

## MACROECONOMICS – QUESTIONS BY TOPIC

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HKCEE 1990 – 2010\*

HKALE 1990 – 2012

HKDSE 2012 – 2020

\*The final HKCEE in 2011 was held only for a small number of private candidates. Unless very special, the questions in year 2011 will not be listed.

Glossary:

HKCEE Paper I Multiple Choice Questions

HKCEE Paper II Short & Structured Questions

HKALE Paper I Microeconomics

HKALE Paper II Macroeconomics

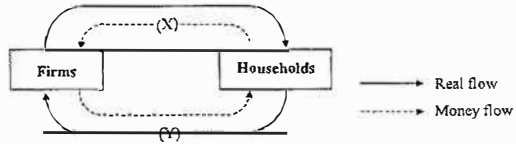


## SECTION 1: NATIONAL INCOME

### 1.1 CIRCULAR FLOWS

#### Multiple Choice Questions

1990/CE/II/35



X and Y in the above circular flow of economic activities should be labeled respectively as

- A. sales revenue; factor services.
- B. sales revenue; goods and services.
- C. factor income; goods and services.
- D. factor income; factor services.

1990/CE/II/57

Which of the following is a 'stock' concept?

- A. Amy earns a monthly income of \$5 000.
- B. Mr Wong consumes three cups of coffee per day.
- C. The government spent \$1 billion on social services last year.
- D. Peter had \$1 million in his savings account at the end of last year.

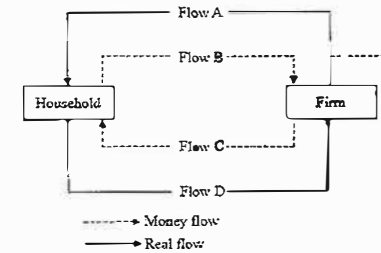
1991/CE/II/42

Which of the following are classified as 'flows'?

- (1) bank deposits
- (2) the imports of Hong Kong
- (3) rental income
- (4) the inventory of a department store

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1991/CE/II/47



When economist calculate a country's national income by the income approach, they measure \_\_\_\_\_ in the above chart.

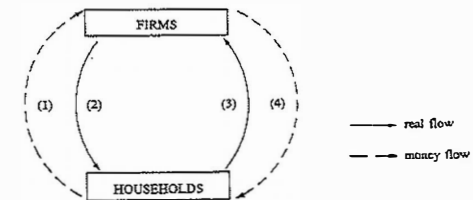
- A. Flow A
- B. Flow B
- C. Flow C
- D. Flow D

1992/CE/II/44

Which of the following are 'stock' concepts?

- A. The balance in a savings account as at December 31, 1991.
- B. Hong Kong's balance of payments.
- C. Hong Kong's GDP.
- D. Hong Kong's total exports.

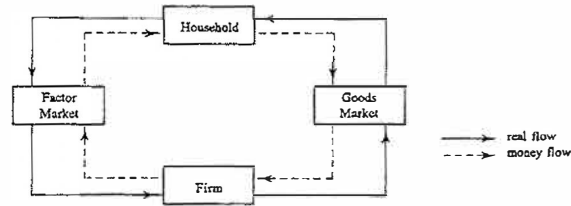
1993/CE/II/37



The diagram above shows the circular flow of economic activities. The economy's expenditure and income are shown in Flow \_\_\_\_\_ and Flow \_\_\_\_\_ respectively.

- A. (1); (2)
- B. (1); (4)
- C. (2); (3)
- D. (3); (4)

1994/CE/11/31

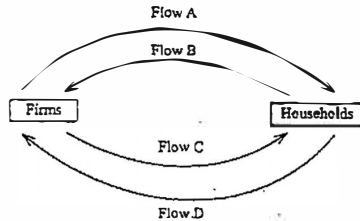


What does the above diagram show?

- A. Economic activities take place in an open economy.
- B. There is government intervention in the economy.
- C. National income equals national expenditure.
- D. Households conduct transactions in the goods market only.

2002/CE/11/24

Refer to the circular flows below:



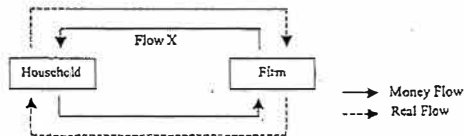
Flow A, Flow D : real flows  
Flow B, Flow C : money flows

What of the following statements is correct?

- A. Flows A and D are flows of households' expenditure and firms' payment to factor owners respectively.
- B. All value-added totals contributed by the firms equal the market value of all final goods and services.
- C. The market value of Flow B equals the market value of all final goods and services plus the market value of unsold goods.
- D. The flow of final goods and services includes self-provided services.

2003/CE/11/25

Refer to the following circular flow of an economy:

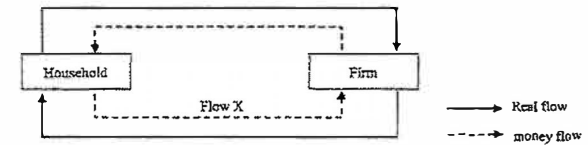


Which of the following is included in Flow X?

- A. household expenditure on final goods and services
- B. factor income such as rent and wages
- C. value of intermediate goods
- D. market value of all final goods and services

2009/CE/11/26

Refer to the following circular flow of Economy A:



Flow X represents

- A. the total expenditures on all final goods and services.
- B. the total income earned by households from their factor services.
- C. the total value of factor services provided by households to firms.
- D. the total market value of all intermediate and final goods and services.

MARKING SCHEME

1990/CE/11/35 A	1991/CE/11/42 C	1992/CE/11/44 A	1994/CE/11/31 C	2005/CE/11/25 B (62%)
1990/CE/11/57 D	1991/CE/11/47 C	1995/CE/11/37 B	2002/CE/11/24 B (48%)	2009/CE/11/26 A (68%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

## 1.2 EXPENDITURE APPROACH

### Multiple Choice Questions

1990/CE/II/33

A Hong Kong citizen switches his flight from a local airline to Japan Airlines. What is the effect on Hong Kong's Gross Domestic Product (GDP)?

- A. an increase in imports
- B. a decrease in exports
- C. a decrease in consumption
- D. an increase in investment

1993/CE/II/59

	\$ million
Private consumption expenditure	40
Government consumption expenditure	10
Gross domestic fixed capital formation	10
Change in stocks	1
Total exports of goods	80
Domestic exports	70
Re-exports	10
Imports of goods	60
Exports of services	20
Imports of services	30
Inflow of capital	30
Outflow of capital	15

The GDP of the economy in that year is

- A. \$61 million.
- B. \$70 million.
- C. \$71 million.
- D. \$81 million.

1993/CE/II/51

An increase in exports and a decrease in imports will cause the national income to

- A. increase
- B. decrease
- C. remain unchanged
- D. either increase or decrease

1996/CE/II/28

In using the expenditure approach to calculate the Gross National Product (GNP) of an economy, imports should be deducted because:

- A. Some imports are substitutes of domestic products.
- B. Some imports are intermediate goods.
- C. Imports will lead to payments to foreign countries.
- D. Imports are the expenditure on goods and services produced by foreign countries.

1996/CE/II/30

Refer to the following information about an economy:

GNP at market price	\$100
Exports of goods and services	20
Imports of goods and services	30
Net income from abroad	-5
Indirect taxes	25
Subsidies	35
Depreciation	5

The GDP at factor cost is:

- A. \$95
- B. \$105
- C. \$115
- D. \$125

1998/CE/II/30

Answer Question 30 by referring to the following data of an economy:

	\$Mn
Gross national product at market price	46
Change in stock	3
Net income from abroad	1
Subsidies	4
Depreciation	5
Indirect business tax	6
Net exports	2

The gross national product at factor cost (in \$Mn) is

- A. 39.
- B. 43.
- C. 44.
- D. 47.

2001/CE/II/28

The following table shows the gross domestic product (GDP) data of a country.

	\$Mn
Private consumption expenditure	500
Government consumption expenditure	100
Net domestic fixed capital formation	250
Changes in inventories	30
Total exports of goods	800
Re-exports of goods	200
Imports of goods	900
Exports of services	300
Imports of services	150
Depreciation	60

The GDP at market price is

- A. \$900 million.
- B. \$930 million.
- C. \$990 million.
- D. \$1 190 million.

2003/CE/11/26

The following table shows the gross domestic product (GDP) data of a country in a certain year.

	\$ Million
Private consumption expenditure	400
Government consumption expenditure	100
Gross domestic fixed capital formation	200
Reduction in inventory	20
Domestic exports of goods	330
Re-exports of goods	170
Imports of goods	550
Exports of services	400
Imports of services	350
Depreciation allowance	60

The GDP at market price is

- A. \$620 million.                      B. \$660 million.  
C. \$680 million.                      D. \$720 million.

2004/CE/11/29

The introduction of the 'individual visit' (個人遊) scheme for Mainland visitors to HK would increase the GDP of HK. The spending of these visitors on jewellery in HK is a/an \_\_\_\_\_ of HK.

- A. consumption expenditure  
B. investment expenditure  
C. export  
D. import

2005/CE/11/27

The following table shows the statistical data of an economy in a certain year.

	Million Dollars
Private consumption expenditure	50 000
Government consumption expenditure	8 000
Gross domestic fixed capital formation	7 000
Decrease in inventory	3 000
Total export	30 000
Total import	45 000
Indirect taxes	50
Depreciation allowance	4 200

The GDP at market price (in million dollars) is

- A. 42 850.                                B. 47 000.  
C. 50 000.                                D. 51 150.

2006/CE/11/28

The following table shows the statistical data of an economy.

Components	\$Million
Private consumption expenditure	200
Government consumption expenditure	150
Net domestic fixed capital formation	300
Decrease in stock	70
Subsidies	120
Depreciation	50
Net exports	300
Net income from abroad	80
Direct tax	100

The GDP at factor cost (in \$mn) is

- A. 950.                                    B. 970.  
C. 1 050.                                D. 1 190.

2008/CE/11/26

The following table shows the national income statistics of an economy :

Components	\$Million
Private consumption expenditure	800
Government consumption expenditure	250
Gross domestic fixed capital formation	600
Decrease in inventories	50
Total export of goods	1 700
Total import of goods	450
Export of services	850
Import of services	550

The gross domestic product (GDP) at market price is \$ \_\_\_\_\_ million.

- A. 3 100                                    B. 3 150  
C. 3 200                                    D. 3 250

2009/CE/11/28

The following table shows the statistical data on an economy.

Components	\$ million
Private consumption expenditure	600
Net domestic fixed capital formation	250
Increase in stock	70
Government consumption expenditure	450
Depreciation	30
Total exports of goods and services	500
Total imports of goods and services	140
Re-exports of goods	100

The GDP at market price is \$ \_\_\_\_\_ million.

- A. 1 690                                    B. 1 730  
C. 1 760                                    D. 1 830

Study the following table and answer questions 26 and 27.

GDP Items	\$ billion
Private consumption expenditure	100
Gross domestic fixed capital formation	200
Changes in inventories	-50
Depreciation	10
Government consumption expenditure	150
Transfer payments	20
Indirect taxes	100
Subsidies	40
Net exports of goods and services	-15

2010/CE/1/26

The GDP at market price is \$ \_\_\_\_\_ billion.

- A. 375    B. 385  
C. 395    D. 445

2010/CE/1/27

The GDP at factor cost is \$ \_\_\_\_\_ billion.

- A. 315    B. 325  
C. 375    D. 445

2012/DSE/1/22

Refer to the following table.

Gross Domestic Product (GDP) Components	\$ million
Private consumption expenditure	200
Net domestic fixed capital formation	40
Increase in inventory	x
Government consumption expenditure	24
Net exports	10
Indirect taxes	60
Subsidies	30
Depreciation	40
Net factor income from abroad	16

If the GDP at factor cost is \$264 million, the value of x is \_\_\_\_\_.

- A. -50    B. -20  
C. 20    D. 50

2013/DSE/1/22

Consider the following Gross Domestic Product (GDP) data about a country.

Components	\$ million
GDP at market price	200
Private consumption expenditure	120
Gross domestic fixed capital formation	40
Change in inventories	10
Total exports of goods	80
Domestic exports of goods	70
Imports of goods	60
Exports of services	20
Imports of services	30
Net income from abroad	25
Depreciation	35
Indirect business tax	28
Subsidies	18

The government consumption expenditure for that year is \$ \_\_\_\_\_ million.

- A. 20    B. 30  
C. 40    D. 50

2016/DSE/1/23

Consider the following Gross Domestic Product (GDP) data about a country.

GDP Components	\$ million
Private consumption expenditure	380
Government consumption expenditure	450
Gross domestic fixed capital formation	230
Decrease in stock	50
Subsidies	30
Depreciation	40
Total exports	130
Total imports	170
Direct tax	30

The GDP at factor cost is \$ \_\_\_\_\_ million.

- A. 960    B. 970  
C. 1 000    D. 1 100

**Short & Structured Questions**

1990/CE/1/3(a)(iii)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

	\$ Billion
Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56

(The GDP deflator for 1980 = 100)

Find Hong Kong's GDP at current prices for 1988. Name the approach you have used to calculate the national income. (5 marks)

1993/CE/1/4(a)(i)

The following table shows the composition of Hong Kong's Gross Domestic Product (GDP) in 1980 and 1990:

GDP Components	Ratio to total GDP	
	1980	1990
Private consumption expenditure	62%	62%
Government consumption expenditure	A%	6%
Investment	36%	28%
Exports	88%	165%
Imports	93%	161%

Name the method of GDP measurement used in the above table and calculate the value of A. Show your working. (4 marks)

2002/CE/1/11(a)(i)

The following shows the gross domestic product (GDP) data of economy A in a certain year.

	\$million
Private consumption expenditure	400
Net investment expenditure	180
Government consumption expenditure	250
Exports	500
Imports	650
Depreciation	150
Indirect business tax	50
Interest	200

Calculate the GDP at market price of economy A. (3 marks)

2018/DSE/1/12(c)

Source 2: Statistical data about tourism in Hong Kong in 2016

	2016	Compared with 2015 (%)
Mainland visitors	42.8 billion	-6.7%
Total visitors	56.65 billion	-4.5%
Total tourism expenditure associated to inbound tourism	HK\$296.2 billion	-10.1%

With reference to Source 2, to which component of Hong Kong's GDP does the 'total tourism expenditure associated to inbound tourism' belong? (1 mark)

**MARKING SCHEME**

1990/CE/1/3 A	1996/CE/1/30 C	2004/CE/1/29 C (36%)	2009/CE/1/28 C (53%)	2013/DSE/1/22 A (60%)
1993/CE/1/39 C	1998/CE/1/30 C	2005/CE/1/27 B (51%)	2010/CE/1/26 B (63%)	2016/DSE/1/23 C (54%)
1993/CE/1/51 A	2001/CE/1/28 C	2006/CE/1/28 C (29%)	2010/CE/1/27 B (63%)	
1996/CE/1/28 D	2003/CE/1/26 C (44%)	2008/CE/1/26 B (71%)	2012/DSE/1/22 B (61%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/1/3(a)(iii)

$C + I + G + (X - M)$  (2)  
 $= \$ (255 + 109 + 10 + 30 + 218 + 275 - 501 + 86 - 56)$  bn. = \$426 bn. (2)  
 Expenditure approach (1)

1993/CE/1/4(a)(i)

Expenditure approach (1)  
 $62\% + A\% + 36\% + 88\% - 93\% = 100\%$  (2)  
 $\therefore A = 7$  (1)

2002/CE/1/11(a)(i)

$\$(400 + 180 + 150 + 250 + 500 - 650)$  m (2)  
 $= \$830$  m (1)

2013/DSE/1/12(c)

Export of services / net exports (1)



1.3 VALUE-ADDED APPROACH

Multiple Choice Questions

1992/CE/II/13

Which of the following can lead to the conclusion that the manufacturing sector in Hong Kong is declining in its contribution to Hong Kong's Gross Domestic Product (GDP)?

- A. The number of workers in this sector is decreasing.
- B. The number of firms in this sector is decreasing.
- C. The wage rates in this sector are decreasing.
- D. The value added of this sector is decreasing.

1992/CE/II/46

Which of the following ways of measuring output involves double counting?

- A. summing up the expenditures on all final goods and services
- B. summing up the incomes earned by all factors of production
- C. summing up the values added in all production stages
- D. summing up the values of all market transactions

1995/CE/II/59

Year	Real GDP value-added per employee	
	1982	1992
Manufacturing sector	\$41 000	\$165 000
Services sector	\$103 000	\$280 000

Which of the following statements is NOT a conclusion drawn from the above table?

- A. The manufacturing sector had a higher labour productivity in 1992 than in 1982.
- B. The services sector had a higher labour productivity in 1992 than in 1982.
- C. The services sector had a higher labour productivity than the manufacturing sector in 1992.
- D. The services sector had a higher labour productivity growth rate than the manufacturing sector.

1998/CE/II/25

The following transactions were recorded in an economy in a certain year:

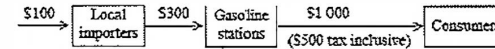
- (1) Firm A sold its products to Firm B for \$100 and Firm C for \$200.
- (2) Firm B then resold part of the products to households for \$200 and the rest to other firms for \$300.
- (3) Firm C then exported the products for \$500.

In the above transactions what was the total contribution of Firm B and Firm C to the gross domestic product (GDP) of this economy?

- A. \$700
- B. \$900
- C. \$1 100
- D. \$1 300

2000/CE/II/35

The following diagram shows a production chain involving the import of \$100 worth of gasoline into Hong Kong:



What is the contribution of the production chain to Hong Kong's GDP at factor cost?

- A. \$400
- B. \$500
- C. \$900
- D. \$1 000

2002/CE/II/26

Nancy runs a boutique in Hong Kong. The following table shows the boutique's financial statement for a given period of time.

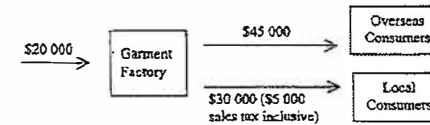
	(\$ 000)	(\$ 000)
Sales revenue of fashions		16 000
Less: Imported fashions	2 000	
Electricity & water charges	3 000	
Wage payment	2 500	
Profits tax	1 500	9 000
Net profit		7 000

What is the contribution of Nancy's boutique to Hong Kong's GDP in thousand dollars?

- A. 7 000
- B. 11 000
- C. 14 000
- D. 16 000

2003/CE/II/27

The following diagram shows the production of a garment factory in Economy A. The factory imports \$20000 worth of raw materials.

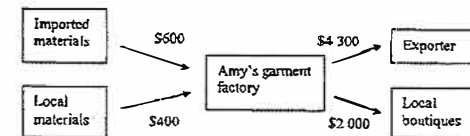


What is the contribution of the garment factory to Economy A's GDP at factor cost?

- A. \$10 000
- B. \$50 000
- C. \$55 000
- D. \$75 000

2004/CE/II/27

The following diagram shows a production process of an economy.

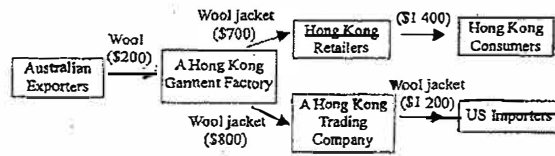


What is the contribution of Amy's garment factory to the national income of the economy?

- A. \$1 600
- B. \$3 700
- C. \$5 300
- D. \$5 900

2005/CE/11/28

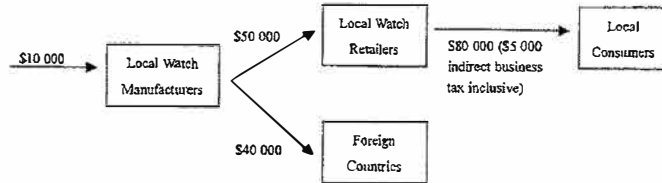
A production chain is shown below.



The contribution of the above production chain to Hong Kong's GDP is

- A. \$1 400.
- B. \$1 700.
- C. \$2 400.
- D. \$2 600.

Answer questions 28 and 29 by referring to the following production chain of watches in an economy. The local watch manufacturers import \$10 000 worth of raw materials.



2007/CE/11/28

What is the contribution of the above production chain to the economy's GDP at market prices?

- A. \$105 000
- B. \$110 000
- C. \$115 000
- D. \$120 000

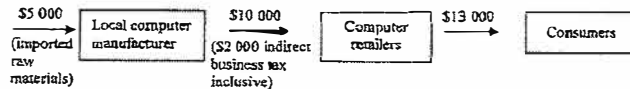
2007/CE/11/29

Which of the contribution of the local watch retailers to the economy's GDP at factor cost?

- A. \$25 000
- B. \$30 000
- C. \$75 000
- D. \$80 000

2009/CE/11/27

The following diagram shows a production chain of computers in an economy. It involves the import of \$5 000 worth of raw materials.

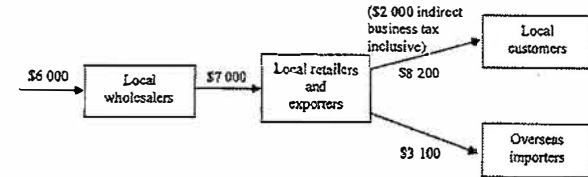


What is the contribution of the above production chain to the economy's gross domestic product (GDP) at factor cost?

- A. \$6 000
- B. \$8 000
- C. \$10 000
- D. \$13 000

2010/CE/11/28

The following diagram shows a production chain of computers in an economy. It involves the import of \$6 000 worth of raw materials.

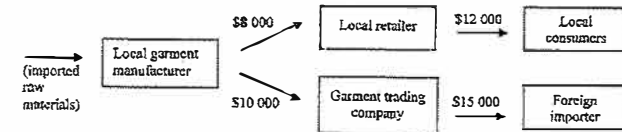


What is the contribution of the above production chain to the economy's GDP at factor cost?

- A. \$3 300
- B. \$5 300
- C. \$9 300
- D. \$11 300

2011/CE/11/26

The following diagram shows a production chain of garments in an economy. It also indicates the selling price of the output in different stages of the production. The imported raw materials are worth \$6 000.

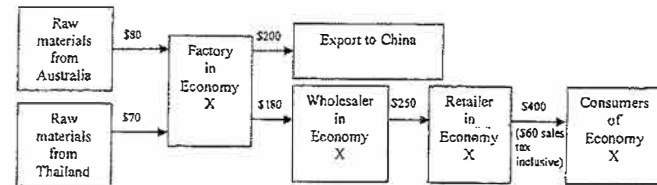


Suppose the garment trading company has received \$1 000 export subsidy from the government. What is the contribution of the above production chain to the economy's GDP at factor cost?

- A. \$20 000
- B. \$22 000
- C. \$26 000
- D. \$28 000

2014/DSE/1/24

The following diagram shows a production chain of a good in Economy X:

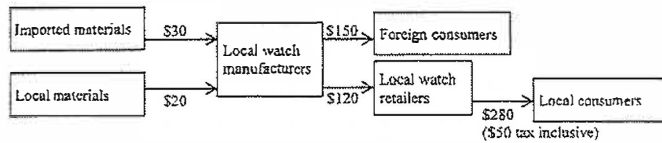


What is the contribution of the production chain to the Gross Domestic Product (GDP) at market price of Economy X?

- A. \$340
- B. \$390
- C. \$450
- D. \$600

2017/DSE/1/25

The following diagram shows a production chain of watches in an economy:

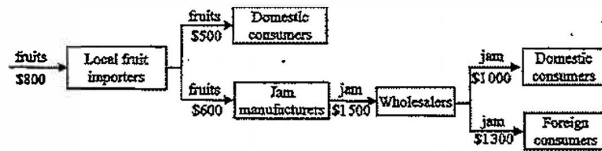


The contribution of the local watch manufacturer to the economy's GDP at market prices is \_\_\_\_\_.

- A. \$220
- B. \$240
- C. \$350
- D. \$400

2019/DSE/1/26

Refer to the following production chain in Country A and answer the question.



Suppose the above production chain has included a subsidy of \$300 that is given to the jam manufacturers. What is the contribution of the above production chain to Country A's GDP at factor cost?

- A. \$1700
- B. \$1800
- C. \$2000
- D. \$2300

Short & Structured Questions

1990/CE/1/3(a)(ii)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

	\$ Billion
Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56

(The GDP deflator for 1980 = 100)

The re-exports of goods has a greater value than the domestic exports of goods. Does it follow that re-exports contribute more to the national income of Hong Kong than domestic exports? Explain. (7 marks)

1994/CE/1/11(c)

The vegetable sales revenue of Mr Chan's farm for the year 1993 was \$100 000. Give TWO possible reasons to explain why the contribution of this farm to the gross domestic product (GDP) of the country in 1993 could be less than \$100 000. (6 marks)

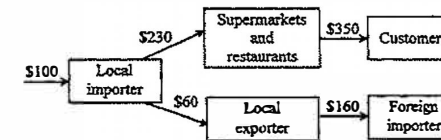
1997/CE/1/11(a)(ii)

Suppose \$ 1 million worth of seafood is imported to Hong Kong. Half of it is sold to local households at \$ 0.8 million and half to local restaurants at \$ 0.7 million. These restaurants cook and sell the seafood to their customers at \$ 1.6 million of which \$ 0.6 million is tourist spending.

- (I) The above transactions will also affect Hong Kong's GDP. Use TWO different measurement approaches to calculate the change. (4 marks)
- (II) Explain why the use of EACH of these two measurement approaches will not lead to the problem of double-counting. (4 marks)

1999/CE/1/9(c)

The following diagram shows a production chain involving the import of \$100 worth of red wine into Hong Kong. The sales value of different producers are indicated below:

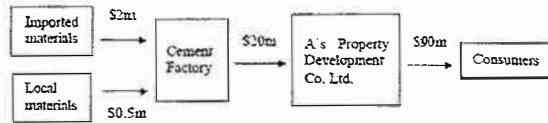


Calculate the contribution of the production chain to Hong Kong's national income by

- (i) the value-added approach. (3 marks)
- (ii) the expenditure approach. (3 marks)

2001/CE/1/1(a)(i)

Refer to the following production chain in Hong Kong:



Calculate the contribution of the above production chain to Hong Kong's GDP using the value-added approach. (3 marks)

2003/CE/1/9(b)(i)

Firm A is a local manufacturer in Hong Kong producing goods for export only.

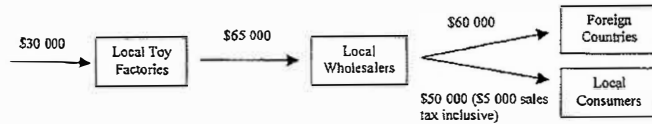
Give TWO reasons to explain why the contribution of this firm to Hong Kong's gross domestic product (GDP) in 2003 could be smaller than the total export value of this firm in 2003. (4 marks)

2004/CE/1/10(b)

The sales revenue of a local travel agency was reduced by \$200 million. Give ONE reason to explain why the reduction in that part of Hong Kong's GDP contributed by the travel agency is less than \$200 million. (2 marks)

2006/CE/1/5

The following diagram shows the production chain of toys in Economy A. Its toy factories import \$30 000 worth of raw materials.



Calculate the contribution of the above production chain to Economy A's

- (a) gross domestic product (GDP) at factor cost using the expenditure approach. (3 marks)
- (b) GDP at market prices using the value-added approach. (3 marks)

2014/DSE/1/11(b)

Suppose the sales revenue to the Japanese automobile exporters was 100 billion Japanese Yen in 2013. Give TWO reasons to explain why their contribution to Japan's GDP would be less than 100 billion Japanese Yen in 2013. (4 marks)

MARKING SCHEME

1992/CE/1/13 D	2000/CE/1/35 A	2005/CE/1/28 C (69%)	2010/CE/1/28 A (69%)	2019/DSE/1/26 D
1992/CE/1/46 D	2002/CE/1/26 B (17%)	2007/CE/1/28 B (52%)	2011/CE/1/26 B	
1995/CE/1/59 D	2003/CE/1/27 B (54%)	2007/CE/1/29 A (46%)	2014/DSE/1/24 C (71%)	
1998/CE/1/25 A	2004/CE/1/27 C (75%)	2009/CE/1/27 A (56%)	2017/DSE/1/25 A (40%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/1/3(a)(ii)

No, because

- the contribution to the national income depends on the value-added. (3)
  - for domestic exports of goods, Hong Kong adds value onto the imported raw materials and semi-manufactured goods mainly by providing labour services. (3)
  - for re-exports, Hong Kong earns income from providing services to the re-export trade. (3)
  - the income earned from domestically-produced goods for exports can be smaller or greater than that from servicing re-exports. (2)
- (max: 7)

1994/CE/1/1(c)

Some vegetables were not current production (i.e. inventory of the previous year).

Some fertilizers used / vegetables sold were not produced by Mr Chan's farm. (2)

1997/CE/1/1(a)(ii)

- (1) [Output (or value-added) approach:]  
 $S[(0.8 - 0.5) + (0.7 - 0.5) + (1.6 - 0.7)] \text{ m}$  (1)  
 $= \$1.4 \text{ m}$  (1)

- [Expenditure approach:]  
 $S(0.8 + 1.6 - 1) \text{ m}$  (1)  
 $= \$1.4 \text{ m}$  (1)

(Mere mention of correct numerical answer \$1.4 m without showing working - max: 1 mark)

- (II) [Value-added approach:]  
input costs are deducted at every stage of production. (2)

- [Expenditure approach:]  
Only the expenditures on final goods and services are summed up. (2)

1999/CE/1/9(c)

- (i) Value-added approach:  
 $S[230 + 60 - (60) + S[(350 - 230) + (160 - 60)]]$  (2)  
 $= \$410$  (1)

- (ii) Expenditure approach:  
 $S(350 + 160 - 100)$  (2)  
 $= \$410$  (1)

Macroeconomics by Topic  
1. National Income

2001/CE/I/11(a)(i)  
 $S[(90 - 20) + (20 - 2 - 0.5) + 0.5]$  m (2)  
 = \$88 m (1)

2003/CE/I/9(b)(i)  
 Firm A's contribution is the value added by A to the production. Other firms' contribution in the production process should have been deducted. (2)  
 Total export value in 2003 may have included part of the inventory in past years which should be deducted from the 2003 figures. (2)

2004/CE/I/10(b)  
 The value of outputs of other firms in HK that are bought by this firm for its production. (2)

2006/CE/A/5  
 (a)  $S[(50\ 000 + 60\ 000 - 30\ 000) - 50\ 000]$  (1)  
 = \$75 000 (2)

(b)  $S[(60\ 000 + 50\ 000) - 65\ 000] + S[(65\ 000 - 30\ 000)]$  (1)  
 = \$80 000 (2)

2014/DSE/II/11(b)  
 Not all factor inputs used to produce Japanese cars originated from Japan. e.g., some of the parts or raw materials were imported. (2)  
 Some Japanese cars sold in 2015 were not produced in the same year. e.g., some of them came from the inventory. (2)

Macroeconomics by Topic  
1. National Income

1.4 ITEMS INCLUDED AND EXCLUDED IN GDP

Multiple Choice Questions

1990/CE/II/39  
 Mr Wong is a second-hand car dealer. He bought a used car for \$20 000 which he immediately resold for \$25 000. By how much would the gross national product be increased after he sold the car?

- A. \$5 000
- B. \$20 000
- C. \$25 000
- D. \$45 000

1990/CE/II/49  
 The following were received by Mr A last year:

- (1) wages of \$10 000
- (2) public assistance of \$1 000
- (3) \$100 interest from his savings account
- (4) a Mark Six prize of \$8 000

His contribution to the GDP last year was

- A. \$10 000.
- B. \$10 100.
- C. \$11 100.
- D. \$19 100.

1991/CE/II/44  
 Which of the following is included when calculating Hong Kong's gross domestic product (GDP) by the expenditure approach?

- A. the compensation paid to Kowloon Walled City residents
- B. the expenditure incurred on buying a second-hand car
- C. the revenue earned from toys sold to Americans
- D. the revenue received by the government from taxation

1992/CE/II/45  
 Which of the following amounts should be included in the measurement of GDP?

- A. Mr. Chan sells his house, built two years ago, for \$2 000 000.
- B. Mr. Chan buys shares worth \$150 000.
- C. Mr. Chan wins a Mark Six prize of \$1 000 000.
- D. Mr. Chan receives a monthly salary of \$35 000.

1992/CE/II/47  
 A building which collapsed in a landslide at the beginning of the year was re-built at the end of the year. The GDP in that year

- A. increased
- B. decreased
- C. remained unchanged
- D. decreased at first and later increased

1992/CE/II/58

The expenditure by the Hong Kong government on Vietnamese boat people \_\_\_\_\_ included in Hong Kong's GDP because \_\_\_\_\_

- A. should be ..... goods and services are produced in Hong Kong
- B. should be ..... part of the expenditure will be paid back by the United Nations
- C. should NOT be ..... goods and services are spent on foreigners
- D. should NOT be ..... Vietnamese boat people do not produce goods and services

1993/CE/II/35

Which of the following is included in the measurement of Hong Kong's Gross Domestic Product (GDP)?

- A. medical benefits of civil servants
- B. student travel subsidy
- C. dividends gained from overseas investments
- D. money won from betting in a horse race

1994/CE/II/32

Which of the following items should be included in Hong Kong's GDP for the current year?

- A. An investor buys shares on the local stock exchange.
- B. A British citizen receives a salary for teaching English in a school in Hong Kong.
- C. A student sells some used textbooks to his friend.
- D. A manufacturer sells last year's unsold stocks.

1995/CE/II/60

Which of the following will NOT be included in Hong Kong's GDP?

- A. profits earned by individual investors from buying and selling shares in the Hong Kong stock market
- B. bonuses paid by the Stock Exchange of Hong Kong Limited to its staff
- C. stamp duty levied on the shares bought and sold in the Hong Kong stock market
- D. commissions paid to the brokers for transactions in the Hong Kong stock market

1996/CE/II/27

Which of the following items is included in the calculation of Hong Kong's GDP?

- A. The government grant received by a university student.
- B. The salary received by a civil servant who is a foreigner working in Hong Kong.
- C. Interest on a loan paid by a firm in Hong Kong to a bank in Japan.
- D. Loans repayment made by the Hong Kong government to the Hong Kong Bank.

1997/CE/II/24

The following shows some assets of a farm. Which should be included in the calculation of investment expenditure of the GDP of this year?

- A. the expenditure on the ploughing of 10 acres of new farmland in spring this year
- B. the value of 10 tonnes of wheat stocked up since last year
- C. the settlement of a \$10 000 debt incurred as a result of repairing machines last year
- D. a recent expenditure on acquiring 10 000 units of government bonds in order to earn an annual interest of \$5 000

1997/CE/II/29

Which of the following events that occurred in 1996 would lead to a rise in the GDP of 1996?

- A. The government issued more Exchange Fund bills.
- B. The government increased the salaries tax allowance.
- C. The market value of accommodation units which were completed and sold in previous years rose continuously.
- D. An international corporation collected \$1 billion from the subscribers of its newly-issued shares.

1997/CE/II/60

Which of the following items is NOT included in the calculation of GDP?

- A. government spending of \$300 million on the employee restraining programme
- B. unemployment benefits of \$20 million paid by the government
- C. commission paid by a successful job searcher to an employment agency for job referral services
- D. salaries paid to the two extra posts created in the Labour Department to help job searchers

1998/CE/II/26

Which of the following would be considered as part of the national income?

- A. commissions received by salesmen selling second-hand cars
- B. a gift cheque to a bride for an invitation to her wedding banquet
- C. insurance compensation to injured workers
- D. scholarships to students with good results in schools

1999/CE/II/24

Which of the following should be included in the calculation of gross national product (GNP)?

- A. the value of newly issued shares sold
- B. the value of shares transacted in the stock market
- C. stamp duty paid for buying shares
- D. capital gain from selling shares

1999/CE/II/31

Which of the following \$1 million amounts is included in the calculation of Hong Kong's GDP?

- A. A famous singer holds a charity performance in Hong Kong and donates all the proceeds of \$1 million to the floods victims in Mainland China.
- B. A father transfers \$1 million worth of company shares to his daughter.
- C. A victim in a traffic accident receives a sum of \$1 million from the government as compensation for injury.
- D. An investor earns a capital gain of \$1 million from the sale of his flat.

2000/CE/II/33

Which of the following is included in the calculation of the gross domestic product (GDP) of Hong Kong?

- A. the estimated rental value of an owner-occupied property in Hong Kong.
- B. the low-interest government loans to university students in Hong Kong
- C. the interest paid to foreign investors holding Exchange Fund bills
- D. the increase in the price of the shares issued by a bank in Hong Kong

2001/CE/II/50

Which of the following should NOT be included in the calculation of Hong Kong's GDP?

- A. the loans made by a local bank to its customers
- B. the tips received by a bellboy in a local hotel
- C. the 10% service surcharge collected by a local restaurant
- D. the income earned by a local hawkler.

2002/CE/II/49

Which of the following items should NOT be included in the calculation of Hong Kong's GDP?

- A. profit gained by a car agent from reselling second-hand cars
- B. compensation paid to a car owner for his loss in a traffic accident
- C. insurance premium for a car paid to a local insurance company.
- D. Income earned by a person from repairing cars

2004/CE/II/26

Which of the following should be included in the calculation of the gross domestic product (GDP) of Hong Kong?

- A. the money received from the 'We Care Education Fund' by children who lost their parents to SARS
- B. the money received by a local property agent for this service in the resale of flats
- C. the money received by a local student from selling his used reference books to his schoolmates
- D. the money received by a local limited company from issuing new bonds in the market.

2005/CE/II/26

Which of the following items is included in the calculation of the gross domestic product (GDP) of Hong Kong?

- A. the salary receives by an American who works for a local television station as a reporter
- B. the money received by a local student from selling his mobile phone to his classmate
- C. the cash award won by a local citizen in a game show organized by a local television station
- D. the insurance compensation receives by a local construction worker for his injury

2006/CE/II/25

Which of the following \$5 million amounts is an investment expenditure in the national income accounting of Hong Kong?

- A. taking-over a company in Hong Kong by buying up \$5 million worth of shares
- B. purchasing \$5 million worth of 'Hong Kong Link' bonds (五匯一橋債券)
- C. depositing \$5 million into a licensed bank of Hong Kong
- D. spending \$5 million to turn a shopping mall car park in Hong Kong into shops

2007/CE/II/26

Which of the following statements about GDP is correct?

- A. GDP includes the value of imports.
- B. GDP is the total income of all the resident producing units.
- C. GDP is higher than gross national product if the net income from abroad is negative.
- D. GDP is the value of all goods and services transacted in the market.

2007/CE/II/27

Which of the following would be included in the GDP for 2005?

- A. Money deposited in a saving account during 2005
- B. The purchase price of an antique in 2005
- C. Public assistance paid to individuals during 2005
- D. The value of wheat produced but unsold in 2005

2015/DSE/1/24

Which of the following would be included in the calculation of Hong Kong's GDP for 2014?

- A. the old age allowance paid by the government in 2014
- B. the market value of a flat built in 2013 but sold in 2014
- C. the salary of a salesperson working in a shop selling second-hand handbags in 2014
- D. the rental income from a property in Canada owned by a Hong Kong resident producing unit in 2014

2018/DSE/1/24

Which of the following are included in the calculation of the gross domestic product of Hong Kong?

- (1) the estimated rental value of an owner-occupied property in Hong Kong
- (2) the commission received by a real estate agent from selling second-hand property
- (3) the scholarship received by a university student

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1992/CE/1/5(b)

Explain whether each of the following is included in the calculation of Hong Kong's gross domestic product.

- (i) public assistance paid to the unemployed by the Social Welfare Department
- (ii) salaries paid to the employees of the Social Welfare Department

(6 marks)

1993/CE/1/4(b)(i)

Suppose a large number of Japanese TV sets are smuggled from Hong Kong to China and sold for HK\$40 million.

Explain whether the whole amount of this HK\$40 million will be included in Hong Kong's GDP. Suggest TWO reasons.

(4 marks)

1995/CE/1/11(d)

In early 1995, Mr. Ip earned a commission of \$20 000 by helping Mr. A sell a flat to Miss B at a price of \$2 000 000. Explain whether each of the following statements is true or not:

- (i) The commission should be included in Hong Kong's GDP for 1995. (2 marks)
- (ii) If the flat is currently under construction and to be completed next year, the production of the flat contributes nothing to Hong Kong's GDP for 1995. (3 marks)

1996/CE/1/3(b)

Share prices of Vitasoy International Holdings Limited (維他奶國際集團有限公司) fell because some of its products were found to be contaminated and were destroyed.

Explain whether the value of these destroyed products would be included in the calculation of Hong Kong's gross national product. (2 marks)

1996/CE/1/4(a)

A traffic light, which was worth \$1 500, was knocked down in a traffic accident. The driver was fined \$3 000 and the government used \$2 000 to install another traffic light.

What is the change in the gross domestic product (GDP) at factor cost brought about by this incidence? Explain your answer. (2 marks)

1997/CE/1/8

Explain whether the following items should be included in the calculation of Hong Kong's gross domestic product (GDP):

- (a) sewage charges
- (b) the increased resale value of residential units due to a boom in the property market

(4 marks)

1998/CE/1/9(d)

Mr. Wong paid a commission of \$1 000 to the broker who helped him buy \$200 000 worth of shares. Explain whether these two items of payment would affect Hong Kong's gross domestic product (GDP). (4 marks)

1999/CE/1/7

Explain whether the following items should be included in the calculation of Hong Kong's gross national product.

- (a) the funds raised from the Millionwalk (2 marks)
- (b) the part of the public assistance which the needy spent on transport (2 marks)

2000/CE/1/9(b)(ii)

Some petroleum companies complained that their business was affected because some drivers bought gasoline from smugglers who evaded import duties.

Explain how the smuggling of gasoline would affect the GDP of this economy. (4 marks)

2000/CE/1/10(b)(iii)

Suppose Bank X of economy A takes over Bank Y of economy B by buying up its controlling shares worth \$5 million.

Explain whether the \$5 million mentioned above should be included in the calculation of the GDP of economy B. (3 marks)

2001/CE/1/11(a)(ii)

Hong Kong's property market has been depressed since 1998. Explain how a sharp fall in property prices and in the number of property transactions would affect Hong Kong's GDP. (5 marks)

2002/CE/1/11(a)(ii)

The following shows the gross domestic product (GDP) data of economy A in a certain year.

	Smillion
Private consumption expenditure	400
Net investment expenditure	180
Government consumption expenditure	250
Exports	500
Imports	650
Depreciation	150
Indirect business tax	50
Interest	200

Miss Wong, an Economics teacher in a tutorial school, tells her students that the total spending of economy A's consumers in market value must be greater than \$400 million. Give THREE reasons to explain why she is correct. (6 marks)

2003/CE/1/11(a)

Many information technology (IT) companies in Hong Kong have closed down in recent years. Explain whether each of the following should be included in the calculation of Hong Kong's GDP.

- (i) the resale value of the furniture and equipment of the above companies (2 marks)
- (ii) the fee paid to Hong Kong accounting firms in liquidating the above companies (3 marks)



2006/CE/1/10(b)

Date	Exchange rate
1 December 2005	€1 = HK\$ 9.07
18 January 2006	€1 = HK\$ 9.37

Through a commercial bank, Mr Chan bought 10 000 Euros on 1 December 2005 and sold them on 18 January 2006 at the rates shown in the above table.

- (i) Calculate Mr Chan's gain / loss (in terms of HK\$) in the above transactions. Explain whether this gain / loss should be included in the calculation of Hong Kong's GDP. (4 marks)
- (ii) Explain whether the above transactions would lead to an increase in Hong Kong's GDP. (2 marks)

2008/CE/1/9(a)

The stock market of an economy is overheated. Many people withdraw money from their bank deposits to buy shares.

Harry bought the shares of a company at a value of \$2 000 at the beginning of the year and sold them at \$10 000 three months later. He has a capital gain of \$8 000.

Explain whether this amount of \$8 000 should be included in the calculation of the GDP of the economy. (2 marks)

2009/CE/1/9(c)

Some students purchase second-hand textbooks in bookstores. Explain why part of their total spending on buying second-hand textbooks should be included in the calculation of GDP. (2 marks)

2012/DSE/1/10(a)(i)

In 2011, the Financial Secretary announced the "Scheme \$6 000" which provides \$6000 to each Hong Kong permanent resident who is 18 years old or above.

Mr. Chan is a retired person and received \$6000 through the scheme in 2011. Should this item of payment by the government be included in the calculation of Gross Domestic Product of Hong Kong in 2011? Explain. (2 marks)

2015/DSE/1/9(d)

In July 2014, McDonald's was accused of using expired meat as an ingredient for its food. Later, the related products were destroyed. Explain whether the value of these destroyed products would be included in the calculation of Hong Kong's gross domestic product. (2 marks)

MARKING SCHEME

1990/CE/1/39 A	1993/CE/1/35 A	1997/CE/1/60 B	2002/CE/1/49 B (52%)	2015/DSE/1/24 C (75%)
1990/CE/1/49 B	1994/CE/1/32 B	1998/CE/1/26 A	2004/CE/1/26 B (71%)	2018/DSE/1/24 A (71%)
1991/CE/1/44 C	1995/CE/1/60 A	1999/CE/1/24 C	2005/CE/1/26 A (77%)	
1992/CE/1/45 D	1996/CE/1/27 B	1999/CE/1/31 A	2006/CE/1/25 D (65%)	
1992/CE/1/47 A	1997/CE/1/24 A	2000/CE/1/33 A	2007/CE/1/26 C (55%)	
1992/CE/1/58 A	1997/CE/1/29 B	2001/CE/1/30 A	2007/CE/1/27 D (59%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/CE/1/5(b)

- (i) Not included, because there is no production in return for the money. (1)  
(2)
- (ii) Included, because it is a return to production in the year. (1)  
(2)

1993/CE/1/4(b)(i)

- No, because (part of) it is not produced in Hong Kong, and (part of) it is unreported transaction. (2)  
(2)

1995/CE/1/11(d)

- (i) True, because it is Mr. Ip's factor income for his production / service rendered. (1)  
(1)
- (ii) False, because production cost such as the labour wages paid in 1995 are included in the national income for 1995. (1)  
(1)
- OR  
the portion completed in 1995 is value-added in 1995.  
OR  
the portion completed in 1995 is investment in 1995. (2)

1996/CE/1/3(b)

- Not included, because not a consumption expenditure (∵ consumers got their money back) nor an investment expenditure (∵ the products were destroyed). (1)  
(1)
- OR  
no value added to GNP (∵ production costs such as cost of materials, wage payments, transportation cost, etc. were offset by loss at the firm level) (2)

Macroeconomics by Topic  
I. National Income

- 1996/CE/1/4(a)  
GDP at factor cost increased by \$2 000, because it is a current production. (1)  
**OR**  
the \$2 000 is included in the government expenditure of the current year. (1)
- 1997/CE/1/8  
(a) The sewage charges should be included, because it is a payment for the services produced by the government. (1)  
(b) The increased resale value should not be included, because there is no production of goods or services. (1)
- 1998/CE/1/9(d)  
The commission to the broker must be added to Hong Kong's GDP, because it is an income to the broker / a payment for the broker's service. (1)  
**OR**  
it involves provision of service in this current year. (1)  
The payment for shares should not be taken into account, because it is just a transfer of ownership of existing assets which does not relate to any current production. (1)
- 1999/CE/1/7  
(a) Not included, because charity donation is not a production. (1)  
(b) Included, because it is in exchange for certain service rendered in the current year. (1)
- 2000/CE/1/9(b)(ii)  
Smuggled gasoline has no official record in the GDP figures (∴ illegal) (2)  
(On the other hand,) sales revenue of petroleum companies ↓ (1)  
∴ GDP ↓ (1)
- 2000/CE/1/10(b)(iii)  
No, because (1)  
the \$5 mn. refers to the value of shares being transferred and share transfer itself is not a production. (2)
- 2001/CE/1/11(a)(ii)  
- market value of currently constructed property decreases  
- total value of middlemen services (of those property agencies, law firms, etc) decreases  
- effect on expenditure components, e.g. consumption ↓, investment ↓  
- effect on factor income e.g. wages ↓, profits ↓ (2@, max: 4)  
∴ GDP decreases. (1)  
(Mere mentioning of the conclusion without elaboration - zero mark)
- 2002/CE/1/10(a)(ii)  
Consumers' spending would be greater than \$400 m because there are  
- spending on goods not currently produced, e.g., inventories in past year which are sold in this year  
- spending on mere transfer of ownership, e.g., secondhand goods, existing stocks and shares, existing properties  
- spending on investment items e.g., new houses  
- unreported transactions e.g., illegal goods (2@, max: 6)  
[Mark the FIRST THREE points only.]

Macroeconomics by Topic  
I. National Income

- 2003/CE/1/11(a)  
(i) No, because the amount received from the sale demonstrates merely a transfer of ownership which has no current production. (1)  
(ii) Yes, because it represents the value of services provided by the accounting firms which are resident producing units of Hong Kong. (1)
- 2006/CE/1/10(b)  
(i)  $S(9.37 - 9.07) \times 10\ 000 = \$3\ 000$ . He gained \$3 000. (1)  
No, because the capital gain does not involve production. (1)  
(ii) Yes, because the banking service involved in the transactions is a production. (1)
- 2008/CE/1/9(a)  
No, because an increase in the capital value does not involve production. (1)
- 2009/CE/1/9(c)  
Part of the total spending is on the service provided by the bookstores. The service provided by the bookstores is a current production which should be counted as part of the GDP. (2)
- 2012/DSE/1/10(a)(i)  
No, because there is no corresponding production. (1)
- 2015/DSE/1/9(d)  
No, because it is not sold to the market and thus not counted in production. [Output Approach] (1)  
**OR**  
it is neither counted in consumption nor investment. [Expenditure Approach]  
**OR**  
business losses due to destroyed products (i.e., negative profits) would offset exactly wages paid to workers and other material costs incurred in producing these products (i.e., positive wage and other factor incomes). [Income Approach] (1)

## 1.5 GDP AND GROSS NATIONAL INCOME (GNI)

### Multiple Choice Questions

1991/CE/II/43

Which of the following is included in a country's gross national product?

- A. the expenditure on newly-issued shares
- B. the salary paid to a foreign employee
- C. the expenditure on public assistance
- D. the income of citizens earned abroad

1992/CE/II/48

The income of a Hong Kong citizen working in Canada is included in

- (1) Hong Kong's gross national product.
  - (2) Hong Kong's gross domestic product.
  - (3) Canada's gross national product.
  - (4) Canada's gross domestic product.
- A. (1) and (3) only
  - B. (1) and (4) only
  - C. (2) and (3) only
  - D. (2) and (4) only

1993/CE/II/44

If GNP is greater than GDP,

- A. depreciation is greater than zero.
- B. net income from abroad is greater than zero.
- C. transfer payments are greater than zero.
- D. exports are greater than imports.

1995/CE/II/32

GDP will be greater than GNP when

- A. the net export is negative.
- B. the net export is positive.
- C. the net income from abroad is negative.
- D. the net income from abroad is positive.

1999/CE/II/26

Which of the following sources of income earned by local residents should be included in the calculation of 'net income from abroad'?

- (1) export of goods
  - (2) export of services
  - (3) property investment in foreign countries
  - (4) stocks and shares investment in foreign countries
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (3) and (4) only

1999/CE/II/29

Which of the following statements about GDP is correct?

- A. GDP will be larger than GNP if the net export is positive.
- B. GDP does not include the income derived by local citizens from abroad.
- C. GDP does not consider the value of depreciation.
- D. Net income from abroad cannot be negative.

2002/CE/II/25

In order to calculate the gross national product of Hong Kong, which of the following items should be deducted from Hong Kong's gross domestic product (GDP) figure?

- A. the dividend received from shares in Hang Seng Bank by a Japanese person who lives in the U.S.
- B. the rental income earned by a Hong Kong resident from his property in the U.S.
- C. the salary earned by a native English teacher employed on a two-year contract in a secondary school in Hong Kong
- D. the donations of a Hong Kong resident to mainland China.

2004/CE/II/28

Which of the following items must be positive in value?

- A. net external factor income flow
- B. net exports
- C. depreciation
- D. gross profit of firms

2006/CE/II/26

Gross domestic product (GDP) will be greater than gross national product (GNP) when the amount of

- A. net income from abroad is negative.
- B. net income from abroad is positive.
- C. indirect taxes less subsidies is positive.
- D. net exports is negative.

2006/CE/II/29

Which of the following items should be included in the calculation of Hong Kong's net external factor income flow (i.e., net income from abroad)?

- (1) the spending of a Japanese tourist in Hong Kong
  - (2) the revenue earned by a Hong Kong watch manufacturer from selling watches to Europe
  - (3) the rental income of a Hong Kong resident from property investment in the U.K.
  - (4) the interest received by a Hong Kong resident from his savings deposit in a bank in Switzerland
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (4) only
  - D. (3) and (4) only

2008/CE/II/27

Which of the following amounts should be added to the GDP of Hong Kong in order to calculate the gross national product of Hong Kong ?

- A. the income earned by a Japanese singer who held two concerts in Hong Kong
- B. the salary of a Hong Kong resident who works for the Hong Kong office of an American bank
- C. the rental income received by a Hong Kong resident from his residential apartment in Canada
- D. an investment made by a Hong Kong resident in a garment factory in Thailand

2009/CE/II/30

Suppose the GDP is greater than the gross national product. This implies that

- A. the net factor income from abroad is positive.
- B. the net factor income from abroad is negative.
- C. the net export is positive.
- D. the net export is negative.

2010/CE/II/30

Which of the following amounts should be deducted from the GDP of Hong Kong in order to calculate the gross national product of Hong Kong?

- A. the rental income received by a mainland investor from his residential apartment in Hong Kong
- B. the dividend received by a Hong Kong resident from his investment in the stock market in the US
- C. the scholarship given by a Hong Kong tycoon to subsidize mainland students to study in Hong Kong
- D. the salary of a Hong Kong resident working in a branch office of a British bank in Hong Kong

2011/CE/II/31

Which of the following items can be negative in value?

- (1) Net external factor income flow
- (2) Net exports
- (3) Net domestic fixed capital formation

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2013/DSE/II/21

Which of the following items is NOT included in the calculation of Hong Kong's net factor income from abroad for the current year?

- A. the income received by a Japanese teacher who worked in a language school in Hong Kong for one year
- B. rental income earned from real estate holdings in Canada owned by a Hong Kong resident
- C. salary received by an Indian consultant who worked for the Hong Kong Airport Authority for three months
- D. dividends earned from shares in Hong Kong held by a US resident

2019/DSE/II/25

To calculate the gross national income of Hong Kong, which of the following should be added to the GDP of Hong Kong?

- A. the income earned by a Japanese chef who has worked in a Hong Kong restaurant for two months
- B. the rental received by a Hong Kong resident from leasing his house in Japan to a Japanese
- C. the salary earned by a Hong Kong resident from working as a secretary at the Hong Kong branch office of an Australian company
- D. the money received from selling an apartment in Australia by a Hong Kong resident

2020/DSE/II/25

Which of the following should be deducted from the gross domestic product of Hong Kong to calculate the gross national income of Hong Kong?

- A. the fee paid by a Hong Kong football club to a Japanese football team for an exhibition match in Hong Kong
- B. the rent earned by a Hong Kong property developer from its residential property in Japan
- C. the capital gain earned by a Japanese insurance corporation from its financial investment in Hong Kong
- D. the dividend paid by a listed company in Japan to a Hong Kong resident

Short & Structured Questions

1990/CE/II/1(c)

Explain whether the wage earnings of Filipino maids in Hong Kong are included in

- (i) Hong Kong's gross domestic product. (2 marks)
- (ii) the Philippines' gross national product. (2 marks)

2001/CE/II/6

Explain whether each of the following should be included in the calculation of Hong Kong's gross domestic product (GDP).

- (a) the salary of a Hong Kong citizen employed by a foreign airline
- (b) the rent paid by a foreign airline for using the premises owned by a Hong Kong company (4 marks)

2002/CE/II/10(d)

Bank A runs its business in Hong Kong. Tom is a consultant from Japan who will work for Bank A for nine months. Afterwards he will return to Japan.

Explain whether Tom's salary for these nine months should be included in the calculation of Hong Kong's gross domestic product and gross national product (4 marks)

2015/DSE/II/10(a)

Suppose a football club in Hong Kong hired a famous football player from Brazil as the coach for a 2-month course for kids. He received \$8 million as his salary and returned to Brazil afterwards. However, the enrollment of the course was poor and the revenue from the course was \$3 million only. What is the effect of organizing the above course on each of the following items? Explain.

- (i) Hong Kong's gross domestic product (GDP) (2 marks)
- (ii) Hong Kong's gross national product (GNP) (3 marks)

**MARKING SCHEME**

1991/CE/II/43 D	1995/CE/II/32 C	2002/CE/II/25 A (29%)	2006/CE/II/29 D (46%)	2010/CE/II/30 A (53%)
1992/CE/II/48 B	1996/CE/II/26 D	2004/CE/II/28 C (53%)	2008/CE/II/27 C (46%)	2011/CE/II/31 A
1993/CE/II/44 B	1999/CE/II/29 B	2006/CE/II/26 A (67%)	2009/CE/II/30 B (70%)	2013/DSE/II/21 A (22%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2019/DSE/II/25 B	2020/DSE/II/25 A
---------------------	---------------------

- 1990/CE/1(c)  
(i) Yes, because (1)  
Filipino maids are resident producing units of Hong Kong. (1)
- (ii) Yes, because (1)  
the factor owner is a resident of the Philippines. (1)

- 2001/CE/6  
(a) The answer is 'included' or 'excluded' depending on whether the firm which employ him is a resident producing unit of HK or not. (1)

Explanation of why the firm is or is not a resident producing unit of HK (1)

E.g.1 Excluded:

The foreign airline operates its business in foreign countries.  
It is not a resident producing unit of HK.

E.g.2 Included:

A branch of the foreign airline operating in HK employs him.  
This branch is a resident producing unit of HK.

- (b) The answer is 'included' or 'excluded' depending on whether the rental income of a resident of HK is earned in HK or not. (1)

Explanation of why the rental income is or is not earned in HK (1)

E.g.1 Included:

The HK company operates its business in HK and the premises are located in HK.  
A resident of HK earns that rental income in HK.

E.g.2 Excluded:

The HK company operates its business in HK and the premises are located in a foreign country.  
The rental income is earned by a resident of HK but it is an income from abroad.

- 2002/CE/10(d)  
Included in HK's GDP, because (1)  
Bank A is a resident producing unit of HK. (1)

- Excluded from HK's GNP, because (1)  
Tom is not a resident of HK, and his salary is an income to abroad. (1)

- 2015/DSE/II/10(a)  
(i) HK's GDP would increase (by \$3 million). (1)  
As the course is a current-year production by a resident production unit, its value would be included in GDP. (1)

- (ii) HK's GNP would decrease (by \$5 million), as change in GNP = change in GDP (+\$3 million) + change in net income from abroad (-\$8 million). (1)  
As the Brazilian coach is NOT a HK resident, the \$8 million he received would be counted as income outflow and enter as a negative item in HK's national income account. (2)

1.6 NOMINAL AND REAL GDP

Multiple Choice Questions

1990/CE/II/53  
Refer to the table below:

Year	Real GDP (\$Mn)	Nominal GDP (\$Mn)
1985	150	180
1982	120	120

What is the GDP deflator in 1985?

- A. 100  
B. 120  
C. 150  
D. 180

1990/CE/II/56  
When both the price level and the money income level of a society rise,

- A. the living standard will drop because the value of money decreases.  
B. the living standard will rise because the citizens have more money to spend.  
C. the living standard will not change because the rise in income is offset by the rise in price.  
D. the effect on the living standard is not certain because the extent of both changes is unknown.

1991/CE/II/59

	Growth rate of GDP in 1990
At current market prices	15.2%
At constant (1980) market prices	11.9%

The above data do NOT show an increase in the \_\_\_\_\_ in 1990.

- A. general price level  
B. nominal GDP  
C. real GDP  
D. labour productivity

1994/CE/II/33  
For Question No. 33, consider the following data of an economy producing only bread and shirts:

	Price in 1992 (\$)	Price in 1993 (\$)	Output in 1993 (units)
Bread	10	12	50
Shirts	20	25	20

The GNP at constant (1992) market prices for 1993 is

- A. \$900.  
B. \$1 100.  
C. \$1 200.  
D. \$1 490.

1995/CE/II/34

If a country's real GNP and price level both increase by 5%, this implies that

- A. the standard of living will remain unchanged.
- B. the nominal GNP will rise by 5%.
- C. the nominal GNP has a greater percentage increase than the real GNP.
- D. the nominal GNP will remain constant.

1997/CE/II/23

The following are data of Country X.

Year	1992	1997
GDP	\$500 billion	\$700 billion
Price Index (1990 = 100)	120	135

The growth rate of real GDP from 1992 to 1997 is:

- A. 24.4%
- B. 28.6%
- C. 40.0%
- D. 57.5%

1998/CE/II/23

Suppose a closed economy produces food and clothing only. The outputs of Years 1 and 2 are as follows:

Year	Quantity of food (Unit)	Unit price of food (\$)	Quantity of clothing (Unit)	Unit price of clothing (\$)
1	20	4	40	12
2	15	10	35	30

From Year 1 to Year 2, the real gross national product (real GNP) of this country has (93.23)

- A. worsened because the price level increases.
- B. worsened because the output of both goods decreases.
- C. improved because the nominal GNP increases.
- D. improved because the technology advances.

1998/CE/II/29

Suppose a country experiences a 2% increase in the production volume of goods and services as well as a 3% rise in the general price level in a year. We can conclude that

- (1) the real GNP will increase by 2%.
- (2) the nominal GNP will increase by 2%.
- (3) the nominal GNP will increase by 3%.
- (4) the nominal GNP will increase more than the real GNP by 1%.

- A. (1) only
- B. (2) only
- C. (1) and (2) only
- D. (1), (3) and (4) only

1999/CE/II/25

Suppose the nominal GNP and the price level increase by 10% and 5% respectively, but the population decreases by 10%. Then the per capita nominal GNP will \_\_\_\_\_ and the per capita real GNP will \_\_\_\_\_.

- A. increase ..... increase
- B. decrease ..... decrease
- C. increase ..... remain unchanged
- D. remain unchanged ..... increase

2000/CE/II/36

Year	GNP at current market prices (\$billion)	GNP deflator
1997	2 100	105
1998	2 800	125

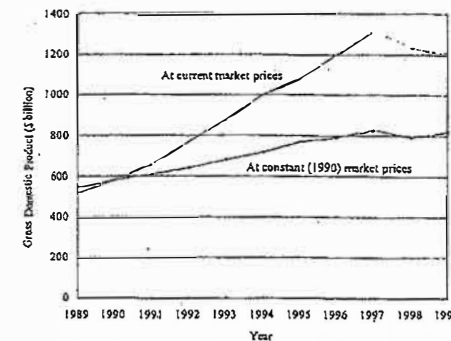
Based on the above information, the growth rate of real gross national product (real GNP) between 1997 and 1998 is

- A. 12%
- B. 16.3%
- C. 33.3%
- D. There is insufficient information to find the answer.

2002/CE/II/30

Refer to the chart below.

Gross Domestic Product of Hong Kong, 1989 - 1999



Source: The Census and Statistics Department

From 1991 to 1998, GDP at current market prices is always greater than GDP at constant (1990) market prices because

- A. the inflation rate is increasing in this period.
- B. the real output level is rising in this period.
- C. the current price level is always higher than the price level of 1990.
- D. the inflation rate is higher than the real output growth rate.

2003/CE/II/28

Suppose the GDP deflator of an economy decreases from 100 to 90. This implies that

- A. its GDP decreases by 10%.
- B. the general price level decreases by 10%.
- C. people's real income increases by 10%.
- D. people's living standard decreases by 10%.

2003/CE/II/29

If both the nominal and real GDP of an economy are rising, the general price level of the economy

- A. is rising.
- B. is falling.
- C. remains unchanged.
- D. may be rising, falling or remain unchanged.

2005/CE/11/29

Study the following information about a country:

Year	Nominal GDP (in million dollars)	Price index
2003	75 000	90
2004	100 000	100

As compared to 2003, the \_\_\_\_\_ of this country was higher in 2004.

- A. general living standard
- B. real GDP
- C. consumption expenditure
- D. average income

2007/CE/11/32

Year	Nominal GDP (\$ billion)	Population (million)	Consumer Price Index
1	3 000	2	100
2	3 500	2.5	110

According to the above information, from Year 1 to Year 2, the economy's real GDP has \_\_\_\_\_ and the per capita nominal GDP has \_\_\_\_\_.

- A. increased ..... decreased
- B. increased ..... increased
- C. decreased ..... decreased
- D. decreased ..... increased

2008/CE/11/32

The following table shows the change in GDP from Year 1 to Year 2.

	Change
GDP at current market prices	+5.1%
GDP at constant market prices	+8.1%

We can conclude from the above data that the real output \_\_\_\_\_ and the general price level \_\_\_\_\_ in that period.

- A. increased ..... decreased
- B. increased ..... increased
- C. decreased ..... increased
- D. decreased ..... decreased

2009/CE/11/29

Refer to the following statistical data (in \$million) on an economy.

Year	GDP at current market prices	GDP at constant (2000) market prices
2007	142 900	134 200
2008	144 800	132 300

Compared with 2007, the general price level has \_\_\_\_\_ and the real output of goods and services has \_\_\_\_\_ in 2008.

- A. increased ..... decreased
- B. increased ..... increased
- C. decreased ..... decreased
- D. decreased ..... increased

2010/CE/11/33

Year	Year-on-year percentage change	
	GDP at current market prices	GDP at constant (2000) market prices
2007	9.5%	6.4%
2008	3.8%	2.4%

Based on the above information, we can conclude that in 2008,

- A. the general price level decreased.
- B. the real GDP decreased.
- C. the GDP deflator increased.
- D. the general living standard increased.

2012/DSE/1/25

Country A's general price level increases by 10% and its aggregate output and population drop by 2% and 10% respectively. As a result, Country A's nominal GDP will \_\_\_\_\_ and the per-capita real GDP will \_\_\_\_\_.

- A. rise ..... rise
- B. rise ..... fall
- C. remain unchanged ..... rise
- D. remain unchanged ..... fall

2015/DSE/1/25

Refer to the following table about an economy.

	Growth rate (relative to previous year) (%)	
	Year 1	Year 2
Nominal GDP	4	0
General price level	3	1
Population	-1	2

Which of the following statements about the economy is correct?

- A. The per capita nominal GDP in year 2 is the same as that in year 1.
- B. The real output increased in year 2.
- C. The general price level decreased in year 2.
- D. The per capita real GDP decreased in year 2.

2017/DSE/1/26

The following table shows some data of an economy.

	Growth rate	
	2015	2016
GDP	-3%	-2%
Price level	1%	0%
Population	4%	2%

Which of the following statements about the economy is correct?

- A. Real GDP in 2016 decreases.
- B. Per capita GDP in 2016 increases.
- C. The price level in 2016 decreases.
- D. The growth rate of real GDP in 2016 is lower than that in 2015.

2018/DSE/1/25

The following table shows the gross domestic product (GDP) data of an economy in a particular year:

GDP components	\$ billion
Capital consumption allowance	40
Net factor income from abroad	36
Production subsidies	14
Direct taxes	5
Indirect taxes	47

Which of the following statements about the economy are correct?

- (1) The GDP is smaller than the gross national income (GNI).
- (2) The GDP at market price is smaller than the GDP at factor cost.
- (3) Depreciation is positive in the economy.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2019/DSE/1/23

The following table shows the gross domestic product (GDP) data of an economy in a certain year.

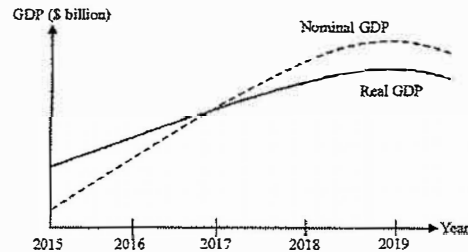
Change in real GDP	-2.6%
Change in nominal GDP	-1.2%
Change in population size	-1.8%

According to the information above, we can conclude that in that year, the price level \_\_\_\_\_ and the per capita nominal GDP \_\_\_\_\_.

- A. increased ..... increased
- B. decreased ..... decreased
- C. increased ..... decreased
- D. decreased ..... increased

2020/DSE/1/26

The following diagram shows the gross domestic product (GDP) of Country A.



Which of the following statements about Country A is correct?

- A. The price level increased between 2016 and 2018.
- B. Deflation occurred before 2017.
- C. The actual inflation rate was equal to the expected inflation rate in 2017.
- D. The nominal GDP has been increasing since 2016.

Short & Structured Questions

1990/CE/1/3(a)(iv)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

	\$ Billion
Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56

(The GDP deflator for 1980 = 100)

Apart from the above data (GDP at current prices for 1988 given as the above data), what other information is needed to calculate

- (i) Hong Kong's per capita GDP at current prices for 1988? (2 marks)
- (ii) Hong Kong's GDP for 1988 at constant (1980) market prices? (2 marks)

1992/CE/1/5(a)

The national income of a country in 1991 is \$60 million.

- (ii) Given the price indexes for 1980 and 1991 were 100 and 150 respectively. Calculate the real national income for 1991 based on 1980 prices. (2 marks)
- (iii) Explain whether the nominal national income or the real national income is a better indicator of general living standard. (3 marks)

1996/CE/1/6

Year	Price index (yearly average)	Peter's salary
1994	120	\$ 10 000
1995	150	\$ 12 000

From the above data, explain whether Peter's real wage in 1995 has increased when compared to that in 1994. (3 marks)

2000/CE/1/6(b)

Study the following data about Hong Kong.

Year	Quarter	Year on year % change in real gross domestic product (GDP)	Unemployment rate (%)	Composite consumer price index
1998	2nd	-5.1	4.4	119.2
	3rd	-6.8	5.0	118.6
	4th	-5.7	5.7	116.1
1999	1st	-3.4	6.2	115.6

Some worker's salaries were frozen during this period of time. Explain how their real income would change in this period. (3 marks)



2002/CE/1/12(b)(ii)

In order to cut expenses, Mr Wong reduces the monthly salaries of the staff working in the bookstore. Explain whether the real income of his staff would necessarily fall during deflation. (5 marks)

2003/CE/1/5

The following table shows data concerning a certain country.

Year	1992	2002
Consumption Expenditure (\$ million)	2 500	2 679
Population (million)	5	6
Price Index	100	95

Based on the above data, explain in which year, 1992 or 2002, the country had a higher general living standard. Show your workings. (6 marks)

2004/CE/1/5

Refer to the following gross domestic product (GDP) data for Hong Kong.

Year	GDP at current market prices (HK\$ million)	GDP at constant (2000) market prices (HK\$ million)
2001	1 269 975	1 294 382
2002	1 259 771	1 323 650

- (a) Explain whether the real output level in 2001 is higher than that of 2002. (2 marks)
- (b) For both 2001 and 2002, explain why the GDP at current market prices is smaller than the GDP at constant market prices for the same year. (2 marks)

2007/CE/1/4(a)

The table below shows the gross domestic product (GDP) statistics of Hong Kong:

Year	(HK\$ million)		
	GDP at current market prices	GDP at constant (2000) market prices	GDP deflator
2003	1 233 983	1 390 610	88.7
2004	1 291 568	1 510 182	85.5
2005	1 382 052	1 619 984	A

The value of A is \_\_\_\_\_. (1 mark)

2009/CE/1/7(a)

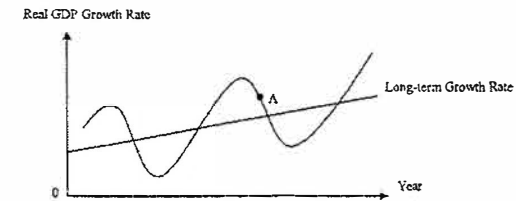
Refer to the following statistical information on a country.

	Year 2000	Year 2008
Nominal gross domestic product (GDP) (\$ million)	16 000	24 840
Price index	100	115
Population (million)	10	12

Calculate the per capita real GDP for the years 2000 and 2008. (2 marks)

2010/CE/1/7(c)

Refer to the business cycle shown below.



During this phase of the business cycle, the nominal wage rate of some workers was reduced. Explain whether their real wage rate must also have decreased. (3 marks)

2012/DSE/11/11(b)

Many workers have their salaries increased during inflation. Explain whether the real income of these workers would necessarily rise. (3 marks)

MARKING SCHEME

1990/CE/11/53 B	1997/CE/11/23 A	2002/CE/11/30 C (32%)	2008/CE/11/32 A (40%)	2017/DSE/1/26 A (52%)
1990/CE/11/56 D	1998/CE/11/25 B	2003/CE/11/28 B (54%)	2009/CE/11/29 A (68%)	2018/DSE/1/25 B (55%)
1991/CE/11/59 D	1998/CE/11/29 A	2003/CE/11/29 D (46%)	2010/CE/11/33 C (37%)	2019/DSE/1/23 A
1993/CE/11/41 C	1999/CE/11/25 A	2005/CE/11/29 B (57%)	2012/DSE/1/23 A (53%)	2020/DSE/1/26 A
1995/CE/11/54 C	2000/CE/11/36 A	2007/CE/11/32 A (63%)	2015/DSE/1/25 D (64%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/1/3(a)(iv)  
(I) Population in 1988 (2)

(II) GDP deflator in 1988 / Price index in 1988 (2)

1992/CE/1/5  
(a) (ii) Real national income = Nominal national income  $\div$  Price index for 1980  $\times$  Price index for 1991  
= \$60 million  $\times$  (100 / 150)  
= \$40 million (1)

(iii) Real national income is a better indicator, because (1)  
it is free from the effects of the price changes in the year. (2)

1996/CE/1/6  
Real wage in 1994 = \$10 000  $\times$  (100 / 120) = \$8 333.3  
Real wage in 1995 = \$12 000  $\times$  (100 / 150) = \$8 000

OR  
Real wage in 1995 based on 1994  
= \$12 000  $\times$  (120 / 150) = \$9 600 < \$10 000

OR  
Change in price index: [(150 - 120) / 120]  $\times$  100% = +25%  
Change in salary: [(\$12 000 - \$10 000) / \$10 000]  $\times$  100% = +20% (2)

$\therefore$  Real wage decreased. (1)

2000/CE/1/6(b)  
For the same amount of money income, real income rose as price level decreased. (3)

2002/CE/1/12(b)(ii)  
Not necessary because (1)  
if the general price level falls at a higher rate than (at the same rate as) the wage cut, their real income would increase instead (remain unchanged). (4)

(Remark: Mere mentioning of "general price level  $\downarrow$  / purchasing power of money  $\uparrow$ " - max. 1 mark)

2003/CE/1/5  
Per capita real consumption expenditure in 1992  
= \$2 500 m  $\div$  5 m  
= \$500 (2)

Per capita real consumption expenditure in 2002  
= \$[2 679 m  $\times$  (100 / 95)]  $\div$  6 m  
= \$470 (2)

$\therefore$  a higher per capita real consumption expenditure in 1992 (1)

OR  
Change in per capita nominal consumption expenditure  
= [\$[2 679 m / 6 m] - \$[2 500 m / 5 m]]  $\div$  \$[2 500 m / 5 m]  
= -10.7% (2)

Change in price index  
= (95 - 100)  $\div$  100  
= -5% (2)

$\therefore$  %  $\downarrow$  in price index < %  $\downarrow$  in per capita nominal consumption expenditure (1)

Conclusion: a higher general living standard in 1992 (1)

2004/CE/1/5  
(a) No, because (1)  
the real GDP (or constant price GDP) for 2002 was higher. (1)

(b) The general price level was decreasing / deflation / inflation rate was negative. (2)

2007/CE/1/4(a)  
\$5.3 (1)

2009/CE/1/7(a)  
Year 2000: \$16 000 million  $\div$  10 million = \$1 600 (1)  
Year 2008: \$24 840 million  $\div$  (115  $\times$  100)  $\div$  12 million = \$1 800 (1)

2009/CE/1/9(c)  
Part of the total spending is on the service provided by the bookstores. The service provided by the bookstores is a current production which should be counted as part of the GDP. (2)

2010/CE/1/7(e)  
Not necessarily decreased, because (1)  
the real wage rate will increase if the percentage decrease in the general price level is greater than the percentage decrease in the nominal wage rate. (2)

2012/DSE/1/11(b)  
No, because (1)  
the real income of workers would fall if the percentage increase in price level is greater than the percentage increase in nominal wage. (2)

## 1.7 LIMITATIONS OF NATIONAL INCOME STATISTICS

### Multiple Choice Questions

1993/CE/II/41

The nominal Gross National Product (GNP) of a country may overstate the living standard of its people because the figure

- (1) does not reflect the improvement in the quality of the goods and services produced in the country
- (2) does not reflect the effect of a rise in the price level
- (3) excludes the undesirable effects of production
- (4) excludes the goods not transacted in the market

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1999/CE/II/30

Under which of the following circumstances will the per capita real GNP underrate the living standard?

- A. when the construction industry causes noise pollution
- B. when there is an increase in population due to immigration
- C. when Mrs Lam does the housework by herself instead of employing a servant
- D. when there is inflation

2002/CE/II/27

Country X has a higher GDP but a lower general living standard than Country Y. Which of the following is a possible reason for this?

- A. The net factor income from abroad of Country Y is smaller.
- B. The working hours of people in Country Y are longer.
- C. Capital goods make up a higher proportion of the output of Country Y.
- D. The population size in Country Y is smaller.

2006/CE/II/50

GDP at constant market prices would NOT be a good indicator to compare the living standard of two countries when the \_\_\_\_\_ of the two countries is different.

- (1) population size
- (2) income distribution
- (3) inflation rate

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2010/CE/II/29

The per capita real GDP of a country would overstate the living standard of its people because it

- (1) does not reflect the improvement in the quality of goods and services produced.
- (2) does not reflect the uneven distribution of income.
- (3) does not reflect the undesirable effects of production.
- (4) excludes the calculation of the goods and services not transacted in the market.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

Short & Structured Questions

1991/CE/1/3

Suppose there are only two countries and two commodities in the world. Every year each has 20 units of resources. Each uses 10 units of resources per year to produce each commodity. The annual output per unit of resources is shown below:

	Food (units)	OR	Clothing (units)
Country A	6		12
Country B	5		20

- (a) (i) Define 'Gross National Product' (GNP). (4 marks)
- (ii) In Country A, the market prices of food and clothing are \$2 and \$1, respectively. Calculate the GNP for country A. (4 marks)
- (b) To compare the general living standard of any two countries, what should we consider in addition to comparing their GNP figures? State and explain **THREE** of them. (9 marks)

1993/CE/1/4(a)(ii)

The following table shows the composition of Hong Kong's Gross Domestic Product (GDP) in 1980 and 1990:

<u>GDP Components</u>	(Ratio to total GDP)	
	1980	1990
Private consumption expenditure	62%	62%
Government consumption expenditure	A%	6%
Investment	36%	28%
Exports	88%	165%
Imports	93%	161%

Although Hong Kong people spent the same percentage of GDP on consumption in 1980 and 1990, their living standard increased during the decade. Give **TWO** reasons to explain this. (4 marks)

1994/CE/1/11(d)

It is known that Country A has a lower GDP than Country B, but people in Country B prefer to live in Country A. Give **TWO** economic reasons to explain why this is so. (6 marks)

1996/CE/1/10(c)

Suppose after trade, Country B has a higher consumption level of both clothing and rice than Country A.

Give **THREE** reasons to explain why we cannot conclude that people in Country B generally enjoy a higher living standard as compared to Country A. (6 marks)

2005/CE/1/6

Answer Questions 6 and 7 by referring to the following information about the Gross Domestic Product (GDP) of Hong Kong.

Table 1:

Year	Implicit price deflator of GDP	Per capita GDP at current market prices (HK\$)
2001	98.1	188 835
2002	94.6	183 790
2003	89.6	179 333

Other than the information given in Table 1, state **TWO** kinds of information that are needed for an accurate reflection of Hong Kong people's standard of living. Explain your answer. (4 marks)

2007/CE/1/5

During an economics class discussion, a student said, "If the per capita real GDP of country X is higher than that of country Y, then residents of country X must be enjoying a higher living standard than residents of country Y."

Give **TWO** reasons to explain why the student is wrong. (4 marks)

2009/CE/1/7(b)

Explain with **TWO** reasons why a change in per capita real GDP cannot accurately reflect the change in the general living standard. (4 marks)

MARKING SCHEME

1993/CE/II/41 C	1999/CE/II/30 C	2002/CE/II/27 D (69%)	2006/CE/II/50 A (38%)	2010/CE/II/29 C (65%)
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Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

- 1991/CE/1/3
- (a) (i) GNP is the total incomes earned by the residents of a country over a period of time (usually 1 year). (4)
- (ii)  $\$2 \times (6 \times 10) + \$1 \times (12 \times 10)$  (2)  
 $= \$240$  (2)
- (b) - same GNP but larger population size will lead to smaller per capita GNP  
 - relative price level consideration: same nominal GNP but higher price level will lead to lower standard of living  
 - same per capita GNP but more uneven income distributions may mean lower general living standard  
 - different GNP composition may mean a higher consumption expenditure in one country (i.e. higher general living standard) but a higher investment expenditure or a higher military expenditure in another (i.e. lower general living standard)  
 - same GNP but a more serious problem of pollution, traffic congestion, etc. will lead to a lower living standard  
 - same GNP but more leisure hours will lead to a higher living standard  
 - same GNP but larger amount of non-market / unreported / illegal goods and services will lead to a higher living standard (3@, max: 9)
- [Mark the **FIRST THREE** points only.]

- 1993/CE/II/4(a)(ii)
- per capita real GDP has increased during the decade
  - better quality of goods (∴ technological advancement)
  - more varieties of goods (∴ technological advancement)
  - more imports of consumer goods
  - better environment protection
  - less working hours
- (2@, max: 4)
- [Mark the **FIRST TWO** points only.]

- 1994/CE/II/1(d)
- In Country A with a lower GDP.
- its per capita GDP may be higher (∴ its has a much smaller population) and more likely to live a better life there
  - its real GDP may be higher (∴ it has a much lower price level)
  - its income may be more evenly distributed ⇒ more attractive to the very low income people of Country B
  - its GDP may have a very different composition e.g. a much larger component of consumption expenditure ⇒ more attractive to people who prefer to enjoy life immediately (3@, max: 6)
- [Mark the **FIRST TWO** points only.]

- 1996/CE/II/10(c)
- This is because we do not know:
- the population size / per capita income of both countries.  
 (If B's population size is three times, say, as that of A, then in general B's living standard is not higher than A.)
  - the income distribution of both countries.  
 (If B's income is highly unevenly distributed but A's is not, then we cannot conclude that.)
  - other social costs of both countries.  
 (e.g. If B has a higher crime rate / more serious social instability / etc., then B's living standard may not be generally higher than A.)
  - other social benefits of both countries.  
 (e.g. If B has less social benefits / less leisure hours / etc., then B's living standard may not be generally higher than A.)
  - what other goods besides rice and clothing these two countries have.  
 (e.g. If B has less other goods, then the conclusion may be wrong.) (2@, max: 6)
- [Mark the **FIRST THREE** points only.]

- 2005/CE/II/6
- Income distribution: If income is unevenly distributed, the living standard of ordinary people will be overestimated.
  - Composition of output: If a large proportion of total output consists of capital goods, national defense, etc., the living standard will be overestimated.
  - Undesirable effects of production: The problems of pollution or traffic congestion would lower the living standard. Therefore, the living standard would be overestimated without such information.
  - Amount of leisure: Leisure would raise the living standard. Therefore, the living standard would be underestimated without such information.
  - Unreported production activities: The consumption of non-marketed goods / the existence of unreported transactions would improve the living standard. Therefore, the living standard would be underestimated without such information. (2@, max: 4)
- [Mark the **FIRST TWO** points only.]

- 2007/CE/II/5
- Difference in income distribution: Income is less evenly distributed in country X.
  - Difference in the composition of output: In country X, a larger proportion of total output consists of capital goods and national defense.
  - Different undesirable effects of production: There are more problems of pollution or traffic congestion in country X.
  - Different amount of leisure: The people of country X enjoy less leisure.
  - Different amount of non-marketed / unreported production activities: There are fewer non-marketed / unreported goods in country X. (2@, max: 4)
- [Mark the **FIRST TWO** points only.]

- 2009/CE/II/7(b)
- (For each of the following points, the case of an increase in the per capita real GDP is used for illustration purposes.)
- Income distribution: If income is unevenly distributed, the corresponding change in the living standard of ordinary people will be overestimated.
  - Composition of output: If a large proportion of total output consists of capital goods, national defense, etc. the corresponding change in the general living standard will be overestimated.
  - Undesirable effects of production: The problems of pollution or traffic congestion would lower the living standard. Therefore, the corresponding change in the general living standard would be overestimated without such information.
  - Amount of leisure: Leisure would raise the living standard. Therefore, the corresponding change in the general living standard would be underestimated without such information.
  - Unreported production activities: The consumption of non-marketed goods / the existence of unreported transactions would improve the living standard. Therefore, the corresponding change in the general living standard would be underestimated without such information. (2@, max: 4)
- [Mark the **FIRST TWO** points only.]

