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NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

Level 2 Economics, 2015

91222 Analyse inflation using economic concepts and models

2.00 p.m. Thursday 12 November 2015
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 2–11 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 20

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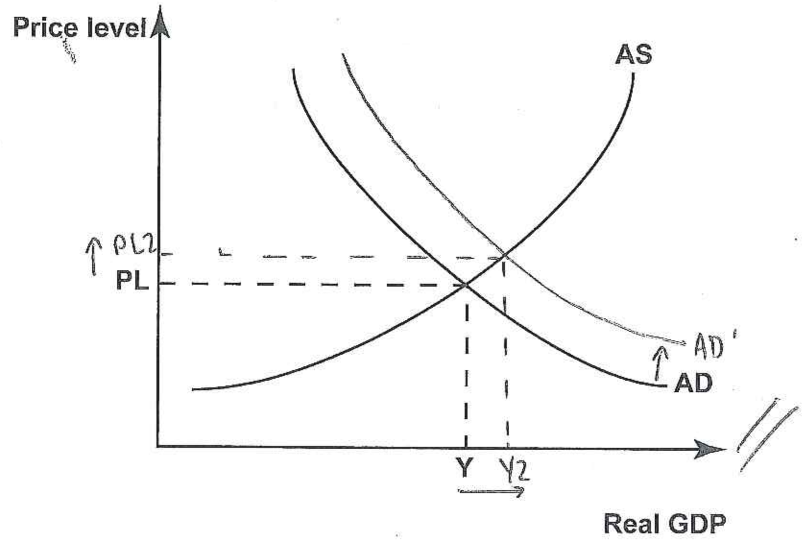
QUESTION ONE: CAUSES OF INFLATION

> Surveys show 13% of tourists say the Hobbit films influenced their decision to travel to New Zealand. The surge in spending by tourists from premium markets such as Germany, the US, and the UK can be explained by film tourism.
>
> Source (adapted): *The New Zealand Herald*, 7 January 2015, p. A15.

(a) Explain in detail the impact on inflation of the increase in film tourism in New Zealand. In your answer:

- use Graph One to show the impact of the increase in film tourism on inflation
- explain in detail how the increase in film tourism could affect inflation
- refer to the change you made on Graph One to support your answer.

Graph One: AD/AS model of New Zealand economy



Shown above on graph one is the impact of the increase in film tourism in New zealand on inflation. With 13% of tourists saying the Hobbit influenced their decision to travel to NZ, more tourists are coming to NZ from premium markets such as Germany, US and UK. This shifts the aggregate demand curve outward from AD to AD', indicating an increase, as consumption spending and ~~import~~ payments, which is ~~are both~~ a components of aggregate demand, increase as tourists to NZ increase their spending. Also shown on graph one is an increase in Real GDP from Y to Y2, and an increase in PL to PL2 indicating demand-pull inflation - showing how a surge in spending by tourists can affect inflation.

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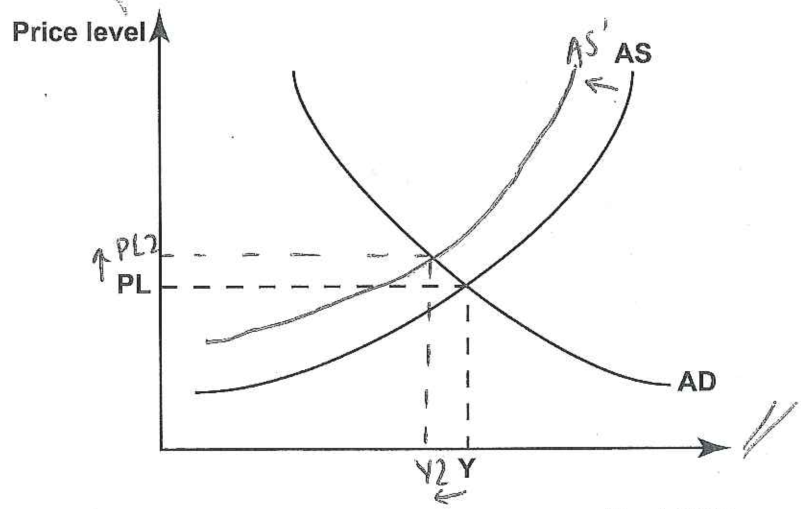
Government regulations will require all firms to undertake earthquake strengthening assessments and complete necessary strengthening by a given date. The total estimated costs for firms will be in excess of $2 billion.

