NEW ZEALAND SCHOLARSHIP 2004

ASSESSMENT SCHEDULE FOR ECONOMICS

QUESTION ONE

Criteria	Evidence (not an exhaustive list)		Performance Descriptor 2	Outstanding Performance - Performance Descriptor 1
Part (a)				
Abstraction	Recognising that supply and demand will be inelastic and the impact of the supply disruptions and increased demand on the supply and demand curves.			Completeness requires students to cover the parts of the syllabus that are appropriate to the analysis. The depth of analysis will be made apparent by the linkages made between different ideas that are not made by the majority of candidates. All three parts of the question will be answered using all economic ideas / theory that are appropriate to the question.
Economic Literacy	Economic conventions in labelling are followed. A higher price shown.			
Part (b)				
Abstraction	Recognising the concept of the shutdown point for a monopolist			
Synthesis	Can correctly link monopoly revenue and cost curves to show a shutdown position where AVC > P			
Economic Literacy	Monopoly curves and their relationships are correctly drawn. Can effectively communicate why shutting down is preferable to continuing to produce.			
Part (c) (Essay)				
Abstraction	Recognises the significance of a maximum price at times of peak demand and/or supply disruptions.	Sophisticated analysis	Identify key elements of the situation to enable the application of the theory.	
Synthesis	The effects of a maximum price – shortage, DWL, under-investment.		Identify complex relationships, linkages and the interdependence of ideas.	
Generalisations and Conclusions	A maximum price will have some benefits to major consumers but will result in overall efficiency loss.		Identification of relevant trends and relationships followed by deductions based on the generalisations.	
Evaluation	Look at the effects of a price control from the viewpoints of both consumers and electricity producers. On households and firms, exports, jobs. the effects on producer's future investment, whether or not high electricity prices are actually forcing production overseas etc.		Recognises the strengths and limitations of the data and the models.	
Economic Literacy	Ideas effectively communicated using economic conventions, terminology and a supply and demand graph showing maximum price and the deadweight loss.		Ideas are effectively communicated using appropriate economic language, concepts (includes models and graphs) and conventions.	The student will communicate effectively, with fluency and succinctness, using appropriate economic language, concepts (includes models and graphs) and conventions.
Critical Thought	Minimum price set above the usual equilibrium. Different groups of consumers affected differently. Some of the decisions made may be politically motivated / influenced by pressure groups.			Critical thought involves the examination of issues from different perspectives and evaluating consequences.

See APPENDIX A for detailed evidence

QUESTION TWO

Criteria	Evidence (not an exhaustive list)		Performance Descriptor 2	Outstanding Performance - Performance Descriptor 1
Part (a)				
Abstraction	Recognising the difference between productive and allocative efficiency using a PPC.			Completeness requires students to cover the parts of the syllabus that are appropriate to the analysis. The depth of analysis will be made apparent by the linkages made between different ideas that are not made by the majority of candidates. All three parts of the question will be answered using all economic ideas / theory that are appropriate to the question.
Economic Literacy	Economic conventions in drawing a PPC are displayed. Definitions of productive and allocative efficiency.			
Part (b)				
Abstraction	Recognising the significance of a high NZ$.			
Synthesis	Can correctly explain the disadvantage of a high NZD to an exporting sector and the impact on resource use – with the idea of subnormal profit.			
Economic Literacy	Ideas effectively communicated using economic conventions, terminology and models/graphs where appropriate, eg PPCs, levels of economic profits.			
Part (c) (Essay)				
Abstraction	Can explain how property rights and externalities are relevant to the fishing market.	**Sophisticated analysis**	Identify key elements of the situation to enable the application of the theory.	
Synthesis	Externalities lead to incorrect price signals and market failure. Property rights can solve this.		Identify complex relationships, linkages and the interdependence of ideas.	
Generalisations and Conclusions	An unregulated market will have long-term disadvantages, eg possible loss of resource. A regulated market can improve efficiency.		Identification of relevant trends and relationships followed by deductions based on the generalisations.	
Evaluation	Difficult to properly assess fish stocks and therefore the level of externality, to quantify (and enforce) limits, or determine the distribution of the quota.		Recognises the strengths and limitations of the data and the models.	
Economic Literacy	Ideas effectively communicated using economic conventions, terminology and models/graphs where appropriate, eg negative externalities of production.		Ideas are effectively communicated using appropriate economic language, concepts (includes models and graphs) and conventions.	The student will communicate effectively, with fluency and succinctness, using appropriate economic language, concepts (includes models and graphs) and conventions.
Critical Thought	As fish stocks decrease fishers may turn to other species, relative merit of kahawai for bait or consumption by anglers. Some of the decisions made may be politically motivated / influenced by pressure groups. Government has Treaty of Waitangi obligations.			Critical thought involves the examination of issues from different perspectives and evaluating consequences.