1.8 UNCLASSIFIED

2007/CE/1/10(a)

Typhoons affect the production activities of economies.

It is given that the gross domestic product of Hong Kong per day is HK\$3.3 billion. When the typhoon signal number 8 is hoisted, the daily economic loss is estimated to be less than HK\$3.8 billion. Give TWO reasons to explain why. (4 marks)

2008/CE/1/11(d)

Suppose a country's export value of goods and services decreases by \$3 billion. In reality, the resulting decrease in GDP may be less than or more than \$3 billion.

- (i) Explain a factor that would lead to a less-than \$3 billion decrease in GDP. (3 marks)
- (ii) Explain a factor that would lead to a more-than \$3 billion decrease in GDP. (2 marks)

2016/DSE/1/11(a)

Medical service is one of the basic human needs.

Source A: a conversation outside a public clinic in Hong Kong

*Son: Dad, I feel very ill.*

*Father: Oh no! There is a long queue waiting.*

*Son: Why don't we go to a private doctor?*

*Father: The fee charged by public clinics is only \$45, much lower than that charged by private doctors.*

Refer to Source A. When a public clinic provides medical service for one patient, the resulting rise in gross domestic product will be \$45. Do you agree? Explain. (3 marks)

2018/DSE/1/11

To develop nuclear weapons and increase the military power, Country Z has raised the proportion of government spending on national defence from 10% to 20%. All males aged from 20 - 25 are also required to join the military force for 2 years.

In response to the increasing military threat from Country Z, the United Nations has passed a bill to embargo most of the goods exporting from Country Z.

Analyse the effects of the above situation on Country Z's general living standard. (3 marks)

MARKING SCHEME

2007/CE/1/10(a)

- Some production activities are still undergoing during typhoon.
  - Some production activities e.g. emergency services, are generated during typhoon.
  - Some production activities disrupted during typhoon can be compensated later.
- (2@, max: 4)  
[Mark the FIRST TWO points only]

2008/CE/1/11(d)

- (i) Part of the decrease in export value would not lead to a corresponding decrease in GDP when, referring to those \$3 billion worth of exports.
- part of it is not locally produced.  
e.g. some of the production raw materials are imported
  - e.g. part of the value of these exports comes from the value of re-exports
  - part of it is not produced in the current year.  
e.g. some of these exports are second-hand goods
  - e.g. some of these exported goods come from the inventory
  - part of those goods not exported have already been produced.  
e.g. those goods not exported are sold locally
- (Any factor, 3)

- (ii) The amount of GDP derived from the spillover effect of the production of the exports will also decrease. (2)

2016/DSE/1/11(a)

No, because public services are usually subsidized - i.e. provided at or below cost, which is in turn lower than market price. Their contribution to GDP (or market value), computed using market price, would thus be higher than \$45 (the subsidized price charged by the clinic). (1)

**OR**

the public services which are not sold at the market price will be counted using factor cost in the GDP, which is higher than \$45. (2)

2018/DSE/1/11

The living standard would fall, because the higher proportion of government expenditure or resources / output devoted to national defence would not have much to contribute to the living standard in general.

Overall the citizens would enjoy less goods and services. Since those males drafted for military service are forced to leave their existing jobs, their household income (and consumption) would fall. (3)

## SECTION 2: MACROECONOMIC PROBLEMS

### 2.1 UNEMPLOYMENT

#### Multiple Choice Questions

1994/CE/II/37

Which of the following people would be classified as 'unemployed' in Hong Kong?

- A. Jack, aged 30, who has retired after winning the Mark Six
- B. Peter, aged 14, who cannot find a job after completing Form three
- C. John, who has quit his job and has gone on a trip to Europe
- D. Mary, who lost her job five weeks ago and has been looking for a new job for one month

1995/CE/II/37

Which of the following are the possible losses to society caused by unemployment?

- (1) loss of output
- (2) a higher crime rate
- (3) a greater expenditure in public assistance
- (4) a reduction in the government's tax revenue

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1996/CE/II/33

David has quit his job for two months because he has been ill and is resting in bed. According to the Hong Kong government, he is

- A. unemployed.
- B. underemployed.
- C. employed.
- D. not in the labour force.

1997/CE/II/26

Study the following data about Hong Kong in a certain year:

	Number of Persons
Employed Population	2 931 000
Underemployed Population	33 000
Unemployed Population	69 000

The unemployment rate is

- A. 2.27%
- B. 2.30%
- C. 3.36%
- D. 3.40%

1997/CE/II/55

An increase in the number of Form 7 graduates studying in the universities will result in

- (1) a decrease in the present labour supply.
- (2) a decrease in the present unemployment rate.
- (3) an increase in future average labour productivity.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1998/CE/II/24

Which of the following are included in the calculation of the labour force of Hong Kong?

- (1) an employee with a foreign nationality working in a law firm in Hong Kong
- (2) Mr Chan, who is unemployed and searching for a job
- (3) Mr Wong, who works as a volunteer in a community centre after his retirement

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1998/CE/II/28

If some Hong Kong residents who emigrated return to Hong Kong to fill up some posts which have been vacant for a long time, then Hong Kong's labour force would \_\_\_\_\_ and here unemployment rate would \_\_\_\_\_.

- A. increase ..... fall
- B. decrease ..... fall
- C. increase ..... rise
- D. decrease ..... rise

1999/CE/II/32

Many imported workers who had stayed in Hong Kong several years working on the new airport project, have gone back to their home countries. What will be the effect of their departure on the unemployment rate in Hong Kong?

- A. The unemployment rate will increase.
- B. The unemployment rate will decrease.
- C. The unemployment rate will remain constant.
- D. The effect cannot be determined.

2002/CE/11/29

	Number of Persons
Population aged 15 or above	10 000 000
Employed population	6 800 000
Unemployed population	1 200 000
Underemployed population	800 000

According to the above table, which of the following statements is/are correct?

- (1) The labour force amounts to 8 000 000.
- (2) The underemployment rate is 10%.
- (3) The unemployment rate is 12%.

- A. (3) only
- B. (1) and (2) only
- C. (1) and (3) only
- D. (2) and (3) only

2002/CE/11/31

Which of the following are possible losses to a society caused by unemployment?

- (1) more government spending on public security due to a higher crime rate
- (2) more unemployment assistance given by the government
- (3) lower output level
- (4) lower cost of living

- A. (1) and (3) only
- B. (2) and (4) only
- C. (1), (2) and (3) only
- D. (2), (3) and (4) only

2003/CE/11/30

Study the following data about Hong Kong in the period of July 2002 to September 2002.

	Number of Persons
Employed Population	3 243 000
Underemployed Population	101 000
Unemployed Population	267 000

The unemployment rate in the period is

- A. 7.4%
- B. 7.6%
- C. 8.2%
- D. 10.2%

2004/CE/11/33

	Number of Persons
Employed population	18 400
Unemployed population	1 600

Now there are 1 000 additional job seekers in the economy. If 90% of them succeed in finding a job, the unemployment rate

- A. will increase.
- B. will decrease.
- C. will remain unchanged.
- D. may increase or decrease.

2005/CE/11/32

	Population
Aged 15 or above	10 000 000
Employed	6 800 000
Unemployed	1 200 000
Underemployed	1 600 000

According to the above data,

- A. the total labour force is 9 600 000.
- B. the underemployment rate is 20%.
- C. the unemployment rate is 12.5%.
- D. the unemployment rate is 16%.

2006/CE/11/30

Suppose the unemployed population of an economy is 500 000 while the unemployment rate is 5%. The employed population is

- A. 500 000
- B. 1 000 000
- C. 9 500 000
- D. 10 000 000

2007/CE/11/30

Unemployment is costly to society because

- A. the employed will pay more tax.
- B. the potential GDP will fall.
- C. the real output of the economy will fall.
- D. unemployment benefit is a burden to society.

2008/CE/11/30

Study the following figures of an economy.

	Number of Persons
Unemployed	20 000
Under-employed	60 000
Employed	480 000
Persons aged 15 or above	1 000 000

The unemployment rate of the economy is \_\_\_\_\_.

- A. 2.0%
- B. 3.7%
- C. 4.0%
- D. 4.17%



2009/CE/11/32

Labour force (persons)	600 000
Unemployment rate	10%
Underemployment rate	5%

According to the above information on an economy,

- A. the population aged 15 or above is 600 000.
- B. the employment rate is 85%.
- C. the employed population is 540 000.
- D. the number of unemployed takes up 10% of the population.

2010/CE/11/52

Below are the employment figures of a country.

	Number of Persons
Employment	18 000
Unemployment	2 000

Suppose there are new job seekers entering into the labour market after graduation but only 85% of them succeed in finding a job. The unemployment rate \_\_\_\_\_.

- A. will increase
- B. will decrease
- C. will remain unchanged
- D. may increase or decrease

2012/DSE/1/24

Many Hong Kong construction workers stay in Macau to work for several years. If they are attracted by the job opportunities offered by new infrastructure projects in Hong Kong and return to seek jobs, what will be the effect on the unemployment rate in Hong Kong?

- A. The unemployment rate will increase.
- B. The unemployment rate will decrease.
- C. The unemployment rate will remain unchanged.
- D. The effect on the unemployment rate cannot be determined.

2016/DSE/1/25

Which of the following will reduce the unemployment rate of a country?

- A. Some university graduates join the labour force.
- B. Some factories move to a neighbouring country with lower labour cost.
- C. Some unemployed workers give up seeking jobs.
- D. The government increases unemployment benefits.

2017/DSE/1/27

If some second-generation of Hong Kong permanent residents returned to Hong Kong to fill up the posts which have been vacant for a long time, Hong Kong's labour force would \_\_\_\_\_ and the unemployment rate would \_\_\_\_\_.

- A. rise ..... remain unchanged
- B. rise ..... fall
- C. fall ..... remain unchanged
- D. fall ..... fall

2019/DSE/1/24

The following table shows the data of an economy.

Population aged 15 or above	6 500 000
Labour force participation rate*	60%
Employed population	3 780 000
Underemployed population	100 000

\*Labour force participation rate = proportion of labour force in population aged 15 or above

Based on the above data, the unemployment rate of the economy is \_\_\_\_\_.

- A. 1.85%
- B. 3.08%
- C. 3.38%
- D. 5.64%

2019/DSE/1/39

Which of the following results can be a negative number?

- A. gross investment *minus* net investment
- B. total exports *minus* re-exports
- C. money supply (M3) *minus* money supply (M2)
- D. employed population *minus* unemployed population

2020/DSE/1/24

24. The following table shows the employment data of Hong Kong from April to June in 2019.

	Number of persons ('000)
Population	7 524
Aged 15 or above	6 590
Employed persons	3 871
Unemployed persons	114
Underemployed persons	41

According to the above data, the underemployment rate is \_\_\_\_\_.

- A. 0.55%
- B. 0.62%
- C. 1.03%
- D. 1.06%

Short & Structured Questions

1994/CE/1/10(a)(i)

What losses to an economy are caused by unemployment? Give **TWO** of them. (4 marks)

1995/CE/1/6

Every summer, many school leavers start to look for jobs and this affects the unemployment rate in September. Explain why the rate may increase or decrease. (5 marks)

2000/CE/1/7

A certain government announces that the unemployment rate has dropped but the number of unemployed has increased. Explain why the number of unemployed can increase despite a fall in the unemployment rate. (4 marks)

2003/CE/1/6

Suppose a number of civil servants retire under the government's voluntary retirement scheme. Explain whether this will increase the unemployment rate in Hong Kong. (4 marks)

2004/CE/1/7

Give **TWO** losses to society caused by unemployment. (4 marks)

2006/CE/1/9(c)

In the summer of last year, the growing business of many retail shops led to an increase in the employed population in Hong Kong. However, the unemployment rate during the same period of time remained unchanged.

Explain why the unemployment rate can still remain unchanged in spite of an increase in the employed population. (4 marks)

2007/CE/1/8(b)(i)

Suppose these top-quality Mainland students stay and work in Hong Kong after their graduation and the total number of job positions in Hong Kong remains unchanged.

Explain how this situation would affect the unemployment rate of Hong Kong. (4 marks)

2012/DSE/II/6(a)

Rising unemployment is one of the phenomena which occurs during economic recession.

State **TWO** losses to society caused by unemployment. (2 marks)

2013/DSE/II/11(b)(iii)

The government has launched the "Work Incentive Transport Subsidy Scheme", with the following objectives:

- (1) To relieve the burden of travelling expenses commuting to and from work on the part of low-income households with employed members
- (2) To promote sustained employment

Applicants must meet the monthly income and asset limits of the household (e.g. for a single person, the monthly income cannot exceed \$7 300 and the assets cannot exceed \$72 000) and work no less than 72 hours per month in order to apply for a subsidy of \$600 per month.

Discuss the effects of the scheme on the unemployment rate. (3 marks)

2015/DSE/II/5

Macau has developed rapidly in recent years and some workers in Hong Kong have been attracted to work there. Suppose the number of job positions in Hong Kong is constant. What would be the effect of the above phenomenon on the unemployment rate in Hong Kong? Explain your answer. (4 marks)

2016/DSE/II/6

Below are the employment data of a country.

Employed population	3 800 000
Underemployed population	800 000
Unemployed population	200 000

(a) Calculate the unemployment rate of the country. (2 marks)

(b) Suggest **THREE** losses to the society caused by unemployment. (3 marks)

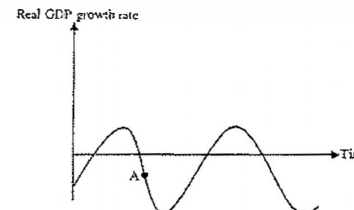
2018/DSE/II/5(b)

During peak flu seasons, there is not enough medical staff in public hospitals in Hong Kong.

In order to relieve the pressure of the medical staff, the government plans to recruit retired medical staff to re-join the public hospitals. Explain how the measure would affect the unemployment rate in Hong Kong. (4 marks)

2020/DSE/II/3

Below are the gross domestic product (GDP) data of a country.



(a) Identify the phase of business cycle which point A is in. (1 mark)

(b) Apart from increasing unemployment rate, list **TWO** general economic phenomena which occur at point A. (2 marks)

(c) State **TWO** losses to society caused by unemployment. (2 marks)

MARKING SCHEME

1994/CE/II/37 D	1998/CE/II/24 A	2003/CE/II/30 B (44%)	2008/CE/II/30 C (63%)	2017/DSE/II/27 B (76%)
1995/CE/II/37 A	1998/CE/II/28 A	2004/CE/II/33 A (58%)	2009/CE/II/32 C (62%)	2019/DSE/II/24 B
1996/CE/II/33 D	1999/CE/II/32 A	2005/CE/II/32 B (55%)	2010/CE/II/32 A (61%)	2019/DSE/II/39 D
1997/CE/II/26 B	2002/CE/II/29 B (49%)	2006/CE/II/30 C (60%)	2012/DSE/II/24 D (53%)	2020/DSE/II/24 C
1997/CE/II/55 B	2002/CE/II/31 A (15%)	2007/CE/II/30 C (33%)	2016/DSE/II/25 C (48%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1994/CE/II/10(a)(i)  
- GNP ↓ / living standard ↓  
- skill and experience of the unemployed ↓ / productivity ↓  
- social problems as other losses to society, e.g. higher crime rate, family problems  
[Mark the **FIRST TWO** points only.] (2@, max: 4)

1995/CE/II/6  
The newly graduated job seekers increase the labour force. (1)  
Unemployment rate (R) =  $\frac{\text{Unemployed population (U)}}{\text{Labour force (L)}} \times 100\%$  (1)  
if a very high proportion of the new job seekers can find a job, then the unemployment rate will decrease; (2)  
and if quite a number of them cannot find a job, the unemployment rate will increase. (2)  
**OR**  
whether the unemployment rate is higher or lower depends on the relative change of the labour force and the unemployed population. (4)  
**OR**  
% change in U > % change in L ⇒ R ↑ (2)  
% change in U < % change in L ⇒ R ↓ (2)

2000/CE/II/7  
The no. of unemployed increases at a slower rate than the increase in the labour force. (4)  
[Show understanding of "unemployment rate = (no. of unemployed ÷ labour force) × 100%" without other elaboration  
- max: 1 mark]

2003/CE/II/6  
The unemployment rate would increase, because (1)  
an increase in the number of retired persons would not change the unemployed population, (1)  
but would reduce the size of labour force / employed population. (1)  
Since unemployment rate =  $\frac{\text{unemployed population}}{\text{labour force}}$   
**OR**  
=  $\frac{\text{unemployed population}}{\text{employed population} + \text{unemployed population}}$ , (1)  
the unemployment rate would increase.  
[Mere mentioning of the formula of unemployment rate - max: 1 mark]

2004/CE/II/7  
- productive resources will be left idle / output level will be lower  
- political disorder / social unrest  
- loss of skills (2@, max: 4)  
[Mark the **FIRST TWO** points only.]

2006/CE/II/9(c)  
Unemployment rate =  $\frac{\text{unemployed population}}{\text{labour force}} \times 100\%$  (1)  
The unemployed population increased, and (1)  
both the labour force and the unemployed population increased at the same rate / percentage. (2)

2007/CE/II/8(b)(i)  
Total labour force increases. (1)  
Unemployed population increases. (1)  
(Given total employment remains unchanged.)  
increase in total labour force = increase in unemployed population  
**OR** % increase in the unemployed population > % increase in the labour force (1)  
As a result, unemployment rate increases. (1)

2012/DSE/II/6(a)  
- loss of output  
- loss of human capital  
- political unrest (1@, max: 2)  
[Mark the **FIRST TWO** points only.]

2013/DSE/II/11(b)(iii)  
The effect on the unemployment rate is uncertain.  
The size of the labour force would increase as more people originally outside the labour force are induced to look for jobs.  
But the total number of unemployed may also increase as some of these new workers may fail to get a job. The resulting rate of unemployment depends on the percentage increase in the unemployed population relative to that in the labour force. (3)

2015/DSE/II/5  
Unemployment rate =  $\frac{\text{number of unemployed}}{\text{total labour force}} \times 100\%$   
Since both total labour force and number of unemployed drop by an equal amount, the percentage decrease in the unemployed population is greater than the percentage decrease in the total labour force, implying a reduction in the unemployment rate. (4)

2016/DSE/II/6  
(a) The unemployment rate =  $\frac{200\,000}{(3\,800\,000 + 200\,000)} \times 100\% = 5\%$  (2)  
(b) - loss of output  
- loss of human capital  
- political and social unrest (1@, max: 3)  
[Mark the **FIRST THREE** points only.]

2018/DSE/II/5(b)  
Unemployment rate =  $\frac{\text{number of unemployed people}}{\text{the total labour force}} \times 100\%$   
The number of unemployed people will not change while the labour force increases as the retired staff is not in the labour force originally. The unemployment rate will drop. (4)

3a Recession ( 1 mark )

- b. Decrease of inflation rate  
Lower RGDP growth rate  
Decrease of consumption and investment confidence ( 2 marks )

- c. Loss of human capital  
Loss of real output  
Social unrest ( 2 marks )

## 2.2 THE GENERAL PRICE LEVEL

Multiple Choice Questions

1991/CE/II/46

What will happen when there is inflation?

- A. The cost of living will fall.  
B. The budget deficit will decrease.  
C. The living standard will improve.  
D. The value of money will decrease.

1991/CE/II/48

Unexpected inflation will

- (1) increase government revenue.  
(2) encourage exports.  
(3) redistribute income.  
(4) cause an inflow of short-term capital.
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (4) only  
D. (3) and (4) only

1991/CE/II/50

Year	1990	1991
Consumer price index	100	125

According to the table above, which of the following statements is true?

- A. The cost of living was lower in 1990.  
B. The standard of living was lower in 1990.  
C. The purchasing power of money was higher in 1991.  
D. The consumption expenditure was higher in 1991.

1993/CE/II/42

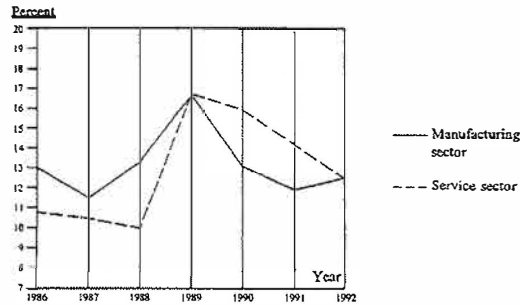
	November 1991	November 1992
Consumer Price Index (A)	117.7	128.5
Consumer Price Index (C)	118.7	129.9

The above table compares the indexes for November 1991 and November 1992. It shows that in November 1992, the \_\_\_\_\_ of the higher income group increased at a \_\_\_\_\_ rate than that of the lower income group.

- A. standard of living ..... faster  
B. standard of living ..... slower  
C. cost of living ..... faster  
D. cost of living ..... slower

1994/CE/II/20

The following diagram shows the percentage increase in the nominal wages of workers in the manufacturing and the service sectors of an economy



The above diagram shows that in the period 1986-92,

- A. manufacturing workers received higher total earnings than workers in the service sector.
- B. manufacturing workers had lower average labour productivity than workers in the service sector.
- C. if the inflation rate were below 10%, then real wages of workers in both sectors increased.
- D. there was a shortage of workers in the service sector.

1994/CE/II/34

For Question No. 34, consider the following data of an economy producing only bread and shirts:

	Price in 1992 (\$)	Price in 1993 (\$)	Output in 1993 (units)
Bread	10	12	50
Shirts	20	25	20

The rate of inflation from 1992 to 1993 calculated by using the GNP deflator is:

- A. 18.2%
- B. 22.2%
- C. 33.3%
- D. 122.2%

1994/CE/II/38

Who will lose during an unanticipated inflation?

- A. Mrs Lee, who has hired a Filipino maid
- B. Mr Chan, who has bought ten coupons which can be exchanged for cakes at a bakery
- C. Mr Fu, who runs a restaurant
- D. Mr Wong, who has put all his money in his time deposit account

1995/CE/II/33

Year	1994	1995
GDP deflator	120	132

Based on the above data, we may conclude that from 1994 to 1995, the economy's

- A. nominal GDP increased by 12%.
- B. real GDP increased by 10%.
- C. rate of deflation was 12%.
- D. general price level increased by 10%.

1995/CE/II/36

Which of the following people will gain in times of unexpected inflation?

- (1) holders of long-term government bonds
- (2) holders of certificates of deposits
- (3) those who have used credit cards to buy goods
- (4) shareholders of companies which have issued long-term fixed-interest debentures

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1996/CE/II/32

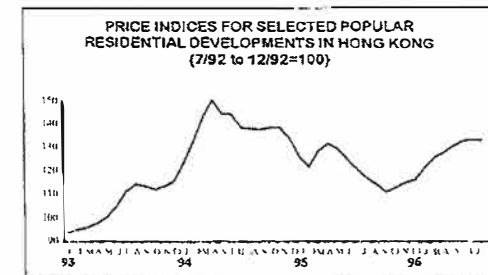
Study the following information about Country X:

Year	Nominal national income (\$mn)	Price index
1988	8 000	100
1989	10 000	120

Comparing the year 1988 with 1989, we can conclude that

- A. the cost of living increased by 20% in 1989.
- B. the living standard in 1989 is generally higher.
- C. the real GNP growth rate in 1989 is 25%.
- D. the price of all goods and services increased by 20% in 1989.

1997/CE/II/25

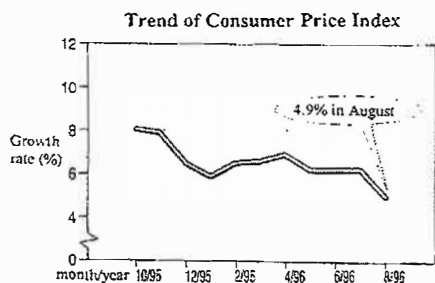


Source : N.E. Asian Quarterly, Standard Chartered, October 1996.

The above graph shows that in the first half of 1996,

- A. the high price of housing had led to a low consumption of the citizens.
- B. the living standard of Hong Kong people had improved.
- C. Hong Kong's property market was on the upswing.
- D. there was a lot of speculative activities in the property market of Hong Kong.

1997/CE/II/27



Source: Hong Kong Economic Times

The above data reflects that during this period,

- A. the consumption power of the people became weaker.
- B. the economy was on a downswing.
- C. the people consumed less but saved more.
- D. the increase in the cost of living had slowed down.

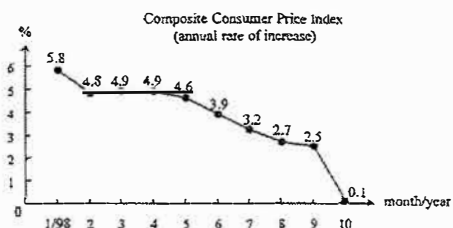
1997/CE/II/31

An increase in the GDP deflator from 100 to 110 in a certain year means that

- A. every household's cost of living has increased by 10%.
- B. the general price level has increased by 10%.
- C. the prices of all goods produced in the current year have increased by 10%.
- D. people's nominal incomes have increased by 10%.

1999/CE/II/33

Study the figure below concerning the changes in the Consumer Price Index.



From the figure, we can conclude that

- A. Inflation has stopped as prices go down.
- B. Wages have decreased.
- C. The cost of living has been rising at a slower rate.
- D. Some debtors who purchased mortgages on flats recently have suffered a loss.

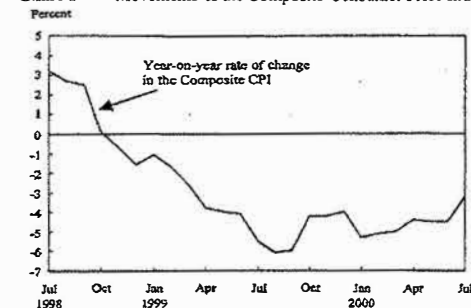
2000/CE/II/39

Mr A borrows money from a bank for a housing mortgage at a fixed interest rate of 7% p.a. After that the general price level falls continuously. In this event, Mr A loses and the bank gains. This is because.

- A. The value of the mortgaged house has been falling.
- B. Mr A's wage income has been falling.
- C. The bank can sell the house if Mr A fails to repay the loan.
- D. When the general price level keeps on falling, the purchasing power of a fixed amount of interest will increase.

2001/CE/II/31

Chart 1 Movements of the Composite Consumer Price Index



Based on the data in Chart 1, under what situation would Mr Chan have gained from July 1999 to July 2000?

- A. Before that period of time he had already borrowed a sum of money from a bank at a fixed interest rate.
- B. His salary remained unchanged during that period of time.
- C. He adjusted the rental charge to his tenant in a rental property according to the change in price level.
- D. He had a collection of antique vases.

2001/CE/II/32

Refer to the following data about an economy.

	Year 1	Year 2
GDP deflator	150	180

We can conclude that from Year 1 to Year 2,

- A. the purchasing power of money has decreased.
- B. the real national income has decreased.
- C. the average standard of living has gone down.
- D. the income distribution has become more uneven.

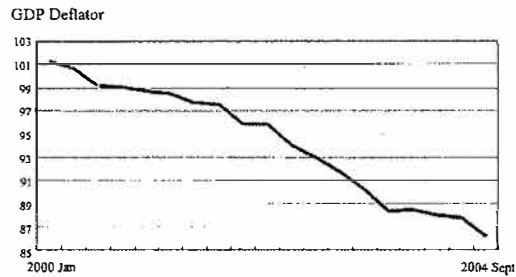
2005/CE/II/33

Which of the following would gain when unexpected inflation occurs?

- A. holders of fixed deposits with banks
- B. employees whose salaries are adjusted according to inflation
- C. people who receive a fixed amount of unemployment benefits
- D. a government which has issued bonds at fixed interest rates

2005/CE/II/34

Refer to the following diagram about the GDP deflator of Hong Kong from January 2000 to September 2004.



Source: Hong Kong SAR Government

Based on the above diagram, we can conclude that during this period,

- A. the nominal GDP was decreasing.
- B. the real GDP was decreasing.
- C. the cost of living was increasing.
- D. the purchasing power of money was increasing.

2006/CE/II/31

The Consumer Price Index (A) of Hong Kong in the third quarter of 2005 has increased. This means that \_\_\_\_\_ in Hong Kong has increased.

- A. the price of all goods
- B. the price of imported goods
- C. the nominal national income
- D. the cost of living

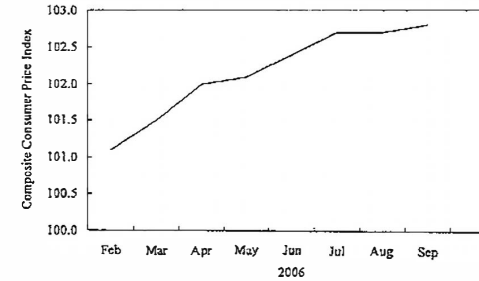
2007/CE/II/33

Which of the following statements about inflation is correct?

- A. A continuous increase in the price of a good is not inflation.
- B. During inflation, everyone suffers to the same extent.
- C. During inflation, incomes and prices increase at the same rate.
- D. Inflation may benefit some people, particularly those people whose incomes are fixed.

2007/CE/II/34

Refer to the following information about the composite consumer price index of Hong Kong.



Based on the above information, we can conclude that during this period in 2006,

- A. the nominal GDP was falling.
- B. the nominal GDP was increasing.
- C. the purchasing power of money was falling.
- D. the purchasing power of money was increasing.

2008/CE/II/31

Which of the following would lose during an unexpected inflation?

- A. a tenant who has signed a fixed rental contract before the unexpected inflation occurs
- B. an employer who has fixed the wage payment to his employees before the unexpected inflation occurs
- C. a creditor who has loaned out a sum of money at a fixed interest rate before the unexpected inflation occurs
- D. an insurer who is paying compensation, the amount of which was fixed before the unexpected inflation occurs

2008/CE/II/33

Year	Consumer Price Index (A)
2004	99.3
2005	100.3
2006	102.1

Based on the above table, we can conclude that during this period of time,

- A. the per capita nominal GDP has increased.
- B. the living standard has worsened.
- C. the cost of living has increased.
- D. All of the above are correct.

2009/CE/II/33

When inflation is expected,

- (1) creditors will charge the debtors a higher nominal interest rate.
- (2) workers will request for a raise in their nominal wage rates.
- (3) people will tend to hold more monetary assets instead of real assets.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2009/CE/11/34

When the consumer price index of an economy increases from 100 to 110, it implies that

- A. the prices of all consumer goods involved in the calculation of the index have increased by 10%.
- B. the cost of living has increased.
- C. the standard of living has increased.
- D. people's nominal income has increased.

2012/DSE/1/32

The US government has accumulated a huge amount of debt, about US\$14 trillion in 2011. If there is unexpected inflation in the US, which of the following parties will most likely gain?

- A. Hong Kong residents holding cash in Hong Kong dollars under the linked exchange rate system
- B. US citizens holding time deposits
- C. countries holding a large amount of US government bonds, like China and Japan
- D. the US government

2013/DSE/1/34

Which of the following people will benefit from unanticipated inflation?

- A. A loan shark who lends out a sum of money at a floating interest rate
- B. A manager who receives a fixed salary with the period of a two-year contract
- C. A flat-owner who repays a fixed-rate mortgage loan
- D. A retired teacher who receives dividends from various listed companies

2014/DSE/1/40

Which of the following statements about inflation is/are correct?

- (1) Inflation occurs when the government handouts a large sum of cash to every citizen in a certain year.
- (2) Inflation redistributes wealth from lenders to debtors if it is anticipated.
- (3) People prefer holding real assets to cash under expected inflation.

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

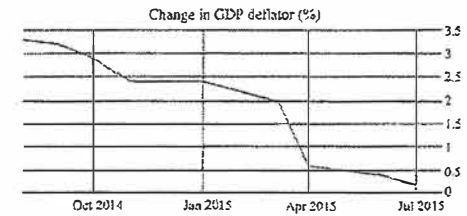
2015/DSE/1/36

When unanticipated deflation occurs, which of the following people will lose?

- A. people paying a fixed amount of rental payment
- B. people receiving interest from their savings deposits
- C. people repaying a mortgage loan at a floating interest rate
- D. people working under a fixed nominal wage contract

2016/DSE/1/24

Study the diagram below.



The diagram shows that during the period from October 2014 to July 2015,

- A. the nominal GDP was falling.
- B. the purchasing power of money was increasing.
- C. the growth rate of real GDP was higher than that of nominal GDP.
- D. the nominal interest rate was higher than the realised real interest rate.

2016/DSE/1/37

Which of the following people will gain in times of unexpected deflation?

- (1) holders of i-bonds issued by the Hong Kong Government
- (2) flat owners repaying floating rate mortgage loans
- (3) pensioners receiving fixed pensions

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2017/DSE/1/34

When there is unexpected inflation, which of the following individual(s) will lose?

- A. A firm owner paying his workers a fixed wage
- B. A flat owner charging a rental with adjustment according to the change in price level
- C. A retired civil servant receiving a fixed monthly pension
- D. All of the above individuals will lose because the purchasing power of money will be lower.



Short & Structured Questions

1990/CE/1/3(b)(ii)

Explain whether the following persons would gain or lose in times of inflation:

- (I) a businessman who has borrowed money from a bank at a fixed interest rate
- (II) a landlord whose premises have already been let at a fixed rent for the coming two years

(6 marks)

1993/CE/1/1(e)

Explain whether 'Yummy Yummy' will gain or lose if inflation occurs unexpectedly after

- (i) it has signed a contract with a hospital to supply a standardized lunch package to the patients at a fixed price for a year.
- (ii) it has deposited a sum of money with a bank at a fixed interest rate.

(6 marks)

1998/CE/1/1(a)

Define 'inflation'.

(2 marks)

1999/CE/1/1(c)

Some taxi-drivers buy taxis by borrowing from banks. If the general price level goes down unexpectedly, explain under what circumstances these taxi-drivers will

- (i) lose.
- (ii) have no gain or loss.

(6 marks)

2001/CE/1/9(d)

"If an import tax is introduced on all imports to Hong Kong, it would affect Hong Kong's general price level but would not necessarily lead to inflation in Hong Kong." Explain why this statement is correct.

(5 marks)

2003/CE/1/9(c)

Explain whether the following persons would gain or lose in times of unexpected deflation.

- (i) Suppose an individual has borrowed a housing mortgage loan from a bank at a fixed interest rate.
- (ii) Suppose a retired civil servant receives a fixed monthly pension from the government.

(6 marks)

2005/CE/1/7

Answer Questions 6 and 7 by referring to the following information about the Gross Domestic Product (GDP) of Hong Kong.

Table 1:

Year	Implicit price deflator of GDP	Per capita GDP at current market prices (HK\$)
2001	98.1	138 835
2002	94.6	183 790
2003	89.6	179 333

Suppose people did not expect any change in the price level. Explain whether the following persons would gain or lose when the change in the price level indicated in Table 1 occurred.

- (a) a businessman who obtained a bank loan in 2001 at a fixed interest rate for 2 years
- (b) a businessman whose premises were let in 2001 at a fixed rent for 2 years

(4 marks)

2007/CE/1/4(b)

The table below shows the gross domestic product (GDP) statistics of Hong Kong:

(HK\$ million)

Year	GDP at current market prices	GDP at constant (2000) market prices	GDP deflator
2003	1 233 983	1 390 610	88.7
2004	1 291 568	1 510 182	85.5
2005	1 382 052	1 619 984	A

Suppose people did not expect any change in the price level in years 2003 to 2005. Explain whether the following persons would gain or lose when the changes in the price level indicated in the above table occurred.

- (i) a retired civil servant who receives a fixed monthly pension from the government
- (ii) a person who borrowed a sum of money in 2003 from a bank at a fixed interest rate and repaid the loan in 2005

(6 marks)

2009/CE/1/5

Refer to the following information on economy A.

Year	Growth rate of GDP deflator
2006	+ 5%
2007	+ 4%
2008	+ 2%

- (a) What is inflation? (2 marks)
- (b) Suppose people did not expect any change in the price level in years 2006 to 2008. In 2006, Phelps borrowed a housing mortgage loan from a bank at a fixed interest rate. Explain whether Phelps would gain or lose when the changes indicated in the above table occurred. (3 marks)

2012/DSE/1/1(a)

Read the following news extract.

*Hong Kong's inflation rate rose to 7.9% last month - the sharpest jump in 16 years - confirming what many families already feared as they struggle to keep up with the runaway cost of food and rent .....*

What is inflation? (2 marks)

2014/DSE/1/5

Study the following information about an economy.

Year	Consumer price index (CPI)
2012	120
2013	126

- (a) Calculate the inflation rate in 2013. (1 mark)
- (b) Explain ONE difference between using CPI and Gross Domestic Product (GDP) deflator to measure the change in the price level. (2 marks)
- (c) Suppose people did not expect any change in the price level from 2012 to 2013. Explain whether each of the following persons would gain or lose when the change in the price level in the above table occurred. (2 marks)
  - (i) In 2012, Kitman borrowed a housing mortgage loan from a bank at a fixed nominal interest rate.

Study Tables 1 and 2 and answer the following questions.

Table 1: Change in composite consumer price index (CCPI)

Year 2016	Year 2017
+2.3%	+1.7%

Table 2: Minimum wage rates per hour

Year 2016	Year 2017
\$32.5	\$34.5

- (a) Based on Table 1, state the change in the general price level in 2017. (1 mark)
- (b) On 1 January 2017, Siu Keung expected a +2.3% change of the CCPI in that year, and he lent a sum of money to Kitman at 5% interest rate per annum. On 31 December 2017, Kitman repaid the sum plus the interest to him. With reference to Table 1, explain whether Siu Keung would gain or lose. (3 marks)
- (c) Kitman has been receiving the minimum wage rate per hour. With reference to Tables 1 and 2, explain how her real wage rate would change in 2017. (3 marks)

2018/DSE/II/10(b)

Who, the employers or the foreign domestic helpers, will suffer a loss if there is an unexpected inflation in the contractual period? Explain. (2 marks)

#### MARKING SCHEME

1991/CE/II/46 D	1995/CE/II/33 D	2000/CE/II/39 D	2007/CE/II/54 C (59%)	2014/DSE/II/40 C (66%)
1991/CE/II/48 B	1995/CE/II/36 D	2001/CE/II/31 B	2008/CE/II/31 C (69%)	2015/DSE/II/36 A (72%)
1991/CE/II/50 A	1996/CE/II/32 A	2001/CE/II/32 A	2008/CE/II/33 C (71%)	2016/DSE/II/24 D (37%)
1993/CE/II/42 C	1997/CE/II/25 C	2005/CE/II/33 D (51%)	2009/CE/II/33 A (66%)	2016/DSE/II/37 B (65%)
1994/CE/II/29 C	1997/CE/II/27 D	2005/CE/II/34 D (46%)	2009/CE/II/34 B (69%)	2017/DSE/II/34 C (85%)
1994/CE/II/34 B	1997/CE/II/31 B	2006/CE/II/31 D (61%)	2012/DSE/II/32 D (68%)	
1994/CE/II/38 D	1999/CE/II/33 C	2007/CE/II/33 A (55%)	2013/DSE/II/34 C (82%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/II/3(b)(ii)

- (I) The businessman would gain, because (1)  
the value of the loan / interest payments decreases in real terms during inflation. (2)
- (II) The landlord would lose, because (1)  
the value of the rent decreases in real terms / the purchasing power of the fixed rent drops in times of inflation. (2)

1993/CE/II/1(c)

- (i) Lose, because (1)  
the real value of the receipt will decrease during inflation. (2)
- OR**
- the cost of supplying the lunch package will increase during inflation. (2)
- (ii) Lose, because (1)  
the real value of the sum of money and/or the interest income will decrease during inflation. (2)

1998/CE/II/1(a)

- A continuous rise in the general price level (2)

1999/CE/11(c)

- (i) Under fixed interest rates, the payment of hire and purchase remains the same.  
**OR**  
Under floating interest rates, the fall in nominal interest rate is less than the fall in the general price level. (2)  
However, the value of payment to bank for hire purchase will increase since the purchasing power of the payment increase. (2)
- (ii) Under floating interest rates, if the adjustment of the interest rates is fast enough to catch up with the fall in the general price level, there will be no loss nor gain. (2)

2001/CE/19(d)

- Effect on the general price level  
Most foodstuffs, daily necessities and industrial raw materials are imported. (1)  
∴ introduction of the tax would lead to a rise in the general price level (1)

Result in inflation?

- If the introduction of the tax only results in an once-and-for-all rise in the general price level, then it would not bring forth an inflation. (3)  
[Only put down the definition of inflation as 'a persistent or continuous rise in the general price level' without other elaboration - max. 2 marks]

2003/CE/19(c)

- (i) Loss, because (1)  
the fixed amount of loan repayment and the fixed amount of loan interest payment both have a higher purchasing power than that before unexpected deflation occurs. (2)
- (ii) Gain, because (1)  
the fixed pension has a higher purchasing power than that before the unexpected deflation occurs. (2)

2005/CE/17

- (a) He would lose, because (1)  
he repays a fixed amount of money, the purchasing power of which has increased because of unexpected deflation. (1)
- (b) He would gain, because (1)  
he receives a fixed amount of money, the purchasing power of which has increased because of unexpected deflation. (1)

2007/CE/14(b)

- The table indicates a decrease in the general price level. (2)
- (i) He would gain, because (1)  
the fixed amount of pension has a higher purchasing power (in times of unexpected deflation). (1)
- (ii) He would lose, because (1)  
the real value of the repayment will increase (during unexpected deflation). (1)

2009/CE/15

- (a) Inflation is a continuous rise in the general price level. (2)
- (b) He would gain, because (1)  
the real value of his loan repayment will decrease. (2)

2012/DSE/11(a)

- Persistent increase in the general price level (2)

2014/DSE/1/5

- (a)  $[(126 - 120) / 120] \times 100\% = 5\%$  (1)
- (b) CPI only includes consumer goods while GDP deflator includes both consumer goods and producer goods.  
**OR**  
CPI calculates a fixed basket of goods and the weighting will be revised every 5 years while GDP deflator has variable baskets of goods for each year (2)
- (c) (i) Kitman would gain, because (1)  
the unexpected inflation would lower the real value (purchasing power) of the loan repayment. (1)

2018/DSE/11/10(b)

- The foreign domestic helpers will lose under unexpected inflation, as the purchasing power of their fixed wage would drop. (2)

2019/DSE/11/6

- (a) Increased (+1.7%). (1)
- (b) He would gain because when the actual inflation rate (1.7%) was lower than the expected inflation rate (2.3%), the actual real interest rate received (3.3%) was higher than the expected real interest rate (2.7%). OR the purchasing power of the interest received was higher than expected. (3)
- (c) Real wage rates increased because the increase in the nominal wage rate 6.2% was higher than the inflation rate 1.7%. (3)

2.3 BUSINESS CYCLE

Multiple Choice Questions

1994/CE/II/35

According to the data below, what do we call the phase of the business cycle that the economy was in 1991?

Year	1989	1990	1991	1992	1993
Real GDP growth rate (%)	1.5	0.0	2.1	2.8	3.5

- A. recovery
- B. peak
- C. recession
- D. through

1994/CE/II/36

During recession,

- (1) the growth rate of national income is steady.
- (2) the general price level begins to rise.
- (3) the unemployment rate increases.
- (4) the production level declines.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1995/CE/II/35

Which of the following will happen in times of recession?

- (1) The total demand for goods and services will decrease.
- (2) The budget deficit will decrease.
- (3) The unemployment rate will increase.
- (4) The balance of payments deficit will increase.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1996/CE/II/39

Which of the following is NOT a characteristic of the phase of recession in a business cycle?

- A. The consumption expenditure decreases.
- B. The investment expenditure decreases.
- C. The unemployment rate increases.
- D. The government suffers from fiscal deficit as her tax revenue decreases and expenditure increases.

1997/CE/II/30

An economy is experiencing the following: the unemployment rate is declining, prices have stopped falling and started rising, and investment expenditure is expanding. It is in the \_\_\_\_\_ phase of a business cycle.

- A. recovery
- B. peak
- C. recession
- D. trough

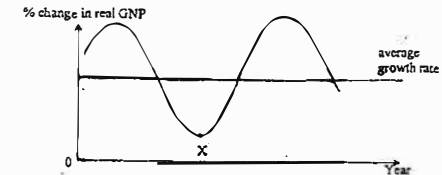
1998/CE/II/27

Which of the following indicates that the economy is beginning to recover from depression?

- A. decreasing price level
- B. increasing government fiscal deficit
- C. decreasing balance of payments deficit
- D. increasing employment rate

1999/CE/II/27

In the diagram below, X is situated in a certain phase of the business cycle. Which of the following is a characteristic of the phase?



- A. The real GNP has a zero growth rate.
- B. The nominal GNP is higher than the real GNP.
- C. The investment expenditure of the economy is zero.
- D. The unemployment rate is high.

1999/CE/II/28

According to the government, Hong Kong experienced a recession in 1998 because three consecutive quarters, there was

- A. An increase in the unemployment rate.
- B. A fall in the average wage rate.
- C. A fall in the general price level.
- D. A negative growth rate of real gross domestic product (GDP)

2000/CE/II/37

The following phenomena are observed in an economy:

- (1) Industrial output on an upward trend
- (2) Increasing imports and exports
- (3) Growth of retail receipts
- (4) Forecast of economic growth being revised upwards.

Which phase of the business cycle is the economy in?

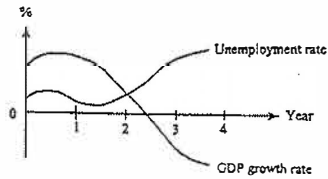
- A. peak
- B. recession
- C. trough
- D. recovery

2001/CE/II/38

If Hong Kong is in the stage of recovery in the business cycle,

- A. government expenditure will increase.
- B. the proportion of tax revenue in total government revenue will decrease.
- C. government revenue from direct taxes will increase.
- D. there will be a budgetary surplus for the government.

2002/CE/II/28



The information above shows that the economy is in a stage of \_\_\_\_\_ in Year 3.

- A. recession
- B. depression
- C. recovery
- D. prosperity

2004/CE/II/32

When an economy is in the recovery stage,

- (1) retail receipts will increase.
- (2) the government will have a budget surplus.
- (3) the unemployment rate will fall.
- (4) the balance of payments deficit will decrease.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

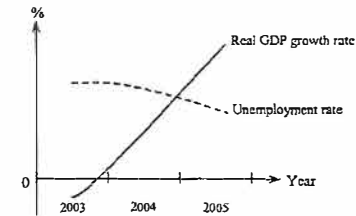
2005/CE/II/31

The following is observed in an economy: the unemployment rate is decreasing, the price level is no longer falling but rising instead, and the investment expenditure is increasing.

In which phase of the business cycle is the economy situated?

- A. recovery
- B. peak
- C. recession
- D. trough

2006/CE/II/27

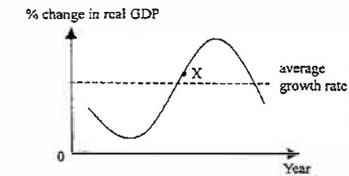


According to the above information, the economy is in a stage of \_\_\_\_\_ in 2004.

- A. recovery
- B. prosperity
- C. recession
- D. depression

2007/CE/II/31

In the diagram below, X is situation in a certain phase of the business cycle. Which of the following is a characteristic of this phase?



- A. The general price level is falling.
- B. The consumption expenditure is falling.
- C. The balance of payments surplus is increasing.
- D. The level of investment is increasing.

2008/CE/II/29

In the stage of economic \_\_\_\_\_, the percentage change in real GDP \_\_\_\_\_.

- A. recession ..... could be negative
- B. recovery ..... is equal to the inflation rate
- C. prosperity ..... will be constant
- D. depression ..... will be zero

2009/CE/II/31

The following phenomena are observed in an economy:

- ♦ Total sales value at the retail level is decreasing.
- ♦ Bankruptcy petitions are increasing.
- ♦ The inflation rate is falling.
- ♦ The forecast of economic growth has been revised downward.

Which phase of the business cycle is the economy in?

- A. peak
- B. recession
- C. trough
- D. recovery

2010/CE/II/31

The following phenomena are observed in an economy:

- Retail receipts are increasing.
- The employment of the manufacturing sector is increasing.
- The stock prices are increasing.
- The forecast of the real GDP growth rate has been revised upward.

Which phase of the business cycle is the economy in?

- A. peak
- B. recession
- C. trough
- D. recovery

2010/CE/II/44

Which of the following will increase in times of economic recovery?

- A. trade surplus
- B. budget deficit
- C. government expenditure
- D. direct tax revenue

2013/DSE/I/33

The following phenomena are observed in an economy:

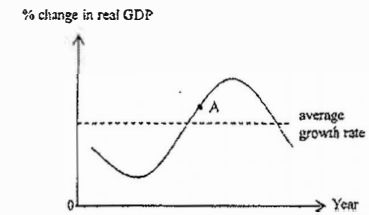
- (1) The unemployment rate is increasing.
- (2) The inflation rate is no longer rising but falling instead.
- (3) The inventories of producers are accumulating.
- (4) The forecast of economic growth is revised downward.

The economy is in the \_\_\_\_\_ phase of a business cycle.

- A. recession
- B. trough
- C. recovery
- D. peak

2014/DSE/II/39

In the diagram below, A is situated in a certain phase of the business cycle.



At Point A, there will be an increase in \_\_\_\_\_ in the economy.

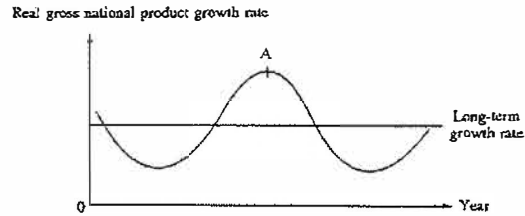
- (1) the labour employment level
- (2) the general price level
- (3) the sales of firms
- (4) transfer payments

- A. (1) and (3) only
- B. (3) and (4) only
- C. (1), (2) and (3) only
- D. (1), (2), (3) and (4)

Short & Structured Questions

1995/CE/1/7

Look at the business cycle shown below. Identify the phase which point A is in. Indicate **THREE** general economic phenomena which occur in this phase.



(4 marks)

1995/CE/1/6(a)

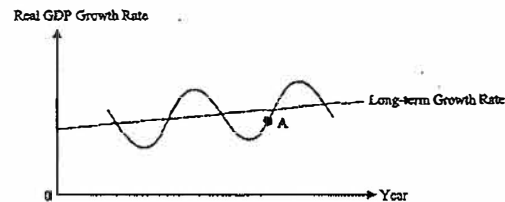
Study the following data about Hong Kong.

Year	Quarter	Year on year % change in real gross domestic product (GDP)	Unemployment rate (%)	Composite consumer price index
1998	2 <sup>nd</sup>	-5.1	4.4	119.2
	3 <sup>rd</sup>	-6.8	5.0	118.6
	4 <sup>th</sup>	-5.7	5.7	116.1
1999	1 <sup>st</sup>	-3.4	6.2	115.6

Identify the phase of business cycle the economy was in during the above period of time. Give the **THREE** economic phenomena of this phase as indicated by the above data. (4 marks)

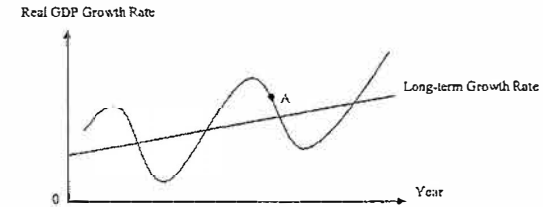
2003/CE/1/5

Refer to the business cycle shown below. Identify the phase which point A is in. Apart from the information about the real gross domestic product (GDP) growth rate in this phase, give **TWO** general economic phenomena which occur in this phase. (3 marks)



2010/CE/1/7

Refer to the business cycle shown below.



(a) Point A is in the \_\_\_\_\_ phase of the business cycle. (1 mark)

(b) Apart from the change in the real gross domestic product (GDP) growth rate, give **TWO** general economic phenomena which occur in this phase. (2 marks)

2012/DSE/11/6(b)

Rising unemployment is one of the phenomena which occurs during economic recession.

Other than rising unemployment, give **TWO** other economic phenomena which would occur during economic recession. (2 marks)

2016/DSE/11/6(c)

Suppose the country is in the phase of recovery. Apart from the reduction in unemployment rate, give **TWO** general economic phenomena during recovery. (2 marks)

MARKING SCHEME

1994/CE/11/35 A	1998/CE/11/27 D	2002/CE/11/28 A (65%)	2008/CE/11/29 A (64%)	2014/DSE/1/39 C (60%)
1994/CE/11/36 D	1999/CE/11/27 D	2004/CE/11/32 A (76%)	2009/CE/11/31 B (91%)	
1995/CE/11/35 A	1999/CE/11/28 D	2005/CE/11/31 A (94%)	2010/CE/11/31 D (89%)	
1996/CE/11/59 D	2000/CE/11/37 D	2006/CE/11/27 A (87%)	2010/CE/11/44 D (65%)	
1997/CE/11/30 A	2001/CE/11/58 C	2007/CE/11/31 D (70%)	2013/DSE/1/33 A (91%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1995/CE/1/7

- Peak / boom / economic prosperity (1)  
- high employment rate / low unemployment rate / full employment or close to full employment  
- high consumption level / investment level  
- high production level / national income level  
- price level ↑ / wage rate ↑  
- interest rate ↑ (1@, max: 3)

[Mark the **FIRST THREE** points only.]

1995/CE/1/6(a)

- Recession (1)  
- negative GDP growth rate / GDP or output decreases (1)  
- increasing unemployment rate (1)  
- falling cost of living (1)

[Mark the **FIRST THREE** points only.]

2008/CE/1/5

- Recovery (1)  
- employment increases  
- aggregate demand increases / private consumption expenditure increases / investment increases  
- general price level increases (1@, max: 2)

[Mark the **FIRST TWO** points only.]

2010/CE/1/7

- Recession / contraction (1)  
- unemployment (rate) increases  
- aggregate demand decreases / private consumption expenditure decreases / investment decreases  
- inflation rate decreases / deflation / general price level decreases (1@, max: 2)

[Mark the **FIRST TWO** points only.]

2012/DSE/II/6(b)

- falling or even negative real GDP growth  
- low / falling inflation or even deflation  
- falling business confidence, levels of investment, consumption (1@, max: 2)

[Mark the **FIRST TWO** points only.]

2016/DSE/II/6(c)

- rising real GDP growth rate  
- rising inflation / lower deflation  
- rising levels of investment / consumption (1@, max: 2)

[Mark the **FIRST TWO** points only.]

## 2.4 DISINFLATION, NOMINAL AND REAL INTEREST RATES

### Multiple Choice Questions

1990/AL/II/11

Which of the following statements about inflation are correct?

- (1) Inflation can exist in a barter economy.
- (2) In times of inflation, income will be redistributed from the general public to the government.
- (3) The nominal interest rate will be greater than the real interest rate when inflation is fully anticipated.
- (4) Inflation can be eliminated by price control.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1990/AL/II/24

The inflation rate and the real interest rate were expected to be 5% and 4% respectively. In reality, the actual inflation rate turned out to be 7%. What was the real interest rate?

- A. 1%
- B. 2%
- C. 3%
- D. 9%

1992/AL/II/21

If the nominal rate of interest is 10% but the real rate of interest is only 6%, the real return on holding cash will be

- A. 0%
- B. -4%
- C. -6%
- D. -10%

1993/AL/II/29

If the sum of the real interest rate and the anticipated inflation rate is greater than the nominal interest rate, which of the following will be **FALSE**?

- A. Nobody likes to lend money to others.
- B. People want to borrow money for consumption.
- C. People want to make investments themselves.
- D. The anticipated inflation rate will fall.

1995/AL/II/19

If the inflation rate falls and remains positive,

- A. the economy is experiencing unemployment.
- B. the price level is falling at a fixed rate.
- C. the price level increases and then decreases.
- D. the price level is rising.

1996/AL/II/21

When inflation occurs, the opportunity cost of holding money is equal to

- A. the nominal rate of interest.
- B. the expected rate of inflation.
- C. the actual rate of inflation.
- D. None of the above.



1999/AL/II/17

The inflation rate in an economy was 10% in 1996 and dropped to 5% in 1997. Which of the following must be true about the economy in the above period?

- A. There was a fall in the standard of living.
- B. There was a deflation in the year 1997.
- C. There was a rise in the prices of all goods.
- D. None of the above.

1999/AL/II/18

The expected inflation rate and the real rate of interest rate are 10% and 4% respectively. If the actual inflation rate turns out to be 9% only, the cost of holding cash is \_\_\_\_\_ and the real rate of return on holding cash is \_\_\_\_\_.

- A. 4% ..... -5%
- B. 4% ..... -9%
- C. 14% ..... -9%
- D. 14% ..... -10%

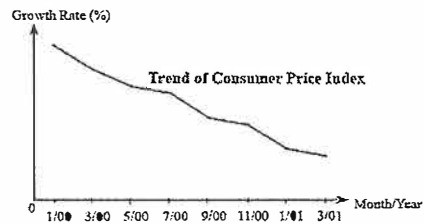
2002/AL/II/22

The nominal interest rate and the expected inflation rate are 10% and 7% respectively. If the actual inflation rate turns out to be 12%, then the realized real rate of interest will be \_\_\_\_\_ and the real rate of return on holding cash will be \_\_\_\_\_.

- A. -2% ..... -12%
- B. -2% ..... -10%
- C. 3% ..... -12%
- D. 3% ..... -10%

2002/AL/II/26

Study the diagram below.



The diagram shows that during the period,

- A. deflation occurred.
- B. the growth rate of money stock was greater than the growth rate of nominal output.
- C. the purchasing power of money was rising.
- D. the general price level was rising.

2005/AL/II/21

The real rate of return on holding non-interest-earning cash is positive if

- A. the rate of inflation is falling.
- B. the interest rate is falling.
- C. prices are falling.
- D. the velocity of circulation of money is falling.

2004/AL/II/15

Disinflation means that

- A. the inflation rate is at a disequilibrium level.
- B. inflation destabilizes the economy.
- C. the deflation rate is rising.
- D. the price level is increasing at a slower rate.

2004/AL/II/18

Suppose individuals can only choose to hold bonds or cash. The cost of holding cash is

- A. the real interest rate because the return from holding bonds will not be affected by a change in the price level.
- B. the real interest rate because it reflects the rate of return from investment.
- C. the nominal interest rate because it is the return from bonds.
- D. the nominal interest rate only when inflation rate can be accurately anticipated.

2005/AL/II/22

When there is deflation,

- A. the real interest rate will be negative.
- B. the nominal interest rate will be negative.
- C. the real interest rate will be higher than the nominal interest rate.
- D. All of the above.

2006/AL/II/08

If the nominal interest rate on one-year bond is 8% and the expected inflation rate is 3%, the nominal rate of return and the expected real rate of return of holding money are \_\_\_\_\_ and \_\_\_\_\_ respectively.

- A. 0% ..... -3%
- B. 0% ..... -5%
- C. -8% ..... -3%
- D. -8% ..... -5%

2006/AL/II/21

The real interest rate will be higher than the nominal interest rate if

- A. the actual inflation rate is lower than the expected inflation rate.
- B. the expected inflation rate is falling.
- C. the nominal interest rate is falling.
- D. the price level is expected to fall.

2006/AL/II/23



The above diagram shows that during the period

- A. there is disinflation in the economy.
- B. the growth rate of money stock is positive.
- C. the general price level is falling.
- D. the standard of living is falling.

2008/AL/II/21

The nominal interest rate is the same as

- A. the real interest rate when people expect no change in the general price level.
- B. the real interest rate when the central bank holds the interest rate constant at a target level.
- C. the real return of holding monetary assets.
- D. the real interest rate plus the actual inflation rate.

2008/AL/II/23

When there is inflation,

- A. net monetary debtors will gain because the real value of interest payments will fall.
- B. the cost of holding money is the real interest rate instead of the nominal interest rate.
- C. a positive growth rate of real income implies a positive growth rate of nominal income.
- D. a positive nominal interest rate necessarily implies a positive real interest rate.

2010/AL/II/19

Suppose the nominal interest rate on a one-year bond is 3% and the expected deflation rate is 2%. However, the general price level turns out to rise by 3%. The nominal rate of return and the actual real rate of return of holding the bond are \_\_\_\_\_ and \_\_\_\_\_ respectively.

- A. 3% ..... 5%
- B. 3% ..... 0%
- C. 0% ..... 5%
- D. 0% ..... 0%

2011/AL/II/18

Suppose the market rate of interest is 5% and the expected inflation rate is 3%. The opportunity cost of holding money is \_\_\_\_\_, and the real rate of return on holding money is \_\_\_\_\_.

- A. -5% ..... 2%
- B. 2% ..... -3%
- C. 5% ..... 3%
- D. 5% ..... -3%

2012/AL/II/21

The nominal interest rate and the expected inflation rate are 8% and 5% respectively. If the actual inflation rate is 10%, the real rate of return on holding cash will be \_\_\_\_\_.

- A. -10%
- B. -8%
- C. -5%
- D. -3%

2014/DSE/I/32

The nominal interest rate of a one-year bond and the expected inflation rate are 8% and 3% respectively. If the actual inflation rate is 6%, then the actual real interest rate is \_\_\_\_\_ and the actual rate of return of holding cash is \_\_\_\_\_.

- A. 2% ..... -6%
- B. 2% ..... -8%
- C. 5% ..... -6%
- D. 5% ..... -8%

2015/DSE/I/31

If the nominal interest rate is 5% and the expected inflation rate is 3%, the cost of holding money is \_\_\_\_\_, the nominal return of holding money is \_\_\_\_\_ and the expected real interest rate is \_\_\_\_\_.

- A. 5% ..... -3% ..... 2%
- B. 5% ..... 0% ..... 2%
- C. 8% ..... -3% ..... 3%
- D. 8% ..... 0% ..... 3%

2019/DSE/I/32

In times of inflation, suppose the nominal interest rate of a bond is higher than the expected inflation rate. If the actual inflation rate turns out to be higher than the expected inflation rate,

- (1) the actual inflation rate will be higher than the nominal interest rate of the bond.
- (2) the expected real rate of return of the bond will be greater than the actual real rate of return.
- (3) the actual real rate of return of the bond may be negative.
- (4) the real rate of return of holding cash will be higher than zero.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2019/DSE/I/37

Under unexpected deflation, which of the following persons will lose?

- (1) Ms Mok holds a time deposit of one million dollars in a deposit taking company.
- (2) Mr Lo receives interest from Silver Bond of which the rate of return is linked to the inflation, subject to a minimum return of 3%.
- (3) Mr Chan signs a two-year contract with an online TV company to subscribe to its service by a fixed monthly payment.

- A. (1) only
- B. (2) only
- C. (3) only
- D. (2) and (3) only

2020/DSE/I/34

When there is unexpected inflation, which of the following persons will gain?

- A. a landlord who adjusts his rental according to the price index
- B. a creditor who has loaned out a sum of money at a floating interest rate
- C. an employer who signs a fixed nominal wage contract with his employees
- D. a retired civil servant who receives a fixed monthly pension



MARKING SCHEME

1990/AL/II/11 C	1996/AL/II/21 A	2003/AL/II/21 C	2006/AL/II/21 D (50%)	2011/AL/II/18 D (67%)
1990/AL/II/24 B	1999/AL/II/17 D	2004/AL/II/15 D (71%)	2006/AL/II/23 A (66%)	2012/AL/II/21 A (62%)
1992/AL/II/21 B	1999/AL/II/18 C	2004/AL/II/18 C (53%)	2008/AL/II/21 A (66%)	2014/DSE/II/32 A (57%)
1993/AL/II/29 D	2002/AL/II/22 A (47%)	2005/AL/II/22 C (73%)	2008/AL/II/23 C (53%)	2015/DSE/II/31 B (52%)
1995/AL/II/19 D	2002/AL/II/26 D (39%)	2006/AL/II/08 A (26%)	2010/AL/II/19 B (61%)	2018/DSE/II/34 C (39%)
2019/DSE/II/32 C	<i>Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.</i>			
	2019/DSE/II/37 C	2020/DSE/II/34 C		

1994/AL/II/7

Whether an asset will be held depends on its real rate of returns which equals nominal rate minus the inflation rate. The nominal interest returns to cash holding is zero. With high inflation rate, the real rate of return is 'very' negative, which explains why people reduce cash holding.

Though interests are paid on saving deposits, the rate is usually less than the inflation rate. This is particularly so if the inflation rate is high. Thus the real rate of returns to saving balances is still negative. People will switch to other assets with positive real rates.

2003/AL/II/2

- (a) Deflation (or negative inflation) is a sustained fall in the general price level.  
Disinflation is a reduction in the inflation rate (i.e., a slower rise in the general price level).
- (b) According to the Fisher equation, the nominal interest rate is equal to the sum of the real interest rate and the expected inflation rate.  
Since expected deflation equals the negative of expected inflation, we can express the nominal rate as the real rate *less* expected deflation. Hence, the real rate will exceed the nominal rate when people expect deflation.

2007/AL/II/1(a)

- S: Change in the general price level over time.  
D: Negative inflation (sustained fall in the price level) vs. reduction in the inflation rate (sustained increase in the price level at a slower rate).

2012/DSE/II/1(a)

- (c) The opportunity cost is the nominal return of the ibonds. (2)
- (d) The ibonds help preserve the purchasing power of the invested sum of money because the interest return of ibonds will increase at the same rate as actual inflation (i.e. the real interest rate on ibonds is virtually fixed by the government). (2)

2013/DSE/II/3

- (a) Nominal interest rate (R) = expected inflation rate + real interest rate (r) (2)

- (b) No, R will be lower than r only when the expected inflation rate is negative. But the existence of actual deflation does not imply that the deflation is expected.

OR

Yes, because people may expect deflation beforehand and an expected deflation will result in a nominal interest rate being lower than real interest rate.

OR

Yes, because the realized (actual) real interest rate will be higher than the nominal interest rate when there is actual deflation. (3)

2014/DSE/II/5(v)(ii)

- Marlene would lose, because given the 15% rate of actual nominal return and the 5% rate of actual inflation, her actual real rate of return equals 10% (= 15% - 5%), which falls short of her expected real rate of return (12%). (1)

2020/DSE/II/5a

5 a. Nominal interest rate. Since money is a non income generating asset (nominal return = 0), holding money will give up nominal interest rate as income

- b) During inflation, the real value of purchasing power will decrease of the coupon.

Or

The coupon is not generally acceptable as medium of exchange.

## SECTION 3: GOVERNMENT BUDGET

### 3.1 PRINCIPLES OF TAXATION

#### Multiple Choice Questions

1994/CE/II/46

In Hong Kong, salaries tax is normally paid by two instalments and the tax payment can be made through the post. This practice agrees with the \_\_\_\_\_ principle of taxation.

- A. equality
- B. convenience
- C. certainty
- D. economy

1996/CE/II/40

A Japanese electronics firm produces and sells its products in Hong Kong. Therefore, it has to pay profits tax to the Hong Kong government. Hong Kong is applying the

- A. source principle.
- B. residence principle.
- C. equity principle.
- D. convenience principle.

1997/CE/II/47

Which of the following descriptions of Hong Kong's taxation system is true?

- A. Only incomes derived from Hong Kong are liable to tax.
- B. Rates is a direct tax.
- C. Import duties are imposed on some goods in an attempt to protect local industries.
- D. The profits tax rate of corporations is the same as the standard tax rate.

2000/CE/II/40

The payment of salaries tax and profits tax can be made by the Payment by Phone Service (PPS) by which taxpayers can transfer money from their bank accounts to the government. This practice satisfies the \_\_\_\_\_ principle of taxation

- A. source
- B. certainty
- C. convenience
- D. equity

2002/CE/II/39

Suppose the government of an economy announces that the people will have to pay a general sales tax of 2% of the selling price when they purchase any goods and services. The government also launches a series of programmes to make sure that the public understands the new tax. Which of the following taxation principles is illustrated by the above measures of the government?

- A. equality
- B. certainty
- C. convenience
- D. economy

2003/CE/II/44

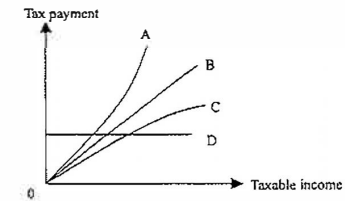
Which of the following statements about the tax system of Hong Kong is correct?

- A. The rental income derived from properties overseas is subject to the property tax of Hong Kong.
- B. All the business organizations in Hong Kong have to pay at the same profits tax rate, as it is a proportional tax.
- C. Interest income from deposits denominated in Hong Kong dollars is subject to interest tax in Hong Kong.
- D. The estate duty in Hong Kong is a progressive tax.

(Note: The estate duty was abolished in 2006.)

2006/CE/II/41

The following lines A, B, C and D indicate different relationships between tax payment and taxable income. Which of these four lines shows a relationship in accordance with the taxation principle of equality put forth by Adam Smith?



- A. line A
- B. line B
- C. line C
- D. line D

2007/CE/II/41

The introduction of a 5% Goods and Services Tax on specified items of goods and services is regressive in nature and will incur large administrative costs.

The above statement is concerned with the \_\_\_\_\_ principle of taxation put forward by Adam Smith.

- (1) equity
- (2) certainty
- (3) economy

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2009/CE/II/40

Which of the following statements about the tax system in Hong Kong is correct?

- A. Capital gains from the trading of stocks are subject to capital gains tax.
- B. Rental income from a residential flat in Mainland China is subject to Hong Kong income tax.
- C. Gasoline consumption is not subject to tax.
- D. The estimated rental value of owner-occupied residential flats is not subject to property tax.

2009/CE/II/41

In Hong Kong, citizens are allowed to make their tax payments through the Internet. This practice is in line with the \_\_\_\_\_ principle of taxation put forward by Adam Smith.

- A. equity
- B. certainty
- C. convenience
- D. source

2013/DSE/II/35

In July 2009, the government introduced an environmental levy of 50 cents on each plastic shopping bag at the retail level, with the first phase covering chain or large supermarkets, convenience stores and personal health and beauty product stores. Small shops are exempted in the first phase. Customers can pay the levy, with the original amount of purchase of goods, by credit card, Easy Pay System (EPS) or cash.

The collection of the above environmental levy is **LEAST** in line with the \_\_\_\_\_ principle of taxation put forward by Adam Smith.

- A. equality
- B. economy
- C. convenience
- D. certainty

2020/DSE/II/39

The following is an extract of the mission of the Inland Revenue Department.

Our Mission	
We are committed to	
-	collecting revenue efficiently and cost-effectively
-	enabling staff to acquire the necessary knowledge, skills and attitude so that they can contribute their best to the achievement of our vision

The above mission is in line with the \_\_\_\_\_ principle of taxation put forward by Adam Smith.

- A. equality
- B. certainty
- C. convenience
- D. economy

Short & Structured Questions

1990/CE/II/5(a)

Explain **THREE** principles which a government has to consider when introducing a new tax. (6 marks)

1993/CE/II/5(b)(ii)

If Mr. Chan rents the flat to a tenant, he will have to pay property tax to the Hong Kong government for the rental income.

From the view point of the taxpayers, property tax follows certain taxation principles. Give **TWO** such principles. (6 marks)

1999/CE/II/10(c)

Mr. Ng is a Hong Kong citizen. He sets up a firm in Mainland China and earns profits.

- (i) Explain whether Mr. Ng needs to pay profits tax to the government of Hong Kong. (2 marks)
- (ii) Mr. Ng uses the Hong Kong International Airport when he flies to Mainland China. What tax does he have to pay to the government of Hong Kong? Which taxation principle is applied in this case? (2 marks)

2002/CE/II/8

State and explain **TWO** principles of taxation put forward by Adam Smith. (4 marks)

2005/CE/II/8

Apart from 'convenience' and 'economy', explain **TWO** principles of taxation put forward by Adam Smith. (4 marks)

2010/CE/II/6

Apart from 'certainty' and 'convenience', briefly explain **TWO** taxation principles put forth by Adam Smith. (4 marks)

2014/DSE/II/6(a)

Karen, a Hong Kong resident, works as a photographer in a media group in Shanghai.

Would Karen's salary earned in Shanghai be taxed in Hong Kong? Explain your answer. (2 marks)

2017/DSE/II/6(b)

Suggest **ONE** type of direct tax in Hong Kong that follows the tax principle of 'equality' put forward by Adam Smith. Explain your answer. (2 marks)

2018/DSE/II/6(b)

The government proposes the following changes in the profits tax system.

Profit	Existing system	New two-tier system
On the first \$2 000 000	16.5%	8.25%
Remainder		16.5%

Evaluate the above changes in the tax system in terms of **ONE** principle of taxation put forward by Adam Smith. (2 marks)

MARKING SCHEME

1994/CE/II/46 B	2000/CE/II/40 C	2006/CE/II/41 B (59%)	2009/CE/II/41 C (92%)	2020/DSE/II/39 D
1996/CE/II/40 A	2002/CE/II/39 B (62%)	2007/CE/II/41 B (deleted)	2013/DSE/II/35 A (70%)	
1997/CE/II/47 A	2003/CE/II/44 D (54%)	2009/CE/II/40 D (41%)		

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/II/5(a)  
Equity –  
the rich should pay more than the poor i.e. the tax should be based on the ability to pay (proportional taxation / progressive taxation)  
Certainty –  
the government should state with certainty the tax obligation of the tax-payer, and not arbitrarily interpret or change it  
Convenience –  
the payment of tax should be convenient to the tax-payer and the government  
Economy –  
the cost of collecting and administering the tax should be small in relation to the total tax revenue raised (2@, max: 6)  
[Mark the **FIRST THREE** points only.]

1993/CE/II/5(b)(ii)  
Equality principle –  
property-tax-payers pay taxes in proportion to their rental incomes.  
Convenience principle –  
the payment of property tax is convenient to the taxpayers.  
Certainty principle –  
property-tax-payers know their tax obligation clearly. (3@, max: 6)  
[Mark the **FIRST TWO** points only.]

1999/CE/II/10(c)  
(i) No, because (1)  
(according to the source principle,) the income earned is not derived from H.K. (1)  
(ii) Airport departure tax. (1)  
The certainty principle / convenient principle / economy principle. (1)

2002/CE/II/8  
(Equality-) The tax payments should be in proportion to the taxpayers' income.  
(Certainty-) The tax obligation (e.g., the time of payment, the manner of payment and the tax amount) of the taxpayers should be stated with certainty and not be arbitrarily interpreted or changed by the government.  
(Convenience-) The time and methods of the tax payment should be convenient to the taxpayers.  
(Economy-) The administrative costs of tax collection should be as small as possible relative to its yield. (2@, max: 4)  
[Mark the **FIRST TWO** points only.]

2005/CE/II/8  
(Equality-) The tax payments should be in proportion to the taxpayers' income. (2)  
(Certainty-) The tax obligation (e.g., the time of payment, the manner of payment and the tax amount) of the taxpayers should be stated with certainty and not be arbitrarily interpreted or changed by the government. (2)

2010/CE/II/6  
(Equality / Equity:) the tax payments should be in proportion to the tax-payers' income. (2)  
(Economy:) the administrative costs of tax collection should be as small as possible. (2)

2014/DSE/II/6(a)  
No, because (1)  
according to the source principle, income not derived from HK would not be taxed by the HK government. (1)

2017/DSE/II/6(b)  
Standard tax rate of salaries tax / profits tax / property tax, because every taxpayer has to pay the tax amount in the same proportion to these different sources (salaries / profits / rental income) of his income. (2)  
[Mark the **FIRST** point only.]

2018/DSE/II/6(b)  
Equality: The new tax is no longer proportional, meaning that it is inconsistent with the equality principle. (2)  
Economy: The new tax system may incur a slightly higher administration cost, rendering it less in line with the economy principle. (2)  
[Mark the **FIRST** point only.]

### 3.2 TAXATION IN HONG KONG

#### Multiple Choice Questions

1990/CE/II/31

Which of the following are indirect taxes?

- (1) excise duty
  - (2) estate duty
  - (3) rates
  - (4) profits tax
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (4) only  
D. (3) and (4) only

1995/CE/II/44

In July 1994, Mr. Chan bought a new house in Shatin and moved in immediately. In this case, the taxes that Mr. Chan has to pay for the financial year 94-95 are:

- (1) stamp duty
  - (2) property tax
  - (3) rates
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

1997/CE/II/41

The following are the annual income of Peter in Hong Kong in 1996.

Type of Income	Amount (\$)
Salaries as a teacher in a secondary school	600 000
Interest from local deposits	4 000
Rental income from letting a flat to a Japanese	300 000

According to the taxation system of Hong Kong, Peter has to pay

- A. salaries tax only.  
B. salaries tax and interest tax.  
C. salaries tax and property tax.  
D. salaries tax, interest tax and property tax.

1998/CE/II/40

Mr Chan has the following incomes:

- (1) year-end bonus
- (2) dividend from shares
- (3) capital gain in foreign exchange speculation
- (4) rental income from leased properties

According to the tax system of Hong Kong, which of the above incomes are subject to taxation?

- A. (1) and (2) only  
B. (1) and (4) only  
C. (2) and (3) only  
D. (3) and (4) only

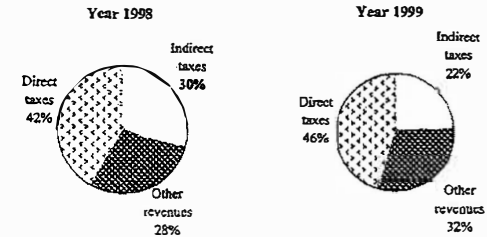
2000/CE/II/42

Which of the following is a direct tax in Hong Kong?

- A. estate duty  
B. rates  
C. interest tax  
D. sales tax

2001/CE/II/37

The following charts show the composition of the General Revenue Account of Hong Kong in 1998 and 1999.



Based on the above data, in the year 1999

- A. the ratio of direct taxes to indirect taxes increased.  
B. the total amount of tax revenue increased.  
C. the proportion of tax revenue in total government revenue increased.  
D. government revenue from rates decreased by 8%.

2002/CE/II/03

Mr Lee lives in his own house. He bears an opportunity cost from living in that house because

- (1) he could earn rental income from letting the house to others.
- (2) he has to pay property tax to the government.
- (3) he has paid a sum of money to buy the house.

- A. (1) only  
B. (1) and (2) only  
C. (1) and (3) only  
D. (2) and (3) only



2004/CE/II/44

Mr. Wong has the following expenses in Hong Kong:

- (1) three nights' room charge for a local hotel
- (2) bets on football at the Hong Kong Jockey Club
- (3) spending on cosmetics for his wife

Which of the above expenses are subject to an indirect tax in Hong Kong?

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2006/CE/II/40

In September 2005, Mr Chan bought 800 HSBC shares at \$120 per share and later sold them at \$130 per share on the Hong Kong stock market.

In this case, which of the following taxes should Mr Chan pay to the government of the HKSAR in the financial year 2005-06?

- A. stamp duty
- B. capital gains tax
- C. profits tax
- D. All of the above.

2008/CE/II/40

The following are Mary's sources of income and wealth in Hong Kong in 2008. Which is subject to taxation in Hong Kong?

- A. the rental income from letting her flat
- B. dividends earned from her shares in a listed company
- C. an estate inherited from her grand father
- D. the interest received from her time deposit in a bank

2010/CE/II/40

In 2009, Mr. Ng has the following kinds of income:

- (1) interest income from his bank deposits
- (2) money left to him by his deceased aunt
- (3) rental income from letting his house

According to the taxation system in Hong Kong, Mr. Ng has to pay

- A. property tax only.
- B. property tax and interest tax only.
- C. interest tax and estate duty only.
- D. estate duty and property tax only.

2012/DSE/1/33

Strine has the following incomes:

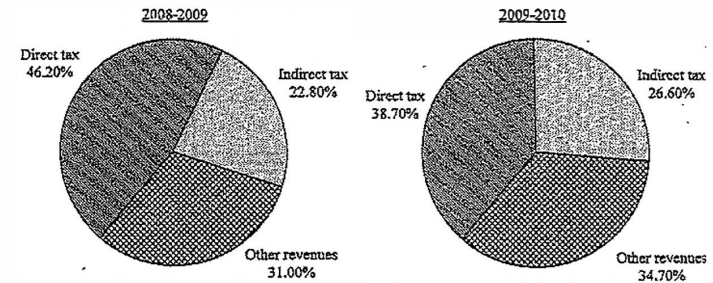
- (1) rental income from a leased flat
- (2) dividends from a local listed company
- (3) a gratuity (酬金) after completion of contract as a manager
- (4) commission received as an agent

According to the tax system of Hong Kong, which of the above incomes are subject to taxation?

- A. (1) and (3) only
- B. (2) and (4) only
- C. (1), (3) and (4) only
- D. (1), (2), (3) and (4)

2012/DSE/1/35

The following charts show the composition of the General Revenue Account of Hong Kong in years 2008-2009 and 2009-2010.



Based on the above data, in the year 2009-2010,

- A. there was an economic recession in Hong Kong.
- B. the ratio of direct taxes to indirect taxes increased.
- C. the total amount of tax revenue decreased.
- D. the proportion of tax revenue in total government revenue decreased.

2015/DSE/1/34

Which of the following are indirect taxes in Hong Kong?

- (1) Property tax
- (2) Rates on property
- (3) Stamp duty on transfer of stock
- (4) General sales tax

- A. (1) and (2) only
- B. (2) and (3) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

2016/DSE/1/35

Mr Lam earns \$1 000 000 as a mobile app designer of an IT firm in Hong Kong. Also, he earns a \$50 000 dividend by holding shares issued by a local company. He buys a second-hand racing car and flies to the Maldives to spend his vacation through the Hong Kong International Airport.

Based on the above information, Mr Lam needs to pay \_\_\_\_\_ to the Hong Kong government.

- (1) salaries tax
- (2) dividend tax
- (3) first registration tax
- (4) air passenger departure tax

- A. (1) and (4) only
- B. (2) and (3) only
- C. (1), (2) and (4) only
- D. (1), (3) and (4) only

2018/DSE/1/40

A Hong Kong resident works for a Mainland company located in Shenzhen and he earns a monthly wage. He receives dividend from Hang Seng Bank and rental income from a leased apartment in Mongkok as well. He took a flight to Seoul departing from the Hong Kong International Airport last month. Which type(s) of direct tax does he need to pay in Hong Kong?

- (1) property tax
- (2) profits tax
- (3) salaries tax
- (4) air passenger departure tax

- A. (1) only
- B. (1) and (4) only
- C. (1), (2) and (3) only
- D. (2), (3) and (4) only

2020/DSE/1/40

Mr. Chan runs a factory in mainland China and earns a huge profit. Recently he has bought a flat and a second hand electric car in Hong Kong, and received dividends from his shares of HSBC.

According to the above information, which type(s) of tax does he need to pay to the Hong Kong government?

- (1) Property tax
- (2) Stamp duty
- (3) Profits tax
- (4) First registration tax

- A. (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (1), (3) and (4) only

Short & Structured Questions

1991/CE/1/1(a)

The following table gives the relative share of different sources of government revenue in Hong Kong:

Fiscal Year	Direct Taxes (%)	Indirect Taxes (%)	Other Sources (%)
85/86	35.4	25.8	38.8
86/87	35.6	28.7	35.7
87/88	37.0	28.5	34.5
88/89	41.0	26.0	33.0
89/90	43.0	24.0	33.0

- (i) Give ONE example of EACH source of government revenue. (3 marks)
- (ii) Based on the above data, what was the trend of the relative share of direct taxes in government revenue over the five years? (2 marks)
- (iii) Explain how EACH of the following would affect the relative share of indirect taxes in government revenue:
  - (I) the introduction of a sales tax (4 marks)
  - (II) a recession in Hong Kong (8 marks)

1994/CE/1/7

(a) State whether each of the following taxes is a direct tax or an indirect tax:

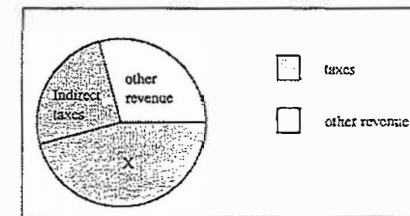
- (i) property tax
- (ii) rates

(2 marks)

(b) Explain the difference in the tax incidence between property tax and rates. (4 marks)

1997/CE/1/7

The following figure shows different sources of government revenue in Hong Kong.



- (a) Name X. (1 mark)
- (b) Explain why the government revenue from the source X is unstable. (4 marks)

2003/CE/1/8

Give TWO reasons to explain why the direct tax revenue of the Hong Kong government would decrease in times of economic recession. (4 marks)

2004/CE/1/9(a)

Hong Kong is facing a huge fiscal deficit and deflation.