(b) Compare and contrast the impact on inflation of the increase in film tourism with the impact of earthquake strengthening regulations.
In your answer:

- use Graph Two to show the impact of earthquake strengthening regulations on inflation
- explain in detail how earthquake strengthening regulations would affect inflation
- explain in detail how the increase in film tourism may have a smaller impact on inflation than earthquake strengthening regulations
- refer to the changes you made on Graph One and Graph Two to support your explanations.

Graph Two: AD/AS model of New Zealand economy



Shown above on graph two is the impact of the new government regulations which require all firms to undertake earthquake strengthening - at an estimated total cost of more than $2 billion. This shifts the aggregate supply curve inward from AS to AS', indicating a decrease in aggregate supply. This occurs as firms now have to undertake these earthquake strengthening assessments, which will increase their costs of production. Firms will then have to decrease their output, as shown by the decrease from Y to Y2, as they wish to maintain their profit margins, and with a greater cost of production, this becomes relatively more expensive to maintain,

There is more space for your answer to Question One on the following page.

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thus they will decrease how much they are supplying. PL also increases to PL2, indicating an increase in the price level, as firms now need to increase their prices to cover the new increased costs of production due to the new government regulations of earthquake assessments. As inflation refers to an increase in the general level of prices, we can see how these new government regulations will cause cost-push inflation.

The increase in film tourism, shown on graph one, may have less of an impact on inflation than earthquake strengthening regulations. This is because the new government regulations require all New zealand firms to undertake these new regulations, thus ~~increasing the price of~~ it may increase the price of all NZ's firms goods and services as they attempt to maintain the same profit margin while covering the new increased costs of production, as shown on graph two by the increase in PL to PL2. The increase in film tourism affects a much smaller market than the new government regulations, thus, as explained previously demonstrating how the new earthquake strengthening regulations will have a greater affect on inflation - as film tourism is limited to a few ~~specti~~ specialist businesses in NZ, while the regulations affect all firms.

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QUESTION TWO: THE QUANTITY THEORY OF MONEY

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During 2014, the fall in export receipts represented an estimated $6.1 billion reduction in dairy farming income, compared to the previous year in the New Zealand economy. Reductions in export receipts have an effect on the money supply.

(a) Explain in detail the impact of reduced export receipts in the New Zealand dairy industry on inflation.
In your answer:

- explain in detail how reduced export receipts in the dairy industry will affect inflation
- refer to all the variables in the Quantity Theory of Money equation.

$MV = PQ$

- The quantity theory of money states that if velocity of circulation (V) and ~~Q~~ total output/production of goods and services within an economy (Q) are to be held constant, then any increase in the money supply (M), will result in an increase in the price level (P).//
- With a fall in export receipts, ~~in~~ resulting from a $6.1 billion reduction in dairy farming income during 2014, this has an effect on the money supply. With a $6.1 billion decrease in export receipts in comparison to the previous year in the New Zealand economy, there is now a decrease in the money supply as a result. For the quantity theory of money to remain true, then assuming velocity of circulation (V) and total outputs (Q) have remained constant, then this decrease in the money supply (M) by $6.1 billion, will result in a decrease in the price level (P), thus not causing inflation, as inflation refers to an increase in the general level of prices, as dairy farmers will now have to lower their prices in an attempt to meet the total output (Q) as it has remained unchanged, as has the velocity of circulation (V.)//

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Increased production by foreign producers may make it more difficult for the New Zealand dairy industry to regain the record level of export receipts experienced in 2013. Historically, when export-dependent industries experience permanent declines in export receipts and income, they respond by reducing production.

(b) Discuss how a permanent fall in export receipts in the dairy industry may affect inflation in the long run.
In your answer:
- explain in detail why real output in the Quantity Theory of Money may change when there is a permanent fall in dairy export receipts
- explain in detail the impact on inflation if there is a change in real output
- compare and contrast the overall impact on inflation between the initial decline in export receipts in the dairy industry in the short run, and the additional impact of changes in real output if the fall in export receipts remains permanent in the long run.

