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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.**

Merit

TOTAL

17

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# QUESTION ONE: PRICE TAKER MODEL

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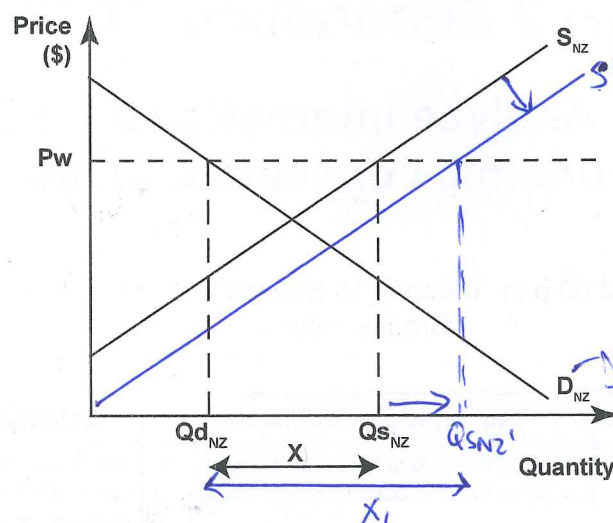
Powdered milk, a product of the dairy industry, is a **significant New Zealand export**. Dairy farms rely heavily on irrigation, such as the Central Plains Irrigation Scheme.

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.

Increased irrigation on agricultural land increases the supply of powdered milk because the productivity of the workers and pastoral growth during unreliable rainfall seasons means that businesses can supply more for less the same  $P_W$  and so supply shifts ( $S_NZ$  to  $S_NZ'$ ) and this increases the quantity supplied ( $Q_{S_NZ}$  to  $Q_{S_NZ'}$ ) which means that export receipts will increase ( $X$  to  $X_1$ ) as the business can supply more all year round.

\* can supply extra 5000 kg of output per hectare.



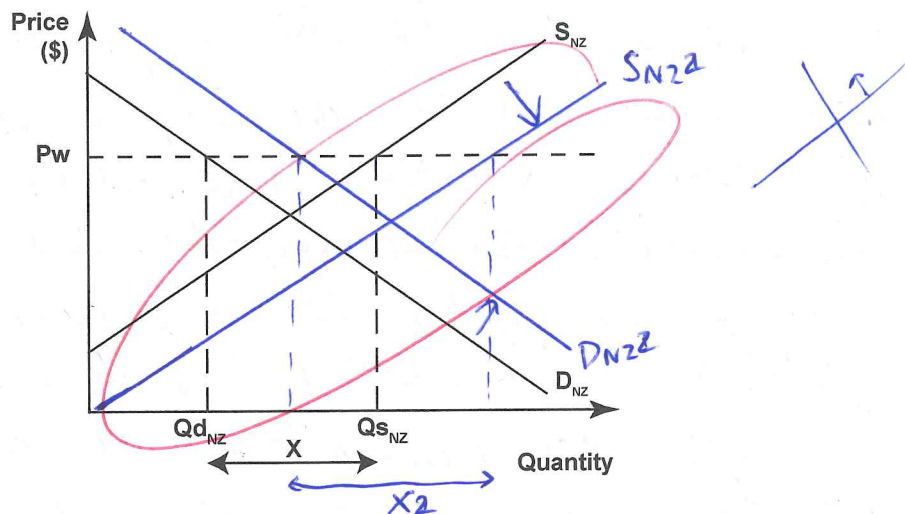
A resolution by a World Trade Organisation conference to **eliminate agricultural export subsidies** is good news for New Zealand. New Zealand is a successful exporter of farm products to many countries that **currently subsidise their local production**. New Zealand stands to gain greatly if agricultural 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.

The decrease in supply from overseas businesses at lower prices means that there is an increase in demand for New Zealand powdered milk. ( $D_{NZ}$  to  $D_{NZ}^2$ ) as their powdered milk is cheaper. This also increases the quantity they can supply to overseas countries ( $S_{NZ}$  to  $S_{NZ}^2$ ) as this allows decreases in costs of production and wages to occur. This causes the quantity supplied and demanded to increase ( $Q_{S_{NZ}}$  to  $Q_{S_{NZ}^2}$ ) and ( $Q_{D_{NZ}}$  to  $Q_{D_{NZ}^2}$ ) which means the export receipts increase due to this increase in sales, profits and revenue ( $X$  to  $X^2$ )



- (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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This ~~is~~ decrease in supply at the Pw from overseas countries due to their costs of production increasing means that all businesses in New Zealand can now supply more to these countries and their goods and services are more demanded than the more expensive overseas goods and services. The export receipts increase ( $X$  to  $X_2$ ) and this increase is greater ~~the~~ than the increase in export receipts for increased irrigation ( $X$  to  $X'$ ) because ~~in~~ the export receipts for elimination of agricultural subsidies is not just for dairy but for all agricultural sectors. So therefore ~~more~~ affects dairy in all parts of the country where it seems that the irrigation problem might only affect certain regions of NZ such as Christchurch and so the increase of irrigation will not be have as big of a profound effect on the whole of NZ dairy like eliminating overseas subsidies will.

