

2016 ACJC Prelims

Suggested Answers to H2 CSQ1: The Market for Steel

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| (a) | Account for the trend in global steel prices from 2011-2014. | [2] | <i>Figure 1 & Tables 1-2</i> |
| <ul style="list-style-type: none"> • Identify the trend in global steel prices: declining trend / prices are decreasing • Account for the falling prices: world production of steel always higher than world consumption of steel → supply always higher than demand → accumulation of surplus → downward pressure on prices <p>Mark scheme: ✓ 1 mark for identifying trend ✓ 1 mark for reason</p> | | | |
| (b) | Explain the decision of niobium producers such as Anglo American to divest its interest of niobium mining. | [4] | <i>Extract 2</i> |
| <p>The decision by Anglo American was largely driven by the motivation to maximise its profits / minimize its losses.</p> <p>Any 2 reasons, explained:</p> <ul style="list-style-type: none"> • Niobium prices are falling and prospects for the industry remain gloomy. This is because demand for niobium is not likely to pick up given the weak demand for steel (Extract 2). As such, selling away its niobium mining business would help Anglo American minimise losses (in revenue and/or profits). • Fall in commodity prices have also landed Anglo American in heavy debt (Extract 2) due to the losses incurred. Divestment from its niobium business would help the firm reduce risks and exposure to the volatile commodity market, hence helping to cut losses and debt. • Divestment helps Anglo American to streamline and focus on other areas in its core business. With too many areas of mining to manage, divestment away from a loss-making area such as niobium will help Anglo American improve its revenue and profit. <p><i>(Extract 2: Anglo American has “diversified mining business”, including copper, platinum, diamonds, coal, iron ore, manganese, nickel, niobium, phosphates (hint of term ‘core business’ from “Iamgold divested its Niobec mine ... to focus on its core gold mining business”).</i></p> <p>Mark scheme: ✓ 2 marks for each explained reason = 1 mark for correct identification of reason + 1 mark for explaining</p> | | | |
| (c) | Explain how “government subsidies” in Extract 3 affect resource allocation in China’s steel sector. | [3] | <i>Extract 3</i> |
| <p><i>(Extract 3: China’s steel sector - “a lot of that growth was artificially supported by government subsidies”).</i></p> <ul style="list-style-type: none"> • Infer that the subsidy was an export subsidy; even if cannot name it as export subsidy, should identify that subsidy helps steelmakers cover their cost of production & improve export competitiveness (Tables 1&2 also show China’s steel production > consumption → hint of exports) • Subsidy = government fund to help producers cover their cost of production → firms are incentivised to increase supply even with no increase in demand → more resources are channelled (from other industries) to the production of steel → over-allocation of resources into steel industry (excess supply) <p><i>Learning point: the export subsidy (protectionist move) shields inefficiency → worsens resource allocation</i></p> <p>Mark scheme: ✓ 1 mark to infer from data what subsidy was for ✓ 2 marks to explain how subsidy has affected resource allocation</p> | | | |