MV = PQ

• The quantity theory of money states that if velocity of circulation (V) and total output / production of goods and services produced within an economy (Q) are to be held constant, then any increase in the money supply (M) will increase the price level (P). ~~thus~~ With a permanent fall in dairy export receipts, there will be a decrease in the money supply (M), as less income is coming into the economy. With this decrease in money supply (M), there will be a decrease in the price level (P), as total spending (M×V) = total production (P×Q.) This may also have an effect on real output (Q) in the quantity theory of money, as with increased production by foreign producers making it difficult for the NZ dairy industry to regain the level of export receipts it was at in 2013, as the dairy industry is mainly export-dependent (exporting majority of its goods), they will be likely to reduce their ~~income~~ output, to meet the decreased demand for their product, and also ~~to cover the increased~~ as costs of production will have become relatively more expensive as they are earning less income - a decrease in $6.1 billion.

• This change in real output may also have an impact on inflation. ~~Firms who may want to maintain the same profit margins~~ With the quantity theory of money stating that MV = PQ, then with an ~~incr~~ decrease in export receipts causing a decrease in the money supply (M),

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resulting in a decrease in the price level (P), however also experiencing a decrease in real output (Q) - to meet the decrease in demand / costs of production have become relatively more expensive due to less income - the price level (P) will again have to rise to ensure ~~MV~~ total spending (M × V) is equal to total production (P × Q). * With this increase in the price level (P), this indicates inflation, as inflation refers to a rise in the general level of prices, thus demonstrating how a change in real output can ~~cause inflation~~ impact inflation.//

With the initial decline in export receipts in the dairy industry in the short run by $6.1 billion, the money supply within the economy would have decreased, and to cope with this, the price level would have decreased, as dairy farmers would need to meet the total output, to ensure MV = PQ. However, in the long run, if the decreases in export receipts remain permanent due to increased production by foreign producers, farmers will decrease their total output as there is less demand for their dairy products as they are primarily export-dependent. With ~~changes~~ decrease in real output, farmers may wish to increase the price level to maintain current profit margins, as shown by the quantity theory of money where MV = PQ. However, farmers may also decide to let go of staff as costs of production remain too high in the long run with a decrease in export receipts, and a decrease in their output, ~~demonstrating~~ thus causing ~~fut~~ rises in unemployment. With this possible rise in price level to cover the costs of production and maintain profit margins in the long run, it is demonstrated how the changes in real output due to ~~fall~~ the fall in export receipts affects inflation in the long run, versus the impact on inflation in the short run - where the price level decreased due to the $6.1 billion decrease in the money supply.//

E7

* and to ensure producers meet the same profit margins.//

ASS US

QUESTION THREE: CAUSES AND IMPACTS OF INFLATION

1. During 2014 daily early bird parking fees increased in price from $13 to $17 for council owned central city parking in Auckland.
2. House owners are feeling confident after learning their property values have increased significantly over the last three years. Increased confidence in their wealth means that home owners are willing and able to borrow more from banks to spend on new cars, boats, and home renovations.

Source (adapted): *The New Zealand Herald*, 12 November 2014, p. A8.

(a) Explain in detail the different effects on the general price level measured by the Consumer Price Index (CPI) of an increase in price of early bird parking fees (a single product) and the increase in house values.
In your answer:
- explain why an increase in price of early bird parking fees may not cause a change in inflation
- explain in detail how the increase in house values as indicated in the resource material can result in a change in inflation.

