage states that if each country specialises in producing the good in which it has a comparative advantage, the total world output will increase. Country A will specialise in the production of Good X and export some of its output to Country B. Country B will specialise in the production of Good Y and export some of its output to Country A.
- The mutually beneficial exchange ratio lies between the production costs of the two countries, i.e. $1.33Y < \text{Exchange ratio of } 1X < 1.78Y$, while $0.75X > \text{Exchange ratio of } 1Y > 0.56X$.



Typical Question 2 Calculation related to comparative advantage (from the amount of input required for a unit of output)

The following table shows the units of resources (assumed to be the same in both countries) required for the production of a unit of Good X or a unit of Good Y in Country A and Country B.

	1 unit of Good X	1 unit of Good Y
Country A	6	8
Country B	9	16

- Find the country which has an absolute advantage in the production of Good X and Good Y.
- Find the country which has a comparative advantage in the production of Good X and Good Y.
- If 3 units of Good X are traded for 2 units of Good Y, what are the respective gains of Country A and Country B in the exchange of one unit of Good Y?
- If the exchange of Good Y involves a unit transport cost of 0.5 units of Good X, will there be any trading of Good Y between the two countries?



Typical Question 2 The effect of tariffs and quotas on the quality of imports

After China's entry to the WTO, China has to reduce its protectionist measures including tariffs and quotas. Explain why this would lead to a decrease in the average quality of China's imports.

1. Question analysis

Key words: 'reduce ... tariffs and quotas' and 'decrease in the average quality of China's imports'

2. Answering techniques

Analyse from the views of consumers and importers — how the event affects their choices among products of different quality.

3. Suggested answer

After the reduction of unit tariffs or increments in quota quantity, as the supply of imports increases, the price of both high-quality and low-quality imports decreases by the same amount (= the reduction in the unit tariff or the quota price). Since the percentage drop in the price of high-quality imports is relatively small, its relative price increases. By the law of demand, the market share of high-quality imports decreases. The average quality of China's imports decreases.

Assuming that importers cannot determine the price and profit margin of imports, to maximise their profits, they would maximise the volume of imports. Due to the increase in the relative demand for low-quality imports, importers would supply more low-quality imports to suit the demand of consumers.

C Correcting Common Errors

The following sentences contain mistakes. The corrections and underlying reasons are explained.

1. 'Free trade is beneficial to everyone.'



Correction

Free trade is beneficial to some but is detrimental to others. However, on the whole, free trade is generally better than no trade.

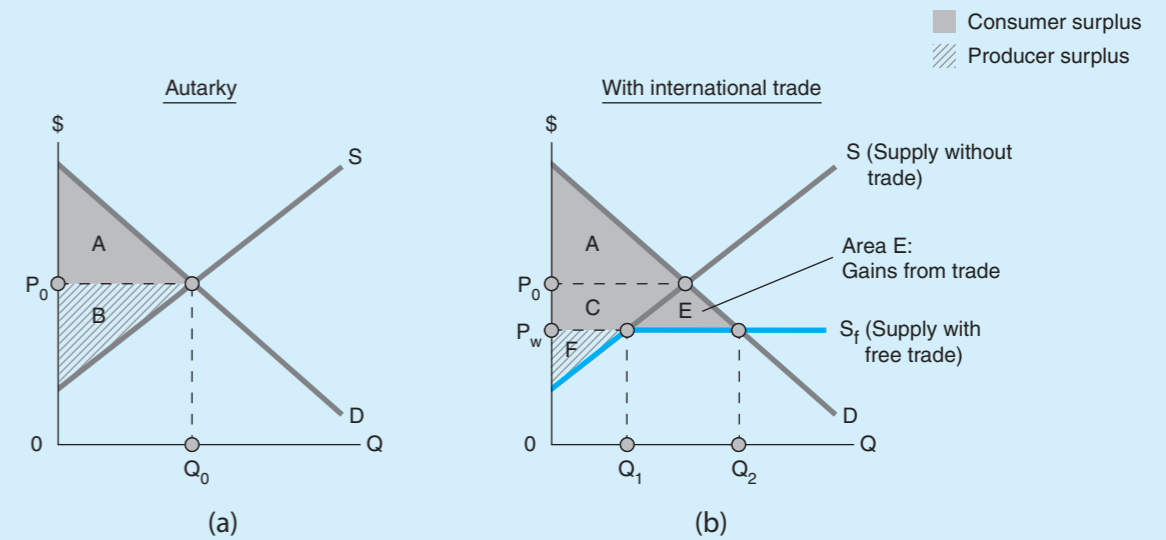


Explanation

The price of a good in international trade lies below the autarkic domestic price in the importing country but above the autarkic domestic price in the exporting country.

In the importing country, domestic consumers of the good imported gain [as the consumer surplus rises from Area A to Area (A + C + E)], while domestic producers of the good imported lose (as the producer surplus falls from Area B to Area F). On the whole, the importing country gains (as the total social surplus increases by Area E).

The following diagrams show the situations in the importing country.



In the exporting country, domestic consumers of the good exported lose (as the consumer surplus drops from Area A' to Area F'), while domestic producers of the good exported gain [as the producer surplus rises from Area B' to Area (B' + C' + E')]. On the whole, the exporting country gains (as the total social surplus increases by Area E').

The following diagrams show the situations in the exporting country.