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

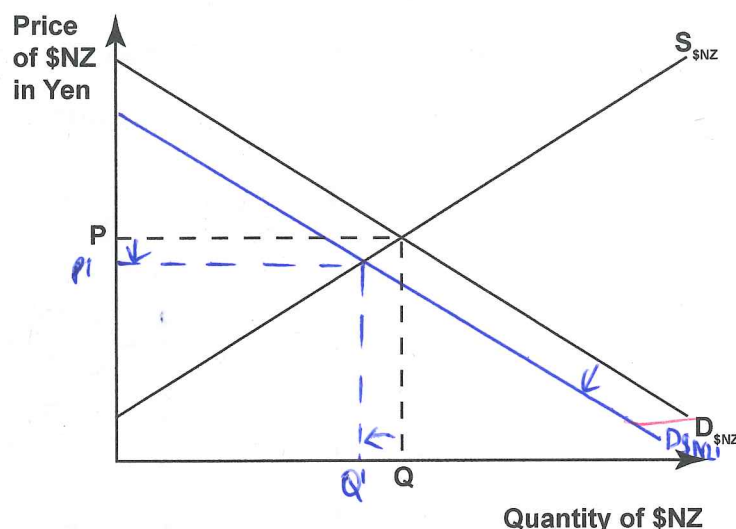
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Between 21 March 2015 and 20 January 2016, the New Zealand dollar depreciated 17% against the Japanese yen.

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.

The decrease in demand for New Zealand dollars could be because there is a decrease of exports. This decrease in demand for exports could mean there is a decrease of sales, revenue and profit and export receipts therefore decrease. This decrease in export receipts would mean less exporters would demand less NZ\$ to be exchanged from their Japanese Yen export receipts. And so the demand for NZ\$ decreases ( $D_{\$NZ}$  to  $D_{\$NZ}'$ ) and therefore the price of NZ\$ in Yen decreases ( $P$  to  $P'$ ) causing the New Zealand dollar to depreciate.



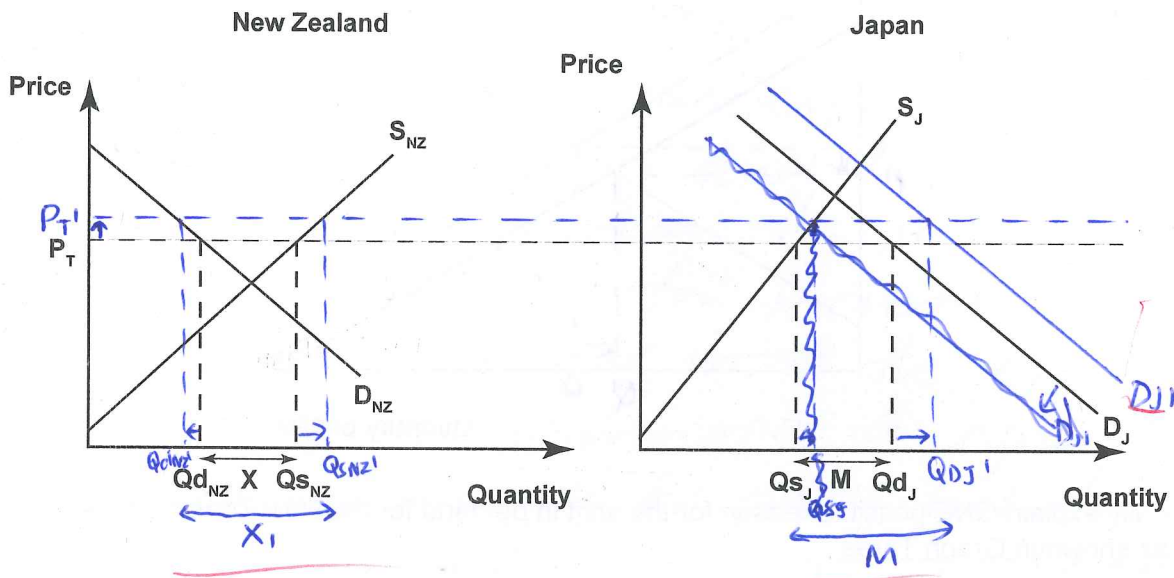
Japan is the largest market for aluminium produced in New Zealand. In 2014, Japan imported approximately half of the \$837 million total New Zealand aluminium exported.