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| (d) | Using a demand-supply diagram, explain how “the strength of the pound” would affect the market for steel in the UK. | [3] | Extract 4 |
| <ul style="list-style-type: none"> • Correct DD-SS diagram → DD falls, thus represented by a leftward shift in DD curve • Reason 1: stronger pound → steel exports become more expensive → demand for UK steel falls • Reason 2: stronger pound → imported steel from China and EU are cheaper substitutes → demand for UK steel falls • Impact on market for steel → fall in equilibrium price and equilibrium quantity <p>Mark scheme:</p> <ul style="list-style-type: none"> ✓ 1 mark for correct diagram ✓ 1 mark for using either reason 1 or 2 to explain impact of strong pound ✓ 1 mark for impact on P_e and Q_e | | | |
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| (e) | Discuss the factors which the UK government could consider in deciding whether or not to protect the country’s steel industry. | [8] | Fig. 2 & 3, Extract 4 |
| <p>Unpacking/framing:</p> <ul style="list-style-type: none"> • Extract 4 sets the context as to why the UK government needs to decide on whether or not to protect the steel industry, i.e. falling steel exports, competition from cheaper steel imports, massive job losses in the steel industry, calls for protection. • One possible way to structure the answer is to weigh the factors against the macroeconomic goals of the country. It is also possible to work an answer around the AD-AS framework. <p>Factors to consider:</p> <ul style="list-style-type: none"> • What is the extent of impact of the declining steel industry on the UK economy? <ul style="list-style-type: none"> ➤ <u>Impact on employment:</u> Extract 4 mentions that Tata Steel, a leading steel manufacturer, is going to cut 1,200 jobs. This makes up 8% of total employment in the UK steel manufacturing (Figure 2 shows total employment at about 16,000). Although this is data for only one manufacturer, it is likely that workers in other steel manufacturers are also suffering the same fate. <u>Counter argument:</u> While the threat of losing jobs in the steel industry is daunting, it is worth noting that employment in the steel industry has been declining (from 50,000 in 1990 to 25,000 in 2000 and 16,000 in 2014). This could signal that the industry has not been faring well for a long time. Thus, to protect the industry would continue to hide its inefficiencies and prevent any corrective steps to be taken by companies to improve their competitiveness and sustainability. ➤ <u>Impact on GDP:</u> Steel manufacturing is an export industry and a contributor to the country’s AD and hence GDP. However, there is no data to indicate how major the contribution of steel exports to UK’s GDP is. <u>Counter argument:</u> Steel manufacturing is but only one industry in the UK’s manufacturing sector. While total manufacturing output (Figure 3) has been languishing and stagnating for many years, the production of steel industry has been falling sharply for a long time – production in 2014 was 40% lower than it was since the peak in 1998. This shows that total manufacturing output (although flat) has not received much boost, if any, from the steel industry. In fact, it could have been the declining steel industry that has been a drag on the overall manufacturing sector. • What causes the decline in UK’s steel industry? <ul style="list-style-type: none"> ➤ <u>Unfair competition:</u> UK steel manufacturers face unfair competition from Chinese firms who can sell at lower prices because of government subsidies (Extract 4: steel imports from China quadrupled) <u>Counter argument:</u> UK steel exports could have lost its comparative advantage due to its own inability to remain competitive, thus should not totally blame its woes on China’s cheaper steel. If the industry is protected, cost inefficiencies may be worsened as steel manufacturing firms do not see the incentive to improve competitiveness. | | | |

• **Are there alternatives to protectionism?**

- Supply-side policies: If it is truly a loss in comparative advantage, protectionism is clearly not an appropriate policy. The government should respond with more appropriate measures to remove inefficiencies, or consider finding new areas of comparative advantage.

Counter argument: However, time and resources are needed when it concerns implementation of alternative policies. In the short term, negative impact of adopting alternative policies may significantly outweigh the benefits which can only be seen in the long term.

Synthesis:

- The impact on employment is likely to be a major factor in government decision, given the large number of workers involved. There is much to be considered if the government were to decide not to protect the steel industry, i.e. the issue of re-skilling the workers in the steel industry – cost, time, attitude/receptiveness of workers to move to alternative industries.
- Given the declining performance in Figures 2&3, it is likely that the steel industry has not been doing enough to stay afloat amidst competition from other countries. Whether or not the government has been doing anything positive in past years to help steel manufacturers stay afloat, it certainly needs to take a closer look at the industry now.
- Protection is not the way to go, but the government can step in to help the industry reform so that it is better-placed to compete in the world. While it must push for inefficiencies to be weeded out (firms streamline, downsize or even close down), it can provide partial funding to help firms innovate and improve their practices, and also help workers upgrade their skills, or even to re-skill so that they are employable in other industries.

| Level Descriptors for (e) | | Marks |
|----------------------------------|--|--------------|
| L3 | For an answer which <ul style="list-style-type: none"> • well-developed • has clear identification of “factors” which government should consider • uses relevant examples from extracts to support arguments • has minor or no conceptual inaccuracies | 5-6 |
| L2 | For an answer which <ul style="list-style-type: none"> • may not clearly identify the “factors” but shows understanding of them in the analysis • provides some relevant examples and evidence from case materials • has some conceptual inaccuracies | 3-4 |
| L1 | For an answer which <ul style="list-style-type: none"> • is largely irrelevant to the question • has only a brief explanation without economic analysis • contains major conceptual inaccuracies | 1-2 |
| E2 | Well-explained/supported judgement on which factor(s) may be more significant or most significant in helping the government decide on whether to protect | 2 |
| E1 | Attempt to evaluate but did not make further judgement | 1 |

