GCE AS MARKING SCHEME

SUMMER 2023

AS
ECONOMICS – COMPONENT 1
B520U10-1

INTRODUCTION

This marking scheme was used by WJEC for the 2023 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

GENERAL MARKING GUIDANCE

Positive Marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme, nor should marks be added as a consolation where they are not merited.

For each question there is a list of indicative content which suggest the range of economics concepts, theory, issues and arguments which might be included in learners' answers. This is not intended to be exhaustive and learners do not have to include all the indicative content to reach the highest level of the mark scheme.

The level-based mark schemes sub-divide the total mark to allocate to individual assessment objectives. These are shown in bands in the mark scheme. For each assessment objective a descriptor will indicate the different skills and qualities at the appropriate level. Learner's responses to questions are assessed against the relevant individual assessment objectives and they may achieve different bands within a single question. A mark will be awarded for each assessment objective targeted in the question and then totalled to give an overall mark for the question.

EDUQAS GCE AS ECONOMICS – COMPONENT 1

SUMMER 2023 MARK SCHEME

1. (a)	Define the meaning of income inequality.	3
	AO1: 3 marks Award **3** marks for a full accurate definition referencing proportions either small % population on higher % of income and larger % on population on lower incomes or reference to deciles. Award **2** marks for a slightly inaccurate definition but indicating poor distribution with one group has more income than another (which causes welfare loss) Award **1** mark for an incomplete definition but indicating a difference/gap in incomes **Indicative content** Income inequality is the degree to which income is distributed in an uneven manner in an economy or population with a difference between those with higher income and lower income, which causes welfare loss. A small % of the population may earn a large % of the total income while the larger bottom % of the population may earn a much smaller % of the income.	

1. (b)	**Using a numerical example, outline how the income gap in Singapore dollars could worsen even when the income growth for low earners is faster than high earners.** **[4]**	
Band	**AO1**	**AO2**
	2 marks	2 marks
	Is understanding shown?	*Is the answer in context?*
2	**2 marks** Good understanding of how the absolute or relative income gap can worsen	**2 marks** Good application An accurate numercial example of both incomes of low and high income earners and the gap increasing is used to support the reason Or Data from the figures is used and fully supports an increase in income gap by identifying the change in income of both low and high income groups and change in gap.
1	**1 mark** Limited understanding of absolute or relative income gap worsoning– notion that higher earners get richer than the lower earners due to smaller % of a larger figure.	**1 mark** Limited application An attempt at a numerical example is shown to show the change in incomes of low and high income groups using % changes **Or** Data from the figures is used to show the change in incomes of low and high income groups Or income gap data used to state income gap
0	**0 marks** No valid understanding	**0 marks** No valid application

Indicative content:

AO1
A relative income gap refers to the difference between groups in terms of the share of total income going to different groups.

An absolute income gap refers to the difference between different groups in terms of actual income.

AO2
A bigger % change of a small amount can lead to a smaller comparative extra than a smaller % change of a large amount.

E.g. an earner on S$10 000 compared to an earner on S$250 000

65.4% increase of S$10 000 = S$6 540 increase so total = S$16 540

54.2% increase of S$250 000 = S$135 500 increase so total = S$385 500

Showing the change in gap: S$240 000, gap is now S$368 960

1. (c)	**Using Figures 1,2 and 3, consider how effective these policies seem to have been in reducing income inequality.** **[8]**		
Band	**AO2**	**AO3**	**AO4**
	4 marks	2 marks	2 marks
	Is the answer in context?	*Is the answer explained?*	*Is the answer debated and judged?*
	4 marks Excellent application Data is used very effectively to support arguments on whether the Singapore authorities have implemented effective policies to improve income inequality Answer is fully in context and uses all of the figures		
2	**2-3 marks** Good application Data is used effectively to support points The data is used to support point(s) in their debate Top of band two of the figures are used effectively Bottom of band: effective use of one figure to support points on both sides of answer Or strong use of figure 3 on one side only by identifying proportional improvement 2016 vs 2000 (not just stating the data for 2016)	**2 marks** Good analysis Developed lines of analysis on how effective the policies of government spending and taxation have been	**2 marks** Good evaluation Comes to a reasoned judgement on whether the Singapore authorities have implemented effective policies to improve income inequality Counter argument(s) are present and developed
1	**1 mark** Limited application Data is used, but its use is underdeveloped, taking the form of occasional reference or not forming strong supporting evidence	**1 mark** Limited analysis Limited development of explanation There is a chain of reasoning, but its use of economic theory is underdeveloped; explanations are superficial	**1 mark** Limited evaluation Counterpoints are present, but none of them are developed or the evaluation is superficial
0	**0 marks** No valid application	**0 marks** No valid analysis	**0 marks** No valid evaluation

Indicative content:

AO2
No – the income gap has risen from $S5 486 in 2000 to $S12 661 in 2017.