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

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- (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.

A depreciation of the New Zealand dollar will mean that exports in New Zealand are more price competitive as the depreciation in New Zealand dollar (NZ\$) means that the prices of NZ goods decrease meaning they are cheaper overseas and more Japanese will demand their products ( $D_J$  to  $D_{J1}$ ). and This increase in quantity demanded ( $Q_{dJ}$  to  $Q_{dJ1}$ ) means that the prices for exports will increase as more Japanese consumers demand them, but they will still

be relatively more cheaper ( $P_T$  to  $P_T'$ )  
~~Therefore since there are more exports~~  
~~occurring then~~ Therefore since the exported  
 goods are cheaper there will be an increase  
 of sales, revenue and profits meaning  
 export receipts increase. (from  $X$  to  $X_1$ )  
 as the Japanese market ~~demand~~  
 and import them more ( $M$  to  $M_1$ ) due  
 to the high demands. So Japanese already  
 import around \$418.5 million of New  
 Zealand's exports and now this will  
 increase because of the depreciation of  
 the New Zealand dollar.

M6



### 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) Mineral fuels

(2) Vehicle parts

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

~~Vehicle parts~~ Mineral fuels are imported into New Zealand because of New Zealand's factor endowments. Factor endowments are what the land or country provides. For New Zealand the factor endowments are dairy land, for prosperous dairy markets, good conditions for meat animals to grow and fruit and nuts to prosper etc. And since there are factor endowments (these conditions and resources) there is decreased costs of production for them as easier to maintain and produce therefore meaning there is a surplus of them and New Zealand can export them. But for ~~proa~~ goods such as mineral fuels, it is harder and more costly for New Zealand businesses to produce at low price levels where other countries such as Australia can produce mineral fuels at low prices because of their factor endowments and so they are imported to New Zealand at lower prices.



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.

New Zealand export industries will be better off on the elimination of 93% of tariffs means that they are now more price competitive overseas and therefore have increased sales, revenue and profits. And their export receipts increase. Also this affects also New Zealand businesses, and also exporters, that imported raw materials will now be cheaper with the removal of tariffs and so businesses costs of production decreases which means that exporters can further reduce their prices, making them even more relatively competitive and can further increase of export receipts. New Zealand industries not directly involved in exporting will be worse off because imports from these 11 other countries will now have their tariffs removed and so their prices decrease and New Zealand consumers demand the imported goods and

More answer space is available on the next page.



not the New Zealand businesses good. This means that their sales, revenue and profits ~~increase~~ decrease. The only positive effect that may slightly mitigate this is that imported raw materials are ~~better~~ cheaper and so their costs of production decrease and they can try and lower their prices to become competitive. If they ~~are~~ cannot change to compensate for lower prices by lowering costs of production through laying off staff then they may have to shut down their firms or move production off New Zealand.

Cons Workers in the exporting sector will benefit from this because as their demand for exports increases this means their wages could increase. This therefore means they can increase consumption spend on the cheaper imported goods or increase their savings with their increased disposable income. Domestic workers in import industries will be ~~worse off~~ because their producers / businesses may lay them off to cut costs of production meaning they will have to cut their consumption spending and saving. ~~At~~ Or the workers might get wage cuts to cut costs of production and they will also decrease their consumption spending with their lower disposable income.

M5



Merit exemplar for 91223 2016			Total score	17
Q	Grade score	Annotation		
1	M6	<p>This candidate has received an M6 grade because:</p> <ul style="list-style-type: none"> <li>they have fully explained that the increased irrigation increases supply of powdered milk (with a reason e.g. increased productivity, lower costs of production), therefore increases/export receipts</li> <li>all changes are referenced correctly with Graph One.</li> </ul> <p>Correctly drawing Graph Two, showing an increase in the world price and exports and giving a detailed explanation as to the effect of removal of subsidies on NZ exports, would have resulted in E7.</p>		
2	M6	<p>This candidate has received an M6 grade because they have:</p> <ul style="list-style-type: none"> <li>fully explained that the demand for NZ dollars has decreased due to decreased demand for NZ exports by Japanese economy, resulting in the currency depreciating against the Japanese yen ¥.</li> <li>integrated Graph Three into their explanation.</li> <li>explained that Japanese consumers will increase demand because NZ aluminium is now relatively cheaper because of the depreciation.</li> <li>integrated Graph Four into their explanation.</li> </ul> <p>Fully explaining why Japanese demand increases (e.g. 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) and 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>) would have resulted in E8.</p>		
3	M5	<p>This candidate has received an M5 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</li> </ul> <p>Giving a detailed explanation of a flow-on effect of greater export receipts or consumer spending will positively affect domestic non-export industries, resulting in higher output/revenue/profits would have resulted in E7.</p>		