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SCHOLARSHIP EXEMPLAR



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Scholarship 2024 Economics

Time allowed: Three hours
Total score: 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.

Do not write in the margins (XXXX). 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.**

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. There is planning space for each question. The plan will NOT be marked.

QUESTION ONE: Allocative efficiency in the New Zealand market for eggs

Use information from **Resources A to F** to answer this question.

From the beginning of 2023, battery cages for farming eggs were banned, resulting in significant changes in the New Zealand market for eggs. These changes, along with ongoing increases in demand, were impacted by the inability of the egg industry to respond.

Analyse the impact of the Government's policy of banning battery cages on allocative efficiency in the New Zealand market for eggs. Using elasticity of supply theory, evaluate the impact of increasing demand in the market for eggs on consumers, producers, and allocative efficiency in the short and long term.

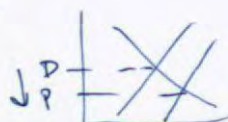
In your answer, use appropriate economic models throughout to:

- explain the key features of the four different market structures. Identify and justify the market structure that exists in the New Zealand egg farming industry
- illustrate and analyse, using the supply and demand model, the impact of banning caged egg farming on the egg market and allocative efficiency at the beginning of 2023
- explain price elasticity of supply and evaluate the factors influencing price elasticity of supply in the short run and long run in the egg market
- evaluate how ongoing increases in the demand for eggs will impact the market price for eggs, consumer and producer surplus, and allocative efficiency in the short run and long run.

PLANNING

supply - lots of fixed variables in short term
 $\rightarrow$ inelastic

$\downarrow$ battery cages - affected chickens ability to lay eggs
 took 18 wks for them to start laying eggs again.
 supply of eggs $\downarrow$ more.



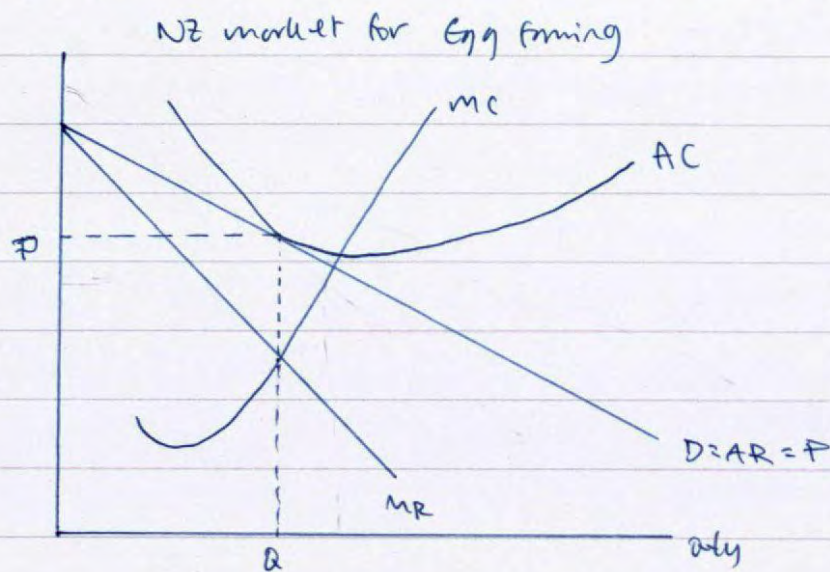
The 4 different market structures includes perfect competition, monopolistic competition, oligopoly, and monopoly. perfect competition is characterised by many small firms ~~pro~~ supplying homogenous products. There are no barriers to entry, and ~~the~~ firms are price-takers as they are too small to influence price or quantity, therefore the demand curve is horizontal.

~~an~~ monopolistic competition is a form of imperfect competition, characterised by ~~at~~ many small firms who supply goods that are differentiated, rather than homogenous and the same. There is a small degree of control over price for these firms, ~~though not enough~~ ^{weak} ~~to maintain~~ and some barriers to entry. "

An oligopoly is also a form of imperfect competition where a few large firms dominates the market, non-price competition is utilised (such as product differentiation) in order to avoid price wars. There are high barriers to entry and high control over price and qty. an oligopoly market is also characterised by a kinked demand curve. Lastly, a monopoly is a type of imperfect competition where only 1 firm operates and dominates the market, they are the sole providers and have very strong control over price / quantity, there are very strong barriers to entry as a result.

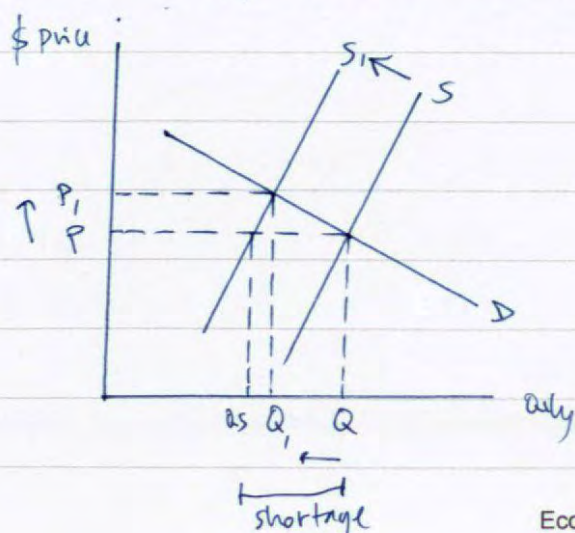
The market structure that exists for the NZ egg farming industry is most likely a monopolistic market structure. There are quite a few egg farms (130 approximately), which are ~~at~~ not homogenous due to product differentiation, as seen by the various different packagings in resource B, to differentiate their products from one another. For example, some eggs are free range, some are colony, some barn, some may be larger sized or smaller sized etc. There are some weak barriers to entry, such as start up costs (for example need to purchase land and chickens, stock, cages for chickens, grain feed, from resource E), all these point to monopolistic demand.