BUT

Income growth in the 2nd, 3rd, 4th, 5th and 6th deciles is higher than the upper deciles.

No of times income of the richest households is greater than that of poorest households ratio falling over time due to a progressive tax system and benefits for those on lower income.

Difference 8 vs 6.5 so 1.5 difference,… then without intervention 10% richest would be 9 times greater.. but after intervention only 5.9. bigger difference of 3.1 times suggesting govt intervention is significant

Also difference after intervention has improved from 6.5 times to 6 times higher suggesting some improvement But the ratio has not fallen that much from 6.5 times higher to 6 times higher.

Markers note: Manipulation of data aids the effectiveness of its use

AO3
Policies involving Government taxation and spending are present in figure 3. A more progressive tax system could take a larger % of income of those on higher incomes than lower, thus leading to the improvement in no of times richest households is greater than those on lower income.

Increased government spending on transfers or support.

AO4
Although incomes for the wealthiest in society have been increasing, those in the lower income deciles and quintiles have also seen their incomes rise at a faster rate suggesting effective policies to tackle income inequality.

The ratio of incomes of the top decile and bottom decile have decreased from 6.5 times to 6 times, again suggesting policies are working.

However – income inequality still exists and it has not decreased greatly in 17 years. Decrease is always welcome, but it may be too generous to say that the policies have been very effective.

Income gap is still increasing even if the income difference ratio between the two deciles is decreasing after government spending and taxation, suggesting some higher earners may be effectively avoiding it (Laffer curve allowed here)

2.	**Drawing an aggregate demand (AD) curve, explain one reason why a reduction in the price level should lead to an increase in aggregate demand (AD). [5]**		
Band	**AO1**	**AO1**	**AO3**
	1 mark	2 marks	2 marks
	Are reasons identified?	*Use of the diagram*	*Are reasons explained?*
2		**2 marks** Good use of diagram Integrated downward sloping AD curve correcly labelled showing AD rising as prices fall	**2 marks** Good analysis Developed lines of analysis explaining why the aggregate demand increases as prices decrease with developed explanation involving consumption as part of AD.
1	**1 mark** Identification of one reason why as price levels fall there is an increase in AD	**1 mark** Limited use of diagram Downward sloping AD curve from left to right	**1 mark** Limited analysis There is a chain of reasoning, but its explanation of why the aggregate demand increases as prices decrease is limited to demand rising as prices fall due to be more affordable
0	**0 marks** No understanding	**0 marks** No valid diagram	**0 marks** No valid analysis

Indicative content:

The aggregate demand curve (AD) is the total demand in the economy for goods at different price levels. AD = C + I + G + X – M

Why does AD increase as prices fall:

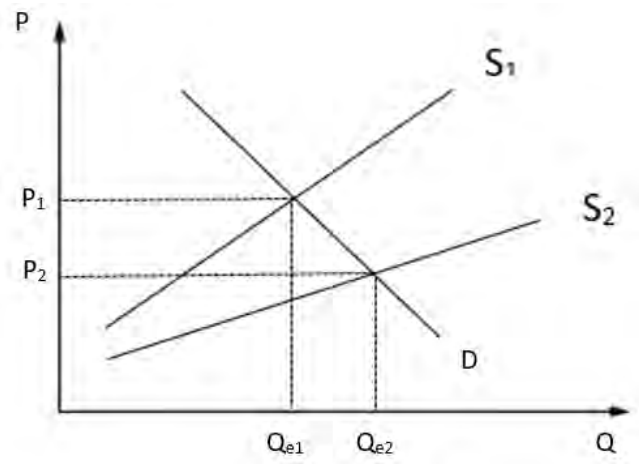
Real Balance Effect: at a lower price level, consumers are likely to have higher disposable income from savings and therefore spend more, as prices decrease their savings can purchase more goods. Therefore, more consumption (consumption is part of AD), as prices decrease from P1 to P2.