- An increase in the price of early bird parking fees from $13 to $17 may not cause a change in inflation, as inflation refers to rise in the general level of prices, whereas early bird parking fees is only one product and only affect one particular product / market - it is not likely to affect the price of any other good or service. //
- An increase in house values as indicated can result in a change in inflation. With house values increasing significantly over the last three years, this shows an increase in the general level of prices, thus inflation. Also with these increasing house prices, households are now buying / borrowing more, to buy 'cars, boats, and home renovations', thus increasing demand for these goods and pushing up these goods prices further as the demand increases, indicating how the increase in property values ~~how~~ can increase ~~goods~~ the prices of goods in various other markets thus pushing up the general price level measured by the Consumer Price Index. //

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(b) The business cycle results in periods of inflation and disinflation. Compare and contrast the impact of these periods of inflation and disinflation on various groups in New Zealand society. In your answer:

- explain the difference between inflation and disinflation
- explain in detail the impact of both inflation AND disinflation on savers
- explain in detail the impact of both inflation AND disinflation on the Government's operating balance.

high

-low interest rate = lower return decrease in value of saving

• Inflation refers to a rise in the general level of prices - eg. if CPI was at 0.7% in 2013 and rose to 1.3% in 2014, this would indicate inflation. However disinflation refers to a decrease in the rate of inflation, for example if CPI in 2014 was at 1.3% and in 2015 was at 0.9%, this would indicate disinflation as the rate of inflation has decreased, however is still present. (Figures are examples, not accurate.)

• Inflation and disinflation has positive and negative impacts on various groups within NZ ~~socity~~ society - particularly savers. ~~Savers in tim~~ Savers benefit from times of high inflation, as generally with inflation, higher interest rates will be imposed to discourage borrowing and encourage savings; this means savers will get a higher return on their savings. Also with the dollar losing its value and purchasing power in times of high inflation, this means their ~~savings~~ real savings will now be worth more. However savers lose out in times of disinflation, as generally there will be lower interest rates, meaning savers are now getting a lower return than they were in times of high inflation, demonstrating the impact of how inflation can be positive for savers while disinflation can be less positive than it was in times of high inflation due to lower interest rates in times of disinflation causing a lower rate of return. //

• Inflation and disinflation also has an impact on the governments operating balance. In times of high inflation, generally during a 'boom' phase of the business cycle, employment is high and

~~There is more space for your~~ answer to Question Three on the following page.

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~~Com~~ consumption spending is also high ~~a~~ with households now ~~having~~ having an increase in discretionary income.* This causes an increase in both direct tax from employees income and an increase in indirect tax as a result ~~fro~~ of the increase in consumption spending, causing the governments operating balance to be at surplus as a result from the increase in income. However in times of disinflation, ~~as~~ the business cycle may be just past the 'boom', and entering a recession, causing production to decrease due to the decrease in consumption spending as there is a rise in unemployment as firms no longer need as many staff ~~as costs~~ as demand decreases. Government spending may increase through ~~tran~~ an increase in transfer payments due to the increase in unemployment, and government spending may also increase through an increase in subsidies given to firms in an attempt to increase production. ~~Govern~~ Government income may also decrease as consumption spending decreases, ~~due to~~ thus causing a decrease in indirect tax, and there will also be a decrease in direct tax collected as employment rates decreases, thus causing the government to run a deficit operating balance - thus in contrast to the surplus it would be running in times of inflation due to increase in direct + indirect taxes and production.//

* Also with inflationary expectations, households will choose to exchange their incomes for goods + services now, before they further lose their purchasing power.//

E7

Excellence exemplar for 91222 2015		Total score	20
Q	**Grade score**	**Annotation**	
1	M6	Part A lacks correct economic detail in the explanation for merit, foreign tourists shift the export receipt component of aggregate demand. Part B is an expectation of merit. The detailed explanation shows depth by linking two reasons for the cause of inflation to a fully referenced result shown in graph two. The increase on costs of production shift the aggregate supply curve and the increase in price levels allows the maintenance of profit margins.	
2	E7	Part A correctly explains the link between money supply and price level using the quantity theory of money. Part B there is a detailed explanation of why production falls. There is correct link between real output and price level using the quantity theory of money. There is a clear explanation between the impacts on inflation in both the short run and long run using the quantity theory of money with a reasoned compare and contrast of the overall impact on inflation.	
3	E7	Part A has a detailed explanation of the difference between an increase in price of a single market and an increase in the general price level, referencing other markets. In part B there is a detailed explanation for the impact of inflation and disinflation on the government's operating balance for a compare and contrast to be undertaken for excellence. There are errors in the detailed explanation of the impacts on savers.	