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91222



912220



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## Level 2 Economics, 2017

### 91222 Analyse inflation using economic concepts and models

2.00 p.m. Monday 20 November 2017  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Analyse inflation using economic concepts and models.	Analyse inflation in depth using economic concepts and models.	Analyse inflation 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 2–12 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.**

Excellence

TOTAL

23

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## QUESTION ONE: CAUSES OF INFLATION

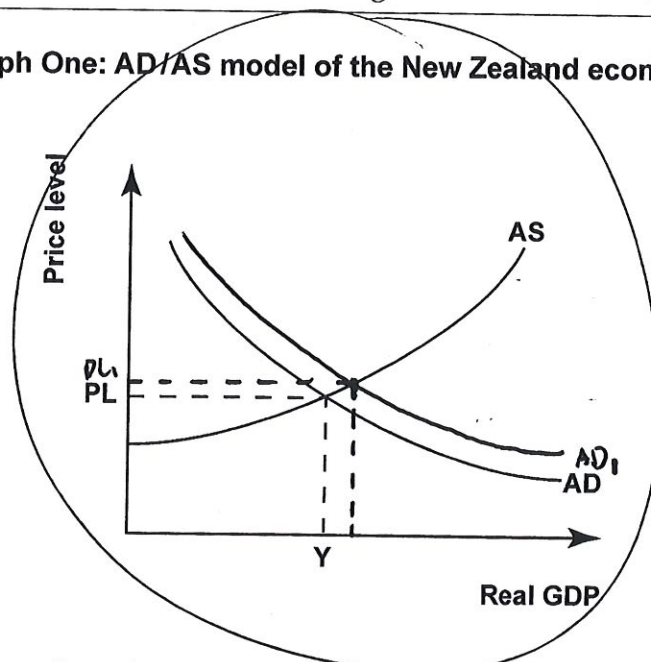
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The Government wants to make New Zealand conservation land predator-free by 2050, increasing budget funds to target the eradication of all pests that threaten New Zealand's native birds.

Source (adapted): <http://www.stuff.co.nz/environment/82454116/government-sets-target-to-make-new-zealand-predator-free-by-2050>

This should have the added benefit of attracting more tourists to New Zealand.

Graph One: AD/AS model of the New Zealand economy

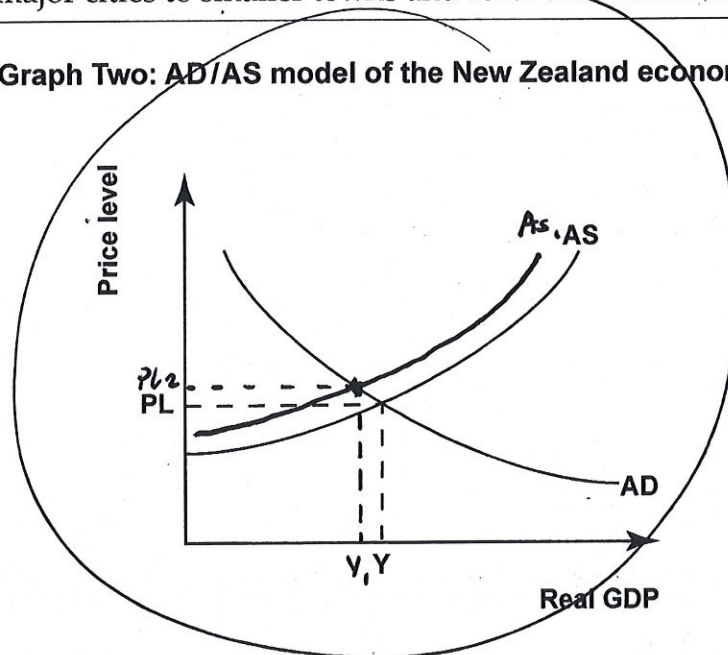


- (a) (i) On Graph One, show the impact of the government programme to make New Zealand conservation land predator-free by 2050.
- (ii) Using Graph One, fully explain the impact on inflation of the government programme.