The monopolistic market structure can be illustrated in graph below. Note that the demand curves are drawn relatively flat, to indicate elastic demand due to the number of substitutes of eggs.



The profit maximizing qty at $MR=MC$ is shown, where normal profit is being made.

The start of 2023, followed the banning of battery cage eggs due to welfare issues and new policies/regulations. battery cages are important factors of production for 84% of producers, the ban meant they had to find another alternative to put their chickens in, which would be more expensive, this would increase costs of production for NZ egg farmers, decreasing the profit margin (difference between price and cost), making it relatively less ~~attractive~~ profitable ^{for firms} to supply eggs. This results in a decrease in supply of eggs, as shown in graph below by a shift of supply curve to the left from S to S_1 . ^{where at each and every price, they are willing to supply more}



as a result, at the original equilibrium price P , there ~~is now~~ ^{was a} shortage of eggs as Qty demanded $>$ Qty supplied. market forces acts, where consumers will bid up the price to gain access, as price increases, Qty supplied

increases and Qty demanded decreases, until eventually equilibrium is restored at price P_1 and Qty Q_1 . ^{This may take a while due to time for chicks to lay eggs, importing equipment, delays, productivity etc.}

★ Furthermore, At the start of 2023 due to the banning of battery cages method, though farms were buying more chicks, it took 18 weeks for them to start laying eggs, this could be ^{result of} ~~due to~~ the method that egg farmers were instructed to use rather than the battery cage method. This further contributed to a decrease in supply of eggs, as shown on the graph, due to constrained supply of eggs. Overall, the constrained eggs and increasing costs were passed on ^{partially} to consumers in the form of higher prices, from P to P_1 .

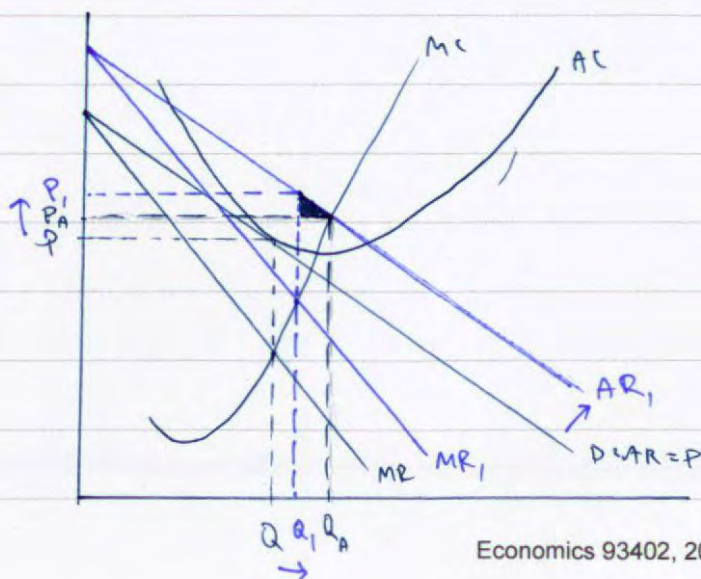
In terms of allocative efficiency, as price consumers receive increases from P to P_1 , the difference between what they are willing to pay and what they actually pay decreases, therefore less surplus gained per unit. As Qty demanded also falls, there are less units to gain a surplus from, so CS decreases. The price producers receive increases, so the difference between what they are willing to receive and what they actually receive increases, so surplus increases per unit, but Qty supplied falls, so less units to derive surplus from. As demand is relatively elastic (monopolistic competition), the ~~the~~ $\downarrow$ Qty is more than proportional to the $\uparrow$ price, so PS can be assumed to decrease as well. Overall, however, as the market is still operating where demand = supply, so ~~a~~ sum of CS + PS is still maximized, so market is still allocatively efficient. However, at the beginning of 2023, if there is still a shortage, then it might not be the case (ie if it is taking more time for equilibrium to be restored).

price elasticity of supply ~~describes~~ measures the responsiveness of Qty supplied to a change in price. In the short run, supply is likely to be relatively inelastic, where the change in Qty supplied is less than proportional to the change in price. This is because there are more factors and variables that are fixed in the short run, such as the equipment, the number of chickens, the number of workers. It takes ~~time~~ time for equipment to be imported from Europe, especially with the many delays ~~that~~ to get it into the country. Therefore, in the short run, supply of eggs is likely to be inelastic, as the one contributing egg producer says "it was impossible to quickly boost production".

In the long run, supply is likely to be relatively more elastic, as ^{less} ~~more~~ factors are fixed, there is more time for egg farmers to order & import equipment, train and hire more staff etc.

Demand for eggs ~~is~~ has been rising, due to more people recognising its health benefits, source of protein & helps with weight loss.

using the monopolistic structure, ongoing increases in demand for eggs ~~with~~ ~~that~~ is shown by an ~~increase~~ a shift of the AR curve outwards, and therefore also a shift of the ~~B~~ MR curve.