See APPENDIX B for detailed evidence

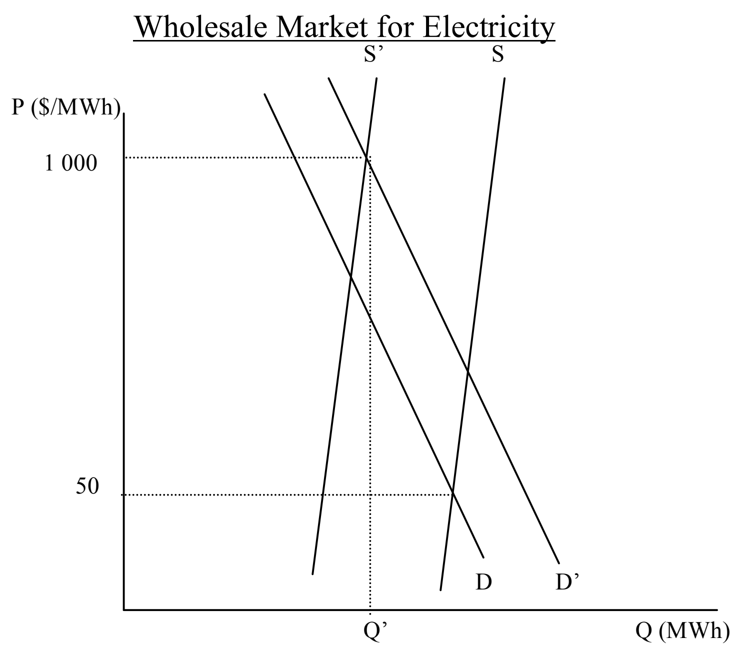
QUESTION THREE

Criteria	Evidence (not an exhaustive list)		Performance Descriptor 2	Outstanding Performance - Performance Descriptor 1
Part (a)				
Abstraction	Recognises which goods and services NZ exports/imports and their impact on balance of goods and balance of services and thus on the current account balance.			Completeness requires students to cover the parts of the syllabus that are appropriate to the analysis. The depth of analysis will be made apparent by the linkages made between different ideas that are not made by the majority of candidates. All three parts of the question will be answered using all economic ideas / theories that are appropriate to the question.
Economic Literacy	Uses appropriate terminology and conventions.			
Part (b)				
Abstraction	Recognising the impact of Chinese inflation on NZ.			
Synthesis	Makes appropriate links between changes in commodity prices to changes in AS and AD.			
Economic Literacy	Uses appropriate terminology and conventions. Accurately draws AS/AD diagram.			
Part (c)				
Abstraction	Recognises Chinese disinflation policies as micro and macro economic controls. Recognises similar controls used prior to deregulation in NZ.	**Sophisticated analysis**	Identify key elements of the situation to enable the application of the theory.	
Synthesis	Analyses use of policies in China and NZ.		Identify complex relationships, linkages and the interdependence of ideas.	
Generalisations and Conclusions	Direct controls used in China only appropriate to a command economy. As China becomes more market orientated it may need to adopt policies similar to NZ.		Identification of relevant trends and relationships followed by deductions based on the generalisations.	
Evaluation	Candidates recognise the size of the Chinese economy and how difficult it is to control it compared with NZ. Transparency of the RBNZ intervention and the problems of short and long term fixes with price controls		Recognises the strengths and limitations of the data and the models.	
Economic Literacy	Uses appropriate terminology and conventions.		Ideas are effectively communicated using appropriate economic language, concepts (includes models and graphs) and conventions.	The student will communicate effectively, with fluency and succinctness, using appropriate economic language, concepts (includes models and graphs) and conventions.
Critical Thought	Different political systems, levels of development, and sophistication of the financial systems affect the economic system and the efficacy of possible solutions. Short run vs long run effects			Critical thought involves the examination of issues from different perspectives and evaluating consequences.