*With the government increasing budget funds, this increases government spending, which is the G component of the AD curve. As this government programme also increases tourism, there are more overseas buyers willing to purchase New Zealand products. Therefore, this increases exports which is the X component of the aggregate demand. As the G and X component of the AD curve increases, AD increases and shifts to the right from AD to AD<sub>1</sub>. This puts an upward pressure on prices, causing the general price level to rise from PL to PL<sub>1</sub>. Demand Pull inflation //*

Along with the increase in residential house prices, there has been a similar increase in commercial property prices and business rental costs. During 2016, these price increases spread from the major cities to smaller towns and rural areas in New Zealand.

Graph Two: AD/AS model of the New Zealand economy



- (b) (i) On Graph Two, show the impact of the increase in prices and rental costs of commercial property in New Zealand.
- (ii) Using Graph Two, fully explain the impact on inflation of the increase in prices and rental costs of commercial property in New Zealand.

As commercial property are used by business, it's increase in prices and rental cost causes the cost of production for producers, businesses and firms to increase. The increase in cost of production makes it less ~~profit~~ affordable to produce the same amount of products at each and every price level, causing firms to decrease their supplies. Therefore, aggregate supply decreases from  $As$  to  $As_1$ . To maintain profit margins, producers increase their prices, pushing an upward pressure on the general price level to rise from  $PL$  to  $PL_2$ . Cost Push Inflation. //



- (iii) Fully explain why the impact on inflation of the government programme in part (a) may be less than the impact of increases in the price and rental costs of commercial property in New Zealand in part (b).

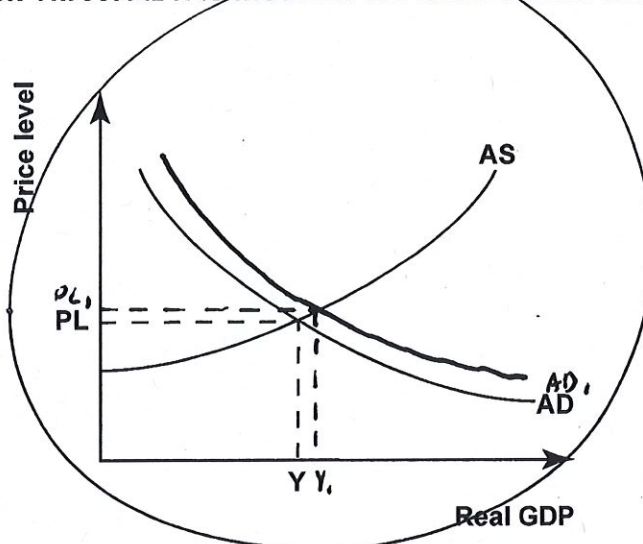
the general price level increase from  $PL_1$  to  $PL_2$  from graph two is greater than the general price level increase from  $PL_1$  to  $PL_2$  from <sup>graph</sup> one. This is because the increase in the price and rental costs of commercial property impacts either all or majority of the businesses in New Zealand, therefore, also impacting the price levels of other markets, making it weigh more in the CPI, thus, generating a bigger impact on inflation. Whereas, the government programme only impacts firms that are needed for the government programme and export firms, thus, creating a smaller impact on inflation. //

## QUESTION TWO: RECOVERY AND INFLATION

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Economic forecasts suggest that New Zealand will experience inflation throughout 2017, increasing to 2.2% by 2020, after hitting a low of 0.1% in January 2016. This increase in inflation is expected to come from the economy experiencing a recovery and growing through increased consumer and business confidence.

Graph Three: AD/AS model of the New Zealand economy



- (a) (i) On Graph Three, show the impact of a recovery on the Aggregate Demand curve.  
 (ii) Using Graph Three, fully explain how a recovery could lead to a period of inflation.

