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NEW ZEALAND QUALIFICATIONS AUTHORITY  
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## Level 2 Economics, 2016

### 91223 Analyse international trade using economic concepts and models

2.00 p.m. Tuesday 15 November 2016  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Analyse international trade using economic concepts and models.	Analyse international trade in depth using economic concepts and models.	Analyse international trade comprehensively using economic concepts and models.

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 the 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 2–11 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.**

Excellence

TOTAL

23

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# QUESTION ONE: PRICE TAKER MODEL

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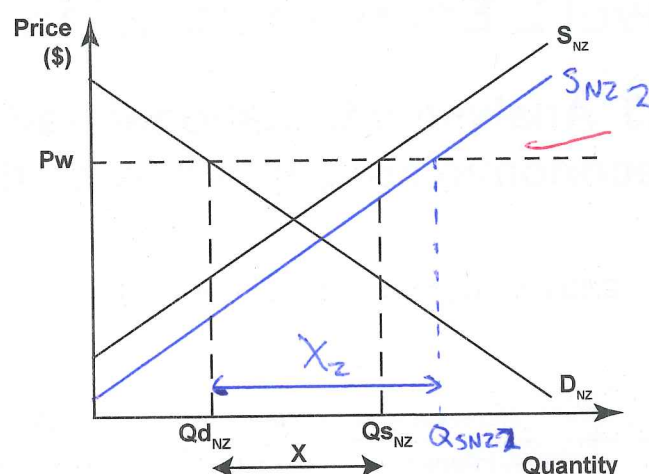
Powdered milk, a product of the dairy industry, is a significant New Zealand export. Dairy farms rely heavily on irrigation, such as the Central Plains Irrigation Scheme.

The aim of irrigation is to supply enough water for pastoral growth at times of the year when rainfall is unreliable or inadequate. Irrigated land in Canterbury shows a gain of 5000 kg of output per hectare per year, compared to unirrigated land.

Source (adapted): <http://www.rockpoint.co.nz/pdfs/Irrigation-in-New-Zealand-2012-Rockpoint.pdf>

- (a) (i) On Graph One below, show the impact on export receipts from powdered milk, of increased irrigation on agricultural land.

**Graph One: Market for New Zealand powdered milk**



- (ii) Use Graph One to fully explain the impact on export receipts from powdered milk, of increased irrigation on agricultural land.

The increased irrigation <sup>of land</sup> caused farmers to see an <sup>average</sup> increase of "5000 kg of output per hectare per year." This caused New Zealand's supply of powdered milk from ~~S\_NZ~~ S\_NZ to S\_NZ2. This ~~caused an increase in~~ <sup>increase couldn't be met by</sup> domestic demand at the world price so was exported at the world price to overseas markets. This caused exports to increase from X to X<sub>2</sub>. Because the number of exports increased and was sold at the same price as they always <sup>were</sup>, export receipts increased. //



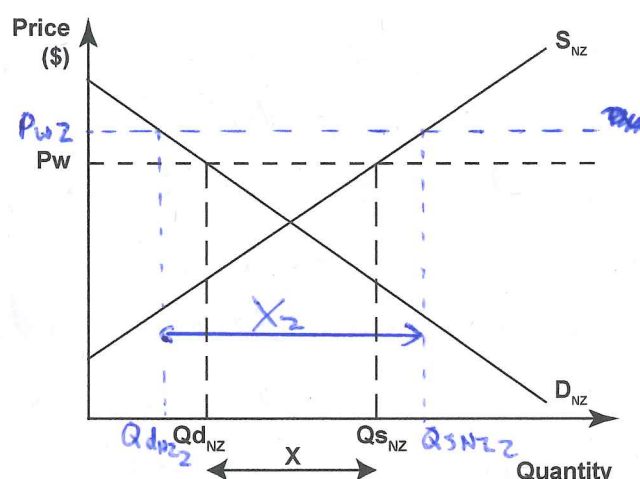
A resolution by a World Trade Organisation conference to eliminate agricultural export subsidies is good news for New Zealand. New Zealand is a successful exporter of farm products to many countries that currently subsidise their local production. New Zealand stands to gain greatly if agricultural export subsidies are eventually eliminated and the supply in the rest of the world decreases.

Source (adapted): [http://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=11564655](http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11564655)

New Zealand has no export subsidies on powdered milk exports.

- (b) (i) On Graph Two below, show the impact on export receipts from powdered milk, of the elimination of agricultural export subsidies in our major export markets.

**Graph Two: Market for New Zealand powdered milk**



- (ii) Use Graph Two to fully explain the impact on export receipts from powdered milk, of the elimination of agricultural export subsidies in our major export markets.

