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SUPERVISOR'S USE ONLY

OUTSTANDING SCHOLARSHIP EXEMPLAR



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Scholarship 2014 Economics

2.00 pm Wednesday 26 November 2014

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.

Resource Booklet 93402R is included in your pack.

Show ALL working.

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.

TOTAL

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This paper consists of three structured essay questions. For each question, use appropriate economic models to illustrate key points, and integrate information from the resource material to support your argument/evaluation.

QUESTION ONE: ALLOCATIVE EFFICIENCY IN THE AUCKLAND HOUSING MARKET

Some people describe the rise of residential house prices in Auckland as a bubble and are concerned about the impact of this on housing affordability.

Use information from **Resources A to H**, and your knowledge of microeconomic theory, to answer this question.

Discuss and evaluate the role of price signals and the need for government intervention in achieving allocative efficiency in the Auckland housing market. Use appropriate economic models to support your answer.

In your answer:

- use the market model and elasticity concepts to analyse reasons for the rise in residential house prices in Auckland
- explain how the rise in residential house prices is likely to affect consumer and producer surplus, allocative efficiency, and the allocation of resources in the market for houses in Auckland
- evaluate whether the free market, or government intervention, is likely to be more successful in achieving allocative efficiency in the Auckland housing market.

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PLANNING

Demand

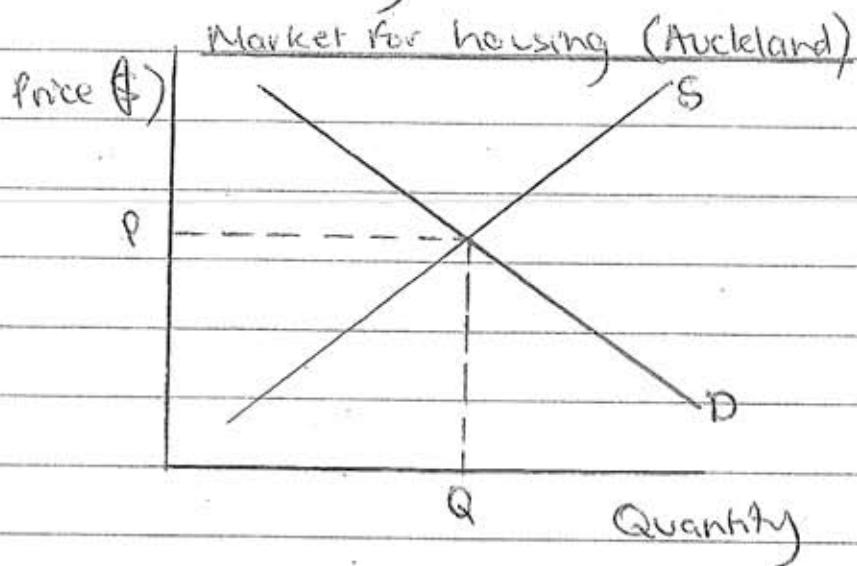
- * - 1st time buyers (Panic)
- ✓ - speculation / expectation
- * - easy credit / low interest
- * - foreigners / immigration

Supply

- * - land supply restrict
- * - high constr costs / raw
- * - lack of comp

Begin your essay here.

The price of housing in Auckland is determined by the forces of demand and supply in the Auckland housing market.

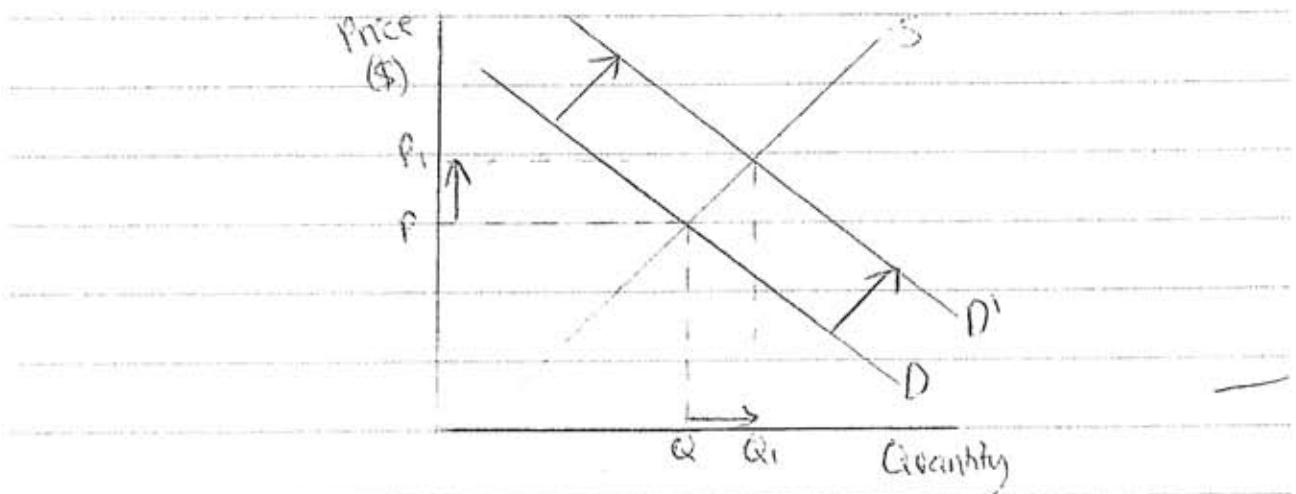


of housing in Auckland

The rise in price^v is caused by a combination of increasing demand for housing, and a supply shortage.

