

93402



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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!

Scholarship 2018 Economics

2.00 p.m. Monday 19 November 2018

Time allowed: Three hours

Total marks: 24

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 answer ALL the questions in this booklet.

Pull out Resource Booklet 93402R from the centre of 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 2–28 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.

INSTRUCTIONS: Write an essay in response to each of the three questions in this paper. Question Two is on page 10, and Question Three is on page 18.

QUESTION ONE: TOURIST ACCOMMODATION IN THE INTERNET ERA

Refer to Resources A to D and your knowledge of microeconomic theory to answer this question.

Over the past 10 years there have been significant changes in the tourist accommodation market, in terms of how people learn about travel options, how they book their trips, and where they choose to stay.

Evaluate the impact of the internet and social media on allocative efficiency in the tourist accommodation market. Use appropriate economic models to support your answer.

In your answer:

- analyse the impact of the internet and social media on supply and demand
- analyse the impact of the internet and social media on price elasticity of supply and demand
- discuss the impact of the changes within the market on the level and nature of supply, and the type of market structure
- evaluate the overall impact of these changes on allocative efficiency.

Use this space for planning your essay. This plan will NOT be marked.

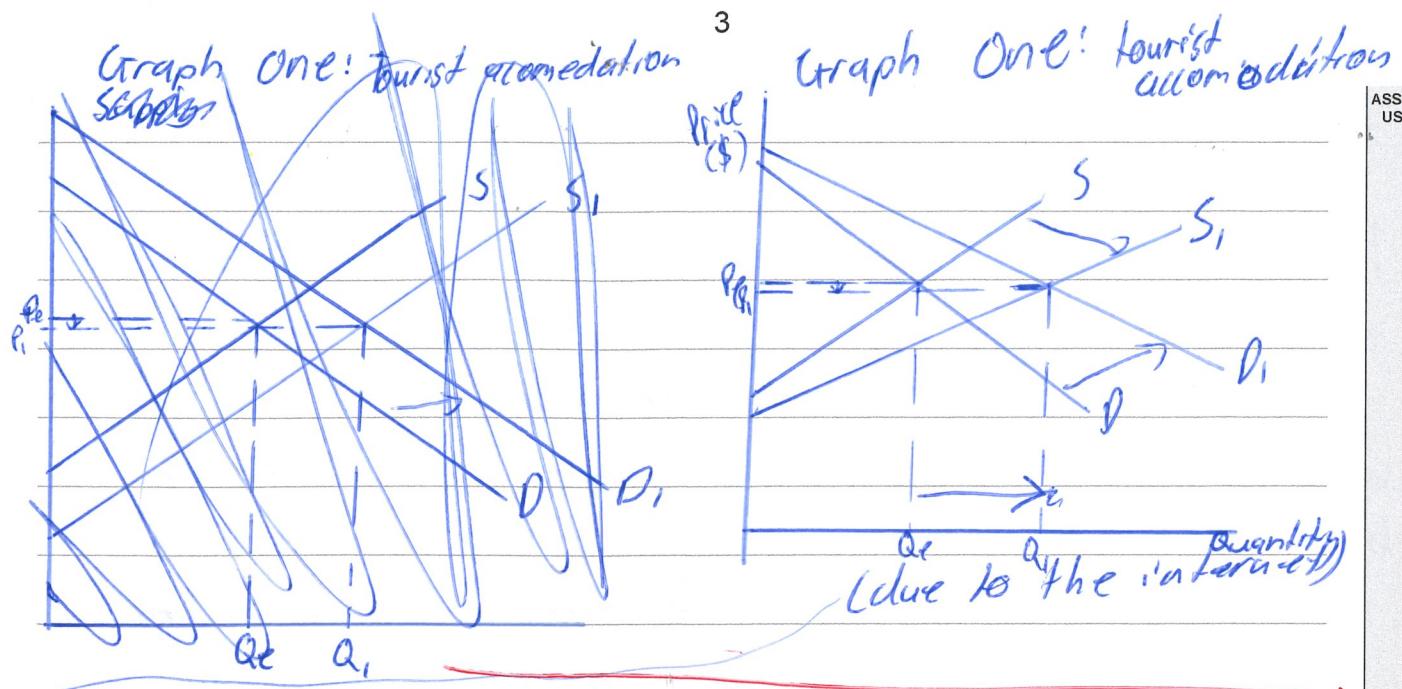
PLANNING

Increase in supply and demand.

Supply price elasticity has increased

- people can quickly book a room at their home

Demand has increased as people can view many choices.



The internet and social media have lead to an increase in advertising and made ~~more~~ holidays more fashionable, ~~as~~ as young people ⁽¹⁸⁻³⁴⁾ often have more time on things like Instagram they are more likely to go on holidays. This is shown in resource A "Younger adults are more likely to have budgeted money for travel than those aged 45 and over". This shows holidays have become more desirable to these people. ~~This~~ Social Media has therefore increased the demand for tourist accommodation. This is shown on Graph One with demand increasing from D to D₁.

Resource C states that air bnb allows given people the options of renting spare rooms. It has increased the amount of accommodation options and has meant that accommodation places don't need to pay for staff to help for booking hotels. This leads to a decrease in cost of production increasing profitability thus increasing supply. This is shown on Graph one with supply increasing.

from S to S')

The internet and social media has increased the elasticity of both supply and demand.

Resource C states that Air bnb has allowed people that are wanting to rent out their properties or spare rooms to be able to do so. This means if the price increases due to some destinations becoming more popular people will rent out spare rooms as it is ^{more} profitable to do so. This leads to a larger than proportional change in supply when there is a change in price as people can easily rent out spare rooms when they were unable to do so. Also, people can quickly reallocate resources such as housing into tourist accommodation, if the price increases, this contributes to the price elasticity of supply increasing. This is shown on graph one with the ~~slope~~ slope of the supply curve S' being much flatter than S , this indicates a more elastic supply.)

The price elasticity of demand is determined by a variety of factors, these include; if the good is a necessity, if there are strong substitutes or if it is a luxury good. The internet and social media has provided many substitute goods as there is so many websites people can book for themselves other than

Internet. Resource D shows that 57% of all travel reservations are made online, a lot of this used to be done through travel agents in the past. This has allowed there to be more options and stronger substitutes. This typically leads to an increase in the price elasticity of demand. ~~More younger people buyed for holiday~~
 The increase in the price elasticity of demand is shown on graph One with D1 having a much lower gradient than D0. This indicates that there will be a proportionally larger change in price when there is a change in quantity.)