Because ~~many~~ <sup>NZ</sup> countries within NZ's major export markets eliminated subsidies <sup>to</sup> local producers, it forced these producers to take a hit to the profitability, they therefore decreased their local supply as they can no longer afford to sell the same amount. This caused the world price to increase from  $P_w$  to  $P_{w2}$  due to scarcity. This caused NZ's demand for farm product to drop from  $Q_{dNZ}$  to  $Q_{dNZ2}$  and NZ's supply of farm products to rise from  $Q_{sNZ}$  to  $Q_{sNZ2}$ . This caused the exported <sup>amount</sup> of NZ's farm products to increase from the distance between  $Q_{dNZ}$  ~~and~~  $Q_{sNZ}$  <sup>(X)</sup> to between  $Q_{dNZ2}$  and  $Q_{sNZ2}$  ( $X_2$ ). Because we are selling more exports and at a higher world price, export receipts will increase greatly.

- (iii) Refer to Graphs One and Two to fully explain why the elimination of agricultural export subsidies in our major export markets will have a greater impact on the export receipts from powdered milk, than increased irrigation of agricultural land.

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The elimination of agricultural export subsidies will cause export receipts to increase by a greater amount than increased irrigation will. This is because, increase irrigation causes higher export receipts due to NZ's supply increasing from  $S_{N1}$  to  $S_{N2}$ . ~~This~~ <sup>This</sup> is just one factor causing an increase and the selling price of the exports does not increase. However, a reduction in agricultural subsidies caused the world price of farm products to increase. This causes both NZ demand to decrease ( $Q_{D_{N1}} - Q_{D_{N2}}$ ) and NZ supply to increase ( $Q_{S_{N1}} - Q_{S_{N2}}$ ) this increases the amount of exports by a greater amount <sup>on graph</sup> ~~than~~ solely an increase in supply on graph 1 or ~~Graph 2~~  $X_2$  compared to Graph 1  $X_2$ . On top of this as shown on graph 2, because of the lower subsidies the exports are being sold at a higher price so not only are we selling more exports we are selling them for a higher price than graph 1. This ~~means~~ shows that the reduction in subsidies will have a greater effect than the increase irrigation.

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## QUESTION TWO: EXCHANGE RATE AND TWO-COUNTRY MODEL

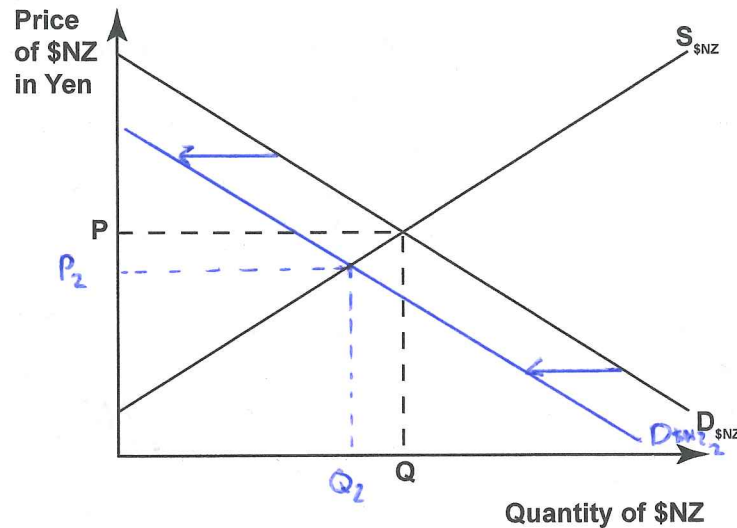
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Between 21 March 2015 and 20 January 2016, the New Zealand dollar depreciated 17% against the Japanese yen.

Source: <http://www.x-rates.com/graph/?from=NZD&to=JPY&amount=1>

- (a) (i) Use Graph Three below to show a shift in the demand for the New Zealand dollar that will result in its depreciation against the Japanese yen.

**Graph Three: Market for the New Zealand dollar**



- (ii) Fully explain ONE possible reason for the shift in demand for the New Zealand dollar, as shown in Graph Three.