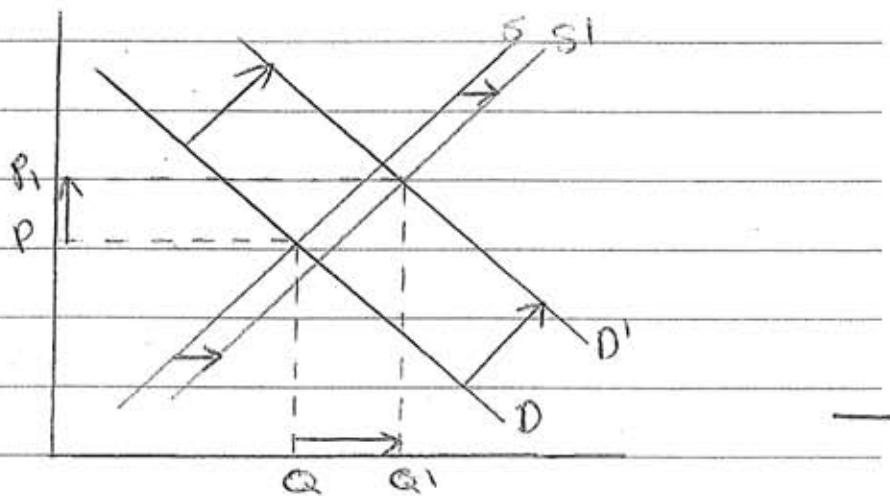
~~Falling~~ The increase in demand can be attributed to lots of first time buyers looking to get onto their first homes. This can lead to 'Panic buying' (Resource B) which may mean people will be willing to pay large amounts for houses, even if their intrinsic value isn't very high (Resource A). As house prices are rising, speculators will want to buy up housing to benefit from potential capital gains as the house prices are expected to rise further. This 'rampant investor speculation' and 'investment seminars' (resource B) will further accelerate this increase in demand.

Furthermore, the cost of taking out a mortgage is very low, meaning buyers will have easy credit to purchase houses. Mortgage rates have fallen from 2008 and are the lowest on offer since the 1960s (resource D). An increase in the ^{get immigration and} amount of immigrants has contributed to a rising population of Aucklanders, which is expected to rise to 2 million by 2031 (Resource D). ^{Many of} These new immigrants will look to buy houses in Auckland, causing demand ^{and price} to rise further.



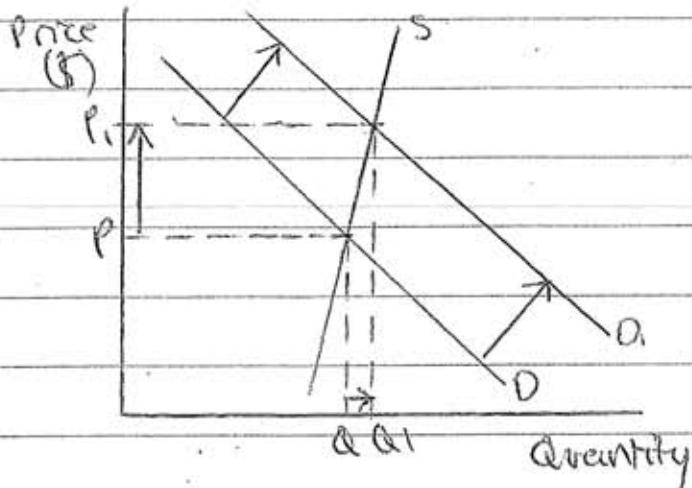
The shortage of housing can be attributed to many factors. Costs of construction are very high (resource C), meaning it is expensive to build ~~and~~ new housing. The cost of raw materials are high and a lack of competition in ~~these~~ markets (resource D) will reduce the incentive for sellers to compete on price and produce efficiently. There is also a restriction in the supply of available land. While 13,600

new dwellings are required per year to meet the increase in demand, only 6,260 dwellings were approved in 2012. These factors mean that, although the supply of land and housing continues to increase, it isn't rising fast in relation to the rise in demand. Hence the price of housing will rise. There is also a significant



The elasticity of demand for housing will likely be somewhat inelastic. This is because it ~~can be seen as~~ is a necessity, as everyone needs a place to live. There are few close substitutes, as people can rent houses or apartments, but most people want to eventually own their own home. However, as a large proportion of income is spent on housing, this may cause its demand to be more elastic. Supply of housing is likely to also be very inelastic due to the restrictions of building consent and land shortages. The number of builders available cannot change much in the

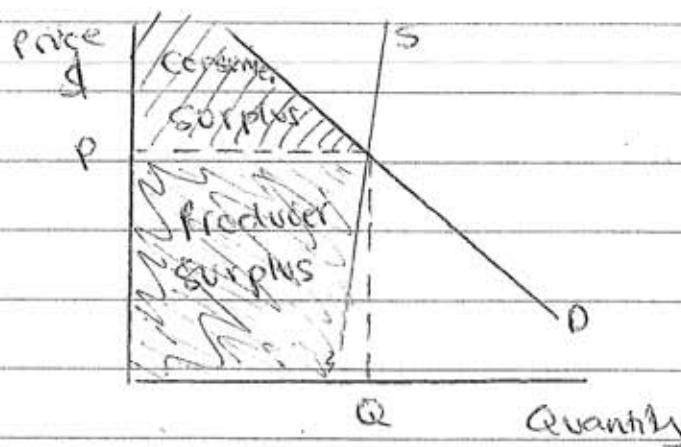
momentary or short term period. Thus the supply of housing will be relatively inelastic.



When supply is inelastic, a rise in demand will result in a more than proportionate rise in price and only a small increase in the quantity sold, as shown on the diagram above. This is because the quantity supplied is relatively unresponsive to changes in price, especially in the short term.

If the market is allowed to operate freely, then it will operate at the market equilibrium price and quantity, meaning producer and consumer surpluses will be maximised. As supply of housing is relatively inelastic, the rise in demand will cause a significant price increase. Thus producers will benefit from a much higher price, and a slightly greater quantity traded. Thus their producer surplus will increase by a large

amount. Consumers on the other hand will have to pay a much higher price while only consuming a slightly greater quantity. Net consumer surplus is likely to fall or remain relatively stable.



As the price of houses rises, this sends a signal to producers of housing that there is a lot of profit to be made by selling houses. They are likely to increase their investment, output, and switch from producing other products (such as bridges, for example) to selling houses. More people will likely train to be builders or start housing supplies businesses to take advantage of expected high profits. Thus economic resources will likely be switched from producing other things to producing houses, as producers are motivated by profits.