During a period of recovery, employment is rising. Therefore, people become more optimistic regarding ~~the mean~~ their employment and income, which encourages spending. People also obtain a higher disposable income as wages tend to rise during a recovery period, encouraging spending. As both factors encourage spending, consumer spending increases, which is the  $c$  component of aggregate demand. As the  $c$  component increases, aggregate demand increases from  $AD$  to  $AD_1$ . To meet the increase in demand, producers increase their prices, putting an upward pressure on the general price level to rise, causing it to rise from  $PL$  to  $PL_1$ , which is inflation, defined to be a rise in the general price level. This shows how a recovery period can lead to ~~for~~ demand pull inflation. //



From 2014 to the start of 2016, the New Zealand economy experienced a period of disinflation. Projections by economic forecasters suggest that from the beginning of 2016 until 2020, there will be steady and constant inflation in the New Zealand economy.

Source (adapted): <http://www.tradingeconomics.com/new-zealand/inflation-cpi/forecast> (accessed 17 January 2017)

(b) Compare and contrast the effects of a period of steady and constant inflation on:

- New Zealand export firms compared to New Zealand import firms
- New Zealand savers compared to New Zealand borrowers.

Constant inflation for exporters is unbeneficial as their cost of production continually increases in price. Therefore, to maintain profit margins, exporters would increase the price of ~~their~~ their products. This makes exports less price competitive in the international market, making their products less attractive and affordable to overseas buyers. This decreases the export firm's revenue and profitability. However, for importers, constant inflation is beneficial for them as their cost of production has remained the same and is relatively more affordable as they are from overseas. Therefore, when their products are sold in New Zealand, their products are more price competitive in the local market, and more attractive <sup>and</sup> affordable to New Zealand consumers rather than local products. This increases the profitability and sales revenue of import firms. //

Constant inflation is unbeneficial for savers, as inflation erodes the purchasing power of money, therefore, saver's saving's purchasing power has eroded due to inflation. This means that although the value of their saving has remained nominally the same, the real value of ~~their~~ their savings has decreased as they are able to buy less for the same amount of money as prices have increased. Whereas, constant inflation is beneficial to borrowers, as once again, inflation erodes the purchasing power of money, thus, the purchasing power of a borrower's debt //

has also been eroded, meaning that the real value of their debt has decreased, inspite the fact it had nominally remained the same. Increasing inflation usually also has increasing employment, therefore, giving borrowers more <sup>access</sup> ~~access~~ to money to pay off their debt quicker. ||

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E8



### QUESTION THREE: THE IMPACTS OF INFLATION

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Forecast figures from Treasury indicate the possibility of a decrease in real wages during 2017.

Source (adapted): <http://www.treasury.govt.nz/economy/overview/2016/10.htm>

- (a) Fully explain how real wages can fall even when there is an increase in nominal wages. In your answer, include a definition of nominal wages and real wages.

Nominal wages are the face value of your wage, it is your wage when not adjusted to the inflation rate. Real wages, is the true value of your wage, it is when your wage has been adjusted to the inflation rate.  $(\text{Nominal wage} - \text{inflation rate} = \text{real value of wages})$ . Therefore, a fall in real wages can occur, when the amount increased in nominal wages is smaller than the amount increased in the inflation rate. This means, that even though your wage has increased, as prices have increased higher than the increase in your wages, your wage is ~~is~~ now able to buy less than before, which essentially means that real value of your wage has decreased. //



New measures of inflation being developed for groups of households by the Statistics Department will provide greater insight into the inflation experienced by these household groups.

Source (adapted): [http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/prices\\_indexes/HouseholdLivingCostsPriceIndexes\\_HOTPSep16qtr](http://www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/HouseholdLivingCostsPriceIndexes_HOTPSep16qtr)

**Table One: Household living cost inflation rates**

Household group	Average rate of inflation between 2008 and 2016	Cumulative rate of inflation between 2008 and 2016	Major items in household spending basket 2014 (approx. % of total spending)
Superannuitants	2.375 %	19.0 %	Housing 42 Transport 9 Clothing 1.5
Top 20 % of Households by expenditure	1.137 %	9.1 %	Housing 15 Transport 17 Clothing 5
National average (CPI)	1.625 %	13.0 %	

Created from figures available from [http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/prices\\_indexes/HouseholdLivingCostsPriceIndexes\\_HOTPSep16qtr](http://www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/HouseholdLivingCostsPriceIndexes_HOTPSep16qtr)

- (b) (i) Using the information on household spending baskets, fully explain why different household groups have experienced a rate of inflation different from the national average.