Trade Effect: if there is a lower price level in the UK, UK goods will become relatively competitive on world market, leading to higher exports and less imports. Exports-imports are a component of AD, and therefore AD will be higher as prices decrease from P1 to P2.

Interest rates effect: at a lower price level, interest rates are lower as at lower prices borrowers require less funds to purchase expensive goods, this leads banks to have excess funds to lend. Banks therefore decrease interest rates, which makes it less expensive for borrowing that stimulates borrowing led household consumption and business investment, both components of AD, as prices decrease from P1 to P2.

3. (a)	**Using a demand and supply diagram, show the likely impact of this change in tax rates.** **[4]**	
Band	**AO1**	**AO2**
	2 marks	2 marks
	Is how a sales tax affects supply understood?	*Is the answer in context*
2	**2 marks** Good understanding Supply curve shows a change in ad valorem tax with a pivot shift (either outward or inward)	**2 marks** Good application Diagram shows a decrease in tax rates with increased supply leading to lower price and more output at equilibrium P2 Q2 due to a single shift in supply
1	**1 mark** Limited understanding Supply curve is not pivoted but does show an shift in supply (either outward or inward)	**1 mark** Limited application Diagram shows an increase in supply due to lower prices and lower prices and more output at equilbirum P2 Q But also shows an increase in demand/double shift
0	**0 marks** No valid understanding	**0 marks** No valid application

Indicative content:



AO1 and AO2
Supply curve pivots out and down from an original supply curve, prices fall P1 to P2 as there is an extension down the demand curve and demand/supply increase from QE1 to QE2.

3. (b)	**Using the data, discuss the extent to which Modi's economic policies (page 7) have been successful in bringing back the "good days" to the Indian economy. [10]**		
Band	**AO2**	**AO3**	**AO4**
	4 marks	3 marks	3 marks
	Is the answer in context to macro objectives?	*Are the mechanisms of the economic policies explained?*	*Is the answer debated and judged?*
3	**4 marks** Excellent application Data is used very effectively to support whether economic policies have been successful in bringing the "good times" to the Indian economy Answer is thoroughly embeded in the data and policies	**3 marks** Excellent analysis Detailed lines of analysis explaining how the economic policies should have or did work All stages in the process are fully explained	**3 marks** Excellent evaluation Comes to a reasoned judgement as to the extent they believe that the economic policies been successful in bringing the "good times" to the Indian economy The evaluation is clearly set in the context
2	**2-3 marks** Good application Data is used effectively to support arguments whether the "good times" have returned to the Indian economy Clear reference to the data linked to typical macro economic objectives	**2 marks** Good analysis Developed lines of analysis explaining how the economic policies should have or did work	**2 marks** Good evaluation Counter argument(s) are present and developed
1	**1 mark** Limited application Learner makes limited reference to the data or case. Data is used, but its use is underdeveloped, taking the form of occasional references rather than forming strong supporting evidence	**1 mark** Limited analysis Limited development of explaining how the economic policy should have or did work There is a chain of reasoning, but its use of economic theory is underdeveloped explanations are superficial	**1 mark** Limited evaluation Counter point(s) present but are not developed and the evaluation is superficial Or strong 1-sided judgment
0	**0 marks** No valid application	**0 marks** No valid analysis	**0 marks** No valid evaluation

Indicative content:

AO2
Annual GDP growth rate is positive but appears to be slowing, with the last peak in 2018 at 8% compared to more than 10% in 2010.

GDP growth rate has slowed to 6% which is slower than previously.

GDP from agriculture has peaks and troughs in line with harvests but shows an increasing trend.

GDP from manufacturing has been larger than agriculture historically and it has a trend of rising.

GDP from manufacturing appears to have declined until recently in 2018.

Government budget deficit had declined from -4.1% of GDP to -3.42%, which could be explained by increasing GDP rather than improved government finances.

AO3
Lowering sales ad valorem tax rate for most goods from 26 to 18%, would decrease the prices of goods and services, therefore the demand should increase with an increase in GDP.