Explain how government expenditure and government revenue are affected by Hong Kong's

(i) economic downturn. (4 marks)

(ii) ageing population. (4 marks)

2005/CE/1/11(b)

Two measures included in the Closer Economic Partnership Arrangement or 'Cepa' are:

- I. Zero tariff on 90% of Hong Kong-made products to the Chinese mainland
- II. Faster / easier market entry to the Chinese mainland for Hong Kong-based service providers in 18 service sectors

As a result, overseas companies not based in Hong Kong can take advantage of Cepa by partnering with a Cepa-qualified manufacturer or service provider in Hong Kong.

Source : Hong Kong SAR Government, 8 January 2005

Explain how the above measures would affect the direct tax revenue of Hong Kong. (4 marks)

2006/CE/1/11(b)

There are two issues for discussion concerning the public finance of Hong Kong : 'the tax base is narrow' and 'the government revenue is unstable'.

(i) (I) Suppose a general sales tax is introduced in Hong Kong. Explain its effect on the tax base of Hong Kong. (2 marks)

(ii) Explain how the government revenue generated from profits tax and salaries tax would be affected when there is a strong economic recovery. (4 marks)

2007/CE/1/9

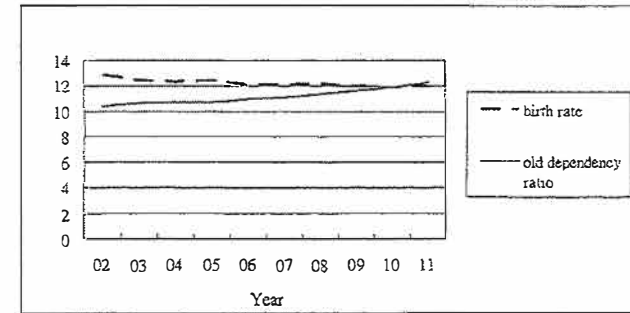
General sales tax has generated a lot of discussion.

(a) Explain how the introduction of a general sales tax will affect the ratio of direct to indirect tax revenue (i.e., direct for revenue divided by indirect for revenue) in an economy. (2 marks)

(b) Suppose economic depression occurs in an economy with a general sales tax. Explain how the economic depression will affect the ratio of direct to indirect tax revenue in this economy. (5 marks)

2014/DSE/11/10(a)

Ageing is a serious problem in China. Source 1 below shows the trends of the old dependency ratio\* and the birth rate\*\* of China from 2002 to 2011.



\* Old dependency ratio refers to the ratio of the elderly population to the working-age population (expressed in percentage)

\*\* Birth rate refers to the total number of births per 1 000 population.

With reference to the trends shown in Source 1, briefly discuss the possible changes on

(i) government tax revenue in the future.

(ii) public health and welfare expenditure in the future. (4 marks)

2015/DSE/11/11(b)

An accountant commented that the tax base of Hong Kong is narrow and suggested the government should introduce new types of indirect tax. Explain, with ONE example, how the introduction of a new indirect tax would broaden the tax base. (2 marks)

2017/DSE/11/6(a)

Why can the introduction of a general sales tax stabilise government revenue in times of economic downturn? (2 marks)

2019/DSE/11/10

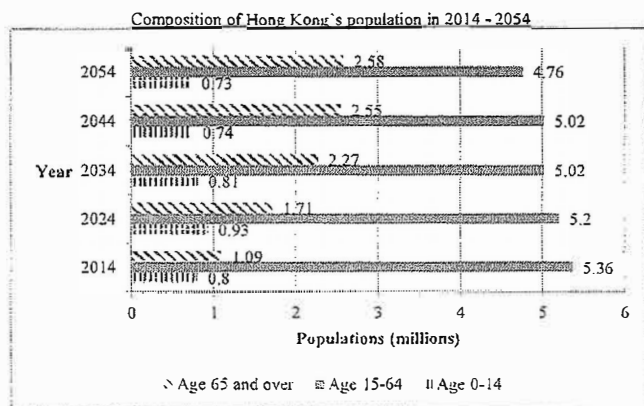
The following table shows the changes in the individual income tax system in China effective from October 2018.

Average tax rate	Range of monthly taxable income, in Renminbi (RMB)	
	Old brackets	New brackets
3%	Less than or equal to 1500	Less than or equal to 3000
10%	1501 – 4500	3001 – 12000
20%	4501 – 9000	12001 – 25000
25%	9001 – 35000	25001 – 35000
30%	35001 – 55000	Unchanged
35%	55001 – 80000	Unchanged
45%	Greater than 80000	Unchanged

(a) Is the individual income tax in China progressive, proportional, or regressive? Explain your answer. (2 marks)

2018/DSE/II/13(a)(ii)

The source below shows Hong Kong's population projection.



With reference to the above source, briefly discuss the possible effects of the change in composition of population on fiscal balance in the future. (3 marks)

**MARKING SCHEME**

1990/CE/II/31 B	2000/CE/II/42 A	2006/CE/II/40 A (40%)	2012/DSE/1/35 D (69%)	2020/DSE/II/ A
1995/CE/II/44 B	2001/CE/II/37 A	2008/CE/II/40 A (66%)	2015/DSE/1/34 B (20%)	
1997/CE/II/41 C	2002/CE/II/03 A (50%)	2010/CE/II/40 A (59%)	2016/DSE/1/35 A (57%)	
1998/CE/II/40 B	2004/CE/II/44 A (34%)	2012/DSE/1/33 C (56%)	2018/DSE/1/40 A (24%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/1(a)

(i) Give 1 mark to a correct example of each of the three sources of government revenue. (3)

Direct taxes: salaries tax, profits tax, property tax

Indirect taxes: rates, motor vehicles first registration tax, tobacco duty, etc.

Other revenue: revenue from land sales, fines & penalties, fees and charges collected from different types of licences, etc.

(Mark only the **FIRST** example of each source.)

(ii) Increased (2)

(iii) (i) Sales tax is an indirect tax in consumer expenditure. (2)

∴ the relative share of indirect taxes increases. (2)

(ii) Recession ⇒ income ↓ ⇒ direct tax revenue ↓ (3)

Recession ⇒ income ↓ ⇒ consumption ↓ ⇒ indirect tax revenue ↓ (3)

Recession ⇒ other revenue, e.g. revenue from land sales, may decrease. (2)

The relative share of indirect taxes will increase / decrease / remain unchanged, depending on the magnitude of the changes of the three sources of government revenue (2)

(max: 8)

1994/CE/1/7

(a) (i) Property tax - direct tax (1)

(ii) Rates - indirect tax (1)

(b) Property tax: the tax burden can't be shifted from the property owner onto the lessee (2)

Rates: the tax burden can be shifted onto the lessee (2)

1997/CE/1/7

(a) Direct taxes (1)

(b) Direct taxes (e.g. salaries tax and profits tax) vary with income / are progressive or proportional to incomes (earnings and profits). (2)

∴ When economic conditions change (good), incomes will change (high), direct tax revenue will also change (high). (2)

2003/CE/1/3

Unemployment ↑ or salary cuts ⇒ salaries tax revenue ↓

Less profits earned or some firms closed down ⇒ profits tax revenue ↓

Rental income ↓ or less tenants ⇒ property tax revenue ↓

[Mark the **FIRST TWO** points only.]

((1+1)@, max: 4)

2004/CE/1/9(a)

(i) Economic downturn

⇒ ↑ expenditure on public assistance, unemployment benefits (1)

⇒ government expenditure ↑ (1)

Economic downturn

⇒ more people become unemployed ⇒ salaries ↓, profits ↓, rental income ↓ (1)

⇒ government revenue ↓ (1)

(ii) Ageing population

⇒ ↑ demand for social services (1)

⇒ government expenditure ↑ (1)

Ageing population

⇒ declining proportion of the population in the workforce (1)

⇒ government revenue ↓ (1)

2005/CE/11(b)  
 Increase in investment will increase employment,  
 and thus increase salaries tax revenue. (1)  
 More businesses will increase profit, (1)  
 and thus increase profits tax revenue. (1) (max: 3)  
 Increase in demand for office premises will increase rental income, (1)  
 and thus increase property tax revenue. (1)

∴ increase in direct tax revenue (1)

2006/CE/11(b)  
 (i) (1) [Providing that consumption expenditure, profit, employment, salaries will not be greatly adversely affected,] (1)  
 The tax base will be widened because (1)  
 most goods and services are untaxed before the introduction of the GST but will be subject to tax under the GST. (1)

(ii) Employment ↑ ⇒ wages ↑ (1)  
 ⇒ salaries tax revenue ↑ (1)

More business / investment ↑ ⇒ profits ↑ (1)  
 ⇒ profits tax revenue ↑ (1)

2007/CE/9  
 (a) The ratio of direct to indirect tax revenue will fall, because (1)  
 the indirect tax revenue will increase. (1)

(b) Economic recession has the following phenomena:  
 Employment & wages ↓ / profits ↓  
 ⇒ Direct tax revenue ↓ (e.g. profits tax revenue ↓ / salaries tax revenue ↓) (2)

Private consumption ↓ / transaction volume and price of property and shares ↓  
 ⇒ Indirect tax revenue ↓ (e.g. general sales tax revenue ↓ / revenue from stamp duty ↓) (2)

However, consumption expenditure being generally less volatile than income may lead to a decrease in the ratio of direct to indirect tax revenue. (1)

2014/DSE/11/10(a)  
 (i) A declining birth rate implies a slower growth in the size of the work force and possibly a shrinking working population in the future. As fewer workers are there to pay taxes, future tax revenue may be reduced. (2)

(ii) A rising old-age dependency ratio implies higher percentage of the elderly in the population. The elderly may have lower (or even zero) income and greater needs for medical services. They may thus require more government support in terms of social welfare and public health, implying an increase in public expenditure on such programs. (2)

2015/DSE/11/11(b)  
 Introduction of new types of indirect taxes, such as general sales tax or value-added tax. (1)  
 would make more people or commodities fall into the tax net, thus broadening the tax base. (1)

2017/DSE/11/6(a)  
 Fluctuation in consumption is smaller than that of income. Sales-tax revenue generated from consumption would fall (proportionately) less than income-tax revenue generated from income, thus stabilizing total government revenue, during economic downturn. (2)  
**OR**  
 Introduction of a general sales tax broadens the tax base, so that the tax revenue collected would fluctuate less. (2)

2018/DSE/11/13(a)(ii)  
 The fiscal balance may be worsened. (1)  
 Government revenue may drop, as the working-age population, which accounts for a major portion of taxpayers, drops. (1)  
 Government expenditure may increase, as the government spends more on medical services and transfer payments to the growing old-age population. (1)

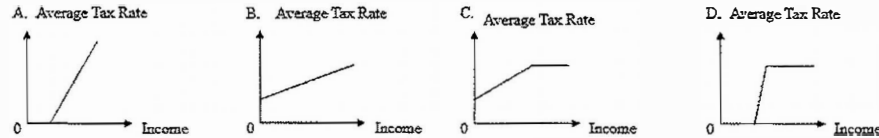
2019/DSE/11/10  
 (a) It is a progressive tax because higher average tax rate is charged for tax payers with higher income.

3.3 CLASSIFICATION AND EFFECTS OF TAXES

Multiple Choice Questions

1990/CE/II/47

Which of the following diagrams approximates the structure of salaries tax in Hong Kong?



1990/CE/II/55

Mei Ling's income has increased from \$50 000 to \$60 000 this year. The income tax is progressive if it increases from

- A. \$1 000 to \$1 200
- B. \$2 000 to \$2 500
- C. \$3 000 to \$3 600
- D. \$4 000 to \$4 700

1991/CE/II/37

A sales tax on food is regarded as \_\_\_\_\_ tax.

- A. a direct and regressive
- B. an indirect and regressive
- C. a direct and proportional
- D. an indirect and progressive

1992/CE/II/36

Suppose the government asks everybody to pay a tax of \$100 a year. This is an example of

- A. regressive tax.
- B. proportional tax.
- C. income tax.
- D. indirect tax.

1993/CE/II/45

Which of the following is a correct description of direct tax?

- A. Direct tax is regressive.
- B. The cost of collecting direct tax is greater than that of indirect tax.
- C. The revenue from direct tax will drop if there is a recession.
- D. Raising direct tax rates will lead to inflation.

1994/CE/II/47

If the amount of tax increases as income increases, the tax may be considered a \_\_\_\_\_ tax.

- (1) progressive
- (2) proportional
- (3) regressive

- A. (1) only
- B. (1) or (2)
- C. (2) or (3)
- D. (1) or (2) or (3)

1995/CE/II/45

Direct taxes differ from indirect taxes in that

- A. direct taxes are collected directly from the taxpayers but indirect taxes are not.
- B. direct taxes are progressive whereas indirect taxes are regressive.
- C. the tax burden of direct taxes cannot be shifted but that of indirect taxes can.
- D. the direct tax revenue fluctuates with national income but the indirect tax revenue does not.

1995/CE/II/46

Study the following information carefully:

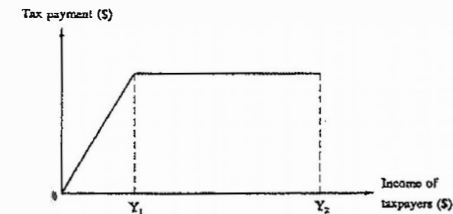
Taxable income(\$)	Total tax payment (\$)
10 000	1 000
20 000	3 000
30 000	x

If the tax is progressive, x must be larger than

- A. 3 000.
- B. 3 500.
- C. 4 000.
- D. 4 500.

1995/CE/II/48

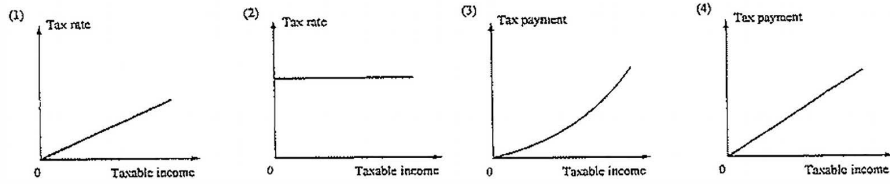
The following diagram shows the tax structure of Tax X:



Tax X is \_\_\_\_\_ within the income range  $OY_1$ , and \_\_\_\_\_ within the income range  $Y_1Y_2$ .

- A. proportional ..... progressive
- B. proportional ..... regressive
- C. progressive ..... proportional
- D. progressive ..... regressive

1996/CE/II/41



Which two of the following diagrams describe a progressive tax?

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1996/CE/II/44

Suppose that inflation occurs and that money income increases at the same rate as inflation. A taxpayer under a proportional tax system will pay

- (1) a larger amount of tax.
- (2) the same amount of tax.
- (3) more tax in terms of purchasing power.
- (4) the same amount of tax in terms of purchasing power.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1997/CE/II/40

The below tax is a

Taxable income (\$)	Tax payment (\$)
10 000	4 000
20 000	7 000
30 000	9 000
40 000	10 000

- A. progressive tax.
- B. proportional tax.
- C. regressive tax.
- D. lump-sum tax.

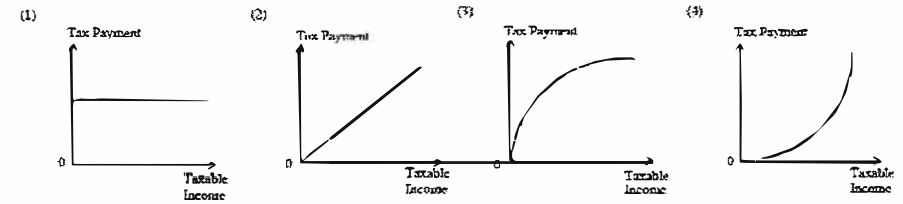
1998/CE/II/39

Which of the following statements about tax is correct?

- A. Progressive tax has higher tax rate than regressive tax.
- B. Progressive tax is tax on income while regressive tax is a tax on goods.
- C. The tax payment of a regressive tax decrease as the taxable income increases.
- D. The percentage of income as tax of a progressive tax increases when taxable income increases.

2000/CE/II/41

Which two of the following diagrams illustrate a regressive tax measured in terms of an average tax rate?



- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2000/CE/II/43

Taxable income (\$)	Tax payment (\$)
200 000	22 000
250 000	25 000
300 000	27 000

From the above information, we can conclude that

- A. The tax is a progressive tax as the tax payment increases with taxable income.
- B. The tax payment takes a decreasing portion of taxable income as taxable income increases.
- C. The taxation system helps to reduce the income gap.
- D. The taxation system reduces the work incentive.

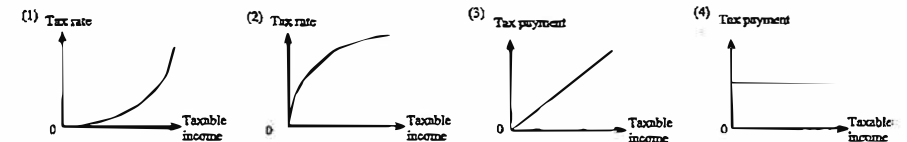
2002/CE/II/43

Tobacco duty in Hong Kong is a kind of

- A. direct and proportional tax.
- B. direct and regressive tax.
- C. indirect and proportional tax.
- D. indirect and regressive tax.

2003/CE/II/38

Which of the following taxes are progressive?



- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

2004/CE/II/41

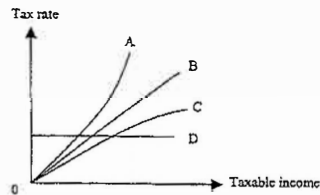
Taxable income (\$)	Tax payment (\$)		
	Tax A	Tax B	Tax C
10 000	500	800	1 000
20 000	1 000	1 700	1 000
30 000	1 500	2 700	1 000

According to the above table, which of the following statements is correct ?

- A. None of the above taxes is a regressive tax.
- B. The taxation principle of equity put forth by Adam Smith applies to all the above taxes.
- C. Tax A is the most effective in achieving a more even income distribution.
- D. Tax B is a progressive tax.

2004/CE/II/42

Which of the following lines A, B, C or D shows the relationship between the tax rate and the taxable income under the profit tax system in Hong Kong?



- A. line A
- B. line B
- C. line C
- D. line D

2005/CE/II/39

Study the following data:

Taxable income (\$)	Tax amount (\$)
0	0
10 000	1 500
20 000	x

If the above tax is progressive, the value of x must be

- A. smaller than 3 000.
- B. equal to 3 000.
- C. greater than 3 000.
- D. There is not sufficient information to do the calculation.

2005/CE/II/40

Which of the following is/are the difference(s) between a direct tax and an indirect tax?

- A. The tax burden of a direct tax cannot be shifted onto other people, but the tax burden of an indirect tax can.
- B. A direct tax results in a more even income distribution, but an indirect tax results in a less even income distribution.
- C. The tax base of direct taxes is narrower, but the tax base of indirect taxes is broader.
- D. All of the above are correct.

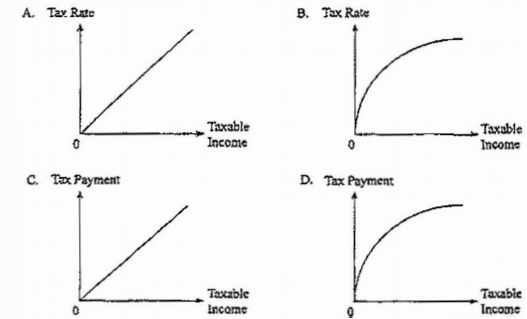
2007/CE/II/40

Which of the following taxes in Hong Kong is both 'direct' and 'progressive'?

- A. stamp duty
- B. profits tax
- C. property tax
- D. salaries tax

2008/CE/II/43

Which of the following diagrams describes a regressive tax?



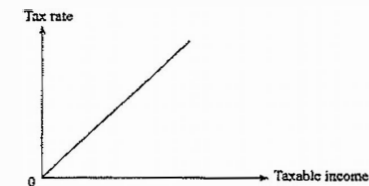
2009/CE/II/42

An economy levies a 5% general sales tax on all goods and services. This tax is a/an

- A. proportional tax as everyone will pay 5% of their expenditure on goods and services as tax
- B. progressive tax as the tax payment increases with the price of the goods and services.
- C. regressive tax as the proportion of tax payment to income decreases when income increases.
- D. indirect tax as consumers indirectly bear all the tax burden.

2009/CE/II/43

Refer to the following relationship between the tax rate and the taxable income of a certain tax.



Which of the following statements is correct?

- A. The taxation principle of equity put forth by Adam Smith applies to this tax.
- B. The tax rate remains constant when the taxable income increases.
- C. The imposition of this tax would lead to an increase in the ratio of indirect tax revenue to direct tax revenue.
- D. When the taxable income increases, the percentage increase of the tax payment is greater than the percentage increase of the taxable income.



2010/CE/II/41

Taxable income (\$)	Tax Payment (\$)	
	Tax System A	Tax System B
100 000	4 000	5 000
200 000	4 000	10 000
300 000	4 000	15 000

Refer to the above data. Tax system A is \_\_\_\_\_ while tax system B is \_\_\_\_\_.

- A. proportional ..... progressive
- B. progressive ..... proportional
- C. regressive ..... proportional
- D. regressive ..... progressive

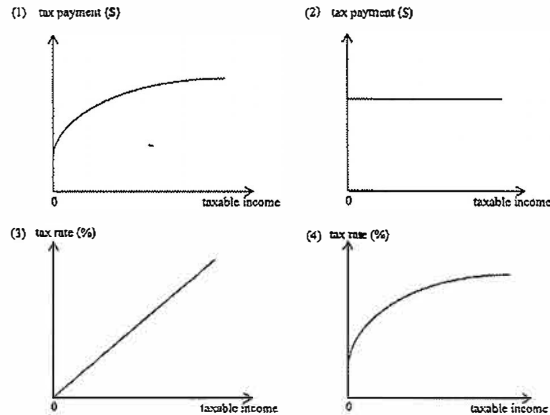
2014/DSE/II/36

The government plans to impose a new tax under which the tax payment drops when taxable income drops. Which of the following statements about the new tax is correct?

- A. The tax is regressive as the tax rate increases when the taxable income drops.
- B. The tax is proportional as the taxable income and the tax payment are positively related.
- C. The tax cannot be progressive as the tax rate increases when the tax payment drops.
- D. The tax can be progressive, proportional or regressive.

2017/DSE/II/35

Which of the following diagrams describe a regressive tax?



- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1990/CE/II/59

Which of the following is **INCORRECT** if a general sales tax is imposed in Hong Kong?

- A. The fluctuations of government tax revenue will be reduced.
- B. The proportion of direct tax in the government tax revenue will increase.
- C. There will be a redistribution of income.
- D. The average price level will increase.

1991/CE/II/37

A sales tax on food is regarded as \_\_\_\_\_ tax.

- A. a direct and regressive
- B. an indirect and regressive
- C. a direct and proportional
- D. an indirect and progressive

1991/CE/II/39

Income (\$)	Tax Amount (\$)	
	Policy A	Policy B
10 000	1 000	1 000
50 000	5 000	4 000
100 000	10 000	7 000
500 000	50 000	30 000

Which of the following is likely to take place if the government changes from Policy A to Policy B?

- A. less incentive to work
- B. more uneven income distribution
- C. a lower rate of economic growth
- D. a fall in the consumption expenditure

1992/CE/II/43

In the financial year 1990-91, the government increased the tax allowance by about 5%. The inflation rate at the same period was about 10%. Which one of the following was a consequence of the above situation?

- A. The government had to introduce a sales tax.
- B. More people fell into the tax net.
- C. The real income of Hong Kong people increased.
- D. The government collected more indirect tax revenue.

1993/CE/II/46

Taxpayers with the same net chargeable income paid different amounts of tax in the two fiscal years 1990/91 and 1991/92. Several examples are shown below to illustrate this:

Total net chargeable income (\$)	Total tax payment (\$) for the fiscal year of	
	1990/91	1991/92
10 000	200	200
20 000	600	400
30 000	1 500	1 300
40 000	2 700	2 200
50 000	4 200	3 900
60 000	6 000	5 600
70 000	8 100	8 100
80 000	10 600	10 600

How does the change in the total tax payment affect the income distribution in Hong Kong?

- A. It gives a more even income distribution.
- B. It gives a more uneven income distribution.
- C. It has no effect on income distribution.
- D. The effect on income distribution is uncertain.

1993/CE/II/47

If the government increases the personal allowance on the salaries tax, then

- A. the taxpayers paying at the standard tax rate will have a higher work incentive.
- B. we are not certain how the total tax revenue will change.
- C. the government will have to cut its expenditure.
- D. the tax base will be widened.

1993/CE/II/48

Which of the following government measures will increase the inequality of wealth distribution in Hong Kong?

- A. removing the tax on soft drinks
- B. selling more flats under the Home Ownership Scheme at lower prices
- C. increasing fees for medical service in government hospitals
- D. increasing the personal allowance on the salaries tax

1994/CE/II/48

The aim of the Hong Kong government in increasing the proportion of indirect taxes to total taxation is to

- A. increase the total tax revenue.
- B. stabilize the tax revenue in different phases of a business cycle.
- C. narrow the gap between the rich and the poor.
- D. narrow the tax base.

1996/CE/II/43

Which of the following will lead to a more uneven income distribution?

- A. decreasing the sales tax rate
- B. imposing more indirect taxes on luxuries
- C. increasing the housing allowance of senior civil servants
- D. increasing the standard tax rate of the salaries tax

1996/CE/II/45

Which of the following statements is true about progressive tax in Hong Kong?

- A. It will lead to a more uneven distribution of income.
- B. It is a tax levied on good and services.
- C. The tax burden can be shifted.
- D. It may discourage working incentive.

1997/CE/II/45

Suppose the Hong Kong government increases the salaries tax allowance by 5% while both the wage rates and the inflation rate of the economy in the year increase by 10%. It follows that

- A. more people would fall into the tax net.
- B. the ratio of tax payment to income would decrease.
- C. the tax revenue would increase and the income distribution would be more even.
- D. the real income of the people after tax would remain unchanged.

1998/CE/II/37

A progressive tax is more effective than a proportional tax in achieving the following aim:

- A. to increase government revenue
- B. to lower the administrative costs of the government
- C. to achieve a more equitable income distribution
- D. to reallocate the resources of the economy

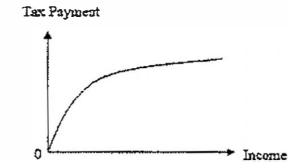
1998/CE/II/42

If the government of Hong Kong raises the tax allowance on the salaries tax,

- A. the income distribution will be more uneven.
- B. less people will fall into the tax net.
- C. the working incentive of those paying at the standard tax rate will increase.
- D. the tax bands will be widened.

1999/CE/II/40

The following diagram shows a tax system:



Which of the following statements concerning the above tax is correct?

- A. It is a progressive tax as the tax payment increases when income increases.
- B. It would lead to an uneven distribution of income.
- C. It would encourage the working incentive of workers.
- D. The progressivity of the tax rate will increase when income rises.

1999/CE/II/42

During a recession, the refund of rates by the government to the people would

- A. lead to a more efficient allocation of resources.
- B. decrease the foreign exchange and gold reserves of Hong Kong.
- C. increase the incentive to invest.
- D. increase the consumption expenditure of the lower income group.

1999/CE/II/43

Which of the following government policies would lead to more even distribution of income?

- A. lowering the tax rates of regressive taxes
- B. imposing more indirect taxes on necessities
- C. increasing the depreciation allowance of the profits tax.
- D. reducing the standard tax rate of the salaries tax

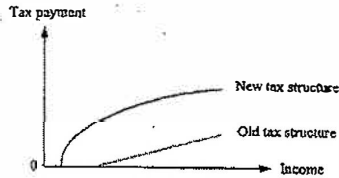
1999/CE/11/44

If the income of Hong Kong people falls by 5% in a fiscal year.

- A. more people will fall into the tax net.
- B. the tax bands of the salaries tax will be narrowed.
- C. the government revenue from the salaries tax will fall by more than 5%.
- D. the wealth distribution of people in Hong Kong will remain unchanged.

2001/CE/11/35

The following graph shows the relationship between tax payment and income before and after a change in the structure of a tax.



Compared to the old tax structure, the new tax structure

- A. results in a less even income distribution.
- B. has a lower tax rate for the same level of income.
- C. has a larger tax allowance.
- D. has no effect on working incentive.

2001/CE/11/36

Taxable Income (\$)	Tax Payment Under Tax A (\$)	Tax Payment Under Tax B (\$)
10 000	1 500	2 000
20 000	3 800	3 800
30 000	6 600	5 400

From the above data, we can conclude that

- A. Tax A is a direct tax and Tax B is an indirect tax.
- B. there would be a more even income distribution under Tax A.
- C. the tax rate of Tax A is lower than that of Tax B for all levels of income.
- D. the fluctuations of government tax revenue would be smaller under Tax A than under Tax B when income fluctuates.

2001/CE/11/39

Which of the following will widen the tax base of Hong Kong?

- A. an increase in the tax allowance
- B. a decrease in the standard tax rate
- C. an increase in the profits tax rate
- D. the introduction of a sales tax

2002/CE/11/40

If a general sales tax is introduced in Hong Kong.

- A. the tax base would be widened.
- B. the wealth gap would be reduced.
- C. less Hong Kong people would shop in Shenzhen.
- D. the proportion of direct tax in the government tax revenue would increase.

2002/CE/11/42

Suppose the government of an economy cuts the salaries tax allowance by 10% while both the wage rates and the general price level in the year fall by 5%. It follows that

- A. the tax revenue would increase.
- B. more people would fall into the tax net.
- C. the real income of people before tax would generally increase.
- D. the ratio of people's tax payment to their nominal income would generally decrease.

2003/CE/11/39

Suppose the salaries tax allowance in Hong Kong decreases and the salaries of taxpayers remain constant. It results that

- A. some taxpayers paying at the standard tax rate may pay at a lower tax rate.
- B. the middle-income group would have to pay a larger proportion of their income as tax.
- C. less people would fall into the tax net.
- D. the after-tax income of all taxpayers would decrease.

2003/CE/11/40

If the government raises the profits tax rate,

- A. the government revenue will increase.
- B. the unemployment rate will fall.
- C. the incentive for investment will decrease.
- D. the general price level will rise.

2003/CE/11/41

The following table describes a tax:

Taxable Income (\$)	Tax Payment (\$)
10 000	2 000
20 000	3 800
30 000	5 400
40 000	6 800
50 000	8 000

The above tax would

- A. lead to a less even distribution of income.
- B. reduce the working incentive of workers.
- C. improve the resource allocation of the economy.
- D. increase the consumption expenditure of the lower income group.

2004/CE/11/41

Taxable income (\$)	Tax payment (\$)		
	Tax A	Tax B	Tax C
10 000	500	800	1 000
20 000	1 000	1 700	1 000
30 000	1 500	2 700	1 000

According to the above table, which of the following statements is correct ?

- A. None of the above taxes is a regressive tax.
- B. The taxation principle of equity put forth by Adam Smith applies to all the above taxes.
- C. Tax A is the most effective in achieving a more even income distribution.
- D. Tax B is a progressive tax.

2004/CE/11/43

Suppose there is a change in an income tax as follows:

Marginal Tax Band	Marginal Tax Rate (%)	
	Old System	New System
First \$30 000 taxable income	2.0	2.0
Next \$30 000	7.5	8.0
Next \$30 000	13.0	14.0
Remainder	18.5	20.0

Under the new system,

- A. the ratio of direct tax revenue to indirect tax revenue will decrease.
- B. the government will have a budget surplus.
- C. more people will fall into the tax net.
- D. the income gap will be reduced.

2005/CE/11/41

Which of the following government policies would lead to a less even income distribution of Hong Kong citizens?

- A. raising the standard tax rate of the salaries tax
- B. reducing the personal allowance of the salaries tax
- C. raising the profits tax rate
- D. lowering the excise tax rate of tobacco and wine

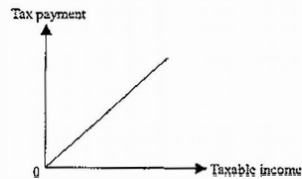
2005/CE/11/42

The introduction of a general sales tax would lead to

- A. inflation.
- B. lower output.
- C. higher consumption expenditure.
- D. higher GDP.

2005/CE/11/43

Refer to the following relationship between the tax payment and the taxable income of a certain tax.



Which of the following is correct?

- A. The above tax would lower the working incentives of workers.
- B. The above tax is in accordance with the equality principle put forth by Adam Smith.
- C. The tax allowance for the above tax is zero.
- D. Every employee has to pay the above tax.

2006/CE/11/39

Suppose the salaries tax of an economy changes from tax system A to tax system B.

Taxable income	System A	System B
	Marginal tax rate	Marginal tax rate
First \$20 000	3%	2%
Next \$20 000	6%	5%
Next \$20 000	10%	8%
Remainder	15%	12%

As a result,

- A. less people would fall into the tax net.
- B. the working incentive of workers would increase.
- C. the income gap would be reduced.
- D. the ratio of direct tax revenue to indirect tax revenue would increase.

2006/CE/11/42

Which of the following would widen the tax base of Hong Kong?

- A. a reduction in the tax allowance
- B. abolition of the first registration tax on motor vehicles
- C. an increase in the progressivity of salaries tax
- D. an increase in the profits tax rate

2007/CE/11/42

Taxable income (\$)	Tax Payment (\$)	
	Tax System A	Tax System B
100 000	6 000	5 000
200 000	12 000	12 000
300 000	18 000	21 000

Refer to the above data. When the tax system changes from A to B,

- A. the income gap between the rich and the poor will be reduced.
- B. the work incentive of workers will increase.
- C. the tax base of the economy will be widened.
- D. the government budget position will be improved.

2007/CE/11/43

In order to increase the competitiveness of Hong Kong, some businessmen propose to reduce the profits tax rate. When the profits tax rate decreases,

- A. the foreign exchange and good reserve of Hong Kong would increase.
- B. the investment incentive would increase.
- C. the government tax revenue would decrease.
- D. the size of the public sector would decrease.

2008/CE/11/41

When the government reduces the profits tax rate,

- A. the unemployment rate will increase.
- B. the investment incentive will increase.
- C. the government tax revenue will decrease.
- D. the income inequality will be reduced.

2008/CE/II/44

Suppose the salaries tax system of Hong Kong changes as follows:

Old System		New System	
Marginal Tax Band	Tax Rate (%)	Marginal Tax Band	Tax Rate (%)
First \$30 000 taxable income	2.0	First \$40 000 taxable income	2.0
Next \$30 000	7.0	Next \$40 000	7.0
Next \$30 000	13.0	Next \$40 000	13.0
Remainder	19.0	Remainder	19.0
Standard Rate	16.0	Standard Rate	16.0

Under the new system, with the salaries of all taxpayers unchanged

- A. fewer people will fall into the tax net.
- B. fewer people will have to pay at the standard rate.
- C. the income gap will not be affected.
- D. the government will run into a budget deficit.

2009/CE/II/42

An economy levies a 5% general sales tax on all goods and services. This tax is a/an

- A. proportional tax as everyone will pay 5% of their expenditure on goods and services as tax.
- B. progressive tax as the tax payment increases with the price of the goods and services.
- C. regressive tax as the proportion of tax payment to income decreases when income increases.
- D. indirect tax as consumers indirectly bear all the tax burden.

2009/CE/II/44

In the financial year of 2008-09, the standard rate of salaries tax was reduced from 16% to 15%. Other things being equal, the above measure would

- A. reduce the number of people falling into the tax net.
- B. increase the progressivity of the salaries tax system of Hong Kong.
- C. increase the consumption expenditure of people in Hong Kong.
- D. increase the after tax income of low-income people in Hong Kong.

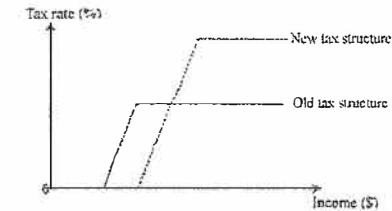
2010/CE/II/42

There was a one-off tax reduction up to a maximum of \$6 000 on the salaries tax and the tax under personal assessment for 2008-09. This would

- A. reduce the income gap between the rich and the poor.
- B. narrow the tax base of Hong Kong.
- C. increase the working incentive of those paying at the standard tax rate.
- D. increase the consumption expenditure of those entitled to the tax reduction.

2013/DSE/II/36

The following diagram shows the change in the salaries tax structure of an economy.

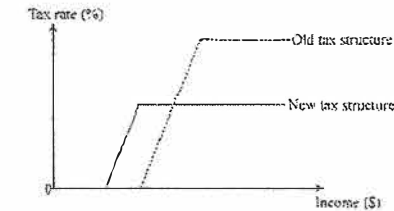


Compared to the old salaries tax structure, the new tax structure

- A. has a smaller personal allowance.
- B. has a lower standard tax rate.
- C. will narrow the income gap between the rich and the poor.
- D. will widen the tax base.

2016/DSE/II/36

The following diagram shows the changes in the salaries tax structure of an economy.



Compared to the old tax structure, the new tax structure will

- A. result in a more even income distribution
- B. reduce the work incentive of all workers
- C. broaden the tax base
- D. lead to an increase in total tax revenue

2018/DSE/II/35

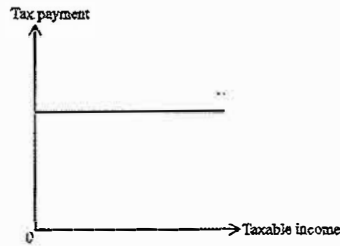
Suppose the salaries tax system in Hong Kong has the following changes:

Old System		New System	
Net chargeable income	Tax rate	Net chargeable income	Tax rate
First \$50 000	2%	First \$60 000	2%
Next \$50 000	7%	Next \$60 000	7%
Next \$50 000	12%	Next \$60 000	12%
Remainder	17%	Remainder	17%
Standard Rate	15%	Standard Rate	15%

If the basic tax allowance remains unchanged, which of the following is most likely to be a result of the above changes in the tax system?

- A. Fewer people will fall into the tax net.
- B. Fewer people will have to pay at the standard tax rate.
- C. People's work incentive will decrease.
- D. Consumption expenditure will decrease.

The following diagram shows the relationship between taxable income and tax payment in a tax system.



Which of the following statements about the above tax system is correct?

- A. The lower income group pays a smaller percentage of their taxable income as tax payment.
- B. It violates the tax principle of equity put forward by Adam Smith.
- C. It is a proportional tax.
- D. It leads to a more even income distribution.

In 2019, the Japanese government increases the general sales tax rate on most of the goods and services from 8% to 10%. As a result,

- (1) income inequality will be higher.
- (2) the fiscal deficit will be eliminated.
- (3) the invisible trade deficit will decrease.

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

In the case WITHOUT tax exemption, John needs to pay \$15 000 and May needs to pay \$35 000 as income tax.

Suppose the government proposes the following income tax exemption measures:

	Amount of tax exemption
Measure I	75% of income tax, maximum \$30 000
Measure II	100% of income tax, maximum \$20 000

John will prefer \_\_\_\_\_ while May will prefer \_\_\_\_\_.

- A. measure I ..... measure I
- B. measure I ..... measure II
- C. measure II ..... measure I
- D. measure II ..... measure II

Short & Structured Questions

1990/CE/1/5(b)(i)

Suppose the Hong Kong government adopts the following tax policies :

Policy A: introducing a 3% sales tax on all commodities

Policy B: cutting down the standard tax rate by 3%

Explain how EACH of the above policies affects the distribution of income between the rich and the poor. (Assuming in Hong Kong, the poor spend a higher ratio of their income on consumption than the rich.)

(8 marks)

1992/CE/1/5(c)(i)

It has now been decided that a new airport will be built at Chek Lap Kok

Suggest THREE possible government measures, other than printing money, to obtain enough capital to construct the new airport. State ONE disadvantage to Hong Kong's economy of each of the methods you have mentioned.

(9 marks)

1993/CE/1/5

(b) If Mr. Chan rents the flat to a tenant, he will have to pay property tax to the Hong Kong government for the rental income.

(i) Explain whether property tax is progressive, regressive or proportional.

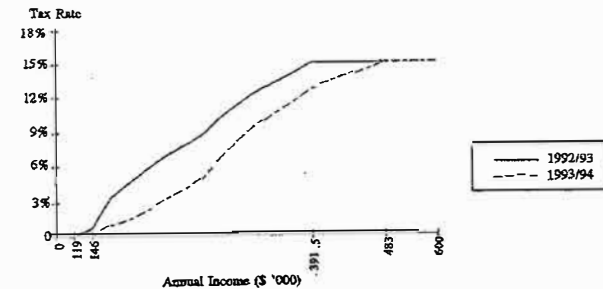
(3 marks)

(d) Some people suggest that a capital gains tax (資產增值稅) should be imposed on those flat-owners who gain money from the resale of housing units in Hong Kong. From the view point of the government, give ONE reason for and ONE reason against this suggestion.

(4 marks)

1994/CE/1/10(b)

The Hong Kong government revised the salaries tax structure for the fiscal year 1993/94. The following graph helps to illustrate some of these changes.



\*The above graph shows the effective tax rate for a typical single income family of four.

Refer to the above graph.

(i) Explain whether the salaries tax is progressive, regressive or proportional over the income range.

(4 marks)

(ii) (I) Point out TWO major changes to the tax structure shown on the graph.

(4 marks)

(II) Which tax structure shown on the graph would give a more even distribution of income in Hong Kong, other things being equal? Explain.

(6 marks)

(iii) Give ONE reason to explain why it is possible that the salaries tax revenue collected from these families might increase after the changes in the tax structure.

(3 marks)

1995/CE/1/5

Define progressive tax and proportional tax. Name a local example of each.

(6 marks)

1996/CE/1/10(b)

Suppose Country A plans to impose tariffs on its imports. Explain whether this tax is progressive, proportional or regressive. (4 marks)

1996/CE/1/12(d)

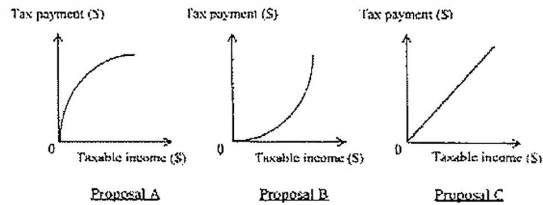
Suppose the government increases the progressivity of the salaries tax in order to provide unemployment benefits to the unemployed. Explain how this would affect Hong Kong's income distribution. (4 marks)

1997/CE/1/9(d)(ii)

Suppose a general sales tax is introduced to finance the construction of the new railway. Explain the effect of this tax on Hong Kong's income distribution. (3 marks)

1998/CE/1/5

The following shows three different proposals for an income tax of an economy.



Explain the differences among the three proposals in terms of the relationship between the tax payments and the taxable incomes. Then point out which proposal would be the most effective in achieving a more even distribution of income. (7 marks)

1998/CE/1/7(b)

Suppose the salaries tax allowance in Hong Kong remains unchanged. Explain why the total tax revenue from this tax would increase at times of inflation. (3 marks)

1999/CE/1/8

Taxable income	\$10 000	\$20 000	\$30 000
Tax amount	\$1 000	\$1 900	\$2 700

Explain whether the tax described above is progressive. Show your working. (5 marks)

2000/CE/1/8

In 1999, the government refunded 10% of the salaries tax and profits tax to taxpayers. Explain how this would affect the wealth gap between the low-income group and the high-income group. (4 marks)

2000/CE/1/9(a)

Study the following information.

Gasoline Bill		
Quantity sold:	50L (liter)	
Price per liter:	3.780 \$/L	\$189
Government tax:	6.060 \$/L	\$303
Sales total:		\$492

(i) Define regressive tax and explain whether the above gasoline tax is progressive, proportional or regressive. (5 marks)

(ii) Give TWO economic reasons for the government to levy tax on gasoline. (4 marks)

2001/CE/1/7

Suppose the Hong Kong government introduces a general sales tax.

(a) Explain whether a sales tax is a direct tax or an indirect tax. (2 marks)

(b) Explain what would be the effect of the introduction of a general sales tax on Hong Kong's income distribution. (3 marks)

2001/CE/1/11(b)

Suppose the government significantly reduces the stamp duty on the sale of property. Explain how this would affect

- (i) investment
- (ii) employment opportunities

in the construction industry.

(4 marks)

2002/CE/1/12(c)

Mr Wong's bookstore has to pay profits tax and rates.

(i) Explain which of the above two taxes is an indirect tax.

(ii) Explain whether profits tax is progressive, proportional or regressive. (5 marks)

2003/CE/1/10(d)

The first registration tax on a newly imported car is a fixed percentage of the car's value. Explain whether the tax is proportional. (3 marks)

2004/CE/1/10(e)

In Hong Kong, the air passenger departure tax is \$120 per adult passenger. Explain whether the tax is a progressive tax, a proportional tax or a regressive tax. (3 marks)

2006/CE/1/11(b)(i)(II)

Explain whether general sales tax is a direct tax or an indirect tax. (2 marks)

2008/CE/1/8

In Hong Kong, red wine is subject to an excise tax of 40% of its value.

(a) Explain whether this tax is progressive, regressive or proportional. (4 marks)

(b) Explain whether this tax is a direct tax or an indirect tax. (2 marks)

2009/CE/11

In the fiscal year 2008-09, the government took some measures to reduce the tax burden on the public.

- (a) The corporate profits tax rate was reduced from 17.5% to 16.5%. Explain whether the government revenue from profits tax would necessarily decrease as a result of a reduction in the profits tax rate. (4 marks)
- (b) Rates (差餉) were waived for most properties. Explain whether this tax is a direct tax or an indirect tax. (2 marks)

2012/DSE/II/4

According to a report of the United Nations in 2008, the Gini coefficients of Hong Kong and Beijing were 0.53 and 0.22 respectively.

- (a) Was the income gap between the rich and the poor in Hong Kong wider or narrower than that in Beijing? (1 mark)
- (b) Explain how an increase in the standard tax rate of salaries tax will affect the post-tax Gini coefficient of Hong Kong. (3 marks)

2013/DSE/II/8

Suppose a government is facing a budget deficit. Some politicians have proposed that the government should raise the income tax rate to reduce the budget deficit. Evaluate their proposal. (4 marks)

2014/DSE/II/6(b)

Karen, a Hong Kong resident, works as a photographer in a media group in Shanghai.

Is salaries tax a direct or an indirect tax? Explain your answer. (2 marks)

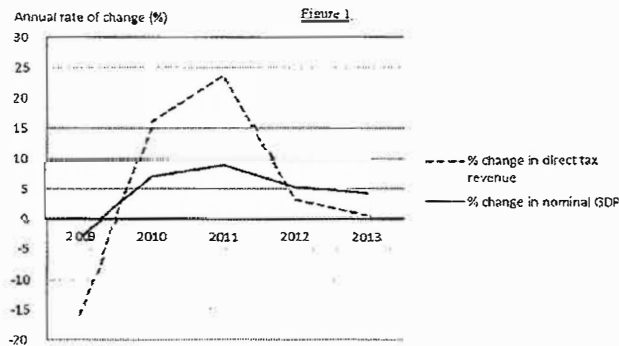
2014/DSE/II/7(a)

In an attempt to reduce its growing fiscal deficits, the US government has tried to increase tax on the one hand and decrease fiscal spending on the other. But many worry that such a policy would give rise to undesirable side effects.

Explain TWO possible undesirable effects of the above fiscal policy on the US economy as a whole. (4 marks)

2015/DSE/II/11(a)

Figure 1 shows the percentage changes in direct tax revenue and nominal GDP in Hong Kong for the years 2009-2013.



- (i) With reference to Figure 1, describe the relationship between the percentage change in direct tax revenue and the percentage change in nominal GDP for the years 2009-2013 and compare their trends. (2 marks)
- (ii) Briefly explain the relationship you described in (a)(i). (2 marks)

2017/DSE/II/13(b)

To finance the scheme, there are different proposals which include:

- Proposal A: increase the standard tax rate and the progressivity of salaries tax  
Proposal B: use the fiscal reserves in the government

Discuss the effects of these two proposals on economic variables which include

- (ii) income distribution  
(iii) ONE other economic variable.

(7 marks)

2018/DSE/II/6(a)

The government proposes the following changes in the profits tax system.

Profit	Existing system	New two-tier system
On the first \$2 000 000	16.5%	8.25%
Remainder		16.5%

Would the above changes in tax system necessarily result in a drop in profits tax revenue? Explain. (4 marks)



Macroeconomics by Topic  
3. Government Budget

MARKING SCHEME

1990/CE/II/47 D	2000/CE/II/43 B	1990/CE/II/59 B	1999/CE/II/42 D	2005/CE/II/42 B (28%)
1990/CE/II/55 B	2002/CE/II/43 B (56%)	1991/CE/II/37 B	1999/CE/II/43 A	2005/CE/II/43 B (44%)
1991/CE/II/37 B	2003/CE/II/38 A (31%)	1991/CE/II/39 B	1999/CE/II/44 C	2006/CE/II/39 B (64%)
1992/CE/II/36 A	2004/CE/II/41 D (69%)	1992/CE/II/43 B	2001/CE/II/35 A	2006/CE/II/42 A (56%)
1993/CE/II/45 C	2004/CE/II/42 D (33%)	1993/CE/II/46 A	2001/CE/II/36 B	2007/CE/II/42 A (78%)
1994/CE/II/47 D	2005/CE/II/39 C (66%)	1993/CE/II/47 B	2001/CE/II/39 D	2007/CE/II/43 B (83%)
1995/CE/II/45 C	2005/CE/II/40 A (35%)	1993/CE/II/48 C	2002/CE/II/40 A (73%)	2008/CE/II/41 B (80%)
1995/CE/II/46 D	2007/CE/II/40 D (70%)	1994/CE/II/48 B	2002/CE/II/42 B (46%)	2008/CE/II/44 B (30%)
1995/CE/II/48 B	2008/CE/II/43 D (61%)	1996/CE/II/43 C	2003/CE/II/39 B (38%)	2009/CE/II/42 C (39%)
1996/CE/II/41 A	2009/CE/II/42 C (59%)	1996/CE/II/45 D	2003/CE/II/40 C (72%)	2009/CE/II/44 C (59%)
1996/CE/II/44 B	2009/CE/II/43 D (34%)	1997/CE/II/45 A	2003/CE/II/41 A (59%)	2010/CE/II/42 D (51%)
1997/CE/II/40 C	2010/CE/II/41 C (74%)	1998/CE/II/37 C	2004/CE/II/41 D (69%)	2013/DSE/II/36 C (80%)
1998/CE/II/39 D	2014/DSE/II/36 D (52%)	1998/CE/II/42 B	2004/CE/II/43 D (63%)	2016/DSE/II/36 C (61%)
2000/CE/II/41 A	2017/DSE/II/35 A (57%)	1999/CE/II/40 B	2005/CE/II/41 B (53%)	2018/DSE/II/35 B (49%)
2020/DSE/II/36 B	Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.			
	2020/DSE/II/38 A	2020/DSE/II/41 C		

1990/CE/II/5(b)(i) Policy A widens the wealth gap since the poor pay more in proportion to their income on consumption than the rich compared with the rich, the poor pay a larger portion of their income as tax	(1) (2) (2) (max: 4)
Policy B widens the wealth gap benefits the rich as their tax burden is lowered and income after tax ↑ no effect on the poor because they are outside the tax net or not paying at the standard rate	(1) (2) (2) (max: 4)

Macroeconomics by Topic  
3. Government Budget

1992/CE/II/5(c)(i) - raise direct taxes (disadv: work disincentive / investment disincentive) - raise indirect taxes (disadv: inflationary pressure / more uneven distribution of real income) - use past fiscal reserves (disadv: reduce the reserves for contingent purposes / interest return from the investment of the reserves is forsaken / inflationary pressure) - borrowing / issue government bonds (disadv: the economy has to bear interest cost / burden will be borne by the future generations when the principal is repaid) - invite private sector participation (disadv: reduce government say in the related services) - cut other government expenditures (disadv: less public services in other aspects) - raise other sources of government revenue, e.g. privatization / sale of the public assets, increase fees (disadv: more burden on the users of the public services) (Mark the FIRST THREE points only.)	(3@, max: 9)
1993/CE/II/5 (b) (i) It is a proportional tax, because a fixed portion of the rental income is taxed	(1) (2)
(d) For: - increase government revenue - discourage speculation in the property market - widens the tax base / sources of tax revenue - a tax on earning / ability-to-pay (Mark the FIRST point only.)	(2@, max: 2)
Against: - high administration cost - against laissez-faire policy / freedom to buy and sell - against simple taxation principle - distort resource allocation - not fair if only apply to the property market (Mark the FIRST point only.)	(2@, max: 2)
1994/CE/II/10(b) (i) First progressive (because the tax rate first rises as income rises), but then proportional (because the tax rate later becomes a flat rate as income rises).	(2) (2)
(ii) (i) - a greater amount of tax allowances (raised from \$119 000 to \$146 000) / more low-income families fall out of the tax net - families have to earn more than \$483 000 (\$391 500 in 1992/93) before paying tax at the standard rate - families with an annual income of more than \$119 000 and up to \$483 000 pay less tax / average tax rate ↓ - less progressivity before reaching the standard rate (Mark the FIRST TWO points only.)	(2@, max: 4)
(ii) (ii) The new tax structure, because (to compare with the old tax structure.) the low-income and sandwich class families earning less than and up to \$483 000 a year pay a lower tax rate, but those earning more than \$483 000 a year pay the same tax rate. (Exact figures are NOT required in candidates' answers.)	(2) (2) (2)
(iii) Workers would have a higher incentive to work, and thus earn higher income (i.e. a larger tax base).	(2) (1)

Macroeconomics by Topic  
3. Government Budget

- 1995/CE1/5  
Progressive tax: the tax rate ↑ as income ↑ (2)  
e.g., salaries tax / profits tax (fiscal year 2018/19 onwards) (1)  
(Mark the **FIRST** example only.)
- Proportional tax: the tax rate is constant as income ↑ (2)  
e.g., salaries tax for those who pay at the standard rate / property tax (1)  
(Mark the **FIRST** example only.)
- 1996/CE1/10(b)  
Regressive tax because (1)  
the low-income group spends a greater proportion of income on clothing than the high-income group, and therefore (2)  
the low-income group pays a larger proportion of income as tax than the high-income group. (2)  
(max: 3)
- OR**  
the same amount of tax on clothing represents a greater proportion of income for the low-income group. (3)
- 1996/CE1/12(d)  
Increased progressivity means the tax burden of taxpayers with higher salary income increased at a faster rate than the low-income group / unemployed. (2)  
The provision of unemployment benefits will benefit the low-income group / unemployed but not the high-income group. (1)  
∴ More even income distribution. (1)
- 1997/CE1/9(d)(ii)  
The low-income group spend most of their income on purchasing goods and services for their living. (1)  
but the high-income group spend only a small amount of their income for their living. (1)
- OR**  
The low-income group pay a larger portion of their income than the high-income group on the general sales tax. (2)  
(max: 2)  
⇒ More uneven income distribution (1)
- 1998/CE1/5  
Proposal A: the tax payment takes a decreasing proportion of taxable income as taxable income rises. (2)  
Proposal B: the tax payment takes an increasing proportion of taxable income as taxable income rises. (2)  
Proposal C: the tax payment takes the same proportion of taxable income as taxable income rises. (2)  
∴ Proposal B is the most effective. (1)
- 1998/CE1/7(b)  
During inflation, the nominal income of people increases. (1)  
With no change in tax allowance, more people are put into the tax net or into higher tax brackets. (2)
- 1999/CE1/8  
Tax to income ratio  
Average tax rates are:  
 $\$1\,000 / \$10\,000 = 10\%$ ;  $\$1\,900 / \$20\,000 = 9.5\%$ ;  $\$2\,700 / \$30\,000 = 9\%$  (2)
- OR**  
Marginal tax rates are:  
 $\$ (1\,900 - 1\,000) / \$ (20\,000 - 10\,000) = 9\%$ ;  $\$ (2\,700 - 1\,900) / \$ (30\,000 - 20\,000) = 8\%$  (2)
- The conclusion is, not a progressive tax, because  
the marginal tax rate decreases / the average tax rate decreases / the tax amount increase less proportionately than the taxable income. (3)

Macroeconomics by Topic  
3. Government Budget

- 2000/CE1/8  
Correct comparison of the amount of money rebated to the high-income group and the low-income group: (3)  
e.g. 1 High-income group taxpayers are rebated a larger amount of money than low-income taxpayers.  
e.g. 2 The government rebated money to the taxpayers but no money to the poor who were non-taxpayers.  
It results in a wider wealth gap. (1)
- 2000/CE1/9(a)  
(i) A regressive tax is a tax which tax rate decreases as income increases. (2)  
Consumers pay the same amount of gasoline tax for purchasing the same amount of gasoline  
⇒ in proportion to individual's income, the richer pay at a lower tax rate while the poorer pay at a higher tax rate.  
∴ Gasoline tax is a regressive tax. (3)
- (ii) - to reallocate resources: use more public transport but less private transport (2)  
- a source of tax revenue (2)
- 2001/CE1/7  
(a) Indirect tax because the tax burden can be shifted onto others (the buyers) (2)
- (b) The poor consumes a larger proportion of their income (1)  
**OR**  
Same amount of tax for the same good paid by people with different incomes (1)  
∴ A higher proportion of income of the low-income group is taxed. (1)  
∴ The general sales tax increases the income inequality. (1)  
(Remark: Mere mentioning of the conclusion without elaboration: zero marks)
- 2001/CE1/11(b)  
Demand side:  
Cost of transaction ↓ ⇒ incentive to buy property ↑ and number of transaction ↑ (1)  
Supply side:  
Volume / value of business of the construction industry ↑ ⇒ expansion in the production of the construction industry and the derived demand for construction workers ↑ (1)
- (i) investment ↑ (1)  
(ii) employment opportunities ↑ (1)  
(Remark: Mere mentioning of the conclusion without elaboration: zero marks)
- 2002/CE1/12(c)  
(i) Rates is an indirect tax because (1)  
the tax burden can be shifted by the landlord onto the tenants. (1)
- (ii) The profits tax is a proportional tax because (1)  
its effective tax rate is constant / the tax amount is proportional to the taxable income. (2)
- 2003/CE1/10(d)  
No, because (1)  
as his income increases, the tax rate is not fixed / the tax rate decreases. (2)
- 2004/CE1/10(c)  
Regressive tax, because (1)  
same tax payment relative to different incomes (1)  
⇒ decreasing tax rate as income rises (1)

Macroeconomics by Topic  
3. Government Budget

- 2006/CE/11(b)(i)(II)  
The tax is an indirect tax because (1)  
the tax burden can be shifted from the producers to the consumers. (1)
- 2008/CE/1/8  
(a) Regressive tax, because (1)  
all red wine buyers pay the same amount of tax for purchasing the same bottle of red wine (1)  
higher-income earners pay a less than proportionate amount of tax / the tax rate decreases as the income increases. (2)
- (b) Indirect tax, because (1)  
the tax burden can be shifted by the red wine sellers onto the consumers. (1)
- 2009/CE/1/11  
(a) A reduction in the profits tax rate may boost more business investment and increase profits. (2)  
No, because (1)  
the increase in government tax revenue resulting from the increase in profit earnings could be big enough to offset the decrease in government tax revenue resulting from the reduction in the tax rate. (1)
- (b) Indirect tax, because (1)  
the tax burden can be shifted from the landlords onto the tenants. (1)
- 2012/DSE/11/4  
(a) Wider (1)
- (b) Lower, because (1)  
higher income group has a lower post-tax income while the income of lower income group remains unchanged. (2)
- 2013/DSE/11/3  
Government should increase the income tax rate to reduce the budget deficit  
- if the increase in tax revenue due to the rise in tax rate outweighs the reduction in tax payment due to the reduction in the tax base/taxable income (e.g., a fall in the number of tax payers as a result of disincentive effects to labour). (4)  
- because increase in tax rate is fairer as income tax is often proportional (or even progressive) and this helps equalize income. (2)  
- if there is an inflationary (output) gap as an increase in income tax reduces output and relieves the inflationary pressure. (2)
- Government should NOT increase the income tax rate to reduce the budget deficit  
- if the increase in tax revenue due to the rise in tax rate falls short of the reduction in tax payment due to the reduction in the tax base/taxable income (e.g., a fall taxable income as a result of reduction in aggregate output). (4)  
- because an increase in income tax rate will result in a greater disincentive to work and more people may quit the job and rely on welfare programmes and this further worsen the budget deficits. (2)  
- as an increase in income tax rate reduces the aggregate output, which may result in unemployment / deflationary (income) gap. (2)  
(max: 4)
- 2014/DSE/11/6(b)  
Direct tax, because (1)  
the tax burden cannot be shifted by these tax-payers to someone else. (1)
- 2014/DSE/11/7(a)  
- negative output effect (fall in GDP) due to a reduction in government expenditure and thus aggregate demand  
- negative output effect (fall in GDP) due to a rise in sales/income tax, which would lower consumption/investment demand and thus aggregate demand  
- negative (disincentive) effect on labour supply and thus on employment (and output) as a result of higher income taxes (2@, max: 4)

[Mark the FIRST TWO points only.]

Macroeconomics by Topic  
3. Government Budget

- 2015/DSE/11/11(a)  
(i) The percentage change in direct tax revenue and percentage change in nominal GDP tend to move in the same direction. (1)  
Fluctuation of the former is greater than that of the latter. (1)
- (ii) Growth in the economy (increase in GDP) would be accompanied by growth in salary and profit incomes, which would in turn generate higher revenue from taxes on such incomes. (1)  
Progressive taxation may be one explanation for why direct tax revenue fluctuated more than GDP. (1)
- 2017/DSE/11/13(b)  
(ii) Proposal A's effect on income distribution:  
Salaries tax payers (higher-income group) would pay more taxes while non-tax-payers (lower-income group) would not be affected. (2)  
**OR**  
High-income tax payers pay more, low-income tax payers pay less. (2)  
The after-tax income inequality would thus be reduced. (1)  
(max: 3)
- Proposal B's effect on income distribution:  
There will be no extra effect on current tax payers, so the income inequality is unaffected. (2)  
Reduction of fiscal reserves may result in a tax increase in the future, so future tax payers (mainly the younger portion of the population) may have to pay more taxes, thus increasing income inequality between generations. (2)  
(max: 2)
- (iii) Proposal A's effect on other variables:  
Price level would drop as AD drops (while there is no such an effect generated by proposal B). (2)  
Unemployment may increase as AD drops (while there is no such an effect generated by proposal B). (2)  
(max: 2)
- Proposal B's effect on other variables:  
A worsening of the government's budgetary position (due to a drain on fiscal reserves) may imply tax increase in the future. (No such effect arises under proposal A.) (2)  
Business confidence may be weakened. Expecting tax increases in the future (due to the problem of fiscal sustainability), which would reduce their after-tax profits, business firms may choose to cut down their investment. (No such effect arises under proposal A.) (2)  
(max: 2)
- 2018/DSE/11/6(a)  
No, because (1)  
the reduction in the profits-tax rate may induce firms to increase their investment expenditure, so they may end up earning higher profits (tax base). The increase in profits tax revenue due to the increase in profits (tax base) may be greater than the decrease in profit tax revenue due to the reduction in tax rate. (3)

### 3.4 PUBLIC SECTOR AND FISCAL POLICY

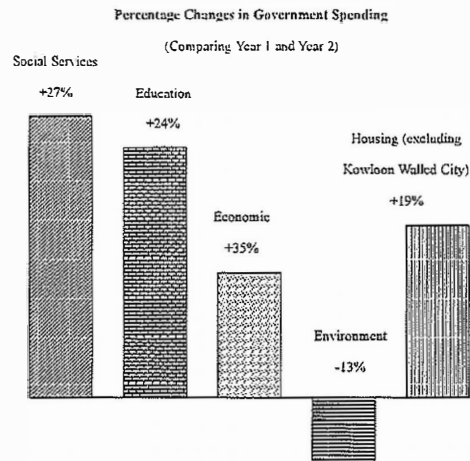
#### Multiple Choice Questions

1990/CE/11/44

Which of the following is a fiscal policy used to reduce inflation?

- A. a direct control on the rise in wages of workers.
- B. an increase in unemployment benefits.
- C. an increase in the required reserve ratio of banks.
- D. a decrease in the spending on an environmental protection scheme.

1991/CE/11/38



The above chart indicates that

- A. economic services was the largest item of government spending.
- B. the price level was higher in Year 2 than that Year 1.
- C. the government spent less on environment protection in Year 2 than in Year 1.
- D. the spending on the Kowloon Walled City was financed by China.

1991/CE/11/40

Which of the following are tools of fiscal policy in Hong Kong?

- (1) the linked exchange rate
- (2) government expenditure on infrastructure
- (3) the standard tax rate
- (4) the minimum cash reserve ratio

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1992/CE/11/40

Which of the following is an expansionary fiscal policy?

- A. the introduction of a new tax
- B. the construction of a new airport
- C. the cutting of expenditure in some government departments
- D. the increased purchase of water from China

1992/CE/11/41

A surplus budget will lead to

- A. a decrease in government expenditure.
- B. a fiscal surplus.
- C. a balance of payments surplus.
- D. a contraction of the economy.

1993/CE/11/49

In an economy with unemployment, a deficit budget will lead to

- A. a lower rate of unemployment.
- B. a lower level of national income.
- C. a lower rate of household consumption.
- D. a decrease in government debt.

1994/CE/11/49

Year	1987-88	1988-89	1989-90	1990-91
Public Expenditure	536	648	819	950
GDP	3 690	4 336	4 990	6 388

According to the above table, the size of the public sector as measured by the RATIO of public expenditure to GDP over the period 1987-1991 was

- A. getting bigger.
- B. getting smaller.
- C. bigger at the beginning but smaller at the end.
- D. stagnant.

1994/CE/11/50

A \_\_\_\_\_ budget is one in which the \_\_\_\_\_ government revenue is greater than the \_\_\_\_\_ government expenditure.

- A. surplus ..... actual ..... actual
- B. surplus ..... estimated ..... estimated
- C. deficit ..... estimated ..... actual
- D. deficit ..... actual ..... estimated

1995/CE/11/49

In general, a deficit budget will

- A. reduce a country's foreign exchange and gold reserves.
- B. have an expansionary effect on economic activity.
- C. lead to a more uneven distribution of income.
- D. increase the government's debt.

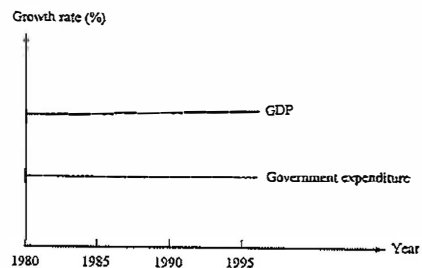
1996/CE/II/39

If the government greatly increases the salaries tax rate to finance the provision of more public assistance to the unemployed.

- The government budget will be balanced because the increase in government expenditure will be financed by the increase in tax revenue.
- The total consumption of the economy will not change as the decrease in consumption of the rich will be compensated by an increase in the consumption of the poor.
- The working incentive will decrease because a higher proportion of salary income will be taxed.
- The size of the public sector will remain unchanged because the increased expenditure is matched by the increased tax revenue.

1996/CE/II/42

Refer to the following diagram of an economy:



During the period 1980 to 1995, which of the following can be concluded from the above diagram?

- Both the GDP and the government expenditure have not changed in this period.
- The GDP increases at the same rate as the government expenditure.
- The ratio of government expenditure to GDP decreases over this period.
- The growth rate of GDP remains constant because the government expenditure increases at a constant rate.

1997/CE/II/43

Hong Kong's public expenditure as a percentage of GDP has risen steadily in recent years. Which of the following is/are reason(s) for this?

- the progress of the construction projects of the government and the new airport
- a fall in the GDP in this period
- a large increase in government welfare payments to the unemployed

- (1) only
- (2) only
- (1) and (2) only
- (1), (2) and (3)

1999/CE/II/41

A surplus budget could turn out to be a budgetary deficit if the actual government revenue is \_\_\_\_\_ than the actual government expenditure and the estimated government revenue is \_\_\_\_\_ than the estimated government expenditure.

- greater ..... greater
- smaller ..... greater
- greater ..... smaller
- smaller ..... smaller

2000/CE/II/44

Suppose the government uses a great amount of its fiscal reserve to develop information technology in education. Which of the following is correct?

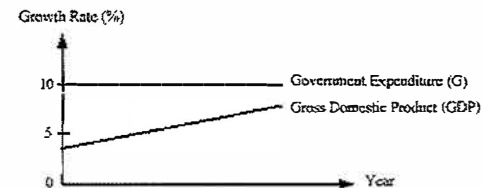
- Government expenditure in other sectors will decrease.
- The government will have a budget deficit.
- The average labour productivity will be higher.
- The banking system will be less able to create deposits.

2000/CE/II/45

The government will participate in the project for establishing Disneyland in Hong Kong. During the period of construction, it must

- increase the tax burden on taxpayers.
- increase the size of the public sector.
- increase the ratio of public expenditure to GDP.
- discourage the incentive of private investment.

2002/CE/II/41



According to the above graph, the ratio of G to GDP is

- increasing.
- decreasing.
- first increasing and then decreasing.
- first decreasing and then increasing.

2008/CE/II/42

According to the 2007-08 Policy Address of the Chief Executive, the Government will launch 10 major infrastructure projects in the coming years. This will result in

- an increase in the GDP of Hong Kong.
- an increase in the size of the public sector.
- government budget deficits in the years of construction.

- (1) and (2) only
- (1) and (3) only
- (2) and (3) only
- (1), (2) and (3)

2009/CE/II/45

An increase in the Hong Kong government's expenditure on infrastructure must lead to an increase in

- the ratio of public expenditure to GDP in Hong Kong.
- the government budget deficits.
- the wage rate of workers in Hong Kong.
- the potential GDP of Hong Kong in the future.

2010/CE/1/43

During a recession, a government plans to promote economic growth through infrastructural development. As a result,

- (1) the size of the public sector would increase.
- (2) the employment opportunity would increase.
- (3) the government budget would run into a deficit.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2010/CE/1/44

Which of the following will increase in times of economic recovery?

- A. trade surplus
- B. budget deficit
- C. government expenditure
- D. direct tax revenue

2014/DSE/1/25

Year	Year-on-year percentage change in nominal GDP	Year-on-year percentage change in nominal government spending
2011	9.0	12.0
2012	5.5	6.0

Based on the above information, which of the following statements are correct?

- (1) The size of the public sector in the economy increased in 2012.
- (2) Both the nominal GDP and the nominal government spending dropped in 2012.
- (3) A drop in both the real GDP and the real government spending was possible in 2012.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1993/CE/1/5(e)

State **THREE** general aims of a fiscal policy.

(6 marks)

Both the wage rate and general price level increase by 8% in a certain year. If the government increases the salaries tax allowance by 5%,

- A. more people will fall into the tax net.
- B. income distribution will become more even.
- C. government's tax revenue will decrease.
- D. people's real income after tax will increase.

MARKING SCHEME

1990/CE/II/44 D	1993/CE/II/49 A	1996/CE/II/42 C	2002/CE/II/41 A (23%)	2014/DSE/II/25 B (54%)
1991/CE/II/38 C	1994/CE/II/49 C	1997/CE/II/43 A	2008/CE/II/42 A (68%)	2019/DSE/II/34 A
1991/CE/II/40 C	1994/CE/II/50 B	1999/CE/II/41 B	2009/CE/II/45 D (53%)	
1992/CE/II/40 B	1995/CE/II/49 B	2000/CE/II/44 C	2010/CE/II/43 A (59%)	
1992/CE/II/41 D	1996/CE/II/39 C	2000/CE/II/45 B	2010/CE/II/44 D (65%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1993/CE/II/5(e)

- full or high level of employment
- economic growth / rising living standard / per capita GNP ↑
- even or more even distribution of income
- control of inflation / deflation

(Mark the **FIRST THREE** points only.)

(2@, max: 6)

3.5 EFFECT OF A BALANCED BUDGET

Multiple Choice Questions

1997/AL/II/04 (modified)

Suppose a government reduces its expenditure on goods and services and at the same time increases its transfer payments to the public by the same amount, then

- A. (out of syllabus)
- B. aggregate demand would remain unchanged.
- C. aggregate demand would decrease.
- D. aggregate demand would increase by the same amount as the change in government expenditure.

2016/DSE/II/38

If the government simultaneously increases its expenditure and income tax by the same amount, the effect on the aggregate output is \_\_\_\_\_.

- A. contractionary
- B. neutral
- C. expansionary
- D. indeterminate

Short & Structured Questions

1993/AL/II/7

If the new airport project costs HK\$170 billion over the next four years, and the government decides to finance this expenditure entirely by taxation without borrowing, will such a fiscal policy be expansionary, contractionary, or neutral? Explain. (10 marks)

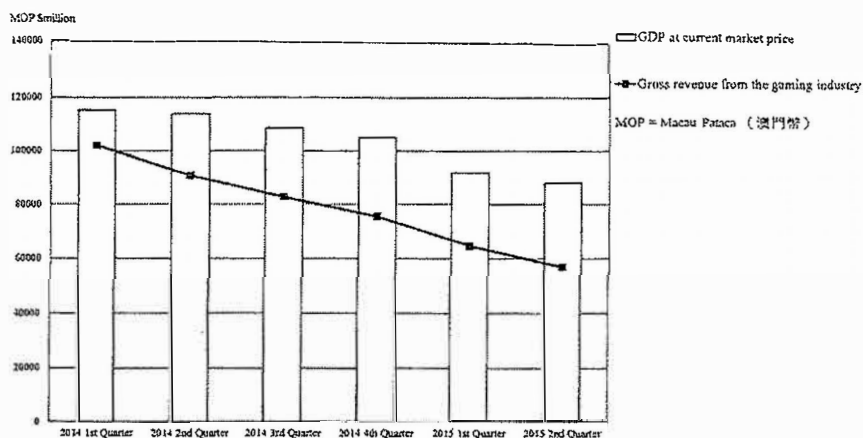
2009/AL/II/6(a) (modified)

In the face of recent economic hardship, it has been proposed that the Hong Kong government introduces some stimulative measures. One sure measure is to inject cash directly into people's pockets by providing transfer payment.

- (i) Explain how the above cash transfers would affect consumption and aggregate demand.
- (ii) Does it make any difference to the effect of aggregate demand if, instead of providing the cash transfers, the government simply uses the cash to increase its own expenditure? Explain your answer. (5 marks)

2016/DSE/II/12

Gaming industry (博彩業) is a major sector in Macau's export of services. The following diagram shows the revenue from the gaming industry and the aggregate output of Macau.



- (a) With reference to the above diagram, describe and explain the trend of the importance of the gaming industry relative to the aggregate output of Macau. (2 marks)

The Macau government implements a cash-sharing scheme, under which every resident receives cash from the government.

The recent decline in the gaming industry results in a drop in tax revenue. Hence, the government considers reducing its spending on investment but still keeping the cash-sharing scheme. However, an economist suggests that the government should suspend the cash-sharing scheme and allocate the sum of money to investment instead.

- (c) Discuss the suggestion of the economist by giving arguments FOR and AGAINST it. (5 marks)

MARKING SCHEME

1997/AL/II/04  
C

2016/DSE/II/38  
D (deleted)

1993/AL/II/7

If the spending on the airport project is exactly financed by increased taxation of the same amount, the fiscal policy effect (on aggregate demand) is expansionary.

The reason is that if income is not taxed, the private sector will save part of it. If it is taxed, the government will spend all the tax revenue. Therefore the expansionary effect of increased spending is greater than the contractionary effect of increased tax.

(Note: However, taxation, be it a direct tax or an indirect tax, would also have supply-side effects, but these are not considered in the HKAL syllabus.)

2009/AL/II/6(a)

- (i) By increasing disposable income, the cash transfers (Tr) would increase consumption. The aggregate demand would then increase, and thus increase output.
- (ii) If the government simply uses the cash to increase its own expenditure, the aggregate demand would increase by  $\Delta G (= \Delta Tr)$  and thus increase output by a bigger amount. This is because while people will only spend part of the cash transfers on consumption (and save the rest), the government will spend all of it directly.

2016/DSE/II/12

- (a) The relative importance of the gaming industry has been declining because its gross revenue has been falling faster than GDP at current market price. (1)

- (c) Arguments for
  - Investment would increase potential output over time, but cash sharing would not have similar long-run effects on the economy. (2)
  - Investment would raise aggregate demand (AD) directly. But the cash-sharing scheme could only raise AD indirectly via an increase in consumption. In case the residents choose not to spend the cash received on consumption, the AD effect would vanish. (2)

(max: 3)

Arguments against:

- During economic downturn, a reduction in social welfare due to suspension of the cash-sharing scheme may result in discontent of the citizens and political instability. (2)
  - While people can benefit from the cash-sharing scheme instantly, it may take a longer time for investment to boost their income. (2)
  - Public investment may be inefficient due to high administrative costs or low sensitivity to market / price signals (lack of profit incentives). (2)
- (max: 3)

[Remark: Maximum mark of part (c) is 5 marks]



## SECTION 4: MONEY AND BANKING (I)

### 4.1 MONEY: NATURE AND FUNCTIONS

#### Multiple Choice Questions

1990/CE/II/29

To serve as a unit of account, money has to be

- A. homogeneous.
- B. portable.
- C. scarce.
- D. durable.

1990/CE/II/30

The Canadian Maple Leaf gold coins (加拿大楓葉金幣) can be an example of \_\_\_\_\_ in Hong Kong.

- A. legal tender
- B. credit money
- C. bank assets
- D. token coins

1990/CE/II/40

Which of the following is the most acceptable means to settle a debt in Hong Kong?

- A. credit cards
- B. personal cheques
- C. Japanese yen
- D. Bank drafts

1990/CE/II/41

The value of money is reflected by its

- A. face value.
- B. intrinsic value.
- C. purchasing power.
- D. owner's subjective value.

1990/CE/II/58

Which of the following statements is **INCORRECT**?

- A. A credit card is money because it is a means of payment.
- B. The use of money eliminates the need for the double coincidence of wants in transactions.
- C. Money performs less satisfactorily as a store of value when inflation is serious.
- D. In a barter economy, when a person buys a good, he must be also selling another good.

1991/CE/II/29

Which of the following can best serve as money in a desert?

- A. shells
- B. sand
- C. water
- D. potatoes

1992/CE/II/53

A time deposit fulfils the function of money as a

- A. medium of exchange.
- B. store of value.
- C. unit of account.
- D. standard of deferred payments.

1992/CE/II/57

The potato is **NOT** a good form of money mainly because it is

- A. indivisible.
- B. portable.
- C. homogeneous.
- D. perishable.

1992/CE/II/59

Which of the following descriptions about barter is **FALSE**?

- A. Barter means a direct exchange of goods and services.
- B. Barter is possible only when there is double coincidence of wants.
- C. Barter exists only in societies without a medium of exchange.
- D. Usually it is more difficult to practise barter in international trade than in domestic trade.

1993/CE/II/51

Nowadays one can use a credit card or coins to make phone calls from public telephones. The telephone company accepts the use of credit cards for phone calls because

- (1) a credit card is legal tender
- (2) a credit card is a means of deferred payment
- (3) credit card holders are more trustworthy people
- (4) the cost of handling coins can be reduced

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1993/CE/II/58

Money will **NOT** exist if

- A. there is no banking system.
- B. only credit cards are accepted for payment.
- C. there is only one man on earth.
- D. trade is totally banned among countries.

1994/CE/II/41

Banknotes are preferred to cheques as means of payment because the former are more

- A. divisible.
- B. generally acceptable.
- C. portable.
- D. scarce.

1994/CE/II/44

Which of the following descriptions of 'demand deposits' is correct?

- A. They can be accepted by deposit-taking companies in Hong Kong.
- B. They are legal tender in Hong Kong.
- C. They are a form of credit money.
- D. They are an interest-bearing asset.

1995/CE/II/38

Which of the following about money is correct?

- A. It must have intrinsic value.
- B. It must be backed up by law to be the medium of exchange.
- C. It must be convertible into some precious metal.
- D. It must be generally acceptable as the medium of exchange.

1995/CE/II/39

Banknotes is a better form of money than demand deposits because the former is more

- A. generally acceptable.
- B. divisible.
- C. durable.
- D. portable.

1995/CE/II/40

Arrange the following assets in terms of liquidity in descending order:

- (1) ordinary shares
- (2) real estate
- (3) bank notes
- (4) demand deposits

- A. (1), (3), (4), (2)
- B. (3), (4), (1), (2)
- C. (3), (4), (2), (1)
- D. (4), (3), (2), (1)

1995/CE/II/50

Exchange with the use of money differs from barter exchange in that the former

- A. is controlled by the government but the latter is not.
- B. has a price for each good but the latter has not.
- C. does not require the double coincidence of wants but the latter does.
- D. involves competition but the latter does not.

1996/CE/II/34

During war time, gold is a better form of money than paper money mainly because gold is more

- A. durable.
- B. portable.
- C. generally acceptable.
- D. homogeneous.

1996/CE/II/38

Arrange the following bank assets in descending order of liquidity:

- (1) loans and advances
- (2) deposits with other banks
- (3) real estates owned by the bank

- A. (1), (2), (3)
- B. (1), (3), (2)
- C. (2), (1), (3)
- D. (3), (2), (1)

1997/CE/II/32

99 gold is a better form of money than diamond because the former is more

- (1) easily divisible.
- (2) scarce.
- (3) homogenous.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1997/CE/II/38

Which of the following is/are the function(s) of money performed by credit cards?

- (1) standard for deferred payment
- (2) means of payment
- (3) unit of account
- (4) store of value

- A. (1) only
- B. (2) only
- C. (1) and (2) only
- D. (3) and (4) only

1997/CE/II/39

Holders of a/an \_\_\_\_\_ has the least risk and the highest liquidity.

- A. long-term corporate bond
- B. ordinary share
- C. preference share
- D. savings deposit

1998/CE/II/32

Cheques are preferred to banknotes and coins when used as medium of exchange in large transactions because cheques are more

- A. durable.
- B. generally acceptable.
- C. scarce.
- D. portable.

1999/CE/II/35

9999 Gold is better as a form of money than jade because the former is more

- (1) generally acceptable.
- (2) easily divisible.
- (3) homogenous.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2001/CE/II/48

In Hong Kong, drivers can buy tickets from tunnel companies for using tunnel services. These tickets are **NOT** a standard of deferred payment. In other words,

- A. the purchasing power stored in the tickets can only be used for certain tunnel services.
- B. most people in Hong Kong do not use the tickets for the tunnel services.
- C. the value of most goods and services are not measured in terms of the tickets.
- D. payment in the future in general is not denominated in the tickets.

2002/CE/II/34

Which of the following statements about money are correct?

- (1) The purchasing power of money will remain unchanged in times of deflation.
- (2) A wider use of electronic money will reduce the cash held by the public.
- (3) Money helps people to accumulate their purchasing power.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2003/CE/II/50

Fish are **NOT** good units of account mainly because they are **NOT**

- A. durable.
- B. scarce.
- C. homogeneous.
- D. portable.

2004/CE/II/35

When a barter economy changes to an economy that uses money in exchange,

- (1) finding trading partners becomes easier.
- (2) making transactions involving future settlement of debt becomes easier.
- (3) agreeing upon prices takes a longer time.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2004/CE/II/36

A time deposit is better than a demand deposit in serving the \_\_\_\_\_ function of money because the former

- A. unit of account ..... has a common unit
- B. store of value ..... bears interest income
- C. medium of exchange ..... is generally acceptable
- D. standard of deferred payments ..... is a liquid asset

2004/CE/II/40

Which of the following kinds of assets has the lowest liquidity?

- A. cash in hand
- B. ordinary shares
- C. demand deposits
- D. savings deposits

2005/CE/II/35

Country A used gold as its currency. Suppose the scientists in the country have found a method to produce gold at nearly zero cost. As a result, the government has decided to give up using gold as its currency. This illustrates that good money has to be

- A. portable.
- B. divisible.
- C. scarce.
- D. durable.

2006/CE/II/33

Which of the following statements about money are correct?

- (1) Under the electronic payment system, transactions are still settled with money.
- (2) Deflation reduces the purchasing power of money.
- (3) With the use of money in exchange, there is no need to have double coincidence of wants.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2006/CE/11/34

9999 gold is a better form of money than grains of wheat because the former is more

- (1) durable.
- (2) homogeneous.
- (3) easily divisible.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2007/CE/11/35

During inflation, people are less willing to keep their wealth in the form of money. This is because at that time the function of money to serve as a \_\_\_\_\_ is weakened.

- A. medium of exchange
- B. store of value
- C. unit of account
- D. means of payment

2008/CE/11/34

An economy that changes from barter to using money in exchange would reduce

- A. the need for specialization.
- B. the need for exchange.
- C. the time for searching trading partners.
- D. the frequency of making payments.

2008/CE/11/35

As a form of money, polymer notes (塑膠鈔票) are more

- A. homogenous
- B. durable
- C. divisible
- D. portable

2008/CE/11/36

A more popular use of electronic money can bring about the following advantages:

- (1) a smaller amount of coins and notes to be handled
- (2) a lower chance of receiving fake banknotes
- (3) more interest earned by keeping the money in banks for a longer period of time

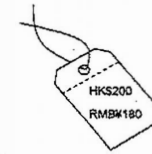
- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2009/CE/11/35

Which of the following assets has the highest liquidity?