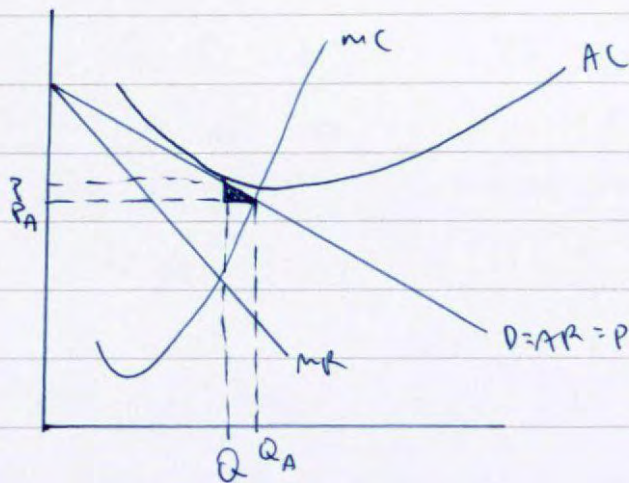
At the original profit maximizing quantity Q , $MC > MR$, therefore the egg farming firms will expand production in order to minimise its marginal losses, until Quantity increases to the new equilibrium Qty at Q_1 , where $MR_1 = MC$.

The price increased from P to P_1 . In the short run, as demand increases, egg farm firms will now be earning supernormal profits as at Q_1 , AR is greater than AC . This is beneficial for producers as supernormal profits can be used to invest in egg research and development, to help chickens become better egg-layers etc, which could improve efficiency. For producers, as prices increase, the difference between what they are willing to receive and what they actually receive increases, resulting in greater surplus per unit. As quantity supplied also increases, there are more units from which surplus can be derived, resulting in an increase in producer surplus. For consumers, as price rises the difference between what they are willing to pay and what they actually pay decreases, resulting in lower surplus per unit. As quantity demanded increases, Q to Q_1 , there are more units to derive surplus from. However, as in the short run, as supply is relatively inelastic, the $\uparrow$ quantity will be less than proportional to the $\uparrow$ price, so overall, consumer surplus will decrease.

In the short run, the market will not be allocatively efficient, as the market operates where $MR = MC$ (as in monopolistic markets firms have some degree of control over price), rather than where demand = supply where $AR = MC$ at Q_A and P_A , resulting in a DWL as shown by shaded triangle.

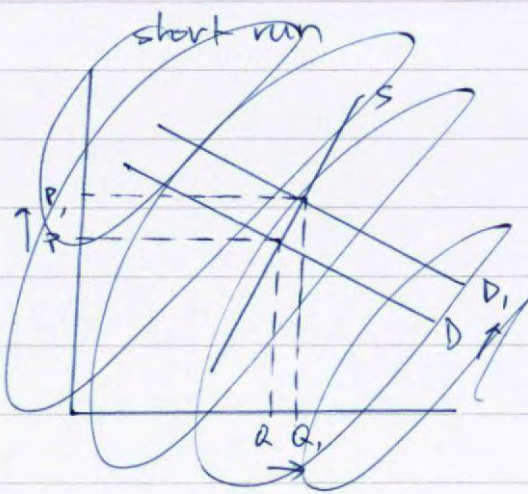
In the long term, as the market is monopolistic, although there are some barriers to entry, it is not enough for egg farmers to maintain their supernormal profits. More firms will be attracted to the supernormal profits and enter the market for eggs to gain market share, which puts downward pressure on prices, resulting in the firms making normal profits in the long run.

long run market for egg farms



of ongoing demand
in the long run, the effects $\uparrow$ on PS, CS, and allocative efficiency are similar to that in the short run. The market is still ~~not~~ allocatively inefficient due to not operating where ~~demand~~ equal supply, so DWL still exists.

However, in the long run, as supply is more elastic, the size of the DWL will be larger, due to a greater than proportional increase in quantity supplied ~~to~~ due to any increases in price due to increased demand of eggs.



QUESTION TWO: Cost of living crisis and the consumers price index (CPI)

Use information from **Resources G to L** to answer this question.

During 2022 and 2023, the cost of living crisis was the most important issue facing many New Zealand households. The inflation rate reached 7.2%; however, some categories within the CPI experienced higher price rises than other categories. The impact of a high inflation rate on a household's living standards was therefore affected by its spending pattern.

Explain how the high rate of inflation throughout 2022 and 2023 has negatively affected the cost of living for different types of households in New Zealand. Evaluate the effectiveness and equity of government intervention policies to resolve the cost of living crisis for different households.

In your answer, use appropriate economic models throughout to:

- explain the difference between an increase in the price of a particular market and an increase in the consumers price index
- explain how high inflation has negatively affected households, and explain why the impact on different household types has been uneven
- use the Lorenz curve model to analyse the impact, effectiveness, and equity of the three policies from Resource L on reducing the cost of living crisis for households
- evaluate which policy would be most effective at reducing the cost of living crisis for New Zealand households while improving equity.

PLANNING

The consumers price index is a weighted basket of goods, as a ~~great~~ ^{to measure inflation} measure of the general price level in the economy. The goods are weighted by how much of it is consumed by the average households, so some goods are weighted more than others. An increase in price of goods of one market does not necessarily lead to an increase in CPI, if it is not a 'main' good that is heavily weighted, for example it is not a necessity. ~~For~~ for example, even if the price of that particular good falls, CPI may still increase if the prices of other goods in the basket have been increasing ^{in price} more, or if other more weighted goods have been increasing in price.