Attempts to reduce the amount of illegal activities that deprived the government of tax revenue. More legal transactions may allow for increased tax revenues as less transactions are in the "black" economy. It might also lead to higher GDP as more consumption transactions are now included.

Make in India Programme (supply side policy): increase the manufacturing sector as a source of job creation through supply side policies. The training and relaxing of labour laws should help manufacturing businesses be more productive leading to increased supply at lower prices, encouraging exports. Increased job creation should lead to higher incomes for households and therefore higher consumption and GDP. Confidence in the sector could lead to higher investment and output.

Prevented minimum prices from rising for rice, wheat and pulses which are important food sources for many Indian households. This could allow more (or at least not less) disposable incomes (from any pay increase) to spend on more than necessities, with an increase in consumption.

Improvements in rural India: increased rural house building (300%) and increased rural electrification to ensure all villages had an electricity connection by 2018. Increasing the productive potential for businesses in these areas, with the potential for higher GDP.

AO4
On the face of it there have been positive outcomes of Modi's policies such as the manufacturing trend increase since 2014 with GDP from manufacturing being higher than at any other previous time.

Agriculture GDP is higher than at any time previously,

However, although still high the GDP growth is slowing, with the changes that Modi's Government made, there could be an expected increase in GDP growth.

The reforms to the labour market may have made it easier to hire and fire.

Although the budget deficit has decreased, this is % of GDP – so may have been caused by the increase in GDP growth rather than the decrease in the "Black" economy.

The trends in manufacturing and agriculture have not noticeably increased during the Modi Government years, one would expect the growth trend rate to increase.

4. (a)	State the difference between an economic good and a free good.	3
	AO1: 3 marks Award **3** marks for excellent understanding: a complete understanding of difference Award **2** marks for good understanding: a full understanding of one of the goods or partial for both Award **1** mark for limited understanding: a slightly inaccurate definition of one of the goods or incomplete for both Show an understanding of the difference – might be done by defining both. **Indicative content:** A free good is a good with zero opportunity cost. This means it can be consumed in as much quantity as needed without reducing its availability to others. It is non-diminishable. Such as air Free goods are not traded. A free good contrast with an economic good (a good where there is an opportunity cost in consumption or production) due to its use of scarce resources, and so has value and be exchanged for other goods. Just because a good is given away for 'free' it doesn't necessarily mean it is a free good. If a firm gave away a 'free' toy in a box of cornflakes, it is not actually free because it requires time to make and raw materials.	

4. (b)	**Discuss whether local government should provide outdoor gyms.** **[8]**		
Band	**AO2**	**AO3**	**AO4**
	3 marks	2 marks	3 marks
	Is the answer in context?	*Is reasoning explained?*	*Is the answer debated and judged?*
3	**3 marks** Excellent application Data/context is used very effectively to support argument(s)		**3 marks** Excellent evaluation Comes to a reasoned judgement as to whether local government should provide outdoor gyms The evaluation is clearly set in context
2	**2 marks** Good application Case is used effectively to support argument(s)	**2 marks** Good analysis Developed lines of analysis explaining either the benefit(s) or drawback(s)	**2 marks** Good evaluation Counter argument(s) are present and developed
1	**1 mark** Limited application Learner makes limited reference to the data or case. Broad reference to context of a free outside gym. Case is used, but its use is underdeveloped, taking the form of occasional references rather than forming strong supporting evidence	**1 mark** Limited analysis Limited development and analysis of either the benefit(s) or drawback(s) There is a chain of reasoning, but its use of economic theory is underdeveloped; explanations are superficial	**1 mark** Limited evaluation Counter point(s) present but are not developed and the evaluation is superficial Or strong 1-sided judgment
0	**0 marks** No valid application	**0 marks** No valid analysis	**0 marks** No valid evaluation

Indicative content:

AO2
Aimed at grown-ups of all fitness levels so they are accessible as any adult can use them to improve their fitness levels.

Local government-funded so free to use by users, encouraging use to improve fitness.

UK has a growing fitness problem and these parks could help all different fitness levels including the less fit as they are easy to use.

Located in parks so they can easily be used by local residents when their children use the park.