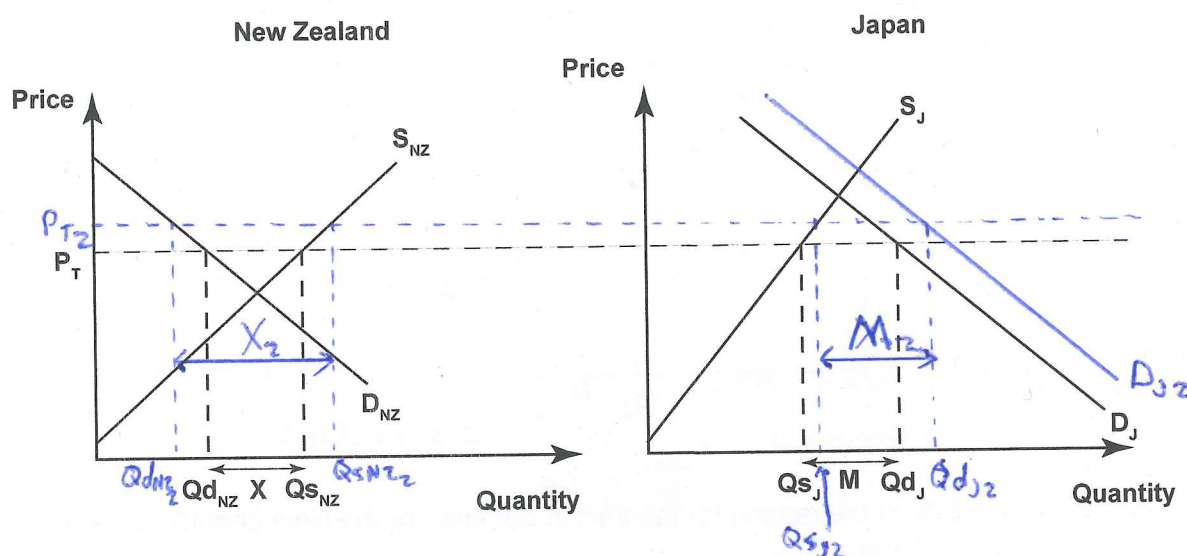
It is possible that New Zealand employed a poor tourism advertising campaign to overseas markets. This caused less tourists to come and visit New Zealand and, therefore, there was a ~~lack~~ lack of demand for the NZD causing it to drop from  $D_{\$NZ}$  to  $D_{\$NZ2}$ . This decrease caused the quantity of the NZD being traded to drop from  $Q$  to  $Q_2$  and the price of the NZD ~~in~~ Yen to fall 17% from  $P$  to  $P_2$ .

Japan is the largest market for aluminium produced in New Zealand. In 2014, Japan imported approximately half of the \$837 million total New Zealand aluminium exported.

Source: <http://www.worldsrichestcountries.com/top-new-zealand-exports.html>

- (b) On Graph Four below,  $P_T$  is the price of aluminium before depreciation of the New Zealand dollar against the Japanese yen. Use Graph Four to show:
- the change in demand in the Japanese market due to the depreciation of the NZ dollar against the Japanese yen
  - change in the quantity of aluminium exports between New Zealand and Japan.

**Graph Four: Two-country model for aluminium**



- (c) Use Graph Four to fully explain the change in demand for aluminium in the Japanese market, and the consequent changes in the value of aluminium exports between New Zealand and Japan.

The depreciation in the NZD by 17% compared to the Yen cause NZ exports to be cheaper in Japan as it costs the Japanese less to purchase NZD to buy our exports with. This <sup>locally</sup> lower price cause Japan's demand for aluminium to increase from  $D_J$  to  $D_{J2}$  and this pushed up the price of trade from  $P_T$  to  $P_{T2}$ . This increased ~~market~~ <sup>trade</sup> price cause the Japanese producers to supply slightly more as it is now more profitable to do so at the trade price. This increase Japanese from  $Q_{S_J}$  to  $Q_{S_{J2}}$ . ~~increasing the quantity supplied~~ <sup>increasing the quantity supplied</sup> ~~from the Japanese~~ <sup>from the Japanese</sup> ~~producers~~ <sup>producers</sup> ~~in the Japanese market~~ <sup>in the Japanese market</sup>



The ~~gross~~ net result of the increase in supply and demand is an increase in imports from Japan from <sup>the distance</sup>  $M$  to <sup>the distance</sup>  $M_2$ . (Note: Although it is difficult to tell, the value did increase as NZ increased exports  $X-X_2$ , and  $X=M$ ). On NZ's side, the new <sup>trade</sup> price cause NZ's local demand for aluminium to drop from  $Q_{DNZ}$  to  $Q_{DNZ_2}$ , and local supply to increase from  $Q_{SNZ}$  to  $Q_{SNZ_2}$ . The surplus is exported to Japan meaning exports increased from the distance  $X^{(Q_{SNZ}-Q_{DNZ})}$  to the distance  $X_2 (Q_{SNZ_2}-Q_{DNZ_2})$ . Overall New Zealand exports of aluminium and export receipts increased and Japan's imports of aluminium and import payments increased.

E8

### QUESTION THREE: THE BASIS OF TRADE AND FREE TRADE AGREEMENTS (FTA)

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(a) Identify TWO of New Zealand's imports from the top six by value.

(1) Electronics

(2) Cars

(b) Use one of the imports from part (a) to fully explain an economic reason why New Zealand is an importer of this good.