See APPENDIX C for detailed evidence

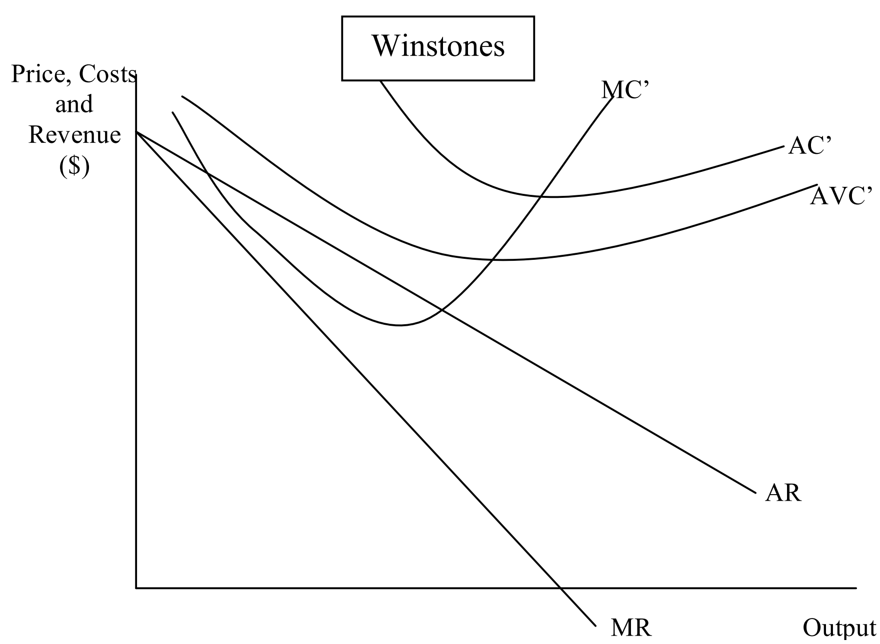
APPENDIX A

(a) (i) Demand for electricity is from both the consumers and producers. It is likely to be inelastic as there are few substitutes in the short-term for most consumers, and even less for producers. Supply is likely to be inelastic as time constraints mean electricity producers are unable to increase production levels quickly. The best answers suggested that the spot market is in the momentary time period and output cannot be changed at this time because of the bad weather disrupting supply. This would produce vertical, perfectly inelastic, supply curves.



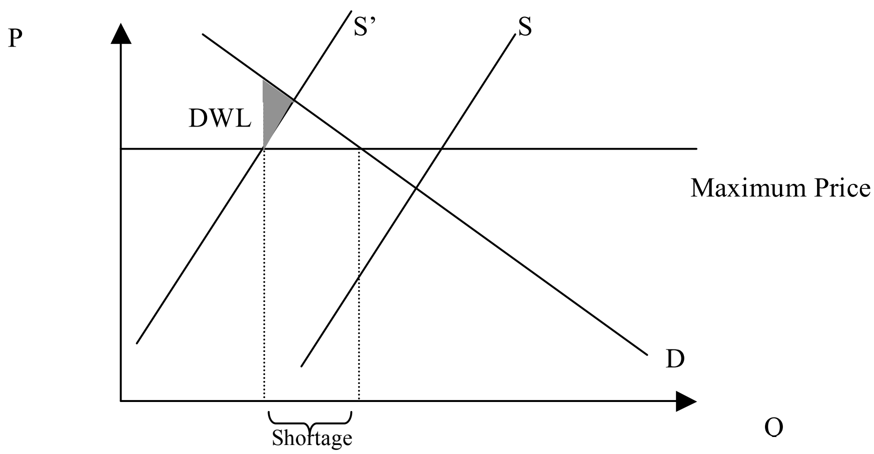
(ii) The supply has decreased <u>significantly</u> because of bad weather disrupting the transmission lines. The demand has increased because of people returning from their holidays. This has resulted in prices increasing from P1 to P2. Equilibrium quantity should fall because of the weather.

(b) (i)



(ii) The electricity price increase has increased MC and has caused average variable costs to be higher than price. The firm would be better in the short run to shut down and minimize its loss by paying only its fixed costs. Otherwise, the greater the output the greater the loss. Wages were a fixed cost – workers were not sent home.

(c) An evaluation of the merits of a price control should discuss the advantages and disadvantages of the control and then conclude whether or not the government should introduce one. A diagram was required and the best answers drew a graph with the maximum price above the long-term equilibrium, and discussed how it would only have an effect when price movements were extreme.



Possible advantages:

- lower prices for firms, avoids occasional shut-down and associated costs such as lost profits, loss of export production, lost income for some workers.
- increased certainty for firms, which may increase new investment, which results in more jobs, etc.
- pulp and paper is an important export industry for New Zealand and provides many jobs. It would be a major loss if these firms shut down permanently because electricity is too expensive.
- prevents electricity suppliers profiting from supply disruptions.

