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91222



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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 2 Economics 2024

91222 Analyse inflation using economic concepts and models

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 2–16 in the correct order and that none of these pages is blank.

Do not write in the margins (// // //). This area will be cut off when the booklet is marked.

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

Merit

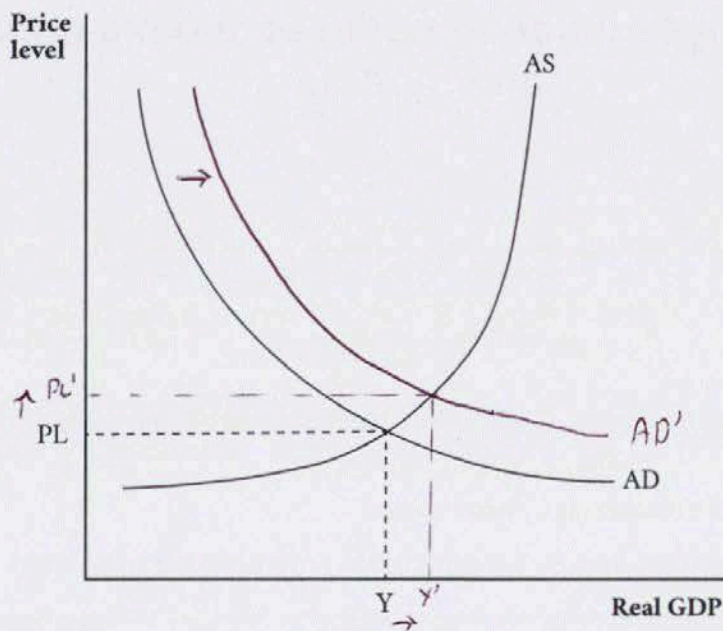
TOTAL 17

QUESTION ONE: Causes of inflation



- (a) On Graph One below, show the impact on aggregate demand of the Fieldays event being held in the Waikato region in 2024.

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



- (b) Explain the impact on inflation of the Fieldays event being held in the Waikato region in 2024. Refer to Graph One in your answer.

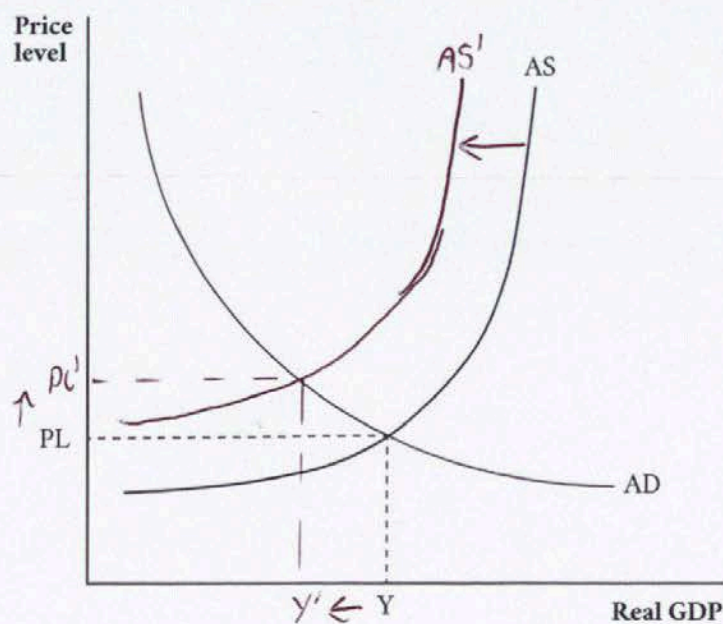
The return of the fieldays event will see ~~an~~ an increase in consumer spending as approx \$250 million is injected into the NZ economy from the event and also 2000 full year jobs are created which will increase household income and therefore consumer spending as they have more disposable income. Export receipts will also increase as international visitors come to NZ for the event. Consumer spending and

export receipts are both components of the $AD = C + I + G + (X - M)$ model so as they increase so too will aggregated demand, this shifts the AD curve right from AD to AD' resulting in an increase in the price level from PL to PL' which therefore results in inflation. (demand-pull inflation)



- (c) On Graph Two below, show the impact on aggregate supply of Cyclone Gabrielle and the higher production and insurance costs for New Zealand businesses.