High inflation negatively affects households, especially if the rise in inflation (indicated by an $\uparrow$ in CPI) is greater than the increase in labour costs / incomes. This reduces the purchasing power of households, where they are less able to purchase ^{and afford} $\uparrow$ GtS with the same income, which drives up their costs of living. Households become less able to afford necessities, such as groceries, pay the bills, which can lead to opting for healthier alternatives and also increasing stress and social issues.

High inflation also means an increase in rents and mortgages, which results in lower disposable income left ~~to~~ to spend on other goods & services, so even less able to afford basic goods & necessities, reducing standards of living. This is also why it has unequal impact on different household types.

Households with mortgages, typically the ones with higher incomes due to being able to afford house & property, are more proportionately affected by high inflation, as interest payments and rates increase during periods of high inflation (for example due to reserve bank increasing OCR to contract inflation). This means they are spending ~~more~~ more on especially if they bought house when prices were low and were able to afford it back then.

so are paying off their house and a larger extra interest portion

12

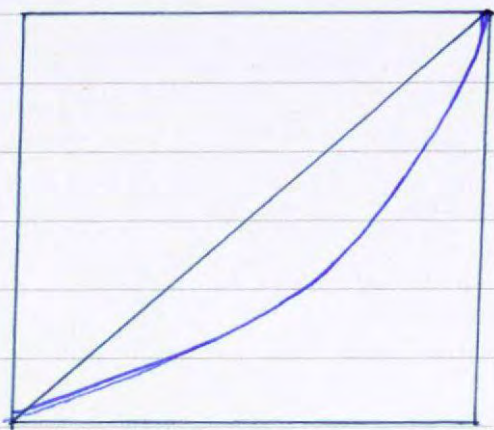
These high income households are also affected by the ↑ costs of groceries & goods on top of increased interest rates.

mortgage rates, leaving less available to purchase other C + S.

on the other hand, lower income households, such as those on benefits, typically ~~don't~~ aren't paying off mortgages, but are just renting, are not as affected by the high inflation, for example, rent increased by ~~15%~~ 5.1%, while mortgage so living costs did not rise as much for them compared to higher income households with mortgages (if mortgages weren't fixed).

overall, impact of high inflation had been uneven, where higher income households spent proportionately more on interest payments than any other groups. Lower income households spent a greater portion of income on the higher priced C + S, but were still overall less affected. grocery prices rose only 13.2%, while interest payments rose up 28.8%.

The Lorenz curve is a diagram to illustrate distribution of income in an economy.



The diagonal line at 45° shows the ~~best~~ where the most equity and equality would occur, where income is distributed fairly, for example, 50% of households will own 50% of total income and wealth, 75% own 75%, and so on.

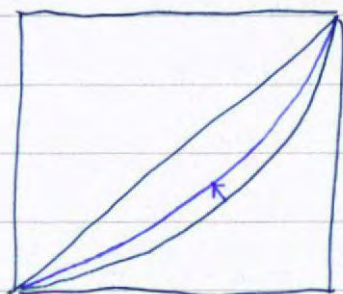
~~currently~~, currently, New Zealand would be illustrated represented by the curve in blue, as income equality is not achieved. The closer the curve is to the straight line of absolute equality, the more income equality that exists in NZ.

The first policy to reducing the cost of living is a cost of living payment, of \$350 for each worker earning less than \$70,000.

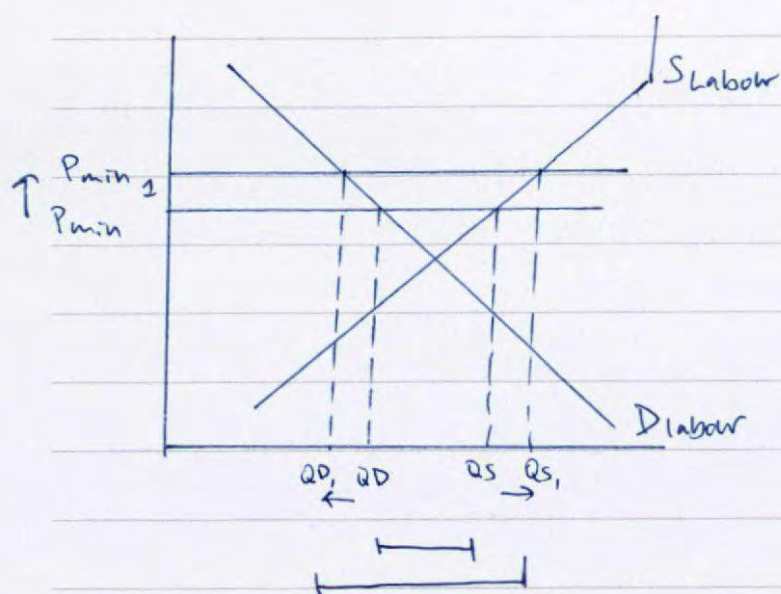
This policy targets the more lower income households, who likely don't own a home or aren't paying off a mortgage. This cost of living (COL) payment will increase ~~the~~ individuals and these household's disposable incomes, ~~not~~ allowing them to be more able to afford to afford goods and services ~~and~~ as prices rise. This policy would be effective if the households receiving the COL payment are using it to spend on necessities for survival, rather than other goods that is not a necessity.