Possible disadvantages:

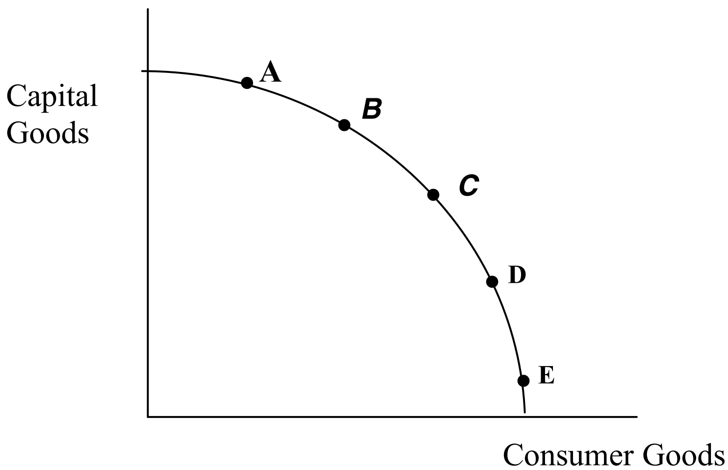
- a maximum price would cause a shortage when it comes into effect. This may result in power blackouts or brownouts which could be worse than price increases.
- capacity of electricity producers is not unlimited – the maximum price would mean that electricity users are not receiving the correct signals about the marginal cost of their consumption. The market worked.
- would cause a deadweight loss (diagram should be used for this point and/or point above).
- may cause electricity producers to under-invest in electricity generation capacity, as they would not be able to make appropriate returns.

A conclusion should be made with justification of the student's choice – note there is no 'correct' conclusion.

APPENDIX B

QUESTION TWO

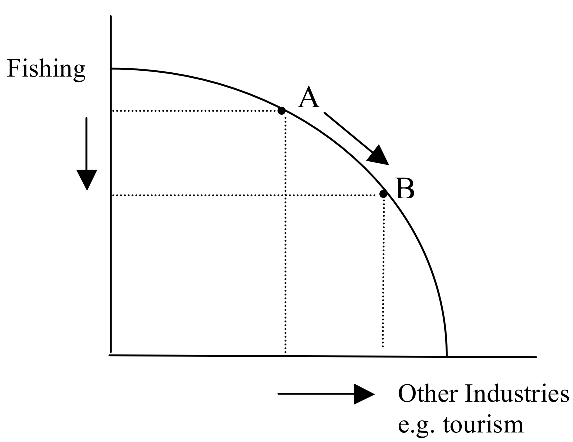
(a) Productive efficiency – all resources in an economy are fully employed. Any point on a PPC is productively efficient.
Allocative efficiency – the one point on the PPC (is production efficient) where the sum of consumer surplus and producer surplus is maximised.



Points A, B, C, D, and E are all productively efficient, but the one allocatively efficient point depends on the markets for consumer and capital goods. (A diagram showing possible market equilibriums and linking it to the PPC would show this.) Note that the PPC could show different labels on the axes, for example kahawai and conservation.

(b) A high NZ dollar means that the NZ currency has appreciated, increased in value relative to other currencies. The NZ fishing industry exports a high percentage of its catch overseas. At the world price, a higher NZD means that the value of export receipts for the fishing industry will decrease (for the same amount of fish exported). The fishing industry will be generally less profitable. Firms earning subnormal profits will leave the industry in the long run and use their resources in other ways. For example, the boats could be used for sightseeing tours and the labour that worked on the boats may lose their jobs and get alternative employment in another industry, eg tourism.

Could use a PPC to illustrate this reallocation of resources….



(c) An evaluation of the regulated and unregulated markets should include the following:

- Property rights – in an unregulated market, property rights are not clearly defined; if you can catch the fish then you have a property right. In a regulated market (QMS) there are clear property rights given by the government; you can own the fish without having caught it first.
- Externalities – over-fishing imposes external costs on others – now and for future generations.