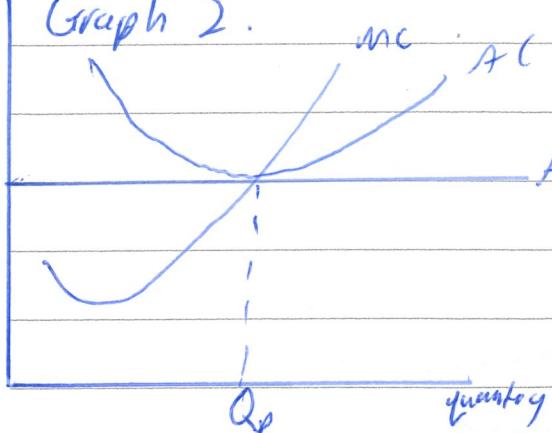
* This is because if the price increases people could instead go to different countries or tourist destinations such as cruise

that further

The internet has changed the nature of supply with much more residential like properties available to rent. For example the 2-3 star market for tourist accommodations will now have more residential houses that have been put on airbnb, according to resource b these often occur in residential neighbourhouds. The market structure for properties like these will feel much be very similar.

to a market of ^{monopolistic} perfect competition.

Graph 2.



For these residential houses being rented out there are thousands of houses all selling a very similar product.

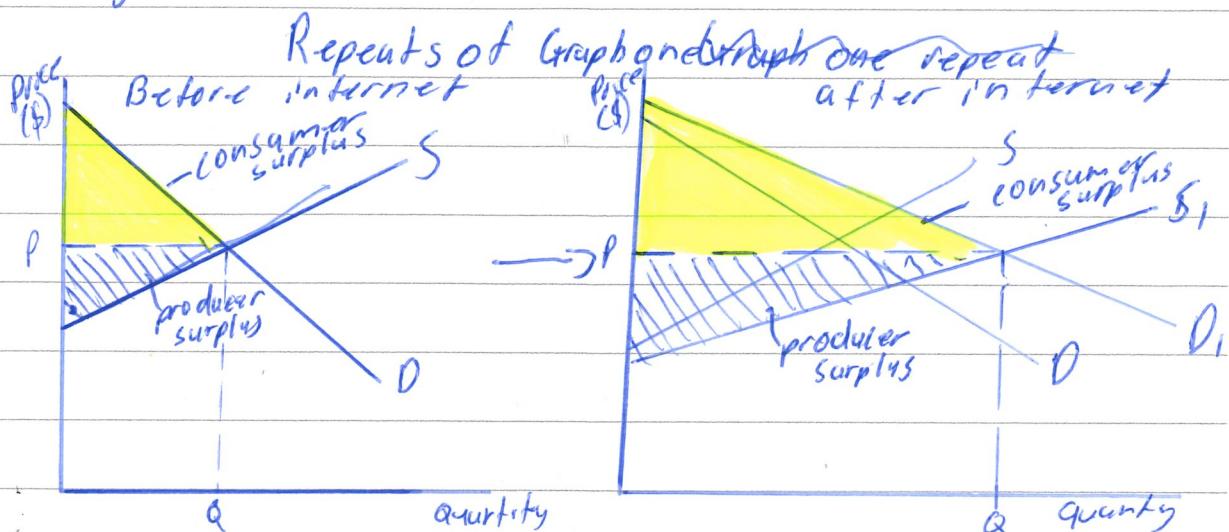
Also due to the website air bnb the consumer

will choose the cheapest house so they houses have to have rents very similar to the market price otherwise they will not be rented. Also due to the nature of air bnb if you own a house there is very little barriers to enter the tourist accommodation market as an air bnb account just has to be made. Due to the resemblance of a perfect competition market (in some areas) or a monopolistic competition in other the market could be shown as the graph 2. There is a flat demand curve due to the price taker nature that air bnb, or places like travaygo (which compare prices) cause.)

Some hotels of course won't be represented by these market structures due to the unique service they offer eg. hotels with beach front views or that are very fancy. These hotels will have much stronger control over

prices as the could exist in an monopoly/duopoly or oligopoly market structure.)

Although the internet and social media has provided much more competition some hotels that are unique will not have their market drastically changed.