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



- (d) Explain the impact on inflation of Cyclone Gabrielle and the higher production and insurance costs for New Zealand businesses. Refer to Graph Two in your answer.

As production and insurance costs rise due to the impacts of cyclone Gabrielle the costs of production for businesses all around New Zealand (NZ) increase. This leads to a decrease in aggregate supply, ~~as a result of~~ shifting the AS curve left from AS to AS'. This results in an increase in the price level ^{from p_c to p_c'} and therefore an increase in inflation. Cost-Push Inflation.

- (e) Discuss whether Fieldays or Cyclone Gabrielle is likely to have had the more significant impact on New Zealand's current inflation rate. Refer to Graphs One and Two in your answer.

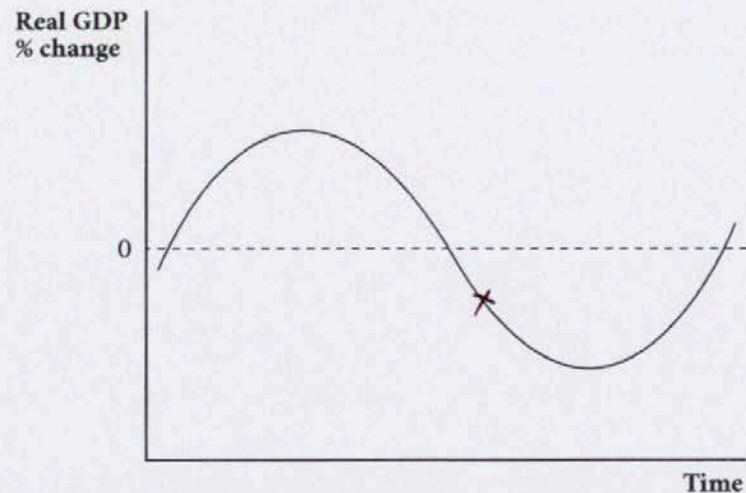
Cyclone Gabrielle is likely to have a more significant impact on NZ's current inflation rate as the resulting decrease in aggregate supply (AS to AS') due to increased insurance costs and higher production costs affect almost all NZ businesses. However, the Fieldays has a more focused effect on just the Waikato Region.

Both of these events result in inflation as the price level has increased from p_c to p_c' in both graphs however, the increase on Graph Two as a result of the increased production and insurance costs due to cyclone ~~was~~ Gabrielle ~~was~~ is relatively larger. The larger increase in price level means cyclone Gabrielle had a larger effect on NZ's current inflation rate than the Fieldays.

QUESTION TWO: Quantity theory of money and a recession

- (a) Identify and mark with an X the point on Model One that best represents a recession.

Model One: The business cycle



- (b) State the components of the quantity theory of money.

M: Money Supply

V: Velocity of circulation

P: price level

Q: Real output

- (c) Explain why the velocity of circulation is likely to decrease during a recession.

Velocity of circulation is likely to decrease during a recession as velocity of circulation is the flow of money in the economy and during a recession ~~people~~ consumers are less confident about the future so will not spend their money or put it into the economy decreasing the velocity of circulation.

- (d) Assuming all other variables remain constant, use the quantity theory of money to explain how a decrease in the velocity of circulation will impact inflation.

The quantity theory of money states that $MV = PQ$ assuming that real output and money supply remain constant, a decrease in the velocity of circulation will lead to a proportionate decrease in the price level. E.g. if the velocity of circulation decreases 5%, then the price level will decrease 5%. Because inflation is an increase in the general price level, the decrease in the price level will result in a decrease in inflation (deflationary pressure).

Some experts argue that the New Zealand economy could experience a recession across the next two years, with a significant decrease in output predicted.

- (e) Use the quantity theory of money and the business cycle to explain how a recession may impact overall inflation.

In your answer, include:

- why real output may decrease during a recession
- how the change in velocity of circulation as well as real output will impact the price level in the economy.

Real output may decrease in a recession as producers are uncertain about future sales and profits and as shown on the model one as a recession is below 0 in terms of Real GDP % change. As $MV = PQ$, when Real output is decreasing, the price level has to offset this decrease so that $MV = PQ$ holds true. This often leads to the price level having to increase which leads to inflation. If the velocity of circulation were to also decrease it may offset the increase in inflation and mean the resultant level

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of inflation may not be as high

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QUESTION THREE: Impacts of inflation

New Zealand's annual inflation rate in 2023 was 4.7 per cent. This is a decrease from the annual rate in 2022, when it was 7.2 per cent.