- A. real estates
- B. government bonds
- C. savings deposits
- D. time deposits

2009/CE/11/36



When the price of a good is quoted in Renminbi (RMB) on a price tag in some shops in Hong Kong, RMB is performing as

- A. legal tender.
- B. a store of value.
- C. a unit of account.
- D. a standard of deferred payment.

2010/CE/11/34

Which of the following statements about money are correct ?

- (1) The use of money reduces the information cost of searching for trading partners.
- (2) Money would not exist if there are no banks.
- (3) Money still exists if all transactions are settled by electronic transfer (or settled online).

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2010/CE/11/37

Holders of \_\_\_\_\_ have the lowest liquidity.

- A. negotiable certificates of deposits
- B. ordinary shares
- C. savings deposits
- D. real estates

2015/DSE/1/35

Refer to the following news extract.

Yu'e Bao (餘額寶) is a new online investment fund introduced by Alibaba. Much of the popularity of Yu'e Bao has come from its ability to give customers the convenience of a demand deposit—meaning they can withdraw their funds whenever they like—but with returns well above what a bank could offer. It recently advertised an annualised return of 5.25%, but that level has on occasion risen to above 7% since the fund was set up. By contrast, banks offer 3.3% as interest for a one-year fixed deposit and close to nothing on savings deposits.

Yu'e Bao is a better \_\_\_\_\_ as compared with bank deposits because \_\_\_\_\_.

- A. unit of account ..... it provides a homogeneous means of payment
- B. unit of account ..... it can facilitate people's buying and selling of goods and services
- C. store of value ..... it allows customers to have higher purchasing power in the future
- D. store of value ..... the customers can keep their unused funds in Yu'e Bao

2016/DSE/1/30

Refer to the following diagram.



Ken read the above advertisement and bought a new mobile phone by installments. In this payment, which of the following functions did money perform?

- (1) store of value
- (2) unit of account
- (3) standard of deferred payment

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2019/DSE/1/30

Refer to the following hypothetical case.

The currency of Country T, T-Dollar, has depreciated by 40 percent from the beginning of 2018 after the US imposed a series of trade sanctions against Country T. As a result, some shops in Country T quoted prices in US Dollar instead of T-Dollar. Shops in black markets refused to accept T-Dollar. Some citizens bought foreign currencies to safeguard their assets.

Which functions of money of the T-Dollar were weakened?

- (1) medium of exchange
- (2) unit of account
- (3) store of value

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short and Structured Questions

1991/CE/1/5(a)

State **THREE** functions of money.

(3 marks)

1993/CE/1/3(d)(ii)



Explain why stored value tickets cannot perform the following functions of money:

- (I) medium of exchange
- (II) store of value

(4 marks)

1994/CE/1/6

Employer: If you work for me this month, I'll give you 30 metres of cloth in payment at the end of the month.

Employee: Please pay me cash. I won't accept cloth in payment.

According to the employer, what function of money does the cloth perform, apart from acting as a medium of exchange?

Also explain why cloth in general cannot perform this function. (6 marks)

1995/CE/1/0(b)(i)

In Hong Kong, a demand or savings deposit holder can use an EPS card to pay for his purchases in certain shops. The function of an EPS card is that the amount of money is immediately transferred from the customer's bank deposit account to the shop's bank deposit account.

Name the function of money which savings deposits together with EPS cards can perform in the above example. (2 marks)

1996/CE/1/3

Explain which **TWO** functions of money would be affected in times of inflation.

(4 marks)

1997/CE/1/4

On an island, people sell their goods and services in exchange for salt and use salt to buy what they want.

- (a) 'There is no money in this economy.' Explain whether you agree with this statement or not. (2 marks)
- (b) Explain **TWO** difficulties that the people on the island may encounter when using salt in exchange for goods and services. (4 marks)

1998/CE/1/6

One prediction about future commercial cities is: '.....with technological advancement, trading of goods and services will be done without cash. There will be no cash in these advanced economies.'

John said, 'Money will not exist in these economies as there is no cash.'

Explain whether John's comment is correct.

(4 marks)

1999/CE/1/1(d)

It is suggested that 'Octopus cards (八达通卡)' can be used as a store of value and as a means of payment for taxi service.

Name the other two functions of money and explain why Octopus cards cannot perform these two functions. (4 marks)

2000/CE/1/5

Barbarian A: I want to exchange some of my bananas for some of your vegetables.

Barbarian B: But what I want now is some wood.

Define money and explain how money helps to solve the problem of exchange in this case. (4 marks)

2001/CE/1/5

Explain why banknotes would be more generally-accepted as a medium of exchange than diamonds. (4 marks)

2002/CE/1/1(c)

Students in the tutorial school with good academic achievements are awarded coupons. These coupons can be used to purchase books in some specified bookstores. Explain whether these coupons are 'money'. (3 marks)

2003/CE/1/7

In some Asian countries, the prices of goods and services in tourist areas are expressed in US dollars. Suppose tourists pay cash in US dollars for their purchases.

(a) Name TWO functions of money performed by the US dollar as illustrated in the above situation. (2 marks)

(b) Name and explain the other TWO functions of money. (4 marks)

2004/CE/1/9(b)

Which function of money does cash perform better in times of deflation than in times of inflation? Explain. (3 marks)

2004/CE/1/1(c)(ii)

A famous chain of fashion stores opens a new branch.

To celebrate the new opening, the chain stores issue cash coupons to their customers who can use them as cash in these stores. Explain why the cash coupons are not money. (2 marks)

2005/CE/1/4

State and explain TWO functions of money. (4 marks)

2006/CE/1/7

The 'individual travel scheme' brings many tourists from Mainland China to Hong Kong. In the following table, fill in the blanks to indicate the function of money that is performed by Renminbi (RMB) in each case.

	The function of money performed by RMB
Case 1: The prices of goods and services in some shops in Hong Kong are expressed in RMB.	
Case 2: Some shops in Hong Kong accept cash payment in RMB.	
Case 3: Some banks in Hong Kong accept RMB savings deposits.	

(3 marks)

2007/CE/1/6

Many shops in Macau accept payment in Hong Kong dollars. Banks in Macau also accept Hong Kong dollar deposits.

Name TWO functions of money performed by the Hong Kong dollar as illustrated in the above situation. Explain these functions. (4 marks)

2009/CE/1/9(d)

Some bookstores issue book coupons which the holders can use to pay for their purchases in these bookstores.

(i) Apart from 'store of value' and 'standard of deferred payment', name TWO other functions of money. (2 marks)

(ii) Book coupons cannot perform the two functions of money mentioned in the answer to (d)(i). Explain. (2 marks)

2010/CE/1/5

(a) Money is defined as ..... (2 marks)

(b) Explain with TWO reasons why pearls are not a good form of money. (4 marks)

2012/DSE/1/7

"9999 gold is preferred to cigarettes when used as money." Give TWO reasons to explain this argument. (4 marks)

2017/DSE/1/5

Due to political instability, the currency of a country depreciates sharply and becomes highly volatile. Which TWO functions of money may be weakened? Explain. (4 marks)

2018/DSE/1/12(b)

Source 1: search result from a hotel booking website

Hotel A Tsim Sha Tsui East, Kowloon	☆☆☆☆☆ 30 square metres 2 Twin Beds	Free cancellation	<b>Book now!</b> HK\$2 100 OR RMB¥1750
Hotel B Tsim Sha Tsui East, Kowloon	☆☆☆☆☆ 32 square metres 2 Twin Beds Free WIFI	Non-refundable	<b>Book now!</b> HK\$2 040 OR RMB¥1700

Which TWO functions of money does the Renminbi perform in Source 1? Explain. (4 marks)

2020/DSE/1/5b

(b) Peter owes Mary \$100 and he has no cash in his wallet. He suggests repaying Mary by a cash coupon (with a face value of \$100) issued by a supermarket chain. Give TWO economic reasons to explain why Mary would refuse to accept the cash coupon as a repayment of Peter's debt. (4 marks)

MARKING SCHEME

1990/CE/II/29 A	1993/CE/II/31 C	1996/CE/II/38 C	2004/CE/II/35 A (75%)	2008/CE/II/36 D (30%)
1996/CE/II/30 C	1993/CE/II/58 C	1997/CE/II/32 B	2004/CE/II/36 B (87%)	2009/CE/II/35 C (72%)
1990/CE/II/40 D	1994/CE/II/41 B	1997/CE/II/38 B (deleted)	2004/CE/II/40 B (49%)	2009/CE/II/36 C (74%)
1990/CE/II/41 C	1994/CE/II/44 C	1997/CE/II/39 D	2005/CE/II/35 C (79%)	2010/CE/II/34 B (85%)
1990/CE/II/58 A	1995/CE/II/38 D	1998/CE/II/32 D	2006/CE/II/33 B (67%)	2010/CE/II/37 D (67%)
1991/CE/II/29 A	1995/CE/II/39 A	1999/CE/II/35 D	2006/CE/II/34 A (60%)	2015/DSE/II/35 C (78%)
1992/CE/II/33 B	1995/CE/II/40 B	2001/CE/II/48 D	2007/CE/II/35 B (83%)	2016/DSE/II/30 C (74%)
1992/CE/II/57 D	1995/CE/II/50 C	2002/CE/II/34 C (82%)	2008/CE/II/34 C (84%)	2019/DSE/II/30 D
1992/CE/II/59 C	1996/CE/II/34 C	2003/CE/II/50 C (43%)	2008/CE/II/35 B (96%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/II/5(a)  
- a medium of exchange  
- a store of value  
- a standard of deferred payment  
- a unit of account  
[Mark the FIRST THREE functions only.] (1@, max: 3)

1993/CE/II/3(d)(ii)  
(I) It is not (generally) accepted in exchange. (2)  
(II) It cannot provide (or store up the) purchasing power for future use.  
OR  
It cannot be readily converted into money. (2)

1994/CE/II/6  
It is NOT a standard of deferred payment, because it is (2)  
not a commonly accepted medium of exchange (2)  
not of homogeneous quality (2)  
OR  
It is NOT a store of value, because it is (2)  
not a commonly accepted medium of exchange (2)  
not durable / unstable value (2)  
OR  
It is NOT a unit of account, because it is (2)  
not a commonly accepted medium of exchange (2)  
exchange ratio arbitrary (2)

1995/CE/II/10(b)(i)  
Medium of exchange (2)  
OR  
Means of payment (2)

1996/CE/II/8  
Store of value - less purchasing power of the same amount of money  
Standard of deferred payment - the real value of money decrease / creditors prefer immediate cash to post-dated cheques  
Medium of exchange - the real value of money decreases / the general acceptability of money is adversely affected (in times of a hyperinflation) (2@, max : 4)  
[Mark the FIRST TWO points only.]

1997/CE/II/4  
(a) (Disagree.) (1)  
Salt is used as money, because (1)  
it is generally accepted as the medium of exchange. (2) (max : 2)  
(Remark: Mere mention of the definition of money without saying disagree or giving any other elaboration - No mark.)

(b) - uneasy to maintain a stable quality (loss in value, storage cost)  
- may be bulky to carry around a large amount of salt  
- may not be scarce enough (cannot control the money supply)  
- different kinds of salt may not have uniform quality (2@, max : 4)  
[Mark the FIRST TWO points only.]

1998/CE/II/6  
Wrong.  
Money still exists because a generally accepted medium of exchange is still needed. (5)  
It may be in other forms such as electronic money. (1)

1999/CE/II/11(d)  
Unit of account - (1)  
it is not a unit of account because the prices of other goods are not expressed in terms of Octopus cards. (1)  
Standard of deferred payment - (1)  
it is not a standard of deferred payment because future payment is not denominated in terms of Octopus cards. (1)

2000/CE/II/5  
Money is a generally accepted medium of exchange. (2)  
  
(The problem of exchange in the case is the need to search for double coincidence of wants / the act of buying and the act of selling cannot be separated.)

If money is used as a medium of exchange, A can pay money to buy B's vegetables without selling his bananas to B. B can also pay money to buy wood from someone other than A. With money, exchange can take place even if there is no double coincidence of wants / act of buying and the act of selling can be separated. (2)

2001/CE/1/5

(On divisibility)

Banknotes can be divided into different denominations without a change in value.  
Diamond if divided into smaller units will have a fall in total value.

(On homogeneity)

Banknotes with the same face value issued by the same bank share uniform physical characteristics ⇒ homogeneous in value

Diamonds do not have uniform physical characteristics ⇒ heterogeneous in value

(On homogeneity)

The value of a banknote is more easily recognized (because of uniform physical characteristics).

The value of a diamond is not easily recognized (because diamonds do not have uniform physical characteristics).

(2@, max: 4)

2002/CE/1/1(c)

No because

they are not generally accepted as a medium of exchange.

not generally accepted because they cannot be used to buy other goods and services.

(1)

(1)

(1)

2003/CE/1/7

(a) Medium of exchange

Unit of account

[Mark the FIRST TWO points only.]

(1)

(1)

(b) Store of value -

people can store up the purchasing power for future spending on goods and services.

Standard of deferred payment -

future payment is denominated in terms of money.

[Mark the FIRST TWO points only.]

(1)

(1)

(1)

(1)

2004/CE/1/9(b)

Store of value / store of wealth, because

the purchasing power / real value of cash continues to decrease in times of inflation (but continues to increase in times of deflation).

(1)

(2)

2004/CE/1/1(c)(ii)

Not generally accepted, because

these coupons cannot be used to buy things in other shops.

(1)

(1)

2005/CE/1/4

Medium of exchange -

money serves as a medium to facilitate people's buying and selling of goods and services.

Unit of account -

money is used to express the prices and value of goods and services.

Store of value -

people can store up the purchasing power for future spending on goods and services.

Standard of deferred payment -

future payment is expressed in terms of money.

[Mark the FIRST TWO points only.]

[(1 + 1)@, max: 4]

2006/CE/1/7

(1) unit of account

(2) medium of exchange / means of payment

(3) store of value

(1)

(1)

(1)

2007/CE/1/6

- Accept payment, medium of exchange / means of payment

- HK\$ deposit, store of value / store of wealth

[Mark the FIRST TWO points only]

(1)

(1)

Medium of exchange:

the Hong Kong dollar serves as a medium to facilitate people's buying and selling of goods and services in these shops in Macau.

Store of value:

Hong Kong dollar deposits enable people to store up the purchasing power for future spending on goods and services.

(1)

2009/CE/1/9(d)

(i) Medium of exchange

Unit of account

[Mark the FIRST TWO points only]

(1)

(1)

(ii) Not a medium of exchange because

these book coupons are not generally accepted by other shops in buying goods and services

Not a unit of account because

the prices of other goods are not expressed in terms of these book coupons

(1)

(1)

2010/CE/1/5

(a) Money is defined as generally accepted medium of exchange.

(2)

(b) (Not generally acceptable)

Pearls are not generally acceptable as a medium of exchange in trading of goods and services.

(Not divisible)

Pearls if divided into smaller units will have a fall in total value.

(Not homogeneous)

Pearls do not have uniform physical characteristics ⇒ Heterogeneous in value / The value of a pearl is not easily

recognized.

(2@, max: 4)

2012/DSE/1/7

- Gold is more durable while cigarettes may lose their value during transaction.

- Gold is more generally accepted as medium of exchange than cigarettes.

- Gold is more homogenous while cigarettes have different qualities.

[Mark the FIRST TWO points only.]

(2@, max: 4)

2017/DSE/1/5

Store of value:

As the value of the local currency drops in terms of foreign currency, its purchasing power in terms of the quantity of foreign goods and services would also fall.

Standard of deferred payment:

As the value of the currency becomes highly volatile, the contracting cost of specifying future payments in terms of this currency would increase.

Medium of exchange:

Some multinational firms may refuse to accept the currency if its value fluctuates too much.

[Mark the FIRST TWO functions only.]

(2@, max: 4)

2018/DSE/1/12(b)

Unit of account: The price of the hotel accommodation service is expressed in terms of RMB.

Medium of exchange: RMB serves as a medium to facilitate people's buying and selling of services in the website.

[Mark the FIRST TWO points only.]

(2)

(2)

2020/DSE/1/5b

b) During inflation, the real value / purchasing power will decrease of the coupon.

Or

The coupon is not generally acceptable as medium of exchange.



## 4.2 BANKING SYSTEM AND THE CENTRAL BANK

1993/CE/II/34

In Hong Kong a restricted licensed bank faces more restrictions than a licensed bank with reference to :

- (1) the types of deposits it can accept
  - (2) the minimum deposit it can accept
  - (3) the maximum deposit interest rates it can offer
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

1994/CE/II/39

Fanny plans to deposit HK\$250 000 in a financial intermediary for three months. Which of the following institutions can accept her deposit?

- (1) licensed banks
  - (2) restricted licence banks
  - (3) deposit-taking companies
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

2000/CE/II/31

Mr Cheung has \$100 000 cash in hand. He needs the money two months later to use as partial payment for his new house. He may deposit the money into

- (1) a licensed bank
  - (2) a restricted licence bank
  - (3) a deposit-taking company
- A. (1) only  
B. (1) and (2) only  
C. (1) and (3) only  
D. (2) and (3) only

2001/CE/II/27

John wants to deposit \$80 000 for 4 months in Hong Kong. Which of the following financial institutions can accept his deposit?

- A. a licensed bank  
B. a restricted licence bank  
C. a deposit taking company  
D. All of the above.

2002/CE/II/32

Which of the following financial institutions in Hong Kong can accept savings deposits?

- A. licensed banks  
B. restricted licence banks  
C. deposit-taking companies  
D. All of the above are correct.

2003/CE/II/33

Sue wants to deposit \$300 000 for 1 month. Which of the following institutions can accept her deposit?

- (1) licensed banks
  - (2) restricted licence banks
  - (3) deposit-taking companies
- A. (1) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

2005/CE/II/36

Mr Chan plans to deposit \$500 000 for one month. Which of the following institutions can accept his deposit?

- (1) licensed banks
  - (2) restricted licence banks
  - (3) deposit-taking companies
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2007/CE/II/38

If an individual plans to deposit HK\$200 000 in a financial institution in Hong Kong for three months, which of the following institutions can accept this deposit?

- (1) licensed banks
  - (2) restricted licence banks
  - (3) deposit-taking companies
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2010/CE/II/38

David plans to deposit HK\$400 000 in a Hong Kong financial institution for six months. Which of the following can accept his deposit?

- (1) licensed banks
  - (2) restricted licence banks
  - (3) deposit-taking companies
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2014/DSE/1/31

Maggie plans to deposit \$500 000 in a financial institution in Hong Kong for two months. Which of the following institutions can accept this deposit?

- (1) licensed banks
  - (2) restricted licence banks
  - (3) deposit-taking companies
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2018/DSE/1/31

Brian wants to deposit \$80 000 for two months in an authorised institution in Hong Kong in the form of a negotiable certificate of deposit. Which of the following statements is correct?

- A. As the term of maturity is longer than one month, a deposit-taking company can accept his deposit.  
B. As the term of maturity is shorter than three months, a restricted licence bank can accept his deposit.  
C. As the amount of deposit is less than \$500 000, a restricted licence bank cannot accept his deposit.  
D. As negotiable certificates of deposit are not available in a licensed bank, a licensed bank cannot accept his deposit.

1993/CE/II/59

Which of the following is NOT a function performed by the Exchange Fund?

- A. to issue certificates of indebtedness to the note-issuing banks  
B. to manage foreign exchange reserves for the government  
C. to issue Exchange Fund bills  
D. to determine bank deposit interest rates

1995/CE/II/41

Which of the following are the central-bank functions performed by the Hong Kong Monetary Authority?

- (1) supervision of banking activities
  - (2) financing the budget deficit
  - (3) maintaining the stability of the exchange rate of the Hong Kong dollar
  - (4) cheque clearing
- A. (1) and (3) only  
B. (1) and (4) only  
C. (2) and (3) only  
D. (2) and (4) only

1996/CE/II/60

Which of the following is NOT a function of the Hong Kong Monetary Authority?

- A. managing fiscal reserves for the government  
B. acting as a clearing house  
C. supervising the banking system  
D. acting as the lender of last resort

2000/CE/II/32

Which of the following about the central bank functions performed in Hong Kong is correct?

- A. The Hong Kong Bank is responsible for the central clearance of the banking system.  
B. The Exchange Fund acts as the government's banker.  
C. The Hong Kong Monetary Authority carries out monetary policies for the government.  
D. The Hong Kong Association of Banks supervises banking activities.

2001/CE/II/49

Which of the following is NOT a function of the Hong Kong Monetary Authority?

- A. to manage the foreign exchange reserves  
B. to carry out monetary policy  
C. to act as lender of last resort  
D. to determine the best lending rate

2003/CE/II/37

Which of the following central bank functions are performed by the Hong Kong Monetary Authority?

- (1) managing the foreign exchange reserves
  - (2) determining the deposit interest rates of banks
  - (3) acting as the lender of last resort
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2007/CE/II/37

Which of the following functions are performed by the Hong Kong Monetary Authority?

- (1) maintaining the stability of the linked exchange rate
  - (2) supervising the liquidity position of the private banking institutions
  - (3) determining the market interest rate in Hong Kong
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2009/CE/II/37

In the financial system of Hong Kong, the Hong Kong Monetary Authority plays the role of

- (1) operating the day to day business of the clearing house.
  - (2) stabilizing the exchange rate of the Hong Kong dollar.
  - (3) the lender of last resort.
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2), (3)

2012/DSE/1/29

Which of the following is NOT a function of the Hong Kong Monetary Authority?

- A. determining the inter-bank offered rate in Hong Kong
- B. supervising the liquidity position of the private banking institutions
- C. managing and investing the Exchange Fund
- D. maintaining the stability of the linked exchange rate

2018/DSE/1/33

Which of the following is NOT a function of the Hong Kong Monetary Authority?

- A. to stabilise the mortgage rate
- B. to issue currency notes
- C. to supervise the commercial banks
- D. to manage the Exchange Fund

Short & Structured Questions

1992/CE/1/3(c)(i)

Name TWO central bank functions performed by The Hongkong and Shanghai Banking Corporation (HSBC). (4 marks)

2001/CE/1/10(a)

What is the basic economic role of commercial banks? (2 marks)

2002/CE/1/7

List TWO functions of a central bank. (2 marks)

2019/DSE/1/29

Which of the following is/are the function(s) of the Hong Kong Monetary Authority?

- (1) Managing the Exchange Fund
- (2) Supervising the implementation of fiscal policy
- (3) Determining Hong Kong's market interest rate

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

**MARKING SCHEME**

1993/CE/1/34 A	2003/CE/1/33 A (57%)	2018/DSE/1/33 C (69%)	2001/CE/1/49 D	2018/DSE/1/33 A (53%)
1994/CE/1/39 B	2005/CE/1/36 A (59%)	1993/CE/1/59 D	2005/CE/1/37 B (46%)	2019/DSE/1/29 A
2000/CE/1/31 A	2007/CE/1/38 B (63%)	1995/CE/1/41 A	2007/CE/1/37 A (56%)	
2004/CE/1/27 A	2010/CE/1/38 B (60%)	1996/CE/1/60 B	2009/CE/1/37 C (42%)	
2002/CE/1/32 A (51%)	2014/DSE/1/31 A (73%)	2000/CE/1/32 C	2012/DSE/1/29 A (64%)	

*Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.*

1992/CE/1/3(c)(i)

- note issuing (2)
- government's banker (2)

2001/CE/1/10(a)

Financial intermediaries / to channel people's savings to investments (2)

2002/CE/1/7

- to issue currency
  - to act as the banker of the government
  - to act as an advisor to the government
  - to supervise / monitor the monetary sector, e.g. private banks
  - to act as the lender of last resort
  - to administer the clearing house
  - to carry out the monetary policy
  - to manage the country's foreign exchange reserve
- (1@, max: 2)

[Mark the FIRST TWO points only.]

4.3 MONEY SUPPLY DEFINITIONS: M1, M2 & M3

Multiple Choice Questions

1990/CE/II/32

If Mr. Wong transfers HK\$100 from his savings account to his current account,

- A. the total amount of bank deposits will increase.
- B. the total money supply as measured by M1 will decrease.
- C. the total money supply as measured by M2 will not change.
- D. the total money supply as measured by M3 will increase.

1991/CE/II/34

Which of the following is a component of Hong Kong's money supply M2?

- A. savings deposits with licensed banks
- B. time deposits with deposit-taking companies
- C. negotiable certificates of deposit held by banks
- D. one-thousand-dollar gold coins issued by the Hong Kong government and held by banks

1992/CE/II/32

In Hong Kong, savings deposits with licensed banks are

- A. legal tender.
- B. included in the money supply M1.
- C. included in the money supply M2.
- D. included in the money supply M2, but excluded from the money supply M3.

1994/CE/II/43

If an individual receives a cheque for \$1 000 from his friend and deposits it in his savings account, Hong Kong's money supply M1 will \_\_\_\_\_ and M2 will \_\_\_\_\_.

- A. increase; increase
- B. remain unchanged; increase
- C. decrease; remain unchanged
- D. remain unchanged; remain unchanged

1995/CE/II/43

Mr. Chan withdraws \$600 000 from his savings deposit with a commercial bank and then deposits \$500 000 with a restricted licence bank. The remaining \$100 000 is kept at home. The immediate effect is that

- A. M1 will increase by \$100 000.
- B. M2 will decrease by \$600 000.
- C. M2 will not change.
- D. M3 will increase by \$500 000.

1996/CE/II/37

Mr. Chan paid \$200 000 in cash to buy from Mr. Wong a certificate of deposit issued by a deposit-taking company. Mr. Wong then deposited this \$200 000 into his savings account. The immediate effects are

- (1) M1 decreases by \$200 000
- (2) M2 remains unchanged
- (3) M3 increases by \$200 000

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1997/CE/II/35

In Hong Kong, a demand or savings account holder can use an EPS card to pay for his purchases in certain shops. The function of an EPS card is that the amount of money is immediately transferred from the customer's bank account to the shop's bank account.

The popular use of EPS in Hong Kong will

- A. increase the ability of credit creation of the banking system.
- B. increase the buyer's cost of purchasing goods and services.
- C. increase the money supply M1 in Hong Kong.
- D. enable all bank deposits to act as a medium of exchange.

1997/CE/II/36

Which of the following will increase M1 in Hong Kong?

- A. a repayment of HK\$5000 by cheque on a bank loan in Hong Kong
- B. the lending of HK\$5000 in cash by a bank to a citizen in Hong Kong
- C. a new deposit of HK\$5000 in a savings account with a bank in Hong Kong
- D. a withdrawal of HK\$5000 in cash from a current account with a bank in Hong Kong

1997/CE/II/37

Suppose the money supply data of Hong Kong is as follows:

	\$ billion
Total issue of legal tender	3
Legal tender in circulation	2
Demand deposits	7
Deposits with licensed banks <b>AND</b> negotiable certificates of deposit issued by licensed banks (other than those held by authorised institutions)	10
Deposits with restricted licence banks and deposit-taking companies <b>AND</b> negotiable certificates of deposit issued by restricted licence banks and deposit-taking companies (other than those held by authorised institutions)	30

The money supply M2 is

- A. \$9 billion.
- B. \$12 billion.
- C. \$13 billion.
- D. \$92 billion.

1998/CE/II/35

In Hong Kong, the users of some services can use the Payment by phone Service (PPS) to pay their bills over the telephone. After registration, they can make a phone call and transfer money from their bank accounts (savings or current) to the bank account of the service provider.

When the use of PPS becomes more popular,

- A. The money supply M1 will decrease.
- B. The money supply M2 will decrease.
- C. The money supply M3 will decrease.
- D. The amount of savings or current deposit of banks will decrease.

1998/CE/II/36

Which of the following will cause an immediate change in the money supply of M1 of Hong Kong?

- A. You receive \$500 cash from your father and deposit it in your current account.
- B. You pay \$4 000 cash to the landlord, who puts the money in his safe.
- C. A fire burnt most of the banknotes kept in a bank.
- D. You buy \$10 000 worth of furniture with a cheque. The shop owner deposits it into his time deposit account.

1999/CE/II/39

Suppose in a bank in Hong Kong, Mary withdraws HK\$3 000 from her saving account and changes it for US dollars in cash. Which of the following statements about the Hong Kong dollar money supply is correct?

- A. HK\$ M1 will increase while HK\$ M2 will remain unchanged.
- B. HK\$ M1 will remain unchanged while HK\$ M3 will decrease.
- C. Both HK\$ M1 and HK\$ M3 will remain unchanged.
- D. Both HK\$ M1 and HK\$ M2 will decrease.

2000/CE/II/27

Mr Wong withdraws \$500 000 in cash from a deposit-taking company. He then deposits \$300 000 with a bank as a time deposit and remits the remaining \$200 000 overseas for the settlement of debts. Which of the following about the money supply M1 and M3 is correct?

- A. Both M1 and M3 will increase.
- B. Both M1 and M3 will decrease.
- C. M1 will remain unchanged and M3 will decrease.
- D. Both M1 and M3 will remain unchanged.

2000/CE/II/28

Suppose the money supply of Hong Kong in a certain year was as follows:

	\$billion
Legal tender in circulation	10
Legal tender held by all deposit-taking institutions	2
Demand deposits with licensed banks	15
Savings and time deposits with licensed banks	60
Negotiable certificates of deposits issued by licensed banks and held by the public	25
Deposits with restricted licence banks and negotiable certificates of deposits issued by restricted licence banks held by the public	32

The money supply M2 (in \$ billion) was

- A. 85
- B. 110
- C. 112
- D. 114

2001/CE/II/25

In using the Easy Pay System (EPS) to settle a payment in exchange, an amount of money is immediately transferred from the buyer's bank account to the seller's. In response to an increase in EPS's service charge, some shops have stopped accepting payment by EPS.

Which of the following would be the immediate effect of the above change on the money supply M1 and M2?

- A. Both M1 and M2 will increase.
- B. M1 will increase and M2 will remain unchanged.
- C. M1 will increase and M2 will decrease.
- D. Both M1 and M2 will decrease.

2002/CE/II/33

'Currency in public circulation' and 'savings deposits' are both included in Hong Kong's money supply

- (1) M1.
- (2) M2.
- (3) M3.

- A. (2) only
- B. (3) only
- C. (1) and (2) only
- D. (2) and (3) only

2003/CE/II/32

Mr Chan withdraws HK\$50 000 from his savings account with a bank in Hong Kong and remits HK\$40 000 through a bank to the U.K. He changes the remaining HK\$10 000 into the newly issued HK\$10 notes and puts them into his safety deposit box in a bank.

Which of the following would be the immediate effect of the above actions on the Hong Kong dollar money supply?

- A. Both the HK\$ M2 and M3 will decrease by HK\$40 000.
- B. HK\$ M1 will increase by HK\$10 000 while HK\$ M2 will decrease by HK\$50 000.
- C. HK\$ M2 will decrease by HK\$50 000 while HK\$ M3 will remain unchanged.
- D. HK\$ M1 will remain unchanged while HK\$ M2 will decrease by HK\$40 000.

2004/CE/II/37

Which of the following would decrease the money supply M2 in Hong Kong?

- A. Mr Au repays a HK\$10 000 loan in cash to a licensed bank in Hong Kong.
- B. Mr Bean withdraws HK\$20 000 from a savings account with a licensed bank in Hong Kong and holds it as cash.
- C. Mr Chan transfers HK\$30 000 from his savings account to his current account with a licensed bank in Hong Kong.
- D. Mr Ding withdraws HK\$40 000 from his time deposit in a restricted licence bank in Hong Kong and remits the money overseas.

2005/CE/II/38

Suppose Mrs Wong withdraws HK\$300 000 from her savings deposit with a commercial bank. She converts HK\$200 000 of the above amount into Renminbi (人民幣) and deposits it into a Renminbi savings deposit with the same bank. She keeps the remaining HK\$100 000 at home. The immediate effect of the above events is:

- A. Hong Kong dollar money supply M1 would increase by \$100 000.
- B. Hong Kong dollar money supply M2 would decrease by \$300 000.
- C. Hong Kong dollar money supply M2 would remain unchanged.
- D. Hong Kong dollar money supply M3 would increase by \$100 000.

2006/CE/11/35

Mr Chan withdraws HK\$20 000 from his deposit in a restricted licence bank in Hong Kong. He later puts HK\$15 000 as time deposit in a licensed bank in Hong Kong and holds the remaining HK\$5 000 as cash.

The immediate effect of the above actions on the Hong Kong dollar money supply would be:

- A. Both M2 and M3 decrease.
- B. Both M1 and M2 remain unchanged.
- C. M1 increases while M2 remains unchanged.
- D. M1 increases while M3 remains unchanged.

2007/CE/11/39

If an individual deposits \$600 000 cash into a time deposit account with a deposit-taking company, Hong Kong's money supply M1 will \_\_\_\_\_ and M2 will \_\_\_\_\_.

- A. decrease ..... decrease
- B. decrease ..... remain unchanged
- C. remain unchanged ..... increase
- D. increase ..... increase

2008/CE/11/37

Suppose, after making a series of unsuccessful add-value transactions through EPS in which their bank accounts were debited, more Octopus cardholders use cash to make their add-value transactions. This would immediately increase

- A. the money supply M1.
- B. the money supply M2.
- C. the amount of savings deposits of banks.
- D. the amount of time deposits of banks.

2010/CE/11/39

Grace receives a remittance of HK\$530 000 from overseas. She saves HK\$500 000 of the total amount as time deposits in a restricted licence bank and the rest as demand deposits in a licensed bank. What will be the immediate effect of the above actions on the money supply of Hong Kong?

- A. M1 will increase by HK\$30 000 and M2 will increase by HK\$530 000.
- B. M1 will increase by HK\$30 000 and M3 will increase by HK\$500 000.
- C. M2 will increase by HK\$30 000 and M3 will increase by HK\$500 000.
- D. M2 will increase by HK\$30 000 and M3 will increase by HK\$5 30 000.

2012/DSE/1/28

Winnie withdraws HK\$500 000 from her time deposit with a deposit-taking company. Then she deposits HK\$200 000 as a time deposit and HK\$100 000 as a demand deposit with a licensed bank. She keeps \$50 000 in a safe at home and remits the remainder overseas.

What will be the immediate effect of the above actions on the Hong Kong dollar money supply?

- A. M1 will increase by HK\$50 000 and M2 will increase by HK\$350 000.
- B. M1 will increase by HK\$150 000 and M3 will decrease by HK\$150 000.
- C. M2 will increase by HK\$150 000 and M3 will decrease by HK\$150 000.
- D. M2 will increase by HK\$350 000 and M3 will decrease by HK\$500 000.

2013/DSE/1/25

Which of the following is included in the money supply M2?

- (1) legal tender held by licensed banks
- (2) demand deposits with licensed banks
- (3) time deposits with restricted licence banks
- (4) negotiable certificates of deposit issued by licensed banks held by the non-bank public

- A. (2) and (3) only
- B. (2) and (4) only
- C. (1), (2) and (4) only
- D. (1), (3) and (4) only

2015/DSE/1/30

Which of the following transactions would increase the money supply (M2) of Hong Kong?

- A. Ms Chan transfers \$500 000 from her time deposit account in a restricted licence bank to her time deposit account in a licensed bank.
- B. Mr Lee transfers \$200 000 from his current account to his savings account in a licensed bank.
- C. Mr Man deposits \$100 000 cash into his savings account in a licensed bank.
- D. Ms Chung deposits \$600 000 cash into her time deposit account in a deposit-taking company.

2016/DSE/1/32

Winnie withdraws HK\$500 000 from her savings account with a licensed bank. She puts half of it into her current account and deposits the other half at a deposit-taking company. Which of the following shows the immediate effects on the money supply of Hong Kong?

- A. M1 increases and M2 decreases.
- B. M1 increases and M3 decreases.
- C. Both M1 and M2 decrease.
- D. Both M2 and M3 decrease.

2017/DSE/1/33

Refer to the following data about Hong Kong's money supply.

Components	\$ billion
Total issue of legal tender	300
Legal tender held by all authorised institutions	80
Demand deposits	100
All types of deposits with licensed banks and negotiable certificates of deposit issued by licensed banks (other than those held by authorised institutions)	3 000

The money supply M2 is \_\_\_\_\_.

- A. \$320 billion
- B. \$3 180 billion
- C. \$3 220 billion
- D. \$3 300 billion

When a Hong Kong citizen transfers \$500 000 from her ~~wire~~ deposit account with a restricted licence bank to her savings account with a licensed bank,

- (1) money supply (M1) will increase.  
 (2) money supply (M2) will increase.  
 (3) money supply (M3) will increase.

- A. (1) only  
 B. (2) only  
 C. (3) only  
 D. (2) and (3) only

2020/DSE/1/29

The legal tender in Hong Kong held by licensed banks is included in \_\_\_\_\_.

- (1) monetary base  
 (2) money supply M2  
 (3) money supply M3

- A. (1) only  
 B. (2) only  
 C. (2) and (3) only  
 D. (1), (2) and (3)

Macroeconomics by Topic  
 4. Money & Banking (I)

Short & Structured Questions

1991/CE/1/5(c)

- (i) Name **THREE** types of Hong Kong dollar deposits that a licensed bank in Hong Kong can accept. (3 marks)
- (ii) A person has a sum of money and is considering depositing it in a bank. Explain **TWO** factors that would affect his choice among the three types of Hong Kong dollar deposits. (6 marks)

1992/CE/1/3

- (a) (i) Which of the following components is/are included in the money supply M1 in Hong Kong? (2 marks)

*Cash held by the non-bank public*  
*Savings deposits*  
*Demand deposits*  
*Time deposits*

- (ii) Explain why cash held by banks is not included in the calculation of M1. (3 marks)
- (b) In Hong Kong, Miss Wong puts \$1 000 cash into The Hongkong and Shanghai Banking Corporation Limited (HSBC) as a demand deposits.
- (i) What would be the immediate effect on M1? Explain. (3 marks)

1993/CE/1/5(c)(i)

Suppose Mr. Chan sells his flat to a friend in Canada and receives an oversea remittance which amounts to HK\$3 million. He deposits the HK\$3 million in his savings account with a bank in Hong Kong.

Explain the immediate effect on Hong Kong's money supply M1 and M2. (4 marks)

1995/CE/10(b)(ii)

In Hong Kong, a demand or savings deposit holder can use an EPS card to pay for his purchases in certain shops. The function of an EPS card is that the amount of money is immediately transferred from the customer's bank deposit account to the shop's bank deposit account.

Explain whether the money supply M2 will be affected when a person uses an EPS card to buy goods. (2 marks)

1996/CE/1/7

The following are the consolidated balance sheets of all commercial banks for January and February in a certain year:

January:

Assets (\$mn)		Liabilities (\$mn)	
Cash Reserve	40	Demand Deposits	20
Loans	60	Savings Deposits	40
		Time Deposits	40

February:

Assets (\$mn)		Liabilities (\$mn)	
Cash Reserve	50	Demand Deposits	30
Loans	50	Savings Deposits	40
		Time Deposits	30

According to the above consolidated balance sheets, what are the changes in M1 and M2 from January to February? Show your calculation. (4 marks)

1999/CE/1/5

Define money supply M1 and M2.

(4 marks)

2002/CE/1/6

In Hong Kong, Mr Lee withdrew \$300 000 from his savings account in Bank A. He deposited 50% of this amount with a deposit-taking company and remitted through a bank another 20% of this amount overseas. He put the rest of the money in his safety box in Bank B.

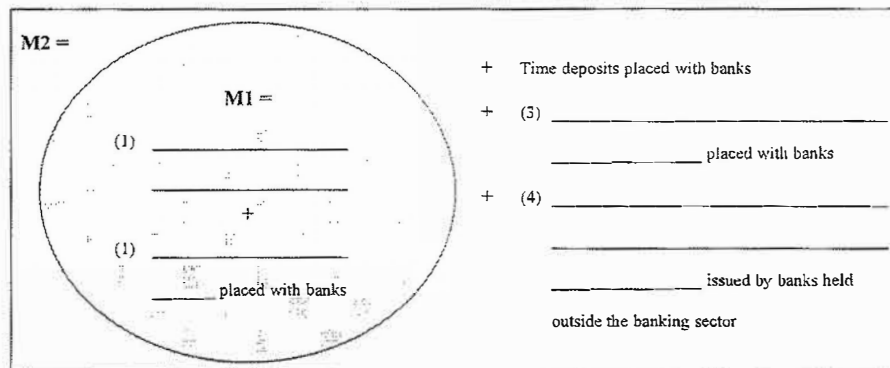
What is the immediate effect of the above transactions on Hong Kong's money supply M1 and M3? Explain your answer.

(6 marks)

2008/CE/1/6

In Hong Kong, the money supply M2 consists of five components. One is given in the following figure. Fill in the other four components in the appropriate blanks.

(4 marks)



2020/DSE/1/8

Study the following balance sheet of the banking system in Country A.

Assets (\$million)		Liabilities (\$million)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Suppose the public always hold \$800 million cash and the banking system does not hold excess reserves.

(a) Find the monetary base and money supply in Country A. (2 marks)

(b) Suppose firms withdraw \$700 million from the banking system and remit the whole amount overseas.

(i) Find the change in monetary base in Country A. (1 mark)

(ii) Calculate the maximum possible change in money supply in Country A. Show your workings. (3 marks)

2020/DSE/1/9C

(c) Instead of obtaining bank loans to finance the infrastructure development, it is suggested that Ocean Park can be listed in the stock market and issue shares to raise capital. State TWO advantages of issuing shares over obtaining loans from banks for raising capital. (2 marks)



MARKING SCHEME

1990/CE/11/32 C	1997/CE/11/35 A	2000/CE/11/27 C	2005/CE/11/38 A (53%)	2013/DSE/1/25 B (41%)
1991/CE/11/34 A	1997/CE/11/36 B	2000/CE/11/28 B	2006/CE/11/35 D (61%)	2015/DSE/1/30 A (70%)
1992/CE/11/32 C	1997/CE/11/37 B	2001/CE/11/25 B	2007/CE/11/39 A (49%)	2016/DSE/1/32 A (76%)
1994/CE/11/43 C	1998/CE/11/35 D	2002/CE/11/33 D (52%)	2008/CE/11/37 A (66%)	2017/DSE/1/33 C (43%)
1995/CE/11/43 A	1998/CE/11/36 D	2003/CE/11/32 A (43%)	2010/CE/11/39 D (48%)	2019/DSE/1/31 B
1996/CE/11/37 A	1999/CE/11/39 B	2004/CE/11/37 A (23%)	2012/DSE/1/28 B (69%)	2020/DSE/1/29 A

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/1/5(c)

- (i) - demand deposit  
- savings deposit  
- fixed deposit  
- certificates of deposit  
[Mark the FIRST THREE points only.]

(1@, max: 3)

(ii) - Liquidity:

Is it easily convertible into cash? [Demand deposit is the most liquid.]

- Returns in terms of interest:

How much returns does it yield? [Certificates of deposit offer the highest interest rate.]

- Certainty in interest earned:

Does it involve any risk? [The interest on fixed deposit is certain, and the deposit itself is also protected by the Deposit Protection Scheme in Hong Kong (, whereas a CD is not).]

(3@, max: 6)

[Mark the FIRST TWO points only.]

1992/CE/1/3

- (a) (i) Cash held by non-bank public (1)  
Demand deposits (1)  
[Each incorrect component mentioned - deduct 1 mark]
- (ii) It cannot fulfill the function of money as a medium of exchange. (3)
- (b) (i) M1 unchanged, because (1)  
cash held by the public decreased by \$1 000  
demand deposits increased by \$1 000  
**OR**  
they counteract each other (2)

1993/CE/1/5(c)(i)

- M<sub>1</sub>: no change; (1)  
M<sub>2</sub>: increased (by \$3 million), because (1)  
savings deposits are included in M<sub>2</sub> but not in M<sub>1</sub>. (2)

1995/CE/10(b)(ii)

- Not affected, because (1)  
both the customer's bank deposit and the shop's bank deposit are included in M<sub>2</sub>. (1)

1996/CE/1/7

- $\Delta M_1$  = change in the amount of cash held by the non-bank public + change in the demand deposits with licensed banks  
= \$(40 - 50) mn. + \$(30 - 20) mn. = 0 (2)

- $\Delta M_2$  =  $\Delta M_1$  + change in the time and savings deposits with licensed banks + change in the negotiable certificates of deposit issued by licensed banks and held by the non-bank public  
= 0 + \$(40 + 30) - (40 + 40) mn.  
= -\$10 mn. (2)

1999/CE/1/5

- M<sub>1</sub> = currency in the hands of the non-bank public + demand deposits (2)  
M<sub>2</sub> = M<sub>1</sub> + saving deposits + time deposits held with banks + negotiable certificates of deposit issued by banks held outside the monetary sector. (2)

2002/CE/1/6

- M<sub>1</sub> increased (1)  
by \$90 000, because (1)  
the legal tender notes and coins held by the public increased. (1)

M<sub>2</sub> decreased (1)

- by \$60 000, because (1)  
this amount was no longer included in the cash in public circulation in HK or in the deposits with the monetary sector of HK. (1)

[Remark: Mere mentioning of the definition of M<sub>1</sub> and/or M<sub>2</sub> - NO marks]

2008/CE/1/6

- (1) legal tender notes and coins held by the non-bank public (1)  
(2) demand deposits (1)  
(3) savings deposits (1)  
(4) negotiable certificates of deposit (1)

2020/DSE/1/3

Sa ) Monetary base = Cash held by public + Reserve of commercial bank = 800 + 1000 = 1800 ( 1 mark )

Money Supply = Cash held by public + Total deposit = 800 + 4000 = 4800 ( 1 mark )

b) Change of monetary base = change of cash held by public + change of reserve  
= 0 + ( - 700 )  
= - 700 ( 1 mark )

c) New Maximum deposit after the withdrawal = ( 1000 - 700 ) x maximum banking multiplier = 300 x 4 = 1200

Change of deposit = 1200 - 4000 = - 2800 ( 1 mark )

Change of money supply = change of cash held by public + change of deposit  
= 0 - 2800  
= -2800 ( 2 marks )

- C) Do not have interest obligation  
Do not have redemption pressure  
( 2 marks )

**4.4 DEPOSIT CREATION**

Multiple Choice Questions

1990/CE/II/45

Which of the following will increase the money supply in an economy?

- A. A citizen withdraws cash from a bank and keeps it in a safe.
- B. A manufacturer repays a bank loan.
- C. A bank grants a loan to a real estate developer.
- D. A bank increases the amount of excess reserves it holds.

1991/CE/II/31

The withdrawal of money from banks causes

- A. a decrease in the value of the maximum possible banking multiplier.
- B. a decrease in the cash reserves held by banks.
- C. an increase in the deposits created.
- D. a decrease in the minimum legal reserve ratio.

1991/CE/II/32

Bank A has total deposits of \$ 1 000 million. Its reserves are \$ 240 million. Suppose the reserve ratio required by the government is 25 %. Which of the following will help Bank A fulfil reserve requirement?

- A. Bank A increases its lending to customers by \$ 40 million.
- B. Bank A borrows \$ 10 million from the inter-bank market.
- C. Customers increase deposits with Bank A by \$ 10 million.
- D. Customers withdraw deposits from Bank A by \$ 40 million.

1992/CE/II/34

Assuming that a 20% reserve ratio is required by law, when the banking system has excess reserves of \$20 000, it can at most increase its deposits by

- A. \$80 000.
- B. \$100 000.
- C. the amount of its total reserves.
- D. the amount of its excess reserves.

1992/CE/II/35

The table below shows the total reserves, loans, and deposits of a bank:

Assets (\$)		Liabilities (\$)	
Reserves	200	Deposits	500
Loans	300		

From the table, we can say that

- A. the legal minimum reserves are \$200.
- B. the bank holds excess reserves of \$100.
- C. the actual banking multiplier is 4.
- D. the actual reserve ratio is 40%.

1992/CE/II/32

The following is a balance sheet of a banking system. The required reserve ratio is 20%

Assets (\$)		Liabilities (\$)	
Reserves	150	Deposits	1 000
Loans	850		
Total	1 000		1 000

Which of the following statements about the banking system is correct?

- A. It has excess reserves.
- B. It has to increase its reserves by \$100.
- C. It has to reduce loans by a total of \$250.
- D. The deposit multiplier is 4.

1994/CE/II/40

If the required reserve ratio for banks is 100%, which of the following is correct?

- A. The money supply will not change if banks accept deposits from the public.
- B. The total amount of bank loans must be equal to the total amount of deposits.
- C. Banks have no chance to make profits.
- D. The banking multiplier is zero.

1994/CE/II/42

Suppose the required minimum reserve ratio for banks is 25%. The table below shows the balance sheet of a certain bank.

Assets (\$)		Liabilities (\$)	
Reserves	600	Deposits	1 500
Loans	900		

Which of the following statements is correct?

- A. The actual reserve ratio of the bank is 45%.
- B. The excess reserves of the bank is \$300.
- C. The banking multiplier is 5.
- D. The banking system can expand its loan to customers by a maximum of \$900.

1995/CE/II/42

Suppose the legal reserve ratio is 100%. If a person deposits \$500 cash into his current account,

- (1) the currency in circulation will decrease by \$500.
- (2) the bank deposits will remain unchanged.
- (3) the bank loans will increase by \$500.
- (4) the money supply will remain unchanged.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

For Questions 35 and 36, refer to the following balance sheet of the banking system

Assets (\$)		Liabilities (\$)	
Cash reserve	250	Deposits	1 000
Loans	750		

Assume that legal minimum reserve ratio is 25 % and a person withdraws \$ 40 from a bank.

1996/CE/II/35

How much would the cash reserve in the banking system fall short of the legal requirement?

- A. \$10
- B. \$20
- C. \$30
- D. \$40

1996/CE/II/36

What would be the maximum amount of deposits that the banking system can hold after the withdrawal?

- A. \$750
- B. \$840
- C. \$880
- D. \$960

1997/CE/II/33

Suppose the legal reserve ratio is 25%. If a person deposits \$200 cash into his savings account, the maximum possible change in

- A. bank loans is an increase of \$800.
- B. bank reserves is an increase of \$200.
- C. M1 is a decrease of \$50.
- D. M2 is an increase of \$800.

1997/CE/II/34

If a \$100 deposit of newly-printed money into a bank results in a \$400 increase in the total deposit of the banking system, we can conclude that

- A. the banking multiplier of the above deposit creation is 4.
- B. the legal reserve ratio is 0.25.
- C. the money supply increases by \$500.
- D. there is no cash leakage.

1998/CE/II/33

Study the following balance sheet of Bank B.

Assets (\$)		Liabilities (\$)	
Reserves	1 000	Deposits	3 000
Loans	2 000		

Suppose the required reserve ratio for banks is raised from 20% to 25%, what will be the decrease in Bank B's excess reserves?

- A. \$150
- B. \$250
- C. \$400
- D. \$600

1998/CE/11/34

Suppose the required reserve ratio for banks is 20%. The table below shows the balance sheet of the banking system.

Assets (\$)		Liabilities (\$)	
Reserves	500	Deposits	1 000
Loans	500		

Which of the following statements is correct?

- A. The excess reserves of the banking system is \$200.
- B. The actual banking multiplier of the banking system is 5.
- C. The banking system can expand its total deposits to \$5 000.
- D. The maximum amount of loans the banking system can make is \$2 000

1998/CE/11/52

An amount of cash deposited into a bank will NOT lead to

- A. an increase in bank loan made to the public
- B. an increase in the total deposits of the banks.
- C. an increase in the value of the maximum banking multiplier.
- D. an increase in the cash reserves held by banks.

1999/CE/11/36

Refer to the following balance sheet of a banking system:

Assets (\$)		Liabilities (\$)	
Reserves	100	Deposits	400
Loans	300		

The legal reserve ratio is 20%. Suppose that all banks loan out their excess reserves and all loans are re-deposited into the banking system.

After the credit creation process is completed, the amount of reserves held by banks is \_\_\_\_\_ and the amount of loans will increase by \_\_\_\_\_.

- A. less than \$100 ..... more than \$100
- B. equal to \$100 ..... \$100
- C. equal to \$100 ..... more than \$100
- D. more than \$100 ..... less than \$100

1999/CE/11/38

Which of the following would reduce the amount of deposits created in the process of multiple credit creation?

- A. An increase in the holding of cash by the public
- B. An increase in the use of cheques by the public
- C. An increase in the use of electronic money by the public
- D. An increase in the bank loans made to the public

2000/CE/11/29

A bank accepts a deposit of \$1 000 from a foreign country. Through the credit creation process, the amount of deposit of the whole banking system increases by \$4 000.

Base on the above information, we can conclude that

- A. The legal reserve ratio is 25%
- B. Banks do not keep excess reserves.
- C. The total money supply has increased by at least \$4 000.
- D. There is a cash leakage in the credit creation process.

2000/CE/11/30

As the use of the Octopus card (八达通卡) for public transport becomes much more popular,

- A. The money supply will increase because the card can perform the functions of money.
- B. The volume of the legal tender in circulation will drop.
- C. The value of money will drop because the demand for cash will be smaller.
- D. The maximum amount of deposits created by the banking system will decrease.

2001/CE/11/26

The following is the balance sheet of banking system.

Assets (\$)		Liabilities (\$)	
Reserves	200	Deposits	600
Loans	400		

Suppose the legal reserve ratio of the banking system is 20%. If all banks no longer hold excess reserves, the maximum increase in bank deposits is

- A. \$80
- B. \$160
- C. \$400
- D. \$1 000

Answer Questions 35 and 36 by referring to the following balance sheet of a banking system which has an excess reserve of \$200.

Assets (\$)		Liabilities (\$)	
Reserves	500	Deposits	1 200
Loans	700		

2002/CE/11/35

The required reserve ratio is

- A. 15%
- B. 20%
- C. 25%
- D. 30%

2002/CE/11/36

Suppose someone has withdrawn \$250 from the banking system. As a result, what would the maximum possible amount of bank deposits be?

- A. \$200
- B. \$600
- C. \$800
- D. \$1 000

2002/CE/11/37

Which of the following will reduce the deposit creation ability of the banking system?

- (1) an increase in the use of credit cards by the public
- (2) an increase in the amount of cash held by the public
- (3) an increase in the legal reserve requirement for banks

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2002/CE/II/38

Assume the whole banking system does not hold excess reserves and the required reserve ratio is 20%. If a person withdraws \$100 from a bank,

- A. the amount of loans made by the banks to the public will fall by at most \$400.
- B. money supply will fall by at least \$400.
- C. the amount of deposits in the banking system will fall by at least \$500.
- D. the amount of cash reserve of the banks will fall by at most \$30.

2003/CE/II/34

If the actual reserve is larger than the required reserve in a banking system, it follows that

- A. there is cash leakage in the banking system.
- B. some banks decide to hold excess reserves.
- C. the demand for loans is insufficient.
- D. the banking system can create more deposits.

Answer Questions 35 and 36 by referring to the following balance sheet of a banking system. Suppose the required reserve ratio is 20%.

Assets (\$)		Liabilities (\$)	
Reserves	500	Deposits	2 000
Loans	1 500		

2003/CE/II/35

Which of the following statements about the above banking system is correct?

- A. The maximum banking multiplier is 4.
- B. The maximum possible increase in loans will be the same as the maximum possible increase in deposits.
- C. The actual reserve ratio is equal to the required reserve ratio.
- D. The amount of reserves will decrease if all banks loan out their excess reserves.

2003/CE/II/36

If the government increases the required reserve ratio to 40%, which of the following statements about the above banking system is correct?

- A. The amount of reserves will increase to \$800.
- B. The amount of deposits will not change.
- C. The maximum amount of loans will be \$750.
- D. The maximum amount of deposits will be \$1 600.

2004/CE/II/38

The following table shows the balance sheet of a bank in an economy:

Assets (\$)		Liabilities (\$)	
Cash reserves	500	Deposits	1 250
Loans and investments	750		

Suppose its customers withdraw \$50 cash from the bank. Immediately after the withdrawal, the cash reserves and the deposits would be \_\_\_\_\_ and \_\_\_\_\_ respectively.

- A. \$450 ..... \$1 200
- B. \$450 ..... \$1 250
- C. \$500 ..... \$1 200
- D. \$500 ..... \$1 250

2004/CE/II/39

Refer to the following balance sheet of a banking system which has an excess reserve of \$200.

Assets (\$)		Liabilities (\$)	
Reserves	500	Deposits	1 500
Loans	1 000		

Suppose \$300 worth of deposits is withdrawn from the banking system. What will the maximum possible amount of bank deposits be?

- A. \$500
- B. \$1 000
- C. \$1 200
- D. \$6 000

2005/CE/II/37

Below is the balance sheet of a banking system.

Assets (\$)		Liabilities (\$)	
Cash reserves	500	Deposits	2 000
Loans	1 500		

Suppose the banking system has no excess reserves. After a withdrawal of \$100 from the banks, the maximum possible amount of deposits of the banking system would be

- A. \$1 600
- B. \$1 700
- C. \$1 800
- D. \$1 900

2005/CE/II/50

The central bank of Country B increases the legal reserve ratio in order to discourage the overheating activities of lending and borrowing in the economy. Suppose the banking system has no excess reserves. The above measure adopted by the central bank would NOT reduce

- A. the ability of deposit creation of the banking system.
- B. the amount of reserves of the banking system.
- C. the banking multiplier.
- D. the money supply.

2006/CE/II/36

The table below shows the balance sheet of a banking system. The amount of its excess reserves is \$800.

Assets (\$)		Liabilities (\$)	
Reserves	1 000	Deposits	2 000
Loans	1 000		

Which of the following statements about the banking system is correct?

- A. The required reserve ratio is 50%.
- B. The maximum amount of deposits is \$8 000.
- C. The maximum banking multiplier is 5.
- D. The actual banking multiplier is 2.

2006/CE/11/37

During the period around Lunar new year every year, many people in Hong Kong withdraw cash from their deposit accounts with banks. Thus the amount of cash held by the public increases.

Which of the following is a definite consequence of the above situation?

- A. The value of the maximum banking multiplier of the banking system of Hong Kong decreases.
- B. The maximum possible amount of deposits of the banking system of Hong Kong decreases.
- C. The amount of bank loans made to the public decreases.
- D. The money supply of Hong Kong decreases.

2006/CE/11/38

Which of the following may reduce the size of the actual banking multiplier of a banking system?

- A. an increase in the use of cheques by the public
- B. an increase in the demand for bank loans
- C. an increase in the risk of non-repayment of bank loans
- D. a reduction in the required reserve ratio

2007/CE/11/36

The table below shows the balance sheet of a banking system, which has an excess reserve of \$50.

Assets (\$)		Liabilities (\$)	
Reserves	250	Deposits	1 000
Loans	750		

Which of the following is correct?

- A. The required reserve ratio is 25%.
- B. The actual reserve ratio is 20%.
- C. If \$100 cash is deposited into the banking system, the total amount of deposits will be \$1500.
- D. If \$100 is withdrawn from the banking system, the maximum possible total deposits will be \$750.

2008/CE/11/38

Study the following balance sheet of a banking system which never holds excess reserves.

Assets (\$)		Liabilities (\$)	
Reserves	600	Deposits	3 000
Loans	2 400		

Suppose the public in this economy always holds the same amount of cash. If \$200 is withdrawn from the bank deposits, the maximum possible amount of loans of the banking system would become \_\_\_\_\_.

- A. \$1 200
- B. \$1 600
- C. \$2 000
- D. \$2 200

2008/CE/11/39

Which of the following will increase the maximum banking multiplier?

- A. Octopus cards are widely used.
- B. The economy grows fast and investment opportunities flourish.
- C. Banks keep more reserves to avoid the risk of bank runs.
- D. Commercial banks are allowed to increase the proportion of customers' deposits that can be loaned out.

2009/CE/11/38

Suppose the actual banking multiplier is smaller than the maximum banking multiplier in a certain banking system. Which of the following would be a possible reason for this?

- A. There is insufficient demand for bank loans.
- B. The banking system is facing a reserve shortage.
- C. The maximum possible amount of total deposits of the banking system will decrease.
- D. The actual reserve ratio is smaller than the required reserve ratio.

2009/CE/11/39

Below is the balance sheet of a banking system which has \$50 excess reserves.

Assets (\$)		Liabilities (\$)	
Reserves	350	Deposits	1 200
Loans	850		

Suppose all banks lend out their excess reserves and all loans will be redeposited into the banking system.

After the deposit creation process is completed, the amount of reserves held by banks would be \_\_\_\_\_ and the amount of loans would be \_\_\_\_\_.

- A. \$300 ..... \$1 400
- B. \$300 ..... \$1 100
- C. \$350 ..... \$1 400
- D. \$350 ..... \$1 050

2010/CE/11/35

The maximum banking multiplier of a banking system will decrease when

- A. the amount of excess reserves held by banks increases.
- B. the required reserve ratio increases.
- C. the amount of cash leakage from the banking system increases.
- D. the demand for loans decreases.

2010/CE/11/36

Assets (\$)		Liabilities (\$)	
Reserves	2 500	Deposits	10 000
Loans	7 500		

The above table shows the balance sheet of a banking system which has an excess reserve of \$5 000. Suppose the public withdraw \$1 000 cash from the banking system. If the banks do not hold any excess reserves and there is no cash leakage, what will happen eventually after the process of deposit contraction is completed?

- A. Bank deposits will fall by \$5 000.
- B. Bank loans will fall by \$2 500.
- C. The money supply will fall by \$1 500.
- D. Both B and C are correct.

2012/DSE/1/27

The table below shows the balance sheet of a banking system.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	400	Deposits	1 000
Loans	600		

Suppose the required reserve ratio for the banking system is 25%. Which of the following statements is correct?

- A. The excess reserves of the banking system are \$200 million.
- B. The actual banking multiplier of the banking system is 4.
- C. The banking system can expand its total deposits to \$1 600 million.
- D. The maximum amount of loans the banking system can make is \$1 000 million.

2013/DSE/1/26

Initially, a banking system has an excess reserve of \$160 million and the public holds \$200 million cash. The balance sheet of the banking system is as follows:

Assets (\$ million)		Liabilities (\$ million)	
Reserves	400	Deposits	1 200
Loans	800		

Suppose \$100 million is withdrawn from the banking system and held as cash by the public. What will the money supply be if the banks lend out all excess reserves?

- A. \$1 500 million
- B. \$1 700 million
- C. \$1 800 million
- D. \$2 300 million

2014/DSE/1/30

Refer to the following balance sheet of a banking system.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	400	Deposits	1 200
Loans	800		

Suppose the required reserve ratio is 25%. If all banks loan out their excess reserves, which of the following statements about the above banking system is correct?

- A. The amount of reserves held by the banks will decrease.
- B. The maximum banking multiplier will increase.
- C. The money supply will remain unchanged.
- D. The maximum possible increase in loans will be the same as the maximum possible increase in deposits.

2016/DSE/1/31

Refer to the following balance sheet of a banking system. Its excess reserve is \$125 million.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	250	Deposits	500
Loans	250		

Which of the following statements is INCORRECT?

- A. The required reserve ratio is 25%.
- B. The maximum amount of loans is \$750 million.
- C. The banking system can expand its total deposit to \$1 000 million.
- D. The actual banking multiplier is 4.

2016/DSE/1/33

In a fractional reserve banking system, the actual deposit created is often below the maximum possible deposit created. The gap between these two amounts will be narrowed when

- A. the popularity of electronic payment increases.
- B. the central bank tightens the restrictions imposed on mortgage loans from banks.
- C. the central bank buys bonds from the public.
- D. the central bank reduces the legal reserve ratio for banks.

2017/DSE/1/31

The following table shows the balance sheet of a banking system.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	300	Deposits	900
Loans	600		

Suppose the public does not hold cash and the required reserve ratio is reduced to 25%. After deposit creation, the amount of loans in the banking system is \$750. Which of the following statements about the banking system is correct?

- A. The money supply increases by \$300.
- B. The actual banking multiplier is 3.5.
- C. The deposits increase by \$600.
- D. Bank reserves are \$450.

2019/DSE/1/28

The following table shows the balance sheet of Country A's banking system. The money supply in Country A is \$2 800 and all banks do not hold excess reserves.

Assets (\$)		Liabilities (\$)	
Reserves	500	Deposits	2 500
Loans	2 000		

Suppose the public deposits \$200 cash into the banking system. Which of the following statements about the banking system is correct after the deposit creation process is completed?

- A. The deposits would increase by \$3 500.
- B. The money supply would increase by \$1 000.
- C. The monetary base would increase by \$200.
- D. The loans will increase by \$800.

2020/DSE/1/33

Which of the following will increase the actual banking multiplier?

- A. The public tends to hold more cash.
- B. The use of credit card becomes more popular.
- C. The central bank increases the required reserve ratio.
- D. The interest rate of bank deposit decreases.

**Short & Structured Questions**

1990/CE/2/(d)(ii)

Suppose the banks in Hong Kong do not hold excess reserves and the legal minimum reserve ratio is 25%. Mr Chan withdraws HK\$10 000 from his savings account with Bank A and keeps the money at home.

- (I) Calculate the amount of reserves by which Bank A is falling short of the legal requirement. Suggest ONE possible way that Bank A can satisfy the reserve requirement again. (5 marks)
- (II) Calculate the maximum possible change in the total deposits of the banking sector. (3 marks)

1991/CE/1/5(b)

Suppose there are only two banks, A and B, in an economy. They are subject to the same required cash reserve ratio. Bank B has no excess cash reserves. Their balance sheets are as follows:

Bank A			
Assets (\$)		Liabilities (\$)	
Cash	50	Deposits	100
Loans	50		

Bank B			
Assets (\$)		Liabilities (\$)	
Cash	200	Deposits	800
Loans	600		

- (i) Calculate the required cash reserve ratio in the economy. (2 marks)
- (ii) Calculate the amount of excess cash reserves of Bank A. (2 marks)
- (iii) Now assume Bank A chooses not to hold excess cash reserves. Calculate the maximum possible increase in the deposits created by the whole banking system. (3 marks)
- State TWO assumptions, other than those mentioned above, in arriving at your answer. (4 marks)

1992/CE/1/3(b)(ii)

In Hong Kong, Miss Wong puts \$1 000 cash into The Hongkong and Shanghai Banking Corporation Limited (HSBC) as a demand deposit.

Explain TWO situations under which this \$1 000 deposit will not lead to a further increase in deposits. (6 marks)

1993/CE/1/5(c)(ii)

Suppose Mr. Chan sells his flat to a friend in Canada and receives an overseas remittance which amounts to HK\$3 million. He deposits the HK\$3 million in his savings account with a bank in Hong Kong.

Given a reserve ratio of 25%, calculate the possible maximum increase in deposit (including the initial \$3 million) of the local banking system. Show your working. (3 marks)

1994/CE/1/5

Suppose in a certain economy all the banks keep no excess reserves, and their balance sheet is as follows:

Assets (\$)		Liabilities (\$)	
Reserves	240	Deposits	1 200
Loans	960		

Suppose someone deposits \$100 cash into his bank. What will be the maximum amount of deposits (including the initial \$100) the banking system can create? Show your working. (4 marks)

1995/CE/1/10(a)(iii)

The audience withdrew \$M from their deposits with banks in the US to buy the concert tickets. Suppose the required reserve ratio of US banks was 20%, they never kept excess reserve and there was no cash drain. What would happen to the amount of the total deposit of banks in the US after the withdrawal and donation to Rwanda? Explain briefly the changing process. (8 marks)

1996/CE/1/11(c)

Suppose a newspaper publisher raises \$5 million capital by issuing shares and deposits the full amount into the banks in Hong Kong. Assume that the required reserve ratio of the banks in Hong Kong is 25% that they do not hold excess reserves and that there is no cash leakage.

Explain what would happen to the amount of the total deposit of the banks in Hong Kong after the shares issuing is complete if

- (i) all the shares are purchased by local people who withdraw deposits from their banks in Hong Kong. (3 marks)
- (ii) all the shares are purchased by foreigners who remit the money required from overseas to settle the purchase. (4 marks)

1997/CE/1/9(c)

Suppose the government builds a railway in northwest New Territories.

Suppose that the banks in Hong Kong have no excess reserves and the minimum reserve ratio is 25% and that \$10 billion is borrowed overseas to construct the new railway.

Using the process of deposit creation, explain why the actual amount of bank deposits thus created in Hong Kong is smaller than the maximum amount of bank deposits can be created. (8 marks)

1998/CE/1/9(a)

Mr Wong received a remittance of HK\$1 million from abroad and deposited the entire sum in a bank in Hong Kong. Later he used part of the money to buy shares and the rest to set up a restaurant. Suppose the required reserve ratio of the banks in Hong Kong is 25% and the banks have no cash leakage and do not keep excess reserves.

Explain briefly the process of deposit creation of the local banking system caused by the injection of \$1 million. Calculate the total amount of deposits created (including the initial \$1 million). (8 marks)

1999/CE/1/6(a)

Suppose the legal reserve ratio for banks is 25% and Bank A does not keep excess reserves. Aaron won an overseas scholarship and received a remittance of \$10 000. He deposited it in Bank A. Bank A lent out all the excess reserves to GiGi. She then deposited the money into Bank B, but Bank B could not find any borrowers.

Calculate the amount of deposits thus created in the economy. (4 marks)

2000/CE/1/10(a)

The balance sheet of the banking system of Economy A is shown below. Suppose all banks do not hold excess reserves and the public holds \$50 mn cash in hand.

Assets (\$ mn)		Liabilities (\$ mn)	
Cash reserves	200	Deposits	1 000
Loans	800		

Suppose the public now withdraws \$10 million cash from the banks.

- (i) Calculate the change in the total deposits of the banking system. (3 marks)
- (ii) Calculate with explanation the change in the money supply. (4 marks)



2001/CE/1/10(b)

The balance sheet of a banking system is as follows:

Assets (\$m)		Liabilities (\$m)	
Reserves	250	Deposits	1 000
Loans	750		

- (i) Given that the legal reserve ratio is 20%, calculate the actual reserve ratio and the amount of excess reserve of the banking system. (4 marks)
- (ii) A depositor withdraws \$40 m from the banking system and invests the money overseas. If all banks lend out their remaining excess reserves, what is the maximum possible amount of total deposits in the banking system? Explain your answer. (4 marks)

2002/CE/1/10(a)

The balance sheet of a banking system is as follows:

Assets (\$mn)		Liabilities (\$mn)	
Reserves	20	Deposits	100
Loans	80		

The public deposits \$10 million of cash into the banking system.

- (i) Suppose the banks do not hold excess reserves. Calculate the maximum possible change in the money supply. Explain your answer. (5 marks)
- (ii) Give TWO possible reasons why the actual change in the money supply could be less than the maximum possible change. (4 marks)

2003/CE/1/11

- (b) (ii) Using the process of deposit creation, explain how a decrease in demand for loans could affect the deposit creation ability of the banking system. (4 marks)

- (c) Suppose the banking system has an excess reserve of \$50 million and its balance sheet is as follows:

Assets (\$m)		Liabilities (\$m)	
Reserves	250	Deposits	1 000
Loans	750		

What is the maximum possible amount of total deposits in the banking system if no banks hold excess reserves? Show your workings. (4 marks)

2004/CE/1/6(b)

The balance sheet of Economy A's banking system is shown below. The public in this economy always holds \$50 million in cash. Initially, the excess reserve of the banks is \$100 million

Assets (\$mn)		Liabilities (\$mn)	
Reserves	500	Deposits	2 000
Loans	1 500		

Suppose \$140 million worth of deposits is withdrawn from these banks and remitted overseas

Explain briefly the process of deposit contraction of the above withdrawal. (4 marks)

2005/CE/1/5

Study the following balance sheet of a banking system:

Assets (\$mn)		Liabilities (\$mn)	
Reserves	120	Deposits	1 000
Loans	330		

Suppose the legal reserve ratio is 10%

- (a) Calculate the amount of excess reserve of the banking system. (2 marks)
- (b) Suppose all banks lend out all their excess reserves. Calculate the maximum possible amount of total deposits in the banking system. (2 marks)

2006/CE/1/6

The following is the balance sheet of a banking system.

Assets (\$)		Liabilities (\$)	
Reserves	500	Deposits	1 500
Loans	1 000		

- (a) Suppose the excess reserve of the banks is \$350. What is the required reserve ratio? The required reserve ratio is \_\_\_\_\_%. (1 mark)
- (b) Suppose there is a cash withdrawal of \$350 from the banks. Explain whether the banks still have excess reserves immediately after the withdrawal. (3 marks)

2007/CE/1/7

Study the following balance sheet of a banking system:

Assets (\$)		Liabilities (\$)	
Reserves	1 700	Deposits	7 500
Loans	5 800		

Suppose the legal reserve ratio is 20%.

- (a) The excess reserve of the banking system is \$ \_\_\_\_\_. (1 mark)
- (b) Suppose Mr Chan withdraws \$100 from the banking system, of which 70% is held as cash and the rest is remitted overseas.
- (i) The immediate change in total deposits of the banking system is \_\_\_\_\_. (1 mark)
- (ii) Therefore, the immediate change in the overall amount of the money supply is \_\_\_\_\_. (2 marks)

2008/CE/1/10

The government may reduce the money supply to cool down the overheated economy. The balance sheet of the banking system is as follows:

Assets (\$ million)		Liabilities (\$ million)	
Reserves	1 000	Deposits	5 000
Loans	4 000		

Suppose the public in this economy always holds the same amount of cash and the banking system never holds excess reserves. The central bank increases the minimum reserve ratio of the banks by 5%.

- Explain briefly the process of deposit contraction resulting from the above change in the reserve ratio. (4 marks)
- Calculate and explain the change in money supply in the economy resulting from the above deposit contraction. (5 marks)

2009/CE/1/6

Study the following balance sheet of a banking system:

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

Suppose the legal reserve ratio is 20%.

- Calculate the excess reserve of the banking system. (2 marks)
- Suppose all the excess reserve is loaned out. Calculate the maximum possible amount of total deposits in the banking system. (2 marks)

2010/CE/1/11(b)

The 2008 financial tsunami had a huge impact on Economy A.

Suppose the balance sheet of the banking system was as follows:

Assets (\$ million)		Liabilities (\$ million)	
Reserves	2 000	Deposits	8 000
Loans	6 000		

During the credit crisis, the banks increased the reserve ratio to 40% for safety purposes. This resulted in a change in the bank deposits.

- Calculate the maximum possible change in the bank deposits. (3 marks)
- Explain briefly the process of deposit contraction resulting from the above change in the reserve ratio. (4 marks)

(Note: Although the topic of deposit creation was included in the HKAL syllabus, most questions are out of the current DSE syllabus, and the focus of the rest was mainly on the concepts of monetary base and monetary policy.)

1997/AL/1/9

Consider the following balance sheet of a banking system.

Assets (\$)		Liabilities (\$)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Assumes that the public does not hold any cash.

- Suppose banks are fully loaned up. What is the required reserve ratio? (1 mark)
- Suppose the maximum demand for loan is \$4 500. Since the banking system has only extended \$3 000 in loan, there is still an excess demand for loan of \$1 500. If the government changes the required ratio to 10%, what will be the money supply? Explain your answer. (5 marks)
- Based on your answer in (b), comment on whether a government can completely control the money supply. (4 marks)

1998/AL/1/9

Consider the following balance sheet of a banking system.

Assets (\$)		Liabilities (\$)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Suppose the public holds \$500 cash and the banks are fully loaned up.

- What is the money supply? (2 marks)
- Suppose the public only wants to hold \$400 cash and deposits any excess cash into the banking system. Explain the impact of this on the balance sheet of the banking system and on the money supply in the economy in each of the following two situations.
  - Banks cannot lead out any amount of the excess reserves. (3 marks)
  - Banks can lead out all the excess reserves. (3 marks)
- Using your results in (a) and (b), explain the impact on the money supply of a reduction in the public's desire to hold cash. (2 marks)

2017/DSE/1/8

The following table shows the balance sheet of a banking system which has excess reserves of \$250.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	1 000	Deposits	3 000
Loans	2 000		

- Find the required reserve ratio. (1 mark)
- Suppose the banks lend out all excess reserves and the public does not hold cash. Calculate the change in deposits after credit creation. Show your working. (2 marks)

The following is the balance sheet of a banking system.

Assets (\$million)		Liabilities (\$million)	
Reserves	300	Deposits	1000
Loans	700		

Suppose the legal reserve ratio is 20% and the public holds \$200 million cash.

- (a) Calculate the excess reserves of the banking system. (1 mark)
- (b) Suppose the public no longer holds cash and all banks lend out all excess reserves. Calculate the maximum possible change in money supply. Show your workings. (4 marks)

## MARKING SCHEME

1990/CE/II/45 C	1996/CE/II/36 B	2001/CE/II/26 C	2005/CE/II/37 A (57%)	2010/CE/II/35 B (68%)
1991/CE/II/31 B	1997/CE/II/33 B	2002/CE/II/35 C (84%)	2005/CE/II/50 B (46%)	2010/CE/II/36 C (43%)
1991/CE/II/32 B	1997/CE/II/34 A	2002/CE/II/36 D (56%)	2006/CE/II/36 D (61%)	2012/DSE/II/27 C (71%)
1992/CE/II/34 B	1998/CE/II/33 A	2002/CE/II/37 C (59%)	2006/CE/II/37 B (57%)	2013/DSE/II/26 C (58%)
1992/CE/II/35 D	1998/CE/II/34 D	2002/CE/II/38 A (25%)	2006/CE/II/38 C (37%)	2014/DSE/II/30 D (56%)
1992/CE/II/32 C	1998/CE/II/52 C	2003/CE/II/34 D (17%)	2007/CE/II/36 D (49%)	2016/DSE/II/31 D (65%)
1994/CE/II/40 A	1999/CE/II/36 B	2003/CE/II/35 B (24%)	2008/CE/II/38 B (39%)	2016/DSE/II/33 A (deleted)
1994/CE/II/42 D	1999/CE/II/38 A	2003/CE/II/36 C (16%)	2008/CE/II/39 D (60%)	2017/DSE/II/31 B (56%)
1995/CE/II/42 B	2000/CE/II/29 C	2004/CE/II/38 A (73%)	2009/CE/II/38 A (44%)	2019/DSE/II/28 D
1996/CE/II/35 C	2000/CE/II/30 B	2004/CE/II/39 B (34%)	2009/CE/II/39 D (37%)	2020/DSE/II/ B

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

- 1990/CE/2/(d)(ii)  
(I)  $\$10\,000 \cdot (1 - 25\%)$  (2)  
= \$7 500 (1)  
Possible way: to recall loans / sell investment assets (2)
- (II)  $\$10\,000 \cdot (1 / 25\%)$  (2)  
= \$40 000 (1)
- 1991/CE/1/5(b)  
(j)  $\$200 / \$800 = 25\%$  (2)
- (ii) Actual reserves – (Deposits  $\times$  Required reserve ratio)  
 $\$50 - (\$100 \times 25\%) = \$25$  (2)
- (iii) Excess reserves  $\times$  Banking multiplier  
 $\$25 \times (1 / 25\%) = \$100$  (3)
- Assumptions:  
- no cash drain (2)  
- people are willing to borrow (2)

1992/CE/1/3 (b)(ii)  
- 100% reserves required by the government  
- the bank keeps all the \$1000 as reserves  
- no one borrows from the bank  
- any cash that leaks out of the bank is not redeposited with the banking system (3@, max: 6)  
(Mere listing of points without elaboration - max. 2 marks.)  
(Mark the **FIRST TWO** points only.)

1993/CE/1/5(c)(ii)  
\$3 million  $\times (1 / 25\%)$  (2)  
= \$12 million (1)

1994/CE/1/5  
Maximum amount of deposits to be created =  $\$100 \times (1 / 20\%)$  (3)  
= \$500 (1)

1995/CE/1/10(a)(iii)  
Brief description of the changing process in a correct sequence:  
Initial withdrawal of \$M =  
(Step 1:) Banks lose reserves (i.e. actual reserves < required reserves) (2)  
(Step 2:) Banks call back loans / sell bank assets to the public (2)  
(Step 3:) Further withdrawal of bank deposits to repay the loans / to buy bank assets (2)  
The process of bank deposit contraction goes on and on (1)  
(Step 4:) Ultimately, total bank deposits contract (1)  
by  $\$M \cdot (1 / 20\%) = \$5M$  (2)  
(max: 8)

1996/CE/1/11(c)  
(i) No change in total bank deposits, because (1)  
it is only a switch from one's bank deposit to another's.  
OR  
there may be some deposit contraction at first, but then it would be offset by the deposit expansion later on (2)  
(ii) Banks gain excess reserves (1)  
 $\Rightarrow$  increase in total bank deposits (1)  
by an amount of  $\$5mn \times (1 / 25\%) = \$20mn$  (2)

1997/CE/1/9(e)  
(A logical sequence of the following is required.)  
An injection of new money (e.g. the initial \$10 b.) to the local banks (1)  
 $\Rightarrow$  banks gain excess reserves (\$R) (1)  
and will loan out the excess reserves (1)  
 $\Rightarrow$  the loan will be redeposited into the banking system (1)

But due to the following factor(s), the redeposit amount is smaller than \$R:  
- initially not all the new money (the \$10b.) are deposited to the local banks  
- local banks hold excess reserves  
- insufficient demand for loan  
- cash drain (2@, max: 4)

Elaboration on how any one of the above factors would lead to a total bank deposit amount smaller than the maximum amount (2)  
(max: 8)

1998/CE/1/9(a)  
(Step 1:) After the bank accepts Mr Wong's \$1 m deposit, it will lend out / invest 75% or \$0.75 m in the first round (2)  
(Step 2:) The \$0.75 m loan / investment will be redeposited into the banking system (2)  
The process of (Step 1 - Step 2 - Step 1...) will go on and on until (2)  
finally the total deposit created = initial deposit  $\times (1 / \text{reserve ratio})$   
=  $\$1 \times (1 / 25\%) = \$4 m$  (2)

1999/CE/1/6(a)  
 $\$10\,000 + [\$10\,000 \times (1 - 25\%)]$  (2)  
= \$17 500 (1)

2000/CE/1/10(a)  
Answer 1  
(Assume that the public does not use the \$50 mn cash in hand to repay bank loans when the banks call back loans due to the withdrawals)  
(i)  $-\$10\text{ mn} \times [1 - (200 / 1\,000)]$  (2)  
=  $-\$50\text{ mn}$  (1)  
(ii) Change in money supply (1)  
= Change in cash in hand + Change in bank deposits (1)  
=  $(+\$10\text{ mn}) + (-\$50\text{ mn})$  (2)  
=  $-\$40\text{ mn}$  / a contraction of \$40 mn (1)

Answer 2  
(Assume that the public considers to make use of the \$50 mn cash in hand to repay bank loans when the banks call back loans due to the withdrawals)  
(i) The max. change is the same as the one in Answer 1. However, the actual change depends on how much of the \$50 mn cash in hand is used to repay the bank loans. The min. change is  $-\$10\text{ mn}$ . (Max: 3)  
(ii) Use the same formula in Answer 1. The change in bank deposits varies from a max. decrease of \$50 mn to a min. decrease of \$10 mn, depending on how much of the \$50 mn cash in hand is used to repay the bank loans. The change in cash in hand varies from a max. to  $+\$10\text{ mn}$  to a min. of  $+\$2\text{ mn}$ . Therefore, the final numerical answer varies from  $-\$40\text{ mn}$  to  $-\$8\text{ mn}$ . (Max: 4)

2001/CE/1/10(b)  
(i) Actual reserve ratio =  $250 / 1\,000$  (1)  
= 0.25 (1)  
Excess reserve =  $(0.25 - 0.2) \times \$1\,000\text{ mn}$  (1)  
=  $\$50\text{ mn}$  (1)

(ii) The withdrawal reduces the amount of reserves to \$210 mn. (1)  
The new amount of reserves can back up  $\$210\text{ mn} \times (1 / 20\%)$  (2)  
=  $\$1\,050\text{ mn}$  of deposits (1)

2002/CE/1/10(a)  
(i) The required reserve ratio =  $(20 / 100) = 0.2$  or multiplier = 5 (1)  
Max. amount of deposits created =  $\$10\text{ m} \times 5 = \$50\text{m}$  (1)  
Max. amount of money supply created = Max. amount of deposits created - decrease in cash in public circulation (1)  
=  $(\$50\text{m} - \$10\text{m}) = \$40\text{ m}$  (2)

(ii) - there is cash leakage  
- the banks decide to hold excess reserves  
- insufficient demand for loans (2@, max: 4)  
(Mark the **FIRST TWO** points only.)