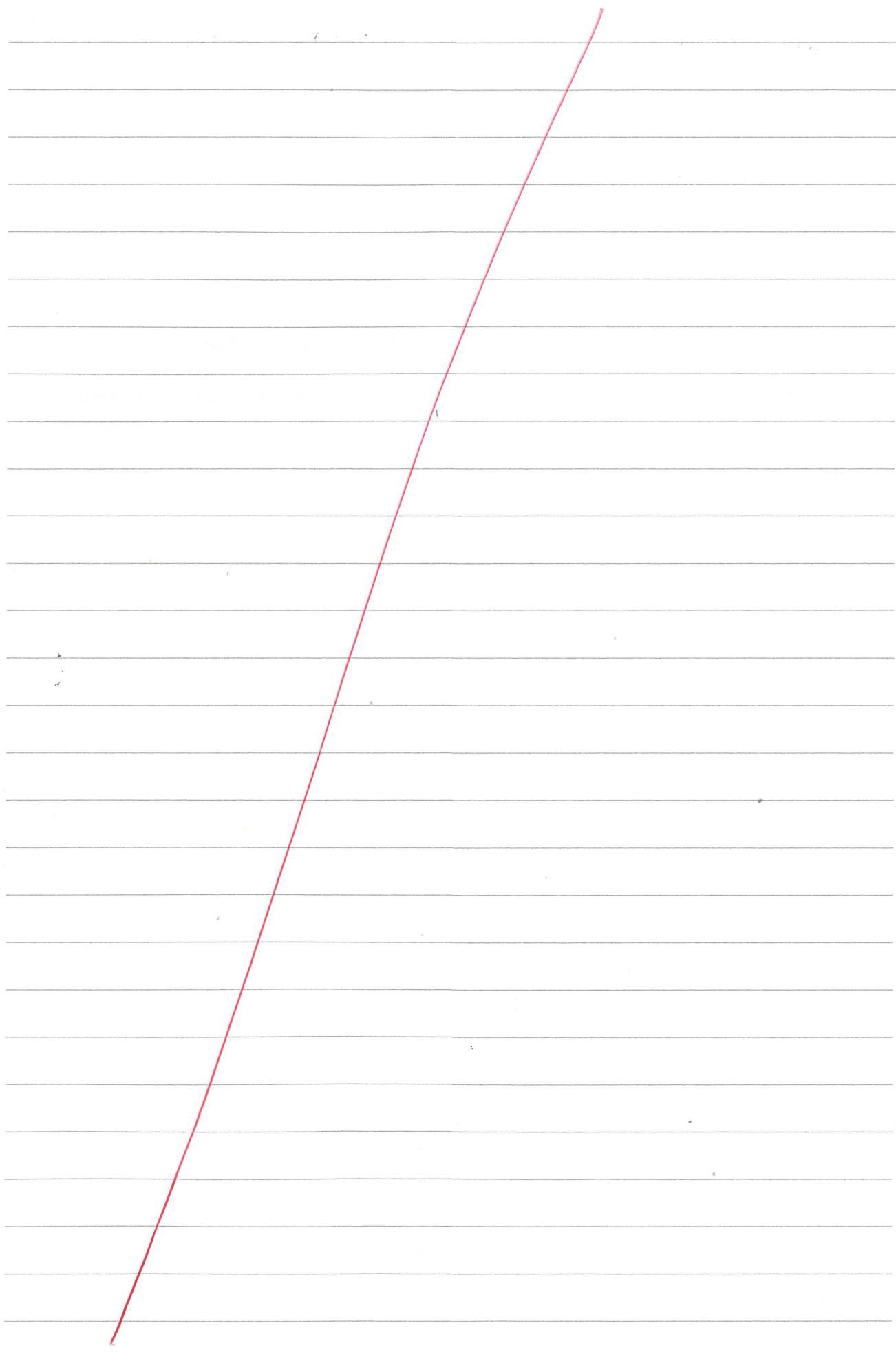


These are markets without government intervention so the total surplus is made up of consumer surplus + producer surplus.

Consumer surplus is the difference between what consumers are willing to pay (marginal utility) and what they do pay. This is shown as yellow on the above graphs. The internet and social media have lowered the price (slightly) and increased the quantity demanded/bought. This means that the consumer surplus has increased which is shown as the "after internet" graph has a much bigger yellow area.)

Producer surplus is the difference between the price of the tourist accommodations and the price of the accommodations marginal cost of the tourist accommodations (supply curve). This has increased due to the large increase in quantity sold out very low the decrease in price. This is shown as the after internet graph has a much larger shaded area than the before internet graph.)

The internet and social media has lead to an increase in consumer and producer surplus, as allocative efficiency is consumer surplus to producer surplus the market for tourist accommodation has had an increase in allocative efficiency due to, the internet and social media.



QUESTION TWO: SINGLE-USE PLASTIC BAGS

Refer to Resources E to K and your knowledge of microeconomic theory to answer this question.

Various groups in New Zealand have called for action to reduce consumption of single-use plastic bags, reflecting concerns about the environmental impact these cause. Others argue that consumer choice is more important.

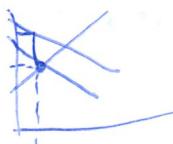
Evaluate the issue of market failure associated with the consumption of single-use plastic bags (SUPBs). Use appropriate economic models to support your answer.

In your answer:

- explain and illustrate the externalities associated with the consumption of SUPBs, and why market failure might occur
- evaluate the case for government intervention, including the importance of consumer sovereignty
- explain and analyse three options for government intervention, and evaluate which option is most likely to achieve allocative efficiency.

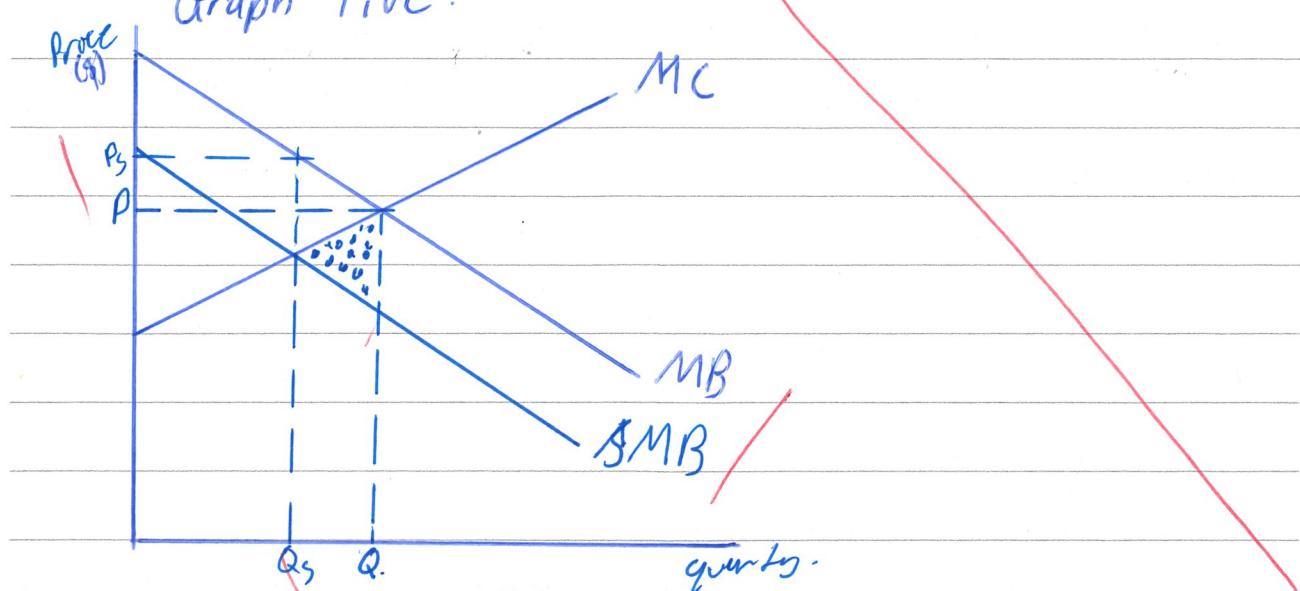
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PLANNING



- Case for government intervention
 - better for environment
 - stops negative externalities

Graph Five.

