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91399

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NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Level 3 Economics, 2014

91399 Demonstrate understanding of the efficiency of market equilibrium

9.30 am Tuesday 25 November 2014
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the efficiency of market equilibrium.	Demonstrate in-depth understanding of the efficiency of market equilibrium.	Demonstrate comprehensive understanding of the efficiency of market equilibrium.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL parts of ALL questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–12 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

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The examination continues on the following page.

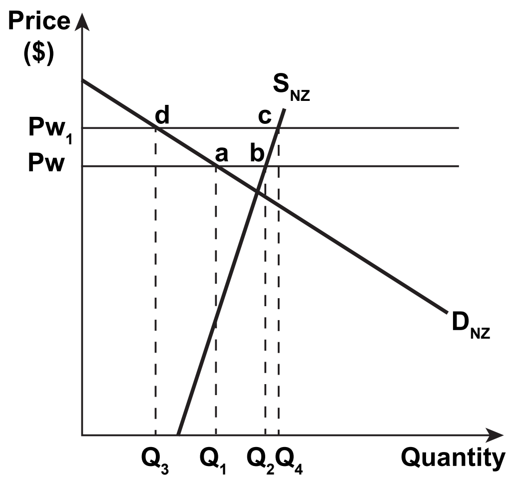
QUESTION ONE: The impact of change on a market in different time frames

"Soaring dairy commodity prices show no sign of slowing down as demand for milk powders outstrips supply".

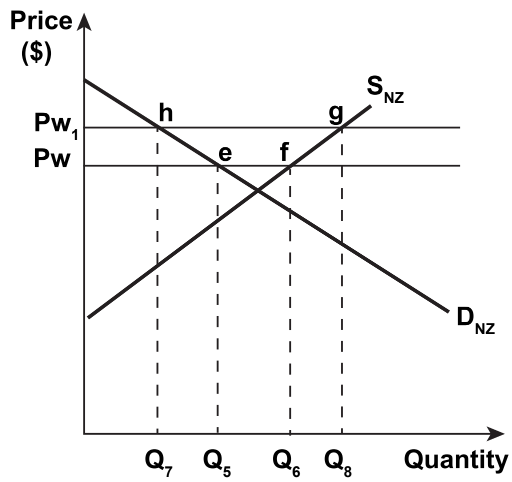
Source: http://www.stuff.co.nz/business/farming/dairy/9514677/Fonterra-milks-itself-dry-under-huge-demand

The supply of dairy products is inelastic in the short run and relatively more elastic in the long run, as producers have time to increase all resources in response to a price increase.

Graph One: Short-run New Zealand market for dairy products (inelastic supply)



Graph Two: Long-run New Zealand market for dairy products (elastic supply)



(a) (i) An increase in the world price has been shown on Graph One and Graph Two. For Graph One, use labels to identify the areas that represent:

- change in consumer surplus: ______________________
- change in producer surplus: ______________________.

(ii) Explain in detail the change in consumer surplus and producer surplus in the short run.

(b) Compare and contrast the impact on allocative efficiency of an increase in the world price in the short run with the impact on allocative efficiency of an increase in the world price in the long run. In your answer:

- on BOTH graphs, shade the increase in allocative efficiency in the New Zealand market for dairy products
- explain in detail why an increase in the world price will increase allocative efficiency in both markets, regardless of time frame
- explain in detail why an increase in the world price will result in a greater increase in allocative efficiency in the long run compared to the short run
- refer to the labels provided and the changes you have made to BOTH graphs to support your answer.

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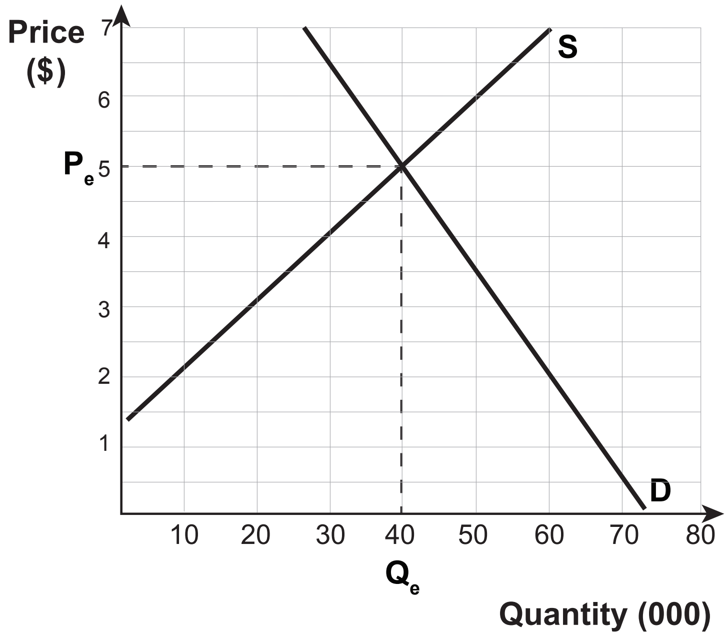
QUESTION TWO: Impact of a subsidy on a market

The New Zealand Government subsidises some essential goods and services, such as doctor visits for children and home insulation, with the goal of making these items more affordable.