- 2003/CE/1/1  
 (b) (ii) Some banks cannot lend out their excess reserve as the demand for bank loans ↓  
 Step 1: loans that can be made by banks would decrease (1)  
 Step 2: money re-deposited into the banking system would decrease (1)  
 Correct sequence: Step 1 → Step 2 (1)  
 Therefore, deposit creation ability ↓ (1)
- (c) Legal reserve ratio = 0.2 (1)  
 Max. deposit = \$250 m × (1 / 20%) (1)  
 = \$1 250 m (2)

- 2004/CE/1/6(b)  
 Initial withdrawal of deposits.  
 ⇒ banks lose reserves / insufficient reserves / actual reserves smaller than required reserves (1)  
 ⇒ banks have to call back loans / sell assets to the public (1)  
 ⇒ further withdrawals of deposits (1)  
 The process goes on and on. (1)

- 2005/CE/1/5  
 (a) The amount of excess reserve  
 = \$[120 - (1 000 × 10%)] m = \$20 m (1 + 1)
- (b) Maximum possible amount of bank deposits  
 = \$120 m × (1 / 10%) = \$1 200 m (1 + 1)

- 2006/CE/1/6  
 (a) 10% (1)
- (b) Yes because (1)  
 when total deposits reduce to \$1 150 (= \$1 500 - \$350),  
 it only needs a reserve of \$115 (= \$1 150 × 10%) to back up the deposits.  
 Since the reserve assets only reduce to \$150 (= \$500 - \$350), there is still an excess reserve of \$35. (2)

- 2007/CE/1/7  
 (a) \$200 (1)
- (b) (i) -\$100 (1)  
 (ii) -\$50 (2)

- 2008/CE/1/10  
 (a) An increase in the reserve ratio  
 ⇒ insufficient reserves / actual reserves smaller than required reserves (1)  
 ⇒ banks have to call back loans / sell assets to the public (1)  
 ⇒ withdrawals of deposits (1)  
 The process will go on and on (until the actual reserve is equal to the required reserve).  
 [\*Remark: This point deserves one mark only when the sequence of the above steps is correct] (1)

- (b) New required reserve ratio = 0.2 + 0.05 = 0.25  
 Amount of bank deposits that \$1 000 million reserve can back up = \$1 000 million × (1 / 25%) (1)  
 = \$4 000 million (1)
- OR**  
 Change of bank deposits = -\$250 million × (1 / 25%) (1)  
 = -\$1 000 million (1)
- Change in MS = Change in Cp + change in Dd / No change in Cp / MS = Cp + Dd (1)  
 Change in MS = -\$1 000 million (1)
- (MS = money supply;  
 Cp = cash in the hands of the non-bank public; and  
 Dd = bank deposits.)

- 2009/CE/1/6  
 (a) The minimum required reserve is \$1 000 × 20% = \$200 (1)  
 Excess reserve = \$100 (1)
- (b) Total amount of deposits at maximum = \$300 × (1 / 20%) (1)  
 = \$1 500 (1)
- OR**  
 Amount of extra deposits created = \$100 × (1 / 20%) (1)  
 Therefore, total amount of deposits at maximum = \$1 000 + \$500 = \$1 500 (1)

- 2010/CE/1/11(b)  
 (i) Banking multiplier = 1 / 40% = 2.5 (1)  
 The max. amount of deposits that can be supported by \$2 000 million reserve at 40% reserve ratio  
 = \$2 000 mn. × (1 / 0.4)  
 = \$5 000 mn. (1)  
 Therefore, the max. change in bank deposits = \$5 000 mn. - \$8 000 mn. = -\$3 000 mn. (1)
- (ii) An increase in the reserve ratio  
 ⇒ the actual reserve is smaller than the desired reserve (1)  
 ⇒ banks have to call back loans / sell assets to the public (1)  
 ⇒ withdrawals of deposits (1)  
 The process will go on and on (until the actual reserve is equal to the desired reserve).  
 [\*This 4<sup>th</sup> mark will be awarded only if the above three marks are already awarded.] (1)  
 [If the process starts with "withdrawals of deposits", then award only a maximum of 2 marks]

- 1997/AL/11/9  
 (a) reserve ratio = 0.25

(b)

Assets (\$)		Liabilities (\$)	
Reserves	1 000	Deposits	5 500
Loans	4 500		

When the required reserve ratio is 10%, the maximum loan the banking system can extend is \$9 000. Since the maximum demand for loan is \$4 500, the loan extended will be \$4 500. Money supply is \$5 500.

- (c) A government can restrict the maximum amount a banking system can lend, or the maximum money supply. But the actual amount of lending or the actual money supply is also affected by the demand for loan.

1998/AL/II/9

(a) Money supply = Deposits + amount of currency held by the public  
= \$4 000 + \$500 = \$4 500

(b) (i)

Assets (\$)		Liabilities (\$)	
Reserves	1 100	Deposits	4 100
Loans	3 000		

Money supply = \$4 100 + \$400 = \$4 500

(ii)

Assets (\$)		Liabilities (\$)	
Reserves	1 100	Deposits	4 400
Loans	3 300		

Money supply = \$4 400 + \$400 = \$4 800

(c) It will increase the money supply only if the banks can lend out some or all of their excess reserves.

2017/DSE/1/8

(a)  $RRR = (\$1\,000 - \$250) / \$3\,000 = 0.25$  (1)

(b) The change in deposits =  $\$250 \times (1 / 0.25) = \$1\,000$  (2)

2019/DSE/II/7

(a) Excess reserves = \$300 million - \$1000 million  $\times$  20% = \$100 million (1)

(b) Old money supply = \$1000 million + \$200 million = \$1200 million (4)

New money supply =  $(\$300\text{ million} + \$200\text{ million}) \times 1/20\% + \$0\text{ million}$   
= \$2500 million

Maximum possible change in the money supply = \$2500 million - \$1200 million  
= \$1300 million

## SECTION 5: MONEY AND BANKING (II)

### 5.1 MONETARY BASE (M0) AND MONETARY POLICY

#### Multiple Choice Questions

1994/AL/II/18

When the central bank buys government bonds from the non-bank public, the immediate impact on commercial banks is that the reserves are \_\_\_\_\_ the amount of the purchase.

- A. increased by
- B. increased by a portion of
- C. decreased by
- D. decreased by a multiple of

Study the following balance sheet of a banking system and answer questions 16 and 17.

Assets (\$)		Liabilities (\$)	
Reserves	4 000	Demand Deposits	8 000
Loans	3 000		
Investment	1 000		

1995/AL/II/16

Suppose the banking system has \$2 000 excess reserves. When the central bank buys \$2 000 worth of government bonds from the non-bank public, the excess reserves of the banking system would increase by

- A. \$0.
- B. \$1 000.
- C. \$1 500.
- D. \$2 000.

1995/AL/II/17

If the banks engage in credit creation after the purchase of government bonds by the central bank, which of the following statements will be true?

- (1) The maximum amount of demand deposits will be \$24 000.
- (2) The loans will increase.
- (3) The excess reserves will decrease.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. All of the above

1995/AL/II/28

Which of the following events will NOT increase the reserves of a commercial bank?

- A. A customer deposits a cheque with the bank.
- B. The central bank purchase a government bond from one of the bank's depositors.
- C. The bank purchases a government bond from another commercial bank.
- D. The bank borrows from the central bank.

1996/AL/II/19

The total amount of currency issued is \$100 billion. Half is held by the non-bank public and half is held by commercial banks as reserves. Suppose the minimum reserve ratio is 20% and banks do not keep excess reserves, the money supply will be

- A. \$50 billion.
- B. \$100 billion.
- C. \$250 billion.
- D. \$300 billion.

For Question 15, consider the following balance sheet of a banking system.

Assets (\$)		Liabilities (\$)	
Reserves	3 000	Deposits	12 000
Loans	4 000		
Investment	5 000		

Suppose the banking system has \$600 excess reserves, the public does not hold any cash and deposits all cash into the banking system.

1999/AL/II/15

Suppose the central bank sells \$500 worth of government bonds to the commercial banks, the money supply in the economy will

- A. decrease by \$500.
- B. decrease by \$2 500.
- C. remain unchanged.
- D. increase by \$500.

2001/AL/II/13

When the central bank purchases government bonds from the commercial banks,

- A. the reserve of the banking system will decrease.
- B. the required reserves of the banking system will decrease.
- C. the banking multiplier will increase.
- D. the maximum loan that the banking system can create will increase.

2002/AL/II/21

Study the following balance sheet of a banking system and answer question 21. Suppose the required reserve ratio is 25%.

Assets (\$)		Liabilities (\$)	
Reserves	3 000	Deposits	8 000
Loans	5 000		

Newly printed bank notes worth \$400 are issued resulting in a \$200 increase in cash held by the non-bank public and a \$1 000 increase in the money supply. The total amount of excess reserves in the banking system will be

- A. \$800
- B. \$950
- C. \$1 000
- D. \$1 600

Study the following balance sheet of a banking system and answer Questions 19 and 20.

Assets (\$)		Liabilities (\$)	
Reserves	2 000	Deposits	10 000
Loans	7 000		
Investment	1 000		

2005/AL/II/19

Suppose the banking system does not hold any excess reserve. The immediate effect(s) of a withdrawal of \$500 cash from the banking system is/are

- (1) the reserve shortage is \$100.
- (2) the money supply remains unchanged.
- (3) the monetary base remains unchanged.

- A. (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2005/AL/II/20

After the credit contraction process is completed, the money supply will decrease by \_\_\_\_\_ and the monetary base will \_\_\_\_\_.

- A. \$1 500 ..... decrease by \$500
- B. \$1 500 ..... remain unchanged
- C. \$2 000 ..... decrease by \$500
- D. \$2 000 ..... remain unchanged

2007/AL/II/7

The monetary base will increase if

- A. the central bank issues more banknotes.
- B. the commercial banks hold more reserves.
- C. the central bank reduces the required reserve ratio.
- D. All of the above.

2011/AL/II/20

Which of the following will lead to a fall in monetary base?

- A. a fall in the velocity of circulation of money.
- B. an increase in the required reserve ratio
- C. an open market sale of government bonds by the central bank.
- D. All of the above

2014/DSE/I/33

Study the following information about an economy.

Monetary base	\$500 billion
The coins and notes circulated in the public	\$300 billion
Required reserve ratio	20%

If all the banks are fully loaned up, the amount of deposits will be \_\_\_\_\_.

- A. \$1 000 billion
- B. \$1 500 billion
- C. \$2 500 billion
- D. \$4 000 billion

2015/DSE/I/29

Study the following balance sheet of a banking system. The required reserve ratio is 20%.

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

If the central bank issues newly printed banknotes worth \$200 million, the cash held by the non-bank public will increase by \$100 million and the money supply will increase by \$500 million. The total amount of excess reserves in the banking system will then be \_\_\_\_\_.

- A. \$100 million
- B. \$120 million
- C. \$280 million
- D. \$400 million

2015/DSE/I/32

The monetary base increases when

- A. the commercial banks hold less excess reserves.
- B. the commercial banks buy government bonds from the public.
- C. the central bank buys government bonds from the public.
- D. the central bank increases the discount rate.

2018/DSE/I/32

Refer to the following information about an economy.

Money supply	\$35 000
Actual reserve ratio	25%
Excess reserves	\$1 150

Suppose the public always holds \$12 000 cash. If all banks loan out their excess reserves and all the loans are re-deposited into the banking system,

- A. the maximum possible amount of money supply will be \$28 750.
- B. the monetary base of the economy will be \$16 600.
- C. the maximum possible amount of loans will be \$23 000.
- D. the maximum banking multiplier will be 4.

1990/AL/II/03

The most feasible and frequently used instrument of monetary policy in Hong Kong is:

- A. open market operations in foreign exchange
- B. change in discount rates
- C. variations in reserve requirements
- D. moral suasion

1990/AL/II/04

Which of the following are pre-conditions for open market operations to be effective?

- (1) There is a large stock of government securities.
- (2) Commercial banks have a propensity to keep excess reserves.
- (3) There is a well-developed securities market.
- (4) There is a Central Bank.

- A. (1), (2) and (3) only.
- B. (1), (2) and (4) only.
- C. (1), (3) and (4) only.
- D. (2), (3) and (4) only.

1991/AL/II/23

Other things being equal, an open market sale of bonds by the central bank to the non-bank public will

- (1) curb the credit creation power of the commercial banks.
- (2) raise the market rate of interest.
- (3) increase the amount of securities held by the commercial banks.
- (4) lead to a fall in national income.

- A. (1), (2) and (3) only
- B. (1), (2) and (4) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

1992/AL/II/04

If the demand for money increases and the monetary authorities want the interest rate to remain unchanged, which of the following policies should be recommended?

- A. raising the discount rate.
- B. buying bonds in the open market.
- C. raising the legal minimum reserve ratio.
- D. None of the above.

1993/AL/II/16

Which of the following has a contractionary effect on the money supply?

- A. There is an increase in the cash drain ratio.
- B. There is a decrease in the rediscount rate.
- C. There is a decrease in the legal reserve ratio.
- D. The government buys bonds in the open market.



1996/AL/II/18

Which of the following are examples of contractionary policy?

- (1) an increase in the tax rate
  - (2) a reduction in the discount rate
  - (3) a sale of government bonds by the central bank
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. All of the above.

1997/AL/II/08

Assuming banks are fully loaned up, the money supply will decrease when the government \_\_\_\_\_ bonds and \_\_\_\_\_ the reserve ratio.

- A. sells ..... increases
- B. buys ..... increases
- C. sells ..... reduces
- D. buys ..... reduces

1998/AL/II/17

Suppose the demand for money increases, other things being equal, which of the following measures can stabilize the interest rate?

- (1) a fall in the discount rate
  - (2) a fall in the required reserve ratio
  - (3) an open market sale of government bonds
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2000/AL/II/08

Suppose banks are fully loaned up. Which of the following will lead to a decrease in money supply?

- (1) an increase in reserve ratio
  - (2) a reduction in the public's desire to hold cash
  - (3) an open market sale of government bonds by the central bank to the non-bank public
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2003/AL/II/12

A central bank can increase the money supply through

- (1) an open market purchase of government bonds
  - (2) a reduction in the discount rate
  - (3) a drop in the required reserve ratio
- A. (1) only
  - B. (1) and (2) only
  - C. (2) and (3) only
  - D. All of the above.

2004/AL/II/04

Which of the following are examples of an expansionary monetary policy?

- (1) a reduction in the required reserve ratio
  - (2) an increase in discount rate
  - (3) an open market purchase of government bonds by the central bank
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2005/AL/II/17

A rise in the discount rate will

- A. reduce the money supply because it increases the cash held by the public.
- B. reduce the money supply because it reduces the reserves borrowed by commercial banks from the central bank.
- C. increase the money supply because it raises the ability of commercial banks to create loans.
- D. increase the money supply because it reduces the reserves held by commercial banks.

2006/AL/II/07

Which of the following may cause an increase in the money supply?

- (1) Banks loan out their excess reserves.
  - (2) There is a decrease in the required reserve ratio.
  - (3) A commercial bank purchases government bonds from another commercial bank.
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2007/AL/II/10

Which of the following are examples of a contractionary monetary policy?

- (1) an open market sale of bonds by the central bank
  - (2) an increase in the discount rate
  - (3) a devaluation of domestic currency
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2010/AL/II/18

When the central bank sells government bonds to the public, \_\_\_\_\_ will increase.

- A. the general price level
- B. the interest rate
- C. money supply
- D. money demand

2012/AI/II/14

When the central bank keeps purchasing bonds from the market, which of the following is LEAST likely to occur?

- A. The market interest rate will rise.
- B. The real output level will rise.
- C. The general price level will rise.
- D. The asset price will rise.

2012/DSE/I/30

On-line shopping has become more popular, and hence people hold less cash for transaction purposes. Which of the following measures can be adopted by a central bank to reduce the effect of the above situation on the interest rate?

- (1) an increase in discount rate
- (2) an increase in required reserve ratio
- (3) an open market purchase of government bonds

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2013/DSE/I/28

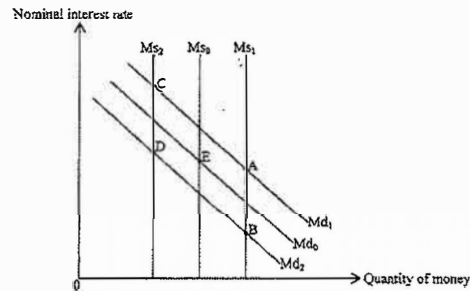
An expansionary monetary policy is adopted in China when

- (1) the Ministry of Finance (財政部) provides cash subsidies to agricultural workers.
- (2) the People's Bank of China (中國人民銀行) reduces the required reserve ratio of all commercial banks.
- (3) the Bank of China lowers its lending rate to small and medium-sized enterprises.

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

2017/DSE/I/32

The diagram below shows the money demand and supply curves of an economy. The original equilibrium point is at E.



Suppose the risk of holding interest bearing assets (such as bonds) increases and the central bank reduces the discount rate. The new equilibrium point will be at \_\_\_\_\_.

- A. A
- B. B
- C. C
- D. D

2017/DSE/I/37

Which of the following policies would most likely lead to a drop in aggregate output?

- A. The government bought bonds from the public and raised the tax allowance at the same time.
- B. The government sold bonds to the public and reduced transfer payment to the poor at the same time.
- C. The government reduced required reserve ratio and raised the progressivity of income tax at the same time.
- D. The government increased the discount rate and lowered profits tax rate at the same time.

2019/DSE/I/41

Study the following table.

Policy I	Policy II	Policy III
<ul style="list-style-type: none"> <li>• an open market purchase of government bonds</li> <li>• a rise in the discount rate</li> </ul>	<ul style="list-style-type: none"> <li>• an open market purchase of government bonds</li> <li>• a rise in the salaries tax allowance</li> </ul>	<ul style="list-style-type: none"> <li>• a rise in the salaries tax allowance</li> <li>• a rise in the discount rate</li> </ul>

Which of the policies in the above table is/are expansionary?

- A. Policy I only
- B. Policy II only
- C. Policy III only
- D. Policy I and Policy III only

2020/DSE/I/30

Refer to the following information about an economy. Suppose all banks do not hold any excess reserves.

	\$ million
Currency in public circulation	10
Monetary base	30
Money supply	110

If the public deposits all the cash into the banking system,

- A. the actual banking multiplier will be 4.
- B. the maximum amount of loans will be \$120 million.
- C. the maximum amount of deposits will be \$140 million.
- D. the new money supply will be \$160 million.

2020/DSE/I/32

Which of the following is a contractionary monetary policy?

- A. an increase in the discount rate
- B. an increase in the salaries tax rate
- C. a decrease in the required reserve ratio
- D. a decrease in the quota for migration

Short & Structured Questions

1994/AL/II/3

- (a) Explain briefly how purchases of government bonds by the central bank would affect the money supply. (3 marks)
- (b) If the reserve ratio is 0.2, what is the impact on the money supply if the central bank purchases bonds worth 1 million dollars? List TWO of the assumptions you have made in your calculation. (5 marks)

1996/AL/II/5(a)

Explain how the sale of government bonds by the central bank to the public affects the money supply. (4 marks)

2004/AL/II/1(c)

Name one similarity and one difference between each pair of the following terms.  
monetary base (or high-powered money); money supply. (3 marks)

2007/AL/II/3(a)

What is meant by the monetary base? What is meant by the money supply? Why is money supply often a multiple of base money? When will the banking multiplier equal unity? (5 marks)

2008/AL/II/1(c)

Name one similarity and one difference between the following pairs of terms:  
discount rate; interbank rate. (3 marks)

2012/DSE/II/13

The following table shows the balance sheet of the banking system of an economy.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	500	Deposits	2 000
Loans	1 500		

Suppose the public does not hold cash and there are \$100 million excess reserves in the banking system.

- (a) Find the required reserve ratio. Show your working. (2 marks)
- (b) Find the maximum possible amount of deposits if the banks are fully loaned up. Show your working. (2 marks)
- (c) The central bank injects \$200 million newly-printed banknotes into the banking system. If the banks lend out all of their excess reserves, what will the amount of money supply be in the economy? Show your working. (4 marks)

2013/DSE/II/12

The following table shows the balance sheet of the banking system of an economy.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	400	Deposits	2 000
Loans	1 600		

The public holds \$1 000 million cash and all banks are fully loaned up.

- (a) Calculate the monetary base and the money supply in the economy. Show your workings. (4 marks)
- (b) If the required reserve ratio is adjusted to 25%, calculate the new money supply in the economy. Show your workings. (2 marks)

2014/DSE/II/7(b)

In an attempt to reduce its growing fiscal deficits, the US government has tried to increase tax on the one hand and decrease fiscal spending on the other. But many worry that such a policy would give rise to undesirable side effects.

An alternative policy is to finance the fiscal deficits by printing money. Briefly discuss ONE advantage and ONE disadvantage of this alternative policy on the US economy as opposed to the above fiscal policy. (4 marks)

2014/DSE/II/12

The Prime Minister of Japan, Shinza Abe, adopted a series of policy measures in 2013 to expand the Japanese economy. One of the policy measures was stepping up the scale of the purchase of government bonds and other financial assets by the central bank.

- (a) If the Japanese central bank purchases government bonds from Japanese commercial banks, explain whether the monetary base of Japan would be affected. (3 marks)
- (b) Describe the process of deposit creation/contraction which may result from the purchase of government bonds by the central bank. Explain whether the process would further affect the monetary base of Japan. (5 marks)

2015/DSE/II/6

Study the following balance sheet of the banking system in Country A.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	1 000	Deposits	5 000
Loans	4 000		

Suppose all banks are fully loaned up and never hold excess reserves. The public always holds \$150 million in cash.

- (a) Calculate the following items of this banking system:
- (i) legal reserve ratio (1 mark)
- (ii) money supply (2 marks)

A firm in Country A has received \$50 million from abroad and deposited the sum of money into a bank.

- (b) Calculate the new monetary base in Country A. Show your workings. (2 marks)
- (c) Calculate the new money supply in Country A. Show your workings. (3 marks)

2016/DSE/II/8

The following is the balance sheet of a banking system.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Suppose the public always holds \$500 million of cash and the banking system does not hold excess reserves.

- (a) Calculate the monetary base and money supply. (2 marks)
- The central bank increases the required reserve ratio to 50%.
- (b) Calculate the change in monetary base and the change in money supply. Show your working. (4 marks)
- (c) (i) Why is money supply often a few times more than monetary base? (3 marks)
- (ii) Under what situation will money supply be equal to monetary base? (1 mark)

2018/DSE/II/7(a)

The following is the balance sheet of a banking system.

Assets (\$ million)		Liabilities (\$ million)	
Reserves	500	Deposits	2 000
Loans	1 500		

Initially the banks held \$100 million excess reserves and the public held \$100 million cash. Suppose the central bank buys \$40 million worth of government bonds from the public.

- (i) Calculate the new monetary base. Show your workings. (2 marks)
- (ii) State TWO assumptions under which the actual change in money supply would equal the maximum possible change in money supply. (2 marks)
- (iii) Calculate the maximum possible change in money supply. Show your workings. (4 marks)

MARKING SCHEME

1994/AL/II/18 A	2005/AL/II/19 C (55%)	1990/AL/II/03 A	2000/AL/II/08 B	2012/DSE/II/30 A (51%)
1995/AL/II/16 C	2005/AL/II/20 D (56%)	1990/AL/II/04 C	2003/AL/II/12 D	2013/DSE/II/28 B (43%)
1995/AL/II/17 D	2007/AL/II/7 A (30%)	1991/AL/II/23 B	2004/AL/II/04 B (74%)	2017/DSE/II/32 A (61%)
1995/AL/II/28 C	2011/AL/II/20 C (66%)	1992/AL/II/04 B	2005/AL/II/17 B (77%)	2017/DSE/II/37 B (66%)
1996/AL/II/19 D	2014/DSE/II/33 A (70%)	1993/AL/II/16 A	2006/AL/II/07 A (84%)	2019/DSE/II/41 B
1999/AL/II/15 C	2015/DSE/II/29 B (43%)	1996/AL/II/18 B	2007/AL/II/10 A (63%)	2020/DSE/II/30 B
2001/AL/II/13 D	2015/DSE/II/32 C (64%)	1997/AL/II/08 A	2010/AL/II/18 B (73%)	2020/DSE/II/32 A
2002/AL/II/21 C (29%)	2018/DSE/II/32 C (40%)	1998/AL/II/17 A	2012/AL/II/14 A (64%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1994/AL/II/5

- (a) When the government purchases bonds from the market, it increases the reserves of commercial banks, the lending ability of the latter (through the banking multiplier) and hence the money supply.
- (b) With the reserve ratio at 0.2, 1 million dollars of additional reserves can back up a loan of 5 millions. Thus the money supply increases by an amount of 5 million.

In the calculation, we have assumed that banks are fully loaned up and there is no cash leakage.

1996/AL/II/5(a)

As the public buy government bonds, the reserves in the commercial banks are reduced. Assuming that the banks are fully loaned up, their credit creation power is reduced and less loan can be made. The money supply falls.

2004/AL/II/1(c)

S: Monetary aggregates, both including currency (banknotes and coins) held by the non-bank public.  
D: M0 (currency + reserves) vs. M1 / M2 / M3 (currency + deposits).

2007/AL/II/3(a)

The monetary base (or high-powered money) is the sum of currency held by the non-bank public (C) and reserves (R), deposits of commercial banks at the central bank plus vault cash).

The money supply is the sum of currency in circulation (C) and bank deposits (D).

Money supply is often a multiple of base money because, under fractional reserve banking, commercial banks are only required to keep a fraction of their deposits as reserves and are thus able to use their excess reserves to generate further deposits through their loan and portfolio investment activities.

The banking multiplier equals unity when commercial banks keep 100% reserves against their deposits.

2008/AL/II/1(c)

S: interest rates charged on short-term loans to commercial banks:

D: rate set by the central bank at the discount window vs. rate set by the (overnight) interbank loans market.

2012/DSE/II/13

(a) Required reserve ratio =  $(\$500 \text{ million} - \$100 \text{ million}) / \$2 \text{ 000 million}$  (1)  
= 20% (1)

(b) Maximum possible amount of deposits =  $\$500 \text{ million} \times (1 / 0.2)$  (1)  
=  $\$2 \text{ 500 million}$  (1)

(c) Deposit =  $\$700 \text{ million} \times (1 / 0.2) = \$3 \text{ 500 million}$  (2)  
Cash in public circulation = 0 (1)  
Money supply = Deposit + Cash in public circulation =  $\$3 \text{ 500 million}$  (1)

2013/DSE/II/12

(a) Monetary base =  $\$400 \text{ million} + \$1 \text{ 000 million} = \$1 \text{ 400 million}$  (2)  
Money supply =  $\$1 \text{ 000 million} + \$2 \text{ 000 million} = \$3 \text{ 000 million}$  (2)

(b) New money supply =  $\$1 \text{ 000 million} + [\$4 \text{ 000} \times (1 / 25\%)] = \$2 \text{ 600 million}$  (2)

2014/DSE/II/7(b)

Advantages: An increase in money supply would lower the interest rate and raise investment, leading to an increase in real output in the short run (given upward-sloping aggregate supply). Given idle resources in the economy, more labour (and/or capital) would be used to produce the bigger output, implying an increase in employment or decrease in unemployment. (Contractionary fiscal policy would not result in an increase in GDP and employment.) (2)

Disadvantages: In the long run (with vertical aggregate supply), an increase in money supply would not create any effect on output and employment. But if the fiscal deficits grow so fast that the money supply has to be increased at a higher rate than of real output, high inflation would even arise. (Contractionary fiscal policy would not result in inflation.) (2)

2014/DSE/II/12

(a) Monetary base = cash in public circulation + reserves held by commercial banks (1)  
The monetary base increases because the commercial banks have more reserves. (2)

(b) Credit creation process:  
When the central bank purchases bonds from commercial banks, more cash is injected to the commercial banks as reserves and there would be excess reserves in the banking system. (1)  
The banks would lend out the excess reserves. (1)  
And the bank loans will be re-deposited into the banking system. (1)  
[The process will go on and on (until the actual reserves are equal to required reserves).]

No, The monetary base will remain unchanged as the sum of cash in public circulation and reserves in the banking system will not be affected by the credit creation process. (2)

2015/DSE/II/6

(a) (i) Legal reserve ratio =  $\$1 \text{ 000 million} / \$5 \text{ 000 million} = 0.2$  (1)

(ii) Money supply =  $\$150 \text{ million} + \$5 \text{ 000 million} = \$5 \text{ 150 million}$  (2)

(b) New monetary base =  $\$150 \text{ million} + \$1 \text{ 050 million} = \$1 \text{ 200 million}$  (2)

(c) New money supply =  $\$150 \text{ million} + [\$1 \text{ 050 million} \times (1 / 0.2)] = \$5 \text{ 400 million}$  (3)

2016/DSE/II/8

(a) Monetary base =  $\$500 \text{ million} + \$1 \text{ 000 million} = \$1 \text{ 500 million}$  (1)  
Money supply =  $\$500 \text{ million} + \$4 \text{ 000 million} = \$4 \text{ 500 million}$  (1)

(b) Change in monetary base =  $\$1 \text{ 500 million} - \$1 \text{ 500 million} = 0$  (2)

Change in money supply  
= New money supply - Original money supply  
=  $[\$500 \text{ million} + \$1 \text{ 000 million} \times (1 / 50\%)] - \$4 \text{ 500 million} = -\$2 \text{ 000 million}$  (2)

OR

= Change in cash held by non-bank public + Change in deposits  
=  $0 + [\$1 \text{ 000 million} \times (1 / 50\%) - \$4 \text{ 000 million}] = -\$2 \text{ 000 million}$  (2)

(c) (i) Under a fractional reserve banking system, banks are required to keep only a fraction of their deposits as reserves. They can create credit by lending out the remaining fraction in the form of loans to businesses and private individuals, which would eventually find their way back into the banking system in the form of deposits, resulting in a multiple increase in deposits / a banking multiplier larger than unity (3)

(ii) If the legal reserve ratio is 100% (RRR = 1), the money supply will be equal to the monetary base.  
OR  
If all of the banks decide not to lend out their excess reserves even when  $RRR < 1$  (e.g. during financial crisis, when default rates are high), the money supply will be equal to the monetary base. (1)

2018/DSE/II/7(a)

(i) New  $M_1 = \$500 \text{ million} + \$100 \text{ million} = \$600 \text{ million}$  (2)

(ii) Banks do not hold excess reserves / there is sufficient demand for loans.  
There is no cash leakage. (1)  
(1)

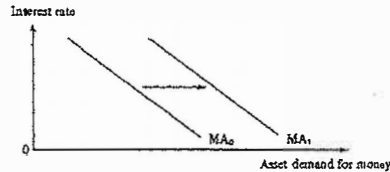
(iii) Old  $M_1 = \$2 \text{ 000 million} + \$100 \text{ million} = \$2 \text{ 100 million}$  (1)  
RRR =  $(\$500 \text{ million} - \$100 \text{ million}) / \$2 \text{ 000 million} = 0.2$  (1)  
New  $M_1 = \$100 \text{ million} + [(\$500 \text{ million} + \$40 \text{ million}) \times (1 / 0.2)] = \$2 \text{ 800 million}$  (2)  
 $\therefore M_1$  increases by  $\$700 \text{ million}$  ( $= \$2 \text{ 800 million} - \$2 \text{ 100 million}$ ). (1)

[Credits would also be awarded to those candidates who reasoned that the public's initial cash holding of \$100 million might also be deposited in to the banking system to yield \$500 million of additional deposits, resulting in an aggregate increase of \$1 200 million of deposits and thus a net increase of \$1 100 million of money supply. As a side note, for the topic of money and banking at the DSE level, cash held by the general public should be treated as fixed (i.e. change of cash in public is assumed to be zero except under other changes).]

5.2 MONEY DEMAND

Multiple Choice Questions

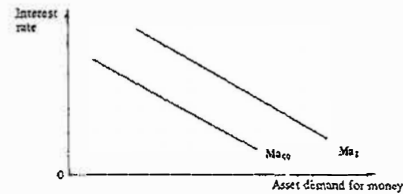
1990/AL/II/13



Which of the following correctly explains the rightward shift of the asset demand function from  $MA_0$  to  $MA_1$ ?

- A. a rise in the interest rate
- B. a rise in investment
- C. an increase in the sale of government bonds
- D. a rise in the risk of holding bonds

1991/AL/II/15



Which of the following correctly explains the shift of the asset demand for money curve from  $MA_0$  to  $MA_1$ ?

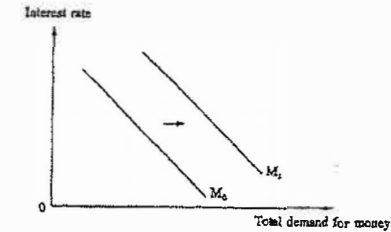
- (1) a fall in the interest rate
  - (2) a preference for higher liquidity
  - (3) a widespread use of credit cards
  - (4) expectations of a fall in bond prices
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (4) only
  - D. (3) and (4) only

1993/AL/II/28

Which of the following about money demand is NOT true?

- A. It is positively related with the anticipated inflation rate.
- B. It is positively related with wealth.
- C. It is negatively related with the real rate of interest.
- D. It is positively related with income.

1995/AL/II/14



Refer to the above diagram. Which of the following correctly explains the shift of the total demand for money curve from  $M_0$  to  $M_1$ ?

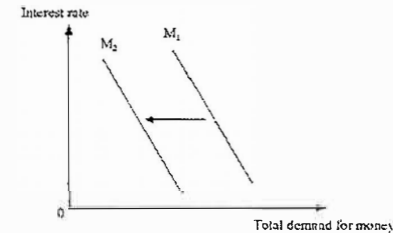
- A. a fall in the interest rate
- B. a rise in national income
- C. expectations of a rise in bond prices
- D. a purchase of bonds by the government in the open market

1995/AL/II/15

If people expect a rise in the market rate of interest, they will hold \_\_\_\_\_ money for asset purposes as bond prices will \_\_\_\_\_ and they will tend to buy \_\_\_\_\_ bonds.

- A. more ..... rise ..... more
- B. more ..... fall ..... less
- C. less ..... rise ..... more
- D. less ..... fall ..... less

2001/AL/II/22



Refer to the above diagram. Which of the following can explain the shift of the total demand for money curve from  $M_1$  to  $M_2$ ?

- (1) a rise in the interest rate
- (2) more shops accepting the Easy Pay System (EPS) payment method
- (3) a fall in the national income

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

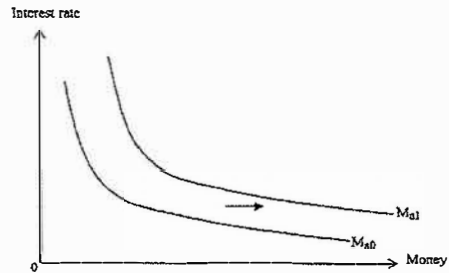
2005/AL/II/15

Which of the following can explain the rightward shift of the total demand for money curve?

- A. more extensive use of credit cards
- B. an increase in the velocity of circulation of money
- C. a fall in interest rates
- D. higher risk of holding bonds

2008/AL/II/20

Refer to the following diagram.



The asset demand for money will shift from  $M_{d0}$  to  $M_{d1}$  when

- A. income increases.
- B. the interest rate decreases.
- C. the general price level increases.
- D. the interest rate is expected to increase.

2009/AL/II/15

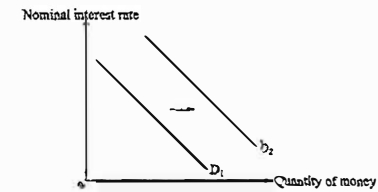
Which of the following statements about money demand is true?

- (1) Transaction demand for money tends to be more stable than asset demand for money.
- (2) The shorter the time interval between wage receipts, the higher the transaction demand for money.
- (3) The higher the volatility of the financial market, the higher the asset demand for money.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2013/DSE/1/27

Refer to the following diagram.

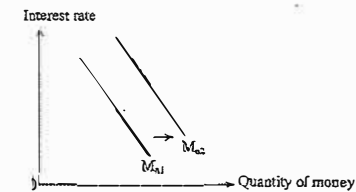


Which of the following will cause the money demand curve to shift from  $D_1$  to  $D_2$ ?

- A. a fall in the nominal interest rate
- B. a rise in national income
- C. more widespread use of electronic money
- D. an open market purchase of bonds by the central bank

2015/DSE/1/28

Refer to the following diagram.

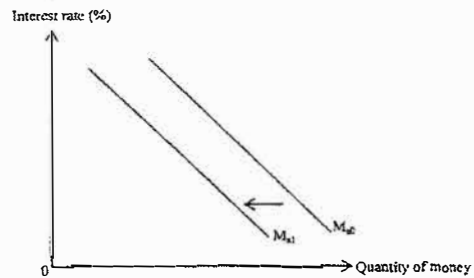


The curve of asset demand for money will shift from  $M_{d1}$  to  $M_{d2}$  when

- A. the risk of investing in the stock market increases.
- B. the interest rate decreases.
- C. the general price level rises.
- D. the government reduces the income tax rate.

2016/DSE/1/29

Refer to the following diagram.



Which of the following would lead to the above change in the asset demand for money curve?

- A. The stock market becomes less volatile.
- B. The general price level is expected to fall continuously.
- C. The central bank raises the discount rate.
- D. There is a fall in disposable income of households.

2017/DSE/1/30

Electronic payment systems allow customers to pay without cash. ApplePay, Visa payWave and MasterCard paypass are some of the examples.

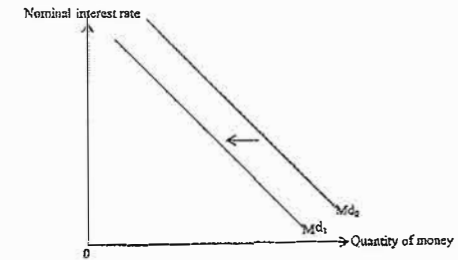


When more shops accept these electronic payment systems as a method of payment,

- (1) their cost of handling coins and notes will fall.
- (2) the actual banking multiplier may increase.
- (3) transactions demand for money will increase.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2018/DSE/1/29

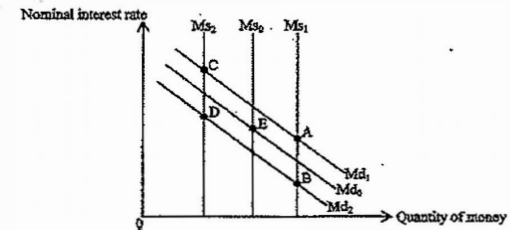


Which of the following would result in the above change in money demand?

- A. The central bank issues larger denomination banknotes for circulation.
- B. The expected inflation rate drops.
- C. The risk of investing in stock market decreases.
- D. Security problems have been found in the major electronic payment system.

2019/DSE/1/33

The diagram below shows the money supply and money demand curves of an economy. The original equilibrium point is at E.



Suppose electronic payments become more common, and the central bank increases the legal reserve ratio of the commercial banks. The new equilibrium point will be at \_\_\_\_\_.

- A. A
- B. B
- C. C
- D. D



Which of the following policies would offset the effect of an increase in the willingness to invest on the price level?

- (1) an increase in profits tax rate
- (2) an increase in transfer payment
- (3) a decrease in tax allowance

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2020/DSE/1/37

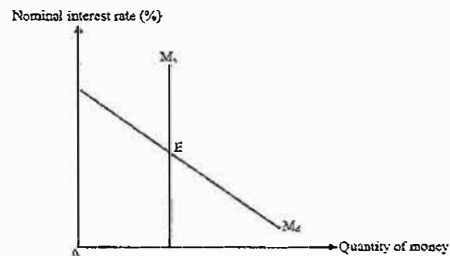
An economist said, 'The continuous fall in stock prices in our country has already affected the consumption expenditure as well as the money demand. We should implement a policy to relieve the effects on the output level and the interest rate.' Which of the following policies can stabilise the output level and the interest rate in the country at the same time in the short run?

(Assume the interest rate is mainly affected by the asset demand for money in this case.)

- A. The government increases cash subsidy to the poor.
- B. The government gives tariff exemption to the imports of goods.
- C. The central bank instructs the commercial banks to tighten the requirement of personal loans.
- D. The central bank buys government bonds from the public.

2020/DSE/1/31

The following diagram indicates the money supply curve ( $M_s$ ) and money demand curve ( $M_d$ ) of a certain economy. Suppose the initial equilibrium point is at E.



If the income of the public increases and the central bank sells government bonds to the public, the interest rate \_\_\_\_\_ and the quantity of money \_\_\_\_\_.

- A. will decrease ..... will increase
- B. will increase ..... may increase or decrease
- C. may increase or decrease ..... will decrease
- D. will increase ..... will decrease

Short & Structured Questions

1991/AL/11/1

'The real interest rate is the opportunity cost of holding money.' Explain this statement.

(10 marks)

2002/AL/11/3(a)

In microeconomics, we learn that the demand curve for any commodity shows the relationship between its price and quantity demanded. In macroeconomics, however, the demand curve for money shows the relationship between the interest rate and the quantity demanded of money.

Can we interpret the interest rate as the 'price' of holding money? Why or why not?

(4 marks)

2003/AL/11/4

Money is commonly believed to be the most liquid and perhaps the safest asset on Earth.

(a) What is meant by liquidity?

(2 marks)

(b) Explain why money is not necessarily a 100% risk-free asset.

(4 marks)

(c) Why are people willing to hold money even though its expected rate of return is lower than that of other assets (such as bonds and stocks)?

(4 marks)

2009/AL/11/2

(c) How are the real rate of interest and the nominal rate of interest related to the inflation rate? Explain clearly whether the inflation rate is expected or actual.

(3 marks)

(d) Which of these two interest rates can be interpreted as the opportunity cost of holding money? Explain.

(4 marks)

2020/DSE/1/9A

Ocean Park and Hong Kong Disneyland are the two large theme parks in Hong Kong.

- (a) What is the market structure of the theme park industry in Hong Kong? List TWO features of this market structure.

(3 marks)

MARKING SCHEME

1990/AL/II/13 D	1995/AL/II/14 B	2005/AL/II/15 D (68%)	2013/DSE/1/27 B (67%)	2017/DSE/1/30 A (69%)
1991/AL/II/15 C	1995/AL/II/15 B	2008/AL/II/20 D (56%)	2015/DSE/1/28 A (55%)	2018/DSE/1/29 C (63%)
1993/AL/II/28 A	2001/AL/II/22 C	2009/AL/II/15 B (65%)	2016/DSE/1/29 A (41%)	2019/DSE/1/33 D

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2020/DSE/1/28 D	2020/DSE/1/37 D	2020/DSE/1/31 D
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1991/AL/II/1  
Consider a model with two assets: money and bonds (or interest-yielding assets). The opportunity cost of holding money is the highest-valued forgone option (i.e. return to holding other assets). When the price level is assumed to be fixed, the nominal interest rate is the same as the real interest rate.

2002/AL/II/3(a)  
Yes, the interest rate, being the return to holding interest-bearing assets such as bonds, represents the opportunity cost of holding money – just like the (relative) price of a commodity being the amount of an alternative commodity forgone is the opportunity cost of acquiring that commodity.

- 2005/AL/II/4
- (a) Liquidity is the property of an asset that makes it easily marketable at short notice without loss. Since money is a universally accepted medium of exchange, it is clearly the most liquid asset on earth.
  - (b) Money can be regarded as a risk-free asset in a world of stable prices, but not when prices may fluctuate over time. In addition to inflation risk, one can also imagine 'bank run' risks when one is thinking of money not merely as cash but also as bank deposits. (Instability in the purchasing power of money may also arise from exchange rate risk and political or country risk.)
  - (c) Risk-averse agents are willing to hold money even though its expected rate of return is lower than that of other assets (such as bonds and stocks) because it is more liquid (less transaction-costly as a medium of exchange, i.e. transactions demand for money) and less risky (as a stock of value, i.e. asset demand for money) than other assets.

- 2009/AL/II/2
- (c) As implied by the Fisher equation, these two interest rates are related to the rate of expected (rather than actual) inflation. Both interest rates are determined today and to be paid tomorrow with certainty. Depending on the actual realization of the price level tomorrow (which is unknown today), however, the nominal interest may yield a higher or lower return in real terms tomorrow (i.e. the actual real interest is not necessarily the same as expected).
  - (d) The nominal interest rate, which is the rate of return on "bonds" (i.e., other financial assets forgone if people hold money), can be interpreted as the opportunity cost of holding money (whose rate of return is zero).

2020/DSE/II/9A

- 9 a ) Oligopoly.
- Price searcher
  - Homogeneous or heterogeneous product
  - Difficult to enter the market
  - Imperfect market information
  - Interdependent of pricing strategies among firms
  - Non price competition ( mark the first 3 points )

5.3 THE QUANTITY THEORY OF MONEY (QTM)

Multiple Choice Questions

1990/AL/II/14  
Consider the following data of a hypothetical economy:

Year	Money Stock (\$ million)	GDP (\$ million, current prices)
1	45	400
2	50	600

Which of the following statements about the economy must be correct?

- A. There was a fall in real GDP.
- B. There was a fall in the general price level.
- C. There was a rise in the income velocity of money.
- D. There were fluctuations in the demand for money.

1990/AL/II/26  
The Quantity Theory implies that in the short-run a change in the money stock will affect

- A. real output only.
- B. the price level only.
- C. both the real output and the price level.
- D. the income velocity of money.

1991/AL/II/14  
During Christmas and Chinese New Year, people tend to carry more cash. Assuming banks do not hold excess reserves, there will be

- A. a decrease in the money supply.
- B. an increase in the money supply.
- C. no change in the money supply but a higher velocity of circulation.
- D. no change in the money supply but a higher demand for goods and services.

1991/AL/II/16  
Which of the following ratios gives the correct definition of the velocity of the circulation of money?

- A. nominal GNP to the stock of money
- B. nominal GNP to the flow of money
- C. real GNP to the stock of money
- D. real GNP to the flow of money

1992/AL/II/20

The equation of exchange

- (1) is an identity which cannot be refuted.
  - (2) is valid only when the economy is at full employment.
  - (3) predicts that money affects both the price level and real output in the short run and only real output in the long run.
  - (4) state that total expenditure is always equal to total output value.
- A. (1) and (3) only  
B. (1) and (4) only  
C. (2) and (3) only  
D. (2) and (4) only

1994/AL/II/17

According to the equation of exchange, if the money supply is fixed at a time when both the nominal and the real income are increasing, we can conclude that

- A. full employment is achieved.  
B. the unemployment rate is rising.  
C. the velocity of the circulation of money is falling.  
D. the velocity of the circulation of money is rising.

1994/AL/II/22

Given that the velocity of money and the real output remain unchanged, an increase in the money supply

- A. will decrease the nominal rate of interest.  
B. decrease the inflation rate.  
C. increase the real rate of interest.  
D. increase the price level.

1994/AL/II/24

Inflation will occur when

- A. the government carries out expansionary policies.  
B. the growth rate of money is greater than the growth rate of real output.  
C. the income of the economy grows.  
D. the prices of some of the goods start to rise.

1995/AL/II/18

The Quantity Theory of Money is

- A. always true because total expenditure are always equal to total output.  
B. valid because the price level is rigid in the short run.  
C. valid because it is an identity.  
D. None of the above

1996/AL/II/14

Which of the following statements about the quantity theory of money are correct?

- (1) Nominal income increases at the same rate as money supply.
  - (2) Velocity of circulation of money is assumed to be constant.
  - (3) The government cannot change the money supply.
- A. (1) and (2) only.  
B. (1) and (3) only.  
C. (2) and (3) only.  
D. All of the above.

1996/AL/II/20

If the velocity of circulation of money is constant, an increase in the money supply will lead to an increase in

- A. the price level.  
B. real output.  
C. nominal value of output.  
D. None of the above

1997/AL/II/12

The classical quantity theory of money

- (1) predicts that a change in the money supply affects the price level only.
  - (2) is always true.
  - (3) assumes that the velocity of money circulation is constant.
- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3) only

1997/AL/II/22

The equation of exchange

- A. assumes that the velocity of money circulation is predictable.  
B. regards real output as more or less constant.  
C. explains the effects of changes in the stock of money on the price level.  
D. cannot be refuted.

1998/AL/II/14

According to the equation of exchange, the money supply grows more slowly than the nominal gross national product (GNP), we can conclude that

- A. the inflation rate is rising.  
B. the unemployment rate is rising.  
C. the velocity of circulation is rising.  
D. the growth rate of real GNP is higher than the inflation rate.

1999/AL/II/14

The equation of exchange says that

- A. the velocity of circulation of money is constant.  
B. nominal income will increase at the same rate as money supply.  
C. the economy is producing at the full employment level.  
D. None of the above

2000/AL/II/16

According to the equation of exchange, if money supply is fixed, which of the following is correct?

- A. Price level must be constant.
- B. Both price level and real output must be constant.
- C. The velocity of circulation of money will change at the same rate as real output.
- D. None of the above

2000/AL/II/22

Which of the following statements concerning money supply and inflation is correct?

- A. Any upward pressure on price level must be the result of an increase in money supply.
- B. An increase in aggregate demand must be accompanied by an increase in money supply and inflation rate.
- C. There can never be a simultaneous decrease in real output and increase in price level if the money supply does not decrease.
- D. None of the above

2001/AL/II/23

According to the equation of exchange, when the money supply is fixed,

- A. the growth rate of nominal income is constant.
- B. the growth rate of real output is the same as the inflation rate.
- C. the growth rate of nominal income is the same as the growth rate of the velocity of circulation of money.
- D. the inflation rate is zero.

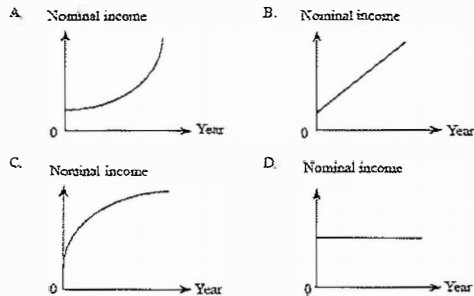
2002/AL/II/19

According to the equation of exchange, if money supply grows at the same rate as nominal income, we can conclude that

- A. the price level is rising.
- B. real output is constant.
- C. the velocity of circulation of money is constant.
- D. All of the above

2002/AL/II/23

If the velocity of circulation of money is constant and the money supply increases by a fixed amount each year, which of the following diagrams shows the value of nominal income over time?



2003/AL/II/11

According to the equation of exchange, if money supply grows during a time of deflation, it is possible that

- A. the velocity of circulation of money and real output decline at the same rate.
- B. the velocity of circulation of money and real output grow at the same rate.
- C. the growth rate of the velocity of circulation of money is higher than that of real output.
- D. the growth rate of the velocity of circulation of money is less than that of real output.

2004/AL/II/19

Consider the following data on an economy:

Year	Money Supply (\$ million)	GDP (\$ million, current prices)
1	45	400
2	50	600

From year 1 to year 2, which of the following statements about the economy must be correct?

- A. There was a rise in real GDP.
- B. There was a rise in the general price level.
- C. There was a rise in the velocity of circulation of money.
- D. The demand for money curve has shifted to the right.

2005/AL/II/14

The ratio of the value of transactions in an economy during a given period to the stock of money in that period measures

- A. money demand.
- B. the rate of growth of money supply.
- C. the velocity of circulation of money.
- D. the money multiplier.

2005/AL/II/18

Suppose the velocity of circulation of money is held constant. According to the equation of exchange, if the growth rate of money supply is smaller than that of the real gross national product (GNP), we can conclude that

- A. there is deflation.
- B. the inflation rate is falling.
- C. the unemployment rate is rising.
- D. the growth rate of real GNP is higher than the inflation rate.

2005/AL/II/21

When the velocity of circulation of money is constant, an increase in the money supply will lead to

- A. inflation.
- B. deflation.
- C. an increase in real output.
- D. an increase in nominal output.

2007/AL/II/11

An increase in the velocity of circulation of money will

- A. have no effect on real output whether or not money supply and price level are constant.
- B. lead to a rise in nominal output in the absence of changes in money supply.
- C. result in an increase in price level if the economy attains full employment.
- D. result in decrease in money supply if price level grows at the same rate as real output.

2008/AL/II/18

Which of the following statements about the velocity of circulation of money is correct?

- A. Velocity of circulation of money is measured by the ratio of nominal gross domestic product (GDP) to nominal money stock.
- B. The growth rate of velocity of money can be positive in some years and negative in others.
- C. The growth rate of velocity of circulation of money is assumed to be zero in the classical quantity theory of money.
- D. All of the above

2009/AL/II/22

Consider the following data of an economy.

	Year 1	Year 2
Money supply (\$)	40 million	48 million
Velocity of circulation of money	5	5.5
Real output (unit of goods)	20 million	24 million

According to the equation of exchange, what is the inflation rate of Year 2?

- A. 8%
- B. 9.1%
- C. 10%
- D. 11%

2011/AL/II/24

If the real output is decreasing at a faster rate than the velocity of circulation of money,

- A. money supply will be increasing at a rate slower than that of the price level.
- B. money supply will be decreasing at a rate slower than that of the price level.
- C. money supply will increase when there is inflation.
- D. there will be deflation when money supply remains unchanged.

2012/AL/II/16

If an economy attains full employment, an increase in money supply will increase \_\_\_\_\_.

- A. the nominal interest rate
- B. the real interest rate
- C. the level of nominal output.
- D. the level of real output

2012/AL/II/20

Which of the following statements about the equation of exchange is correct?

- A. It predicts that money is neutral.
- B. It still holds even if there is a change in institutional factors.
- C. It predicts that a 1% increase in money supply leads to a 1% increase in the price level.
- D. It assumes that the technological level is constant.

2015/DSE/II/32

The real output of an economy grows at a lower rate than the money supply. According to the quantity theory of money, we can conclude that

- (1) the price level is increasing.
- (2) the unemployment rate is decreasing.
- (3) the velocity of circulation of money is decreasing.
- (4) the nominal output is increasing.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2014/DSE/II/37

Suppose the velocity of circulation of money remains constant. If a central bank reduces money supply by 10%,

- A. the price level will decrease by 10%.
- B. real output will decrease by 10%.
- C. nominal output may decrease by less than 10%.
- D. real output may decrease by less than 10%.

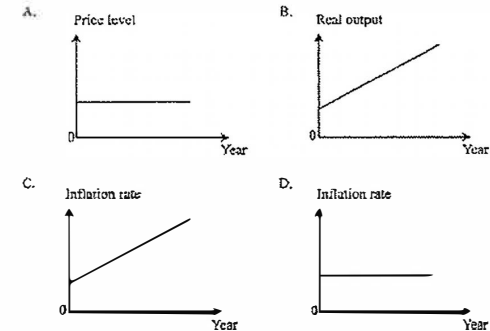
2015/DSE/II/33

The quantity theory of money implies that

- A. an increase in money supply will lead to a rise in price level when real output is falling.
- B. the economy is always at the full employment output level.
- C. an increase in money supply will lead to a decrease in the velocity of circulation of money when real output is kept constant.
- D. an increase in money supply will lead to a same-proportional increase in real output.

2016/DSE/II/34

According to the classical quantity theory of money, which of the following diagrams is correct when money supply is growing at a constant percentage each year?



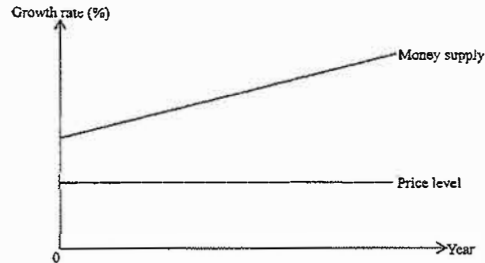
2017/DSE/1/36

According to the quantity theory of money, if a central bank increases money supply,

- A. the price level will increase.
- B. real output will remain constant.
- C. nominal output will increase.
- D. the unemployment rate will decrease.

2018/DSE/1/37

Refer to the following diagram.



According to the quantity theory of money, which of the following statements is correct?

- A. The inflation rate is zero.
- B. The growth rate of real output is increasing.
- C. The growth rate of money supply is constant.
- D. The growth rate of nominal income is constant.

2019/DSE/1/35

Which of the following statements about quantity theory of money are correct?

- (1) If money supply is growing too fast relative to the supply of goods in the economy, inflation will occur.
- (2) If money supply increases, nominal output will increase by the same percentage.
- (3) If inflation rate is constant, real output will grow at the same percentage as money supply.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1990/AL/II/8(a)(ii)

Explain whether inflation would occur in the following situations:

a continuous increase in the money supply when the economy is also growing.

(8 marks)

1991/AL/II/2

'The classical Quantity Theory of Money is a theory of full employment.' Do you agree? Explain your answer. (10 marks)

1993/AL/II/4

If the national income and the money supply of a country grow at 5% and 10% a year respectively, what is the rate of inflation predicted by the Quantity Theory of Money? Explain. (8 marks)

1999/AL/II/4

(a) Milton Friedman once made the statement, 'inflation is always and everywhere a monetary phenomenon.' In what sense do you think inflation is related to monetary factors? (4 marks)

(b) Using the quantity theory of money, explain why, in the absence of changes in money supply, inflation can also be 'caused' by real factors such as changes in real output. (4 marks)

2000/AL/II/8

(a) 'If the velocity of circulation of money is constant, we can predict the impact of changes in money supply on nominal income. However, to know the impact of changes in money supply on price level, we need an additional assumption on the behaviour of real income.' Discuss. (6 marks)

(b) Consider the following table.

Year	1	2	3
Money Supply	\$100	\$110	\$121

Suppose the velocity of circulation of money is constant.

(i) Find the growth rate of nominal income in year 2 and year 3. (3 marks)

(ii) Suppose the growth rates of real income in year 2 and year 3 are 0% and 5% respectively. Find the inflation rates in year 2 and year 3. (2 marks)

(c) Based on the above answers, explain the rationale behind the policy of setting the growth of money supply at a specific level. (2 marks)

2002/AL/II/2(a)

State whether each of the following statements is true or false, and provide a brief explanation to support your answer.

'The quantity theory of money predicts that inflation is not necessarily a consequence of money growth.' (5 marks)

2007/AL/II/3(b)

What is meant by the velocity of circulation of money? How can we measure such velocity in practice? (2 marks)

2010/AL/II/2(c)

Explain why the product of the nominal stock of money ( $M$ ) and the velocity of circulation ( $V$ ) is always equal to the product of the price level ( $P$ ) and real income ( $y$ ) – i.e.,  $MV = Py$ . How can we use this relation as a theory (to identify the various sources) of inflation? (6 marks)

2012/DSE/II/13(d)

The central bank injects \$200 million newly-printed banknotes into the banking system.

Based on the quantity theory of money, predict the effect of the monetary policy on the price level. State the assumption(s) needed to reach your conclusion. (4 marks)

2018/DSE/II/7(b)

Based on the quantity theory of money, predict the effect of an open market purchase of government bonds by the central bank on the price level. State the assumption(s) needed to reach your conclusion. (4 marks)

2020/DSE/II/4C

(c) 'The continuous open market purchase of government bonds by the central bank is the cause of inflation in the economy.' Justify the statement with reference to the classical quantity theory of money. (4 marks)

MARKING SCHEME

1990/AL/II/14 C	1995/AL/II/18 D	2000/AL/II/22 D	2005/AL/II/21 D (77%)	2014/DSE/II/37 D (56%)
1990/AL/II/24 C	1996/AL/II/14 A	2001/AL/II/23 C	2007/AL/II/11 B (77%)	2015/DSE/II/33 A (58%)
1991/AL/II/14 A	1996/AL/II/20 C	2002/AL/II/19 C (52%)	2008/AL/II/18 D (61%)	2016/DSE/II/34 D (34%)
1991/AL/II/16 A	1997/AL/II/12 B	2002/AL/II/23 B (73%)	2009/AL/II/22 C (71%)	2017/DSE/II/36 C (64%)
1992/AL/II/20 B	1997/AL/II/22 D	2003/AL/II/11 D	2011/AL/II/24 A (59%)	2018/DSE/II/37 B (72%)
1994/AL/II/17 D	1998/AL/II/14 C	2004/AL/II/19 C (44%)	2012/AL/II/16 C (69%)	2019/DSE/II/35 A
1994/AL/II/22 D	1999/AL/II/14 D	2005/AL/II/14 C (74%)	2012/AL/II/20 B (48%)	
1994/AL/II/24 B	2000/AL/II/16 D	2005/AL/II/18 A (56%)	2013/DSE/II/32 B (74%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/AL/II/8(a)(ii)

It all depends.

If the growth rate of the money supply approximately equals the growth rate of real output, then the inflationary consequences will be minimal.

However, if the growth rate of the money supply exceeds the growth rate of real output, inflation will occur.

1991/AL/II/2

Explain  $MV = PY$  as an identity in accounting. It is only when  $V$  and  $Y$  are constant that a change in  $M$  gives rise to an equi-proportional change in  $P$ , the money price level. ( $M/P$  is always a constant — prediction of the classical QTM.)

The classical QTM is used in conjunction with the classical theory, which states that (in the long run) flexible relative prices imply full employment.  $Y$  in this context refers to full employment output. The classical QTM requires the (long run) assumption of full employment rather than explaining full employment.

1993/AL/II/4

According to the Quantity Theory of Money,  $PY = MV$

where  $P$  = price level,  $Y$  = output,  $M$  = money supply and  $V$  = velocity.

Assume  $V$  is constant. If the percentage change in income is 5% and the percentage change in the money supply is 10%, the inflation rate is (i.e.  $P$  increases by) 5% (= 10% - 5%).

(We cannot predict the rate of inflation if  $V$  is not constant.)

1999/AL/11/4

- (a) Inflation is related to monetary factors in the sense that, other things being equal, prices must rise as money supply is increased because we then have more money to spend on the same quantity of goods. [This can also be explained in terms of the quantity theory, assuming constant velocity and output.]
- (b) The quantity equation implies that the inflation rate is equal to the negative of the output growth rate when money supply and velocity are constant. In other words, prices can also rise when we use the same quantity of money to chase after a smaller quantity of goods.

2000/AL/11/3

- (a) Using the equation of exchange, we have  $MV = PY$ . If velocity is constant, nominal income ( $PY$ ) must grow at the same rate as the money supply. As both  $Y$  and  $P$  can change, we cannot separate the impact on  $P$  and  $Y$ . If we know how  $Y$  grows, we can predict the impact of  $M$  on  $P$ .
- (b) (i) Given velocity is constant, nominal income grows at the same rate as the money supply.  
Nominal income growth rate in year 2 =  $(110 - 100) / 100 = 10\%$   
Nominal income growth rate in year 3 =  $(121 - 110) / 100 = 10\%$
- (ii) Inflation rate in year 2 =  $10\%$   
Inflation rate in year 3 =  $10\% - 3\% = 7\%$
- (c) If the velocity of circulation is constant and real income grows at a constant known rate, then setting the growth of money supply at a specific rate can achieve the target rate of inflation.

2002/AL/11/2(a)

True.

$$QTM: g_p = g_m + g_v - g_y$$

$g_p > 0$  even when  $g_m = 0$  as long as  $g_v > g_y$  (such as when velocity is constant and output is declining).

2007/AL/11/3(b)

The velocity of circulation of money is the number of times an average dollar changes hands – as a medium of exchange to facilitate market transactions – within a certain time period.

Using the Equation of Exchange, we can measure the velocity by the ratio of nominal GDP to money supply.

2010/AL/11/2(c)

$MV$  represents the total amount of circulating money in the economy within a given period of time.  $PY$  or GDP represents the total money value of (final) goods and services produced in the economy within the same period.  $MV = PY$  because, in a monetary economy, money changes hands whenever buyers use the money they hold (supplied by the central bank) to purchase goods and services from the sellers.

The Equation of Exchange implied that

$$g_p = g_m + g_v - g_y$$

which implies in turn 2 possible sources of inflation (Quantity Theory of Money as a theory of inflation):

- growth in the money supply --- i.e.,  $g_m > 0$ , given  $g_v = g_y = 0$  (or given  $g_m > g_y$  and  $g_v = 0$ ), and
- output decline --- i.e.,  $g_y < 0$ , given  $g_m = g_v = 0$ .

2012/DSE/11/13(d)

QTM:  $MV = PY$ , where  $M$  = money stock,  $V$  = velocity of circulation of money,  $P$  = general price level and  $Y$  = real output, assuming  $V$  constant.

An increase in  $M$  leads to an increase in  $P$  when  $Y$  increases by a smaller proportion.

OR

An increase in  $M$  leads to an increase in  $P$  by the same percentage when  $Y$  is constant.

2018/DSE/11/7(b)

$MV = PY$ , where  $M$ : money supply,  $V$ : velocity of circulation of money,  $P$ : price level, and  $Y$ : output

Assume  $V$  and  $Y$  are both constant. Then when  $M$  increases,  $P$  would increase by the same proportion.

OR

Assume  $V$  is constant. Then when the percentage increase in  $M$  is higher than that in  $Y$ ,  $P$  would increase as well.

2020/DSE/11/4C

C)  $M$  = Nominal Money Supply

$V$  = Velocity of Money

$P$  = General price level.

$Y$  = Real National Income

While both  $V$  and  $Y$  are assumed to be constant in the long run, Percentage change of Money supply equal to the percentage change of price level. Continuously expansionary monetary policy (increase of  $M$ ) will lead to persistent increase of general price level (increase of  $P$ ) (4 marks)



## SECTION 6: AGGREGATE DEMAND AND AGGREGATE SUPPLY

(Note: Despite the fact that the AD-AS model was not explicitly required in the CE and AL syllabuses, in tackling a number of CE/AL questions, the AD-AS framework can still be applied.)

### 6.1 DEMAND- AND SUPPLY-SIDE FACTORS AFFECTING NATIONAL INCOME

#### Multiple Choice Questions

1990/CE/II/37

The national income of a country will tend to increase if

- A. the government increases its budget surplus.
- B. the government raises the interest rates.
- C. the government reduces the profits tax rates.
- D. the demand for exports decreases.

1991/CE/II/41

Which of the following is the main reason for the building of a new airport on Lantau Island in the near future?

- A. to solve the problem of the labour shortage in Hong Kong
- B. to improve the infrastructure of Hong Kong
- C. to control the rising inflation rate
- D. to improve the occupational mobility of construction workers

1991/CE/II/45

Which of the following is most likely to lead to a fall in the inflation rate?

- A. an increase in the money supply
- B. an increase in the interest rate
- C. an increase in government expenditure
- D. an increase in indirect tax

1992/CE/II/49

Which of the following can help to control cost-push inflation in Hong Kong?

- A. an increase in indirect tax rates
- B. a significant increase in productivity
- C. a ban on the importation of labour
- D. an increase in the interest rate

1993/CE/II/38

Which of the following government policies will have an expansionary effect on the economy?

- A. increasing the transfer payments by using its fiscal reserves
- B. spending more money on imports
- C. introducing a general sales tax
- D. raising the reserve requirements of commercial banks

1993/CE/II/43

In Hong Kong, inflation at the consumer level has remained at around 10% for the past few years. Which of the following are two possible reasons for this phenomenon?

- (1) a recession affecting western economies
- (2) the surplus budgetary policy of the government
- (3) low interest rates for bank deposits and loans
- (4) an inflow of capital from China

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1993/CE/II/51

An increase in exports and a decrease in imports will cause the national income to

- A. increase
- B. decrease
- C. remain unchanged
- D. either increase or decrease

1997/CE/II/22

It is expected that there will be a record-high number of tourists visiting Hong Kong in the year 1997. This will increase Hong Kong's

- A. GDP.
- B. visible trade.
- C. net external factor income flows.
- D. consumer price index (A).

1997/CE/II/44

Which of the following would have an expansionary effect on the Hong Kong economy?

- A. a raise of the rental of public housing units
- B. the sale of existing public housing units to their tenants
- C. the introduction of a new tax to suppress speculative activities in the property market
- D. an increase in the construction of Home-Ownership-Scheme housing

1997/CE/II/46

Suppose the Hong Kong government spends \$2 billion in the construction of a new highway which is financed by its fiscal reserve. Which of the following would most likely occur?

- A. a narrower wealth gap between the rich and the poor
- B. an increase in the employment rate
- C. an increase in the inflation rate
- D. a budget deficit in the years of construction

2000/CE/11/34

More Hong Kong people shop in Shenzhen and the real interest rate in Hong Kong is increasing and being sustained at a higher level.

Which of the following GDP components of Hong Kong would be least likely affected by the above situation?

- A. domestic consumption (C)
- B. private investment (I)
- C. government expenditure (G)
- D. net export (X - M)

2000/CE/11/38

Which of the following would MOST LIKELY increase employment during an economic downturn?

- A. restructuring of private firms to improve their efficiency.
- B. increasing computerization and automation of production process
- C. government's injection of a large amount of funds to help small enterprise.
- D. increasing real interest rates

2001/CE/11/30

Which of the following changes would reduce unemployment?

- A. The government introduces a minimum wage law.
- B. The profits tax rate is raised.
- C. Many domestic firms try to use more labour-saving machines.
- D. The demand for the country's exports increases.

2004/CE/11/31

Which of the following is both a demand-side factor and a supply-side factor affecting national income?

- A. the government's productivity-enhancement projects
- B. the government's promotion of tourism
- C. a 'buying local products' campaign
- D. a firework show sponsored by private firms

2005/CE/11/30

Which of the following would result in an increase in Hong Kong's GDP?

- A. The government increases the profits tax rate.
- B. There is a fall in the total export value of Hong Kong made toys.
- C. The government develops the Western Kowloon cultural district.
- D. There are more Hong Kong people traveling in foreign countries.

2006/CE/11/32

Which of the following would most likely raise the potential GDP (i.e., production capacity) of an economy?

- A. an increase in the social welfare benefit
- B. an increase in the reserve ratio of the banking system
- C. an increase in the government expenditure on tertiary education
- D. an increase in the demand for the economy's exports

2019/DSE/1/27

Country A is an oil-importing country. Which of the following will result in a rightward shift of its short-run aggregate supply curve?

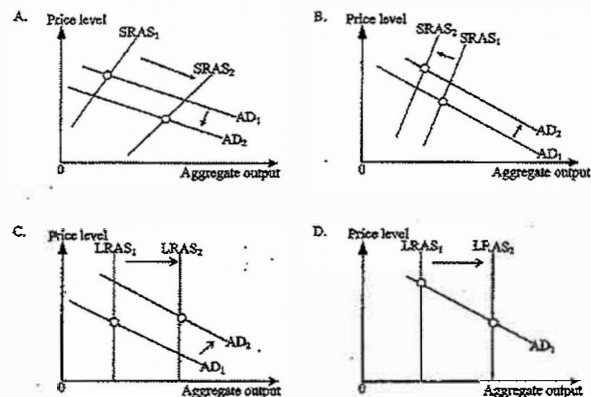
- A. All oil-exporting countries decide to increase the daily production of oil.
- B. Extreme cold weather sharply raises the consumption of oil for heating in Country A.
- C. The government of Country A provides tax relief for research in new energy aiming to lessen the reliance on oil.
- D. An earthquake destroys an oil refinery factory in Country A.

2019/DSE/1/38

The government carried out the following two policies:

Policy one:	Reduce the profits tax rate for corporations with profit less than two million dollars.
Policy two:	Inject fifty billion dollars to develop innovation and technology.

Which of the following AD-AS diagrams could most likely show the effect on aggregate output caused by the above two policies?



2020/DSE/1/27

Which of the following is a reason for a leftward shift of the short run aggregate supply curve in a country?

- A. There is a continuous increase in price level.
- B. The largest market of the country's exports suffers from an economic recession.
- C. More citizens emigrate to foreign countries.
- D. The wages of labour slowly adjust downward due to institutional factors.

2020/DSE/1/35

Which of the following policies would offset the effect of an increase in the willingness to invest on the price level?

- (1) an increase in profits tax rate
- (2) an increase in transfer payment
- (3) a decrease in tax allowance

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2008/CE/1/28

If the government constructs the Tuen Mun-Chek Lap Kok Link (屯門至赤鱗角連接路) to link up Shenzhen and the Hong Kong International Airport, the \_\_\_\_\_ of Hong Kong will increase.

- (1) employment
- (2) actual GDP
- (3) potential GDP

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

**Short & Structured Questions**

1990/CE/1/3(b)(i)

Explain how a depreciation of the Hong Kong dollar might lead to a higher inflation rate in Hong Kong. (6 marks)

1990/CE/1/05(b)(ii)

Suppose the Hong Kong government adopts the following tax policies:

- Policy A: introducing a 3% sales tax on all commodities
- Policy B: cutting down the standard tax rate by 3%

Explain how EACH of the above policies affects the general price level. (6 marks)

1992/CE/1/5(c)

It has now been decided that a new airport will be built at Chek Lap Kok

- (ii) What is meant by inflation? (2 marks)
- (iii) Explain briefly how the construction of the new airport might cause inflation in Hong Kong. (4 marks)

1994/CE/1/10(a)(ii)

A government borrows a large sum of money from foreign countries and spends it on infrastructure. State the benefits of the increase in government spending on the local construction workers and the economy as a whole. (4 marks)

1995/CE/1/9(c)

The World Cup of 1994 was held in the USA. People from all over the world went to the US to watch the matches.

- (i) Name any TWO demand side factors affecting national income. (2 marks)
- (ii) The holding of the World Cup was favourable to the gross domestic product (GDP) of the US. Explain this by referring to the TWO demand side factors you mentioned in (c)(i). (6 marks)

1996/CE/1/12(c)

The government has organised a worker retraining programme for the unemployed. Explain, with ONE demand side factor and ONE supply side factor, the effect of such a programme on Hong Kong's GDP. (5 marks)

1997/CE/1/9(d)(i)

Suppose a general sales tax is introduced to finance the construction of the new railway. Explain the effect of this tax on Hong Kong's price level. (2 marks)

2004/CE/1/10(c)

To lessen the negative effect of SARS on our economy, the government partially rebated the salaries tax to taxpayers. Explain how the tax rebate could lead to an increase in the GDP of Hong Kong. (4 marks)

2005/CE/1/11(a)

Two measures included in the Closer Economic Partnership Arrangement or 'Cepa' are:

- I. Zero tariff on 90% of Hong Kong-made products to the Chinese mainland
- II. Faster / easier market entry to the Chinese mainland for Hong Kong-based service providers in 18 service sectors

As a result, overseas companies not based in Hong Kong can take advantage of Cepa by partnering with a Cepa-qualified manufacturer or service provider in Hong Kong.

Source : Hong Kong SAR Government, 8 January 2005

Explain, separately, how the above two measures would affect the gross domestic product of Hong Kong. (5 marks)

2007/CE/1/8(b)(ii)

The universities in Hong Kong do not only admit local students. Since last year, these universities have begun to admit a large number of top-quality Mainland students. Suppose all students pay the same tuition fees. Suppose these top-quality Mainland students stay and work in Hong Kong after their graduation and the total number of job positions in Hong Kong remains unchanged.

Give TWO reasons to explain how this situation would lead to an increase in the potential gross domestic product of Hong Kong. (2 marks)

2009/CE/1/10(a)

The direct cross-strait flights (兩岸直航) between mainland China and Taiwan introduced in 2008 facilitate the trading activities between these two places.

The GDP of Taiwan would probably increase with the introduction of the direct cross-strait flights. With reference to TWO demand-side factors, explain why there is such a possibility. (4 marks)

2010/CE/1/9(c)

Ocean Park Hong Kong is undergoing a major redevelopment plan. Ocean Park will expand to double the number of its attractions. In addition, Ocean Park is planning three themed hotels (the Spa Hotel, Ocean Hotel, and Fisherman's Wharf Hotel) in the area for an expected increase in visitors.

For each of the following situations explain your answer with reference to ONE demand-side factor. Why would the above expansion increase the gross domestic product (GDP) of Hong Kong

- (i) during the construction period? (2 marks)
- (ii) after the completion of the construction? (2 marks)

The following table shows the changes in the individual income tax system in China effective from October 2018.

Average tax rate	Range of monthly taxable income, in Renminbi (RMB)	
	Old brackets	New brackets
3%	Less than or equal to 1500	Less than or equal to 3000
10%	1501 – 4500	3001 – 12000
20%	4501 – 9000	12001 – 25000
25%	9001 – 35000	25001 – 35000
30%	35001 – 55000	Unchanged
35%	55001 – 80000	Unchanged
45%	Greater than 80000	Unchanged

- (b) Suppose there is a deflationary (output) gap in China economy. With the aid of an AS-AD diagram, explain how the above change of the individual income tax system would affect the deflationary (output) gap in the short run. (7 marks)
- (c) To achieve the same effect on the deflationary (output) gap as in part (b), an economist suggested the government should lower the required reserve ratio of banks instead of implementing the above change in tax system. Discuss the suggestion by giving ONE argument FOR and ONE argument AGAINST it. (4 marks)

2020/DSE/II/91

- (d) The contribution of the infrastructure development of Ocean Park to Hong Kong's GDP in 2019 could be smaller than the total amount invested in the two hotels and the water park. Explain why the statement may be correct with TWO reasons. (4 marks)

MARKING SCHEME

1990/CE/II/37 C	1993/CE/II/38 A	1997/CE/II/44 D	2001/CE/II/30 D	2008/CE/II/28 D (55%)
1991/CE/II/41 B	1993/CE/II/43 D	1997/CE/II/46 B	2004/CE/II/31 A (31%)	2019/DSE/II/27 A
1991/CE/II/45 B	1993/CE/II/51 A	2000/CE/II/34 C	2005/CE/II/30 C (73%)	2019/DSE/II/38 C
1992/CE/II/49 B	1997/CE/II/22 A	2000/CE/II/38 C	2006/CE/II/32 C (48%)	2020/DSE/II/27 C
2020/DSE/II/35 B	<i>Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.</i>			

1990/CE/II/34(b)(i)  
HK\$ depreciate  
⇒ Export prices ↓ (1)  
⇒ Export volume ↑ (2)  
⇒ Boom in export sector (2)  
⇒ Aggregate demand ↑ ⇒ price level ↑ (2)  
(max: 6)

1990/CE/II/05(b)(ii)  
↑ sales tax on all commodities ⇒ prices of all goods ↑ (2)  
↓ standard rate ⇒ income after tax of the rich ↑  
⇒ consumption ↑ ⇒ aggregate demand ↑ ⇒ general price level ↑ (4)

1992/CE/II/5(c)  
(ii) a continuous rise in the general price level (2)  
(iii) Construction of the airport  
⇒ ↑ in aggregate demand for resources / demand for workers (2)  
⇒ inflation occurs when Hong Kong is near full employment (2)

1994/CE/II/10(a)(ii)  
Local construction workers:  
- more job opportunities  
- income ↑  
Whole economy:  
- consumption expenditure ↑ / more business  
- GNP ↑  
- employment ↑  
- social capital ↑  
- higher economic growth  
(1@, max: 4)

1995/CE/1/9(c)

- (i) - consumption expenditure  
- investment expenditure  
- government expenditure  
- exports or net export  
- imports or net export  
(Mark the **FIRST TWO** points only.)

(1@, max: 2)

(ii) [Note: the answer must match with the answer to (c)(i)]

Consumption expenditure  $\uparrow \Rightarrow$  GDP  $\uparrow$  (1)

e.g. US residents spent more on food, hotel accommodation, traveling, souvenirs, etc. (2)

**OR**

Investment expenditure  $\uparrow \Rightarrow$  GDP  $\uparrow$  (1)

e.g. more investment in the provision of transport service, accommodation, food supplies, etc. (2)

**OR**

Government expenditure  $\uparrow \Rightarrow$  GDP  $\uparrow$  (1)

e.g. US government expenditure on infrastructure related to the event, expansion / maintenance of stadiums, etc. (2)

**OR**

Net exports  $\uparrow \Rightarrow$  GDP  $\uparrow$  (1)

e.g. more tourists' spending on transport, accommodation, food, clothing, souvenirs, etc. (2)

(3@, max: 6)

(Mark the **FIRST TWO** points only.)

1996/CE/1/12(c)

Demand-side factor:

- government expenditure (in current year) increases (2)

Supply-side factor:

- the labour productivity would be raised (2)

**OR**

- labour supply would increase because workers originally outside the labour force will be attracted (2)

(max: 2)

$\therefore$  GDP (both in current year and in future) would increase. (1)

(Mark the **FIRST** demand-side factor and the **FIRST** supply-side factor only.)

1997/CE/1/9(d)(i)

prices of most goods and services after tax  $\downarrow$  / cost of production  $\downarrow$  / supply of goods and services  $\downarrow$  (1)

$\therefore$  price level  $\uparrow$  (1)

2004/CE/1/10

After-tax income (i.e. "disposable income") increased. (2)

Consumption expenditure would increase. (2)

$\therefore$  GDP would increase.

2005/CE/1/11(a)

Zero tariff encourages more export of goods. (2)

Easier market entry encourages more investment. (2)

Both measures will increase the GDP of Hong Kong (1)

2007/CE/1/8(b)(ii)

- a larger labour force

- These top-quality Mainland students have a higher productivity.

- These top-quality Mainland students can increase the productivity of the local employees when they work together / brings

knowledge and new ideas to Hong Kong. (1@, max: 2)

[Mark the **FIRST TWO** points only]

2009/CE/1/10(a)

- net exports: more net exports (or more export of services) due to more tourists from mainland China  
- consumption: more earnings and income will boost consumption expenditure  
- investment: more investment (local and from the Mainland), e.g., more hotels and trading firms.  
- government expenditure: more government expenditure, e.g., more on infrastructure to facilitate the trade (2@, max: 4)

2010/CE/1/9(c)

(i) - more facilities (attractions) will be constructed  $\Rightarrow$  increase in investment expenditure (2)

(ii) - more tourists from mainland China and other places  $\Rightarrow$  increase in net exports (export of services)

**OR**

- more local visitors  $\Rightarrow$  increase in private consumption expenditure (2)

2019/DSE/1/10

(b) Verbal elaboration: (4)

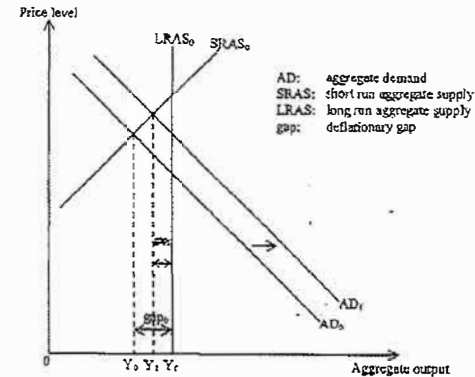
The middle income group is charged a lower average tax rate, their disposable income rises, consumption and aggregate demand increase, narrowing the deflationary gap.

Illustrate in the diagram:

- correct initial deflationary gap (1)

- AD shift rightward (1)

- correct new Y with a smaller gap (1)



For: Pros of the monetary policy OR Cons of the fiscal policy (2)

- The monetary policy increases Y via investment which will help enhance present/future productivity (while the tax policy may not have such an effect).

- The tax policy may worsen the fiscal balance of the government (while the monetary policy will not have such an effect).

- any other relevant point

Against: Pros of the fiscal policy OR Cons of the monetary policy (2)

- The tax policy may narrow the income gap (while the monetary policy won't have such an effect).

- Bank loans and money supply may not increase even if there is a fall in the required reserve ratio (while the tax policy will not be affected by the action of commercial banks).

- any other relevant point

D ) The investment may include importer raw material which is not the contribution of local resident producing unit.

The investment may include the value of inventories which are not produced in current year.

The investment may include the value of intermediate goods ( electricity and other raw materials ) which are the contribution of other resident producing unit.

( Mark the first 2 answers ) ( 3 marks )

## 6.2 LONG RUN AND SHORT-RUN EQUILIBRIUM

### Multiple Choice Questions

1994/AL/II/9

The existence of a deflationary gap indicates that

- (1) the equilibrium income is below the full employment income.
- (2) a surplus budget should be used to eliminate the gap.
- (3) the economy has insufficient aggregate demand to achieve full employment.
- (4) the real income is smaller than the nominal income.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1997/AL/II/21

Which of the following policies can be used to offset the effect of an increase in the saving of the households on the national income of an economy?

- A. an increase in the tax rate.
- B. a decrease in money supply.
- C. sales of government bonds by the central bank.
- D. a cut on the required reserve ratio of the banking sector.

1999/AL/II/4

The existence of an inflationary gap indicates that

- A. there is a gap between the actual inflation rate and the expected inflation rate.
- B. there is a gap between real income and nominal income, and the gap is caused by inflation.
- C. there is excess demand for aggregate output at the full employment level of income, which therefore falls short of the equilibrium level of income.
- D. All of the above.

2000/AL/II/20

Which of the following can raise the employment level of an economy?

- (1) export promotion
- (2) increase in foreign investment in the economy
- (3) reduction in the income tax rate

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2001/AL/11/14

Suppose country A and country B trade with each other and the imports of each country are a function of its own national income. If there is an increase in investment expenditure in country A, then

- A. the national income of both country A and country B will increase.
- B. the national income of country A increases but the national income of country B remains unchanged.
- C. the national income of country A increases but the national income of country B may either increase or decrease.
- D. the national income of each country may either increase or decrease.

2012/AL/11/30

With the existence of a deflationary gap

- A. real income is lower than nominal income.
- B. the economy has a rising deflation rate.
- C. the economy has insufficient aggregate demand to achieve full employment.
- D. the government can employ a surplus budget to eliminate the gap.

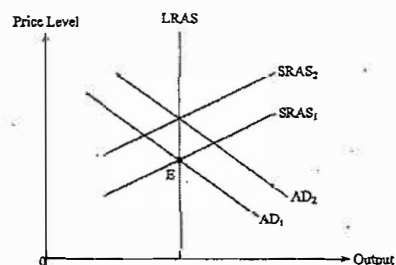
2012/DSE/11/25

Which of the following will lead to a decrease in aggregate demand?

