**2016 Prelims H1 Case Study Question 1**

**The Market for Steel**

**Suggested Answers**

(a) **Using Tables 1 and 2, compare the relative changes in China’s crude steel production and consumption from 2011-2014. [2]** *Tables 1-2*

Similarity: Both crude steel production and consumption increased from 2011 to 2014.

Difference: Crude steel production increased more relative to consumption (17.2% compared to 10.2% respectively).

(b) **Using Extracts 1 and 2, explain one demand factor and one supply factor that could support the trend in global steel prices from 2011 to 2014. [4]** *Extracts 1-2*

Identify trend: Global steel prices were generally decreasing from 2011 to 2014.

Demand factor: Demand for steel decreased due to fewer metal pipe purchases in lieu of a weakening of oil and gas markets (extract 1)

Supply factor: Subsidies from government increased the willingness and ability for steel producers to increase supply, OR China expanding steel production in Africa

Combining both factors , overall price for steel will fall.

**Draw and explain the graph.**

**Discuss how the government can help the producers to sustain their revenue to ensure that workers are employed. (8)**

(c) **Explain how the “current global glut” would affect the price elasticity of supply for metal. [2]** *Extract 2*

“Current global glut” refers to a surplus or excess supply in production of metal. This would mean that there is an increase in spare capacity of metals, leading to a supply which is more price elastic as quantity supplied would be more responsive to a change in price.

Full 2 marks for answers which show accurate conceptual knowledge of price elasticity of supply.

(d) **Explain the opportunity cost of Anglo American’s decision to sell its niobium mining business. [3]** *Extract 1*

Define opportunity cost: value of the next best alternative forgone

Identify & explain the opportunity cost in this context:

* Opportunity cost in this context is potential revenue that could be earned from niobium mining business.
* Anglo-American’s decision to sell its niobium mining business to invest in other commodities means that it is forgoing the revenue earned from niobium mining for higher revenue earned from other markets.

(e) **With the use of relevant economic theory, explain why there have been protests against niobium mining proposals in Kanesatake and Oka. [5]** *Extract 3*

There have been protests against niobium mining proposals in these two towns because of the harmful effects to environment and citizens’ health which would arise if niobium mining were to take place.

The protests are about negative externalities or external costs which arise due to the market failure arising from niobium mining.

* In their decisions, niobium producers consider only their MPB and MPC. MPB in this case is the additional revenue that they would receive from the additional unit of niobium mined. Their MPC would include start-up costs, expenditure on machinery and cost of hiring labour.
* Due to self-interest, they do not take into account the external cost on third parties (in this case the protestors living in the two towns) such as the contamination of water sources which would affect the livelihood of the residents, mostly farmers. Other external costs include healthcare costs due to radioactive pollution (Extract 4).

Draw graph: The high negative externality causes a large divergence between social and private costs. Hence, the equilibrium quantity supplied is at Qm which is higher than Qs, which is the social efficient output (MSB=MSB). This results in a deadweight loss as indicated in the graph above.

(f) **To what extent should the Quebec government accede to the protests by Kanesatake and Oka residents? [6]** *Extract 3*

Unpacking the phrase “accede to protests”: The government has to decide whether to allow niobium mining activities to start. To accede to the protests would be to reject Eco-niobium’s mining proposals and disallow niobium mining.

Thesis: Quebec government should accede to the protests.

* Evidence in Extract 3 suggests that the claims of external costs by protestors are indeed true. Niobium mining releases harmful radioactive waves and negatively impacts water for farming and drinking. Extract 3 mentions that this was not a new concern as it closed in 1977 due to unsustainable production back then. Moreover, this is crucial because Oka is known to be a small agricultural town. Contaminating the sources would severely impact livelihoods and culture of Mohawks (the country’s indigenous group). This could also further affect food chains which may have long term detrimental effects.

Anti-thesis:

* Allowing mining activities in the towns would create employment and improve the economic growth. As niobium is an important industry for the production of metal, there is potential for growth in the future. This would increase the income of citizens, leading to an increased standard of living.

*Counter argument: However, the numbers of jobs created are only a small amount of 250 (Extract 3). This may not be significant enough to justify the large external costs incurred.*

* Extract 3 mentions that the potential revenue and taxes collected are very high. This could benefit the two towns as the government revenue can be used for redistribution efforts or on further developing the town. This could lead to an increase in AD and sustain economic growth into the future. For e.g. Extract 1 para 2 mentions that Canada is home to the third largest niobium producer. This is evidence of the large potential of niobium industry.