The government could intervene by providing state housing (building more houses) to

increase supply. They could reduce the amount of regulations and red tape to allow for houses to be built more easily. ~~The Reserve Bank~~ could increase the interest rates, and restrict the ~~reserves~~ loan to value ratios (resource G) (resource H) so that it is more difficult for people to buy houses and get loans. This would reduce the pressure on existing housing stocks and help lower prices. The government could effectively increase supply and reduce demand for housing by implementing these policies, with little cost to the government. These interventions would still allow the market to operate at its equilibrium so it is allocatively efficient. The free market alone may lead to an increased 'bubble' of house prices which could then fall drastically - a precipitous decline (resource A). This could spark economic downturn or recession in NZ in the same way the house price crash caused problems for the US economy in 2008-9. This government intervention would help to stabilise the house market, so that house prices don't get too high, people can afford houses, and prices don't decline rapidly in the near future.

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QUESTION TWO: THE LIVING WAGE

In recent times, rising productivity has created the potential to raise living standards, and yet there have been calls for a 'living wage' to be introduced because the minimum wage is considered inadequate.

Use information from Resources I to N, and your knowledge of microeconomic theory, to answer this question.

Discuss the case for introducing a living wage, and evaluate the advantages and disadvantages of regulating the labour market in this way, as opposed to other policies to improve outcomes for workers. Use appropriate economic models to support your answer.

In your answer:

- explain why the returns to labour have fallen relative to the returns to capital, including changes in productivity, international trade, and labour market deregulation
- explain the case for and against the introduction of the 'living wage'
- evaluate whether or not the introduction of a living wage is likely to be effective in increasing equity
- describe and evaluate policies, other than the living wage, that could also improve outcomes for workers and their families.

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

PLANNING

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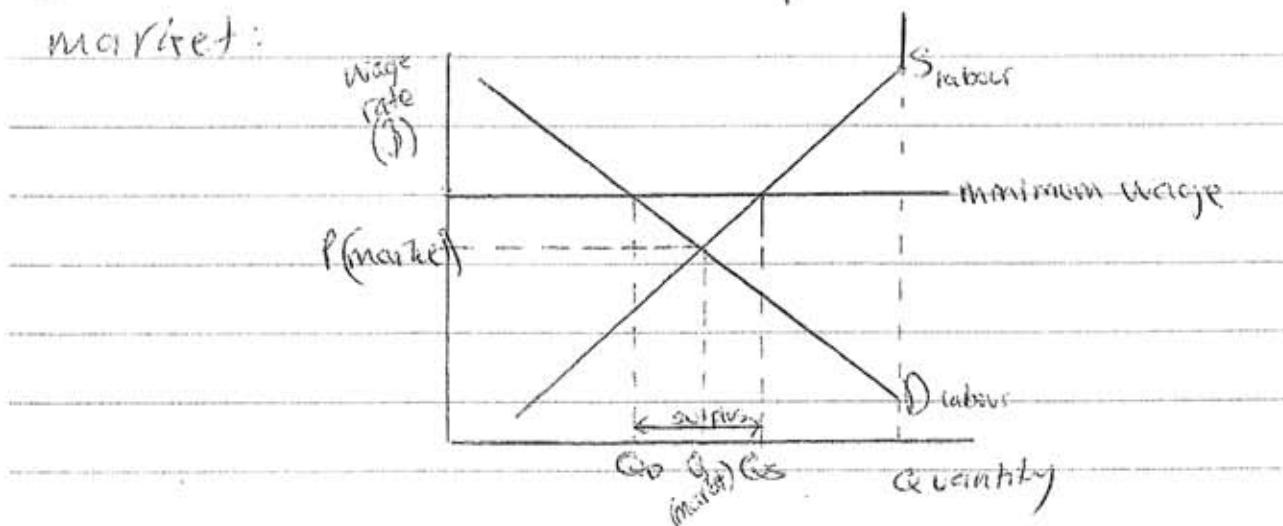
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The cost of investment goods has dropped 25% over the past 35 years (resource L). This means that firms are finding it more cost effective to employ machinery than workers - firms want to "automate wherever possible". Workers have high ongoing costs due to having to pay workers a salary, while technology is cheaper to buy, and its ongoing costs may be cheaper also. Labour can be avoided by importing goods produced overseas where the wage rate is much lower. Workers in countries that import these goods may struggle to find a job as their jobs are taken by overseas workers.

The benefits of having a living wage is that workers will earn a wage that allows them to live comfortably, afford their basic necessities, as well as enabling workers to participate in society (resource J). This will likely allow workers to become more healthy, as they will be able to afford good quality housing, healthcare and quality food. They will also be able to provide these goods and services to their families, who will in turn be able to be healthier, better educated, more productive, and able to contribute positively to society.

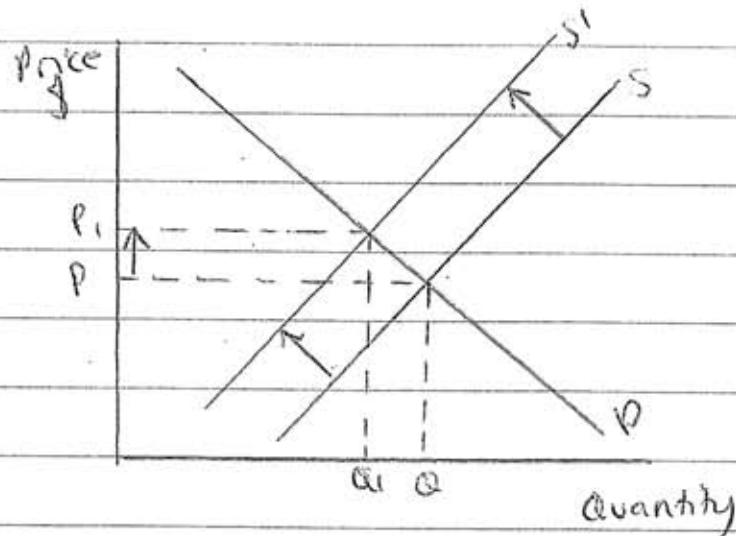
People will be able to afford the basic necessities they need to live, so less transfer payments may need to be made. Workers may also be more willing and motivated to work hard and contribute effectively to the firm, meaning they will become more efficient and produce a greater output. Workers who may otherwise not be willing to work at a lower wage rate may now be willing to work, meaning the free rider problem may be less of an issue for the government providing transfer payments.