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| (f) | With reference to Extracts 2 and 3, assess whether the move by some Chinese steelmakers to expand steel production in Africa or to buy into the niobium business is a sound strategy. | [10] | Extracts 2-3 |
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Unpacking/framing:

- The question of “sound strategy” suggests that the actions by Chinese steelmakers may not make much business sense.
- Expanding one’s business, in this case via horizontal and vertical integration, is a common strategy to increase profits, either by raising revenue or lowering costs. The debate on “soundness” of strategy, however, comes into the question because of the context of gloomy outlook for the steel and niobium industries.

Thesis: The move by Chinese steelmakers may not be a sound strategy in the short term

- Steel industry is in a glut (over-production + weak demand). That is why steel prices are falling and profit of steelmakers are being hurt. Expanding steel production when the industry is already experiencing excess capacity would further exert downward pressure on steel prices, hence possibly causing the Chinese steelmakers to incur even greater losses.
- Niobium prices are also falling (derived demand for steel). Investing into the niobium business when prices are falling would mean poor/falling revenue and profits (or even losses) until and unless the industry recovers. This is dependent on the recovery of the steel industry since the majority of niobium is demanded for steel production (Extract 1).
- Investments into niobium mines or steel production are being made at high prices. Incurring these high costs at a time when outlook is gloomy would mean that the investment could take a very long time to break even where revenue earned is sufficient to cover costs incurred (normal profits). In the meantime, the Chinese investors are sitting on high-risk investments.

Anti-thesis: Expanding into Africa or buying into niobium business is a sound strategy for the long term

- Since niobium is an input in steel production, buying into niobium business helps ensure stable supply and good pricing for steelmakers who also own a niobium business. Chinese steelmakers who bought into the niobium business will thrive when the steel industry, and in turn the niobium industry, recovers in future.
- Chinese steelmakers who are expanding steel production in Africa are hoping to get a head start when demand picks up, especially in Africa (“taking a longer view of Africa’s potential given that African steel demand is expected to hit 300 mn tonnes per year by 2050”). This is a long-term, forward-looking decision to buy in when the market is weak so that significant gains can be reaped when demand in Africa rises, which will then raise prices and hence revenue as well as profits.

Synthesis:

- Expanding steel production in Africa may be a sound strategy for Chinese steelmakers – it will offer them alternatives of lower-cost production plants (given that Africa is less developed than China and would be cheaper to operate in/from) in the event that China’s government removes its export subsidies in future.
- If Chinese steelmakers are cash rich and have accumulated supernormal profits from good years, they can afford to sit out the gloomy outlook for both the niobium and steel industries. Hence the decision is a sound one, despite it appearing to be costly and risky at this point in time. After all, buying into these businesses during good times could cost them even more. So, in comparison, their current buys could be even seen as good bargains.

| Level Descriptors for (f) | | Marks |
|----------------------------------|--|--------------|
| L3 | <p>For an answer which</p> <ul style="list-style-type: none"> • has an accurate and well developed thesis and anti-thesis • has a developed discussion on both strategies • provides relevant examples from extracts to support arguments • has minor or no conceptual inaccuracies | 7-8 |
| L2 | <p>For an answer which</p> <ul style="list-style-type: none"> • is balanced but underdeveloped <p>OR</p> <ul style="list-style-type: none"> • is well explained but not balanced (one-sided argument) • developed but discussed only one strategy, i.e. "expand steel production in Africa" <u>or</u> "buy into niobium business" • provides some relevant examples from the extracts • has some conceptual inaccuracies | 4-6 |
| L1 | <p>For an answer which</p> <ul style="list-style-type: none"> • is largely irrelevant in answering the question • has only a brief explanation without economic analysis • contains major conceptual inaccuracies | 1-3 |
| E2 | Well-supported judgement on whether the Chinese steelmakers' decisions were sound | 2 |
| E1 | Attempt to evaluate but did not make further judgement | 1 |