In terms of equity, the payment would be more beneficial for lower income households rather than higher income households who are actually more affected, relatively, by the high inflation. In fact, the ~~\$350~~ \$350 payment would likely come from taxpayers money, which includes the higher income households. The payment would help lower income households ~~to be better off~~ who use greater portion of income to purchase necessities, compared to higher income households, so although they are less than proportionately affected by interest rates, this policy would likely move the curve slightly closer to absolute ~~in~~ equality. Higher income households are paying more due to

mortgages, but that's because they are more able to afford to do so.



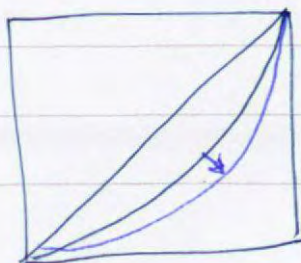
The 2nd policy is an increase in minimum wage from \$21.70 to \$22.70, shown on graph below.



This also benefits the lower income workers more than higher income workers, as lower income workers tend to be earning minimum wage. As minimum wage increases, they have greater disposable income, so would be relatively more able to afford G&S. ↑ nominal minimum wage would help

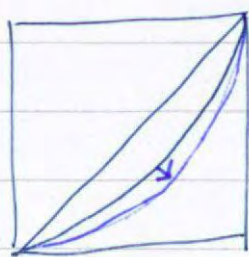
offset the effects of CPI rising more than income, so purchasing power for these workers would increase relatively.

However, as minimum wage rises from P_{min} to P_{min_1} , Qty of labour demanded by firms falls, as CoP increases, so less labour needed to retain a profit margin. Although supply of labour increases, involuntary unemployment will increase. many lower skilled individuals on minimum wage may be laid off, as a result, lower skilled individuals are more likely to be laid off than higher income individuals. These individuals will be even worse off than before, as they no longer earn any income, so even less able to afford necessities, which is an inequitable effect. It is also inequitable for workers who are unable to work (e.g. due to disabilities), and would enlarge the income inequality gap between higher income workers with a job still, and lower income households who may not have a job anymore! ^{and have even greater CoP crisis} This shown on Lorenz curve by the curve moving further outwards.



The 3rd policy is to raise income tax thresholds, increasing brackets by rate of inflation, effectively adjusting tax brackets to inflation.

~~this means that as incomes rise~~ Before, as incomes rose and CPI rose, individuals would be moving into higher tax brackets and paying ~~a~~ greater direct income tax to govt, the differences in tax rate would be quite high, such as from 17.5% to whopping 30.0%. This is referred to as fiscal ~~drag~~ ^{drag}. This ~~was~~ was not beneficial as households real wages weren't increasing, their purchasing power actually decreased due to the $\uparrow$ in nominal wage (as CPI rose more), but they had to pay more tax, which further enhanced cost of living crises. By adjusting tax brackets, it would be a fair ~~and equitable~~ for all individuals of any level of income, and help reduce costs of living for all households. In terms of the Lorenz curve, this policy won't necessarily improve income inequality, as lower and higher income households are both benefitted by it. Higher income households with mortgages can be argued to have same effect as lower income households with mortgages (by this policy), however there are also higher income households who don't have a mortgage, they have already bought & paid off all their properties etc. As a result, I believe that income inequality may increase slightly.



It is not the most equitable, as ~~the~~ higher income households who are ^{more} able to afford GTS, even ~~if~~ if they have a mortgage, would be experiencing the same ^{equivalent} benefits as lower ^{income} ~~most~~ households, who pay a larger portion of income on necessities.

in concluding conclusion, the 1st policy of \$350 would be most effective at reducing the COL crisis for NE households while improving equity, with the justification that not all high income households have a

in conclusion it is debatable whether policy 1 or 2 is better at reducing COL crisis and equity. policy 2 may be more better as policy

mortgage, and that some households earning less than \$70,000 may have mortgage too.

QUESTION THREE: Increasing net migration at different stages of the business cycle

Use information from **Resources M to S** to answer this question.

New Zealand had a record net migration gain of 110 200 in the year ended August 2023. Experts hold differing views about the inflationary impact of increasing net migration. A Productivity Commission report warns, "The relationship between productivity and immigration requires a balance of trade-offs between government objectives and a consideration of short-run and long-run impacts".

Analyse the impact on the New Zealand economy of increasing net migration at high and low levels of output. Evaluate the extent to which pursuing a policy of increasing net migration could simultaneously reduce high inflation levels and achieve other government macro-economic goals.

In your answer, use appropriate economic models throughout to:

- explain the shape of the aggregate supply (AS) curve and how a shortage of labour at full employment contributes to a high level of inflation
- discuss the advantages and disadvantages of increasing net migration for the New Zealand economy
- analyse and evaluate, using the AS/AD model, the impact of increasing net migration on the three government macro-economic goals in Resource S, in particular in reducing high inflation, in an economy operating near full capacity compared to one operating at low output levels.