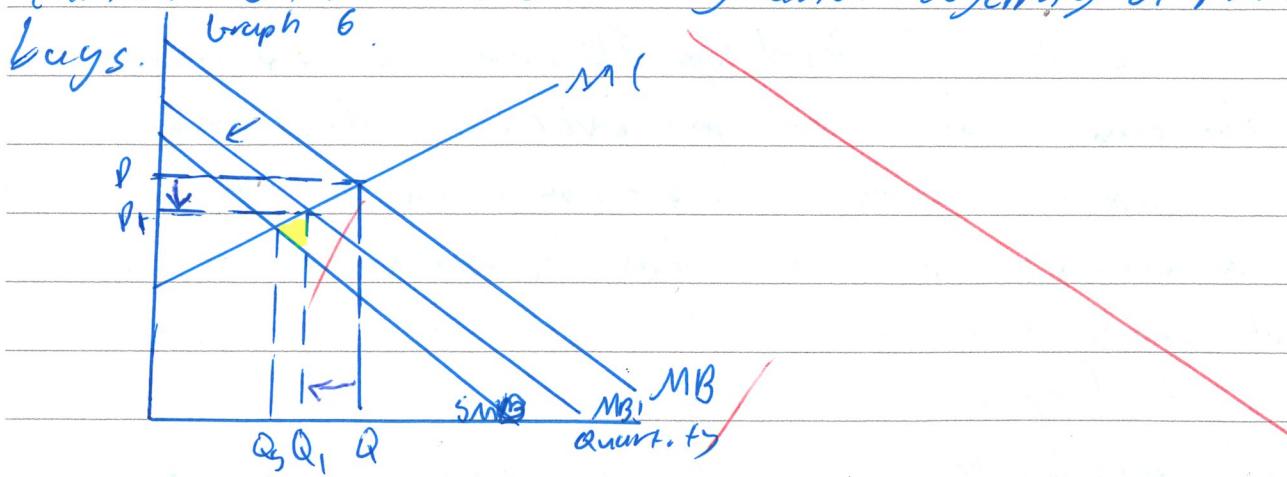


When plastic bags are consumed they often aren't disposed of properly, this can lead to pollution lasting for years. Due to the plastics used these bags don't decompose quickly, & these bags can end up aggregated in the ocean. Resource B states plastic bags lead to an estimate 100,000 marine mammal deaths per year, this can have significant negative impacts on fishing companies profits. Also, plastic bags clog drains which the government will have to pay to unclog or pay for the repairs of flooding. This cost tax payers money thus their are spill over costs to society (3rd party people). This results in a negative externality of consumption thus the social marginal benefit of plastic bag consumption is below the private marginal benefit. People won't take into account the social marginal benefit thus will consume plastic bags at $MC = MB$ which has quantity Q_* . This is not at the socially desirable quantity at $MC = SMB$. Plastic bags are overconsumed ~~damaged~~ ~~caused~~ thus there is a deadweight loss occurring (as shown by dotted areas on graph 5).

As there is a deadweight loss caused by the negative externalities of consumption & market failure is occurring.

Consumer sovereignty is the idea that consumers should have responsibilities and the rights to choose what to buy. However, due to the massive environmental damage caused by plastic bags there is a strong case for government intervention to stop the market failure. Due to the negative externality for plastic bags being so large it seems that although consumer sovereignty is important the government could intervene.

One policy the government could implement would be an education program to educate consumers further on the reusability and recycling of plastic bags.



Educating people on the reusability and recycling of plastic bags will lead to people knowing the effect of plastic littering and how they can better reuse and recycle plastic bags. This will reduce the demand.

For plastic bags as people will be more inclined to use reusable plastic bags. This is shown on graph b with MB moving to DAB₁. Also the size of the externality has decreased due to people knowing how to recycle bags (thus they don't end up as pollution). Resource R says that these bags can be used as building materials, this would permanently keep these bags out of the ocean. The reduction in the size of the externality and the demand for plastic bags will move the quantity to Q₁ which is closer to the socially desirable quantity of Q_s. This leads to a smaller deadweight loss (yellow area) than before hence a reduction in market failure. This policy could be considered equitable as it still gives consumer sovereignty as people can choose to use the bags.

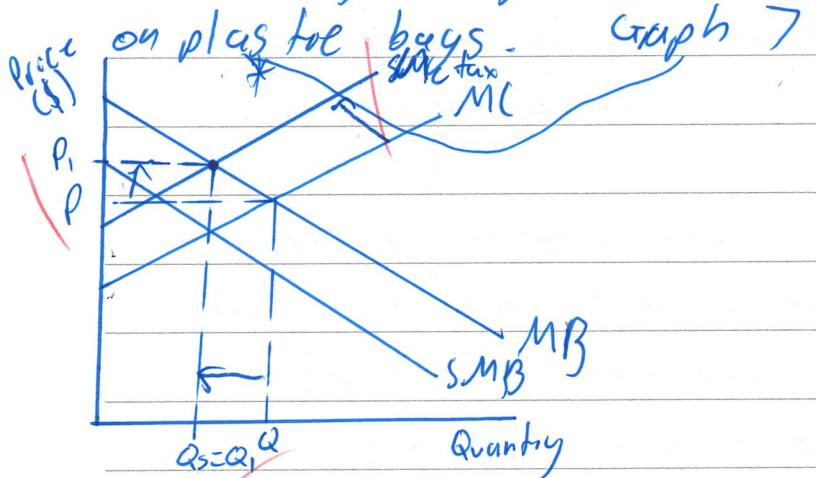
The policy could be considered to be inequitable as there would still be pollution that leads to peoples homes getting flooded and damaged by my as some plastic bags will not be disposed of properly.

~~the policy is efficient as it reduces the cost to the taxpayer and other parts of society that have to pay for the eff~~

The policy is efficient as the government will now be able to reallocate people that clean up bags onto other areas, //

|| This could increase production and the efficiency of the economy. However, the policy could be ~~costed~~ have a negative impact on efficiency because the government would pay for the reduction. This is money that could have been used in other areas of the economy thus would stop spending in areas such as health care, this reduces GDP thus efficiency.

|| One policy the government could implement would be a levy



The government would implement a levy on plastic bags. This effectively increases the cost of production for firms which decreases the supply. This is shown on Graph 7 by a reduction in MC to MC_{tax} . The new equilibrium is $MB = MC_{\text{tax}}$ which has the same quantity as $SMB = MC$ thus the socially desirable quantity is being produced. This leads to a elimination of the deadweight loss and the market failure.

The effectiveness of the tax will depend largely on the price elasticity of demand. However resource I says a 10 cent levy in the UK lead to an 86% decrease in plastic bags purchases. This indicates the demand is elastic so a large change in quantity will occur. ||

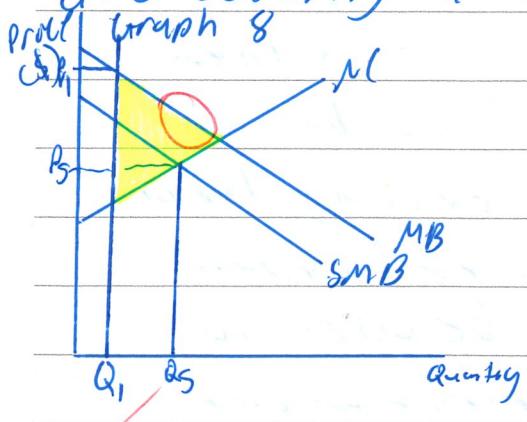
The effectiveness of the tax will depend largely on the price elasticity of demand. However resource I says a 10 cent levy in the UK lead to an 86% decrease in plastic bags purchases. This indicates the demand is elastic so a large change in quantity will occur. ||

U This is equitable because:

People still have the option of using plastic bags if they want. Those who are causing the damage are effectively paying for it through the taxes.