Graph Three: Market for a subsidised good



(a) (i) Show the impact of a $2.50 subsidy on Graph Three. Clearly label any changes you have made to the equilibrium price and quantity.

(ii) Explain in detail how market forces will move the market to the new equilibrium price and quantity. Refer to figures from Graph Three.

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(b) Complete Table One below, by calculating the values from Graph Three:

Table One

	Value from Graph Three ($)
Change in consumer surplus	
Change in producer surplus	
Cost of subsidy for the Government	
Deadweight loss	

(c) Compare and contrast the impacts that a subsidy can have on consumers, producers, the Government, and allocative efficiency. In your answer:

- explain in detail the impact on consumer surplus and producer surplus
- explain in detail the impact on the Government
- explain in detail the impact on allocative efficiency
- refer to the calculations you made in Table One.

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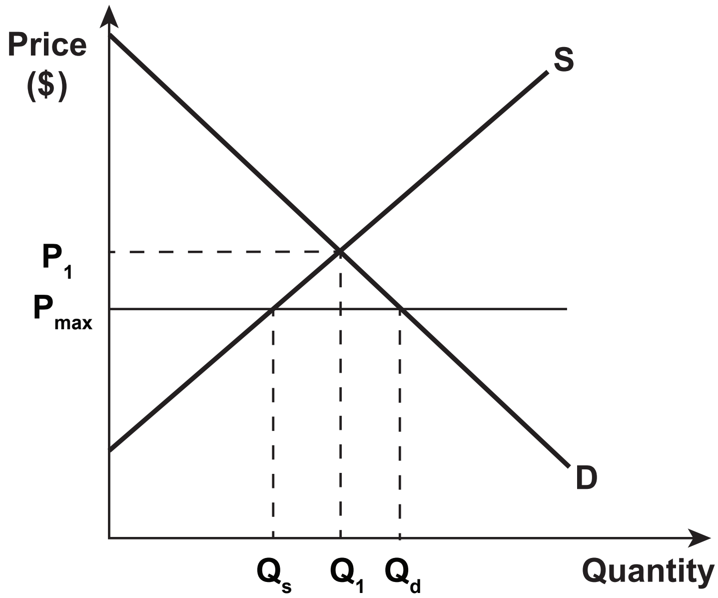
QUESTION THREE: Government intervention and efficiency of a market

New Zealand power prices have increased in recent years due to strong demand outstripping supply and the high cost of building new power stations.

Source (adapted) https://www.powerswitch.org.nz/powerswitch/site-info/powerswitch-faqs/electricity-prices

A maximum price control is a policy that the New Zealand Government could use to reduce power prices.

Graph Four: The New Zealand electricity market with a maximum price



(a) (i) A maximum price has been shown on Graph Four. Show the impact of the maximum price control on allocative efficiency by clearly shading and labelling:

- the new consumer surplus
- the new producer surplus
- the deadweight loss.

(ii) Explain in detail the change in consumer surplus, producer surplus, and allocative efficiency.

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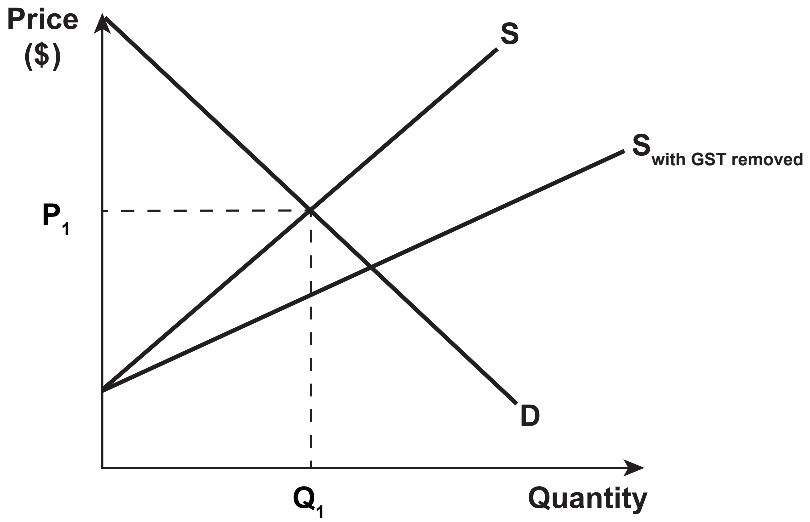
Another policy that could be used to reduce power prices is removing GST.

(b) Compare and contrast the impact on allocative efficiency of the two policies – a maximum price control and the removal of GST. In your answer:

- on Graph Five, clearly label the new equilibrium price (**P_2**) and quantity (**Q_2**), and shade the new producer surplus and consumer surplus
- explain in detail the change in producer surplus, consumer surplus, and allocative efficiency
- explain in detail why removing GST would be more allocatively efficient than introducing a maximum price control
- refer to Graph Four and Graph Five.

Graph Five: The New Zealand electricity market with GST removed



More answer space for this question is available on the next page.

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Write the question number(s) if applicable.

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