- A. a rise in private saving
- B. a rise in investment expenditure
- C. a fall in imports
- D. a fall in the progressivity of income tax

2012/DSE/11/26

The diagram below shows the aggregate demand (AD) curves, the short run aggregate supply (SRAS) curves and the long run aggregate supply (LRAS) curve of a country. Point E is the initial equilibrium point.



When there is an economic recovery in the country's major trading partner, \_\_\_\_\_ in the short run and \_\_\_\_\_ in the long run.

- A. AD<sub>1</sub> will shift to AD<sub>2</sub> ..... SRAS<sub>1</sub> will shift to SRAS<sub>2</sub>
- B. AD<sub>1</sub> will shift to AD<sub>2</sub> ..... AD<sub>2</sub> will shift back to AD<sub>1</sub>
- C. SRAS<sub>1</sub> will shift to SRAS<sub>2</sub> ..... AD<sub>1</sub> will shift to AD<sub>2</sub>
- D. SRAS<sub>1</sub> will shift to SRAS<sub>2</sub> ..... SRAS<sub>2</sub> will shift back to SRAS<sub>1</sub>

2012/DSE/11/34

Suppose the government spends \$3 billion on the construction of a cruise terminal which is financed from its reserves. This will result in

- (1) an increase in aggregate output in the short run.
- (2) an increase in aggregate output in the long run.
- (3) an increase in employment in the short run.
- (4) a budget deficit in the years of construction.

- A. (1) and (3) only
- B. (2) and (4) only
- C. (1), (2) and (3) only
- D. (1), (3) and (4) only

2012/DSE/11/36

Which of the following can offset the effect of a decrease in income tax rate on aggregate demand?

- A. a decrease in the asset demand for money
- B. a decrease in the desire to import
- C. an increase in the desire to invest
- D. an increase in the required reserve ratio

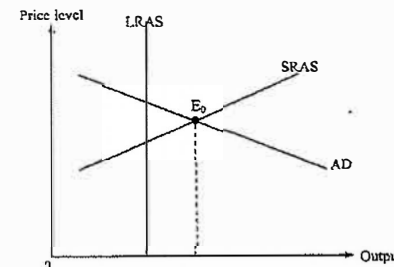
2013/DSE/11/23

The aggregate demand curve will shift to the right if

- A. there is a fall in the price level
- B. there is an improvement in technology
- C. the government reduces the import tariff
- D. the government reduces the salaries tax rate

2013/DSE/11/24

The diagram below shows the aggregate demand (AD) curves, the short run aggregate supply (SRAS) curve and the long run aggregate supply (LRAS) curve of an economy.

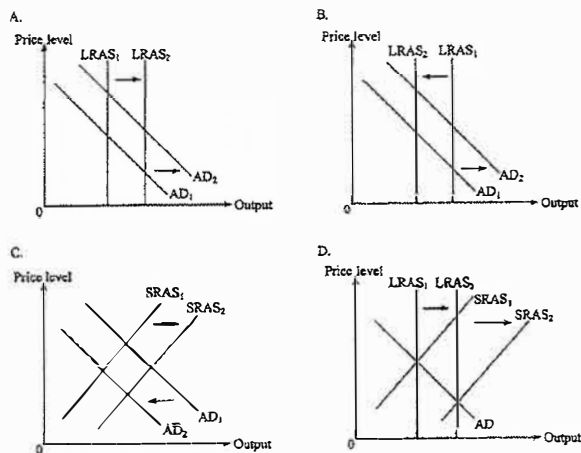


Suppose initially the economy operates at E<sub>0</sub>. There is a/an \_\_\_\_\_ and \_\_\_\_\_ can help restore the long run equilibrium.

- A. inflationary (output) gap ..... a rise in transfer payments to the poor
- B. inflationary (output) gap ..... a rise in the discount rate
- C. deflationary (output) gap ..... a rise in transfer payments to the poor
- D. deflationary (output) gap ..... a rise in the discount rate

2013/DSE/1/29

Suppose the government greatly increases the tax allowance on continuing education. Which of the following can best explain the effect of the above change on the price and output levels?

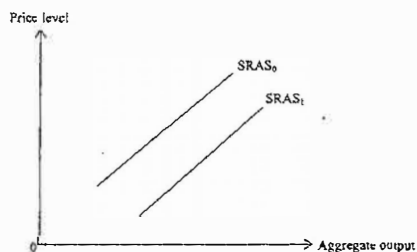


2013/DSE/1/30

If there is a decrease in the desire to consume, the net exports of an economy will \_\_\_\_\_ and the amount of money held for transaction purposes will \_\_\_\_\_.

- A. decrease ..... decrease
- B. decrease ..... remain constant
- C. increase ..... increase
- D. increase ..... decrease

2014/DSE/1/27



Refer to the above diagram. Which of the following would most likely lead to the shift of the short run aggregate supply curve from  $SRAS_0$  to  $SRAS_1$ ?

- A. to relax the quota for foreign domestic helpers
- B. to reduce the subsidy in research and development
- C. to increase the profits tax rate
- D. to increase the number of places in tertiary education

2014/DSE/1/28

Old Age Living Allowance (長者生活津貼) introduced by the Hong Kong government increases the \_\_\_\_\_ in GDP and results in a \_\_\_\_\_ shift of the aggregate demand curve.

- A. government consumption expenditure ..... rightward
- B. government consumption expenditure ..... leftward
- C. private consumption expenditure ..... rightward
- D. private consumption expenditure ..... leftward

2014/DSE/1/29

If there is a decrease in national income of a major trading partner of an economy, the employment of the economy will \_\_\_\_\_ and the price level will \_\_\_\_\_ in the short run.

- A. increase ..... increase
- B. increase ..... decrease
- C. decrease ..... increase
- D. decrease ..... decrease

2014/DSE/1/34

Deflationary (output) gap

- A. will be widened when there is a depreciation of the domestic currency.
- B. will be eliminated by a rightward shift of the aggregate demand curve when the market adjusts from short run equilibrium to long run equilibrium.
- C. will result in a downward pressure on the prices of inputs.
- D. will exist if the aggregate demand falls short of the short run aggregate supply.

2014/DSE/1/35

Which of the following policies can the government introduce to reduce the price and unemployment levels at the same time?

- A. to raise the discount rates
- B. to raise the subsidies to small and medium-sized enterprises
- C. to raise the salaries tax rate
- D. to raise the expenditure on social welfare

2014/DSE/1/38

Which of the following government policies will lead to an increase in the aggregate output of a country in the long run?

- (1) to tighten regulations on environmental protection
  - (2) to grant an amnesty (特赦) to illegal immigrants
  - (3) to ban the importation of foreign domestic helpers
  - (4) to build more international schools for attracting expatriates to work in the country
- A. (1) and (3) only
  - B. (1) and (4) only
  - C. (2) and (3) only
  - D. (2) and (4) only

2015/DSE/1/26

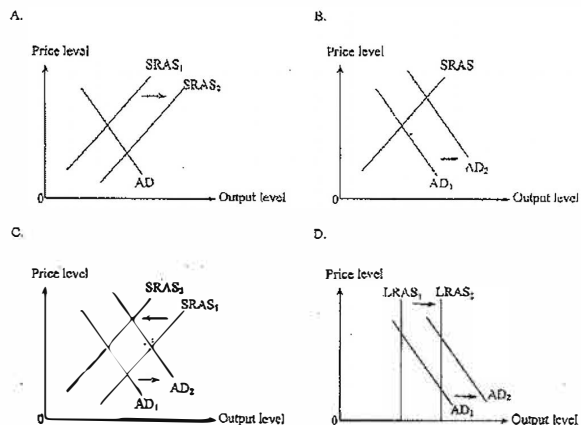
Which of the following will result in a rightward shift of the aggregate demand curve of a country?

- A. The central bank reduces the discount rate.
- B. The minimum wage rate is increased.
- C. The general price level decreases.
- D. Its trading partners suffer from an economic recession.



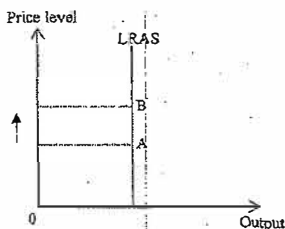
2015/DSE/1/27

The government provides cash subsidies for new-born children from their birth to age 10. Which of the following diagrams best illustrates the effect of the subsidies on the economy after twenty years?



2015/DSE/1/37

Refer to the following aggregate supply diagram.



When the economy moves from point A to point B, which of the following will NOT change?

- (1) real output
  - (2) nominal output
  - (3) potential output
- A. (1) only  
B. (2) only  
C. (1) and (3) only  
D. (1), (2) and (3)

2015/DSE/1/38

Initially an economy operates at the long-run equilibrium. Which of the following will lead to a deflationary (output) gap in the economy?

- A. The government increases the salaries tax rate.  
B. The government reduces the profits tax rate.  
C. The government invests in the construction of a cross-border express raillink.  
D. The central bank reduces the required reserve ratio.

2015/DSE/1/39

In an economy with severe inflation and income inequality, the government can lower the price level and reduce the income gap by

- A. increasing the environmental tax on handling household sewage.  
B. increasing the salaries tax and its progressivity.  
C. reducing its spending on social welfare.  
D. reducing the personal allowance of the salaries tax.

2016/DSE/1/26

The aggregate demand of a country will drop if

- A. the price level of the country rises.  
B. the currency of its major trading partner appreciates.  
C. the government spending on social welfare rises.  
D. the required reserve ratio rises.

2016/DSE/1/27

If the government builds new infrastructures, there will be an increase in

- (1) employed population during the construction period.
- (2) the price level during the construction period.
- (3) potential output after the construction is completed.
- (4) the price level after the construction is completed.

- A. (1) and (2) only  
B. (3) and (4) only  
C. (1), (2) and (3) only  
D. (1), (2), (3) and (4)

2016/DSE/1/28

The 'multiple entry permit' (一簽多行) for the permanent Shenzhen residents to visit Hong Kong has been replaced by a 'one trip per week cap' (一週一行). This would reduce Hong Kong's \_\_\_\_\_ and \_\_\_\_\_.

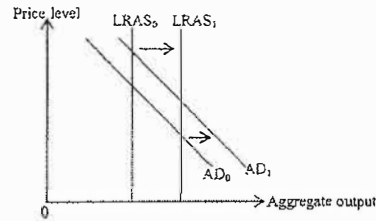
- A. aggregate demand ..... output level in the long run  
B. aggregate demand ..... price level in the long run  
C. short-run aggregate supply ..... output level in the short run  
D. long-run aggregate supply ..... output level in the long run

2017/DSE/1/28

The aggregate demand curve of Hong Kong will shift to the left if

- A. the implicit GDP deflator rises continuously.  
B. the government raises the retirement age of all civil servants.  
C. the number of tourists from the Mainland decreases.  
D. the Mainland stock market booms.

2017/DSE/I/29



The diagram above shows the aggregate demand curves and long run aggregate supply curves of an economy. Which of the following best explains the above changes?

- A. a decrease in people's desire to save
- B. an enhancement in production technology
- C. an increase in national income of the economy's trading partners
- D. an increase in government subsidy on private research and development

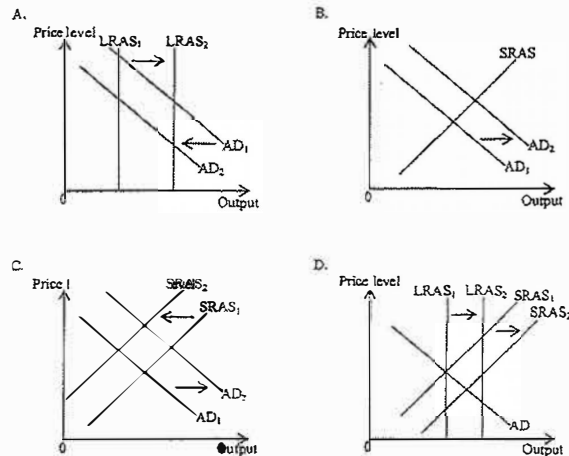
2017/DSE/I/37

Which of the following policies would most likely lead to a drop in aggregate output?

- A. The government bought bonds from the public and raised the tax allowance at the same time.
- B. The government sold bonds to the public and reduced transfer payment to the poor at the same time.
- C. The government reduced required reserve ratio and raised the progressivity of income tax at the same time.
- D. The government increased the discount rate and lowered profits tax rate at the same time.

2017/DSE/I/40

In his 2016-17 Budget, the Financial Secretary proposed to waive business registration fees for 2016-17. At the same time, the personal basic tax allowance was raised from \$120 000 to \$132 000. Which of the following best illustrates the effect of the above changes on the price and output levels?



2018/DSE/I/26

The short run aggregate supply curve will shift to the right if

- A. the government relaxes the importation quota of foreign workers.
- B. the government increases the profits tax rate.
- C. the central bank sells government bonds to the public.
- D. there is an increase in the price level.

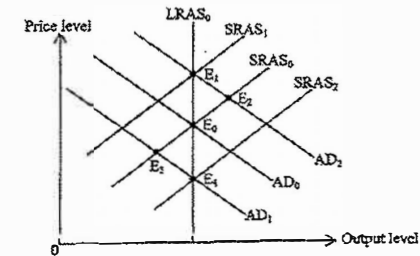
2018/DSE/I/27

Which of the following will lead to an increase in both price level and aggregate output in the short run?

- A. There is an improvement in production technology.
- B. There is an increase in the oil price.
- C. There is a decrease in money supply.
- D. There is a decrease in the desire to save.

2018/DSE/I/28

The diagram below shows the aggregate demand (AD) curves, short run aggregate supply (SRAS) curves and the long run aggregate supply (LRAS) curve of an economy. The economy initially operates at  $E_0$ .



If the government gives \$10 000 cash to every citizen every year, the short-run equilibrium will be at \_\_\_\_\_ and the long-run equilibrium will be at \_\_\_\_\_.

- A.  $E_2$  .....  $E_0$
- B.  $E_2$  .....  $E_1$
- C.  $E_3$  .....  $E_0$
- D.  $E_3$  .....  $E_4$

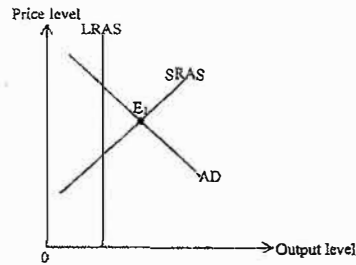
2018/DSE/I/38

Suppose there is a reduction in the basic allowance of the salaries tax in an economy. Which of the following can offset its effect on aggregate demand?

- A. People's desire to save increases.
- B. The price level decreases.
- C. The central bank carries out an open market sale of government bonds.
- D. The required reserve ratio in the banking system decreases.

2018/DSE/1/39

Refer to the AS-AD diagram below.



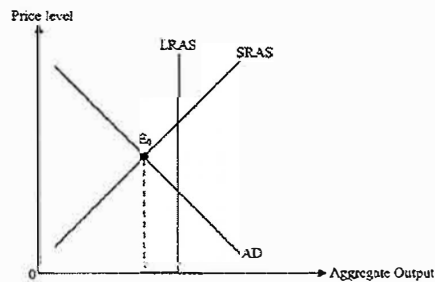
The economy operates at  $E_1$  initially. Which of the following can help the economy restore to the long run equilibrium?

- (1) to reduce the subsidies to small enterprises
- (2) to increase the required reserve ratio
- (3) to reduce the discount rate
- (4) to reduce property tax

- A. (1) and (2) only
- B. (3) and (4) only
- C. (1), (2) and (3) only
- D. (2), (3) and (4) only

2020/DSE/1/36

The diagram below shows the aggregate demand curve, the short run aggregate supply curve and the long run aggregate supply curve of an economy.



Suppose the economy initially operates at  $E_0$  and the total import value equals to the total export value. If the government decreases the amount of social security assistance for the elderly, in the short run, the deflationary (output) gap will become \_\_\_\_\_ and there will be a \_\_\_\_\_.

- A. narrower ..... trade surplus
- B. narrower ..... trade deficit
- C. wider ..... trade surplus
- D. wider ..... trade deficit

Short & Structured Questions

2012/DSE/11/10(c)

In 2011, the Financial Secretary announced the "Scheme \$6 000" which provides \$6 000 to each Hong Kong permanent resident who is 18 years old or above.

With the aid of a diagram, explain how the "Scheme \$6 000" would affect the price and output levels of Hong Kong in the long run. (8 marks)

2013/DSE/11/4

(a) Give ONE reason to explain why the aggregate demand curve is downward sloping. (3 marks)

(b) Suppose there is an increase in the price of raw materials. With reference to the market adjustment mechanism from the short run equilibrium to the long run equilibrium, explain the long run effect of the above change on the price level with the aid of Figure 1. (9 marks)

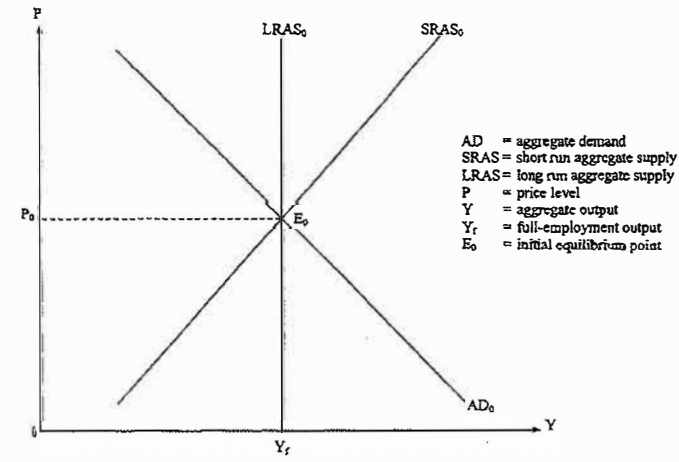


Figure 1

- AD = aggregate demand
- SRAS = short run aggregate supply
- LRAS = long run aggregate supply
- P = price level
- Y = aggregate output
- $Y_f$  = full-employment output
- $E_0$  = initial equilibrium point

2013/DSE/11/12(c)

With the aid of an aggregate-demand-aggregate-supply diagram, explain the short run effects of an upward adjustment of the required reserve ratio on output and the price level of the economy. (8 marks)

2014/DSE/11/10(b)

Source 2 below is an extract from a newspaper article.

Addressing the potential threat brought about by the trends of the birth rate and old dependency ratio in China, government officials are considering relaxing the one-child policy in an effort to boost the birth rate.

"The policy restricts urban couples to only one child, while allowing additional children in several cases, including twins, rural couples, ethnic minorities, and couples who are both the only child in their respective families."

With reference to Source 2, discuss the possible effect on the aggregate output in the long run as a result of the relaxation of the one-child policy. (3 marks)

2014/DSE/II/12(c)

The Prime Minister of Japan, Shinza Abe, adopted a series of policy measures in 2013 to expand the Japanese economy. One of the policy measures was stepping up the scale of the purchase of government bonds and other financial assets by the central bank.

What would be the short run effects of the above policy on the output and price levels of the Japanese economy? Explain your answer with the aid of an aggregate-supply-aggregate-demand diagram. (8 marks)

2015/DSE/II/8

The government is considering spending a certain sum of its budget surplus on the following two proposals:

Proposal 1: To extend the free education to 15 years

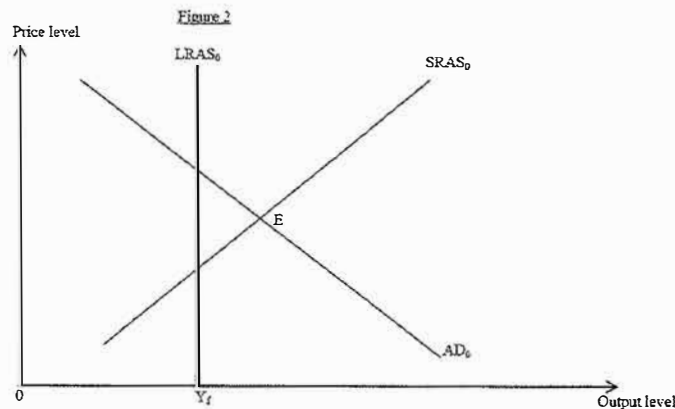
Proposal 2: To provide unemployment benefits

Evaluate the two proposals in terms of the effect on aggregate output. (4 marks)

2015/DSE/II/12

Research shows that the "Individual Visit Scheme" of mainland tourists has brought economic benefits to Hong Kong.

An economist uses the AS-AD model to analyse the current situation in Hong Kong. In his analysis, point E in Figure 2 represents the initial short-run equilibrium of the Hong Kong economy.



(b) He points out that the government can help the economy restore to its long-run equilibrium. With the aid of Figure 2, explain how the reduction in the number of tourists from the mainland can lower the output level to  $Y_f$ . (5 marks)

(c) He also states that even without the help of the government, market forces can restore the economy to its long-run equilibrium. WITHOUT using a diagram, explain how market forces can lower the output level to  $Y_f$  in the long run. (4 marks)

2016/DSE/II/5

Explain, with ONE reason, why the short-run aggregate supply curve is upward-sloping. (3 marks)

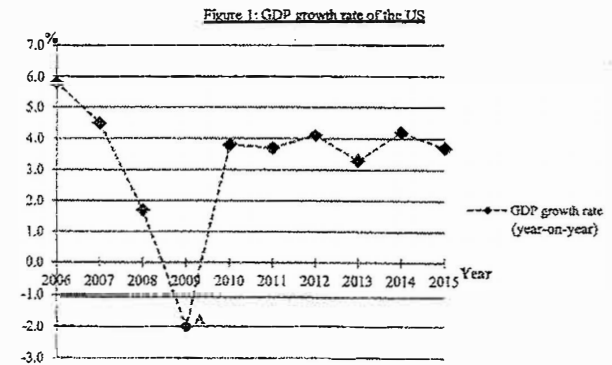
2016/DSE/II/12(b)

The Macau government implements a cash-sharing scheme, under which every resident receives cash from the government.

With the aid of an AS-AD diagram, explain how the cash-sharing scheme would affect output and price levels in the short run. (6 marks)

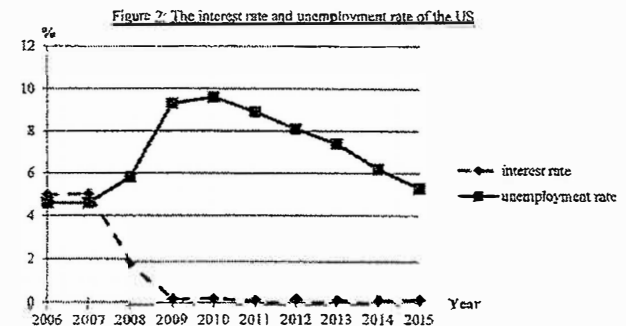
2017/DSE/II/9

Figures 1 and 2 show some macroeconomic data of the US.



(a) Refer to Figure 1. Identify the phase of business cycle which point A is in. (1 mark)

(b) How may a reduction in interest rate help the US economy in 2009? Without using a diagram, explain your answer in the light of aggregate supply and/or aggregate demand. (3 marks)



(c) Discuss whether the data in Figures 1 and 2 are consistent with your answer in (b). (4 marks)

(d) Suggest ONE policy that will help increase the aggregate output in the long run. Briefly explain your answer. (2 marks)

2017/DSE/II/12(b)

Before the British people voted against staying in the European Union (EU), i.e. Brexit, workers from the EU were free to work in Britain and vice versa. Brexit has shocked the economies in Europe and the following table shows some views on Brexit:

British politicians : Low-skilled EU workers should be required to apply for a visa to work in Britain.

British firm owners : The new visa requirement for EU workers affects most of the firms in the British economy.

Global investors : Political uncertainty in Britain increases the risk of investment projects there.

Referring to the views of the British firm owners and global investors, discuss the effect of Brexit on the aggregate output of Britain in the short run with the aid of a diagram. (3 marks)

2017/DSE/II/13(b)

To finance the scheme, there are different proposals which include:

- Proposal A: increase the standard tax rate and the progressivity of salaries tax
- Proposal B: use the fiscal reserves in the government

Discuss the effects of these two proposals on economic variables which include

(i) aggregate output

(4 marks)

2018/DSE/II/9

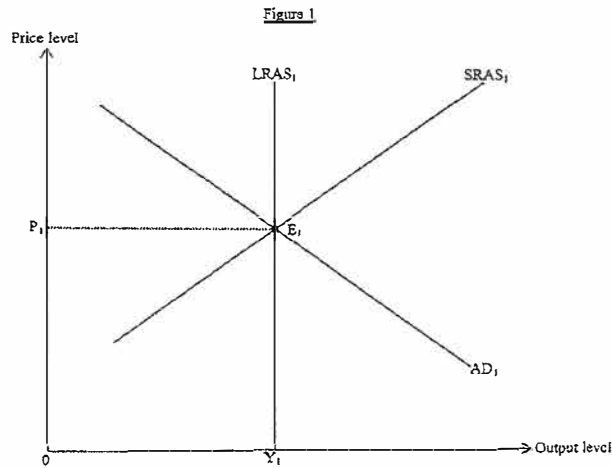
The Express Rail Link (XRL) project (Hong Kong Section) is expected to be completed in 2018. It will shorten the estimated journey time between Hong Kong and various Mainland cities. Below are some opinions on the XRL project.

Government officials : With better infrastructure, the overall economic development of Hong Kong will be enhanced.

Small medium enterprise owners : We expect that the XRL could bring more Mainland travellers to Hong Kong.

Suppose the Hong Kong economy operates at  $E_1$ . With reference to the above opinions, show why the price level of Hong Kong may rise in the long run after the completion of XRL project in Figure 1.

(3 marks)



2018/DSE/II/11

To develop nuclear weapons and increase the military power, Country Z has raised the proportion of government spending on national defence from 10% to 20%. All males aged from 20 -25 are also required to join the military force for 2 years.

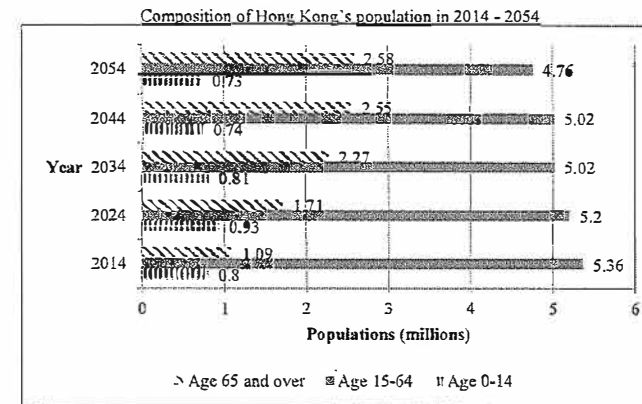
In response to the increasing military threat from Country Z, the United Nations has passed a bill to embargo most of the goods exporting from Country Z.

Analyse the effects of the above situation on Country Z's aggregate output in the short run.

(3 marks)

2018/DSE/II/13(a)(i)

The source below shows Hong Kong's population projection.

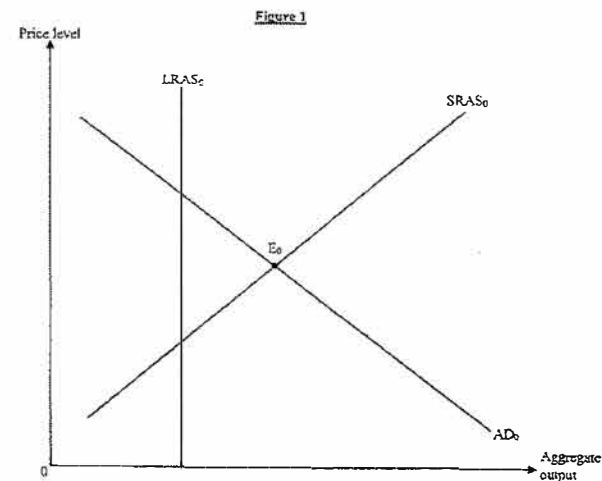


With reference to the above source, briefly discuss the possible effects of the change in composition of population on potential output in the future.

(3 marks)

2020/DSE/II/6

Refer to Figure 1.



Suppose an economy initially operates at  $E_0$ . With the aid of Figure 1, explain how market forces can restore the aggregate output level to the full-employment output level in the long run.

(5 marks)

The first hotel in Ocean Park was launched in 2018 while the second hotel and the water park were scheduled to be opened before 2021. It is expected that such infrastructure development can attract more tourists to stay longer in Hong Kong.

- (b) Other things being equal, what will be the effects of the infrastructure development on Hong Kong's aggregate demand and long run aggregate supply in the future? How about on aggregate output? Explain your answers with the aid of a diagram. (8 marks)

MARKING SCHEME

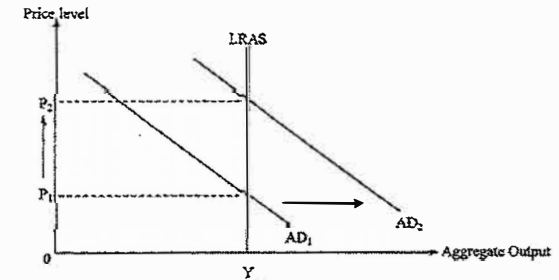
1994/AL/II/9 A	2012/DSE/II/34 C (51%)	2014/DSE/II/29 D (69%)	2015/DSE/II/39 B (84%)	2018/DSE/II/26 A (80%)
1997/AL/II/21 D	2012/DSE/II/36 D (52%)	2014/DSE/II/34 C (42%)	2016/DSE/II/26 D (65%)	2018/DSE/II/27 D (76%)
1999/AL/II/4 C	2013/DSE/II/23 D (76%)	2014/DSE/II/35 B (67%)	2016/DSE/II/27 C (57%)	2018/DSE/II/28 B (80%)
2000/AL/II/20 D	2013/DSE/II/24 B (65%)	2014/DSE/II/38 D (75%)	2016/DSE/II/28 B (64%)	2018/DSE/II/38 D (58%)
2001/AL/II/14 A	2013/DSE/II/29 A (56%)	2015/DSE/II/26 A (62%)	2017/DSE/II/28 C (76%)	2018/DSE/II/39 A (65%)
2012/AL/II/30 C (79%)	2013/DSE/II/30 D (59%)	2015/DSE/II/27 D (68%)	2017/DSE/II/29 D (60%)	2020/DSE/II/ C
2012/DSE/II/25 A (72%)	2014/DSE/II/27 A (61%)	2015/DSE/II/37 C (59%)	2017/DSE/II/37 B (66%)	
2012/DSE/II/26 A (73%)	2014/DSE/II/28 C (48%)	2015/DSE/II/38 A (73%)	2017/DSE/II/40 B (45%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2012/DSE/II/10(c)

People's consumption expenditure increases as their disposable income increases.  
Aggregate demand increases.  
The price level increases, but aggregate output remains unchanged in the long run.

(2)  
(1)  
(2)



Indicate in the diagram:

- AD shifts out
- Vertical LRAS
- P increases and Y unchanged

(1)  
(1)  
(1)

2013/DSE/11/4

- (a) **Wealth effect:** As many of the assets in the economy are denominated in nominal values, the higher the price level, the lower the purchasing power of money. This reduces the wealth of the economy (in real terms). As a result, households and firms reduce their purchases of all goods and services and the real output drops.

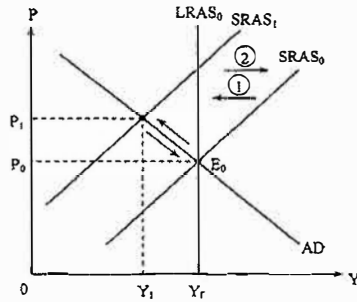
**OR**

**Interest rate effect:** As the price level rises, households and firms demand more money to finance their transactions. Given the fixed supply of money, the interest rate would rise. An increase in interest rate would cause decline in investment and consumption and also the real output.

**OR**

**Net exports effect:** As the domestic price level rises, foreign-made goods become relatively cheaper so the quantity demanded of imports increases. However, the rise in the domestic price level also means that domestic-made goods are relatively more expensive to foreign buyers so the quantity demanded of exports decreases. When the volumes of exports decrease and of imports increase, net exports will decrease, so as the real output. (3)

- (b) Increase in the price of raw materials results in a rise in factor prices. So the SRAS will decrease. Price level increases and the output will fall in the short run. The resulting excess supply of labour / deflationary (output) gap will result in a downward pressure on the input prices. In the long run, wages will adjust downward and the SRAS will increase and the price level will fall back to the original level. (5)



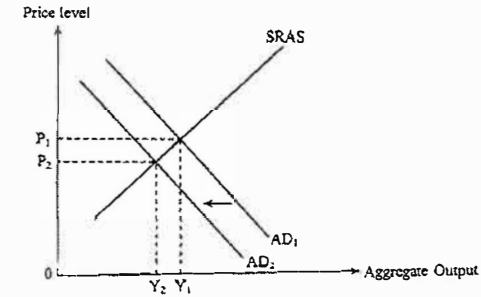
Indicate in the diagram:

- SRAS shifts to the left
- P increases, Y drops
- SRAS shifts back to the original position
- final fall in P, back to the original level

- (1)
- (1)
- (1)
- (1)

2013/DSE/11/12(c)

- An upward adjustment of required reserve ratio reduces the money supply, resulting in an increase in interest rate and a drop in investment expenditure. (3)  
The aggregate demand will fall, and so will the price level and output level. (2)



Indicate in the diagram:

- AD shifts to the left
- price level falls
- output level falls

- (1)
- (1)
- (1)

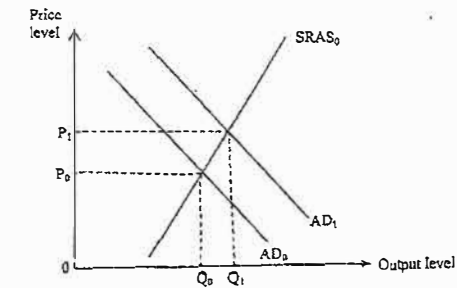
2014/DSE/11/10(b)

- Relaxation of one-child policy would likely result in a rise in the birth rate, implying a bigger work force and a bigger aggregate supply and output in the future. (3)

2014/DSE/11/12(e)

- The purchase of government bonds increases money supply, resulting in a drop in the interest rate. Investment / consumption expenditure increases and aggregate demand increases. (2)  
In the short run, the output and price levels increases. (2)

- (2)
- (2)
- (1)



Indicate on the diagram:

- AD curve shifts to the right
- higher price level
- higher output

- (1)
- (1)
- (1)

2015/DSE/II/8

Proposal 1:

More money spent on education would increase government expenditure, leading to an increase in aggregate demand and thus aggregate output.

OR

Free education for longer years would improve labour productivity and thus aggregate output over time.

OR

Provision of free education beyond normal school age would reduce labour supply (by keeping more people at school) and thus aggregate output in the current period. (2)

Proposal 2:

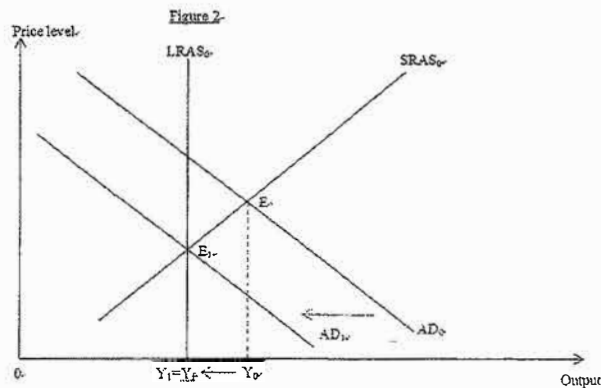
Unemployment benefits would increase the disposable income and consumption of the jobless, and thus aggregate demand, resulting in a rise in aggregate output.

OR

Unemployment benefits may, however, produce disincentive effects on labour supply, resulting in de-skilling of labour and a drop in aggregate output now and in the future. (2)

2015/DSE/II/12

- (b) Export would fall. (1)  
resulting in a drop in aggregate demand, (1)  
so output would fall back to  $Y_0$ . (1)



Indicate on the diagram:

- AD curve shifts to the left (1)
- correct position of initial short-run aggregate output  $Y_0$  (1)
- correct position of new short-run aggregate output  $Y_1 (=Y_1)$  (1)

- (c) Hong Kong is facing an inflationary gap. (1)  
There is an excess demand in the factor market. (1)  
creating pressure for factor prices to adjust upwards, (1)  
so that costs of production would increase over time and short-run aggregate supply (SRAS) would fall over time (1)  
(. restoring output to  $Y_1$  in the long run). (1)

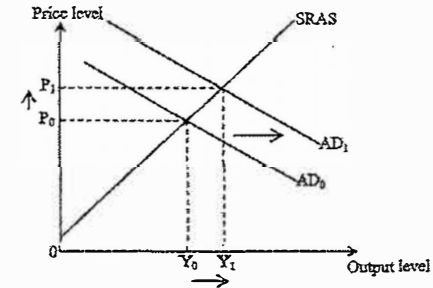
2016/DSE/II/5

When the price level increases, the adjustment of input prices is imperfect / incomplete (e.g. due to the long term contracts of factor of production), so the real cost of production – i.e. nominal cost divided by the general price level – will fall. Firms would thus use more factor inputs to produce larger output. Therefore, the SRAS curve is upward-sloping, i.e. a higher price level would result in a higher output level. (3)

2016/DSE/II/12(b)

The cash-sharing scheme would raise the disposable income of the residents and therefore result in an increase in consumption. (2)

Aggregate demand would rise, raising price and output levels accordingly. (2)



Indicate in the diagram:

- rightward shift of AD (1)
- higher P and Y (1)

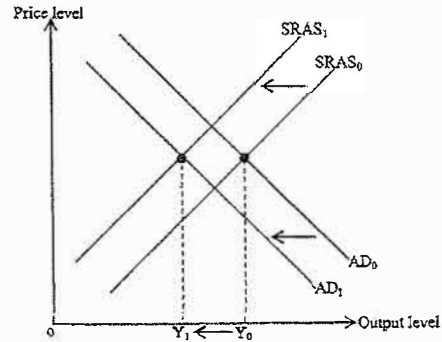
2017/DSE/II/9

- (a) Depression / trough (1)
- (b) A reduction in interest rate would result in a rise in investment and/or consumption. (1)  
Aggregate demand would thus increase, and so would aggregate output as well. (2)
- (c) Consistent. (1)  
When interest rate dropped in 2009, GDP growth rate increased and unemployment rate dropped. (3)
- (d) - Subsidizing research and development (1)  
- importation of labour (1)  
- investment in infast assets (1)  
[Mark the FIRST policy only.] (1)  
could increase potential output or production capacity of the economy as a whole in the long run, and thus shift LRAS rightwards. (1)



2017/DSE/II/12(b)

The new visa requirement would increase labour cost for the British firm owners, resulting in a drop in SRAS. (2)  
Political uncertainty would result in a drop in investment from the global investors and thus a fall in AD. (2)  
Aggregate output would thus fall. (1)



Indicate in the diagram:

- leftward shift of AD curve (1)
- leftward shift of SRAS curve (1)
- lower output (1)

2017/DSE/II/13(b)

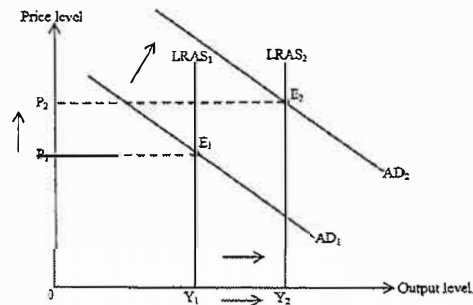
Proposal A's effect on aggregate output:  
An increase in salaries tax would reduce AD via a drop in disposable (after-tax) income and thus consumption. As a result, aggregate output would fall. (4)

[An increase in salaries tax may also reduce SRAS by creating a disincentive effect on labor.]

Proposal B's effect on aggregate output:

There would be no extra effect on aggregate output as a component of AD/AS does not change. (2)

2018/DSE/II/9



Indicate in the diagram:

- rightward shift of AD (due to more visitors from the Mainland) (1)
- rightward shift of LRAS (due to faster development of the HK economy) (1)
- correct position of P2 (at E2), with a bigger horizontal shift in AD than in LRAS (1)

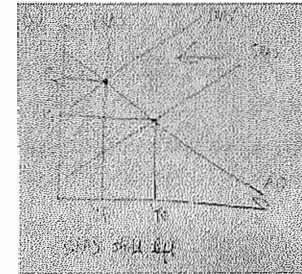
2018/DSE/II/11

The SRAS curve would decrease, as less labour is available for production. (1)  
The AD curve would also decrease, as the UN embargo reduces exports from Country Z. (1)  
As a result, aggregate output would fall. (1)

2018/DSE/II/13(a)(i)

Potential output would drop as the working-age population gradually decreases. (from 5.36M in 2014 to 4.76M in 2054) (2)

2020/DSE/II/6



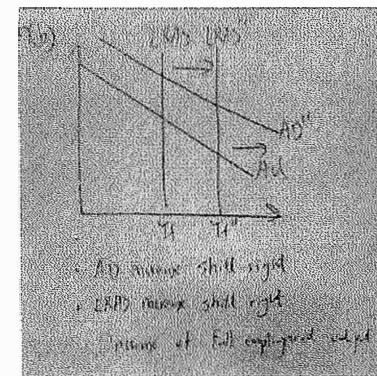
Inflationary gap exist as short run output is larger than full employment output

Excess demand in labor market will drive up input price. ( 1 mark )

Production cost of firms increase and SRAS decrease and shift left ( 1 mark )

Short run output will decrease to full employment output level to close the inflationary gap ( 1 mark )

2020/DSE/II/9B



B) Infrastructure development will boost Government consumption expenditure ( eg. Employment of more workers ) and Gross investment expenditure ( purchase of more capital good ). Both G and I will increase the aggregate demand and the aggregate demand curve will shift rightward. ( 3 marks )

The construction of infrastructure will increase the quantity of factor endowment of an economy hence the production capacity will increase. LRAS increase and shift rightward. Full employment level will increase. ( 3 marks )

### 6.3 FISCAL BALANCE AND TRADE BALANCE

#### Multiple Choice Questions

1996/AL/II/26

If a country has a trade deficit, a rise in national income will

- A. enlarge the trade deficit.
- B. narrow the trade deficit.
- C. achieve an equilibrium in its balance of payments.
- D. increase the value of net exports.

2003/AL/II/26

Which of the following can explain the co-existence of unemployment, budget deficit and trade deficit?

- A. a fall in consumption expenditure
- B. a fall in investment expenditure
- C. a fall in exports
- D. a fall in government expenditure

2012/DSE/II/31

In an open economy, the government expenditure is equal to tax revenue and the value of exports is equal to the value of imports. If there is an increase in private consumption expenditure, the government will have \_\_\_\_\_ and there will be \_\_\_\_\_.

- A. a budget deficit ..... a trade deficit
- B. a budget deficit ..... a trade surplus
- C. a budget surplus ..... a trade deficit
- D. a budget surplus ..... a trade surplus

2013/DSE/II/31

Initially an economy operates at the full-employment equilibrium and the government expenditure equals its tax revenue. Which of the following will result in a co-existence of deflationary (output) gap and budget deficit?

- A. a reduction in taxes
- B. a reduction in money supply
- C. a reduction in government expenditure
- D. a reduction in desire to import

2016/DSE/II/39

Suppose Country A initially operates at the full-employment equilibrium and the fiscal budget of the government is balanced. In the short run, an economic recovery of Country A's trading partners will result in \_\_\_\_\_ and \_\_\_\_\_ of Country A.

- A. an inflationary (output) gap ..... a fiscal surplus
- B. an inflationary (output) gap ..... a fiscal deficit
- C. a deflationary (output) gap ..... a fiscal surplus
- D. a deflationary (output) gap ..... a fiscal deficit

2016/DSE/II/40

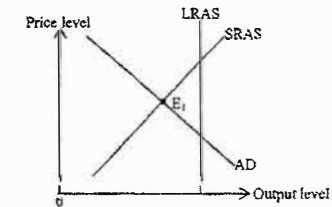
Under which of the following situations may a fiscal deficit and a trade deficit be eliminated at the same time?

- (1) a decrease in nominal interest rate
- (2) a depreciation of the economy's currency
- (3) an increase in income tax

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2017/DSE/II/39

The diagram below shows the aggregate demand curve, the short run aggregate supply curve and the long run aggregate supply curve of an economy.



Suppose the economy initially operates at  $E_1$  and the total import value equals total export value. If the government decreases the social security assistance to the elderly, in short run, the deflationary (output) gap will be \_\_\_\_\_ and there will be a \_\_\_\_\_.

- A. narrower ..... trade surplus
- B. wider ..... trade deficit
- C. narrower ..... trade deficit
- D. wider ..... trade surplus

2018/DSE/II/36

Suppose a deflationary (output) gap and a fiscal deficit exist in a country. Which of the following would narrow the deflationary (output) gap and reduce the fiscal deficit at the same time?

- A. increasing government expenditure on infrastructure
- B. reducing the profits tax rate
- C. increasing the tax rebate on salaries tax
- D. allowing more tourists to travel to the country visa-free

2019/DSE/II/40

Suppose an inflationary (output) gap and a fiscal surplus exist in an economy. Which of the following measures would help narrow the inflationary (output) gap and attain a balanced fiscal condition at the same time?

- A. reducing quota for inbound tourists
- B. raising income tax rate
- C. adopting a universal retirement protection scheme for all elderly aged 65 or above
- D. increasing government spending on infrastructure

Short & Structured Questions

2002/AL/II/6

Suppose the Hong Kong economy was initially in full employment with a fiscal budget balance and a trade balance. The economy is currently suffering from problems of unemployment and the 'twin deficits' (i.e. the coexistence of trade deficits and fiscal deficits).

- (a) There explanations, all of which involve a reduction in autonomous spending, have been proposed: (i) a fall in private consumption, (ii) a fall in private investment, (iii) a fall in exports. Evaluate the ability of each of these factors to explain the coexistence of unemployment and the twin deficits. (6 marks)
- (b) As a fourth possibility, is a fall in government expenditure a valid explanation for these three problems? To balance its budget, the government has to find ways to increase its revenue and/or cut its expenditure. Will such fiscal actions help resolve the unemployment and trade deficits problems simultaneously? If not, how will unemployment and trade deficits be affected by such actions? (4 marks)

2006/AL/II/6(a)(i)

A country running trade deficits against the rest of the world can deal with the problem by either expenditure-reducing policies or expenditure-switching policies. The former involves the use of contractionary fiscal and/or monetary policies to reduce overall (including import) expenditure; while the latter involves the use of exchange-rate and/or protectionist policies to switch expenditure away from foreign goods and/or toward domestic goods.

An example of expenditure-reducing policies is to increase income taxes. Explain without using any graphs and economic models why raising the income tax rate can help improve the trade balance. (2 marks)

MARKING SCHEME

1996/AL/II/26 A	2012/DSE/1/31 C (40%)	2016/DSE/1/30 A (69%)	2017/DSE/1/39 D (51%)	2019/DSE/1/40 A
2003/AL/II/26 C	2013/DSE/1/31 B (45%)	2016/DSE/1/40 C (34%)	2018/DSE/1/36 D (62%)	

*Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.*

2002/AL/II/6

- (a) The 3<sup>rd</sup> explanation, fall in exports, can be a common cause of unemployment and the twin deficits

$X \downarrow \Rightarrow \Delta D \downarrow \Rightarrow$   
 $Y \downarrow \Rightarrow$  [Effect 1:] unemployment  
 $Y \downarrow \Rightarrow$  [Effect 2:] tax revenue  $\downarrow \Rightarrow$  fiscal deficit  
 $Y \downarrow \Rightarrow$  [Effect 3:] imports  $\downarrow \Rightarrow$  trade deficit  
 [since the effect of  $\Delta X$  on  $NX$  is bigger than its effect through  $\Delta M$ , i.e.  $X \downarrow > M \downarrow$ ]

*Note: For a given size of the workforce, an increase in unemployment implies a decrease in labour employment, which implies in turn a decrease in output (Y), given the production technology and other factors of production.*

- (b) Fiscal contraction has the following consequences:

$G \downarrow$  and  $T \uparrow \Rightarrow \Delta D \downarrow \Rightarrow$   
 $Y \downarrow \Rightarrow$  [Effect 1:] unemployment  
 $Y \downarrow \Rightarrow$  [Effect 2:] tax revenue  $\downarrow$  but fiscal balance still  $\uparrow$   
 [because the effect of  $\Delta G$  on  $(T - G)$  is bigger than its effect through  $\Delta T$ , i.e.  $G \downarrow > T \downarrow$ ]  
 $Y \downarrow \Rightarrow$  [Effect 3:] imports  $\downarrow \Rightarrow$  trade balance  $\uparrow$

(No.) this single stone can at best kill two birds, but not all three.

2006/AL/II/6(a)(i)

Income taxes as expenditure-reducing policy

Income tax rate  $\uparrow$   
 $\Rightarrow$  disposable income  $\downarrow$   
 $\Rightarrow$  consumption demand and import expenditure  $\downarrow$   
 $\Rightarrow$  improvement in trade balance (given exports)

## SECTION 7: INTERNATIONAL TRADE

### 7.1 GAINS FROM FREE TRADE

#### Multiple Choice Questions

1990/CE/II/42

A country gains from trade because

- A. it obtains goods at a lower opportunity cost.
- B. it collects tariff revenue.
- C. it exports more than it imports.
- D. it specializes in producing goods in which it enjoys an absolute advantage.

1990/CE/II/48

The table below shows the production of two goods in two countries:

	One unit of resources can produce				
	Clothes (units)		OR	Toys (units)	
Country X	10	OR	5		
Country Y	2	OR	1		

Suppose there are no barriers to trade between the two countries,

- A. X will export clothes and toys to Y.
- B. X will export clothes and import toys from Y.
- C. Y will export toys and import clothes from X.
- D. neither country will benefit from their mutual trade.

1991/CE/II/53

The following table shows the number of man-hours required for the production of two goods X and Y in Countries A and B.

	Country A	Country B
1 unit of X	1 man-hour	2 man-hours
1 unit of Y	3 man-hours	4 man-hours

According to the principle of comparative advantage,

- A. Country A will export X and import Y.
- B. Country A will export Y and import X.
- C. Country A will import X and Y from Country B.
- D. Country A will export X and Y to Country B.

1992/CE/II/51

Refer to the following table:

	Toys (units)	OR	Machinery (units)
HK's output per man-hour	30	OR	20
U.S.A.'s output per man-hour	50	OR	40

- (1) The U.S.A. has an absolute advantage in producing both goods.
- (2) The U.S.A. has an absolute advantage in producing machinery only.
- (3) Hong Kong has a comparative advantage in producing toys.
- (4) Hong Kong has a comparative advantage in producing machinery.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1992/CE/II/53

International trade is beneficial to a country if

- A. that country exports more than it imports.
- B. that country imports more than it exports.
- C. it allows a more efficient use of resources.
- D. it enables the government to collect tariff revenue.

1993/CE/II/52

Country	Output per unit of resources				
	Wheat (units)		OR	Cotton (units)	
X	2	OR	4		
Y	1	OR	3		

According to the above table, country X has a \_\_\_\_\_ opportunity cost in producing wheat and country Y has a comparative advantage in producing \_\_\_\_\_. Therefore, country Y will import \_\_\_\_\_ from country X.

- A. lower ..... cotton ..... wheat
- B. lower ..... wheat ..... cotton
- C. higher ..... wheat ..... wheat
- D. higher ..... cotton ..... cotton

1994/CE/II/52

Suppose a country has an absolute advantage in good X. Which of the following is correct?

- A. It is possible that the country has a higher opportunity cost of producing good X than another country.
- B. The country can produce a greater amount of good X than another good with the same amount of resources.
- C. The country will also have a comparative advantage in good X.
- D. The country will have an absolute disadvantage in another good.

1994/CE/II/53

The following table shows the production of two goods in two countries:

	One unit of resources can produce	
	Clocks	Toys
Country A	2	4
Country B	6	8

Suppose 1 unit of clocks can be exchanged for 2 units of toys through trade.

- A. Both A and B will gain from trade.
- B. Both A and B will not gain from trade.
- C. A will not gain from trade.
- D. B will not gain from trade.

1995/CE/II/51

If a country has a comparative advantage in good X, it will

- A. have an absolute advantage in X.
- B. have a comparative disadvantage in some other good(s).
- C. specialize in producing X and export all its output of X to other countries.
- D. completely specialize in the production of X.

1995/CE/II/52

Suppose in Country A one unit of resources can produce either 1 unit of X or 3 units of Y. If from trade 1 unit of X can exchange for 2 units of Y, Country A will export \_\_\_\_\_ and gain \_\_\_\_\_ for each unit of export.

- A. X ..... 1 unit of Y
- B. X ..... 1/6 units of Y
- C. Y ..... 1 unit of X
- D. Y ..... 1/6 units of X

1996/CE/II/46

Given a unit of input, the amount of output produced by Countries A and B are shown below:

	Garment (units)	Shoes (units)
Country A	2	6
Country B	4	8

Which of the following is/are true?

- (1) The opportunity cost of producing shoes in Country B is lower than that of Country A.
  - (2) Country B enjoys absolute advantage in the production of both goods.
  - (3) If trading opportunities were opened up, Country B would export garment and import shoes.
- A. (1) only
  - B. (3) only
  - C. (1) and (2) only
  - D. (2) and (3) only

1996/CE/II/47

A country will gain from international trade if

- A. it specializes in producing goods in which it enjoys comparative advantage.
- B. the price of its exports is higher than that of its imports.
- C. the quantity of its exports is greater than the quantity of its imports.
- D. the price of its imports is less than the unit cost of producing these goods itself.

1996/CE/II/53

Which of the following economic principles can best explain why a doctor, who is the fastest typist in town, chooses to employ a typist to do all the typing for him?

- A. economies of scale
- B. comparative advantage
- C. diversification of work
- D. law of diminishing returns

1997/CE/II/53

Suppose the production of cars and shirts in Mainland China and in the U.S.A. is as follows:

	One unit of resources can produce	
	Car (units)	Shirts (units)
Mainland China	1	4
U.S.A.	2	3

Suppose Hong Kong is willing to exchange 45 units of shirts for 9 units of cars. Under free trade, in order to obtain the maximum gain per unit of export/import,

- A. Mainland China would export shirts to Hong Kong.
- B. The U.S.A. would export cars to Hong Kong.
- C. Hong Kong would import shirts from the U.S.A.
- D. Mainland China would import shirts from the U.S.A.

Question 43 and 44 refer to the table below. Suppose there are only two countries, Country A and Country B. The output of bananas and shoes per unit of input of the two countries are as follows:

	Bananas (Units)	Shoes (Units)
Country A	4	12
Country B	2	4

1998/CE/II/43

Which of the following statements is correct?

- A. Country A has both an absolute and comparative advantage in the production of bananas.
- B. Country A will export shoes.
- C. Country B will import bananas.
- D. Both countries will gain if 1 unit of bananas is exchanged for 4 units of shoes.

1998/CE/II/44

There are 4 units of resources in each country. Before trade, both countries use 1 unit of input to produce bananas and 3 units to produce shoes. If complete specialization takes place in the two countries, what will be the change in the total output of bananas and shoes of the two countries?

- A. Only the production of bananas will increase.
- B. Only the production of shoes will increase.
- C. The production of bananas will increase but the production of shoes will decrease.
- D. The production of both bananas and shoes will increase.

1998/CE/II/45

If Country X can produce the same amount of each good with less resources than Country Y, then

- A. there is no favourable terms of trade between Country X and Country Y.
- B. Country Y may still produce some goods at a lower opportunity Costs.
- C. trade can still take place based on absolute advantage.
- D. Country Y possesses comparative advantage on all goods.

1999/CE/II/46

If a country specializes and exports good X, it implies that

- A. The country needs to give up less of other goods than other countries in order to produce good X.
- B. This country has more resources than other countries for producing good X.
- C. This country uses less resources than other countries for producing the same amount of good X.
- D. This country can produce good X at a lower cost than other goods.

1999/CE/II/48

Suppose the output per man-hour of China, Japan and the US are as follows:

	DVD (units)		VCD (Units)
China	10	OR	30
Japan	20	OR	20
U.S.	30	OR	50

According to the table,

- A. The US has a comparative advantage in producing both goods.
- B. The US has a comparative advantage in producing VCDs only.
- C. China has a comparative advantage in producing DVDs only.
- D. Japan has a comparative advantage in producing DVDs only.

2000/CE/II/46

Suppose there are good X and good Y only. If a country has a comparative advantage in good X, it will have

- A. an absolute advantage in Y.
- B. an absolute disadvantage in Y.
- C. a comparative advantage in Y too.
- D. a higher opportunity cost in producing Y.

Answer questions 47 and 48 by referring to the following table. It shows the amount of resources (in man-hours) required to produce 1 unit of good X or 1 unit of good Y in country A and country B, respectively.

	Good X	Good Y
Country A	1	2
Country B	3	4

2000/CE/II/47

With 1 unit of resources, country A can produce either \_\_\_\_\_ unit(s) of X or \_\_\_\_\_ unit(s) of Y while country B can produce either \_\_\_\_\_ unit(s) of X or \_\_\_\_\_ unit(s) of Y.

- A. 1 ..... 1/2 ..... 1/3 ..... 1/4
- B. 1 ..... 2 ..... 3 ..... 4
- C. 1 ..... 1/2 ..... 1 ..... 3/4
- D. 2 ..... 1 ..... 3/4 ..... 1

2000/CE/II/48

Both countries will gain from trade if 1 unit of X can exchange for

- A. 0.5Y.
- B. 0.6Y.
- C. 0.75Y.
- D. 1Y.

2001/CE/II/42

The production cost of 1 unit of food in country X is 3 units of clothing. When country X trades with country Y, it can obtain 1 unit of clothing import by export 0.2 units of food.

What is country X's total gain from trade if it exports 10 units of food to country Y?

- A. 20 units of clothing
- B. 30 units of clothing minus 10 units of food
- C. 50 units of clothing
- D. 50 units of clothing minus 10 units of food

Questions 43 and 44 refer to the following table which shows the data about country A.

	Good X (Units)		Good Y (Units)
Total output with no international trade	40	and	60
Total output with specialization and international trade	0	and	110
Total consumption with international trade	50	and	80

2001/CE/II/43

After specialization, country A produces \_\_\_\_\_ units less of good X and \_\_\_\_\_ units more of good Y. Therefore the opportunity cost of producing 1 unit of good Y is \_\_\_\_\_ units of good X.

- A. 40 ..... 50 ..... 4/5
- B. 40 ..... 50 ..... 5/4
- C. 50 ..... 30 ..... 3/5
- D. 50 ..... 30 ..... 5/3

2001/CE/II/44

In trading, country A exports \_\_\_\_\_ units of good Y and imports \_\_\_\_\_ units of good X. Therefore the terms of trade is \_\_\_\_\_.

- A. 20 ..... 10 ..... 1Y = 1/2X
- B. 20 ..... 10 ..... 1Y = 2X
- C. 30 ..... 50 ..... 1Y = 3/5X
- D. 30 ..... 50 ..... 1Y = 5/3X

2002/CE/II/44

Suppose Mrs Wong, a sole proprietor of a garment factory, is the best cook in town, but she leaves all the cooking to her domestic helper at home. Which of the following would be correct?

- A. The domestic helper has a comparative advantage in cooking.
- B. Both Mrs Wong and the domestic helper provide a labour service and receive wages.
- C. Complex division of labour is illustrated in this case.
- D. Both Mrs Wong and the domestic helper are tertiary producers.

2002/CE/11/45

The following table shows the output of X and Y per unit of resources in countries A and B.

	Goods X (units)	OR	Goods Y (units)
Country A	1	OR	3
Country B	2	OR	4

Which of the following is/are the terms of trade under which trade between the two countries is mutually beneficial?

- A.  $1X = 2Y$
- B.  $1X = 3Y$
- C.  $2X = 5Y$
- D. All of the above are correct.

2002/CE/11/47

Consider the trade between two countries X and Y, both of which produce garments and computers only. If country X has the comparative advantage in producing garments, then country X

- A. produces more garments per unit of resources than country Y.
- B. produces better quality garments than country Y.
- C. gives up a smaller amount of computers in order to produce a unit of garments than country Y.
- D. gains more from their trade than country Y.

Answer Questions 45 and 46 by referring to the following table.

Before trade, the actual output of Country A and Country B with all their resources evenly allocated between the production of Good X and Good Y are shown below:

	Good X (Units)	AND	Good Y (Units)
Country A	100	AND	250
Country B	100	AND	50

2003/CE/11/45

Which of the following about the two countries is correct?

- A. Country B has a comparative advantage in producing Good Y.
- B. Country A can produce the same amount of Good Y with fewer resources.
- C. Trade between the two countries would not be mutually beneficial if the transportation cost of trading 1 unit of Good X is 2 units of Good Y.
- D. Country A would have a larger gain than Country B from each unit of Good X traded.

2003/CE/11/46

Suppose each country has to pay a transportation cost of 0.5 units of Good X in trading 1 unit of Good Y. Which one of the following terms of trade is mutually beneficial?

- A.  $1Y = 0.5X$
- B.  $1Y = 1X$
- C.  $1Y = 1.5X$
- D.  $1Y = 2X$

2004/CE/11/45

Both countries A and B produce goods X and Y. Under which of the following conditions does country A have a comparative advantage in the production of X?

- A. One unit of X can be exchanged for more units of Y in country A than in country B.
- B. In producing one unit of X, country A forgoes a smaller amount of Y than country B.
- C. The opportunity cost of producing X in country A is smaller than that of Y in country B.
- D. The amount of resources used in producing one unit of X is less in country A than in country B.

Refer to the information below and answer questions 46 and 47.

Both country A and country B produce rice and wine. Suppose country A has ONE unit of resources while country B has TWO units of resources. Each country allocates half of their resources in the production of each product. The amounts of output in country A and country B are shown below.

	Rice (Units)	AND	Wine (Units)
Country A	6	AND	9
Country B	10	AND	8

2004/CE/11/46

With ONE unit of resources,

- (1) country A can produce either 6 units of rice or 9 units of wine.
- (2) country A can produce either 12 units of rice or 18 units of wine.
- (3) country B can produce either 5 units of rice or 4 units of wine.
- (4) country B can produce either 10 units of rice or 8 units of wine.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2004/CE/11/47

Which of the following statements is correct?

- A. According to the principle of comparative advantage, country A will import wine.
- B. According to the principle of comparative advantage, country B will import rice.
- C. Country A has an absolute advantage in the production of wine.
- D. Country B has an absolute advantage in the production of rice.

Answer Questions 45 and 46 with reference to the following table.

The following table shows the number of man-hours required by Country A and Country B in the production of toys and watches.

	1 unit of Toys	1 unit of Watches
Country A	1 man-hour	3 man-hours
Country B	2 man-hours	4 man-hours

2005/CE/11/45

Which of the following descriptions are correct?

- (1) Country A enjoys an absolute advantage in the production of both goods.
- (2) Country A enjoys an absolute advantage only in the production of toys.
- (3) Country B enjoys a comparative advantage in the production of toys.
- (4) Country B enjoys a comparative advantage in the production of watches.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2005/CE/11/46

According to the principle of comparative advantage, when the two countries trade with each other, Country A will export \_\_\_\_\_ and import \_\_\_\_\_, and a mutually beneficial terms of trade can be 1 unit of toys equals \_\_\_\_\_.

- A. toys ..... watches ..... 0.4 units of watches
- B. toys ..... watches ..... 2.5 units of watches
- C. watches ..... toys ..... 0.4 units of watches
- D. watches ..... toys ..... 2.5 units of watches

2006/CE/11/43

Under free trade, a country exports computers and imports cars. Which of the following statements about the country must be correct?

The country

- A. has an absolute advantage in producing cars.
- B. has an absolute advantage in producing computers.
- C. has a comparative disadvantage in producing cars.
- D. requires less resources to produce each unit of computers.

2006/CE/11/44

The output of DVDs and MP3 players per unit of input of Countries A and B are shown below respectively.

	DVD (units)	OR	MP3 Player (units)
Country A	10	OR	30
Country B	8	OR	12

If both countries have 3 units of inputs and complete specialization takes place according to the principle of comparative advantage, the total output of the two countries is \_\_\_\_\_ units of DVD and \_\_\_\_\_ units of MP3 player.

- A. 24 ..... 36
- B. 24 ..... 90
- C. 30 ..... 36
- D. 30 ..... 90

2006/CE/11/46

If Country X is more productive in producing every good than Country Y, then

- A. the two countries may still trade with each other.
- B. the gain from trade of Country X will be greater than that of Country Y.
- C. Country X will have a lower opportunity cost in producing every good than Country Y.
- D. no trade will take place between the two countries.

2007/CE/11/44

By using one unit of resources, Country A can produce 10 units of good X or 5 units of good Y. We can then conclude that

- A. Country A has a comparative advantage in producing good X.
- B. Country A has a comparative advantage in producing good Y.
- C. Country A may benefit from exporting good X if the international exchange ratio is  $1X = 1Y$ .
- D. Country A may benefit from exporting good Y if the international exchange ratio is  $1X = 1Y$ .

2007/CE/11/45

Which of the following statements about international trade is correct if transportation cost increases?

- A. The price of exported goods will increase if the exporting country has to bear the transportation costs.
- B. The net gains from trade of the trading partners will remain unchanged as long as trade continues.
- C. Comparative advantages will disappear if the transportation costs are higher than the total gains from trade.
- D. Mutually beneficial trade is possible only if the transportation costs are lower than the total gains from trade.

2007/CE/11/46

The table below shows the amount of resources required to produce good X and good Y by Country A and Country B respectively.

	1 unit of good X	1 unit of good Y
Country A	20 units	25 units
Country B	10 units	25 units

Which of the following can be a mutually beneficial terms of trade?

- A.  $1X = 0.4Y$
- B.  $1X = 0.5Y$
- C.  $1X = 0.8Y$
- D.  $1X = 0.9Y$

2008/CE/11/45

Suppose there are two countries A and B. The following table shows the output per unit of resources in these two countries in a certain year:

	Goods X (units)	OR	Goods Y (units)
Country A	2	OR	4
Country B	3	OR	1

According to the above table, Country A has a comparative advantage in producing Good \_\_\_\_\_ because \_\_\_\_\_.

- A. Y ..... with the same amount of resources, Country A can produce more Y than Country B
- B. Y ..... Country A has a lower opportunity cost in producing 1 unit of Y than in producing 1 unit of X
- C. Y ..... Country A's opportunity cost of producing 1 unit of Y is lower than that of Country B
- D. X ..... Country A's opportunity cost of producing 1 unit of X is lower than that of Country B

2009/CE/11/46

The following table shows the amount of garments and shoes that country A and country B can produce with ALL of their resources.

	Garments (units)	OR	Shoes (units)
Country A	10	OR	30
Country B	10	OR	20

Which of the following statements are correct?

- (1) Country A has an absolute advantage in producing shoes.
- (2) According to the principle of comparative advantage, country A will export shoes.
- (3) Country B would gain from exporting garments if 1 unit of garments can be exchanged for more than 2 units of shoes.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)



Answer questions 45 and 46 by referring to the following table. It shows the amount of toys and garments produced per unit of input of Country A and Country B.

	Garments (units)	OR	Toys (units)
Country A	10	OR	40
Country B	5	OR	10

2010/CE/II/45

Which one of the following statements is correct ?

- A. Country A gives up a smaller amount of garments than Country B in producing one unit of toys.
- B. The opportunity cost of producing garments in Country A is lower than that of Country B.
- C. Country A uses a larger amount of resources than Country B in producing one unit of garments.
- D. The total output of toys in Country A is higher than that of Country B.

2010/CE/II/46

When trade opens up between the two countries, 1 unit of toys can be exchanged for 0.4 units of garments. According to the principle of comparative advantage.

- A. Country A's gain from trade per unit of export is 0.15 units of garments.
- B. Country B's gain from trade per unit of export is 0.1 units of garments.
- C. Country A's gain from trade per unit of import is 2 units of toys.
- D. Country B's gain from trade per unit of import is 2 units of toys.

2010/CE/II/47

The table below shows the amount of labour input required to produce watches and oranges by Country X and Country Y respectively.

	Watches (units)	Oranges (units)
Country X	2 man-hours	2 man-hours
Country Y	4 man-hours	8 man-hours

Based on the above information, has an absolute advantage and has a comparative advantage in producing watches.

- A. Country X ..... Country X
- B. Country X ..... Country Y
- C. Country Y ..... Country X
- D. Country Y ..... Country Y

2012/DSE/II/37

The following table shows the number of toys or clothes that Country A and Country B can produce with one unit of resources.

	Toys (units)	Clothes (units)
Country A	10	10
Country B	4	10

If the terms of trade is 2 units of clothes = 1 unit of toys,

- A. Country A will gain 5 units of toys per unit of imports.
- B. Country A will gain 0.6 units of clothes per unit of exports.
- C. Country B will gain 0.5 units of clothes per unit of imports.
- D. Country B will export toys and gain 0.6 units of clothes per unit of exports.

2012/DSE/II/38

Consider the trade of a good between two countries. Suppose we know their opportunity costs of producing the good. Without knowing the terms of trade, we can determine

- (1) the possible range of the terms of trade.
  - (2) the gain of each country from trading one unit of the good.
  - (3) the total gain of both countries from trading one unit of the good.
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

Answer Questions 38 and 39 by referring to the following information.

Before trade, the output of Thailand and Japan with all their resources evenly allocated between the production of rice and computers is shown below:

	Rice (units)	AND	Computers (units)
Thailand	15	AND	5
Japan	24	AND	12

2013/DSE/II/38

Which of the following statements about the above case is correct?

- (1) Japan has a comparative advantage in producing computers.
  - (2) Japan has an absolute advantage in producing computers.
  - (3) With complete specialization in the two countries, the total output of both rice and computers will increase.
- A. (1) only
  - B. (1) and (2) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2013/DSE/II/39

Suppose the terms of trade is 1 unit of computers = 2.4 units of rice and the computer-exporting country has to pay a transportation cost of 0.1 units of rice for each unit of export. To export 5 units of computers, the net gain of the country is \_\_\_\_\_ units of rice.

- A. 1.5
- B. 2
- C. 2.5
- D. 3

2014/DSE/II/41

The following table shows the number of man-hours required by Country A and Country B in the production of Good X and Good Y.

	1 unit of Good X	1 unit of Good Y
Country A	10 units	25 units
Country B	5 units	15 units

Trade is mutually beneficial between Country A and Country B when the terms of trade is \_\_\_\_\_.

- A.  $1X = 0.35Y$
- B.  $1X = 0.4Y$
- C.  $1X = 1.25Y$
- D.  $1X = 2.75Y$

2014/DSE/1/44

The following table shows the data about Country A.

	Petroleum (unit)	and	Rubber (unit)
Total output with no international trade	60	and	90
Total output with specialization and international trade	0	and	210
Total consumption with international trade	90	and	120

Which of the following statements about Country A is correct?

- A. Country A has both absolute advantage and comparative advantage in producing rubber.
- B. The gain from trade of exporting 1 unit of rubber is 1 unit of petroleum.
- C. The opportunity cost of producing 1 unit of rubber (R) is 2/3 units of petroleum (P) and the terms of trade is  $1R = 3/4P$ .
- D. Country A can benefit from trading with Country B, whose opportunity cost of producing 1 unit of rubber is 2 units of petroleum.

2015/DSE/1/40

Assume the labour input requirements for the production of computers and toys in Japan and Hong Kong are as follows:

	1 unit of computers	1 unit of toys
Japan	2 man-hours	6 man-hours
Hong Kong	4 man-hours	8 man-hours

Suppose there is no transportation cost. Which of the following can be the terms of trade so that trade is mutually beneficial to Japan and Hong Kong?

- A. 1 unit of computers exchanges for 0.4 units of toys
- B. 1 unit of computers exchanges for 0.5 units of toys
- C. 1 unit of computers exchanges for 1 unit of toys
- D. 1 unit of computers exchanges for 2.5 units of toys

2015/DSE/1/41

A country has an absolute advantage in producing good X. Which of the following statements about the country is correct?

- A. The country can produce a greater amount of good X than another good with the same amount of resources.
- B. The country has a comparative advantage in producing good X.
- C. The country has an absolute disadvantage in producing another good.
- D. The country may import good X from the international market.

2016/DSE/1/41

The following table shows the amount of toys or cars that Country A and Country B can produce with the same amount of resources.

	Toys	or	Cars
Country A	50	or	80
Country B	20	or	60

The transportation cost for 1 unit of toy is 0.4 units of car and it is borne by the importing country. Which of the following is the mutually beneficial terms of trade between Country A and Country B?

- A. 1 unit of toy = 1.6 units of car
- B. 1 unit of toy = 2 units of car
- C. 1 unit of toy = 2.6 units of car
- D. 1 unit of toy = 3 units of car

2017/DSE/1/43

The following table shows the number of man-hours required by Country A and Country B in the production of toys and watches.

	1 unit of toys	1 unit of watches
Country A	4	8
Country B	5	20

Suppose the transportation cost for 1 unit of toys is 0.1 units of watches and it is borne by the exporting country. Which of the following would be a mutually beneficial terms of trade between Country A and Country B?

- A. 1 unit of toys = 0.3 units of watches
- B. 1 unit of toys = 0.4 units of watches
- C. 1 unit of toys = 2.5 units of watches
- D. 1 unit of toys = 6 units of watches

2018/DSE/1/43

The following table shows the output per unit of resources in Countries A and B:

	Computer (units)	OR	Rice (units)
Country A	16	OR	16
Country B	12	OR	3

Suppose the computer-producing country exports 10 units of computer in exchange for 5 units of rice. What is the total gain from trade for computer-importing country?

- A. 0.5 units of computer
- B. 1 unit of computer
- C. 2.5 units of computer
- D. 5 units of computer

2019/DSE/1/42

1992/AL/11/17

Refer to the following table which shows the costs of production of two goods in two countries:

	TV Sets	Cars
Japan	¥80	¥160
USA	\$10	\$30

Which of the following are true?

- (1) Japan has a comparative advantage in the production of cars.
- (2) A terms of trade ratio of 1 Car = 2.5 TV sets would make the trade between the two countries mutually beneficial.
- (3) U.S.A. has an absolute advantage in the production of TV sets.

- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

1996/AL/11/25

The unit cost of producing cars and computers in the U.K. and Country A are given below:

	Cars	Computers
U.K.	£280	£70
Country A	\$450	\$150

Which of the following statement(s) is/are correct?

- (1) Country A has a comparative advantage in producing cars.
- (2) U.K. has an absolute advantage in producing both goods.
- (3) U.K. has a comparative disadvantage in producing cars and an absolute advantage in producing computers.

- A. (1) only  
B. (1) and (2) only  
C. (2) and (3) only  
D. (1), (2) and (3)

1997/AL/11/15

The unit cost of production of garments and Discmans in Hong Kong and Japan are as follows:

	Garments	Discmans
Hong Kong	\$200	\$2 000
Japan	¥10 000	¥50 000

Which of the following are true?

- (1) Hong Kong has a comparative advantage in producing garments.
- (2) If the terms of trade are that 1 unit of Discmans can be exchanged for 7 units of garments, then trade is mutually beneficial to both economies.
- (3) If the terms of trade are that 1 unit of Discmans can be exchanged for 9 units of garments, then the gain to Japan from exporting 1 unit of Discmans is 4 units garments.

- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

The following table shows the amount of goods that can be produced with 1 unit of resources in Country A and Country B respectively.

	Good X (units)	or	Good Y (units)
Country A	8		12
Country B	2		4

Suppose the transportation cost for 1 unit of Good X is 0.2 units of Good Y and it is borne by the exporting country. Which of the following is a mutually beneficial terms of trade between Country A and Country B?

- A. 1 unit of Good X = 1.3 units of Good Y
- B. 1 unit of Good X = 1.7 units of Good Y
- C. 1 unit of Good X = 1.8 units of Good Y
- D. 1 unit of Good X = 2.0 units of Good Y

2020/DSE/1/42

The following table shows the amounts of consumption on two goods in Country A and Country B before international trade. Assume both countries use one unit of resources on producing Good X and one unit of resources on producing Good Y.

	Consumption before trade (units)	
	Good X	Good Y
Country A	100	25
Country B	80	40

If Country A and Country B completely specialise their production and trade with each other, the total output of both countries will increase by \_\_\_\_\_ units of Good X and \_\_\_\_\_ units of Good Y.

- A. 15 ..... 15
- B. 15 ..... 20
- C. 20 ..... 15
- D. 20 ..... 20

Short & Structured Questions

1991/CE/1/3/(c)

Suppose there are only two countries and two commodities in the world. Every year each has 20 units of resources. Each uses 10 units of resources per year to produce each commodity. The annual output per unit of resources is shown below:

	Food (units)	OR	Clothing (units)
Country A	6	OR	12
Country B	5	OR	20

- Which country has a comparative advantage in producing food? Explain your answer. (7 marks)
- Calculate the increase in the total output per year of each commodity after complete specialization, based on the principle of comparative advantage. (4 marks)
- What piece of information is needed to determine the distribution of the increase in outputs between these two countries? (2 marks)

1992/CE/1/2/(a)

The following table shows the output per unit of resources in two countries in a certain year.

	Clothing (units)	OR	Rice (units)
Country A	1	OR	2
Country B	3	OR	4

- According to the principle of comparative advantage, which product should Country A specialize in? Explain your answer in terms of opportunity cost. (6 marks)
- Explain how trade is beneficial to Country A if 10 units of clothing are exchanged for 18 units of rice. (4 marks)
- Suppose the productivity in Country A has increased. With one unit of resources, Country A can now produce 2 units of clothing or 4 units of rice. Will your answer in (a)(ii) change? Explain. (4 marks)

1993/CE/1/2/(a)

Suppose the annual output per unit of resources in the U.S.A. and China are as follows:

	Clothing (Units)	OR	Toys (Units)
U.S.A.	2	OR	4
China	1	OR	2

- In the U.S.A., what is the opportunity cost of producing one unit of clothing? One unit of toys? (2 marks)  
Based on the above answers only, explain whether you can say that the U.S.A. has a comparative advantage over China in toy manufacturing. (3 marks)
- State the principle of comparative advantage. According to this principle, explain whether specialization and trade can benefit the above two countries. (6 marks)
- Suppose with one unit of resources, China can now produce 2 units of clothing or 3 units of toys. Explain whether specialization and trade can benefit the above two countries. (5 marks)

1994/CE/1/9/(c)

Suppose the production of cars and apples in Japan and in the U.S.A. is as follows:

	One Unit of Resources Can Produce	
	Cars (Units)	Apples (Units)
Japan	2	5
U.S.A.	1	4

Suppose there are no trade barriers between the two countries. When trade opens up, 3 units of apples are traded for 1 unit of cars. Find the comparative advantage of EACH country and calculate the gain of EACH country from one unit of exports. Explain your answer. (9 marks)

1995/CE/1/8

The following table shows the production of goods X and Y per unit of resources in Countries A and B:

Country	Good X (units)	OR	Good Y (units)
A	1	OR	4
B	2	OR	3

- According to an economic principle, both countries would gain from specialization and trade. Name and state this principle. (4 marks)
- Calculate the range of the exchange ratio between goods X and Y for both countries to gain from trade. (4 marks)

1996/CE/1/10(a)

The table below shows the output per unit of resources of two countries in a certain year.

	Clothing (units)	OR	Rice (units)
Country A	2	OR	6
Country B	6	OR	9

- Explain which country would have a comparative advantage in producing clothing. Show your calculation. (3 marks)
- Suppose 1 unit of clothing can be exchanged for 2 units of rice between the two countries. Calculate and explain how much Country A would gain from trade if
  - no other costs are involved in trade. (3 marks)
  - Country A has to pay a transportation cost of 1 unit of rice per unit of import. (3 marks)

1997/CE/1/10(a)

With one unit of resources, the output of food and clothing in Country A and Country B is as follows:

	Food (units)	OR	Clothing (units)
Country A	4	OR	8
Country B	3	OR	6

- Explain whether there are mutually beneficial terms of trade between these two countries. (3 marks)
- Suppose only Country A benefits from technological advancement and it can now produce 5 units of food or 20 units of clothing with one unit of resources.
  - Explain which country has a comparative advantage in producing food. (3 marks)
  - If the exchange ratio between the two countries is 1 unit of food for 3 units of clothing, calculate the gain of Country B per unit of export. (3 marks)

1998/CE/1/10(a)

Suppose the output per unit of resources of three economies – Hong Kong, Mainland China and Taiwan – are as follows:

	Toy (units)	OR	Computer (units)
Hong Kong	40	OR	4
Mainland China	50	OR	2
Taiwan	50	OR	10

- (i) Calculate the opportunity cost of producing computers for each economy and point out which economy has a comparative advantage in producing computers. (4 marks)
- (ii) Explain whether Hong Kong and Mainland China would gain from trade if 10 units of toy could be exchanged for 1 unit of computer. (6 marks)

1999/CE/1/9(a)

Suppose the output of red wine and cars in France and Japan per unit of resources are as follows:

	Red wine (units)	OR	Cars (units)
France	4	OR	2
Japan	1	OR	2

Suppose France and Japan trade at an exchange ratio of 3 units of red wine to 2 units of cars. Calculate the gain per unit of import for France. (6 marks)

2000/CE/1/11(a)

The following table shows the actual output of Country A and Country B. Each country employs 40% of resources to produce wine and the other 60% to produce clothing.

	Wine (units)	Clothing (units)
Country A	1 200	900
Country B	400	2 400

- (i) Calculate the opportunity cost of producing one unit of wine for EACH country and hence explain which country will export wine if they trade with each other. (6 marks)
- (ii) What is the minimum transportation cost per unit of wine (expressed in terms of clothing) which will result in both countries NOT gaining from trade? Explain your answer. (4 marks)

2001/CE/1/9(a)

Suppose the output of garments and computers per unit of resources of the two economies, Hong Kong and the USA, are as follows:

	Garments (units)	OR	Computers (units)
Hong Kong	4	OR	2
USA	4	OR	5

- (i) Calculate the opportunity cost of producing one unit of garments for EACH economy. Explain which economy would export garments. (4 marks)
- (ii) Suppose the exporting economy has to pay a transportation cost of 0.5 units of computers to export 1 unit of garments. Find the possible range of terms of trade (for 1 unit of garments) that is mutually beneficial for both economies. (3 marks)

2002/CE/1/9

The following table shows the maximum amount of toys and computers that Country A and Country B can produce in a year with ALL of their resources respectively.

	Toys (Units)	OR	Computers (Units)
Country A	15	OR	5
Country B	10	OR	5

Explain whether we can conclude from the above table that Country A has

- (a) an absolute advantage  
(b) a comparative advantage

in producing toys.

(7 marks)

2003/CE/1/10(c)

Suppose the output of paper and cars per unit of resources of Country A and Country B are as follows:

	Paper (units)	OR	Cars (units)
Country A	10	OR	10
Country B	15	OR	30

- (i) Explain which country has a comparative advantage in the production of paper. Calculate the total gain to the two countries from trading one unit of paper. (5 marks)
- (ii) Suppose a newly developed Country, X, now offers paper for sale with an exchange ratio of 1 unit of paper to 0.5 units of cars. Explain whether Country B would import paper from Country A. (3 marks)

2004/CE/1/11(a)

Suppose the amount of resources of Economy A is double that of Hong Kong and both economies use ALL their resources in production. Their maximum output in a year is shown below.

	Clothing (units)	OR	Cars (units)
Economy A	20	OR	10
Hong Kong	12	OR	3

- (i) Explain whether Economy A has an absolute advantage in producing clothing. (3 marks)
- (ii) Explain in which product Economy A has a comparative advantage. Calculate the gain per unit of export for Economy A if the two economies trade at an exchange ratio of 5 units of clothing to 2 units of cars. (6 marks)

2005/CE/1/10

With the same amount of resources, the output of watches and television sets in Country A and Country B are as follows:

Country	Watches (Units)	OR	TV sets (Units)
A	10	OR	5
B	20	OR	15

- (a) (i) Explain which country enjoys the absolute advantage in the production of television sets. (2 marks)
- (ii) The two countries have a different output of watches, with each country using the same amount of resources in their production. State THREE possible reasons for such a difference. (3 marks)
- (b) (i) State the principle of comparative advantage. According to this principle, explain which country would export watches. (5 marks)
- (ii) (I) Point out the range of terms of trade (for 1 unit of watches) that is mutually beneficial for both countries. (2 marks)
- (II) Explain why a terms of trade outside the above range would not be mutually beneficial for both countries. (4 marks)

2006/CE/1/8

Suppose the output of clothing and computers per unit of resources of Country A and Country B are as follows:

	Clothing (units)	OR	Computers (units)
Country A	100	OR	200
Country B	150	OR	450

- (a) Explain which country enjoys a comparative advantage in the production of clothing. (3 marks)
- (b) Suppose 1 unit of clothing is traded for 2.5 units of computers between the two countries. Calculate Country A's gain from trade per unit of export. (2 marks)

2007/CE/1/10(b)

Assume the output of vegetables and jewels of one unit of resources in two cities are as follows respectively:

	Vegetables (unit)	OR	Jewels (unit)
Hong Kong	5	OR	1
Shenzhen	12	OR	1

- (i) Suppose the terms of trade between the two cities is 1 unit of jewels = 10 units of vegetables. Calculate the gain for Hong Kong per unit of her exports. (3 marks)
- (ii) Suppose 1 unit of resources in Shenzhen can only grow 9 units of vegetables due to flooding after the typhoon. What is the range of the new terms of trade that is mutually beneficial to both cities? (3 marks)

2008/CE/1/7

The amount of resources of Country A is half that of Country B. Both countries use ALL their resources in production. Their maximum output in a year is shown below.