It isn't equitable because: There has been a decrease in consumer sovereignty as the government is intervening. It is efficient because the government is making fair revenue, this could be used to further reduce the environmental impact of plastic or used in other parts of the economy such as education, these both lead to an increase in production and efficiency!

Resource H suggests/tells us Whangamui group are seeking a ban on plastic bags, this is a option.



The government could implement a ban of plastic bags, this is what the Whangamui group wants to be done. There will still be some plastic bags in use due to some exemptions, e.g. black rubbish bags might be allowed for bins. This reduces the quantity to Q_1 , as shown on graph 8, Q_1 is much lower than Q_s thus there is a large reduction in the negative externality on consumers and the deadweight loss is eliminated. This corrects the market failure however it reduces the consumer and producer surplus by a large amount.

Graph 8 shows the effect of a ban on plastic bags. The demand curve (D) and supply curve (S) intersect at quantity Q_s . The marginal benefit (MB) curve intersects the marginal cost (MC) curve at quantity Q_1 . The area between the MB and MC curves from Q_s to Q_1 is shaded yellow, representing the deadweight loss. The ban shifts the demand curve to the left, resulting in a new equilibrium at Q_1 . At this quantity, the price is higher than the original equilibrium price. The yellow shaded area represents the deadweight loss, which is the reduction in economic welfare due to the ban.

// this could be considered equitable as very little will be affected by it in the environment thus less 3rd party people will be effected by social costs or the externality. It could be considered to be unfair as people that recycle bags properly are being punished and there is very little consumer sovereignty. This is not efficient as it is caused by the large decrease in consumer and producer surplus as highlighted yellow on graph 8. Also, the government will have to pay to enforce the ban which will hurt other areas of the economy thus is inefficient.

What one is better?

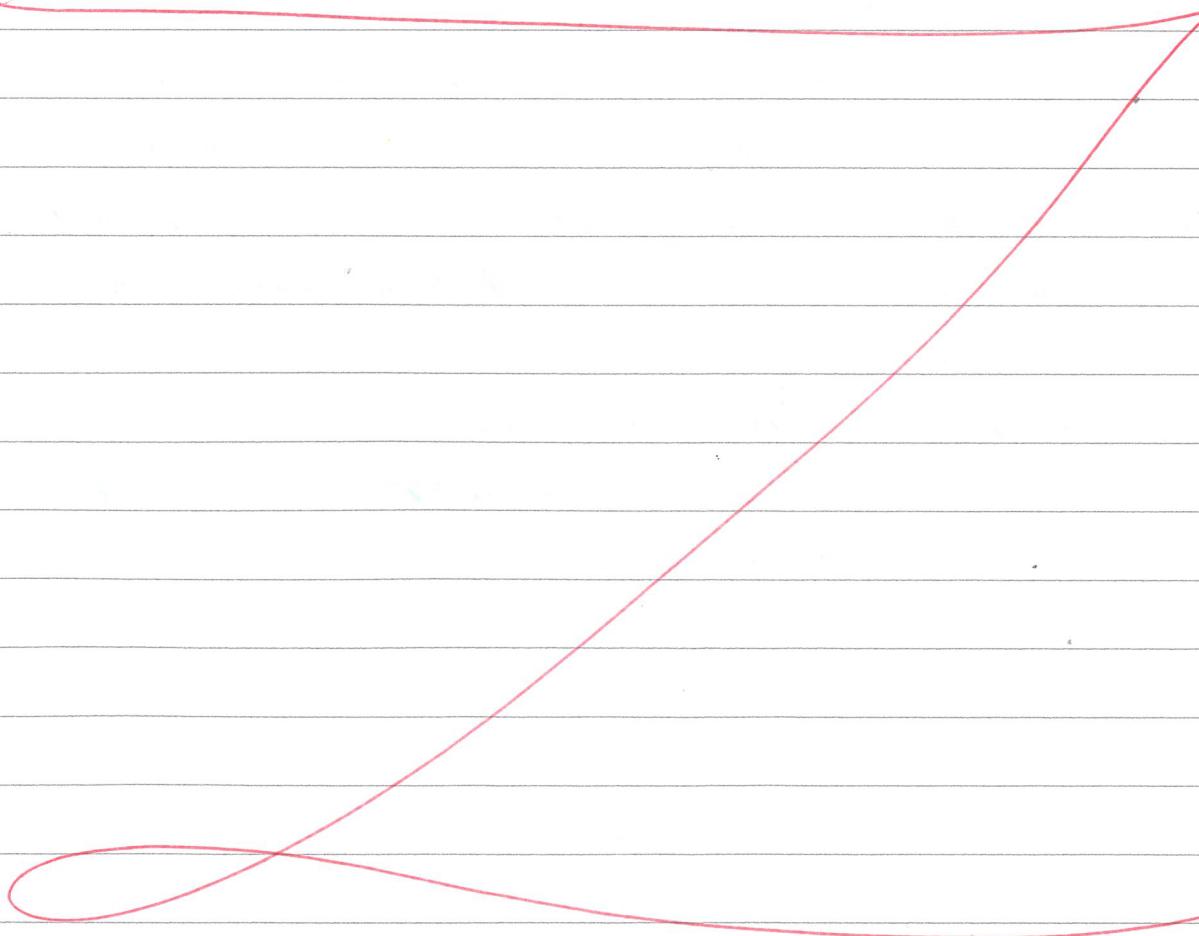
If the government should impose a levy on the plastic bags. This is more efficient as it means that the quantity is reduced to the socially desirable quantity but the government also generates revenue. These two policies increase government expenditure. The fix money could be used to further improve the environment.

Also, taxing plastic bags results in no deadweight loss and a large consumer and producer surplus. It is therefore the most likely to achieve allocative efficiency. An education program will likely not decrease quantity significantly as people already know that recycling is better. This means Q1 will be bigger than Q2.

as shown on graph 6, this results in a market failure - deadweight loss occurring. The education program will therefore be less allocatively efficient.

The ban on plastic bags reduces the deadweight loss but reduces consumer and producer surplus by a large amount which is not allocatively efficient.

The tax on plastic bags will have the largest combined surplus (consumer surplus + producer surplus - externality) thus means that it is the most likely to achieve allocative efficiency.



QUESTION THREE: MONETARY POLICY AND THE RESERVE BANK ACT

Refer to Resources L to O and your knowledge of macroeconomic theory to answer this question.

In March 2018, the Finance Minister and new governor of the Reserve Bank of New Zealand signed a new Policy Targets Agreement (PTA) that added the goal of “supporting maximum levels of sustainable employment within the economy” to the existing goal of price stability.