2016 ACJC Prelims

Suggested Answers to H2 CSQ2: Asia's Infrastructure Gap

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| (a) | (i) | Compare the change in Singapore's budget balance as a percentage of GDP with that of Philippines between 2011 and 2014. | [2] |
| <ul style="list-style-type: none"> Singapore was experiencing a budget surplus while Philippines was experiencing a budget deficit between 2011 and 2014. Singapore's budget surplus as a percentage of GDP has worsened while Philippines's budget deficit as a percentage of GDP has improved. <p>Mark scheme: ✓1 mark for each observation</p> | | | |
| | (ii) | Explain how economic growth might improve the budget balance. | [2] |
| <ul style="list-style-type: none"> Government's tax revenue from personal and corporate income tax will automatically increase when wages and profits rise due to economic growth OR If economic growth is a result of rising AD against a non-increasing AS, the risk of demand-pull inflation will prompt the government to adopt a budget deficit where government expenditure is reduced to lower inflationary pressures OR The government may distribute lesser unemployment benefits as more people get employed, hence reducing welfare spending. <p>Mark scheme: ✓2 marks for each explained reason pertaining to either a change in G or T</p> | | | |
| (b) | | Explain why it is more likely the government and not the private sector that would finance the provision of infrastructure. | [4] |
| <ul style="list-style-type: none"> Infrastructure such as ports, mass transit and toll roads (Extract 6) are <u>merit goods</u> deemed by the government as socially desirable and would be under produced by the private sector in a free market. The production of infrastructure also generates <u>positive externalities</u> in the form of economic growth due to better-linked physical and digital infrastructure increasing efficiency in transporting goods and services within and across countries (Extract 6) OR explanation of infrastructure being a public good. The provision of infrastructure involves <u>high fixed cost</u> and the private sector may not have the financial ability to do so (Extract 6: Even with the newly launched Asia Infrastructure Investment Bank, Asia may still suffer from a lack of funds). Therefore, the government must step in to <u>provide the funds needed</u> (Extract 7: Governments must utilize more tax revenue in raising public infrastructure investment). <p>Mark scheme: ✓2 marks to explain infrastructure being a merit good whose production generates positive externalities OR 2 marks to explain infrastructure being a public good ✓2 marks to explain why public funds are needed to finance infrastructure provision</p> | | | |
| (c) | | Explain why there might be concern that Indonesia is too dependent on commodities as a key export sector. | [4] |
| <ul style="list-style-type: none"> By depending on commodities as a key export sector, Indonesia's export revenue is constantly subjected to <u>commodity price fluctuations</u> (Extract 8). With China <u>reducing its demand</u> for Indonesia's commodities, commodity prices are expected to continue falling and this will reduce export revenue further. Compared to manufacturing and tertiary industries, commodities offer a much <u>lower value-addedness</u>, hence contribution to economic growth. If Indonesia wants to reverse its declining economic growth rate | | | |

(Table 3) and achieve its targeted 7% annual real GDP growth, it needs to shift its export focus from commodities to manufacturing (Extract 8).

Mark scheme:

✓ 2 marks for each explained reason with reference to extracts and/or data

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| (d) | Discuss how the rebalancing of China's economy and the gradual appreciation of its currency will impact other developing economies in Asia. | [8] |
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Unpacking/framing:

- China is rebalancing her economy from investment-led to consumption-driven growth and appreciating the renminbi at the same time (Extract 5).
- This would have effects on the trade balance of other developing economies in Asia such as Indonesia and Philippines. The changes in trade balance would then affect the country's macroeconomic aims.

Thesis: The rebalancing of China's economy and the gradual appreciation of its currency should benefit most developing economies in Asia.

- Despite slowing economic growth in recent years, rising household income has caused Chinese households to demand for goods and services of higher quality and variety.
- As China rebalances its economy, consumption is expected to continue rising. If domestic firms in China are not able to address the needs of Chinese households, consumers may turn to import from other developing economies in Asia, thus increasing X and AD in these countries, hence raising economic growth and jobs creation. The increase in export revenue would also improve the current account balance, assuming no change in import expenditure.
- The appreciation of the renminbi would make China's exports dearer in foreign currencies. Consumers who previously import from China may now switch to importing from other countries as their exports are now relatively cheaper. If demand is price elastic, the more than proportionate increase in quantity demanded will lead to an overall increase in export revenue, hence further raising AD and thus growth as well as jobs creation.