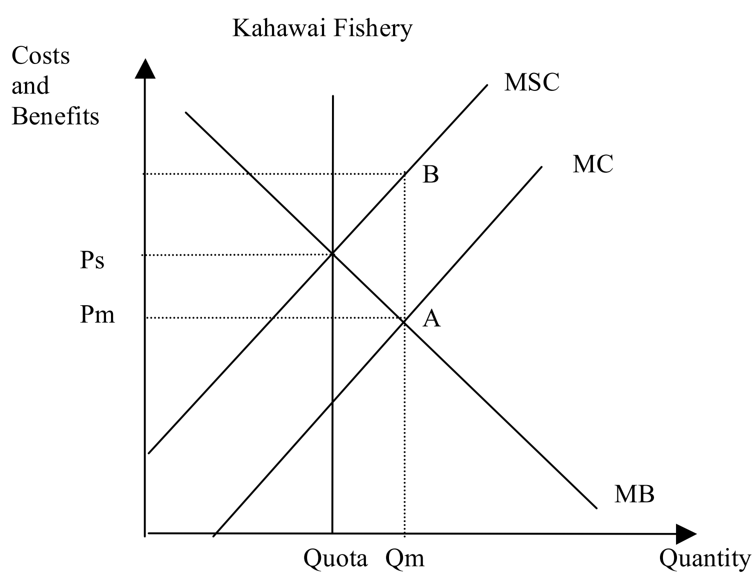
Kahawai as an unregulated fishery:

- No property rights leading to over-fishing by commercial fishers.
- This leads to external costs imposed on recreational fishers as their catch is down in size and numbers.
- Incorrect price signals and market failure, deadweight loss.
- Would also lead to long-term job losses and loss of export receipts.

Kahawai as a regulated fishery:

- Government decides total allowable catch and then allocates it between commercial and recreational fishers.
- This means there are clearer property rights (especially for commercial fishers)
- Ideally a better management of the resource (sustainable).
- This may lead to increasing number of jobs and possibly export receipts.
- Also better fishing for recreational fishers.
- Tension between recreational and commercial fisherman over allocation of quota, in part due differing uses of kahawai.
- Possible issues over customary rights to kahawai of Mäori.

Conclusion should probably indicate that a regulated approach would be beneficial but recognise that there are still possible problems to deal with.



APPENDIX C

QUESTION THREE

(a) China's booming economy has increased demand and caused higher prices for commodities traded on world markets. As a result, New Zealand's imported raw materials including steel, oil and copper have increased in price, as have prices for some of some New Zealand's exported commodities such as aluminium and logs.

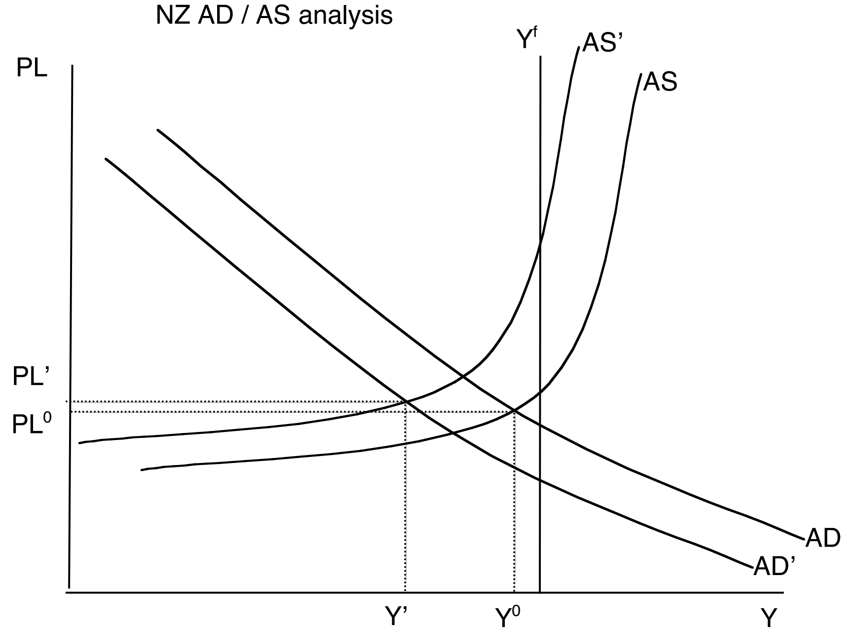
Because no information is provided on the changes in price of exports relative to the price of imports it is not possible for us to predict change in the terms of trade. Also, as no information is provided on change in quantities exported or imported (these will depend on the relative price elasticities for exports and imports), it is not possible to predict change in the balance of goods without making some assumptions.

However, the Chinese boom has increased the demand for shipping, resulting in shipping costs rising worldwide. New Zealand imports shipping services for transporting both its imports and exports. Therefore there is an increase in payments for imported services resulting in a decrease in the balance of services. Ceteris paribus, it is likely to increase the deficit on current account of the balance of payments.

(b) There is considerable scope for interpreting this question. The answer below represents two possible approaches.