Analyse how monetary policy is currently used to achieve price stability, and evaluate the impact on the New Zealand economy of a change requiring maximising employment to be considered **alongside** price stability in monetary policy decisions. Use appropriate economic models to support your answer.

In your answer:

- explain the Policy Targets Agreement, and how monetary policy is currently used to influence the rate of inflation to achieve price stability
- analyse how monetary policy could be used to influence the level of employment in New Zealand
- evaluate the impact the change to monetary policy could have on the New Zealand economy, and on the effectiveness of monetary policy.

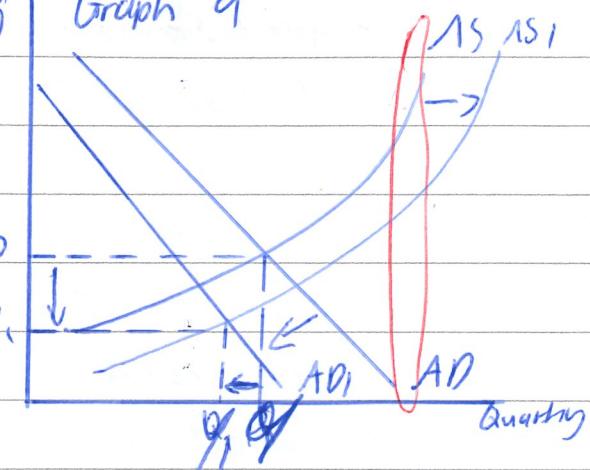
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PLANNING

The policy targets agreement has the inflation target set at between 1-3% over the medium term. Inflation can be changed by the use of monetary policy, if inflation was too high, contractionary monetary policy (OCR) would be used, if inflation is too low, expansionary monetary policy could be used (DLO (VOCR)) //

Contractionary monetary policy.

Graph 9

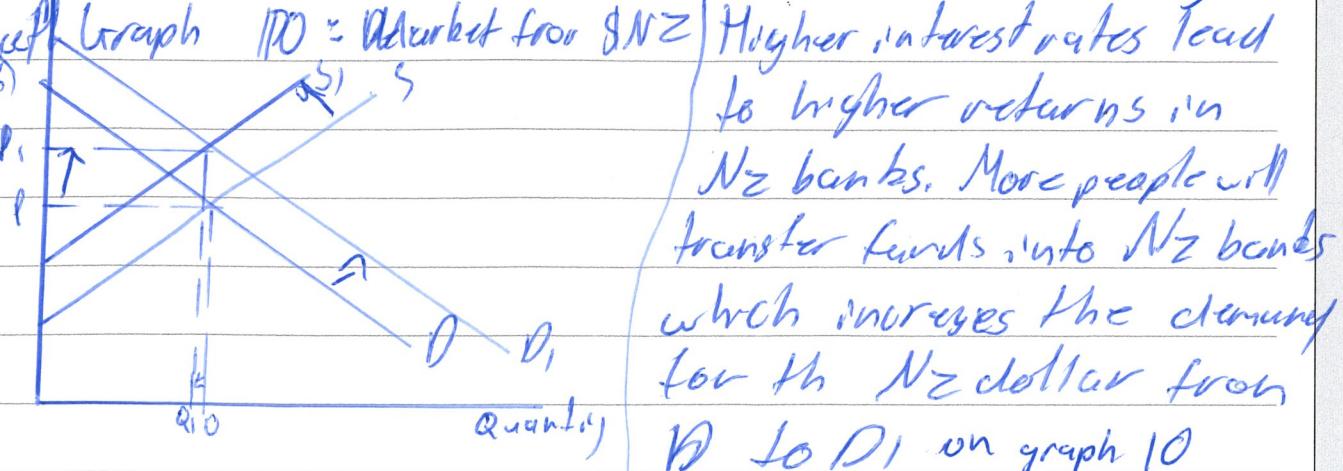


Contractionary expectations

Contractionary monetary policy is the decrease in the OCR. This increases interest rates. With higher interest rates, savings give more of a return and it is ^{more expensive} cheaper to borrow. This

will lead to households buying less goods/services thus there will be an decrease in consumption spending. As the cost of borrowing is ^{higher} more loans we'll take out ^{less} loans to buy capital goods. As firms are buying ^{less} goods there

is an increase in investment spending.



Higher interest rates lead to higher returns in NZ banks. More people will transfer funds into NZ banks which increases the demand for the NZ dollar from D to D1 on graph 10

due to relatively higher returns, as NZ banks less people will transfer funds out of NZ banks. This decreases the supply for the NZ dollar from S_0 to S_1 . This and the decrease in demand increase the price of the NZ dollar from P_0 to P_1 on graph 10.

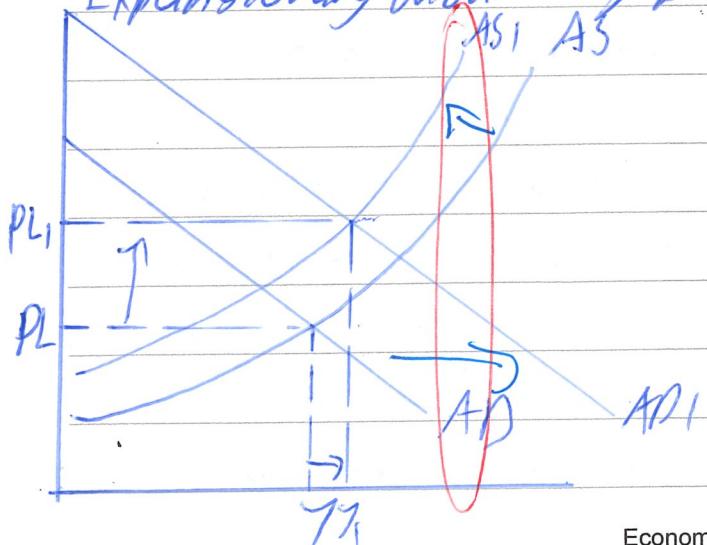
A appreciation in the exchange rate will make imported goods relatively cheaper. Thus more exports would be sold which increases import payments. Exports are less price competitive in overseas markets. Therefore less will be sold decreasing export receipts. This leads to aggregated demand decreasing from AD to ASD on graph 9)

Due to the higher exchange rate imported goods are cheaper. This reduces the cost of imported raw materials. This decreasing cost of production is increasing profitability.

AS increases to AS_1 on graph 9). The result of AD and AS shifting is an increase in the price level from P_0 to P_1 and a decrease in real GDP from Y_0 to Y_1 .

