Q.35

Topic:	Adjusting harbour crossing tolls in Hong Kong
Relevant economic topics:	Opportunity cost, three basic economic problems, demand and supply, price elasticity of demand, divergence between private cost and social cost, efficiency, gross domestic product, aggregate demand and aggregate supply, fiscal balance
Types of material:	News article, table, opinions
Question design: (total marks: 31 marks)	Elementary-level questions (17 marks); Advanced-level questions (14 marks)

(a) There is traffic congestion in the CHT and EHC during peak hours with traffic queues extending to other connecting roads. Drivers using the two tunnels create a negative impact on other drivers, but they do not provide any compensation. It takes longer for other drivers to reach their destinations. The negative impact can be regarded as an external cost. Drivers using these two tunnels do not take this external cost into account, so there is a divergence between private and social costs. (3 marks)

(b) 'For whom to produce': adjusting the tolls of the three road harbour crossings will determine who can get the tunnel services. (2 marks)

(c) <u>Verbal elaboration:</u>

- The fixed toll plan will increase the toll for the CHT and reduce the toll for the WHC. (1 mark)
- With reference to the viewpoint of the private car owner in Source D, the number of private cars detouring to a tunnel with a lower toll (e.g. the CHT) will decrease, indicating that the demand for the tunnel services of the CHT will decrease. (1 mark)
- Excess demand for the tunnel services of the CHT will decrease. (1 mark)

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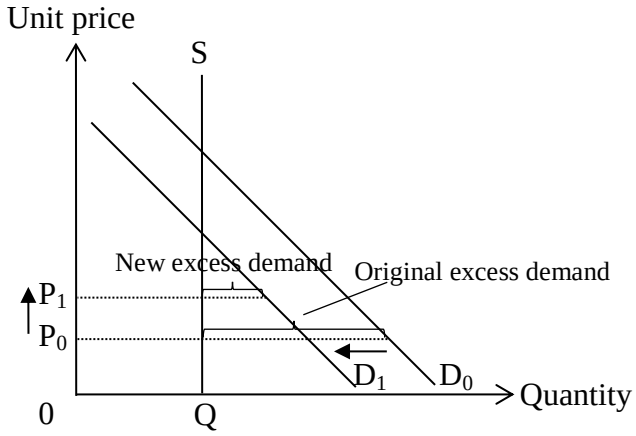
<u>Illustrate in the diagram:</u>

- vertical supply curve (1 mark)
- leftward shift of the demand curve (1 mark)
- price increases (1 mark)
- excess demand decreases (1 mark)



(d) Hong Kong's GDP will decrease, because residents' spending on transportation will decrease and private consumption expenditure will decrease. (2 marks)

(e) Due to the decrease in the toll of the WHT, some drivers who currently use the CHT may choose to use the WHT. The number of vehicles using the CHT will decrease, and congestion will be improved. The time it takes to cross the harbour using the CHT will decrease. The opportunity cost of taking a taxi is the taxi fare (including the tunnel toll) and the time cost. If the time cost saved is higher than the increase in the CHT toll, the opportunity cost of taking a taxi using the CHT to cross the harbour will decrease. (3 marks)

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(f) Marks awarded for effective communication (EC: max 2 marks)

Marks	Performance
2	● *Arguments supported with the source/data and appropriate economic theories* ● *Relevant materials presented* ● *Well-organised and coherent answers presented without repetition of ideas* ● *Ideas clearly and fluently expressed with appropriate use of language/words/terms/symbols*
1	● *Arguments presented with some support of the source/data and economic theories* ● *Some irrelevant materials presented* ● *Answers presented in a less organised way with some repetition of ideas* ● *A clear message conveyed with some inappropriate use of language/words/terms/symbols*
0	● *Arguments presented with no support of the source/data and economic theories* ● *Materials unrelated to the gist of the question presented* ● *Inconsistent arguments presented* ● *Limited ideas expressed with inappropriate use of words/terms/symbols*

The maximum marks for content is 12 marks. Answers may include the following:

Aggregate output

<u>Proposal I:</u>

Increasing the annual licence fees of vehicle licences for private cars will increase the opportunity cost of holding a private car licence, causing some people to reduce their purchasing or holding of private cars. The expenditure of households on private cars will decrease and private consumption expenditure will decrease. The aggregate demand will decrease. In the short run, aggregate output will decrease.

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Proposal II:

Building a new road harbour crossing will lead to higher investment expenditure and the aggregate demand will increase. In the short run, aggregate output will increase.

After the completion of the new road harbour crossing, Hong Kong's productive capacity will increase. The long run aggregate supply will increase and the potential output level will increase. In the long run, aggregate output will increase.

Evaluation:

Proposal II may be better than proposal I because proposal II will lead to an increase in aggregate output in both the short run and the long run, while proposal I will lead to a decrease in aggregate output in the short run.

Economic efficiency

Proposal I:

Increasing the annual licence fees of vehicle licences for private cars will result in a decrease in the number of private car licences. The number of private cars on the road will decrease and cross-harbour traffic congestion will be improved. Since cross-harbour traffic congestion leads to a divergence between private and social costs, improving traffic congestion will reduce the divergence between private and social costs, which will help improve economic efficiency.

Proposal II:

The completion of the new road harbour crossing will help rationalise traffic, and the traffic congestion in the original road harbour crossings will be improved. The divergence between private and social costs will be reduced and economic efficiency will be improved.

Evaluation:

Both proposals can help improve economic efficiency, so both proposals are desirable in this aspect.

Fiscal balance

Proposal I:

After increasing the annual licence fees of vehicle licences for private cars, the change in the government's revenue from the license fee will be uncertain, depending on the price elasticity of demand for private cars. The effect on the fiscal balance will be uncertain.

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Proposal II:

- The construction of a new road harbour crossing using government fund involves huge expenditure, which will lead to an increase in government expenditure. This may worsen the government's fiscal balance.
- After the completion of the new road harbour crossing, the government would be able to generate income from operating the new tunnel, which may improve the fiscal balance.
- The completion of the new road harbour crossing will make the neighbouring areas more convenient and will bring external benefits to the neighbouring areas. There will be more business activity in neighbouring areas, which will increase the government's profits tax revenue. The price of neighbouring land will increase and the government's revenue from land sales will increase. The fiscal balance may be improved.

Evaluation:

Proposal I may be better than proposal II because proposal I is less likely to worsen the government's fiscal balance in the short term.

OR

Proposal II may be better than proposal I because proposal II may bring more revenue to the government in the future.

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