PLANNING

↑ net migration

pros

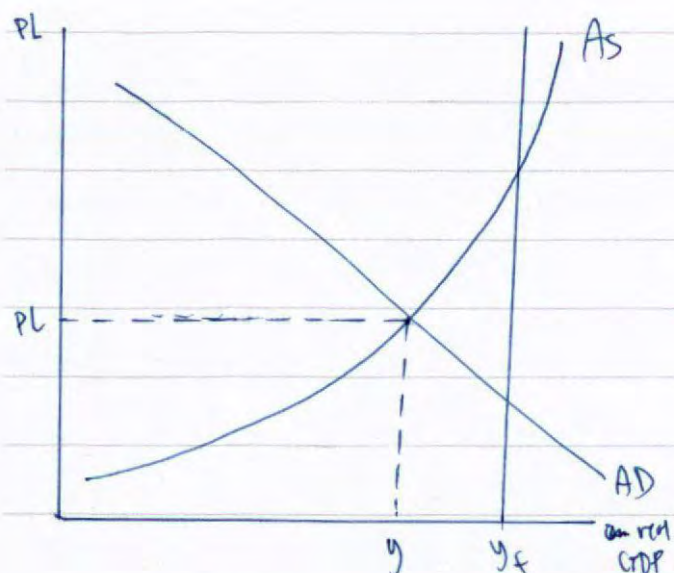
— ↑ consumption

— ↑ labour force, ↓ shortage, ↓ wages & cost, ↓ inflationary pressures at high output levels.
 ↑ productivity
 ↓ AS limited due to productivity?
 at low output, no effect really.
 but inflation not a concern anyway

cons

- wage growth slow
- competition for jobs with locals
- ↑ demand & consumption (high inflation worthy)





the AS curve is drawn as a rounded curve, where it gets steeper and steeper as output increases. This is to reflect the ~~shapes of the~~ represent the characteristics of an economy at lower output levels compared to at higher levels of output.

(eg trough/recession)

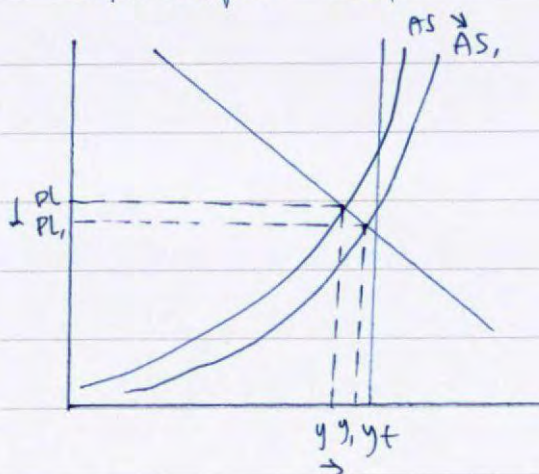
at low levels of output[^], the curve is more flat, representing how output can be increased with little increases in cost and therefore price. This is because there is more idle capacity and plenty of spare resources, so ^(eg boom) less competition for scarce resources keeps costs down. At high output levels[^], it is difficult to increase output without high inflationary pressures and large increases in costs and price as a result, so price increases more than proportional to any increase in Qty at high output, near full employment. This is because there are few ^{spare} ~~scarce~~ resources available and ~~these~~ ^{utilised} resources are nearly fully employed and ~~utilised~~, therefore competition for scarce resources puts upwards pressure on costs of production (eg firms increasing wages to attract labour and workers), resulting in higher ~~prices~~ price levels.

A shortage of labour at full employment contributes to high inflation, as explained previously, firms will want to increase their wages to attract the few, [^] Spare workers available if ~~there~~ there is a shortage, as ~~there~~ there is greater competition for those workers, for firms wishing to increase output. This increases costs of production, passed on to consumers, putting upwards pressure on price level, and is therefore highly inflationary.

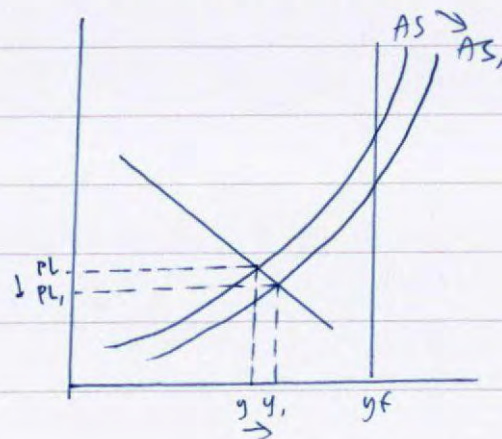
an increase in net migration to NZ indicates more people are living in NZ. for example, westpac are forecasting a nearly 2% increase to NZ's popn, the fastest rate of popn growth in decades. In year ended ^{August} 2023, NZ saw a net migration of 110 200.

The main advantage of net migration gain is the increased size of the labour force and supply of labour, especially as migrants are typically of fit, working age and tend to be highly skilled. This puts downwards ~~during high output levels, when there are~~ pressures on wage costs for firms, which can reduce COP , increasing ^{Aggregate} supply, as shown on graphs below. ~~during periods of high output,~~ AS may also $\uparrow$ if productivity $\uparrow$ due to brain gain.

high output level



low output level



for both output levels, the $\uparrow$ AS will result in an increase in real output, y to y_1 , indicating an increase in economic growth, as output increases demand for labour increases, increasing employment, helping with goals of sustainable employment & economic growth. Price level from P to P_1 , indicating deflationary pressure, helping with goal of price stability.