There are disadvantages when introducing a 'living wage', however. A minimum wage acts like a minimum price in the labour market:



In this way, at the higher wage rate (minimum wage), there will be a greater supply of labour (number of people willing and able to work at the wage rate) than demand (number of jobs offered by firms).

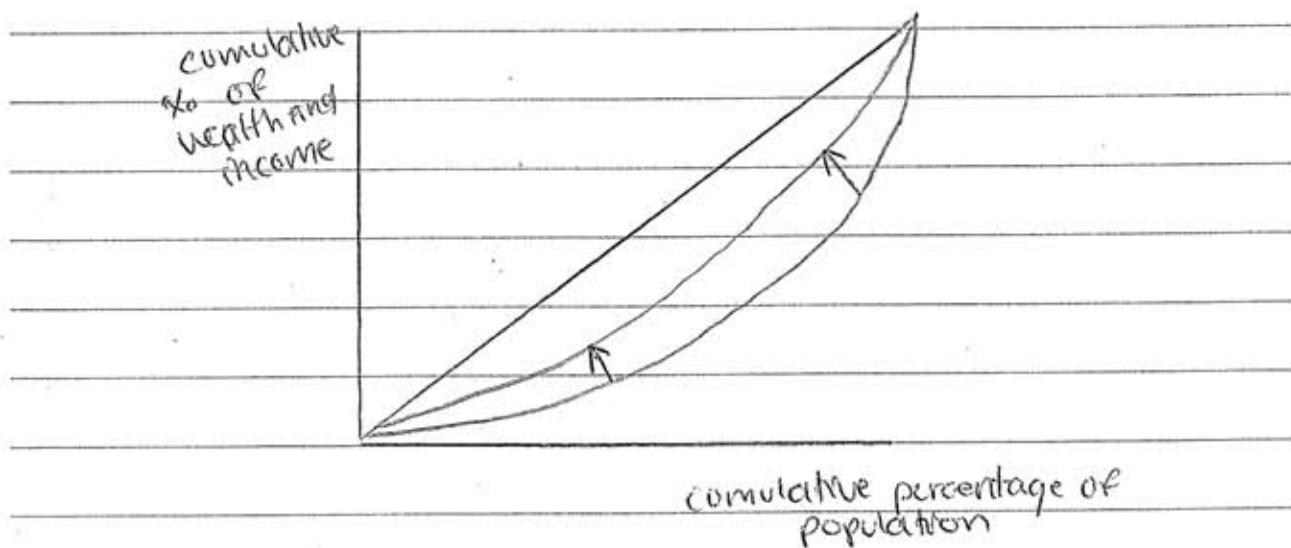
Therefore there would be people willing to work who are involuntarily unemployed, as there aren't enough \diamond jobs available. Producers would suffer from higher production costs as labour is more expensive. They would likely pass these costs on to consumers in the form of higher prices, as their supply would fall.



Thus workers would likely need to pay a higher price for goods and services. This could increase inflationary pressure in the economy, as Aggregate supply would fall (due to rising costs for firms) while AD increases. The rate of unemployment may also rise as more people struggle to find a job at the higher wage rate.

By introducing the minimum wage, there may be a reduction in the level of efficiency in the economy. However equity is likely to

increase, as the situation is more fair/equitable - "It's only fair that these people are able to enjoy a decent standard of living" (Resource T). As lower income earners can now receive a larger income, the gap between rich and poor will likely fall, as lower income earners receive more. This can be shown by a shift of the Lorenz curve closer to the line of equal income distribution.



~~However~~ People on low incomes will be able to afford more of their basic necessities (resource T) and their families will be able to experience an improved standard of living (which is more fair). However the introduction of the living wage may mean rising unemployment levels, which increases the gap between rich and poor. Firms may switch to using more machinery, and as explained in resource L, it is the owners of this capital that receive the larger share of the benefits of growth, not

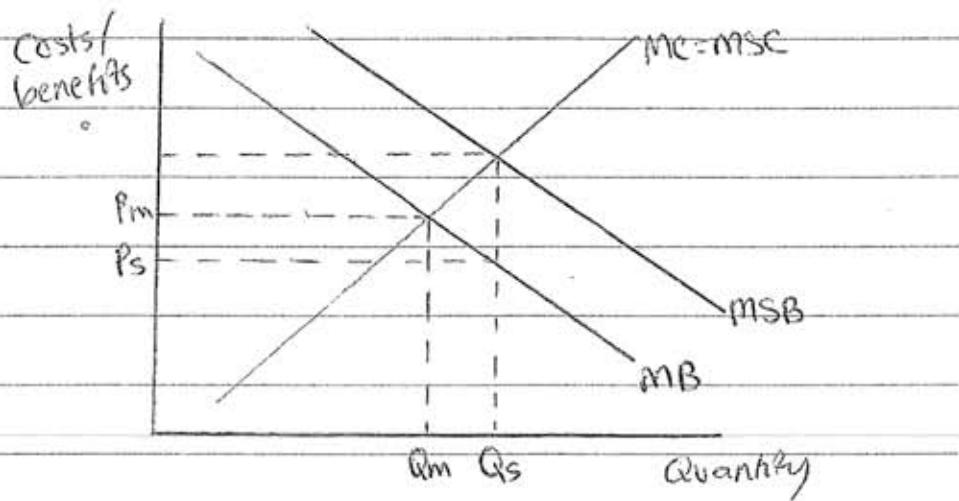
necessarily to workers. This would mean higher income households would benefit more, and the gap between rich and poor would widen - increasing inequality, and reducing equity.