- (a) Define inflation.

Inflation is an increase in the general price level

- (b) Explain whether workers on the minimum wage would prefer a lower or higher inflation rate.

Minimum wage workers prefer a lower inflation rate as ~~then~~ they are less likely to be able to negotiate a pay increase as ^{the cost} ~~the~~ ~~nominal~~ values of goods and services continue to increase but their wages remain ~~at the same level~~ the same. They want their nominal wage value to be as close to their real wage value as possible.

- (c) Explain whether savers would prefer a lower or higher inflation rate.

~~Savers prefer a low inflation rate as money loses value over time~~
Savers prefer low inflation rates as the nominal value of their savings remains closer to the real value at a lower inflation rate. If inflation were to increase, their savings would lose value.

New Zealand's annual inflation rate of 4.7 per cent in 2023 was higher than all of our major trading partners. Annual inflation was 4.0 per cent in the United Kingdom and 3.1 per cent across the European Union.

- (d) Compare and contrast the impact of New Zealand's higher inflation rate on New Zealand importers and exporters to the United Kingdom and the European Union.

A high inflation rate will positively impact ^{New Zealand (NZ)} ~~then~~ importers as they can import goods that were manufactured overseas ^{e.g. UK and EU} where inflation rates are lower so costs of production are and sell them in NZ for lower prices while still maintaining profit margins and increasing price competitiveness meaning NZ consumers are more likely to purchase their products ~~than~~ than locally produced ones. ~~However~~ * However, NZ exporters will be worse off from a high inflation rate. This is because the high rate of inflation means they will face increased costs of production in NZ and have to sell their products for more overseas to retain profit margins. They will lose price competitiveness and receive decreased revenue and profits.

* NZ importers will receive increased revenue and profits.

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Acknowledgements

Material from the following sources has been adapted for use in this assessment:

Question One

University of Waikato. (2019). *2019 Fieldays in New Zealand: Economic impacts for Waikato region and New Zealand*. https://www.hugheseconomics.com/_files/ugd/8f4bb1_d963cabb753b4d7c8aab6f89908b32fd.pdf

Uys, G. (2022, March 15). *Fieldays' new November date will come with big economic cost*. Stuff. <https://www.stuff.co.nz/business/farming/128046830/fieldays-new-november-date-will-come-with-big-economic-cost>

Ministry of Foreign Affairs and Trade. (2023, March). *Cyclone Gabrielle's impact on the New Zealand economy and exports - March 2023*. <https://www.mfat.govt.nz/en/trade/mfat-market-reports/cyclone-gabrielles-impact-on-the-new-zealand-economy-and-exports-march-2023>. CC-BY-4.0.

Question Three

Stats NZ. (2024, January 24). *Consumers price index: December 2023 quarter*. <https://www.stats.govt.nz/information-releases/consumers-price-index-december-2023-quarter/>. CC-BY-4.0.

Subject: Economics

Standard: 91222

Total score: 17

Q	Grade score	Marker commentary
One	M5	<p>The candidate's explanation of AD explanation referred to the components of AD.</p> <p>To achieve a M6 grade or higher, the AS explanation needed to refer to components and to producers increasing prices to maintain profit margins.</p>
Two	M6	<p>The candidate explained a reason for the decrease in consumer spending that decreases velocity of circulation.</p> <p>They used the quantity theory of money equation to explain that a decrease in velocity of circulation would decrease inflation by a proportional amount.</p> <p>To gain Excellence, there needed to be a thorough explanation about how both a decrease in the velocity of circulation and a decrease in real output affect inflation, using the quantity theory of money, including reference to proportional changes of the variables.</p>
Three	M6	<p>The candidate explained, with reference to price competitiveness, that New Zealand importers benefit, and exporters are worse off, if New Zealand has relatively higher inflation rates compared to trading partners.</p> <p>To achieve Excellence grade. There needed to be an explanation of why minimum wage earners and savers both prefer lower inflation rates, with reference to purchasing power.</p>