New Zealand is an importer of cars because they would be a very inefficient producer of such a good. New Zealand lacks the knowledge, skills, technology<sup>and</sup> infrastructure ~~and raw materials~~ to produce such a good. ~~and~~ It would therefore cause the cost of production for cars in New Zealand to be higher than the rest of the world and therefore makes far more economic sense for NZ to ~~import~~ import this good from overseas. If New Zealand did produce cars, the cost of production would be so high that the selling price would have to be quite high for the company to remain profitable, they would then be undercut by overseas manufacturers who can sell at a lower price and remain profitable so the industry wouldn't be successful unless trade barriers were introduced.



The Trans-Pacific Partnership Agreement (TPP) will give our exporters much better access to a market of more than 800 million customers in 11 countries across Asia and the Pacific, including the United States and Japan. The TPP will eliminate tariffs on 93 per cent of New Zealand's exports to our new FTA partners. The overall benefit of the TPP to New Zealand is estimated to be at least \$2.7 billion a year by 2030. That's more jobs, higher incomes, and a better standard of living for New Zealanders.

Source (adapted): <http://tpp.mfat.govt.nz/>

Statement by the Prime Minister: [beehive.govt.nz/release/pm-welcomes-tpp-nz-s-biggest-trade-deal](http://beehive.govt.nz/release/pm-welcomes-tpp-nz-s-biggest-trade-deal)

- (c) Compare and contrast the impact of the Trans-Pacific Partnership Agreement on:
- New Zealand export industries and New Zealand industries not directly involved in exporting
  - domestic workers in export industries and domestic workers in import industries.

The TPP will cause New Zealand export industries to benefit greatly from the agreement. This is because they will have greater access into a <sup>Agreement</sup> ~~Wide~~ market of over 800 million people throughout 11 countries. This greater market access and elimination of trade barriers such as tariffs causes the demand for NZ export to increase meaning exporters will sell more and make more profit. Likewise, ~~for~~ industries not directly involved in exporting will also feel the benefits of the TPP. Because it promotes trade the TPP increases exports which causes aggregate demand and growth to rise, this means employment and incomes are high as the economy is requiring more people to produce more. Because disposable incomes are higher overall consumption spending increases so all ~~businesses~~ <sup>industries</sup> in the economy sell more goods and services, making more profit.

More answer space is available on the next page.

Domestic workers in export industries will also benefit as because international trade is increasing, there are more job opportunities in exporting industries\* so more of these workers will be employed and incomes will rise. The exact same is true for domestic workers in importing industries, because free trade is promoted, NZ will also import more so there will be more labour required and therefore there will be more job opportunities and higher incomes for these workers.

\* as more labour is required

EY



Excellence exemplar for 91223 2016			Total score	23
Q	Grade score	Annotation		
1	E7	<p>This candidate has received an E7 grade because they have:</p> <ul style="list-style-type: none"> <li>provided a detailed compare and contrast by fully explaining that the elimination of agricultural export subsidies in our major export markets had a greater impact on increasing the exports receipts from powdered milk, as NZ sells more at a higher price. This is compared to increased irrigation leading to increased exports receipts from powdered milk but at the existing world price, suggesting that increased export receipts will be smaller.</li> <li>integrated Graph One and Graph Two into their detailed explanations.</li> </ul> <p>Integrating the price taker concept into the detailed explanation would have resulted in E8.</p>		
2	E8	<p>This candidate has received an E8 grade because they have:</p> <ul style="list-style-type: none"> <li>fully explained why Japanese demand increases. As the New Zealand dollar depreciates, Japanese consumers/businesses/importers can purchase more aluminium with each Japanese yen (with the idea of currency conversion), resulting in an increase in demand. This causes imports to be higher than exports at existing price, causing price in Japan to increase.</li> <li>fully explained that in the two-country model, the increase in price in Japan causes an increase in exports from New Zealand, as the increase in price causes a decrease in quantity demanded in New Zealand and an increase in quantity supplied UNTIL exports again equal imports, because <math>X = M</math>. New Zealand market graph referenced in answer.</li> <li>integrated Graph Four into their detailed explanations.</li> </ul>		
3	E8	<p>This candidate has received an E8 grade because they have:</p> <ul style="list-style-type: none"> <li>fully explained that the greater access to 11 countries/800 million customers or less protectionist barriers such as tariffs, will lead to domestic firms selling more exports, or lower costs, and therefore higher revenue/profit levels. <b>AND</b> a flow-on effect of greater export receipts or consumer spending will positively affect domestic non-export industries, resulting in higher output/revenue/profits.</li> <li>fully explained that with increased international trade/greater access to 11 countries/800 million customers/less protectionist barriers such as tariffs will lead to more exports and, therefore, more labour will be required (<i>derived demand idea</i>) leading to higher income levels/living standards and/or job opportunities for domestic workers in export industries.</li> </ul>		