As described in resources K and N, other policies may be more effective at providing ~~goods~~ welfare for those on lower incomes. While the 'living wage' is based on the needs of a man, his wife and 3 children (resource N), it doesn't provide appropriately for single income earners or larger families. It may be more effective to have a minimum wage to cover the costs of living for a single person, and then provide welfare, such as 'Working for families', accommodation supplements and childcare assistance for families ~~or~~ or people earning an income for more than themselves. This would be vertically equitable as it provides for those families that need the most support while not providing unnecessary support to those who don't need it. This is also horizontally equitable as people in similar situations receive similar support.

A problem with providing welfare is that it may disincentivise striving, as people

may be perfectly happy living on welfare benefits, and being free riders on the welfare system, rather than working and contributing to society. The provision of these collective services costs the government a lot of money, and the intervention by government would create a dead weight loss in the market, causing the market to be allocatively inefficient. However, by providing these welfare services, firms will be able to keep labour costs down and employ lots of workers, while all New Zealanders have access to adequate services and goods. Therefore everyone has an equitable opportunity to receive the support they need to contribute effectively to society.

Pansion of these types of welfare services, e.g. childcare, accommodation supplements, ~~and~~ education and healthcare produces positive externalities of consumption, as they have positive spill over effects on wider society resulting from people's consumption of them. This is because people consuming these goods will likely be healthier, better educated, more productive, and overall better members of society.



These goods are overproduced and underconsumed if the market is left to operate freely.

By intervening in the market and providing these goods, the government helps to correct this market failure.

QUESTION THREE: MONETARY POLICY OBJECTIVES

Monetary policy in New Zealand has the sole economic objective of achieving price stability.

Use information from **Resources O to U**, and your knowledge of macroeconomic theory, to answer this question.

Discuss the importance of price stability for the New Zealand economy, the impact that monetary policy can have on other macroeconomic objectives, and evaluate the advantages and disadvantages of using monetary policy to achieve macroeconomic objectives in addition to price stability. Use appropriate economic models to support your answer.

In your answer:

- explain the economic benefits of price stability
- explain the effect that changes to monetary policy can have in terms of achieving other macroeconomic objectives
- explain how monetary policy could be used to achieve macroeconomic objectives other than price stability
- evaluate the advantages and disadvantages of using monetary policy to achieve other macroeconomic objectives, in addition to price stability.

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

PLANNING

- firms
- households
- Govt
- X-M

Begin your essay here.

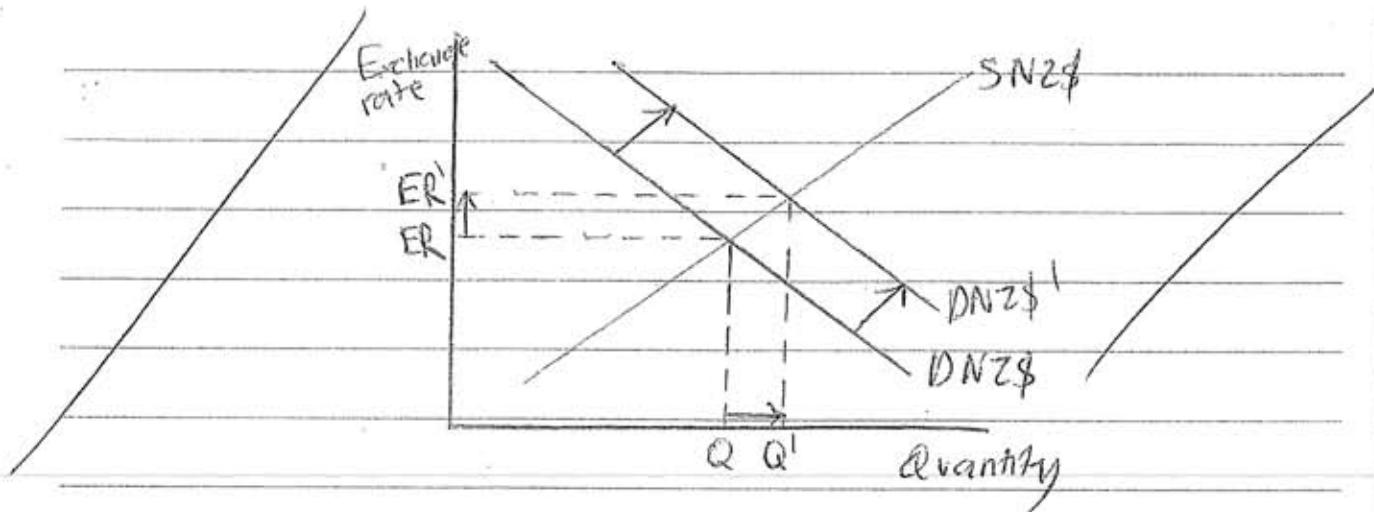
If there is price stability in the economy, firms will benefit as they will be able to easily make predictions about future prices in the economy. They will not suffer from significant menu costs (the costs of changing the prices of their products to compensate for inflation) or shoeleather costs. Businesses won't be uncertain about the future and so will be more confident to invest.

Stability in prices when there are relatively higher rates of inflation with trading partners means NC exports will continue to remain competitive in overseas markets, while the amount of import penetrations will be lower as overseas goods appear more expensive. This benefits exporting firms as they are able to continue to sell to overseas buyers. Importing firms may suffer if rates of inflation are higher with trading partners, as the cost of imports of raw materials may creep up. Net exports will likely increase, and the balance of payments will likely go into a surplus. Consumers/households will be more confident as there is more certainty about future price levels. The ^{real} value of savings ~~and~~ and incomes will remain stable, so workers and people on benefits won't experience significant reductions in the ~~real~~ purchasing power of their

incomes. This consumer confidence will be felt by firms in the form of higher demand for new products, leading to increased revenue and profits. Government won't suffer much from fiscal drag.
 (and income earners)