AO3
The government can choose to provide goods and services if it feels a market is unable to provide the efficient quantity itself. They use tax revenue which they receive from taxpayers to pay for these services. Although there are private gyms, there is a charge for their use. No profit-making business will be willing to provide outdoor gyms for free use, so the local government uses taxpayers revenue to do so.

The private benefits to the individual and the local government are worthy of the cost of building of the gym equipment. The private benefits of the users will be improved health and ability to earn income due to increased productivity and improved welfare/standard of living.

The private benefits to the council might be less spending on benefits as healthier individuals are more able to work.

Less external costs to a third party such as the NHS, increased use of the external gym equipment improve fitness, therefore less health problems for the NHS to treat.

Increased external benefits to employers due to healthier workforce.

AO4
However, it could harm the park outlook and beauty, which could harm the welfare of those users.

Instructions included but each user is responsible for using it safely, there could be information failure as users do not bother to read the instructions. They then use the equipment unsafely and injure themselves, creating an external cost to the NHS. Possible net welfare loss and government failure.

Traditional keep-fit apparatus in parks tend to be used by the already athletic, so the intended benefit might not be as great as initially thought. The local government is spending money that could be used for alternative uses.

5. (a)	**Using the diagram below, calculate the change in consumer surplus.**	**6**

AO1: 1 mark

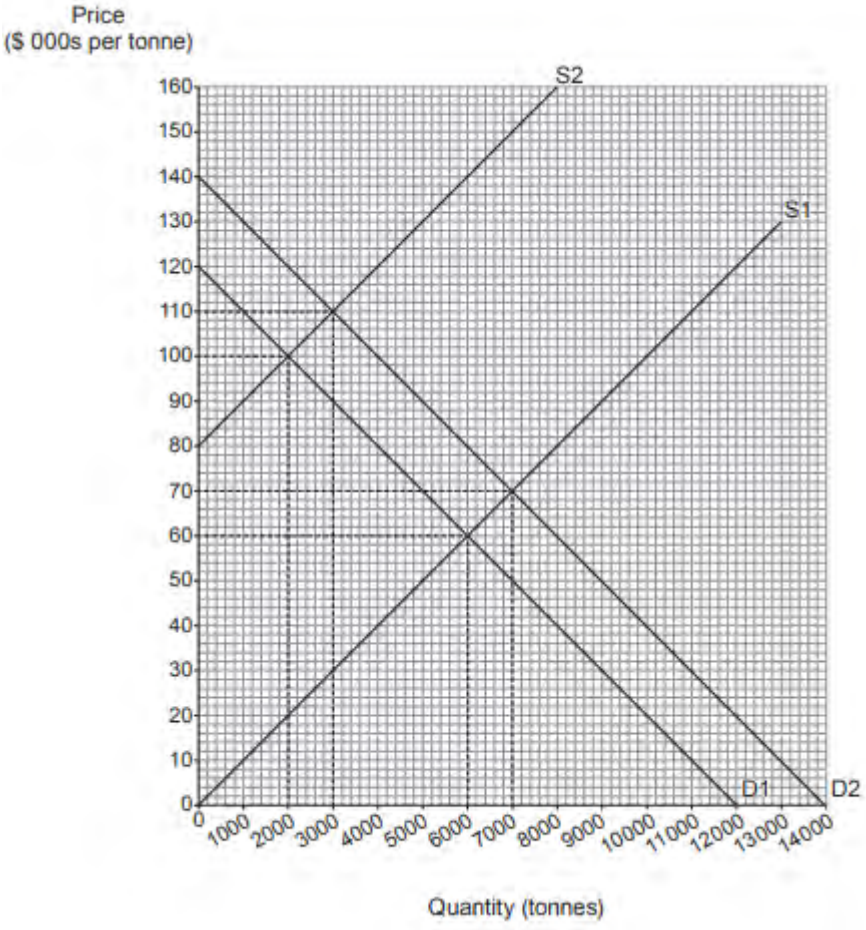
Award **1** mark for understanding/showing consumer surplus (most likely done through the calculation)

Consumer surplus is the area between the demand curve and the market price

Consumer Surplus is the difference between the price that consumers pay and the price that they are willing to pay.

AO2: 5 marks

Award **1** mark per point marked per element of the calculation.