~~initially, at an inflation rate of 6.7%, this downwards~~

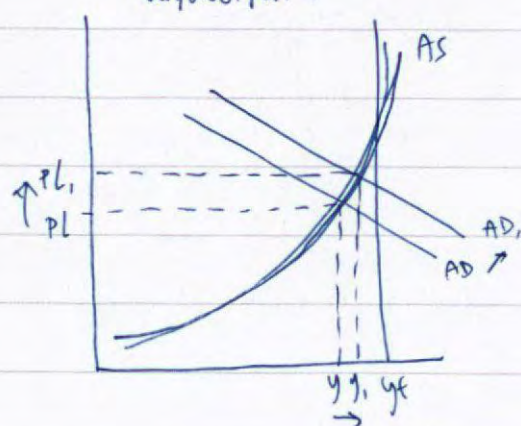
At high output levels, the $\uparrow$ in labour force will help reduce any shortage in labour, which means at full employment, there would be less inflationary effect, helping to bring down inflation to within target of 1-3% in medium term. For both output levels, the effects have been drawn to be

quite similar as ~~the~~ it is only the movement of AS curve down the AD curve, therefore, overall, both have ~~same~~ same impact on reducing high inflation, though at lower output levels, it is easier to return to within target.

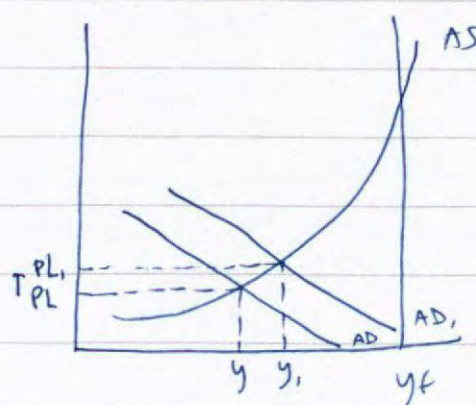
The many worldwide and national events occurring in ~~2020~~ NZ in 2023 may have limited the extent of $\uparrow AS$, as for example, shops closed and supply chain issues may have meant that supply physically could not increase, even if migration increased.

A disadvantage of the $\uparrow$ net migration is the increased consumption (C), as migrants demand and consume rent, housing, infrastructure, health systems, education, and more. Consumption is the largest component of AD, which results in an increase in AD, as shown below by shift of AD to the right from AD_1 to AD_2 . Furthermore, investment may increase if firms increase investment to expand to keep up with the increasing demand.

high output:



low output



for both, $\uparrow AD$ resulted in an $\uparrow$ in real output, indicating $\uparrow$ economic growth and employment due to $\uparrow$ demand for labour. It also resulted in an increase in price level from PL to PL_1 , indicating a inflationary effect on $C + S$, which is not helpful in achieving price stability.

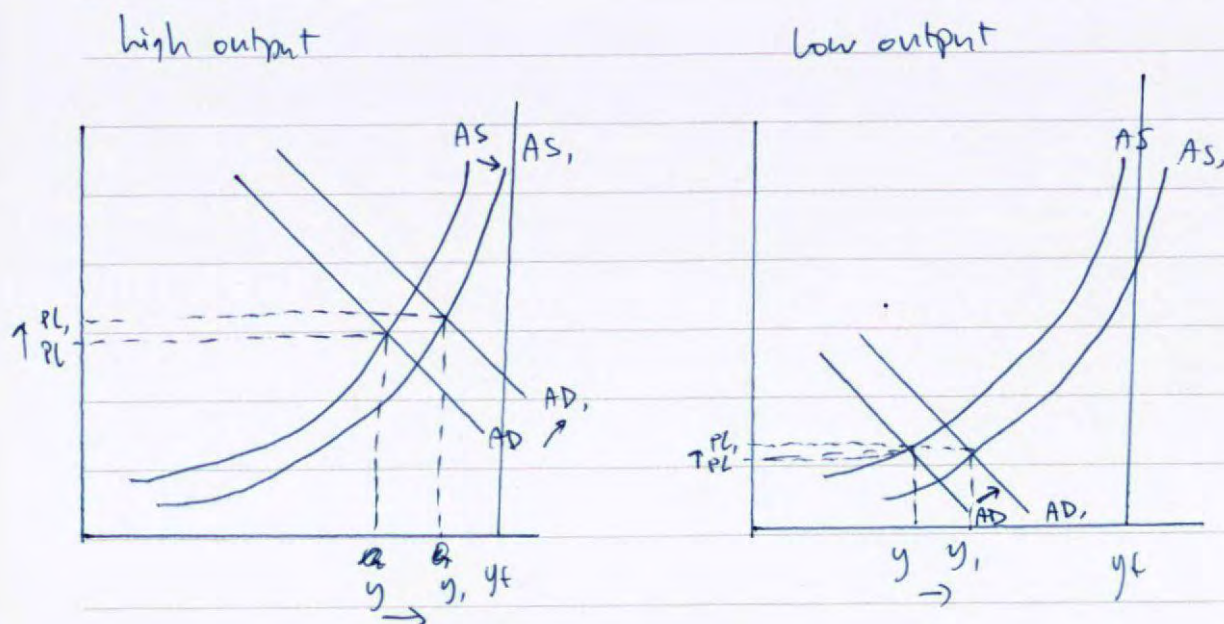
At high output levels, the $\uparrow$ in PL is more than proportional to $\uparrow$ real output, therefore it has a greater inflationary effect, which would

be of concern if the inflation rate was already high, such as at 6.7% ~~which would lead to a high inflation rate~~. At low levels of output, the $\uparrow PL$ is less than proportional to the $\uparrow$ real output, so it is less inflationary, due to more spare capacity than at higher output levels.