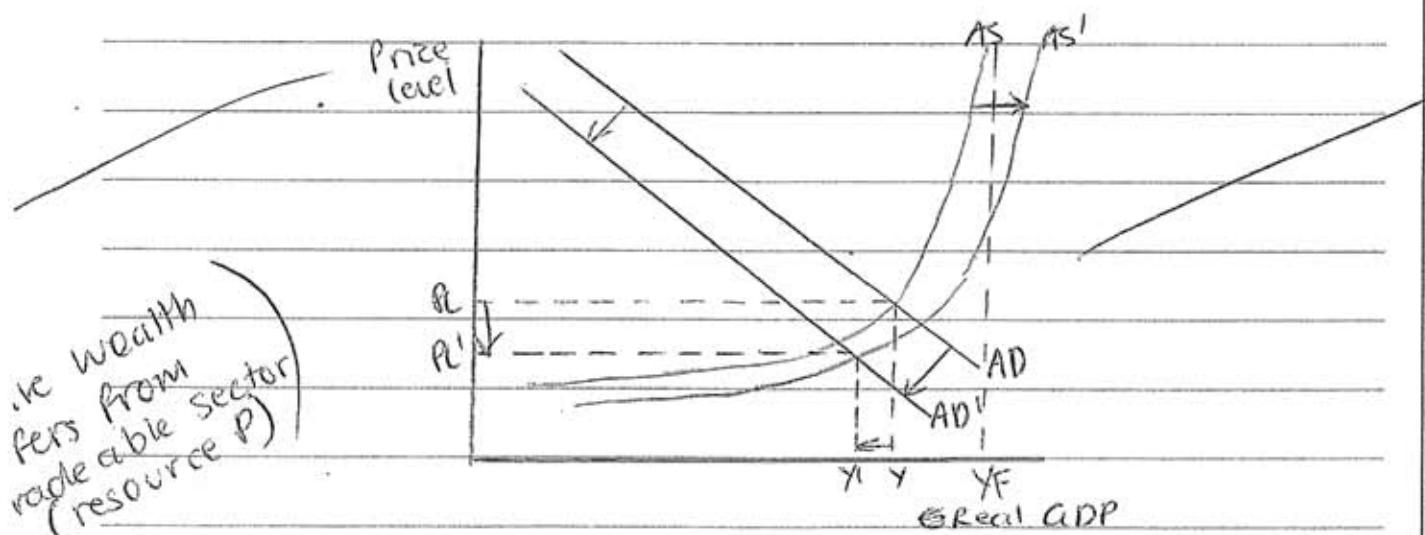
Monetary policy is ~~not~~ implemented by the RBNZ and is implemented to achieve stability in the general price level, in keeping with the Reserve Bank of New Zealand Act 1989 (resource O).

Monetary policy can be implemented to achieve other economic goals, such as full employment, economic growth, and a balanced current account (resource U). If the interest rate (which is the main tool used by the RBNZ to control ~~the~~ the price level) is increased, this will essentially have a contractionary effect on the NZ economy, and is used to reduce the price level if it gets too high. Higher interest rates mean consumers and firms will find it more expensive to borrow money for consumption and investment expenditure respectively. Therefore their spending will decrease. Overseas investors will wish to invest in NZ banks to take advantage of relatively higher returns on savings. To do this they must buy NZ currency, thus the demand for NZ currency increases, causing the exchange rate (ER) to appreciate.



This disadvantages exporters as overseas buyers must pay more to acquire NZ currency to pay for NZ exports, while importers are advantaged as they can buy imports more cheaply. This means net exports will fall.

As consumer, Investment ~~and~~ expenditure and net exports are a component of AD, ~~so~~ AD will fall if the interest rate is increased.

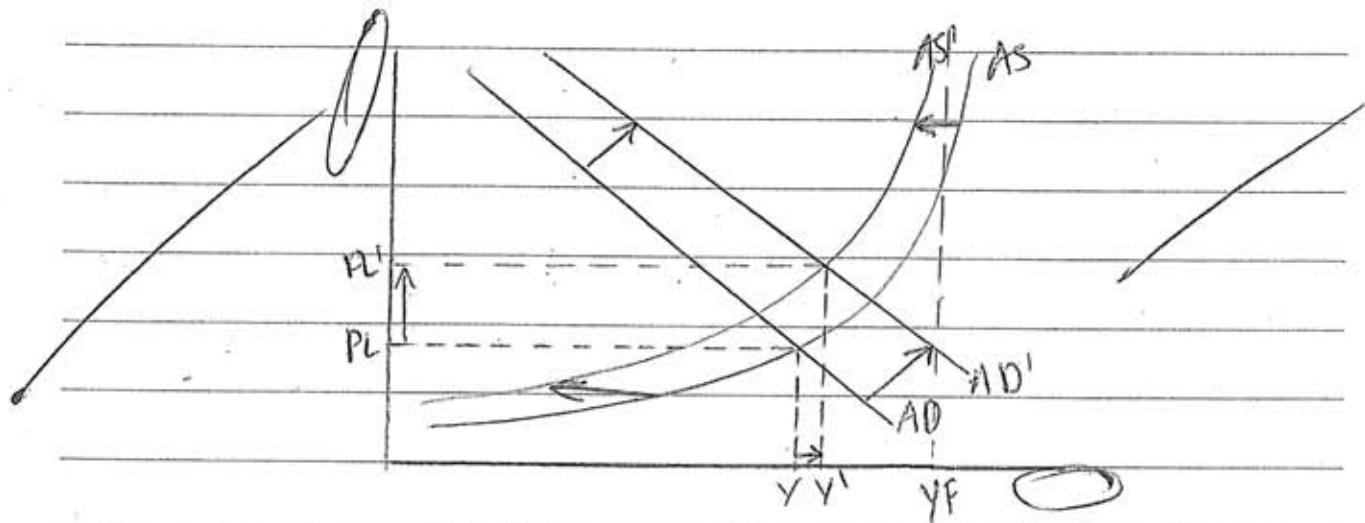


As would increase as importers can import raw materials more cheaply. This helps to lower the price level to maintain price stability, but will likely reduce the level of economic activity, meaning the goals of full employment

economic growth, and a balanced current account will be compromised.