Anti-thesis: However, the rebalancing of China's economy and the gradual appreciation of its currency may negatively impact some developing economies in Asia.

- As China reduces dependence on investment-led growth, demand for capital goods and primary commodities meant for infrastructure production such as coal and copper could fall. This would reduce export revenue for commodity exporting countries such as Indonesia (Extract 8). AD falls and reduces real GDP growth (Table 1: Indonesia) through the reverse multiplier process. In addition, a worsening of current account balance could result as net export earning falls, assuming no change in import expenditure.
- It takes time for China to rebalance its economy. Shifting from investment-led growth to consumption-led growth may cause the economy to slow down as consumption is unable to increase immediately to make up for the fall in investment. This may then reduce economic sentiment which can reduce consumption, thus going against rebalancing in the short term. The fall in consumption may include a smaller demand for imports, thus reducing the export revenue of other countries.
- As mentioned previously, the appreciation of the renminbi would make Chinese exports dearer in foreign currencies. For developing countries in Asia that import primary or intermediate goods from China, they will therefore suffer from imported inflation. The rise in cost of production causes SRAS to decrease, prompting firms to pass on higher costs to consumers in the form of higher prices.

Synthesis: Whether other developing economies in Asia would benefit from China's rebalancing depends on the following factors -

- Type of exports → Countries which export capital goods and commodities meant for infrastructure development e.g. Indonesia will be more negatively affected than countries which export manufactured goods such as Vietnam and Thailand.
- Time period → The rebalancing of China's economy is likely to pose more challenges in the short term. It takes time for China to rebalance its economy. Hence, the benefits would likely be reaped only in the long term.
- Government's response in the form of mitigating policies → To reduce negative impact in the form of falling export demand and imported inflation, governments can implement policies especially in the short term.

| Level | Descriptors | Marks |
|-------|---|-------|
| 3 | <ul style="list-style-type: none"> • Balanced & sufficiently developed analysis of how other developing economies in Asia are affected • Strong conceptual mastery shown in the use of AD/AS framework • Making some reference to case study | 5-6 |
| 2 | <ul style="list-style-type: none"> • Balanced but underdeveloped analysis OR • One-sided but developed analysis • Some use of economic reasoning / concepts | 3-4 |
| 1 | <ul style="list-style-type: none"> • Largely irrelevant to answering the question • Answers has major conceptual inaccuracies • Descriptive answer with no economic analysis | 1-2 |
| E2 | Reasoned judgement with the use of criteria such as type of exports and time period | 2 |
| E1 | Attempt to evaluate but did not make further judgement | 1 |

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| (e) | <p>In light of Indonesia's macroeconomic aims mentioned in Extract 4, discuss whether the government should embrace greater market forces and increase the participation of foreign firms in its economic policies.</p> <p>Unpacking/framing:</p> <ul style="list-style-type: none"> • Indonesia is trying to rebalance its economy from commodities-led growth to manufacturing-driven growth in order to reverse its declining real GDP growth (Table 1) and achieve its target of 7% annual real GDP growth. Indonesia also faces the pressure of creating sufficient jobs for its young workers. • To achieve these macroeconomic aims, an increase in both AD and AS is required, which can be facilitated by embracing greater market forces and allowing entry of foreign firms. • Embracing greater market forces is a type of structural reform where government intervention is reduced to improve efficiency of markets in allocating resources. In Indonesia, labour market reforms are urgently needed to address rigidities caused by inflexible labour laws, minimum wages and tight immigration rules (Extract 8). • Also a type of structural reform, increasing the participation of foreign firms has the aim of raising competition among firms, hence improving competitiveness and expanding the | [10] |
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country's productive capacity in the long run. Currently in Indonesia, FDI is barred from entering certain industries (Extract 8).

Thesis: Embracing greater market forces and increasing participation of foreign firms can help support the rebalancing of Indonesia's economy. In addition, it helps reverse the decline in FDI, hence increasing both actual and potential growth as well as employment.