	Food (units)	OR	Machines (units)
Country A	20	OR	50
Country B	40	OR	60

Explain, respectively, whether Country B has an/a

- (a) absolute advantage  
(b) comparative advantage

in producing food.

(7 marks)

2009/CE/1/10(b)

Suppose the following table show the outputs of mainland China and Taiwan per unit of resources.

	Computers (units)	OR	Toys (units)
Mainland China	50	OR	90
Taiwan	200	OR	250

- (i) Explain which economy would have a comparative advantage in producing computers. (4 marks)
- (ii) Suppose 1 unit of computers can be exchanged for 1.5 units of toys when trade opens up between the two economies.

If the computer exporting economy has to pay a transportation cost of 0.2 units of toys for each unit of export, calculate and explain how much it would gain from exporting 1 unit of computers. (3 marks)

2010/CE/1/10(b)

Suppose the following table shows the outputs of Hong Kong and Japan per unit of resources.

	Medicine (units)	OR	Watches (units)
Hong Kong	40	OR	100
Japan	20	OR	40

- (i) State the principle of comparative advantage. (2 marks)
- (ii) According to the principle of comparative advantage, find the range of terms of trade (for 1 unit of medicine) that is mutually beneficial for both economies. (4 marks)

2012/DSE/1/9

Country A requires 2 working-hours to produce a unit of shirts while Country B requires 1 working-hour. On the other hand, Country A requires 10 working-hours to produce a unit of watches while Country B requires 4 working-hours.

Suppose labour is the only resource required for the production of shirts and watches.

- (a) Calculate the opportunity costs of producing 1 unit of shirts (in terms of watches) for Country A and Country B. (2 marks)
- (b) State the principle of comparative advantage. According to this principle, explain which country would export shirts. (3 marks)
- (c) Find the range of terms of trade over which exchange between both countries is mutually beneficial. (2 marks)

2013/DSE/11/5

Each unit of resources can be used to produce the following amount of goods in Country A and Country B:

	Food (units)	OR	Smartphones (units)
Country A	30	OR	40
Country B	40	OR	80

- (a) Explain which country has a comparative advantage in the production of smartphones. (3 marks)
- (b) Suppose the transportation cost per unit of smartphones traded is 0.2 units of food. Is it possible to have mutually beneficial trade between these two countries? Explain. (3 marks)

2014/DSE/11/8

Suppose the output of paper and watches per unit of resources of Country A and Country B are as follows:

	Paper (unit)	OR	Watches (unit)
Country A	12	OR	3
Country B	8	OR	4

- (a) Which good would Country B export according to its comparative advantage? Explain. (3 marks)
- (b) Suppose Country A and Country B trade at an exchange ratio of 2 units of watches to 5 units of paper. Calculate the gain per unit of import for Country A. (3 marks)

2015/DSE/11/7

Suppose both Country A and Country B use ALL their resources in production. Their maximum output is shown in the table below.

	Rice (units)	OR	Clothing (units)
Country A	15	OR	3
Country B	8	OR	4

- (a) Explain whether Country B has an absolute advantage in producing clothing. (2 marks)
- (b) The rice-exporting country exports 12 units of rice in exchange for 3 units of clothing. Calculate the total gain from trade for the clothing-exporting country. Show your workings. (4 marks)

2016/DSE/11/7

The input requirements in the production of one unit of clothing and one unit of toys are 6 units and 2 units respectively in Country A. Country A and Country B trade at an exchange ratio of 2 units of clothing to 11 units of toys.

- (a) Which good would Country A export? Explain. (3 marks)
- (b) Suppose a transportation cost of 2 units of toys is required to exchange for 1 unit of clothing and the cost is borne by Country A. Calculate the gain per unit of export for Country A. (3 marks)

2017/DSE/11/7

Country A and Country B both allocate half of their resources in producing food and half in producing computers. Their total output is shown below.

	Food (units)	Computer (units)
Country A	100	50
Country B	100	100

- (a) Explain whether Country B
- (i) enjoys an absolute advantage in producing computers.
- (ii) will export computers. (5 marks)
- (b) Suppose the exchange ratio is 4 units of computer for 7 units of food. Calculate the gain from trade for the computer-exporting country when it exports 16 units of computer. Show your working. (3 marks)

2018/DSE/11/8

Suppose the labour requirement for the production of toys and clothing in China and Japan is as follows:

	1 unit of toys	1 unit of clothing
China	10 man-hours	2 man-hours
Japan	8 man-hours	4 man-hours

- (a) Calculate the opportunity costs of producing one unit of toys for China and Japan respectively. (2 marks)
- (b) State the principle of comparative advantage. According to this principle, explain which country would export toys. (3 marks)
- (c) Suppose the transportation cost per unit of toys traded is 0.1 units of clothing and has to be shared equally by both countries. Find the range of terms of trade over which exchange between both countries is mutually beneficial. (2 marks)

2019/DSE/11/8

The amount of resources in Country A is twice of that in Country B. Both countries allocate half of their resources to produce cars and the other half to produce toys. The following are the total outputs of both countries:

	Cars (units)	Toys (units)
Country A	100	100
Country B	100	60

- (a) Explain whether Country B has
- (i) an absolute advantage in producing cars.
- (ii) a comparative advantage in producing cars. (5 marks)
- (b) Suppose the exchange ratio is 5 units of cars for 4 units of toys. Calculate the gain from trade for the car-importing country when it imports 10 units of cars. Show your workings. (3 marks)

Suppose the outputs per unit of resources of Country A and Country B are as follows:

	Toys (units)	OR	Cars (units)
Country A	10	OR	10
Country B	20	OR	10

- (a) Which good would Country B export according to its comparative advantage? Explain. (3 marks)
- (b) Suppose Country A and Country B trade at an exchange ratio of 5 units of toys to 4 units of cars. A transportation cost of 0.2 units of cars is required to exchange for 1 unit of toys and the cost is equally shared by both countries. Calculate the gain per unit of export of Country B. Show your workings. (3 marks)

MARKING SCHEME

1990/CE/II/42 A	1996/CE/II/53 B	2001/CE/II/44 D	2006/CE/II/44 B (65%)	2013/DSE/II/38 A (50%)
1990/CE/II/48 D	1997/CE/II/53 B	2002/CE/II/44 A (44%)	2006/CE/II/46 A (54%)	2013/DSE/II/39 A (64%)
1991/CE/II/53 A	1998/CE/II/43 B	2002/CE/II/45 C (44%)	2007/CE/II/44 C (67%)	2014/DSE/II/41 A (59%)
1992/CE/II/51 A	1998/CE/II/44 A	2002/CE/II/47 C (69%)	2007/CE/II/45 D (51%)	2014/DSE/II/44 D (39%)
1992/CE/II/55 C	1998/CE/II/45 B	2003/CE/II/45 C (31%)	2007/CE/II/46 B (62%)	2015/DSE/II/40 A (66%)
1993/CE/II/52 A	1999/CE/II/46 A	2003/CE/II/46 B (24%)	2008/CE/II/45 C (65%)	2015/DSE/II/41 D (45%)
1994/CE/II/52 A	1999/CE/II/48 D	2004/CE/II/45 B (50%)	2009/CE/II/46 C (43)	2016/DSE/II/41 B (60%)
1994/CE/II/53 C	2000/CE/II/46 D	2004/CE/II/46 D (40%)	2010/CE/II/45 A (61)	2017/DSE/II/43 B (65%)
1995/CE/II/51 B	2000/CE/II/47 A	2004/CE/II/47 C (65%)	2010/CE/II/46 A (64)	2018/DSE/II/43 D (38%)
1995/CE/II/52 D	2000/CE/II/48 B	2005/CE/II/45 B (47%)	2010/CE/II/47 B (51)	1992/AL/II/17 A
1996/CE/II/46 D	2001/CE/II/42 A	2005/CE/II/46 A (47%)	2012/DSE/II/37 D (65%)	1996/AL/II/25 A
1996/CE/II/47 D	2001/CE/II/43 A	2006/CE/II/43 C (43%)	2012/DSE/II/38 B (47%)	1997/AL/II/15 D

2019/DSE/II/42 Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

C

2020/DSE/II/42

1991/CE/II/53(c)

C

(i) The opportunity cost of producing 1 unit of food

in Country A:  $12 \div 6 = 2$  units of clothing

(2)

in Country B:  $20 \div 5 = 4$  units of clothing

(2)

Country A has a comparative advantage over Country B in food production because

A produces food at a relatively lower opportunity cost than B.

(3)

(ii) Increase in food =  $(6 \text{ units} \times 20) - [(6 \text{ units} \times 10) + (5 \text{ units} \times 10)]$

(1)

= 10 units

(1)

Increase in clothing =  $(20 \text{ units} \times 20) - [(12 \text{ units} \times 10) + (20 \text{ units} \times 10)]$

(1)

= 80 units

(1)

(iii) Terms of trade / exchange ratio of trading the two commodities

(2)



1992/CE/1/2(a)

- (ii) The opportunity cost of producing 1 unit of rice in Country A is 0.5 units of clothing whereas that in Country B is 0.75 units of clothing (2)  
(2)
- Country A produces rice at a lower opportunity cost than Country B (1)  
∴ Country A should specialize in rice production (1)
- (iii) The opportunity cost of Country A in producing 18 (= 2 × 9) of rice is 9 (= 1 × 9) units of clothing (2)  
⇒ Country A gains 1 unit of clothing from every 18 units of rice sold to Country B (2)
- OR**
- The opportunity cost of Country A in producing 10 (= 1 × 10) units of clothing is 20 (= 2 × 10) units of rice (2)  
⇒ Country A saves up 2 units of rice when it buys 10 units of clothing from Country B (2)
- (iv) No, because (1)  
the outputs of Country A are doubled but the opportunity cost of producing rice remains the same as in (a)(ii) above (1)  
(i.e. 1 unit of rice is exchanged for 0.5 units of clothing). (3)

1993/CE/1/2(a)

- (i) The opportunity cost of one unit of clothing is 2 units of toys. (1)  
while that for toys is 1/2 units of clothing. (1)
- No, we can't, because (1)  
to find out the comparative advantage, one has to compare the opportunity cost of toy production in the U.S.A with that in China (and see which cost is lower). (3)
- (ii) The principle of comparative advantage: if each country specializes in producing the good in which it has a lower opportunity cost, then the total output will increase. (3)  
The opportunity cost of producing clothing (or toys) in China is the same as that in the U.S.A., i.e. 1 unit of clothing is exchanged for 2 units of toys. (2)  
⇒ there is no gain from specialization and trade (1)
- (iii) The new opportunity cost of producing one unit of clothing in China is 3/2 units of toys which is smaller than that (2 units) in the U.S.A. (2)  
⇒ China should specialize in producing clothing and the U.S.A. should specialize in producing toys. Trade between the two countries can benefit both. (3)

1994/CE/1/9(c)

Comparative advantage

- Unit cost of car production in Japan in terms of apples = 5/2 (= 2.5) units (1)  
Unit cost of car production in the U.S.A. in terms of apples = 4/1 = 4 units (1)  
∴ Japan has a comparative advantage in producing cars. Conversely, the U.S.A. has a comparative advantage in growing apples. (1)
- OR**
- Unit cost of apples growing in Japan in terms of cars = 2/5 (= 0.4) units (1)  
Unit cost of apples growing in U.S.A. in terms of cars = 1/4 (= 0.25) units (1)  
∴ The U.S.A. has a comparative advantage in growing apples. Conversely, Japan has a comparative advantage in producing cars. (1)

Gain from trade: Japan

- Before specialization (within Japan) 2.5 units of apples (1)  
After specialization and trade 3 units of apples (1)  
Gain (3 - 2.5 =) 0.5 units of apples (1)

Units of apples obtained from 1 unit of cars

- 2.5 units of apples (1)  
3 units of apples (1)  
(3 - 2.5 =) 0.5 units of apples (1)

Gain from trade: U.S.A.

- Before specialization (within the USA) 0.25 units of cars (1)  
After specialization and trade 0.3333 units of cars (1)  
Gain (0.3333 - 0.25 =) 0.0833 units of cars (1)

1995/CE/1/8

- (a) The principle of comparative advantage. (1)  
If each country specializes in producing the good in which it has a lower opportunity cost, then the total output will increase. (3)
- (b)  $1.5Y < 1X < 4Y$  (1)  
**OR**  
 $0.25X < 1Y < 0.66X$  (4)

1996/CE/1/10(a)

- (i) Within A, the production cost of 1 unit of clothing is 3 units of rice. (1)  
Within B, the production cost of 1 unit of clothing is 3/2 units of rice. (1)  
∴ B has a lower cost or a comparative advantage over A in the production of clothing. (1)
- (ii) (1) Under no trade, the unit price of clothing in A is 3 units of rice forgone. When A trades with B, the import price of 1 unit of clothing is 2 units of rice exported to B. (1)  
∴ A can save 1 unit of rice per unit of clothing imported from B. (1)
- OR**
- Similarly, the unit price of rice in A before trade is 1/3 units of clothing. With trade, the export price of 1 unit of rice is 1/2 units of clothing imported. (1)  
∴ A can gain 1/6 units of clothing from exporting 1 unit of rice. (3)
- (11) Including the transport cost, the (total) cost of 1 unit of clothing imported from B is 3 units of rice. This equals to the unit cost of production of clothing in A. (1)  
∴ there is no gain for A to trade with B. (3)

1997/CE/1/10(a)

- (i) Same exchange ratio of food and clothing before trade, which is 1 unit of food (F) for 2 units of clothing (C) / same opportunity cost in both countries.  $1F = 2C$  (1)  
⇒ no such terms of trade (1)
- (ii) (1) In Country A, the cost of 1 unit of food is (20/5 = 4) units of clothing. (1)  
∴ In comparison, (1)  
[either by showing the cost of 1 unit of food in Country B is 2 units of clothing or explicitly shown in (a)(i)] (1)  
Country B has a lower opportunity cost in producing food. (1)  
∴ Country B has the comparative advantage in food production. (1)

(II)

	Food (units)	Clothing (units)
after trade	-1	+3
before trade	-1	+2
gain from trade		+1

- ∴ 1 unit of clothing is gained, / 0.5 units of food is saved. (1)

1998/CE/1/10(a)

- (i) The opportunity cost of producing 1 unit of computer in  
 Hong Kong is 10 units of toy (1)  
 Mainland China is 25 units of toy (1)  
 Taiwan is 5 units of toy (1)  
 Taiwan has the comparative advantage in producing computers (because her opportunity cost is the lowest among the three economies). (1)

- (ii) HK's opportunity cost (1C = 10T, C = clothing, T = toy) is the same as the international price (1C = 10T) (2)  
 ∴ HK will not gain. (1)

Mainland China's opportunity cost of producing toys (cost of producing 1T = 0.04C) is lower than her export price of toys (1T = 0.1C) (2)

OR

Mainland China's opportunity cost of producing computers (cost of producing 1C = 25T) is higher than her import price of computers (1C = 10T) (1)  
 ∴ Mainland China will gain. (1)

1999/CE/1/9(a)

France's opportunity cost of producing one unit of cars is 2 (= 4/2) units of red wine. (1)  
 Japan's opportunity cost of producing one unit of cars is 1/2 units of red wine.

OR

France's import price of one unit of cars is 1.5 (= 3/2) units of red wine. (1)  
 ∴ France should import cars from Japan. (1)

France's gain = 2 units of red wine - 1.5 units of red wine = 0.5 units of red wine (3)

2000/CE/1/11(a)

- (i) Country A can produce (1 200 ÷ 0.4) units of wine or (900 ÷ 0.6) units of clothing. (1)  
 ∴ A's opportunity cost of wine production is (900 ÷ 0.6) / (1 200 ÷ 0.4) = 0.5 units of clothing. (2)  
 Country B can produce (400 ÷ 0.4) units of wine or (2 400 ÷ 0.6) units of clothing. (1)  
 ∴ B's opportunity cost of wine production is (2 400 ÷ 0.6) / (400 ÷ 0.4) = 4 units of clothing. (2)

A has a lower opportunity cost / comparative advantage in wine production. (1)  
 ⇒ A exports wine. (1)

- (ii) No country will gain when the transportation cost per unit of wine ≥ total gain of trade per unit of wine / difference in the two domestic opportunity costs. (2)  
 ∴ min. transportation cost = |4 - 0.5| = 3.5 units of clothing (2)

2001/CE/1/9(a)

- (i) The opportunity cost of producing 1 unit of garments  
 Hong Kong: 2 ÷ 4 = 0.5 units of computers (1)  
 USA: 5 ÷ 4 = 1.25 units of computers (1)  
 Hong Kong has a lower opportunity cost in producing garments / comparative advantage in garment production. (1)  
 ∴ Hong Kong will export garments. (1)

- (ii) The range of T.O.T. with transportation is:  
 1 unit of computers < 1 unit of garments < 1.25 units of computers (3)

2002/CE/1/9

- (a) No, we cannot because (1)  
 the amount of resources of both countries are not given. (2)

- (b) Yes, we can because (1)  
 in Country A, the cost of 1 unit of toys is 5/15 = 1/3 units of computers (1)  
 in Country B, the cost of 1 unit of toys is 5/10 = 1/2 units of computers (1)  
 ∴ Country A has a lower cost in producing toys. (1)

2003/CE/1/10(c)

- (i) The opportunity cost of producing 1 unit of paper  
 in Country A: 10 ÷ 10 = 1 unit of cars (1)  
 in Country B: 30 ÷ 15 = 2 units of cars (1)  
 Country A has a comparative advantage in producing paper, because (1)  
 its opportunity cost is lower. (1)  
 Total gain from trading 1 unit of paper for Countries A and B is [2 - 1 =] 1 unit of cars (1)

- (ii) No, because (1)  
 (given that the opportunity cost of 1 unit of paper in Country A is 1 unit of cars while Country X's selling price of 1 unit of paper is 0.5 units of cars) (1)  
 the lowest possible price which Country A can offer is higher than the price offered by Country X. (1)

OR

Country B's gain from importing paper from Country X is greater than the maximum possible gain from importing paper from Country A. (2)

2004/CE/1/11(a)

- (i) No, because (1)  
 with the same amount of resources, Economy A produces a smaller amount of output than HK. / Economy A has a lower productivity than HK in producing clothing. (1)

Comparison of output: 10 units vs 12 units OR 20 units vs 24 units (1)

- (ii) The opportunity cost of producing one unit of car in Economy A is 2 units of clothing. (1)  
 The opportunity cost of producing one unit of car in HK is 4 units of clothing. (1)  
 i.e. lower opportunity cost in Economy A. (1)

∴ Economy A has a comparative advantage in producing cars. (1)

To trade at 5 units of clothing to 2 units of cars, Economy A gains (5/2 - 2 =) 0.5 units of clothing from each car exported. (2)

2005/CE/1/10

- (a) (i) Country B, This is because (1)  
 (with the same amount of resources,) the quantity of output of Country B is larger than that of Country A. (1)

- (ii) - different education and training  
 - different degree of technological advancement  
 - different degree of division of labour  
 - different working environment  
 - different labour incentives  
 [Mark the FIRST THREE points only.]

(1@. max: 3)

- (b) (i) Principle of comparative advantage: If each country specializes in the production of the good it has a lower opportunity cost, then the total output of all countries will increase. (2)
- The opportunity cost of producing 1 unit of watches  
in Country A:  $5 \div 10 = 0.5$  units of TV sets. (1)  
in Country B:  $15 \div 20 = 0.75$  units of TV sets. (1)  
(i.e., the opportunity cost of producing watches in Country A is lower than that in Country B.)  
Therefore, Country A should produce and export watches. (1)
- (ii) (i) The possible range of mutually beneficial terms of trade is  
 $0.5$  units of TV sets  $<$  1 unit of watches  $<$   $0.75$  units of TV sets (2)
- (ii) (A country has to compare the terms of trade with its own opportunity cost of production of the good in order to determine whether it should export or import the good.)  
If the export price of Country A (the watch exporting country) is lower than its own opportunity cost of production which is  $0.5$  units of TV sets, Country A would lose from the trade.  
OR  
If the import price of Country B (the watch importing country) is higher than its own opportunity cost of production which is  $0.75$  units of TV sets, Country B would lose from the trade. (4)

2006/CE/T/8

- (a) The opportunity cost in the production of 1 unit of clothing  
in Country A is  $200 \div 100 = 2$  units of computers (1)  
in Country B is  $450 \div 150 = 3$  units of computers (1)  
Therefore, Country A has the comparative advantage in producing clothing. (1)
- (b) Country A gains  $2.5 - 2$  (1)  
 $= 0.5$  units of computers from 1 unit of export. (1)

2007/CE/I/10(b)

- (i)  $(10 - 5)$  units of vegetables (1)  
 $= 5$  units of vegetables (2)
- (ii)  $5$  units of vegetables  $<$  1 unit of jewels  $<$   $9$  units of vegetables (1)  
OR  
 $1/9$  units of jewels  $<$  1 unit of vegetables  $<$   $1/5$  units of jewels (3)

2008/CE/V/7

- (a) No because (1)  
they have the same amount of output with the same amount of resources. (2)
- (b) The opportunity cost of producing food  
in Country A  $= 50 \div 20 = 2.5$  units of machines (1)  
in Country B  $= 60 \div 40 = 1.5$  units of machines (1)
- Yes because (1)  
the opportunity cost of producing food in Country B is lower. (1)

2009/CE/II/10(b)

- (i) The opportunity cost of producing one unit of computers  
in Mainland China:  $90 \div 50 = 1.8$  units of toys (1)  
in Taiwan:  $250 \div 200 = 1.25$  units of toys (1)  
Taiwan enjoys a comparative advantage in producing computers, because she has a lower opportunity cost in producing computers. (1)
- (ii) Gain of Taiwan from exporting a unit of computers  $= (1.5 - 1.25 \times 0.2)$  (1)  
 $= 0.05$  units of toys (2)

2010/CE/II/10(b)

- (i) If each economy specializes to produce the good in which it enjoys a comparative advantage in production / lower opportunity cost of production, the total output of all economies will increase. (2)
- (ii) In HK: the opportunity cost of producing 1 unit of medicine is 2.5 units of watches.  
In Japan: the opportunity cost of producing 1 unit of medicine is 2 units of watches.  
The possible range of mutually beneficial terms of trade is  
 $2$  units of watches  $<$  1 unit of medicine  $<$   $2.5$  units of watches (4)

2012/DSE/II/9

- (a) In country A, opportunity cost of producing 1S  $= 0.2W$  (1)  
In country B, opportunity cost of producing 1S  $= 0.25W$  (1)
- (b) If each country specializes in producing the good in which the country has a lower opportunity cost, the total output will increase. (2)  
Country A would export shirts. (1)
- (c)  $0.2W < 1S < 0.25W$  OR  $4S < 1W < 5S$  (2)

2013/DSE/II/5

- (a) In Country A, the opportunity cost of producing 1 smartphone (S)  $= 0.75$  Food (F) (1)  
In Country B, the opportunity cost of producing 1 smartphone (S)  $= 0.5$  Food (F) (1)  
Country B has a comparative advantage in producing smartphones. (3)
- (b) Yes, because the potential gain from trade  $(0.75F - 0.5F = 0.25F)$  per unit of smartphones is greater than the transportation cost  $(0.2F)$ . (3)

2014/DSE/II/8

- (a) In Country A, the opportunity cost in producing 1 unit of watches (W)  $= 4$  units of Paper (P). (1)  
In Country B, the opportunity cost in producing 1 unit of watches (W)  $= 2$  units of Paper (P). (2)  
Country B will specialize in producing watches and export watches because the opportunity cost of producing watches is lower there than in Country A. (3)
- (b) The terms of trade is  $1W = 2.5P$ . Per unit of watches imported, Country A will gain  $1.5P$  ( $= 4P - 2.5P$ ). (3)

2015/DSE/II/7

- (a) Uncertain. Since the amount of resources owned by the two countries is not given, their productivities (i.e., output-input ratios) cannot be determined and compared. (2)
- (b) In Country A, the opportunity cost in producing 1 unit of clothing (C) in terms of rice (R)  $= 15/3 = 5$  units of rice (R). (1)  
In Country B, the opportunity cost in producing 1 unit of clothing (C) in terms of rice (R)  $= 8/4 = 2$  units of rice (R). (2)  
Therefore Country A (B) enjoys comparative advantage in producing rice (clothing). (2)
- Per unit gain from trade for Country B  $= 4R - 2R = 2R$   
Total gain from trade  $= (4R - 2R) \times 3 = 6R$   
OR  
In other words, Country B would be the clothing-exporting country, producing 4C, exporting 3C in exchange for 12R and keeping 1C for domestic consumption. (1)  
Without trade, it could have produced 1C and 6R on its own. Its total gain from trade is thus  $6R$  ( $= 12R - 6R$ ). (2)

2016/DSE/II:7

- (a) In Country A, the opportunity cost of producing 1C =  $6:2 = 3T$   
The terms of trade: 1C will exchange for  $1/2 \Rightarrow 5.5T$   
As the opportunity cost of producing 1 C is lower than the terms of trade, Country A will produce and export C. (3)
- (b) The gain from trade =  $5.5 - 3 = 2.5T$  per unit of C. (3)

2017/DSE/II:7

- (a) (i) Uncertain. Without knowing the total amount of resources of both countries, the productivity (output per unit of resource) for food and computer cannot be determined. (2)
- (ii) Total producible outputs in the two countries when they utilize all of their resources in producing either food or computer:

	Food (units)	Computer (units)
Country A	200	100
Country B	200	200

- The opportunity cost of producing 1 unit of computer in Country A:  
=  $200/100 = 2$  units of food (1)
- The opportunity cost of producing 1 unit of computer in Country B:  
=  $200/200 = 1$  unit of food (1)
- Country B has a lower opportunity cost in producing computers, so it will produce and export computers. (1)
- (b) Terms of Trade (TOT) =  $7/4 = 1.75$  F per unit of C (1)  
Per unit gain for Country B =  $(1.75 - 1)F = 0.75F$  (1)  
Total gain =  $0.75 \times 16 = 12F$  (1)

2018/DSE/II:8

- (a) The opportunity cost of producing 1T in China = 5C  
The opportunity cost of producing 1T in Japan = 2C (2)
- (b) If each country specialises in producing the good in which the country has lower opportunity cost, then total world output would increase. Japan would export toys, as it has a lower cost of producing toys than China. (3)
- (c) Range of TOT:  $2.05C < 1T < 4.95C$  (2)

2019/DSE/II:8

- (a) (i) Yes. (2)  
When Country B has the same resource as Country A, the output of cars would be 200 units which is higher than that of country A.
- (ii) Yes. (3)  
The opportunity cost of producing 1C in Country A = 1T  
The opportunity cost of producing 1C in Country B = 0.6T  
Country B has a comparative advantage in producing cars.

2020/DSE/II:7

7A) Country B. The production cost of toy is lower than country A. (0.5 car lower than 1 car)

B. Terms of trade 5 toys for 4 cars = 1 toy for 0.8 car. (1 mark)

Exporting country gain = Terms of trade - exporting country production cost - transportation cost.  
=  $0.8 \text{ car} - 0.5 \text{ car} = 0.3 \text{ car} = 0.2 \text{ car}$ . (2 marks)

7.2 TRADE BARRIERS

Multiple Choice Questions

1990/AL/II/22

The major difference between a quota and a tariff on imports lies in their effects on

- A. wealth redistribution.
- B. domestic production.
- C. domestic consumption.
- D. the price level.

1994/AL/II/30

Tariffs protect \_\_\_\_\_.

- A. consumers
- B. the import-competing industries
- C. the export industry
- D. both the import-competing and the export industries

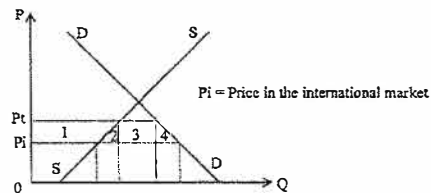
1996/AL/II/29

Which of the following is NOT the effect of imposing tariffs?

- A. The quantity of imports is reduced.
- B. The amount of deadweight loss is greater than the total loss of consumer surplus of local consumers.
- C. Local consumers consume more domestically-produced import-competing goods.
- D. Domestic production in import-competing industries will increase.

1998/AL/II/28

Consider a small country imposing a tariff on an import. The diagram below shows the country's supply of and demand for the good.



If the tariff rises the domestic price of good from  $P_i$  to  $P_t$ , then

- A. the consumers will lose areas 2, 3, 4.
- B. the whole country will lose areas 1, 2, 3 and 4.
- C. the tariff revenue collected by the government is areas 1, 2 and 3.
- D. None of the above.

1998/AL/II/29

Which of the following is NOT a result of the imposition of quotas on imports?

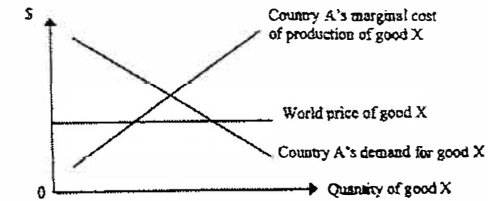
- A. a decrease in the quantity of imports.
- B. an increase in the total expenditure on imports.
- C. an increase in import prices.
- D. an increase in domestic production.

1999/AL/II/21

A major difference between a quota and a tariff on imports lies in their effects on

- A. the price of imports.
- B. the quantity of imports.
- C. domestic production of import substitutes.
- D. wealth distribution.

2000/AL/II/26



Given that the world price of good X is fixed, if country A's marginal cost of production of good X increases, which of the following statements are correct?

- (1) The total production of good X in country A will fall.
- (2) The quantity of good X imported by country A will increase.
- (3) The consumer surplus of good X in country A will fall.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2001/AL/II/11

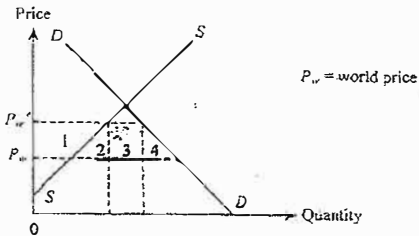
A small country imposes tariffs on good X. Suppose the demand of the country for good X increases.

- (1) the government revenues from tariffs will increase.
- (2) the price of good X in the country will rise.
- (3) the consumption of good X in the country will increase.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2004/AL/II/25

Consider a country imposing a quota on an import. The diagram below shows the country's supply of and demand for the good.

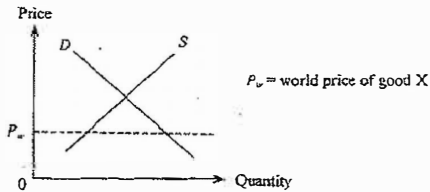


If the quota raises the domestic price of the good from  $P_w$  to  $P_w'$ ,

- A. total loss in consumer surplus is equal to the sum of areas 1, 2 and 3.
- B. total quota rent is equal to area 3.
- C. total deadweight loss is equal to area 4.
- D. None of the above.

2004/AL/II/26

A country imposes a tariff on good X. Which of the following will be a result of the tariff?



- A. The domestic production of good X will decrease.
- B. The domestic price of good X will increase.
- C. Total expenditure on the import of good X will decrease.
- D. The quantity of import of good X will increase.

2007/AL/II/25

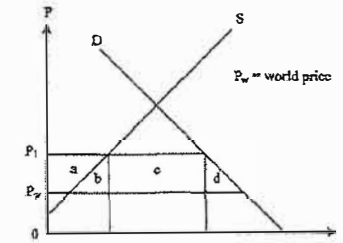
Consider a small open economy with an import quota imposed on a good. If the domestic cost of production for the good increases,

- (1) the domestic price of the good will rise.
- (2) the quantity of the good consumed domestically will fall.
- (3) the quantity of the good produced domestically will remain unchanged.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2009/AL/II/25

Suppose a country imposes a quota on an imported good. The diagram below shows the country's supply of and demand for the good.



If the quota raises the domestic price of the good from  $P_w$  to  $P_1$ ,

- A. the loss to the consumers is area a.
- B. the gain of local producers is area a.
- C. the loss to the country is the sum of areas b, c and d.
- D. the quota rent earned by the government is the sum of areas b, c and d.

2009/AL/II/26

An export subsidy will

- (1) reduce the price of exports of the domestic country.
- (2) increase the quantity demanded for exports by foreign consumers.
- (3) improve the trade balance of the domestic country.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2010/AL/II/27

If a small country reduces the tariff rate of its imported good X,

- A. the local producers will reduce their production.
- B. the producer surplus of the local producers will increase.
- C. the tariff revenue of the government will decrease.
- D. the world price of good X will decrease and its import volume in the country will increase.

2012/AL/II/24

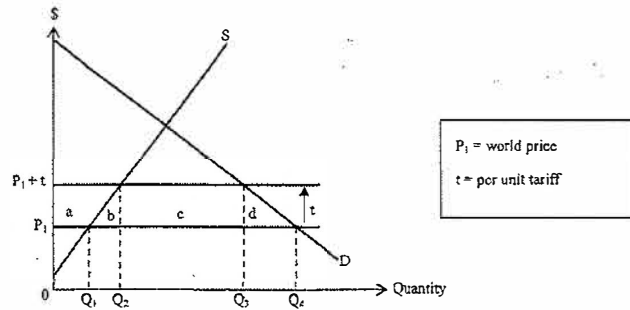
A small open economy imposes a tariff on imported good X. If the local supply of good X in the economy increases and replaces some of the imports,

- (1) government revenue from the tariff will fall.
- (2) the deadweight loss will remain unchanged.
- (3) the price of good X in the economy will fall.
- (4) the producer surplus of the local suppliers will rise.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2014/DSE/1/45

The following diagram shows the imposition of an import tariff on a good in a small open economy. After the imposition of the tariff, which of the following statements about the good in this economy is **INCORRECT**?



- A. The volume of imports is  $(Q_3 - Q_2)$  units.
- B. The domestic consumption is  $Q_3$  units.
- C. The increase in producer surplus of the domestic producers is area a.
- D. The total amount of tariff is the sum of areas b, c and d.

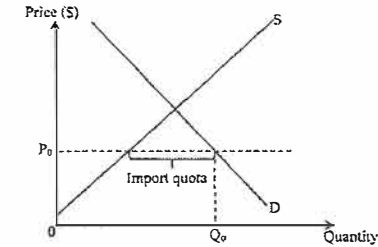
2015/DSE/1/45

The supply curve of a certain good is upward-sloping in a small open economy. What is the main difference between imposing an effective import quota and a tariff on the good?

- A. Imposing an effective import quota will lower the volume of import while imposing a tariff will not.
- B. Imposing an effective import quota will result in a rise in consumer surplus of the good while imposing a tariff may not.
- C. Imposing a tariff will raise the world price of the good while imposing an effective import quota will not.
- D. Imposing a tariff will result in an increase in the government revenue while imposing an effective import quota may not.

2016/DSE/1/42

Refer to the following supply-demand diagram about Good X in a small country.



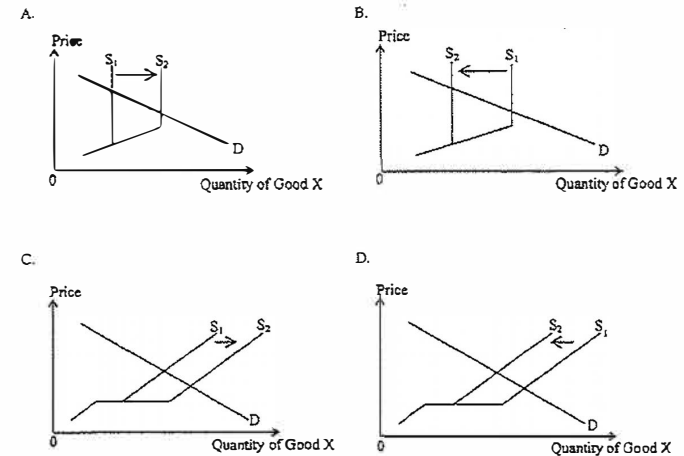
The country has imposed an import quota on Good X and the price and quantity transacted are  $P_0$  and  $Q_0$  respectively. If the demand for Good X in the country increases,

- (1) the import volume will increase.
- (2) the price of Good X in the country will increase.
- (3) the quantity sold of Good X in the country will increase.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

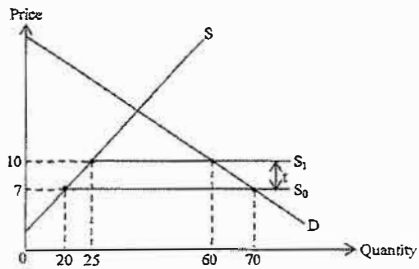
2017/DSE/1/42

A small open economy increases the import quota for Good X. Which of the following diagrams best illustrates the effect of this change?



2018/DSE/1/41

The following diagram shows an imposition of import tariff on a good of a small open economy.



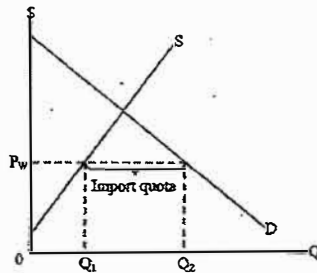
Referring to the above diagram, which of the following statements are correct after the imposition of import tariff (t)?

- (1) The total amount of tariff received by the government is \$105.
- (2) The revenue of domestic producers will increase by \$110.
- (3) The volume of imports drops by 15 units.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2019/DSE/1/43

The following is the supply-demand diagram of Good X in a small open economy.



Initially the economy imports Good X at the world price ( $P_w$ ) and the government imposes an import quota of  $(Q_2 - Q_1)$  units. Suppose the world price of Good X drops. Which of the following statements is correct?

- A. The domestic price of Good X will remain at  $P_w$ .
- B. The domestic price of Good X will fall.
- C. The domestic supply curve will shift to the right.
- D. The quantity of domestically produced Good X will increase.

Short & Structured Questions

1993/AL/II/5

With the aid of diagrams, compare the income redistributive effects on a country imposing tariffs and quotas on its imports. (8 marks)

1995/AL/II/8

With the aid of one diagram only, answer (a) and (b).

- (a) A small country wishes to protect its industry X by restricting the import of good X to a given quantity. Show that this can be achieved by imposing either a quota or a tariff on good X. (3 marks)
- (b) Suppose the demand of the small country for good X increases but the quota or the tariff rate imposed remain unchanged. Compare the impact of this increase on the domestic price, import volume and consumer surplus of good X under the quota system and the tariff system. (7 marks)

2001/AL/II/4

With the help of a diagram, explain how the imposition of tariffs affects the producer surplus, the consumer surplus and the welfare of a small country. (8 marks)

2011/AL/II/1(d)

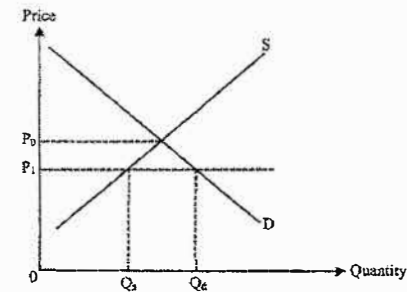
Name one similarity and one difference between the following pairs of terms:

tariff; quota

(3 marks)

2020/DSE/1/43

The diagram below shows the market situation of Good X in a small open economy.



$P_0$  is the price before trade and  $P_1$  is the price after trade. Which of the following statements about Good X are correct after the economy opens up for international trade?

- (1) The total expenditure on Good X of domestic consumers would be  $P_1 \times Q_d$ .
- (2) The value of domestically produced Good X would be  $P_1 \times Q_s$ .
- (3) The shortage of Good X would be  $Q_d - Q_s$ .

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)



MARKING SCHEME

1990/AL/II/22 A	1998/AL/II/29 B	2004/AL/II/25 B (63%)	2009/AL/II/26 A (45%)	2015/DSE/I/45 D (68%)
1994/AL/II/30 B	1999/AL/II/21 D	2004/AL/II/26 B (67%)	2010/AL/II/27 A (62%)	2016/DSE/I/42 C (56%)
1996/AL/II/29 B	2000/AL/II/26 A	2007/AL/II/25 A (70%)	2012/AL/II/24 B (63%)	2017/DSE/I/42 C (57%)
1998/AL/II/28 D	2001/AL/II/11 B	2009/AL/II/25 B (77%)	2014/DSE/I/45 D (64%)	2018/DSE/I/41 D (43%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2019/DSE/I/43  
A

2020/DSE/I/43  
A

1993/AL/II/5

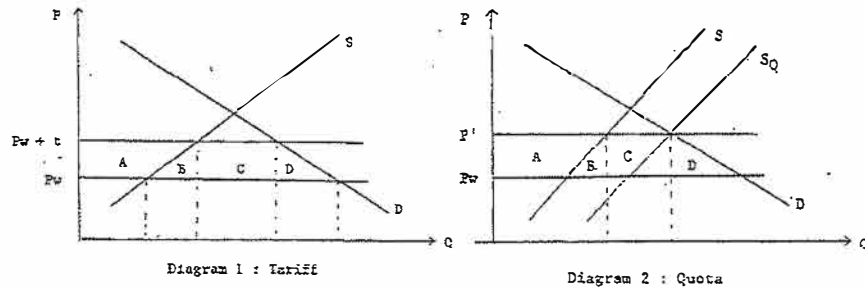
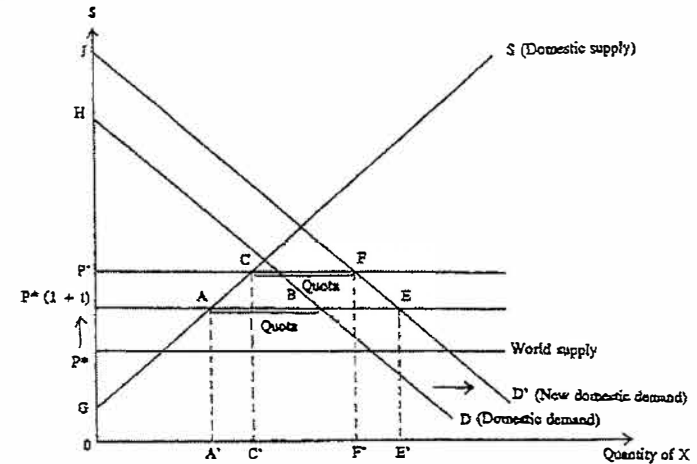


Diagram 1 summarizes the effect of a tariff:  
 Area A: increase in domestic producers' surplus  
 Area A + B + C + D: decrease in consumers' surplus  
 Area C: tariff revenue accruing to the government  
 Area B and D: deadweight loss to society

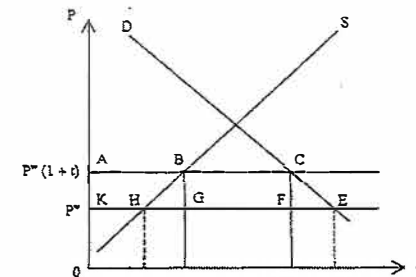
In diagram 2, a quota results in the supply curve  $S_Q$ . Areas A, [A + B + C + D], [B and D] have the same interpretation as before. C is no longer tariff revenue. C may be captured by the importers, foreign exporters or the government depending on how the import quotas are allocated.

1995/AL/II/8



- (a) Suppose the country wishes to restrict the imports of X to AB. This can be achieved by imposing a quota of AB or a tariff of t.
- (b) After the demand grows, under the original tariff rate, the price remains to be  $P^*(1+t)$  and the import becomes AE. Under the original quota, the price becomes  $P'$  [higher than  $P^*(1+t)$ ] and the import is CF (= AB) [smaller than AE]. The consumer surplus under the tariff system is  $P^*(1+t)EJ$  [which is larger than]  $P'EJ$  under the quota system.

2001/AL/II/4



In the absence of tariffs, the price in the domestic economy is  $P^w$ . After imposing tariffs, domestic price is raised to  $P^w(1+t)$ . Producer surplus is increased by ABHK. Consumer surplus is reduced by ACEK. Tariff revenue collected by the government is BCFG. Loss in welfare is given by BGH + CEF.

- 2011/AL/II/1(d)  
 S: examples of trade protection  
 D: direct vs. indirect effects on price of imports.  
 OR  
 indirect vs. direct effects on quantity of imports.

## SECTION 8: INTERNATIONAL FINANCE

### 8.1 BALANCE OF PAYMENTS

#### Multiple Choice Questions

1990/CE/11/36

Which of the following will have favourable effects on the current account of Hong Kong's balance of payments?

- (1) A Japanese tourist spends a day in the Ocean Park.
- (2) An American bank sets up a representative office in Hong Kong.
- (3) The Hong Kong government buys a computer system from the USA.
- (4) A Hong Kong resident receives dividends from his US stocks.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1990/CE/11/46

There will be a worsening of both the balance of payments and the balance of trade if

- A. exports increase.
- B. re-exports decrease.
- C. investment in foreign countries decreases.
- D. the government gives more aid to foreign countries.

1990/CE/11/60

Which of the following is NOT an effect of importing foreign skilled labour for the construction industry?

- A. a favourable effect on Hong Kong's balance of payments
- B. pressure on Hong Kong's social services
- C. a slower increase in the real wage rate of Hong Kong's construction workers
- D. a favourable effect on Hong Kong's GDP

1991/CE/11/49

The rental income earned from a property in Canada and remitted to Hong Kong by a Hong Kong citizen

- A. is included in the GDP of Hong Kong.
- B. has a favourable effect on Hong Kong's balance of visible trade.
- C. has a favourable effect on Hong Kong's balance of payments.
- D. is taxable in Hong Kong.

1991/CE/11/50

The following table shows the balance of payments of a country:

	\$ billion
Exports	30
Imports	X
Capital inflow	50
Capital outflow	60

Foreign exchange and gold reserves decrease by \$20 billion. What is the value of X?

- A. 10
- B. 20
- C. 30
- D. 40

1991/CE/11/60

The \_\_\_\_\_ of Hong Kong is NOT affected when some goods are imported to Hong Kong.

- A. visible trade balance
- B. current account
- C. capital account
- D. foreign exchanged and gold account

1992/CE/11/52

Calculate the value of net exports from the following information:

Domestic exports of goods	\$300
Re-exports of goods	\$150
Imports of goods	\$350

- A. -\$50
- B. \$100
- C. \$450
- D. \$300

1992/CE/11/60

Which of the following items would NOT be entered in the capital account of Hong Kong's balance of payments?

- A. A Hong Kong citizen buying a factory in Japan.
- B. A Hong Kong citizen buying a computer made in the U.S.A.
- C. A Hong Kong citizen buying securities in London's stock market.
- D. A Hong Kong citizen buying a house in the U.S.A.

1993/CE/II/40

	\$ million
Private consumption expenditure	40
Government consumption expenditure	10
Gross domestic fixed capital formation	10
Change in stocks	1
Total exports of goods	80
Domestic exports	70
Re-exports	10
Imports of goods	60
Exports of services	20
Imports of services	30
Inflow of capital	30
Outflow of capital	15

The balance of payments of the economy in that year is

- A. \$10 million                      B. \$15 million  
C. \$20 million                      D. \$25 million

1993/CE/II/54

Which of the following will improve the capital account of Hong Kong's balance of payments?

- A. A Hong Kong businessman sets up a computer firm in the U.S.A.  
B. A British investor buys a commercial building in Hong Kong.  
C. A Hong Kong shipping company receives rental income for providing shipping services to a foreign merchant.  
D. A Hong Kong investor receives a dividend from an overseas investment.

1994/CE/II/51

From the following information, find the value of re-exports:

Domestic exports	\$500
Trade balance	\$250
Imports	\$450

- A. \$50  
B. \$200  
C. \$250  
D. \$300

1994/CE/II/55

Which of the following has a favourable effect on the current account of Hong Kong's balance of payments?

- A. A Macau citizen leaves Hong Kong by using the service provided by a Hong Kong hydrofoil company.  
B. A businessman from Mainland China invests in the real estate market in Hong Kong.  
C. A local bank pays interest to an overseas depositor.  
D. A company in Mainland China issues shares in Hong Kong.

1994/CE/II/56

Mr Chan, who is an imported worker in Hong Kong, remits his income to his family in China. Which of the following statements is correct?

- A. Mr Chan's income is included in Hong Kong's GNP.  
B. The remittance has an unfavourable effect on Hong Kong's balance of visible trade.  
C. The remittance has a favourable effect on Hong Kong's balance of invisible trade.  
D. The remittance has a favourable effect on China's balance of payments.

1995/CE/II/54

Consider the following balance of payments account of an economy:

	\$ million
Export of goods & services	2 800
Import of goods & services	3 200
Capital inflows	Z
Capital outflows	700
Increase in foreign exchange & gold services	40

Z is

- A. 260  
B. 340  
C. 1 060  
D. 1 140

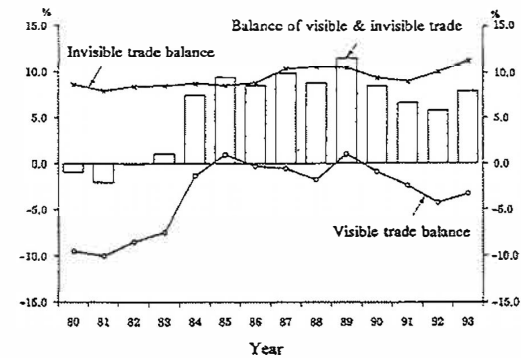
1995/CE/II/56

If an American tourist gives money to local beggars, Hong Kong's GDP will \_\_\_\_\_ and its balance of payments will \_\_\_\_\_

- A. increase ..... be improved  
B. increase ..... remain unchanged  
C. remain unchanged ..... be improved  
D. remain unchanged ..... remain unchanged

1995/CE/II/57

TRADE BALANCES AS % OF GDP



Source: Hong Kong Economic Indicators, Standard Chartered

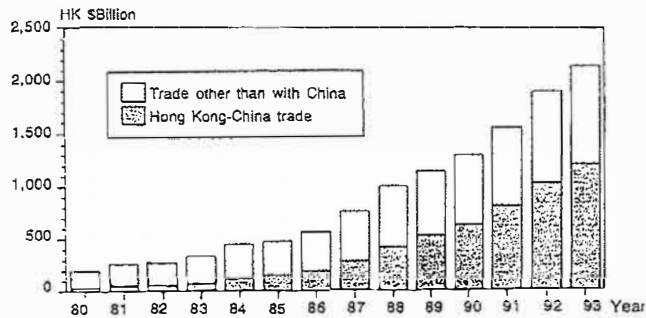
Based on the above chart, which of the following are correct?

- (1) The payments for imports of goods usually exceed the receipts from exports of goods.  
(2) Over the years, net exports of services accounted for more than 7% of Hong Kong's GDP.  
(3) Hong Kong's current account has a surplus in recent years.

- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

1995/CE/11/58

Hong Kong's trade, overall and with China



The above graph shows that in recent years,

- A. the value of Hong Kong's trade with countries other than China had decreased.
- B. Hong Kong had gained an increasing surplus from its trade with China.
- C. the flow of people between Hong Kong and China has increased.
- D. China has become largest trading partner of Hong Kong.

1996/CE/11/48

Which of the following will worsen the balance of payments but not the balance of trade of Hong Kong?

- A. A Japanese pop singer cancelled his concerts in Hong Kong.
- B. A charity organization in Hong Kong reduced its donations to Mainland China.
- C. U.S. businessmen reduced their investment in Hong Kong.
- D. Re-export from Hong Kong to Mainland China decreased.

1996/CE/11/49

The official opening of Macau International Airport took place in December 1995. It is predicted that one-third of the visitors from Taiwan using Hong Kong's airport services will be diverted to Macau. This will

- (1) have a favourable effect on the balance of trade of Macau.
- (2) increase Macau's gross domestic product.
- (3) reduce the demand for Hong Kong's airport services.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1996/CE/11/50

Which of the following is favourable to the capital account of Hong Kong's balance of payments?

- A. An American firm buys some certificates of deposit issued by a bank in Hong Kong.
- B. An American firm donates money to a charitable organization in Hong Kong.
- C. A Hong Kong firm buys a hotel in Canada.
- D. A Hong Kong firm receives interests and dividends from its investment in the U.S.A.

1996/CE/11/51

Refer to the following data in the balance of payments account of a country.

	\$ billion
Visible exports	15
Visible imports	13
Invisible exports	8
Invisible imports	11
Inflow of capital	9
Outflow of capital	12

This country has a/an \_\_\_\_\_ balance of visible trade and a/an \_\_\_\_\_ balance of payments.

- A. favourable ..... favourable
- B. favourable ..... unfavourable
- C. unfavourable ..... favourable
- D. unfavourable ..... unfavourable

Answer Questions 50 and 51 by referring to the data below of an economy in a certain year:

	\$Billion
Domestic exports of goods	15
Re-exports	8
Imports of goods	20
Exports of services	7
Imports of services	4
Net capital inflow	-2

1997/CE/11/50

The balance of visible trade (in \$ billion) is

- A. -5
- B. -2
- C. 3
- D. 6

1997/CE/11/51

The balance of payments (in \$ billion) is

- A. -4
- B. 0
- C. 1
- D. 4

1997/CE/11/52

Which of the following will produce a favourable effect on the balance of payments of Country A?

- A. The citizens of Country A increase their investment abroad.
- B. The government of Country A abolishes the tariffs in imports.
- C. The citizens of Country A receive interest from the US government bonds they hold.
- D. The government of Country A pays for the service of a foreign consultant firm.

1998/CE/II/46

Which of the following is an invisible export in Hong Kong's balance of payments accounts?

- A. A Japanese firm buys shares on the Hong Kong Stock Exchange.
- B. A Hong Kong citizen buys tickets from Japanese airlines.
- C. A Hong Kong citizen remits money to his son in Japan.
- D. A Japanese tourist consults a local doctor in Hong Kong.

1998/CE/II/53

Which of the following statements about the firework display for the handover ceremony of Hong Kong to China is **INCORRECT**?

- A. Consumption was involved when people watched the firework display.
- B. The nominal GDP of Hong Kong increased.
- C. There was a favourable effect on the visible trade balance of Hong Kong.
- D. The firework display has an opportunity cost because the money spent on it has other uses.

1999/CE/II/47

The following information shows the trade statistics of an economy in a certain year:

	\$ million
Domestic export of goods	30
Re-exports	40
Import of goods	50
Export of services	60
Import of services	80

According to the above data, the economy

- A. has a visible trade surplus.
- B. has a visible trade deficit.
- C. has no visible trade surplus or visible trade deficit.
- D. There is not enough information to obtain the answer.

1999/CE/II/53

Being a Hong Kong resident, Mr Wong earns a living in Hong Kong. He gets married to Mei-ling who lives in Mainland China. Which of the following events will **NOT** affect the balance of payments of Hong Kong?

- A. He buys a wedding ring in Hong Kong and takes it to her by Himself.
- B. He remits a sum of money as the betrothal (聘禮) gifts through a Bank to Mei-ling's parents.
- C. He pays for the honeymoon trip to Thailand.
- D. He rents a residential apartment for her in Shenzhen.

1999/CE/II/54

Which of the following is **NOT** included in the calculation of the balance of Hong Kong's current account?

- A. The investment of a U.S. company in a Hong Kong computer firm.
- B. Japanese cars sold in Hong Kong.
- C. A drama performance attended by the tourists in Hong Kong.
- D. The exports of China handled in the container port of Hong Kong.

2000/CE/II/50

Suppose country A has a balance of payments deficits in Year 1. In Year 2, the changes in the balance of payments are as shown below:

	\$ Billion
Export of goods	+28
Export of services	+7
Import of goods	+35
Import of services	+13
Capital inflows	+5
Capital outflows	+8

Based on the above information, we can conclude that

- A. In Year 2, the visible trade deficit has increased.
- B. In Year 2, the visible trade deficit has decreased.
- C. In Year 2, the balance of payments deficit has increased.
- D. In Year 2, the balance of payments deficit has decreased.

2000/CE/II/51

Which of the following should be included in the calculation of the balance of Hong Kong's current account?

- A. A company in Hong Kong pays interests for loans from a bank in U.K.
- B. A Hong Kong resident purchases a new flat in Shenzhen.
- C. A U.S. investor purchases 5 000 units of the Tracker Fund of Hong Kong.
- D. An author in Hong Kong sells the copyright for his new book to a publisher in Taiwan.

2001/CE/II/41

Which of the following should be included in the calculation of the balance of Hong Kong's current account?

- A. A foreigner buys shares issued by a local property developer.
- B. A foreigner receives rental income from his property in Hong Kong.
- C. A company in Hong Kong donates medical equipment to a hospital in Mainland China.
- D. A US manufacturer sets up a factory in Hong Kong.

2001/CE/II/45

Hong Kong's Balance Of Payments Account

	\$ million	
<b>Current Account</b>	<b>72 000</b>	
Goods		-25 000
Services		81 000
Factor income		27 000
Current transfers		-11 000
<b>Capital and Financial Account</b>	<b>-76 000</b>	
<b>Net errors and omissions</b>	<b>4 000</b>	
	Total sum = 0	

According to the above data,

- (1) the visible trade deficit is \$25 000 million.
- (2) the invisible trade surplus is \$81 000 million.
- (3) the balance of payments account is in balance.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2002/CE/II/48

Which of the following should be included in the calculation of the balance of Hong Kong's current account?

- A. A Hong Kong resident buys a life insurance policy from an insurance company in the US.
- B. A company in Hong Kong purchases the copyright of a film from a British film producer.
- C. A Hong Kong resident purchases a house in the US.
- D. A Hong Kong investor buys a number of shares of a listed company in the US.

2003/CE/II/43

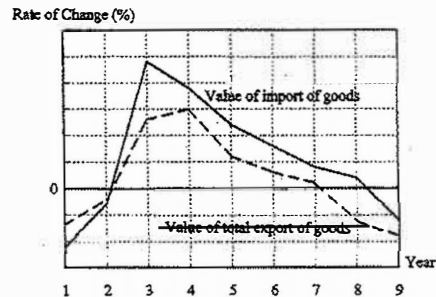
Refer to the data of an economy in a certain year below:

	\$ Billion
Domestic exports of goods	20
Imports of goods	50
Visible trade balance	-5

The re-exports (in \$ billion) are

- A. 15
- B. 25
- C. 30
- D. 35

2003/CE/II/48



According to the above diagram, from Year 4 to Year 6,

- A. the economy has suffered from visible trade deficit.
- B. the value of import of goods has decreased.
- C. the value of total export of goods has increased.
- D. the visible trade deficit has improved.

2004/CE/II/49

Many foreign tourists cancelled their holiday trips to Hong Kong during the SARS infection. This would

- A. worsen Hong Kong's visible trade balance.
- B. worsen Hong Kong's invisible trade balance.
- C. make Hong Kong's balance of payments imbalanced.
- D. All of the above are correct.

2004/CE/II/50

Mr Wong, a Mainland resident, comes to visit Hong Kong for a week. Which of the following should be included in Hong Kong's current account?

- A. the transport service he bought from a Mainland airline
- B. the accommodation service he bought from a Hong Kong hotel
- C. the residential flat in Tsim Sha Tsui he bought
- D. the Bank of China (H.K.) Ltd shares he bought

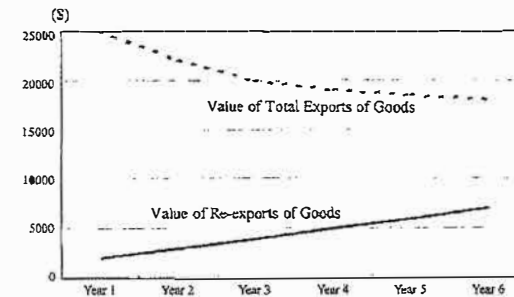
2005/CE/II/44

After the introduction of the 'individual visit' scheme, the Chinese government allows individuals from the mainland to travel in Hong Kong. This measure will increase Hong Kong's

- (1) tertiary production.
- (2) GDP.
- (3) invisible trade surplus.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2005/CE/II/47



According to the above diagram, from Year 2 to Year 5, the value of domestic exports of goods

- A. was decreasing.
- B. was increasing.
- C. remained constant.
- D. was indeterminate.

2006/CE/II/45

Many tourists from Mainland China buy souvenirs at Hong Kong Disneyland. Suppose these souvenirs are made in Mainland China. Then the tourist spending mentioned above is a/an \_\_\_\_\_ to Hong Kong.

- A. domestic export of goods
- B. re-export of goods
- C. export of services
- D. import of services

2006/CE/II/48

An Indonesian maid who works for a family in Hong Kong remits part of her wage earnings to Indonesia. In which component of the current account of Hong Kong's balance of payments should the above remittance be recorded?

- A. goods
- B. services
- C. income
- D. current transfers

2007/CE/II/48

Refer to the data of an economy in a certain year:

	<u>\$ Billion</u>
Domestic exports of goods	20
Re-exports	25
Imports of goods	40
Exports of services	23
Imports of services	19

The visible trade balance is \$ \_\_\_\_\_ billion.

- A. -20
- B. -5
- C. 5
- D. 9

2007/CE/II/50

An increase in the value of exports and a decrease in the value of imports in Country X would

- A. decrease its GDP.
- B. result in a surplus of its trade account.
- C. improve the balance of its current account.
- D. result in a depreciation of its domestic currency.

2008/CE/II/46

Which of the following should be included in the calculation of the invisible imports of Hong Kong?

- A. A Hong Kong citizen purchases shares in a state-owned enterprise on the Hong Kong stock market.
- B. A Hong Kong citizen buys some airtickets from a mainland Chinese airline.
- C. A mainland student pays tuition fees for his studies at a university of Hong Kong.
- D. A mainland investor purchases a residential apartment in Hong Kong.

2008/CE/II/47

Refer to the data of an economy in a certain year below:

	<u>\$ Billion</u>
Domestic exports of goods	50
Re-exports	35
Imports of goods	60
Exports of services	25
Imports of services	10

There is a/an \_\_\_\_\_ of \$ \_\_\_\_\_ billion.

- A. visible trade surplus ..... 25
- B. visible trade deficit ..... 10
- C. invisible trade surplus ..... 40
- D. invisible trade deficit ..... 15

2008/CE/II/48

Last year, a film crew came to Hong Kong to make a Batman movie. The shooting of the film in Hong Kong would

- (1) improve the visible trade balance of Hong Kong.
- (2) improve the invisible trade balance of Hong Kong.
- (3) increase the GDP of Hong Kong.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2008/CE/II/49

A US engineer is working in Hong Kong. Which of the following amounts should be included in the calculation of the balance of Hong Kong's current account?

- A. the part of her salary earnings that she deposits with a bank in Hong Kong
- B. the part of her salary earnings that she remits to her family in the US
- C. the money she pays to buy shares in Chinese state-owned enterprises quoted on the Hong Kong Stock Exchange
- D. the money she spends on buying clothes and toys in Hong Kong which are sent to her children in the US

2009/CE/II/47

Mary is a fashion merchandiser for a department store in Thailand. She came to Hong Kong and purchased \$300 000 worth of garments from a Hong Kong garment manufacturer. These garments were shipped directly from the garment manufacturer to the department store. During her stay in Hong Kong, she also bought a personal computer worth \$10 000 from an electrical appliance shop for her own personal use.

The \$300 000 worth of garments would be regarded as a/an \_\_\_\_\_ export of Hong Kong and the \$10 000 computer would be regarded as a/an \_\_\_\_\_ export of Hong Kong.

- A. visible ..... visible
- B. visible ..... invisible
- C. invisible ..... visible
- D. invisible ..... invisible

2010/CE/II/48

Refer to the following trade figures of an economy in a certain year:

	<u>\$ Billion</u>
Total exports of goods	140
Re-exports	50
Exports of services	33
Imports of goods	72
Imports of services	20

The visible trade balance is \$ \_\_\_\_\_ billion.

- A. 68
- B. 81
- C. 118
- D. 131

2010/CE/II/49

Which of the following should be included in the calculation of the invisible imports of Hong Kong?

- A. the money spent by a Hong Kong citizen to buy a ticket for a concert held in Macau
- B. the money spent by a Malaysian tourist to purchase a ticket for the 2009 East Asian Game held in Hong Kong
- C. the money spent by a Hong Kong citizen on donations to earthquake victims in Haiti
- D. the money spent by a Hong Kong citizen to purchase an RMB sovereign bond of mainland China through a Hong Kong bank

2012/DSE/I/40

Which of the following is an invisible import in the current account of Hong Kong?

- A. In Beijing, a Hong Kong tourist purchases tickets to visit a local museum.
- B. A Mainland resident consults a doctor in a hospital in Hong Kong.
- C. A Mainland billionaire donates money to a university in Hong Kong.
- D. A Hong Kong manufacturer purchases raw materials from a Mainland firm.

2014/DSE/I/43

Which of the following is included in the calculation of the balance of Hong Kong's current account?

- A. A mainland investor purchases a house in Hong Kong.
- B. A Hong Kong investor buys shares issued by a mainland listed company.
- C. A mainland resident buys an air ticket to Hong Kong from a mainland airline.
- D. A Hong Kong resident buys a life insurance policy from a mainland insurance company.

2015/DSE/I/43

A lecturer from the US has been working in Hong Kong for 10 years. Which of the following would be included in the calculation of Hong Kong's current account balance?

- (1) the money he gives to his wife in Hong Kong
  - (2) the money he uses to buy shares listed in the US stock market
  - (3) the money he donates to a charity organization in Africa
  - (4) the money he spends on visiting his parents in the US
- A. (1) and (2) only
  - B. (1) and (4) only
  - C. (2) and (3) only
  - D. (3) and (4) only

2015/DSE/I/44

The following table shows some information about the balance of payments of Country A.

Items	\$ million
Balance on goods	-1 200
Balance on services	700
Net factor income from abroad	200
Net current transfer	-100
Increase in reserve assets	180

According to the above data, which of the following statements are correct?

- (1) The current account deficit is \$400 million.
  - (2) Country A's GDP is smaller than its gross national product.
  - (3) The balance of payments surplus is \$180 million.
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

2016/DSE/I/43

The following table shows the information about the balance of payments of a country:

	\$ million
Visible trade	20
Invisible trade	x
Capital inflow	70
Capital outflow	50

Suppose the foreign exchange reserves of the country increase by \$30 million. What is the value of x?

- A. -70
- B. -10
- C. +10
- D. +70

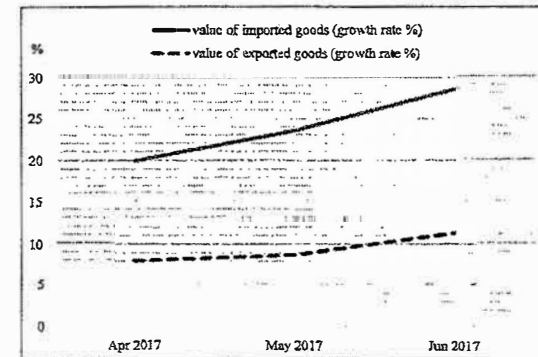
2017/DSE/I/41

Which of the following transactions will be included in the calculation of the balance of payments of Hong Kong?

- (1) A Mainland resident who owns an apartment in Hong Kong receives rental payment from his tenant.
  - (2) A Japanese resident sells the shares of a Hong Kong firm to a Korean resident.
  - (3) A Hong Kong resident buys an air ticket to London from a Hong Kong based airline.
  - (4) An Indonesian who works in Hong Kong as a domestic helper remits money to her husband who lives in Indonesia.
- A. (1) and (3) only
  - B. (1) and (4) only
  - C. (2) and (3) only
  - D. (2) and (4) only

2018/DSE/I/42

The diagram below shows some trade data of Country A in the second quarter last year.



Country A reported a trade surplus during that period. Based on the given information, we can conclude that during the second quarter last year,

- A. the trade balance was in deficit.
- B. the volume of imported goods increased faster than that of exported goods.
- C. the visible trade surplus decreased.
- D. the current account deficit increased.



2018/DSE/1/44

The Hong Kong Tourism Board organised the E-sports and Music Festival in summer 2017. Foreign E-sports players and K-pop superstars participated in the festival and they attracted locals and tourists from other parts of the world to attend the event. Organising the festival will lead to

- (1) an increase in private consumption expenditure in Hong Kong.
- (2) an increase in export of services in Hong Kong.
- (3) a decrease in balance of payment deficit in Hong Kong.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2019/DSE/1/44

A Hong Kong billionaire travelled to Russia to watch matches in the World Cup. Which of the following would be included in the calculation of Hong Kong's balance of payments?

- (1) He bought a travel insurance for his Russia trip from a Hong Kong agency.
- (2) He bought a jersey of the Russia national team in Moscow as a souvenir.
- (3) He invested in a Russian football club and became the major owner.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1990/CE/1/3(a)(i)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

	<u>\$ Billion</u>
Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56

(The GDP deflator for 1980 = 100)

Calculate the visible trade balance.

(2 marks)

1991/CE/1/4(b)

Every morning Mr. Chan transports vegetables from a farm in Shenzhen to Hong Kong. Explain whether

- (i) the import value of the vegetables, and
- (ii) the value of Mr. Chan's transport services

should be recorded in Hong Kong's visible trade account. Also, state the respective effects of (b)(i) and (b)(ii) on Hong Kong's balance of payments. (6 marks)

1992/CE/1/4(c)

State the effect of each of the following on **BOTH** the balance of invisible trade and the balance of payments in Hong Kong. (4 marks)

- (i) Company B deposited £1 000 into its savings account with a bank in England.
- (ii) Company B received a dividend payment from investment abroad.

1993/CE/1/2(b)(i)

Many Hong Kong manufacturers have recently moved their factories to China. Explain the effect on the volume of Hong Kong's re-exports. (3 marks)

1993/CE/1/4(a)

The following table shows the composition of Hong Kong's Gross Domestic Product (GDP) in 1980 and 1990:

GDP Components	Ratio to total GDP	
	1980	1990
Private consumption expenditure	62%	62%
Government consumption expenditure	A%	6%
Investment	36%	28%
Exports	88%	165%
Imports	93%	161%

(ii) Was external trade more significant to Hong Kong's economy in 1990 than in 1980? Explain in terms of the above figures. (3 marks)

(iii) Was there a trade deficit or surplus in 1980? In 1990? Give **TWO** reasons for the change in the trade balance. (6 marks)

1994/CE/1/8

Explain how it is possible for a country to have a trade deficit and a balance of payments surplus at the same time. (4 marks)

1995/CE/1/9(b)

The World Cup of 1994 was held in the USA. People from all over the world went to the US to watch the matches. For each of the following situations, name the account(s) within the US balance of payments that would be affected, and explain how the US balance of payments would be affected.

- (i) Many tourists from other countries bought souvenirs in the US which were made in Hong Kong. (5 marks)
- (ii) Some hotels in the US were built before the event by foreign investors. (2 marks)

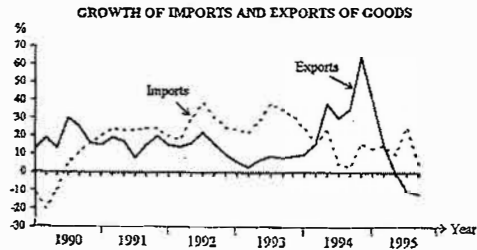
1996/CE/1/9

The table shows the items (in \$mn) of the balance of payments of a country in a certain year:

	Debit	Credit
Exports of goods		24
Imports of goods	35	
Exports of services		17
Imports of services	19	
Capital inflow		50
Capital outflow	65	
Foreign exchange & gold account		28
<b>Total</b>	<b>119</b>	<b>119</b>

- (a) Calculate the balance of current account. (1 mark)
- (b) 'The country has no balance of payments problem because the debit total for all items equals the credit total.' Explain whether you agree with this statement. (3 marks)

1997/CE/1/6



Explain under what conditions we can conclude from the above chart that the economy had a visible trade surplus from 1991 to 1993. (3 marks)

1997/CE/1/11(a)(i)

Suppose \$1 million worth of seafood is imported to Hong Kong. Half of it is sold to local households at \$0.8 million and half to local restaurants at \$0.7 million. These restaurants cook and sell the seafood to their customers at \$1.6 million of which \$0.6 million is tourist spending.

Explain whether the above transactions together will improve Hong Kong's

- (I) balance of visible trade.
- (II) balance of payments.

(4 marks)

1998/CE/1/8

Refer to the table below:

Year	Imports (\$mn)	Domestic Exports (\$ mn)	Re-exports (\$mn)
1996	1 535 582	212 160	1 185 758

Source: HONG KONG 1997

Based on the above information, explain whether we can come to the conclusion that Hong Kong suffered from a balance of payments deficit in 1996. (3 marks)

1998/CE/1/11(c)

In a certain year the sales revenue of Japanese cars in Hong Kong decreased. This was because the local demand for these cars dropped and the demand for re-export of these cars to Mainland China also declined.

- (ii) Which account of Hong Kong's balance of payments was affected? (2 marks)
- (iii) Explain the combined effect of the two changes in demand on Hong Kong's balance of payments. (5 marks)

1999/CE/1/6(b)

Aaron won an overseas scholarship and received a remittance of \$10 000.

Explain whether this initial sum of \$10 000 should be included in the calculation of the balance of invisible trade of the overseas economy. (2 marks)

2001/CE/1/8

Refer to Hong Kong's balance of payments account.

- (a) (i) Two components of the current account are 'factor income' and 'current transfers'. Name the other TWO components. (2 marks)
- (ii) Give an example of the component 'factor income'. (2 marks)
- (b) Besides the current account, name the other account in the balance of payments account. (2 marks)

2004/CE/1/8

The following information shows the trade statistics of an economy in a certain year:

	\$million
Visible trade surplus	40
Domestic exports of goods	10
Import of goods	30
Import of services	50
Export of services	25

Calculate the value of re-exports of the economy.

(3 marks)

2006/CE/1/11(a)

An increase in private consumption expenditure usually affects the visible trade balance and the public finance.

- (i) Explain how an increase in Hong Kong's private consumption expenditure may affect her visible trade balance. (3 marks)
- (ii) The data below show signs of a strong recovery of the Hong Kong economy in 2004.

	Change in value on a year-on-year basis
Private consumption expenditure	+6.8 %
Total export value of goods	+15.9%

Source: The HKSAR Government

Given the above information, explain under what condition would Hong Kong's 2004 visible trade balance worsen. (2 marks)

2008/CE/1/11(c)

Trade deficit is a concern of many countries.

Explain whether the visible trade balance of a country would definitely be improved when the value of its imported goods decreases. (4 marks)

2009/CE/1/8

Suppose the balance of payments account of Hong Kong in a certain year is as follows:

	\$ billion	
	R	S
1. Current Account		
Goods		
P		300
Income flow		30
Current transfers		-20
2. Q Account	-180	
	Total sum = 0	

- (a) The name of the component P of the current account is \_\_\_\_\_.
- (b) In the balance of payments account, the name of the Q account is \_\_\_\_\_ Account.
- (c) In the above table, R and S stand for the current account balance and the visible trade balance respectively. Suppose there are no errors and omissions.
- (i) The visible trade balance = \_\_\_\_\_ billion dollars.
- (ii) The domestic export of goods is \$147 billion and the import of goods is \$2 600 billion. Therefore the re-export of goods is \_\_\_\_\_ billion dollars. (4 marks)

2010/CE/1/9(4)

Many mainland Chinese tourists buy souvenirs in Hong Kong which are imported from the Mainland. Explain why these transactions would improve the current account balance of Hong Kong's balance of payments. (5 marks)

2013/DSE/II/6

The table below shows the items of the balance of payments of Country A in a certain year:

	Debit (\$ million)	Credit (\$ million)
Export of goods		35
Import of goods	50	
Export of services		47
Import of services	27	
Capital inflow		70
Capital outflow	85	
Foreign exchange and reserve assets		10
Total	162	162

- (a) Calculate the current account balance of Country A. (1 mark)
- (b) "Country A has a balance of payments surplus because there is an increase in foreign exchange reserves in that year." Explain whether you agree with this statement. (3 marks)

2015/DSE/II/12(a)

Research shows that the "Individual Visit Scheme" of mainland tourists has brought economic benefits to Hong Kong. However, more and more Hong Kong residents have called on the government to reduce the number of mainland tourists to Hong Kong under the Scheme.

How would the current account of Hong Kong be affected if the government limited the scale of the Scheme so that the number of tourists from the mainland would drop? Explain your answer. (2 marks)

2016/DSE/II/13(b)(i)

The airport corporation plans to build an additional runway. There are two proposals to finance the runway.

Proposal A: the government increases the income tax
Proposal B: the airport corporation charges a lump-sum fee on every departing traveller

Discuss the effects of the two proposals on the current account in the balance of payments of Country H. (5 marks)

2017/DSE/II/12(c)

Before the British people voted against staying in the European Union (EU), i.e. Brexit, workers from the EU were free to work in Britain and vice versa. Brexit has shocked the economies in Europe and the following table shows some views on Brexit:

<i>British politicians:</i> Low-skilled EU workers should be required to apply for a visa to work in Britain.	<i>British firm owners:</i> The new visa requirement for EU workers affects most of the firms in the British economy.
<i>Global investors:</i> Political uncertainty in Britain increases the risk of investment projects there.	<i>EU officials:</i> British citizens may require a visa to visit or to work in the EU countries.

Referring to the view of the EU officials, which TWO components of current account in the balance of payments of Britain may be affected? Explain your answer. (4 marks)

2018/DSE/II/11

To develop nuclear weapons and increase the military power, Country Z has raised the proportion of government spending on national defence from 10% to 20%. All males aged from 20 - 25 are also required to join the military force for 2 years.

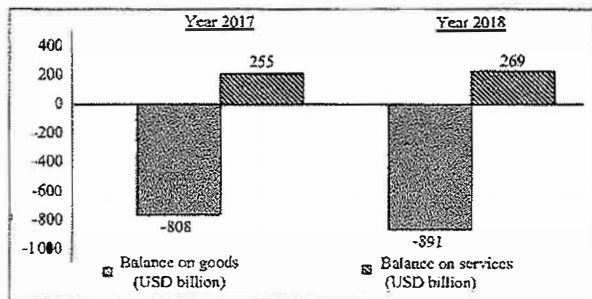
In response to the increasing military threat from Country Z, the United Nations has passed a bill to embargo most of the goods exporting from Country Z.

Analyse the effects of the above situation on Country Z's balance of payments.

(4 marks)

2020/DSE/II/10A

The following source shows the current account data of the US in 2017 and 2018.



- (a) (i) Describe the changes of current account data of the US in the above source. (2 marks)
- (ii) 'Based on the above source, we can conclude that the current account deficit of the US in 2018 necessarily increased.' Do you agree? Explain. (2 marks)

MARKING SCHEME

1990/CE/II/36 B	1994/CE/II/56 D	1998/CE/II/46 D	2004/CE/II/49 B (43%)	2009/CE/II/47 B (34%)
1990/CE/II/46 B	1995/CE/II/54 D	1998/CE/II/53 C	2004/CE/II/50 B (63%)	2010/CE/II/48 A (42%)
1990/CE/II/60 A	1995/CE/II/56 C	1999/CE/II/47 A	2005/CE/II/44 D (56%)	2010/CE/II/49 A (51%)
1991/CE/II/49 C	1995/CE/II/57 D	1999/CE/II/53 A	2005/CE/II/47 A (63%)	2012/DSE/II/40 A (52%)
1991/CE/II/50 D	1995/CE/II/58 D	1999/CE/II/54 A	2006/CE/II/45 C (23%)	2014/DSE/II/43 D (38%)
1991/CE/II/60 C	1996/CE/II/48 C	2000/CE/II/50 C	2006/CE/II/48 D (68%)	2015/DSE/II/43 D (54%)
1992/CE/II/52 B	1996/CE/II/49 C (deleted)	2000/CE/II/51 A	2007/CE/II/48 C (69%)	2015/DSE/II/44 D (19%)
1992/CE/II/60 B	1996/CE/II/50 A	2001/CE/II/41 B (deleted)	2007/CE/II/50 C (57%)	2016/DSE/II/43 B (48%)
1993/CE/II/40 D	1996/CE/II/51 B	2001/CE/II/45 D	2008/CE/II/46 B (57%)	2017/DSE/II/41 B (48%)
1993/CE/II/54 B	1997/CE/II/50 C	2002/CE/II/48 A (31%)	2008/CE/II/47 A (70%)	2018/DSE/II/42 X (deleted)
1994/CE/II/51 B	1997/CE/II/51 D	2003/CE/II/43 B (67%)	2008/CE/II/48 C (47%)	2018/DSE/II/44 A (46%)
1994/CE/II/55 A	1997/CE/II/52 C	2003/CE/II/48 C (15%)	2008/CE/II/49 B (40%)	2019/DSE/II/44 C

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/II/3(a)(i)  
Domestic exports of goods + Re-exports of goods - Imports of goods (1)  
= \$(218 + 275 - 501) bn.  
= -\$8 bn. (2)

1991/CE/II/4(b)  
(i) Yes, because (1)  
it is trading of physical goods. (1)  
It worsens Hong Kong's balance of payments. / This item represents a payment in HK's b.o.p. account. (1)  
(ii) No, because (1)  
it is trading of service. (1)  
It favours Hong Kong's balance of payments. / This item represents a receipt in HK's b.o.p. account. (1)

- 1992/CE/1/4(c)
- |      | <u>Balance of invisible trade</u> | <u>Balance of payments</u> |     |
|------|-----------------------------------|----------------------------|-----|
| (i)  | no effect                         | unfavourable               | (2) |
| (ii) | favourable                        | favourable                 | (2) |
- 1995/CE/1/2(b)(i)
- Re-exports increase, because  
more raw materials and machine to China via Hong Kong. (1)
- OR  
more Chinese exports via Hong Kong. (2)
- 1995/CE/1/4(a)
- (ii) Yes, because (1)  
the ratios of both exports and imports to total GDP increased (2)
- (iii) Trade deficit in 1980 (1)  
Trade surplus in 1990 (1)
- Reasons:
- re-exports ↑ e.g. expansion of China trade
  - exports ↑ due to China factor, etc.
  - expansion of tertiary sector service related to trade, e.g. bank service, insurance service, tourism
  - expansion of infrastructure service related to trade, e.g. container port, airport, communication network (2@. max: 4)
- [Mark the **FIRST TWO** points only.]
- 1994/CE/1/8
- It occurs when the country's capital account and other items in the current account altogether has a surplus and the surplus is greater than the trade deficit. (4)
- 1995/CE/1/9(b)
- (i) Souvenirs imported from HK ⇒ the US current account / trade account was unfavourably affected --- A (2)  
Souvenirs bought by tourists ⇒ the US current account / invisible trade account was favourably affected --- B (2)
- A effect < B effect ⇒ favourable to the US balance of payments (1)
- (ii) It affected the US capital account favourably. (1)  
⇒ favourable to the US b.o.p. (1)
- 1996/CE/1/9
- (a)  $\$(24 - 35 + 17 - 19) \text{ mn.} = -\$13 \text{ mn.}$  (1)
- (b) No, because (1)  
there is a balance of payments deficit of \$28 mn. / the credit entry in the foreign exchange & gold account represents a decrease in reserves. (2)
- 1997/CE/1/6
- If the initial export value of goods is significantly higher than the initial import value of goods and the difference is more than compensate for the difference in their individual growth rates, then there is a case of visible trade surplus. (3)
- 1997/CE/1/1(a)(i)
- (I) No, because (1)  
there is no export of goods but an import of \$1m. (1)
- (II) No, because (1)  
total payments (= \$1 m.) > total receipts (\$0.6 m.) (1)

- 1998/CE/1/8
- No, because (1)  
no information on other items, such as the invisible trade account ( net current transfers, net factor income from abroad, ) (1)  
and the capital account. (2)
- 1998/CE/1/11(c)
- (ii) Current account (1)  
OR  
Visible trade account / Invisible trade account (2)
- (iii) The fall in the local demand for Japanese cars will improve HK's visible trade balance. (2)  
The fall in the re-export demand for Japanese cars will worsen HK's invisible trade balance. (2)  
The combined effect on HK's balance of payments is uncertain, depending on the relative strength of the above two forces. (1)
- 1999/CE/1/6(b)
- Not included, because (1)  
this \$10 000 is not the value of a service. (1)
- 2001/CE/1/8
- (a) (i) Goods (1)  
Services (1)
- (ii) E.g. interest (other examples are: dividend, rental income, wages) earned from / paid to foreign countries (2)
- (b) The capital and financial account (2)
- 2004/CE/1/8
- Re-exports = visible trade surplus + import of goods - domestic exports (1)  
=  $\$(40 + 30 - 10) \text{ m}$  (1)  
= \$60 m (2)
- 2006/CE/1/11(a)
- (i) Visible trade balance = value of exports of goods - value of imports of goods (1)  
[Most goods in HK are imported.] In Hong Kong, an increase in private consumption usually means an increase in value of imports of goods. (1)  
∴ Visible trade balance most likely worsens, (1)  
[other things being equal or assuming no change in value of exports of goods.]
- (ii) The condition is: (2)  
Increase in the value of exports of goods < increase in the value of imports of goods
- 2008/CE/1/11(c)
- Visible trade balance = value of exported goods - value of imported goods (1)  
No because (1)  
there may also be a fall in the value of exported goods (1)  
which is larger than the fall in the value of imported goods. (1)

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2009/CE/1/8

- (a) P is services. (1)
- (b) Q Account is Capital and Financial Account. (1)
- (c) (i) Visible trade balance = -130 billion dollars. (1)
- (ii) Re-export of goods = 2 323 billion dollars. (1)

2010/CE/1/9(d)

- Imported souvenirs will decrease (the visible trade balance and hence) the balance of HK's current account. (1)
- Souvenirs sold to inbound tourists will increase (the invisible trade balance of) HK's current account. (2)
- The decrease in the current account balance is smaller than the increase in the current account balance. (1)
- There is value added to the souvenirs by local service providers. (1)

2013/DSE/II/6

- (a) Balance of current account =  $\$[35 - 50 + 47 - 27]$  million =  $\$5$  million. (1)
- (b) No, because (1)
- the BOP balance is  $-\$10$  million, which implies a BOP deficit. (2)

2015/DSE/II/12(a)

- A drop in the export of services to mainland tourists (1)
- would reduce HK's current account surplus (or enlarge its deficit). (1)

2016/DSE/II/13(b)(i)

Proposal A on current account:

- An increase in income tax would lower disposable income (1)
- and result in a drop in consumption, AD, as well as output level. (1)
- Import would fall, implying (1)
- a bigger surplus or smaller deficit in the current account balance. (1)

Proposal B on current account:

- A fee charged on departing travellers would result in an increase in the cost of using the airport. (1)
- Travelling industry would be adversely affected, reducing the number of both incoming and outgoing travellers. (1)
- Both import and export of services would drop. (1)
- causing an ambiguous change in the current account balance. (1)

2017/DSE/II/12(c)

- Invisible trade: the increase in cost of travel would result in a fall in the number of British citizens visiting the EU and hence the import of services. (1)
- Factor income: with fewer British workers working in the EU, there would be a drop in total wage payment to such workers. (1)
- Unilateral transfer: with fewer workers working in the EU, there would be a drop in their remittance back to Britain. (1)
- (2 pp., max: 4)

2018/DSE/II/11

- Balance of payments would be worsened, because (1)
- export of goods would fall because of the embargo; (1)
- export of services would also fall as fewer tourists would want to visit Country Z because of the threat of war; and (1)
- foreign investors would withdraw their investments in Country Z, so capital may flow out of the country. (1)

10 a) The balance of current account in 2017 =  $-808 + 255 = -553$ The balance of current account in 2018 =  $-891 + 269 = -622$ 

According to data of source A, the current account worsen (increase in deficit) by 89.

ii) Not necessarily. As the other two components of current account (income and current transfer) are not given in data, there is no conclusion can be drawn about the change of current account.