(from that above)

By lowering the interest rate, the reverse effect is created, as consumer and investment spending increases due to a fall in the cost of borrowing. The exchange rate depreciates as NZ currency is relocated to overseas bank accounts, net exports increases, and the economy grows.



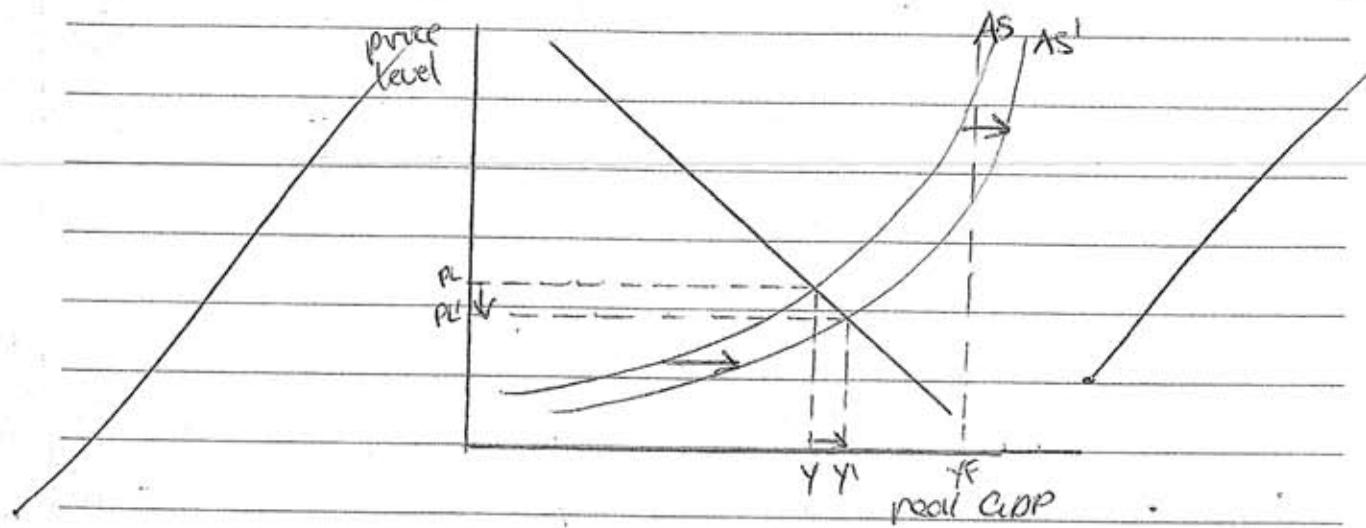
However, as a consequence, the price level rises, meaning the economy will suffer from the negative impacts of inflation. Thus there is a trade off when monetary policy is implemented to reduce the level of inflation, as the effects of raising the interest rates (OCR) will likely lead to the other macroeconomic objectives being achieved to a lesser degree. However, the benefits to the economy resulting from price stability are significant, so help to counteract the costs of increasing the exchange rate, for the other macroeconomic goals.

The advantage of using monetary policy to achieve the government's macro economic goals is that it is ^(quick) cheap and easy to implement. The disadvantage is that while the goal of price stability may be achieved, this will inevitably come at the cost of other macro economic goals - "The central bank should be required to consider other factors when making a call to lift interest rates" (resource R) - this refers to economic growth, unemployment and the currency (which impacts net exports considerably).

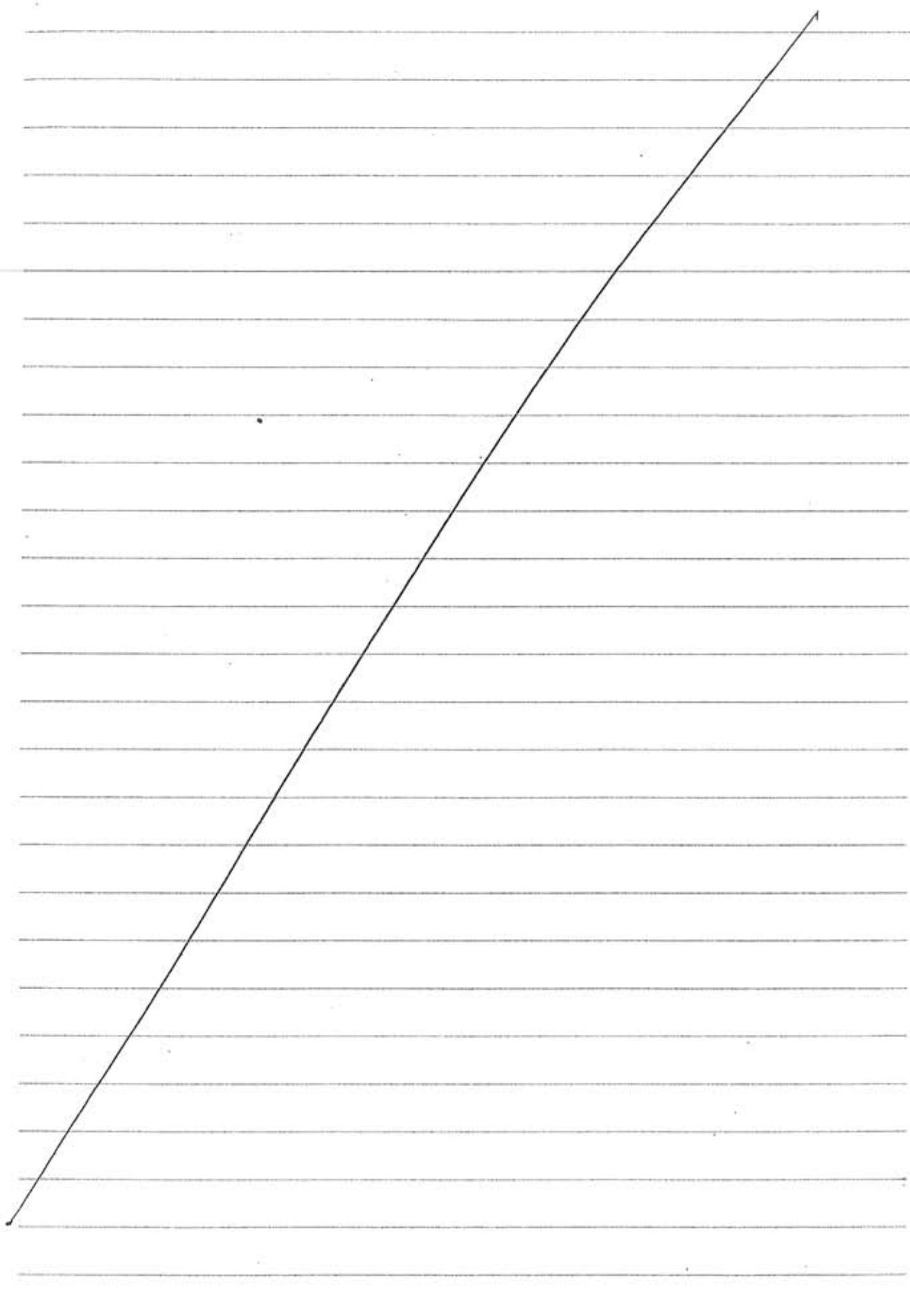
The ~~rising~~ exchange rates displayed in resource S indicates that interest rates in NZ are high, meaning wealth transfers from other countries causes the demand for the \$NZ to rise and the BR to appreciate. This is a big problem for exporters, as indicated in resource Q - "struggling manufacturers". As NZ is a primarily export driven economy this poses a big threat to NZ economic conditions, especially net exports and the balance of payments position.