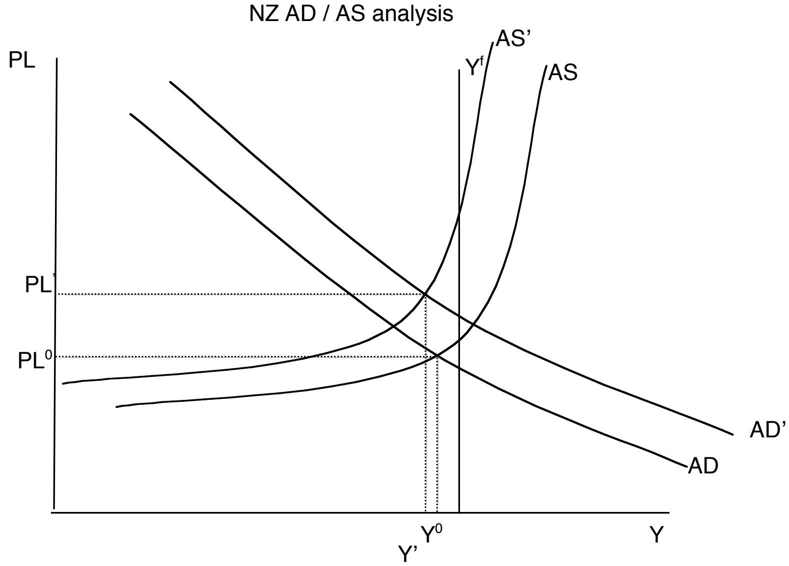
AD / AS model drawn to show New Zealand currently at equilibrium (PL^0 and $Y^{0)}$ close to its full employment level of output at Y^f. (Candidates should be aware that the NZ economy is near full employment)

NZ AD / AS analysis



From the analysis in Part A, an increase in the current account deficit will decrease net exports (X-M) and result in a decrease in aggregate demand, shifting AD to the left. An increase in the price of imported raw materials will decrease AS, a shift to the left. Only a small effect on price level is seen (possibly indeterminate), whereas there is a considerable decrease in New Zealand's real GDP, national output and employment.

However, a more sophisticated analysis recognises that, if inflation in China is higher than in NZ, the NZ economy will become relatively more competitive with an increase in (X-M) resulting in AD shifting to the right. The increase in the cost of imported raw materials will result in a shift of AS to the left. There will be a small effect on New Zealand's real GDP, national output and employment whereas there is a considerable increase in price level, shown in the following diagram.



In the longer term the world economy will adjust to these changes in resource demands and bottlenecks in China. A free trade agreement between China and New Zealand could result in more trade opportunities.

(c) China uses a range of disinflationary policies including the government imposing price controls on SOEs, and allocating more resources to steel and power production to reduce the bottlenecks in these industries. Chinese monetary policy focuses on controlling the money supply through changes to banks' reserve requirements.

An evaluation of these policies should discuss the advantages and disadvantages of the controls used in China compared with New Zealand's policies.

Advantages of the Chinese policies include price controls applied to important or strategic industries or markets. The ability to do this in a more controlled economy. The direct control over bank lending aims to limit the money supply and through this mechanism increase interest rates to reduce consumer spending and AD.

The disadvantages of these controls are as follows. They may not be effective as they do not address the cause of inflation, merely suppress it, and when the controls are lifted inflation may re-emerge. Markets are unable to send effective price signals and market failures will occur. Government controls can misallocate resources so that the outcomes are sub-optimal. Controls on the money supply may be ineffective, as a current account surplus with a fixed exchange rate will lead to increases in liquidity and increases in liquidity will increase inflationary pressures.

(New Zealand, on the other hand, abandoned using these types of controls in the deregulation of the 1980s.) New Zealand monetary policy is implemented by RBNZ which is independent of government and controls the price of money rather than the money supply, as this is considered to be more effective. RBNZ aims to achieve price stability (with a target range of 1 – 3% inflation) by influencing interest rates through changes in the official cash rate (OCR) which affects the overall level of economic activity. An increase in interest rates will increase the cost of borrowing and this reduces consumption and investment spending, and indirectly through the exchange rates the level of net exports. This limits growth in aggregate demand reducing inflationary pressures. It is an advantage to New Zealand to have transparency in the decision-making as this is better for business confidence and results in fewer distortions.

Some candidates may also refer to China moving towards a more market economy where these controls will have less effect in achieving price stability. China will probably need to adopt disinflationary policies more in line with those seen in New Zealand.