## 8.2 EXCHANGE RATES

### Multiple Choice Questions

1990/CE/II/38

Which of the following would make depositors in Hong Kong transfer their local currency deposits to foreign currency deposits?

- A. The interest rate in Hong Kong has increased relative to other countries.
- B. There is a widespread belief that the Hong Kong dollar is overvalued.
- C. The local political development is favourable.
- D. The value of Hong Kong's exports has increased.

1990/CE/II/43

Suppose that the Japanese yen appreciates against the Hong Kong dollar and the Italian lira depreciates against the Hong Kong dollar. The demand for Italian cars in Hong Kong will

- A. increase.
- B. decrease.
- C. remain unchanged because there is only a change in the quantity demanded.
- D. either increase or decrease depending on the extent of price changes.

1991/CE/II/51

The appreciation of the Japanese yen may cause

- A. a decrease in the price of Japanese goods in Hong Kong.
- B. a decrease in the number of Hong Kong tourists visiting Japan.
- C. an increase in the quantity of goods exports by Japan.
- D. a decrease in Japanese investment abroad.

1993/CE/II/55

The below change in the exchange rate of the Hong Kong dollar against the Japanese yen would lead to

Year	Exchange rates
1990	HK\$576 = 10 000 Japanese yen
1991	HK\$622 = 10 000 Japanese yen

- A. a slower growth rate of imports from Japan.
- B. a smaller volume of Hong Kong garments exported to Japan.
- C. less Japanese investments in Hong Kong's real estates.
- D. a trade surplus in Hong Kong against Japan.

1993/CE/II/57

If the Hong Kong dollars depreciates against the Japanese yen,

- A. fewer Japanese tourists will be willing to come to Hong Kong
- B. the price of imports from Japan will fall.
- C. the competitive power of Hong Kong products in Japan will fall.
- D. those who hold Japanese yen deposits will gain

1995/CE/II/55

Under the linked exchange rate system, if the US dollar depreciates against the Japanese yen sharply,

- A. more US tourists will visit Japan.
- B. more Japanese tourists will visit Hong Kong.
- C. fewer Hong Kong products will be exported to the US.
- D. fewer Hong Kong products will be exported to Japan.

1997/CE/II/54

When the HK dollar appreciates against the British pound,

- A. the volume of the exports of Hong Kong to the UK will increase.
- B. the volume of the imports to Hong Kong from the UK will increase.
- C. the volume of the imports to Hong Kong from the US will increase.
- D. the capital inflow to Hong Kong from the UK will increase.

1998/CE/II/48

What will be the effect on Hong Kong's trade with Canada if the exchange rate changes from C\$1 = HK\$5.7 to C\$1 = HK\$5?

- A. The volume of Hong Kong's exports to Canada will increase
- B. The volume of Hong Kong's imports from Canada will increase.
- C. Hong Kong's imports from Canada will be more expensive.
- D. Hong Kong's expenditure in Hong Kong dollars on imports from Canada will increase.

2003/CE/II/47

What would result from the following change in the exchange rate between the HK dollar and the Japanese Yen?

15 <sup>th</sup> February	HK\$6.4 = 100 yen
15 <sup>th</sup> March in the same year	HK\$6.1 = 100 yen

- (1) The volume of imported goods from Japan to Hong Kong would increase.
- (2) The number of Japanese tourists to Hong Kong would increase.
- (3) The prices of exported goods from Hong Kong to Japan in terms of Japanese yen would increase.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2004/CE/II/48

In which of the following situations will the export volume of a country increase?

- (1) an increase in the tariffs on imports
- (2) a depreciation of the domestic currency
- (3) an appreciation of the domestic currency
- (4) an increase in income for the trading partners

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

2005/CE/11/49

Year X	Exchange rate
January	US\$1 = 120 Japanese yen
May	US\$1 = 105 Japanese yen

Under the linked exchange rate system, the above change in the exchange rate between the US dollar and the Japanese yen will lead to

- A. a decrease in the number of Hong Kong people visiting the US.
- B. an increase in the number of Hong Kong people visiting Japan.
- C. a decrease in the quantity of Japanese electrical appliances exported to Hong Kong.
- D. a decrease in the quantity of Hong Kong made fashions exported to Japan.

2007/CE/11/49

In which of the following situations will the import volume of Hong Kong from Japan increase?

- A. The income of Hong Kong falls.
- B. The national income of Japan rises.
- C. The exchange rate of the Hong Kong dollar to the Japanese yen changes from HK\$6.7 = JP¥100 to HK\$6.9 = JP¥100.
- D. The Hong Kong economy is in the recovery stage.

2008/CE/11/50

The table below shows a change in the exchange rate between the US dollar and the Japanese Yen.

Date	Exchange rate
11 <sup>th</sup> July 2007	US\$1 = ¥122
14 <sup>th</sup> November 2007	US\$1 = ¥111

Under the linked exchange rate system of Hong Kong, the above change in exchange rate would lead to

- (1) an increase in the competitiveness of Hong Kong exports to Japan
- (2) a decrease in the number of Hong Kong tourists to Japan
- (3) a decrease in the total value of Hong Kong imports from Japan (in terms of the Hong Kong dollar)

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2009/CE/11/49

Date	Exchange rate
1.12.2007	US\$1 = 950 KRW
1.12.2008	US\$1 = 1 468 KRW

Under the linked exchange rate system of Hong Kong, the above change in the exchange rate of the South Korean Won (KRW) with the US dollar would lead to

- A. more Korean tourists visiting Hong Kong.
- B. more Hong Kong tourists visiting Korea.
- C. fewer US tourists visiting Hong Kong.
- D. fewer US tourists visiting Korea.

2010/CE/11/50

Under the linked exchange rate system, when the British pound depreciates against the US dollar, there would be

- A. an increase in the quantity of Hong Kong electrical appliances exported to Britain.
- B. a decrease in the quantity of British souvenirs bought by Hong Kong people.
- C. an increase in the number of Hong Kong people visiting the US.
- D. a decrease in the number of British people visiting Hong Kong.

2012/DSE/1/39

Date	Exchange rate
September 2010	HK\$10 = 1 Euro
July 2011	HK\$11.5 = 1 Euro

The above change in the exchange rate between HK\$ and the Euro will result in

- A. a drop in the number of tourists from Europe to Hong Kong.
- B. a drop in the price (in terms of HK\$) of imports from Europe.
- C. a drop in the total value (in terms of the Euro) of imports from Europe.
- D. a drop in the exchange rate of the US dollar against the Euro.

2013/DSE/1/37

A country's currency appreciates against its trading partners' currencies. If the country's demand for imports is \_\_\_\_\_, the appreciation of its currency will lead to \_\_\_\_\_ in the total import value (in terms of domestic currency).

- A. unitarily elastic ..... a rise
- B. inelastic ..... a rise
- C. elastic ..... a fall
- D. inelastic ..... a fall

2014/DSE/1/42

Suppose South Korean Won depreciates against the US Dollar. Under the linked exchange rate system of Hong Kong, which of the following would be results of the above change in the exchange rate?

- (1) The volume of imported goods from South Korea to Hong Kong would increase.
- (2) The price of exported goods from Hong Kong to South Korea in terms of HK dollar would increase.
- (3) The number of tourists from South Korea to Hong Kong would decrease.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2016/DSE/1/44

Suppose the countries in a certain region are competitors of exporting goods to the U.S. The currencies of the countries in the region except that of Country X depreciate against the US dollar. As a result, the volume of Country X's exports to the U.S. will

- A. decrease.
- B. increase.
- C. remain constant.
- D. be indeterminate.



2016/DSE/1/45

Date	Exchange rate
15 February 2015	US\$1 = € 0.8773
15 August 2015	US\$1 = € 0.8965

Under the linked exchange rate system of Hong Kong, the above change in the exchange rate of Euro (€) to the US dollar would lead to \_\_\_\_\_.

- A. an increase in the number of European tourists to Hong Kong
- B. an increase in the total value (in terms of Hong Kong dollar) of European exports to Hong Kong
- C. a decrease in the volume of Hong Kong exports to the U.S.
- D. a decrease in the total value (in terms of Hong Kong dollar) of Hong Kong exports to Europe

2017/DSE/1/44

Date	Exchange rate
22 November 2015	US\$1 = RMB¥6.39
22 November 2016	US\$1 = RMB¥6.89

The above change in the exchange rate between the US Dollar and the Renminbi would lead to

- (1) a decrease in the number of Chinese tourists to the US.
- (2) a decrease in the competitiveness of US exports to China.
- (3) an increase in the total value of US exports to China (in terms of the US Dollar).

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2018/DSE/1/45

	Exchange rate
Day 1	1 HKD = 0.83 RMB
Day 2	1 HKD = 0.77 RMB

Mr Wong used \$10 000 Hong Kong Dollars (HKD) to buy Renminbi (RMB) at Day 1 and sold the sum at Day 2 to obtain HKD at the exchange rates shown in the table below.

Mr Wong \_\_\_\_\_ approximately in the above transactions.

- A. lost HK\$779
- B. lost HK\$600
- C. gained HK\$600
- D. gained HK\$779

1993/CE/1/33

Which of the following about the linked exchange rate (聯繫匯率) in Hong Kong is correct?

- A. It is determined by market forces.
- B. It has been changed several times by the government.
- C. The linked rate system is used to stabilize the exchange rate of the Hong Kong dollar.
- D. It is an exchange rate between the Hong Kong dollar and a basket of foreign currencies.

1993/CE/1/36

Which of the following will lower the value of the Hong Kong dollar?

- A. The US dollar appreciates against other currencies.
- B. The government issues new \$10 coins to replace \$10 notes.
- C. The money income increases.
- D. The GDP deflator increases.

1996/CE/1/52

Hong Kong practises a linked exchange rate system. In the foreign exchange market the exchange rate of the Hong Kong dollar relative to the US dollar is \_\_\_\_\_ and that relative to other currencies is \_\_\_\_\_.

- A. fixed at US\$1 = HK\$7.8 ..... fixed
- B. fixed at US\$1 = HK\$7.8 ..... not fixed
- C. not fixed ..... fixed
- D. not fixed ..... not fixed

1999/CE/1/49

Under the linked exchange rate system of Hong Kong, which of the following statements is true?

- A. The exchange rate of the HK dollar relative to Renminbi is fixed.
- B. The market exchange rate of the HK dollar relative to the US\$ is fixed at US\$1 = HK\$7.8
- C. The competitiveness of Hong Kong exports decreases when the US dollar appreciates against other currencies.
- D. Hong Kong will not have a balance of payments problem.

2000/CE/1/52

Suppose the Japanese Yen appreciates greatly against the US dollar. Due to the linked exchange rate system.

- A. The HK dollar will depreciate greatly against the Japanese Yen.
- B. The US dollar will depreciate greatly against the Japanese Yen.
- C. The US dollar will depreciate greatly against the euro.
- D. The HK dollar will depreciate greatly against the euro.

2001/CE/1/46

Under the linked exchange rate system in Hong Kong.

- A. the market exchange rate of the HK dollar relative to the US dollar is fixed.
- B. the market exchange rates of the HK dollar relative to currencies other than the US dollar are fixed.
- C. The HK dollar will depreciate against the Australian dollar if the US dollar appreciates against the Australian dollar.
- D. The HK dollar will appreciate against the Japanese yen if the US dollar appreciates against the Japanese yen.

2006/CE/1/47

Under the linked exchange rate system of Hong Kong, which of the following statements is correct?

- A. The exchange rate of the Hong Kong Dollar (HKD) relative to the US dollar (USD) is fixed at USD1=HKD7.8 on the foreign exchange market.
- B. If Mainland China has a visible trade surplus, Hong Kong will also have a visible trade surplus.
- C. When the USD depreciates against the Euro, the HKD will also depreciate against the Euro.
- D. All of the above.

2009/CE/II/50

Under the linked exchange rate system of Hong Kong,

- A. the exchange rate of the Hong Kong dollar with the US dollar in the foreign exchange market is fixed.
- B. the Hong Kong government need not hold a large amount of foreign exchange reserves.
- C. Hong Kong citizens can give the Hong Kong government Hong Kong dollars in exchange for US dollars at the linked rate.
- D. the Hong Kong dollar banknotes are fully backed by foreign exchange reserves.

2013/DSE/1/40

Which of the following statements about the linked exchange rate system of Hong Kong is correct?

- (1) Hong Kong dollar banknotes are fully backed by Renminbi and the US dollar.
- (2) The Hong Kong Monetary Authority holds a considerable amount of foreign exchange reserves.
- (3) All note-issuing banks can exchange for US dollars at the linked rate with the Hong Kong Monetary Authority.
- (4) The exchange rate of the Hong Kong dollar to the US dollar in the foreign exchange market is fixed.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2015/DSE/1/42

Under the linked exchange rate system of Hong Kong, which of the following statements is correct?

- A. The money supply (M1) of Hong Kong has to be fully backed by the US dollar.
- B. The market exchange rate of HK dollar to the US dollar is fixed at 1 USD to 7.8 HKD by the Hong Kong Monetary Authority.
- C. Hong Kong's import volume will increase when US dollar appreciates against other currencies.
- D. A current account deficit in the US will lead to a current account deficit in Hong Kong.

2017/DSE/1/45

Under the linked exchange rate system of Hong Kong, which of the following statements is correct?

- A. The non-bank public can sell their Hong Kong dollars to the Hong Kong Monetary Authority in exchange for US dollars at any time.
- B. It enables the Hong Kong Monetary Authority to carry out an expansionary monetary policy to stimulate private investment.
- C. The market exchange rate of the US Dollar against the HK Dollar is fixed at US\$1 = HK\$7.8.
- D. There would be a downward pressure on the consumer price indices of Hong Kong when the Renminbi continuously depreciates against the US Dollar.

2019/DSE/1/45

Study the prices of iPhone X in Hong Kong in terms of Hong Kong dollar (HKD) and in the Mainland in terms of Renminbi (RMB).

Hong Kong	The Mainland
HKD 8588	RMB 8316

Given the exchange rate of HKD 1 = RMB 0.875, which of the following statements is correct?

- A. Travellers tend to buy an iPhone X in the Mainland instead of in Hong Kong.
- B. RMB is under-valued as the price of an iPhone X in the Mainland is lower than that in Hong Kong.
- C. If the transportation cost is HKD 950, buying an iPhone X in Hong Kong and re-selling it in the Mainland will no longer gain.
- D. The potential gain from 'buy low, sell high' will disappear when the price of iPhone X in Hong Kong is higher than HKD 9504.

2020/DSE/1/44

The following table shows the change in the exchange rate of Euro against the US dollar.

Date	Exchange rate
22 September 2018	1 EUR = US\$ 1.176
22 August 2019	1 EUR = US\$ 1.109

The above change in the exchange rate will lead to a decrease in

- A. the number of European tourists visiting the US.
- B. the volume of goods exported from Europe to the US.
- C. the total value of US exports to Europe (in terms of Euro).
- D. the total value of European exports to the US (in terms of the US dollar).

2020/DSE/1/45

Under the linked exchange rate system of Hong Kong, which of the following statements is correct?

- A. The money supply M1 of Hong Kong has to be fully backed up by the US dollar.
- B. Hong Kong's export volume will increase when the US dollar depreciates against other currencies.
- C. The market exchange rate of the HK dollar relative to the US dollar is fixed.
- D. Hong Kong citizens can sell 1 USD to the three note-issuing banks for 7.8 HKD.

**Short & Structured Questions**

1992/CE/1/2(c)

Some garment manufacturers in Hong Kong import raw materials from Japan. Explain how a depreciation of the Hong Kong dollar against the Japanese yen affects the unit cost of production of these firms. (4 marks)

1998/CE/1/11(b)

Suppose Japanese Yen depreciates against the Hong Kong dollar, and that Hong Kong people's demand for Japanese cars is elastic. With the aid of a diagram, explain how these factors would affect the sales revenue (in HK\$) of Japanese cars in Hong Kong. (8 marks)

1999/CE/1/9(b)

The Japanese Yen depreciated sharply against the Hong Kong dollar. Other things being equal, what would be the effect on the sales revenue of French cars in Hong Kong? Explain your answer with the aid of a supply-demand diagram. (9 marks)

1999/CE/1/10(d)

The table below shows changes in the exchange rates between the Hong Kong dollar and some other Asian currencies:

Date	HK\$100 equals		
	Japanese 日圓	Indonesia Rupiah 印尼盾	Thai Baht 泰銖
15/10/1996	1 448	2 941.2	324.7
10/10/1998	1 515.15	166 666.7	512.82

Explain the effect of such changes on the exports of Hong Kong to the US market and explain further the effect on Hong Kong's unemployment. (6 marks)

2002/CE/1/12(a)(ii)

Mr Wong runs a bookstore in Hong Kong. He sells books imported from Britain. Suppose the exchange rate between the US dollar and the British pound changes as follows:

April	US\$1 = £0.75
May	US\$1 = £0.70

Suppose the price of books imported from Britain remains unchanged in British pound and the demand for these books is inelastic.

With the aid of a diagram, explain how Mr Wong's sales revenue of these books in HK dollars would change. (7 marks)

2004/CE/1/11(b)

In Hong Kong, many fashion items are imported from Europe. Suppose the US dollar depreciates against the Euro.

- Explain how the import price (in terms of HK\$) of European fashion items would change under the linked exchange rate system. (2 marks)
- With the aid of a diagram, explain under what condition the total import value (in terms of HK\$) of European fashion items would decrease. (6 marks)

2006/CE/1/10

A change in the exchange rate of the Euro (€) is shown below :

Date	Exchange rate
1 December 2005	€1 = HK\$9.07
18 January 2006	€1 = HK\$9.37

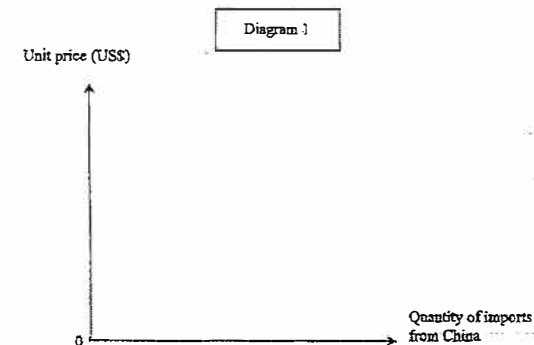
- Suppose that during this period of time, the price of European cars (in terms of €) imported into Hong Kong did not change.
  - Explain how the above change in the exchange rate would affect the price (in terms of HK\$) of European cars imported into Hong Kong. (2 marks)
  - With the aid of a diagram, explain why the above change in the exchange rate could lead to an increase in total expenditure (in terms of HK\$) on European cars imported into Hong Kong. (6 marks)
  - Explain how the above change in the exchange rate would affect the total value (in terms of €) of European cars imported into Hong Kong. (2 marks)
- Through a commercial bank, Mr Chan bought 10 000 Euros on 1 December 2005 and sold them on 18 January 2006 at the rates shown in the above table.
  - Calculate Mr Chan's gain / loss (in terms of HK\$) in the above transactions. Explain whether this gain / loss should be included in the calculation of Hong Kong's GDP. (4 marks)

2008/CE/1/11(a)

Trade deficit is a concern of many countries. The US government is trying to reduce the value of its imports from China. Two methods are suggested:

- To press the Chinese government to revalue the Renminbi (RMB)
- To impose a quota restriction on the imports from China

Explain under what condition the value of US imports (in terms of US\$) from China will decrease due to a revaluation of RMB. Illustrate your answer in Diagram 1 below. (7 marks)



2010/CE/1/8

Suppose from 2008 to 2009, the price of jeans exported to Japan from Hong Kong in terms of Hong Kong dollars (HK\$) remained unchanged. In the same period of time, the price of computers exported to Hong Kong from Japan in terms of Japanese Yen (¥) also remained unchanged. However, there was a change in the exchange rate between HK\$ and ¥ as follows:

Date	Exchange rate
13 August 2008	HK\$7.1 = ¥100
18 August 2009	HK\$8.2 = ¥100

What would be the effect of the above change in the exchange rate on the following items (a), (b) and (c)? For each item, fill in the blank by selecting the correct answer from one of the four choices:

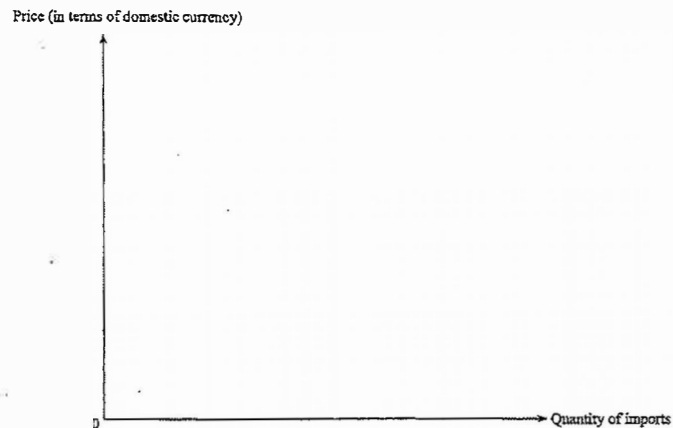
increased    decreased    remained unchanged    uncertain

Item (In terms of HK\$)	Effect
(a) the price of Japanese computers exported to Hong Kong	
(b) the total value of Japanese computers exported to Hong Kong	
(c) the total value of Hong Kong jeans exported to Japan	

(3 marks)

2012/DSE/II/8

A country's currency depreciates against its trading partners' currencies. Will the depreciation necessarily lower the total import value of this country (in terms of domestic currency)? Explain with the aid of the diagram below. (7 marks)

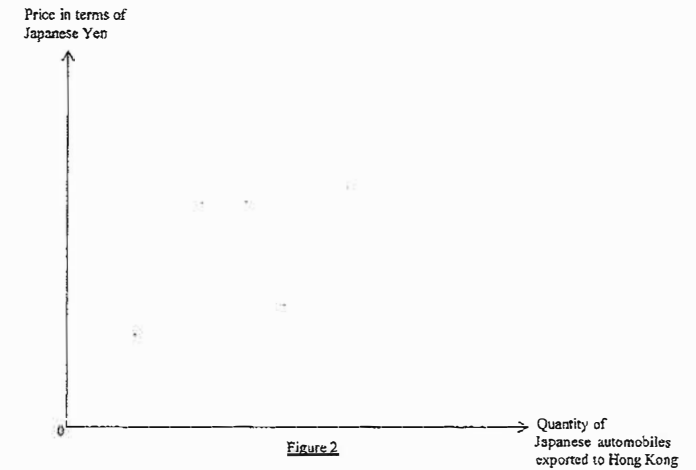


2014/DSE/II/11(a)

The following table shows the change in the exchange rate of the Hong Kong dollar against the Japanese Yen.

Date	Price of 1 unit of Hong Kong dollar
1 <sup>st</sup> August 2012	10.2 Yen
1 <sup>st</sup> August 2013	12.5 Yen

Suppose the price of Japanese automobiles (in terms of Yen) does not change. With the aid of Figure 2, explain why the above change in exchange rate would lead to an increase in the total export value (in terms of Yen) of Japanese automobiles to Hong Kong. (7 marks)

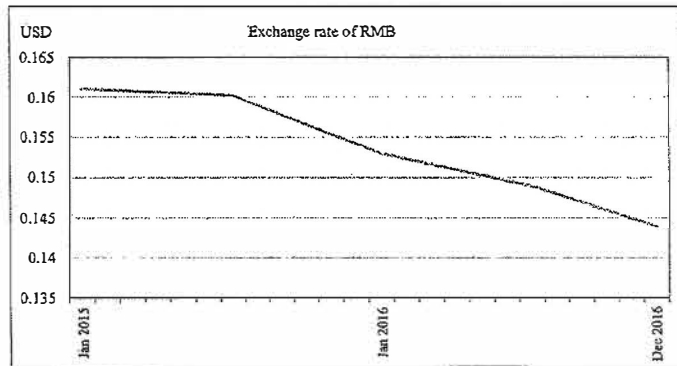


2018/DSE/11/12(d)

Source 2: Statistical data about tourism in Hong Kong in 2016

	2016	Compared with 2015 (%)
Mainland visitors	42.8 billion	-6.7%
Total visitors	56.65 billion	-4.5%
Total tourism expenditure associated to inbound tourism	HK\$296.2 billion	-10.1%

Source 3: exchange rate of the Renminbi (RMB) to the US dollar (USD) between 2015 and 2016



A reporter stated, 'The change in the exchange rate of the Renminbi to the US dollar was a major factor contributing to the change of the total tourism expenditure associated to inbound tourism.' Based on Sources 2 and 3, justify his statement. (6 marks)

2019/DSE/11/11

The Guangzhou-Shenzhen-Hong Kong Express Rail Link (High Speed Rail) was launched in September 2018.

Suppose the fares of the High Speed Rail in terms of RMB are fixed. The fares of High Speed Rail tickets sold in Hong Kong, in terms of Hong Kong dollar (HKD), will be adjusted according to the exchange rate of RMB against HKD.

(c) 'A depreciation of RMB against the US dollar (USD) will result in an increase in total revenue (in terms of HKD) of High Speed Rail tickets sold in Hong Kong.' With the aid of Figure 2, explain under what condition this statement will be correct. (3 marks)

MARKING SCHEME

1990/CE/11/38 B	1998/CE/11/48 B	2010/CE/11/50 D (70%)	2018/DSE/1/45 D (57%)	2006/CE/11/47 C (63%)
1990/CE/11/43 A	2003/CE/11/47 B (67%)	2012/DSE/1/39 C (37%)	1993/CE/11/33 C	2009/CE/11/50 D (29%)
1991/CE/11/51 B	2004/CE/11/48 C (66%)	2013/DSE/1/37 D (52%)	1995/CE/11/36 D	2013/DSE/1/40 C (70%)
1993/CE/11/55 A	2005/CE/11/49 C (52%)	2014/DSE/1/42 B (59%)	1996/CE/11/52 D	2015/DSE/1/42 C (62%)
1993/CE/11/57 D	2007/CE/11/49 D (49%)	2016/DSE/1/44 A (52%)	1999/CE/11/49 C	2017/DSE/1/45 D (40%)
1995/CE/11/55 B	2008/CE/11/50 A (37%)	2016/DSE/1/45 D (56%)	2000/CE/11/52 A	2019/DSE/1/45 C
1997/CE/11/54 B	2009/CE/11/49 B (84%)	2017/DSE/1/44 A (69%)	2001/CE/11/46 D	2020/DSE/1/44 A

2020/DSE/1/45  
B

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/CE/1/2(c)

Depreciation of HK\$

- ⇒ import prices/cost of imported raw materials (in HK\$) ↑
- ⇒ unit cost of production ↑

(2)  
(2)

1998/CE/1/11(b)

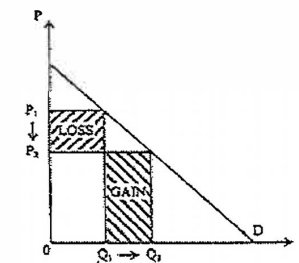
Price of Japanese cars (quoted in HK\$) falls.

- ⇒ an increase in the quantity demanded for Japanese cars

Elastic demand means the % change in quantity demanded is larger than the % change in price.

- ⇒ sales revenue increases (i.e. revenue loss < revenue gain)

(1)  
(1)  
(2)  
(1)



Indicate in the diagram:

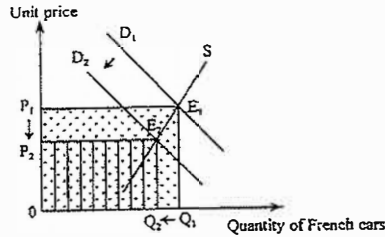
- P ↓ and Qd ↑
- Correct position of 'Gain' and 'Loss'

(1)  
(1)

1999/CE/1/9(b)

The devaluation  $\Rightarrow$  price (in HK\$) of Japanese cars  $\downarrow$  ( $\Rightarrow$  quantity of Japanese cars demanded  $\uparrow$ )  
 Japanese cars and French cars are substitutes  
 $\therefore$  demand for French cars  $\downarrow$   
 $\Rightarrow$  both the equilibrium price and quantity of French cars  $\downarrow$   
 $\Rightarrow$  sales revenue of French cars  $\downarrow$  (from  $P_1E_1Q_1$  to  $P_2E_2Q_2$ )

(1)  
(1)  
(1)  
(1)+(1)  
(1)



Indicate in the diagram:

- D shifts to the left
- P  $\downarrow$  and Q  $\downarrow$
- TR  $\downarrow$  (area  $P_1E_1Q_1Q_2E_2P_2$ )

(1)  
(1)  
(1)

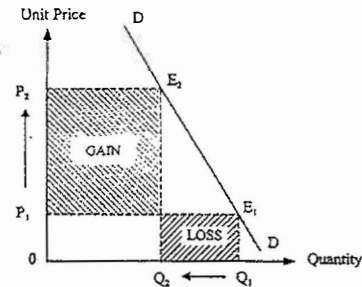
1999/CE/1/10(d)

HK\$ appreciates against these Asian currencies.  
 $\Rightarrow$  these Asian countries' exports become relatively cheaper than HK exports in the US market.  
 $\Rightarrow$  as there are (cheaper) substitutes, demand for HK exports  $\downarrow$   
 $\Rightarrow$  derived demand for labour in HK's export sector  $\downarrow$ , so HK's unemployment is very likely to increase.

(1)  
(1)  
(2)  
(2)

(Note: In the context of AD-AS, you may argue that a decrease for HK's exports will lead to a decrease in Hong Kong's aggregate demand, which would result in a (larger) deflationary gap. It represents the existence of (more) unemployed workers in the factor market.)

2002/CE/1/12(a)(ii)



Indicate in the graph:

- selling price  $\uparrow$  and quantity demanded  $\downarrow$
- gain > loss

(1)  
(2)

Verbal explanation:

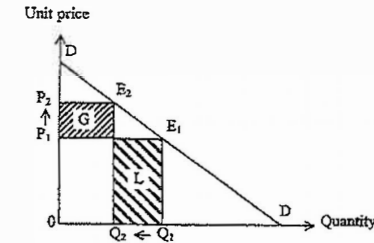
The selling price increases (due to the depreciation of the HK\$ against the British Pound).  
 The quantity demanded decreases.  
 The percentage change in quantity demanded is smaller than the percentage change in price.  
 Total revenue increases.

(1)  
(1)  
(1)  
(1)

2004/CE/1/11(b)

(i) Increase, because  
 HK\$ depreciates against the Euro dollar under the linked exchange rate system.  
 (ii) (The rise in price leads to) a fall in quantity demanded.  
 Elastic demand for imports  
 $\% \text{ change in } P < \% \text{ change in } Q_d$

(1)  
(1)  
(1)  
(1)  
(2)



Indicate in the diagram:

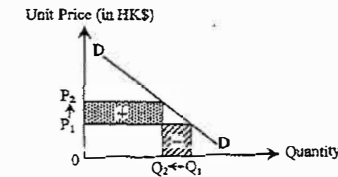
- gain in total import value (G) < loss in total import value (L)

(2)

2006/CE/1/10

(a) (i) increased, because  
 Euro appreciated against the Hong Kong dollar.  
 (ii) With an increase in import price in terms of HK\$, the quantity of imported cars decreased.  
 If demand is inelastic,  $\% \text{ change (increase) in } P > \% \text{ change (decrease) in } Q_d$ .

(1)  
(1)  
(1)  
(2)



Indicate in the diagram:

- P  $\uparrow$  and Q  $\downarrow$
- Correct position of 'Increase' and 'Decrease' in total expenditure
- 'Increase' > 'Decrease'

(1)  
(1)  
(1)

(iii) In terms of £, the total value of imported cars from Europe decreased, because the volume of imports decreased while the price of imported cars in terms of £ remained unchanged.

(1)  
(1)

(b) (i)  $\$(9.37 - 9.07) \times 10\,000$   
 $= \$3\,000$ . He gained \$3 000.

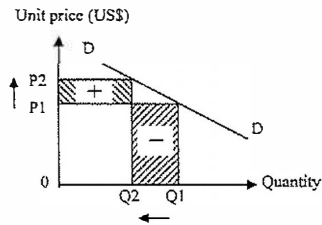
(1)  
(1)

No, because  
 the capital gain does not involve production.

(1)  
(1)

2008/CE/11(a)

Import price increases as a result of revaluation and the import quantity decreases.  
Condition: elastic demand  
% change in price < % change in quantity demanded



Indicate in the diagram:

- price increases and quantity decreases (1)
- correct position of 'increase in import value' and 'decrease in import value' (1)
- area of 'increase in import value' < area of 'decrease in import value' (1)

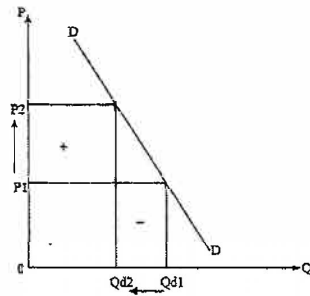
2010/CE/1/8

- (a) increased (1)
- (b) uncertain (1)
- (c) increased (1)

2012/DSE/11/8

No, because

if the demand for import is inelastic, the import value will not decrease as the percentage increase in price will be greater than percentage decrease in quantity demanded.

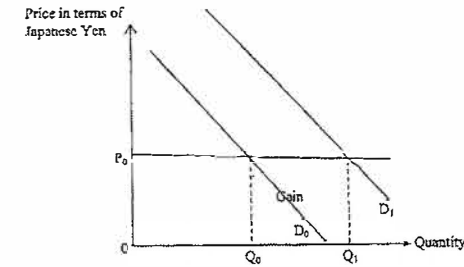


Indicate in the diagram:

- $P \uparrow$  and  $Q_d \downarrow$  (1)
- 'gain in import value' > 'loss in import value' (1)

2014/DSE/11/11(a)

Japanese Yen depreciated against Hong Kong dollar. (1)  
As the price of Japanese automobiles does not change, the automobiles become cheaper in terms of HKD and Hong Kong importers will buy more Japanese automobiles. (1)  
The demand for Japanese automobiles by HK people increases. (1)  
Quantity transacted increases. (1)  
(Therefore, total export value of Japanese automobiles increases.)



Indicate on the diagram:

- demand curve shifts to the right (1)
- a higher quantity transacted (1)
- gain in total value (1)

2018/DSE/11/12(d)

During 2015-16, RMB depreciated against USD. Under HK's linked exchange rate system, the value of HKD would follow that of USD, so RMB depreciated against HKD as well. (1)  
Depreciation of RMB implies that goods in HK became more expensive in terms of RMB. Therefore fewer mainland tourists would come to HK (, and those who came would spend less in HK). (1)  
As mainland visitors were the major source of tourists in HK, a significant drop in "total tourism expenditure associated with inbound tourism" would result. (6)

## SECTION 9: EXTENSION OF TRADE THEORY AND ECONOMIC DEVELOPMENT

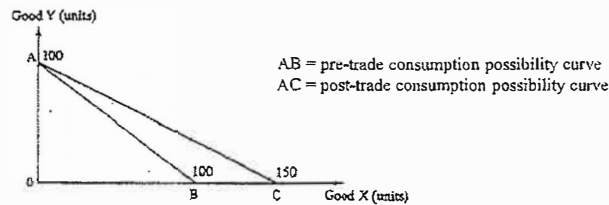
### 9.1 EXTENSION OF TRADE THEORY

#### Multiple Choice Questions

(Note: For reference only; no multiple-choice question will be set on the elective parts.)

1990/AL/II/20

Refer to the following diagram about a country:

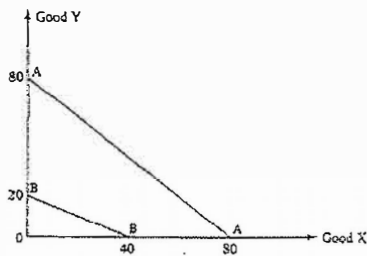


Which of the following statements about the country are correct?

- (1) Trade allows consumption to go beyond its production possibility curve.
- (2) It has a comparative advantage over its trading partner in the production of X.
- (3) The cost to its trading partner of producing 1Y is higher than 1.5X.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

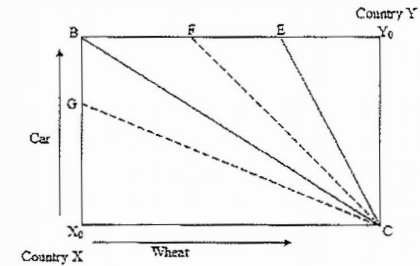
1991/AL/II/04



In the above diagram, AA and BB are the production-possibility frontiers of Countries A and B respectively.

- A. Country A will not trade with Country B.
- B. Country A will export Good X to Country B.
- C. Country B has a comparative advantage in the production of Good X.
- D. Country B has an absolute advantage over Country A in the production of Good Y.

1992/AL/II/29



Refer to the above diagram. BC and CE are the production possibility frontiers of Country X and Country Y respectively. Which of the following statements is FALSE?

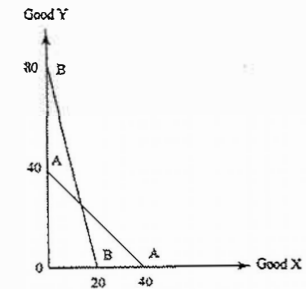
- A. Country X has a comparative advantage in the production of wheat.
- B. Country Y has a higher opportunity cost in the production of wheat.
- C. If CG represents the terms of trade, Country X gains through importing cars from Country Y.
- D. If CF represents the terms of trade, Country X gains through importing cars from Country Y.

1995/AL/II/21

Trade enables a country to

- A. produce beyond its production possibility curve.
- B. consume beyond its production possibility curve.
- C. produce and consume beyond its production possibility curve.
- D. None of the above.

1996/AL/II/24

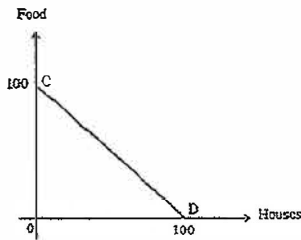


Refer to the above diagram; AA and BB are the production possibility frontiers of Country A and B respectively. Which of the following statements is correct?

- A. Country A has a comparative advantage in the production of good Y.
- B. Country B has a lower opportunity cost in the production of good X.
- C. Country A gains through importing good Y from country B if the terms of trade is  $1X = 1.5Y$ .
- D. Both countries will not trade with each other if the terms of trade is  $1X = 2Y$ .



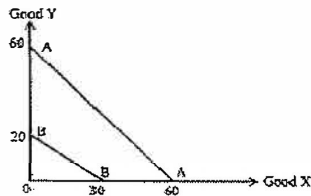
1997/AL/11/17



If CD is the production possibility frontier of both countries A and B, then

- (1) neither country has an absolute advantage in the production of food.
  - (2) neither country has a comparative advantage in the production of food.
  - (3) the domestic exchange ratio between food and houses will be 1 : 1 for both countries.
- A. (1) and (2) only  
 B. (1) and (3) only  
 C. (2) and (3) only  
 D. (1), (2) and (3)

1998/AL/11/18

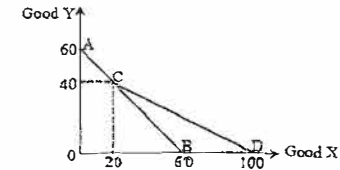


In the above diagram, AA and BB are the production-possibility frontiers of Country A and B, respectively. Which of the following statements must be true?

- (1) Country A will not trade with Country B.
  - (2) Country A has a comparative advantage in the production of good Y.
  - (3) Country A has an absolute advantage over Country B in the production of both good X and Good Y.
- A. (1) only  
 B. (2) only  
 C. (1) and (2) only  
 D. (2) and (3) only

1999/AL/11/19

Consider the diagram below for an economy that has just opened itself up to trade with the outside world. AB shows the pre-trade consumption possibility curve while CD shows the post-trade consumption possibility curve. Which of the following is correct?



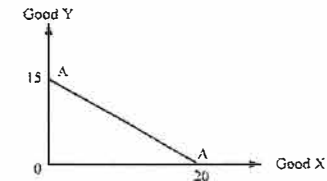
- A. Trade enables the country to increase the production of good X along CD.
- B. The opportunity cost of producing each unit of good Y is more than two units of good X for the trading partner of this country.
- C. The country has a comparative advantage over its trading partner in the production of good X.
- D. None of the above.

2001/AL/11/20

Country A uses labour only to produce good X and Y. The labour requirements for each unit of X and Y are 0.5 and 2 respectively. Without international trade, Country A consumes 50 units of X and 50 units of Y. Suppose the terms of trade is 1, which of the following statements are correct?

- (1) With international trade, Country A will produce more good Y.
  - (2) With international trade, Country A will increase its consumption of good X.
  - (3) With international trade, Country A will increase its consumption of good Y.
- A. (1) and (2) only  
 B. (1) and (3) only  
 C. (2) and (3) only  
 D. (1), (2) and (3)

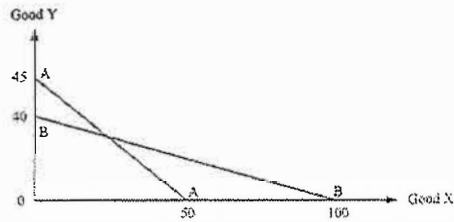
2001/AL/11/21



In the above diagram, AA is the production possibility frontier of country A. Suppose the terms of trade is 1. The net gain of country A for each unit of its import is \_\_\_\_\_ unit of good X.

- A. 1/6
- B. 1/5
- C. 1/4
- D. 1/3

2001/AL/11/26

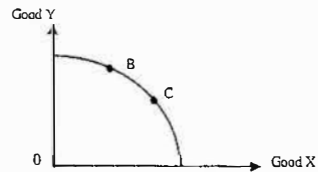


In the above diagram, AA and BB represent the production possibility frontiers of Country A and Country B respectively. Which of the following is correct?

- A. Country A has an absolute advantage in the production of Good Y.
- B. Country B has a comparative advantage in the production of Good X because it can produce more Good X than Country A.
- C. They will not trade with each other if the terms of trade is 1.
- D. None of the above.

2002/AL/11/24

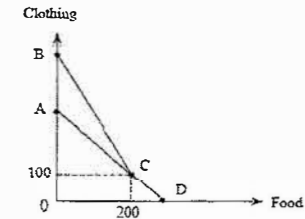
Refer to the production possibility curve of country A below.



Country A's production point will move from B to C when

- A. the relative price of Good X increases.
- B. the relative price of Good Y increases.
- C. there is a change in the amount of resources available.
- D. there is a change in technology.

Refer to the following diagram and answer questions 27 and 28.



2002/AL/11/27

In the above diagram, ACD is the production possibility frontier of Country X while BCD is its consumption possibility frontier with international trade. With international trade, the production point for Country X is:

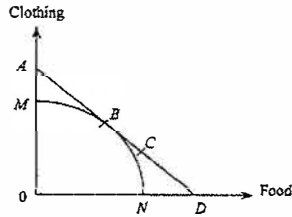
- A. A
- B. B
- C. C
- D. D

2002/AL/11/28

Suppose the value of A and B in the above diagram is 300 and 500 respectively. With international trade,

- A. Country X must be consuming more clothing than it did before trade.
- B. Country X gains 1 unit of food per unit of clothing traded.
- C. the value of D is 600.
- D. the terms of trade is 1 unit of food for 2 units of clothing.

Refer to the following diagram and answer Questions 24 and 25.  $MBN$  is the production possibility frontier of Country S. With international trade, the production point and the consumption point of Country X are  $B$  and  $C$  respectively.



2003/AL/II/24

The terms of trade is measured by

- A.  $OD/OA$
- B.  $ON/OM$
- C.  $AB/BD$
- D.  $AB/AD$

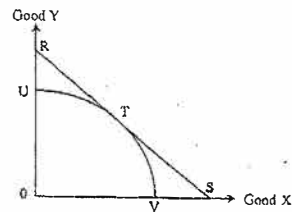
2003/AL/II/25

Without international trade, the consumption point of Country X will lie on

- A. MB
- B. BN
- C. AB
- D. BC

2005/AL/II/27

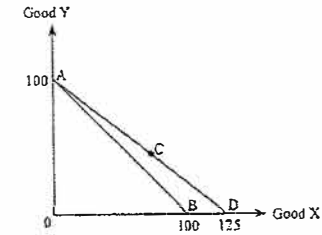
In the following diagram,  $UTV$  is the production possibility curve of a country for two goods X and Y. The point T is the pre-trade equilibrium position. The slope of the line  $RTS$  is 1.



When international trade, at a price of 3 units of X per unit of Y, the country will export \_\_\_\_\_ and gain \_\_\_\_\_ for each unit of its imports.

- A. X ..... 2 units of X
- B. X .....  $2/3$  units of X
- C. Y ..... 2 units of Y
- D. Y .....  $2/3$  units of Y

Study the following diagram and answer Questions 26 and 27.



$AB$  is the consumption possibility frontier of a country when there is no trade. When the country trades with the outside world, its consumption possibility frontier is  $AD$  and its consumption point is  $C$ .

2006/AL/II/26

Which of the following statements is correct?

- A. The production possibility frontier of the country is  $AD$  with international trade.
- B. With international trade, the country may produce both Good X and Good Y.
- C. The country may consume less Good Y with international trade than without.
- D. The trading partners of the country have an absolute advantage in the production of Good X.

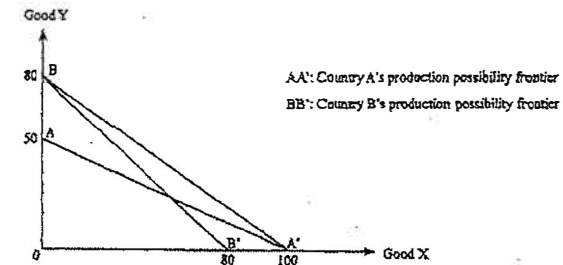
2006/AL/II/27

In trading with other countries, the country will gain \_\_\_\_\_ per unit of export.

- A. 0.2 units of Good X
- B. 0.2 units of Good Y
- C. 0.25 units of Good X
- D. 0.25 units of Good Y

2007/AL/II/24

The diagram below shows the production possibility frontiers of Country A and Country B.

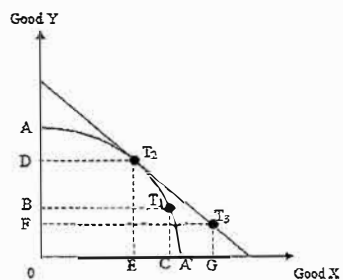


Suppose the terms of trade between the two countries is  $1X = 0.8Y$ . Which of the following is correct?

- A.  $A'B$  is the consumption possibility frontier for both countries when they trade.
- B. Both countries will consume more of both goods after trade.
- C. Country A enjoys absolute advantage in the production of Good X.
- D. Country A's opportunity cost of producing Good Y decreases when the two countries trade.

2008/AL/II/24

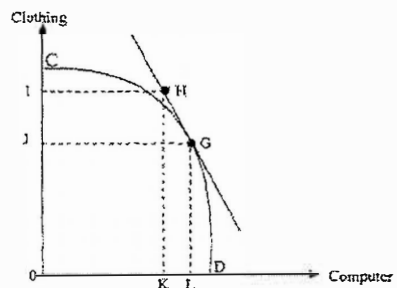
The diagram below shows the production possibility frontiers (AA') of Country A. T<sub>1</sub> is the pre-trade consumption point. When Country A trades with the rest of the world, its production point and consumption point are T<sub>2</sub> and T<sub>3</sub> respectively.



Based on the above diagram, we can conclude that

- A. Country A has an absolute advantage in producing good Y.
- B. Country A has a comparative advantage in producing good X.
- C. the world price of good X is DF/EG.
- D. the world price of good X is DB/EC.

Refer to the following diagram and answer Questions 23 and 24. CD is the production possibility frontier of a country and H is its consumption point with international trade.



2009/AL/II/23

Which of the following statements about the country is correct?

- A. It imports clothing from other countries.
- B. It has an absolute advantage in producing clothing.
- C. It uses all its resources to produce computers.
- D. It gains more than other countries from international trade.

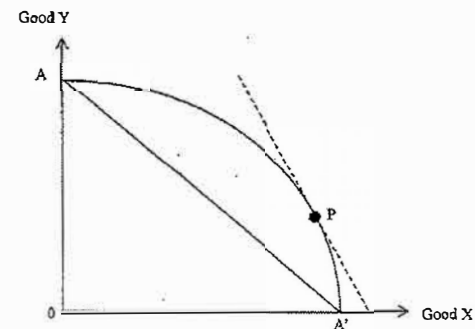
2009/AL/II/24

The terms of trade of the country is measured by \_\_\_\_\_.

- A. IJ/JG
- B. JG/IJ
- C. IJ/KL
- D. GL/LD

2010/AL/II/24

Refer to the following diagram.

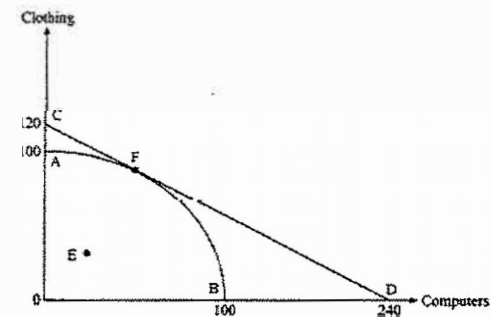


Arc AA' is the production possibility curve of a small country. The country produces at point P in the absence of trade. Suppose the straight line AA' represents the terms of trade, which of the following statements is correct?

- A. The country will import good Y.
- B. The country will export good Y.
- C. The country will not trade with the rest of the world.
- D. The country will consume more good X and good Y after trade.

2011/AL/II/25

AB and CD are the production possibility curves of Country X and Country Y respectively.



Which of the following statements about Country X and Country Y is/are correct?

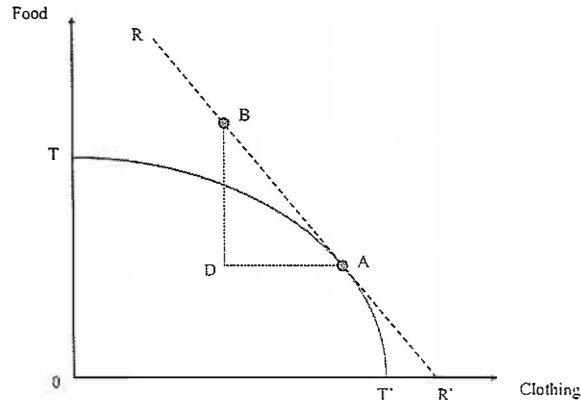
- (1) Country X enjoys a comparative advantage in producing clothing.
- (2) Country Y enjoys an absolute advantage in producing computers.
- (3) At point E, both countries can produce more computers without reducing the production of clothing.

- A. (3) only
- B. (1) and (2) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1991/AL/II/3

An economy not engaged in trade can produce and consume anywhere along its production possibility boundary  $TT'$ . With free-trade prices shown by the slope of lines  $RR'$ , production takes place at A and consumption at B. The economy exports DA units of clothing to obtain BD units of food.



With the aid of the diagram provided, show the new consumption pattern and the trade situation after a fire destroyed quantity DA units of its clothing. (10 marks)

1997/AL/II/8

The following table shows the amount of labour required in the production of one unit of Good X and one unit of Good Y in Country A.

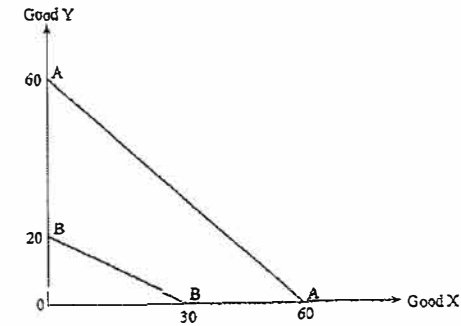
	Good X	Good Y
Country A	1	3

Suppose Country A has L units of labour and the terms of trade are 1.

- (a) Construct the production possibility frontier of Country A. What good will Country A export? (2 marks)
- (b) Suppose there is technical progress in the production of Good Y in Country A. Explain with the aid of a diagram how each of the following situations affect the trade pattern and the welfare of Country A.
- (i) The labour requirement in the production of one unit of Good Y is 2.
  - (ii) The labour requirement in the production of one unit of Good Y is 0.5.
- (8 marks)

2012/DSE/II/15

In the diagram below, AA and BB are the production-possibility frontiers of Country A and Country B respectively.



- (a) (i) Which country has a comparative advantage in producing Good X? Explain. (4 marks)
- (ii) Is mutually beneficial trade possible between these two countries? Explain. (4 marks)
- (b) If the terms of trade is 10 units of X in exchange for 8 units of Y, what will be the gain from trade per unit of X traded for each country? (4 marks)

2013/DSE/II/14(a)

Country A requires 1 unit of labour to produce a unit of Good X and 2.5 units of labour to produce a unit of Good Y. Suppose labour is the only resource required for production. Country A is endowed with 10 units of labour and the terms of trade is  $1X = 1Y$ .

- (i) Explain which good Country A will import.
- (ii) Construct the production possibilities frontier and consumption possibilities frontier of Country A in Figure 3 (4 marks)

Suppose the labour force of Country A increases by 10 units.

- (iii) Will the direction of trade be affected? Will Country A be better off as a result? Explain your answers with the aid of Figure 3. (6 marks)

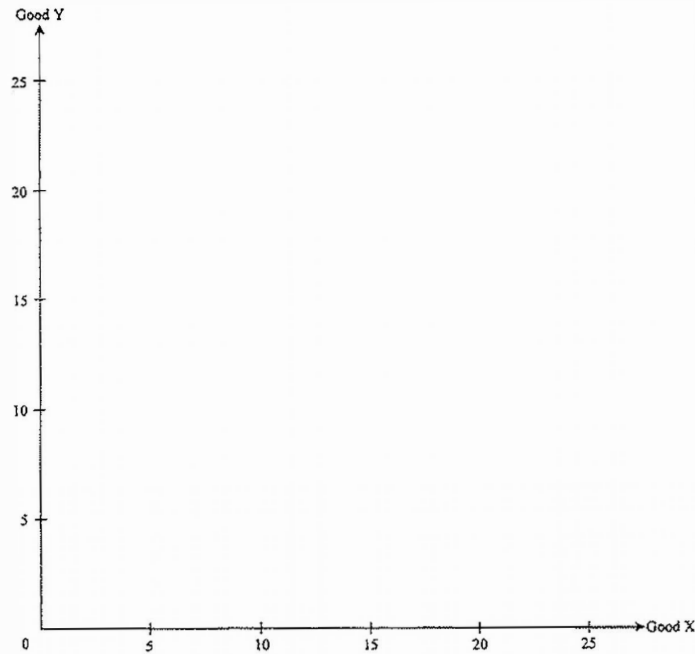


Figure 3

2014/DSE/II/14

Figure 4 shows the production possibility frontiers (PPF) of Country A and Country B. Suppose the amount of resources of Country A doubles that of Country B in the production of Good X and Good Y. Both countries allocate their resources evenly in the production of Good X and Good Y.

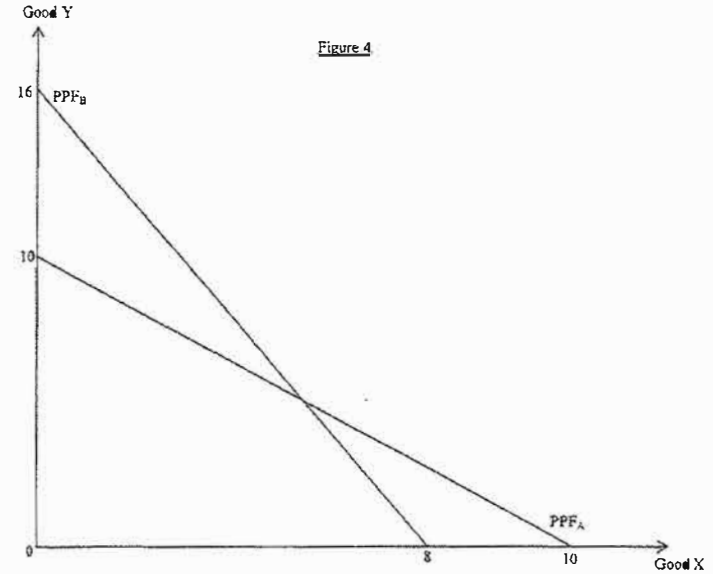
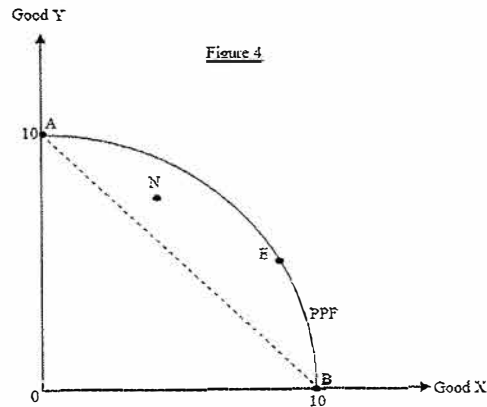


Figure 4

- (a) Explain why the production possibility frontiers of Country A and Country B are straight lines. (2 marks)
- (b) Explain whether Country A enjoys
  - (i) an absolute advantage in producing Good X.
  - (ii) a comparative advantage in producing Good X. (5 marks)
- (c) Suppose the international price of a unit of Good X is 1.5 units of Good Y. Show on Figure 4:
  - (i) The production point of Country A after specialization.
  - (ii) The consumption possibility frontier (CPF) of Country A when there is trade.
  - (iii) The consumption point of Country A if 4 units of Good X are traded. (5 marks)

2015/DSE/11/14

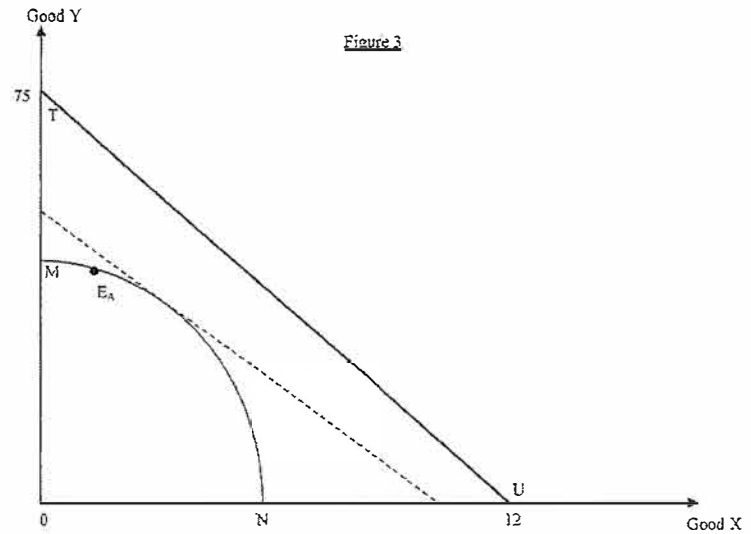
In Figure 4, PPF is a country's production possibility frontier where E is the production point without trade. At point E, the domestic cost of production of one unit of good X is 2.5 units of good Y.



- (a) Explain whether the country would produce at point N. (2 marks)
- (b) The slope of dotted line AB is the world price of good X. Explain whether the country has a comparative advantage in producing good X. (3 marks)
- (c) Suppose the country engages in international trade. Indicate its production point after trade and its consumption possibility frontier in Figure 4. (3 marks)
- (d) With the aid of Figure 4, explain whether the country will gain from trade. (3 marks)

2016/DSE/11/15

In Figure 3, MN and TU are the production possibility frontiers of Country A and Country B respectively.



- (a) Explain why the production possibility frontier of Country A is concave to the origin. (1 mark)

The production point of Country A without trade is  $E_A$ , at which the domestic cost of production of 1 unit of Good X is 4 units of Good Y.

- (b) With reference to the domestic cost of production in both countries, explain in which good Country A has a comparative advantage. (3 marks)

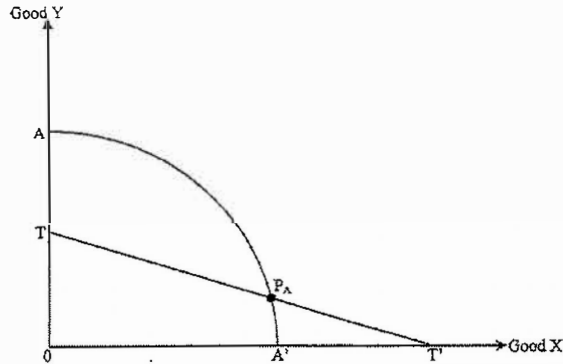
Suppose the slope of the dotted line is the world price of Good X.

- (c) Indicate in Figure 3:
- the production point of Country A after trade as  $P_A$ ,
  - the consumption point of Country A as  $C_A$  given that Country A consumes the SAME amount of Good X after trade, and
  - the volume of import and the volume of export of Country A. (4 marks)
- (d) Country B has a technological improvement which helps double its productivity on Good X and Good Y. Explain whether the answer in part (b) will change. (2 marks)

2017/DSE/11/15

Figure 5 shows the production possibility frontier  $AA'$  of Country A.  $P_A$  is the production point when there is no trade.  $TT'$  is the world price line of Good X.

Figure 5

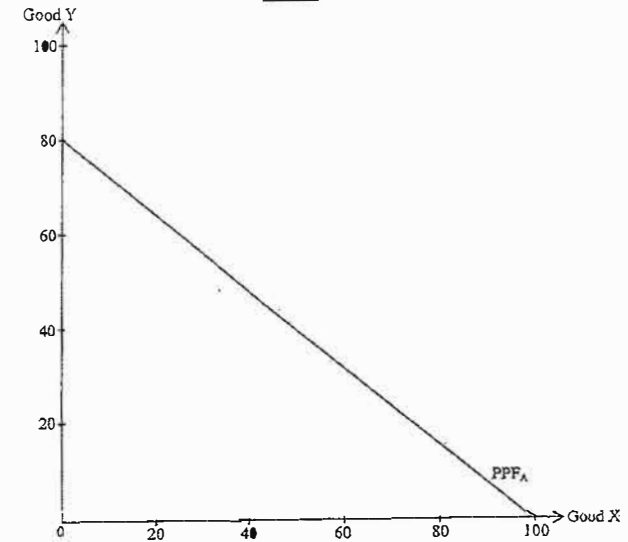


- (a) Initially Country A did not engage in international trade.
- Indicate the consumption point of Country A as  $C_A$  in Figure 5. Explain your answer. (2 marks)
  - Show the opportunity cost of producing Good X in Figure 5. Explain whether Country A would have a comparative advantage in producing Good X. (Hint: you may add a straight line at  $P_A$ .) (4 marks)
- (b) Country A opens up to international trade.
- Draw the consumption possibility frontier (CPF) of Country A in Figure 5. Indicate the production point as  $P_T$  in Figure 5 and explain your answer in terms of marginal cost. (3 marks)
  - Indicate the consumption point as  $C_T$  in Figure 5. Why is Country A better off after trade? (2 marks)
  - Indicate the volume of imports as  $M$  in Figure 5. (1 mark)

2018/DSE/11/15

Figure 4 shows the production possibility frontier (PPF<sub>A</sub>) of Country A.

Figure 4



Both Country A and its trading partner, Country B, produce Good X and Good Y. Country A has 50 units of resources whereas Country B has 30 units of resources. Country B requires 1 unit of resources to produce 1 unit of Good X and 0.5 units of resources to produce 1 unit of Good Y.

- Draw the production possibility frontier of Country B (PPF<sub>B</sub>) in Figure 4. (1 mark)
- Explain which country has an absolute advantage in producing Good X. (3 marks)
- The two countries trade with each other and the terms of trade is  $1X = 1Y$ . Also, Country B consumes equal amount of Good X and Good Y after trade. In Figure 4, indicate
  - the production point ( $P_B$ ) of Country B after specialisation, (1 mark)
  - the consumption possibility frontier (CPF<sub>B</sub>) and consumption point ( $C_B$ ) of Country B after trade and (2 marks)
  - the consumption possibility frontier (CPF<sub>A</sub>), the volume of import and the volume of export of Country A. (3 marks)

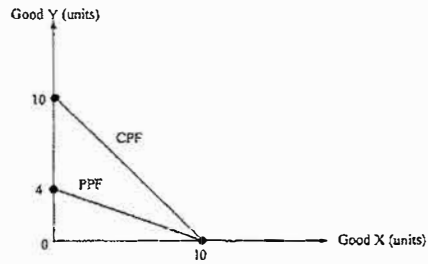




2013/DSE/11/14(a)

- (i) Country A will import Good Y because the domestic production cost of Good Y is higher than the terms of trade. (1)

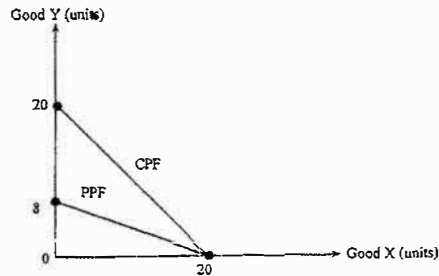
(ii)



Indicate on the diagram:  
- correct position of PPF  
- correct position of CPF

- (iii) Country A will still import Good Y because the domestic production cost of Good Y is still higher than the terms of trade. (1)

Country A will be better off because the CPF shifts outward; Country A can consume more of Good X and Good Y. (1)

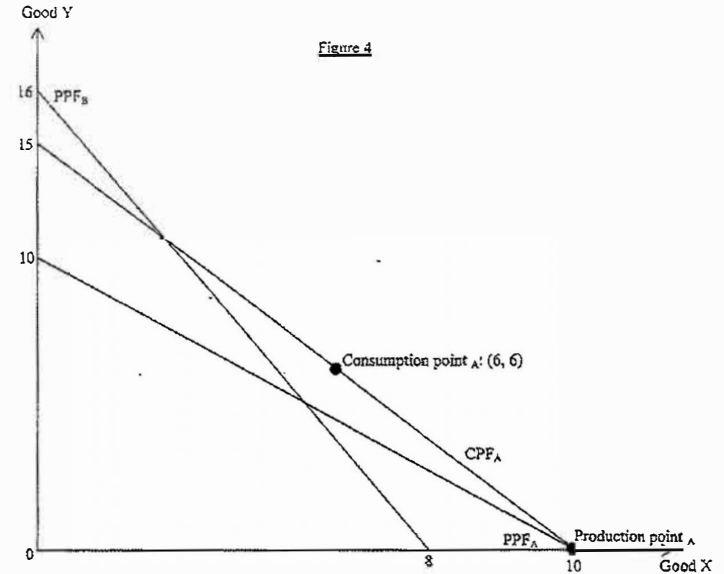


Indicate on the diagram:  
- correct position of PPF  
- correct position of CPF

2014/DSE/11/14

- (a) The marginal (and average) costs of production for Good X and Good Y are constant (and do not increase with the quantities of X or Y). So the opportunity cost of X in terms of Y, which is the slope of the PPF, is constant. (2)
- (b) (i) Country B can produce 8 units of Good X by using all of its resources. Given the amount of resources owned by Country A doubles that of Country B, Country A can only produce 5 (= 10/2) units of X by using the same amount of resources as B. So Country A does not have absolute advantage in producing X. (3)
- (ii) In Country A, the opportunity cost of producing one unit of X is (10/10 =) 1Y. In Country B, the opportunity cost of producing one unit of X is (16/8 =) 2Y. So Country A has comparative advantage in producing Good X. (2)

(c)



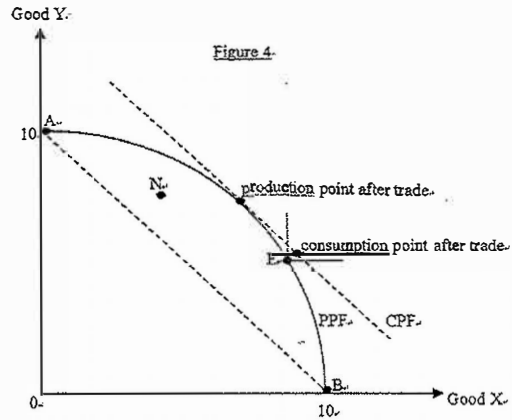
Indicate on the diagram:

- (i) production point of Country A: (10, 0) (1)
- (ii) CPF of Country A: a straight line with X-intercept equals 10 and Y-intercept equals 15 (2)
- (iii) consumption point of Country A: (6, 6) (2)

2015/DSE/1/14

- (a) No, (1)  
because there will be idle resources in the country / the country is not maximizing its production. (1)
- (b) No, because (1)  
without trade, the domestic cost of good X trade in country A (= 2.5Y) exceeds the world price of X (= 1Y) (1)  
OR  
opportunity cost of 1X = slope of the tangent of PPF at E > slope of AB (2)

(c)



Indicate on the diagram:

- correct position of production point after trade (1)
- tangency between CPF and PPF (1)
- CPF is parallel to AB (1)

- (d) Yes, because (1)  
the country can consume beyond its PPF (which is also its CPF without trade) / the country can consume more of X and Y after trade. (1)

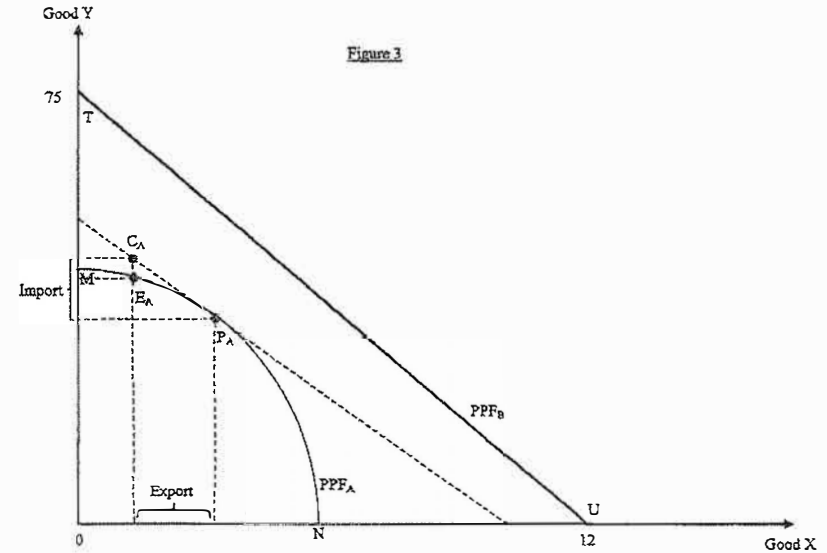
Indicate on the diagram:

- correct position of consumption point after trade (1)

2016/DSE/1/15

- (a) The marginal costs of producing of both X and Y are increasing in Country A. (1)
- (b) Country A's opportunity cost of producing 1X = 4Y (1)  
Country B's opportunity cost of producing 1X = 6.25Y (1)  
Country A has a lower cost in producing X, and thus it has a comparative advantage in producing X. (1)

(c)

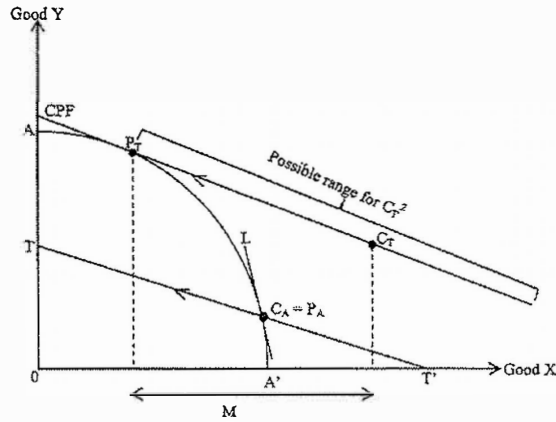


Indicate in the diagram:

- (i) The correct position of  $P_A$  (1)
- (ii) The correct position of  $C_A$  (1)
- (iii) The correct volume of export (1)  
The correct volume of import (1)

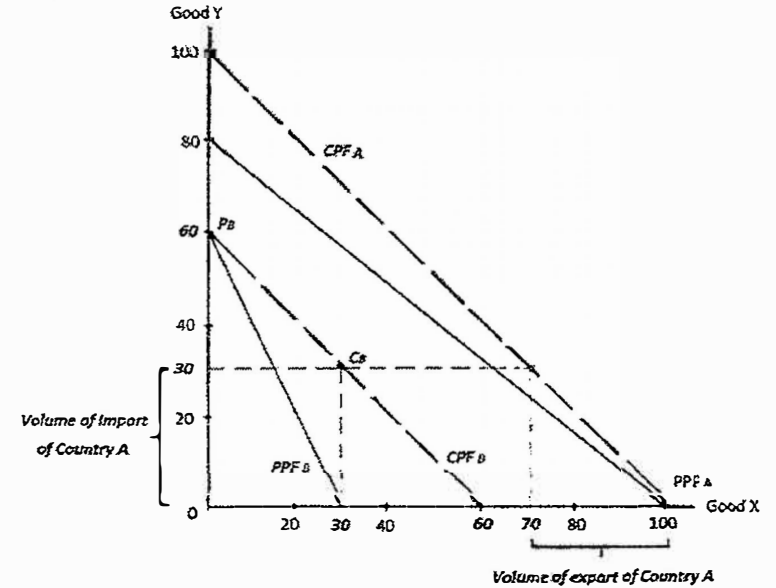
- (d) No, because (1)  
the opportunity cost of producing X (and Y) will be unaffected by this technological change. (1)

2017/DSE/II/15



- (a) (i) Without trade, Country A can only consume its own production. (1)  
Illustrated in the diagram:  
 - correct position of  $C_A = P_A$  (1)
- (ii) Slope of L is the marginal cost of Good X. (1)  
 L is steeper than  $TT'$ . (1)  
 That means marginal cost of producing Good X is higher than the world price of Good X. (1)  
 So Country A did not have a comparative advantage in producing Good X. (1)  
 (max: 3)
- Illustrated in the diagram:  
 - correct position of the straight line (L) (1)
- (b) (i) Country A would produce at  $P_r$  where  $TOT' =$  domestic marginal cost of production. (1)  
Illustrated in the diagram:  
 - correct position of  $P_r$  (1)  
 - correct position of CPF (1)
- (ii) Country A can consume at a point which is unattainable from local production before trade. (1)  
Illustrated in the diagram:  
 - correct position of  $C_T$  (1)
- (ii) Illustrated in the diagram:  
 - correct position of M (1)

2018/DSE/II/15



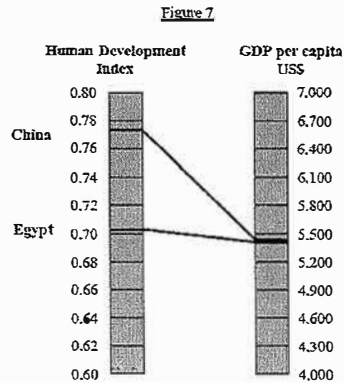
- (a) Illustrated in the diagram:  
 - correct position of production possibility frontier of Country B ( $PPF_B$ ) (1)
- (b) Country A has absolute advantage in producing Good X, because (1)  
 with the same amount of resources (30 units), Country A can produce a larger quantity of Good X (60 units) than Country B (30 units).  
OR  
 with the same amount of resources (50 units), Country A can produce a larger quantity of Good X (100 units) than Country B (50 units).  
OR  
 Country A can produce 1 unit of X with fewer units of resources (0.5 units of resources) than Country B (1 unit of resources). (2)
- (c) Illustrated in the diagram:  
 (i) - correct position of production point of Country B ( $P_B$ ) (1)  
 (ii) - correct position of consumption possibility frontier of Country B ( $CPF_B$ ) (1)  
 - correct position of consumption point of Country B after trade ( $C_B$ ) (1)  
 (iii) - correct position of consumption possibility frontier of Country A ( $CPF_A$ ) (1)  
 - correct position of volume of import of Country A (1)  
 - correct position of volume of export of Country A (1)

9.2 ECONOMIC DEVELOPMENT

Short & Structured Questions

PP/DSE/II/16(b)

Figure 7 shows the Human Development Index and GDP per capita of China and Egypt in 2009.



- (i) Suggest **TWO** reasons to explain why China has a significantly higher Human Development Index despite having a similar GDP per capita to Egypt. (4 marks)
- (ii) The GDP per capita of China increased sharply in the last decade. Explain with **TWO** reasons why the increase in the GDP per capita may overstate the improvement of general living standard. (4 marks)

2012/DSE/II/15(d)

The Human Development Index (HDI) of Country B increases after trade.

- (i) What does HDI measure?
- (ii) Suggest **ONE** possible reason for such an increase.

(4 marks)

2013/DSE/II/14(b)

Refer to the following information about Hong Kong and Japan in 2011 and answer the following questions.

	Human Development Index rank	Gross National Income per capita rank MINUS HDI rank
Japan	12	11
Hong Kong	13	-4

- (i) Which place had a higher Gross National Income per capita in 2011? Show your workings.
- (ii) State **TWO** possible reasons why Japan had a higher HDI rank than Hong Kong in 2011.
- (iii) Suggest **ONE** government policy that could raise Hong Kong's HDI rank.

(6 marks)

2014/DSE/II/14(d)

The production possibility frontier of Country A has shifted out due to changes in government policies on human capital.

Suggest **TWO** such possible policy changes in Country A. (4 marks)

2015/DSE/II/14(e)

After the country's opening up for trade, its Human Development Index (HDI) has risen.

- (i) Give **ONE** reason why international trade can lead to a rise in HDI. (1 mark)
- (ii) Despite the rise in HDI, the residents in the country generally agree that the living standard has declined. Suggest **TWO** possible reasons to explain their view. (4 marks)

2016/DSE/II/15(e)

The census statistics report of Country A warns that the country would suffer from brain drain, i.e. many residents with a high education level migrate to other countries.

- (i) Explain **TWO** effects of brain drain on the economic growth of Country A. (4 marks)
- (ii) In the light of globalisation, suggest **ONE** policy the government of Country A could adopt to relieve the problem. Briefly explain your answer. (2 marks)

2017/DSE/II/15(c)

The following table shows some data of Country A. Country A opened up to international trade after 2000.

Year	1990	2000	2010
Per-capita real GDP (in US\$)	2 950	3 000	3 600
Human development index (HDI)	0.67	0.68	0.68

With reference to the above table, explain how international trade affects

- (i) the economic growth of Country A. (2 marks)
- (ii) the economic development of Country A. (2 marks)

2018/DSE/II/15(d)

Explain whether the following policies would result in an increase in a country's Human Development Index (HDI).

- (i) The government closes down environmentally harmful power plants and factories. (3 marks)
- (ii) The government grants citizenship to all illegal immigrants so that they can stay and work in the country legally. (3 marks)

MARKING SCHEME

PP/DSE/II/16(b)

- (i) - Longer life expectancy  
- Higher literacy rate
- (ii) - Income is less evenly distributed.  
- A larger proportion of total output consists of national defence and capital goods.  
- There are more problems of pollution.  
- The people enjoy less leisure.  
- There are fewer non-marketed / unreported goods. (2@, max: 4)  
[Mark the **FIRST TWO** points only.]

2012/DSE/II/15(d)

- (j) HDI measures the level of economic and social development of a country in 3 dimensions: health (measured by life expectancy at birth), education (measured by mean years of schooling and expected years of schooling) and living standard (measured by Gross National Income per capita). (2)
- (ii) More production, business activities and employment opportunities in the import-export industry lead to higher per capita GDP.  
OR  
Foreign health product or technology imported lead to better health (2)

2013/DSE/II/14(b)

- (i) Hong Kong.  
HK: GNI per capita rank - HDI rank = 4  
Given HDI rank = 13, GNI per capita rank = 9  
Japan: GNI per capita rank - HDI rank = 11  
Given HDI rank = 12, GNI per capita rank = 23 (2)
- (ii) Japanese have longer years of schooling on average. (1)  
Japanese have a longer life expectancy on average. (1)
- (iii) Any example of policy that can enhance the education level or health condition of Hong Kong people. E.g., increase government subsidy on tertiary education. (2)

2014/DSE/II/14(d)

- tax allowance for further education (or education subsidy)  
- teaching grants -- to universities for more degree programmes  
- bigger immigration quota for experts and professionals  
[Mark the **FIRST TWO** points only.]

2015/DSE/II/14(e)

- (i) GDP may increase because of trade-induced transfer of superior technology from its trading partners, resulting in an increase in productivity.  
OR  
Exchange in health technology may increase life expectancy. (1)
- (ii) - Workers in import-substitute industries may suffer unemployment  
- Income distribution may become more uneven  
- Pollution may increase (due to specialization in producing more "polluted" goods) (2@, max: 4)  
[Mark the **FIRST TWO** points only.]

2016/DSE/II/15(e)

- (i) - lower per-capita GDP  
- lower human capital / labour productivity  
- lower marginal productivity of capital (due to complementarity of labour and capital)  
- slower research and development (2@, max: 4)  
[Mark the **FIRST TWO** points only.]
- (ii) - importation of high-skilled labour  
- scholarships to attract higher-quality overseas students  
- relaxation of immigration policy to target the smarter brains  
- introduction of return migration policy (2@, max: 2)  
[Mark the **FIRST** point only.]

2017/DSE/II/15(c)

- (i) Enhanced economic growth (as shown by higher levels or positive rates of growth) of per-capita real GDP because external trade could increase aggregate demand (through exports) and hence real GDP. (1)
- (ii) No change in economic development (as reflected by the same level of HDI) because more people may leave school earlier in order to take part in trading activities, thus decreasing the average number of years of schooling, while GDP rises as a result of trade. (1)  
OR  
pollution (as a by-product) may become more serious as production is increased after trade; new disease or virus brought in by foreigners may shorten the life expectancy at birth of the local people. (1)

2018/DSE/II/15(d)

- (i) Uncertain, because per capita GNI would fall while life expectancy may rise. (1)  
OR  
No, because the effect on life expectancy would become significant only in the long term, so that the (immediate) GNI effect should dominate in the current period. (2)
- (ii) Uncertain, because while per capita GNI may increase, average year of schooling and/or average life expectancy may drop. (1)  
(2)