Graph 11:

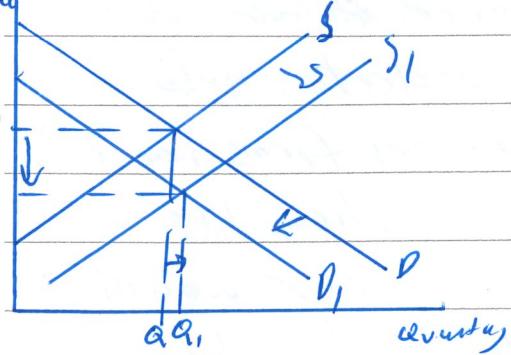
Expansionary monetary policy.



Expansionary monetary policy is a decrease in the OCR which reduces interest rates. Lower interest rates incur low returns on savings. With less incentives to save

households will buy more goods/services. This is an increase in consumption spending. Lower interest rates mean lower cost of borrowing, this means firms can afford to take out larger loans to buy capital goods. Firms will buy ^{more} capital goods thus there will be an increase in investment spending.

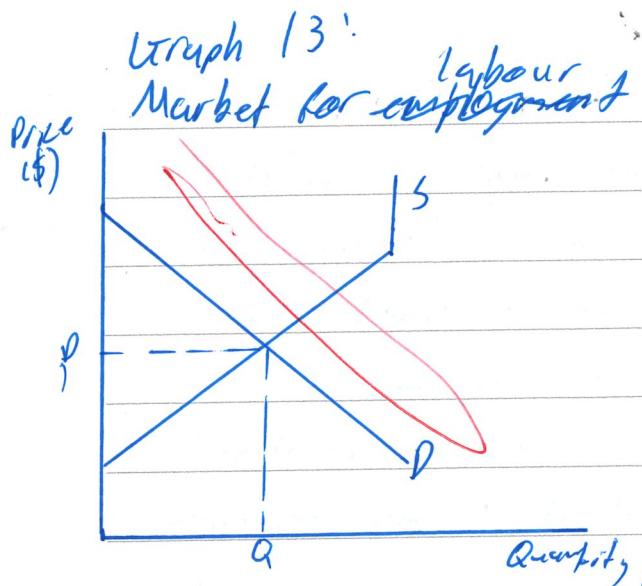
Graph 12
Market for \$NZ



Lower interest rates mean small returns in NZ banks. This means less investors will transfer funds into NZ banks thus there will be a decrease in expenditure for \$NZ from B to B₁ on graph 12. More people with funds in NZ banks will transfer funds out of NZ increasing the supply of \$NZ from S to S₁. This results in a decrease in the price of \$NZ from P to P₁.

A decrease in the exchange rate means imports are relatively more expensive, thus less imports will sell. This leads to a decrease in import payments. Exports are now more price competitive in overseas markets thus more exports will be sold. This increases export receipts. All these changes to the components of aggregate demand lead to AD increasing to AD₁ on graph 11.

The decrease in the exchange rate means imports are more expensive. This increases cost of imported raw materials. This increases cost of production reducing profitability. This causes a decrease in aggregate supply from AS to AS₁ on graph 11. The net result is the price increasing from P_L to P_{L1} on graph 11 and real output increasing from Y to Y₁.



The market for labour is like any other market that is controlled by demand and supply. Supply is people that are willing to work and demand is from firms that need labour resources in order to help production.

When production increases firms need more resources to help increase production, this includes labour thus the demand for labour would increase as would the quantity of labour. This occurs that to decrease unemployment the RBNZ (reserve bank) could implement expansionary monetary policy (IOCR).

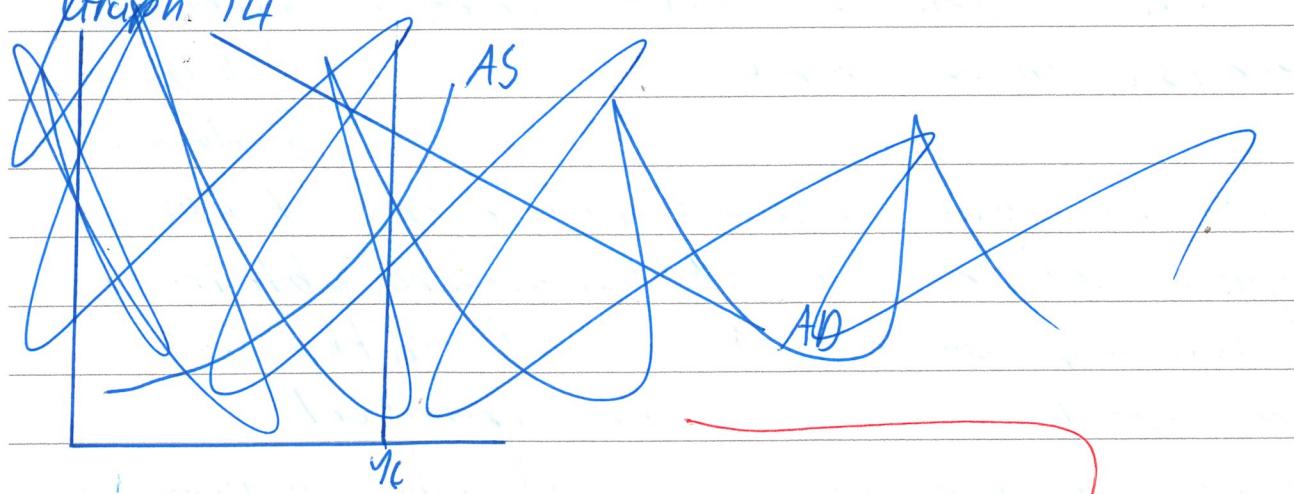
If the reserve bank wanted to reduce employment they could implement contractionary monetary policy (TOCR). This would reduce real GDP thus a lower production level need less human resources so unemployment would increase as employment decreased.

Resource M suggests that there is an inflation - employment trade off that would have to be made by the reserve bank. That is, increasing inflation will be a consequence of increasing employment and