Original consumer surplus$120 000 - $60 000/tonne x 6 000 (1) = $360 000 000 divided by 2 = $180 000 000 (1)

New consumer surplus prices $140 000 - $110 000 x new quantity identified 3 000 (1) = $90 000 000 divided by 2 = $45 000 000 (1)

Change is $135 000 000 (1). Award correct % change -75% as change calculated to achieve the % change calc.

subtract 1 mark for incorrect units £000's Ofr applies.

5. (b)	**Using the data, discuss the likely effect on the USA economy of China restricting its exports of rare-earth minerals to the USA.** **[9]**		
Band	**AO2**	**AO3**	**AO4**
	3 marks	3 marks	3 marks
	Is the answer in context?	*Are the consequences explained?*	*Is the answer debated and judged?*
3	**3 marks** Excellent application Data is used very effectively to support arguments on the likelihood of harm to the economic performance of the USA Answer is thoroughly embeded in the context/data	**3 marks** Excellent analysis Detailed lines of analysis explaining the possible harm or not to the economic performance of the USA All stages in the process are fully explained	**3 marks** Excellent evaluation Comes to a reasoned judgement as to the likelihood of harm to the economic performance of the USA The evaluation is clearly set in the context
2	**2 marks** Good application Data is used effectively to support arguments on the likelihood of harm to the economic performance of the USA	**2 marks** Good analysis Developed lines of analysis explaining possible harm or not to the economic performance of the USA	**2 marks** Good evaluation Counter argument(s) are present and developed
1	**1 mark** Limited application Learner makes limited reference to the data or case Data is used, but its use is underdeveloped, taking the form of occasional references rather than forming strong supporting evidence	**1 mark** Limited analysis Limited development of possible harm or not to the economic performance of the USA There is a chain of reasoning, but its use of economic theory is underdeveloped; explanations are superficial	**1 mark** Limited evaluation Counter point(s) present but are not developed and the evaluation is superficial Or strong 1-sided judgment
0	**0 marks** No valid application	**0 marks** No valid analysis	**0 marks** No valid evaluation

Indicative content:

AO2
The demand for rare earth metals continue to rise due to the varied uses as shown by the demand curve shifting out in the diagram. Supply could be restricted leading to prices rising.

Rare earth minerals are important for many American industries including high-growth sectors such as electric cars and wind turbine production. The green goods and services sector contributes £1.3trillion to GDP.

Rare earth is used in the defence industry- 10% of the factory output (19% of $21.439 trillion) is for defence.

There are substitutes can be used for rare earth elements; however, those substitutes are usually not as effective, especially in military applications.

Rare earth metals appear to be used in a wide variety of sectors/outputs from chemicals to glass polishing.

The USA did produce rare earth metals between 1965 and 2000 and more recently there has been some recovery in 2015 perhaps as higher prices has made it financially viable for producers. More recently in 2018 there has been a greater increase.

AO3
Due to increasing demand and potential decrease in supply, prices of rare earth metals could rise leading to higher cost push inflation as rare earth metals are components in manufactured goods.

Higher inflation and higher prices of green technology such as electric cars could lead to lower AD and therefore lower GDP.

Higher prices of rare earth minerals could harm the price competitiveness of USA exports such as defence hardware, leading to lower exports and a worsening trade deficit and lower GDP.

A decrease in GDP could lead to higher unemployment.

AO4
There are substitutes for the rare earth minerals, but as these are not as effective, any lack of supply and therefore higher prices could harm the demand for USA exports in comparison to other countries producing defence equipment.

However, PED for defence could be inelastic limiting the impact on GDP and unemployment.

According to the graph the USA used to produce rare earth elements, suggesting there are deposits in the USA and due to China being able to produce them cheaper and be willing to have the pollution businesses in the USA struggled to compete with cheaper imports. Recently in 2018 the USA has started to produce rare earth metals again, perhaps due to higher prices.
However, it is costly and could produce harmful pollution leading to external costs that the government has to pay for leading to a worsening budget deficit.

USA businesses could move their production to China to access the rare earth minerals in China but this could lower GDP and worsen the trade deficit for the USA, but maintain GNP/GNI

However, China may restrict access to USA businesses and manufacturing defence goods in China could be problematic.

Depends on USA government policies to stimulate the economy such as Biden's inflation reduction policies.

Although the environmental sectors are growth sectors, they still only make up a small % of USA GDP.