*The CPI measures the rate of inflation in the general price level, therefore, in spite of the increase of prices of many products that had caused the general price level to increase, there are also some products/markets that has not increased in price or had remained the same, therefore, the CPI is the average rate, but different household groups can experience different rates of inflation based on their spending items, and for example, superannuitants spend more of their income on housing. ~~Because they spend 42% on housing~~ For example, superannuitants may have lower income, thus an increase in the prices of housing/rent impacts their consumption of goods, making their housing weigh higher in their basket of goods and increases the inflation rate that they have experienced.*

The question continues on the following page.



(ii) Compare and contrast the impact of inflation on the living standards of:

- superannuitants
- AND
- the top 20% of households by expenditure

if the incomes of both groups increased by the same percentage between 2008 and 2016.

An increase in income for the top 20% of household ~~then~~ would make the value of their ~~disposable~~ income <sup>has slightly decreased</sup> ~~larger~~ or remained the same, as inspite the fact that inflation has eroded the purchasing power of their previous ~~disposable~~ income, their increase income has compensated for that. As necessities like transport and housing consume only 32% of their ~~expenditure~~ spending, this provides them ~~at~~ 68% to spend on other luxuries, like savings, clothings, trips, education etc. Whereas for superannuitants, inspite of the fact that <sup>as the top 20%</sup> their wage has increased by the same percentage, their rate of inflation was marginally higher than the rate of inflation for the top 20% of households by expenditure, meaning that the real value of their <sup>their percentage increase of</sup> income is less <sup>percentage increase in the</sup> than the real value of income of the top 20%. This provides them less money for other necessities such as food, clothing, education when housing and transport consumes already 51% of their spendings, making the standard of living harder than the standard of living ~~for~~ of the top 20% of household by expenditure. Their purchasing power may have decreased as their income may have slightly decreased, as their inflation had increased to 9%, which may have slightly decreased the real value of their wage, but not as large as the decrease in the real value of wage for the superannuitants. Therefore, superannuitants are worn off during inflation.

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E7



Excellence exemplar 2017

Subject:		Economics	Standard:	91222	Total score:	23
Q	Grade score	Annotation				
1	E8	The candidate gains an E8 from completing (a) and b(ii) to a Merit level and makes an effective comparison using the number of firms affected in b(iii). What distinguishes this answer from an E7 is the use of price level labels to demonstrate the larger effect on inflation. In (a) the candidate identifies government spending as a reason for the change in aggregate demand and while the candidate identifies exports from increased tourism as a component of aggregate demand they should have used export receipts. Q1 b(ii) is a good answer in that the candidate explains the increase in prices due to firms aiming to maintain their profit margins after an increase in the cost of production. Labels from graphs are well integrated throughout the answer.				
2	E8	The candidate gains an E8 from a comprehensive answer in Q2b demonstrating that a full answer does not need excessive amounts of writing. For each of the four groups the candidate identifies as being better or worse off, a reason is given for their situation (e.g. less or more price competitive) and explains an outcome for the group (e.g. less or more profitable). The comprehensive answer in Q2b means that the missing investment reason in Q2a is not relevant to the overall grade for the question.				
3	E7	The candidate would have gained a Merit for their answer in Q3a as they clearly compare the rates of nominal wages and inflation to determine the effect on real wages and purchasing power. However, the E7 comes from a combination of answers from b(i) and b(ii). In b(i) they distinguish between the determination of the average inflation rate using the CPI and why individual groups may have higher or lower rates based on their own basket of goods and services. They support this answer in b(ii) by using data to show that superannuitants had a higher inflation rate than the top 20% of households. A more direct statement in b(ii) on the basket of goods and services being different as the cause of these inflation rates would have scored an E8.				