Synthesis: Whether the government should accede to requests of protestors would depend on a few things. If niobium mining activities were to take place in the two towns, they have to consider whether they are able to limit production and monitor to ensure the environment’s sustainability. The government should also consider if there are other alternative industries for economic growth where there are fewer external costs. They may also want to consider the future of the agriculture town, if agriculture, their main source of income, is a relevant industry to sustain economic growth.

(g)

**Discuss whether for the UK government should protect the country’s steel industry.**

**[8]**

*Fig 1-3, Ext 2 & 4*

Introduction: Steel prices have been generally declining from 2011 to 2014. Extract 4 suggests that UK’s steel industry is battered by falling steel prices, suggesting While production of steel in the world is increasing, the steel industry is making up a smaller proportion of UK’s economy growth, as shown in figure 3, reflecting less importance as a contributor of its GDP. Whether the UK government should protect the country’s steel industry would depend on the how beneficial it is for UK’s macroeconomic aims in the SR and LR.

Thesis: The UK government should protect the country’s steel industry to some extent.

**Thesis 1**: Without the government’s protection, there will be massive unemployment of 1 in 6 workers in Britain’s steel industry. The shut-down of Tata Steel is confirmed to retrench almost 1200 workers according to Extract 4. As the steel industry is a significant contribution to the country’s economy, there will be an increase in unemployment rates in the UK. This would lead to fewer people earning an income and would have other “knock-on” (reverse multiplier) effects on UK’s economy (Extract 4). The purchasing power of UK citizens will decrease, leading to lower C and a fall in AD. Moreover, this may increase government provision of unemployment benefits, and decrease in G in productive areas. This will result in a slowing economic growth and in the worst case, a deflationary spiral.

Counter argument: Whilst protecting the steel industry to prevent massive loss of jobs, this could lead to complacency among workers and a reliance on government’s protection. This may limit their willingness to take up new skills in other growing industries as UK loses comparative advantage on the steel industry.

**Thesis 2**: The UK government should protect the steel industry as there is an unfair trade practice in China. China’s steel industry is claimed to be artificially supported by government subsidies which led to an artificially more competitive price compared to steel from UK (Extract 2). Hence, this has resulted in China exporting large amount of metal at low prices which has been perceived as dumping, driving out UK’s steel firms (Extract 2). In such a case, UK’s protection to prevent unemployment would be justifiable.

Anti-thesis: The UK government should not completely protect the country’s steel industry.

**Anti-thesis 1**: UK’s falling exports of steel could be due to its loss of comparative advantage to emerging economies like China. Chinese steelmakers might have more cost efficient methods and also a lower cost of production due to the lower wages of labour in China. Moreover, this is exacerbated by the strength of the pound which makes UK steel relatively more expensive. Protecting industries which have loss in comparative advantage whilst a short term solution to prevent structural unemployment, could result in an over-reliance on the government support. This is detrimental to the UK government as it would also be politically difficult to remove these forms of protectionism (e.g. subsidies) in future. Consumer welfare would also be affected as they would face higher prices for steel.

**Anti-thesis 2**: Figure 3 indicates that the production of steel industry is declining while the UK economy is improving. This shows that the steel industry has become a less important contributor to UK’s economic growth over the years. It would not be a prudent use of government resources to protect the steel industry. Instead, these government resources should be allocated to developing new areas of comparative advantage, improving economic growth in the long run.

**Anti-thesis 3**: Protection on the steel industry will lead to an increase in price of steel in the UK. This would lead to higher production costs for manufacturers that require steel (such as cars, buildings, etc.) to produce their goods. This will lead to cost-push inflation, causing SOL to decrease and a loss of export competitiveness in related industries where firms experience lower profits, possibly resulting in a cut down of production and increasing unemployment.

Synthesis: While it may be argued that the UK government should protect the steel industry against unfair trade practices and to prevent sudden massive unemployment in the short run, it must be aware of the changing dynamics of its economy and the forces of globalisation. The strategy of the government should be to improve productivity and mobility of its labour and develop new areas of comparative advantages which would sustain economic success in the long run. Merely protecting the industry could not only benefit producers at the expense of consumers but hinder UK’s future growth.

**Note:** Answers should use both conceptual support/economic analysis and information from the case study materials in examining whether the UK steel industry should be supported by the government.

**Reasons for the government to place low unemployment as the main aim of the government in this era where Covid -19 is prevalent.**