Other government interventions may be more effective at controlling inflation rates between 1 and 3% in the medium term (resource O). These could include supply side policies which increase aggregate supply in

the economy, leading to economic growth, increased employment, and help to maintain a balanced current account, while maintaining price stability in the economy.



Supply side policies include such measures as encouraging research and development, providing education and training and reducing the minimum wage, for example. Balancing effective supply side policy with monetary policy would help the government achieve price stability while maintaining its other macroeconomic goals such as economic growth, full employment and balanced current account.



Outstanding Scholarship

Question One

The candidate produces and effectively communicates an outstanding and sophisticated economic analysis of the role of price signals, and the need for government intervention in achieving allocative efficiency in the Auckland housing market, by applying microeconomic theory. This is complete and demonstrates perception and insight.

After a brief introduction, this essay demonstrates good skills of abstraction and synthesis in clearly stating reasons for the increase in demand and the particularly slow increase in supply in the Auckland housing market. This is clearly illustrated in the diagram on page 5.

Following this, there is a very good analysis of the relevant elasticity concepts including an evaluation of the likely reasons for the relatively inelastic demand and the highly inelastic supply curves for housing, and this is clearly shown in the diagram on page 6.

There is a good explanation of the implications of the shape of the demand and supply curves as the demand increases resulting in a large increase in price, and the resulting impact of this on CS and PS and allocative efficiency (pp 6–7).

There is a very good description of the role of price signals on resource allocation. An increase in price would result in resources being switched towards the Auckland housing market driven by the profit motive by investors and developers (pg 7).

The essay goes on to evaluate effectively the role of the market in establishing allocative efficiency while a role was still seen for the government to introduce policy measures to intervene in the market to increase supply and reduce demand to reduce the pressure on existing housing stocks, and stabilise the Auckland housing market to avoid the dangers of a bubble developing (pg 8).

This essay provides enough evidence for an Outstanding Scholarship, effectively communicating an outstanding and sophisticated economic analysis. To improve the answer further, a more complete evaluation would have included the impact on equity, and used this as the argument for government intervention.

Question Two

In this question the candidate was able to effectively communicate a reasonably sophisticated economic analysis, covering in detail, most of the major points and arguments required.

The introduction itself on page 11 is relatively weak. The candidate touches on the main reasons for the decline in returns to labour. The candidate could have expanded these explanations to provide greater depth.

The candidate provides a succinct and accurate explanation of the pros and cons of a regulated living wage (pp 11–14) including highlighting the potentially contradictory effect on equity and income equality; stating that income equality could improve unless this positive effect is offset by rising unemployment, as a result of the higher wage rate, in which case it could actually worsen (pg 14).

The candidate shows sophisticated abstraction and integration of the resource material by highlighting the potential for a regulated living wage to encourage businesses to switch production methods to be more capital intensive (pg 14).

The candidate concisely discusses the advantages and disadvantages of an alternate approach to addressing income issues for families (pp 15–16) showing effective analytical skills and economic literacy in their answer.

The final segment of this candidate's answer (pp 16–17) is incorrect in terms of the reference to positive externalities of consumption which detracts from the answer. In addition, the essay lacks a justified conclusion and evaluative statement.

Nevertheless, this candidate's answer covers most of the requirements required for Outstanding Scholarship, showing consistent, effective, and relatively sophisticated application of economic theory to the issue of a regulated living wage.

Question Three

The candidate clearly explains a number of benefits of price stability (pp 19–20) including menu costs, shoe leather costs, the impact on New Zealand export competitiveness, and the impact on savings and income of workers.

The candidate provides a thorough explanation of contractionary monetary policy (pg 20). The impact on AD and AS is shown correctly on the AD/AS model (pg 21).

The candidate discusses the idea of conflict/trade-off between achieving price stability and achieving the other macroeconomic goals (pp 21–22).

Good use of FOREX model, though it could have included impact on supply of NZD (pg 21).

Thorough explanation of expansionary monetary policy is provided, including appropriate use of the AD /AS model (pg 22). The effects on the model could have been discussed in greater detail.

Evaluation is included in terms of the advantages and disadvantages of using price stability as the sole goal of monetary policy (pp 22–23). This includes the ideas that by achieving price stability, other macroeconomic goals can be achieved in the long run (pg 22), that using monetary policy can have both positive and negative effects, and that using supply side policies may be an alternative. The essay showed good evaluative skills and economic literacy.

Overall, the essay is judged to have reached Scholarship standard. The discussion and evaluation are clear, logically developed, and precise. A more thorough evaluation would have included an analysis of the long-term and short-term effects.