- Removal / reform of inflexible labour laws:
 - Aim is to achieve greater efficiency in allocation of workers across industries.
 - Demand for workers is likely to rise in manufacturing industries as Indonesia pushes ahead with rebalancing.
 - By allowing workers to move freely from commodities to manufacturing industries, the greater supply of manufacturing workers will help ease upward pressure on wages. This strengthens Indonesia's cost competitiveness in manufacturing (Extract 8), thus raising SRAS and hence economic growth as manufacturing takes a larger share of the country's GDP.
- Removal of minimum wages:
 - Aim is to reduce labour cost and raise employment.
 - Minimum wages has resulted in a surplus of workers who are willing to work but not being employed by firms currently.
 - The removal of minimum wages will help increase employment and reduce cost of production for labour-intensive firms. This increases SRAS and improves Indonesia's competitiveness, thus increasing economic growth.
- Loosening of tight labour immigration rules:
 - Aim is to reduce shortage of semi-skilled workers in manufacturing industries.
 - With most workers working in commodities industries previously, the lack of semi-skilled workers may cause wages to rise.
 - For instance, there are sectors where firms are required to produce up to 40% of their components in Indonesia before being able to sell them. However, despite the lower wages offered by Indonesia, foreign firms have not been keen to set up production bases, perhaps due to the lack of semi-skilled workers domestically (Extract 8).
- FDI has been declining despite lower wages offered to manufacturing firms. This is likely due to poor infrastructure which can be inferred from Indonesian firms having to spend more on logistics compared to firms in other countries (Extract 8). Therefore, to reverse the decline in FDI, Indonesia should increase infrastructure spending.
 - To avoid wasting budget resources on inefficient local firms, the government should tap on public-private partnerships (PPPs) where private firms, both local and foreign, partner the government in delivering infrastructural services (Extract 7). This allows the most efficient firm to be commissioned and increases both AD and AS, achieving actual and potential growth.

Anti-thesis: However, embracing greater market forces and allowing participation of foreign firms may hinder Indonesia in achieving its macroeconomic aims.

- Structural unemployment may happen if the Indonesian government does not provide skills training for workers who do not have the skills to shift from commodities-exporting sector to manufacturing industries. This could worsen once foreign workers are allowed to enter and compete with the local workers. Material SOL of local workers may fall as wage decreases due to increase in supply of foreign workers.
- By increasing participation of foreign firms, inefficient domestic firms may end up shutting down due to the lack of protection. This can lead to massive unemployment especially in the short term which may then explain the government's decision to bar FDI from entering

industries such as onshore oil extraction and e-commerce (Extract 8). However, competition can help to raise efficiency of firms and benefit the economy in the long term.

- Minimum wages may have been implemented to protect the income of lower-skilled workers. Removal of minimum wages may worsen income inequality and SOL.

Synthesis: To successfully rebalance, Indonesia should embrace greater market forces and increase participation of foreign firms.

- However, mitigating policies should be implemented, especially in the short term where workers may face structural unemployment and rising income inequality due to greater competition in the labour market. This therefore requires the government to implement supply-side policies such as skills training to reduce the risk of workers being structurally unemployed.
- Ultimately, the government should weigh the costs and benefits of pursuing these structural reforms. Although there will be pains in the short term, Indonesia should press on with embracing greater market forces and increasing participation of foreign firms in view of the long term benefits generated on the economy.

| Level | Descriptors | Marks |
|-------|--|-------|
| 3 | <ul style="list-style-type: none"> • Balanced & sufficiently developed analysis on why Indonesia should adopt structural reforms in the form of embracing greater market forces and increasing participation of foreign firms. • Strong conceptual mastery shown in the use of AD/AS framework with good linkages drawn to how the 2 approaches help Indonesia achieve its macroeconomic aims. • Provides relevant examples from extracts to support arguments. | 6-8 |
| 2 | <ul style="list-style-type: none"> • Balanced but underdeveloped analysis OR • One-sided but developed analysis. • Some use of economic reasoning / concepts but answer is not able to fully explain why the two structural reforms are needed. • Provides some relevant examples from the extracts. | 4-5 |
| 1 | <ul style="list-style-type: none"> • Largely irrelevant to answering the question. • Answers with major conceptual inaccuracies. • Descriptive answer with no economic analysis to support. | 1-3 |
| E2 | Reasoned judgement with the use of cost-benefit analysis. | 2 |
| E1 | Attempt to evaluate but did not make further judgement. | 1 |