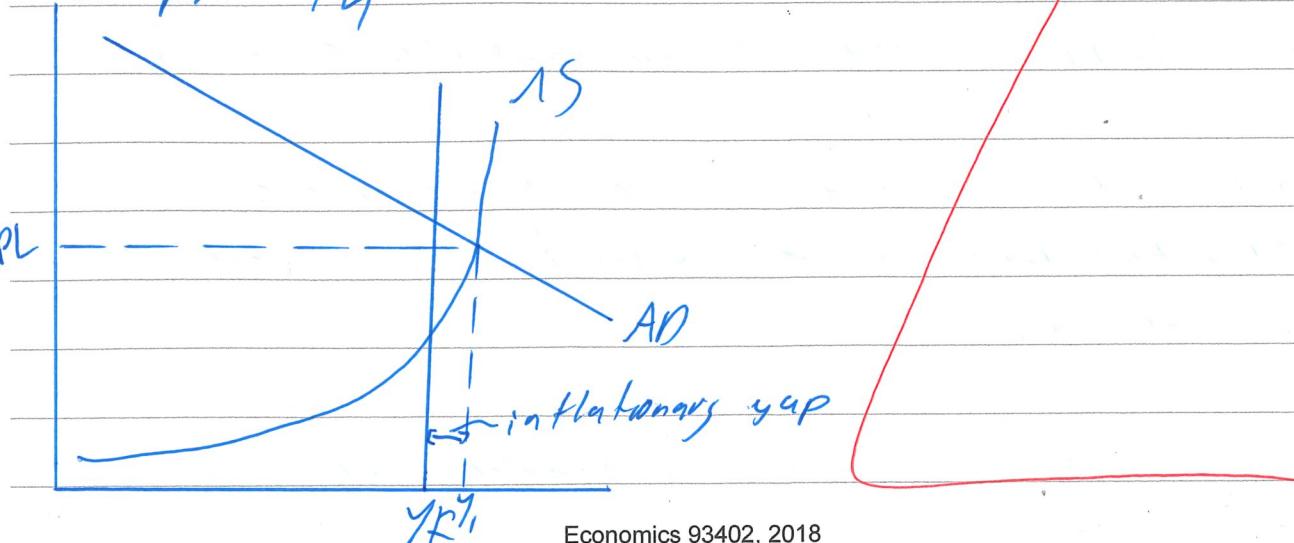
to reduce employer inflation on employment will be reduced. This streaks the two goals of maximum employment and ^{having} inflation within the 1-3% target band appear to contradict each other to occur; however this is not always the case. This Monetary policy can remain effective and still achieve both goals.

In resource N Grant Robinson says "maximising employment becomes one of its [RBNS] objectives." In this statement he will be referring to long-term employment.

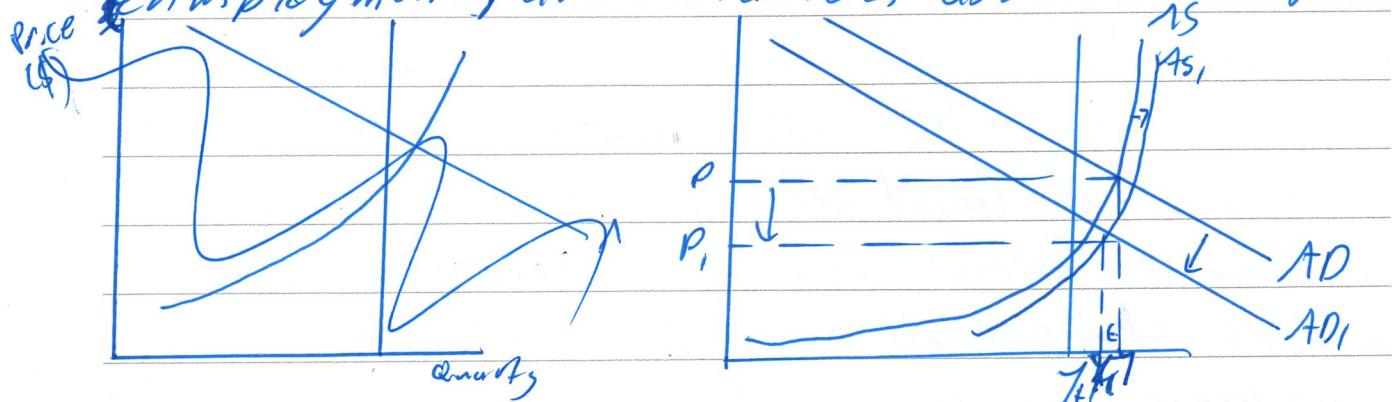
Graph 14



Graph 14



Graph 4 shows an economy in a "boom" stage of the business cycle. This means that Y_1 is above Y_F that is Y_1 is above the full employment line. There is an inflationary gap thus inflation is likely to be high. If the reserve bank applies contractionary monetary policy there will be a decrease in production (so employment) and inflation as shown on below graphs.

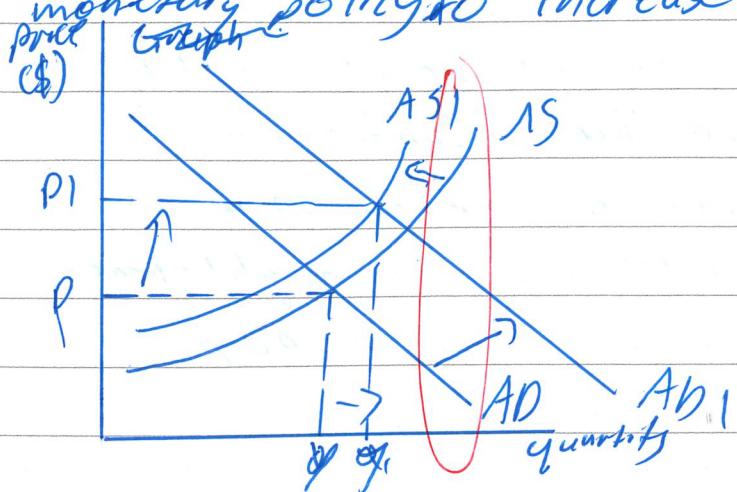


This actually succeeds on both the reserve bank's goals. There is a large decrease in inflation (likely reducing it into the 1-3%) range. The employment level will have dropped however it has become closer to ~~the~~ a sustainable level of full employment. This means in the long term employment will be maximised.

Resource N says that the US who has ~~devaluation~~ policies ^{not} has maintained inflation as well as of not better than single-mandated countries. This is because the goal of long term full employment doesn't necessarily contradict the goal of price stability.

(off all resources, including labour)

Also, when the country is experiencing low inflation (like in 2015) the reserve bank will apply expansionary monetary policy to increase inflation.



This increases inflation as shown on the graph by the price level increasing from P_1 to P_{11} . Output will increase from Y to Y_1 . The increased

productivity in the economy will lead to increased demand for workers thus employment will increase. This is another example where the two goals are achieved at the same time. Resource O shows that in 2015 lowering the OCR increased inflation and employment like expected/desired.

Sometimes the goal of price stability will decrease employment but often the two policies can be achieved at the same time like shown in the above examples. This is good for the NZ economy because the reserve bank can produce price stability and medium-term employment being maximised as well as real output being maximised. This means that the change in monetary policy will ~~not affect~~ not reduce the effectiveness of monetary policy.

(continue over the page)

QUESTION
NUMBER

Extra space if required.
Write the question number(s) if applicable.

- 3) The change to monetary policy might lead to the reserve bank controlling inflation as tightly as the do now. If inflation was up at 2.5-3% they might choose to keep it there in order to keep growth and employment high.