Other disadvantages of ret migration includes that competition for jobs will increase, many locals may not be able to find a job anymore, losing income and less able to afford G+S, and also reducing efficiencies. Furthermore, another disadvantage is that the wage growth rate slows, which is disappointment to kinis.

due to the downward pressures on wages due to $\uparrow$ labour force.

Overall, the combined effects of the $\uparrow AD$ due to $\uparrow$ consumption and the $\uparrow AS$ due to $\downarrow$ cost due to $\uparrow$ labour force size can be shown on graph below.



The combined effects at both high and low output are an increase in real output, indicating increase in economic growth, and the fore increase in employment as demand for labour increases in the economy, an advantage. The $\uparrow AS$ offsets the $\uparrow AD$ in terms of increasing price level, however

it is likely that the $\uparrow AS$ is smaller than the $\uparrow AD$ ^{resulting in} ~~resulting in~~ an overall $\uparrow$ in price level, so is inflationary, and may result in RBNZ deciding to increase OCR rate to ^{influence} ~~influence~~ inflation and bring down to within the 1-3% range in medium term.

at higher output levels, the net migration will have a more significant ~~effect~~ inflationary effect than at low output levels, despite the $\uparrow AS$ having an offsetting effect, therefore, overall, it is more difficult to reduce high inflation in an economy operating at high level near full capacity, than at lower output levels.

at low output levels, the govt is better able at achieving its 3 main goals of price stability, sustainable employment, and economic growth.

Scholarship

Subject: Economics

Standard: 93402

Total score: 14

Q	Score	Marker commentary
1	04	The candidate correctly and succinctly described all four market structures from the resource. They then justified through integrating the resources for authentic context, that egg farming in New Zealand is an example of monopolistic competition. They did not need to draw a market structure model at this point. Comprehensive use of resources to explain why supply in the egg market has decreased. A well-drawn market model is integrated with an inelastic supply curve. A full explanation is given of the shortage that would occur and the market forces that then ensue, to correct the disequilibrium. Allocative efficiency is explained thoroughly in relation to changes in CS and PS, noting the offsetting impacts from the varying proportions of price and quantity. There is an insightful evaluative point at the end of this section to indicate the time it may take for the shortage to clear. Price elasticity of supply is defined explicitly with contextual references to egg farming factors of production in the short- and long-run. An overview of why demand increases is given with reasons from the resources. The candidate however uses AR / MR curves to explain what would happen in the egg market and describes profit situation for market structure. They do explain CS and PS correctly in the short-run, however due to the model drawn the assumption is made that it is allocatively inefficient and that a DWL exists (same for long-run). Had the candidate correctly illustrated market models for eggs and hence referred to the equilibrium changes maintaining allocative efficiency, they could have achieved a higher grade at scholarship level.
2	05	On page 11, the candidate gave a reasonable explanation of the difference between the CPI and the price of a particular market, with reference to the 'weighted' nature of goods in the CPI. The cause of the cost of living crisis is well explained by linking relative increases to the CPI and incomes to decreasing purchasing power. Integration of data from the resource material to support these points would have elevated this response. The analysis of the uneven impact of inflation on different households discusses the proportion of income spent on different categories, specifically interest payments. A valid comparison is made between high income and other households, using data. Page 12 contains an explanation of the Lorenz curve, which although not required, demonstrates understanding of relevant economic theory. Using labels on this and subsequent models would have improved this response.

		The impact of cost of living payment policy on lower income households and why this improves equity is accurate. An inwards movement of the Lorenz curve is correct but poorly illustrated. The effectiveness of the policy in reducing the cost of living crisis is also not discussed. The candidate produces a sophisticated discussion of the impact of increasing the minimum wage and equity. This explanation incorporates a relevant minimum wage model and references locus points from the model. Furthermore how different types of households could be negatively and positively impacted is also discussed. The policy of increasing of tax brackets is also analysed at a sophisticated level. Reference to fiscal drag and the proportion of tax paid by households demonstrates insight. The candidate correctly concludes that whilst all households will benefit, equity may worsen. A brief policy recommendation is made rather than an evaluation. Overall, the candidate produced a logical and relatively sophisticated economic analysis of policies to improve the cost of living crisis for different households, whilst improving equity. A more detailed evaluation and / or further evaluation of the effectiveness of policies (rather than just equity) would have elevated this to a 6.
3	05	The candidate produces and effectively communicates a relatively sophisticated economic analysis of the impact of increasing net migration on the New Zealand economy with some evaluation the effect on price stability and other government goals, at low and high levels of output. To gain a higher grade the candidate needed to explore each area of analysis in more depth and expand their explanations. On page 19, the candidate provides a sound explanation of the shape of the aggregate supply curve including the relevance of a labour shortage when the economy is operating at Y_f. On pages 20 and 21, the candidate provides a general but accurate explanation of the impact of migration on AS though this could have been examined in more depth, especially in terms of the impact on productivity. In addition they could have better analysed the impact on production capacity and Y_f and or a PPF graph. On pages 21 and 22, the candidate provides a general but broadly accurate analysis of the effect of migration on AD in the context of a disadvantage. This could have been improved by considering the effect of increased demand for housing and rental accommodation as well as the effect on government spending where demand for education and healthcare is on the rise. On pages 22 and 23, the candidate provides a brief but accurate comparison between impacts at low and high levels of output. This could have been enhanced with more in-depth analysis of the comparative effects.