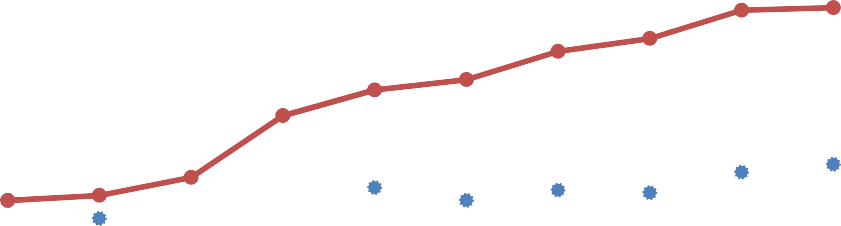
**Competitiveness and Productivity in the UK**

**Figure 1: Labour Productivity Index (Year 2007=100)**

110

108



106

104

102

100

98

96

94

92

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

UK G7\*exc UK



Source: Office for National Statistics

\*G7 refers to the group of the world’s seven most powerful industrialised countries consisting of the US, Japan, Germany, the UK, France, Italy and Canada.

**Extract 6: The UK productivity puzzle**

The failure to get the UK productivity growing again since the economic downturn in 2008 is known as the “productivity puzzle.” Studies have looked at whether the near collapse of the banks in 2008 restricted the supply of credit to companies and impeded productivity gains. Researchers said this would have had some impact.

The rapid expansion of mainly low-level service jobs is another reason. In France and Germany, the coffee shop and online delivery culture is still in its infancy by comparison with the UK. These are businesses that provide a valued but unsophisticated service with limited room for productivity improvements.

In France, and to a lesser extent Germany, restrictions on working hours are other factors at play. For instance, widespread industrial pay bargaining and limits on redundancies make hiring workers a more costly proposition than in the UK.

Source: The Guardian, 24 November 2016

**Extract 7: Implications of a falling pound for Britain**

Lengthy negotiations and uncertainty over UK firms’ future access to the European Union (EU) markets following a vote to leave in the upcoming referendum on the EU membership, commonly known as Brexit, would have a short-term and long-term economic cost.

The stability of the macroeconomic environment is important for business and, therefore, is significant for the overall competitiveness of a country. Investors are worried about the UK’s economic prospects if it leaves the EU. Businesses do not like uncertainty and so overall growth could be hampered.

The pound has slumped to a seven-year low against the dollar after the UK’s prime minister fired the starting gun on a four-month battle to determine the UK’s future in Europe. Traders say the pressure on the pound has been intensified by news that the London mayor and the justice secretary have joined the campaign to support the UK leaving the EU. Experts warned that the pound will be pushed lower over the coming months as traders remain jittery.

A weaker pound makes UK firms more competitive in global markets and the UK’s hefty current account deficit would be reduced. On the other hand, a weaker pound is bad news for firms which are both exporters and importers.

Source: The Guardian, 22 February 2016

**Extract 8: Britain leaps into seventh place in competitiveness rankings**

The World Economic Forum (WEF)’s influential report said the UK’s status as a digital pioneer and support for entrepreneurs had cemented its position as ‘one of the most competitive economies in the world.’ This helped the UK to leapfrog Japan, Hong Kong and Finland into seventh place out of 138 countries this year, representing its highest ranking since comparable records began a decade ago.

While the rankings do not take into account June’s Brexit vote, the WEF said there were reasons to be optimistic about the UK’s competitiveness. It said the decision to leave the European Union meant the government could set policies and regulations that were optimal for the UK instead of having to compromise with 27 other member states.

However, the WEF warned that leaving the bloc could increase trade barriers that would raise costs for businesses and consumers. It also warned that the vote to leave risked diminishing the UK’s ability to attract and retain top talent. Short term uncertainty surrounding the UK’s future trading relationships was also likely to weigh on the economy. It urged the UK to pursue liberal trade policies that would help to raise productivity and improve living standards. Additional effects on growth and competitiveness are likely to be felt in terms of innovation impact if the country becomes less accessible for international talent.

Source: The Telegraph, 27 September 2016

**Extract 9: The fourth industrial revolution set to benefit richest**

The fourth industrial revolution is a period of technological innovation and digital revolution. The richest stand to gain more from the introduction of new technology than those in poorer sections of society, according to a report which warns that policymakers may be required to intervene to tackle the widening inequality.

The fourth industrial revolution will have less of an impact on developed economies such as Switzerland, Singapore and the UK. Emerging markets such as in parts of Latin America and India will suffer when artificial intelligence and robots become widely used, reducing the competitive advantage of their cheap labour.

Automation will continue to put downward pressure on the wages of the low skilled. By contrast, the potential returns to highly skilled and more adaptable workers are increasing. Developed countries such as the US could also “onshore” work back from low-cost labour markets, putting emerging countries at a disadvantage.

A report by an investment bank pointed out that many labour-intensive firms should be able to boost profit margins as they substitute costly workers for cheaper robots or intelligent software. The largest gains from the fourth industrial revolution are likely to be captured by those with the most flexible economies, adding a further incentive for governments to trim red tape and barriers to business.

“However, disruptions could be experienced by workers who have so far felt immune to robotic competition, namely those in middle-skill professions,” the report says. It points to clerical work, such as customer service, being replaced by artificial intelligence.

Source: The Guardian, 19 January 2016

Questions

(a) Define productivity. [1]

(b) (i) Compare the UK’s productivity with that of the other countries between 2007 and 2016. [1]

(ii) Using Extract 6, account for the difference observed above. [4]

(c) Explain two factors which are likely to determine the extent of gains in price competitiveness from a cheaper pound. [6]

(d) With reference to Extract 8, discuss the possible policy options which the UK could undertake in order to increase her competitiveness after Brexit. [8]

(e) Assess whether the gains from the fourth industrial revolution would outweigh the losses. [10]

[Total: 30]

**a. Define productivity. [1]**

• Productivity is defined as the output per unit of input.

**b. (i) Compare the UK’s productivity with that of the other countries between 2007 and 2016. [1]**

• G7 excluding the UK’s productivity growth is higher than that of the UK.

**b. (ii) Using Extract 1, account for the difference observed above. [4]**

Restriction of credit

According to Extract 1, “the near collapse of the banks restricted the supply of credit to companies.” The fall in availability of credit would decrease the ability of firms to make productivity enhancing investments such as investment in labour-saving machinery which can save labour hours and producing more output with less man hours/ factor input (labour).

Expansion of low-level service jobs

“The rapid expansion of mainly low-level service jobs” will limit productivity gains in two ways. Firstly, the nature of these jobs leaves little room for firms to adopt technology and machinery to raise productivity.

Restriction on working hours

“Restrictions on working hours and widespread industrial pay bargaining” in France and Germany make hiring workers more costly than in the UK. This incentivises French and German firms to invest in labour-saving machinery to reduce cost of production in the long run. On the other hand, UK with less costly labour may not be incentivised to switch to capital-intensive production methods. Therefore, France and Germany will benefit from productivity gains due to the use of capital-intensive production methods.

Mark Scheme: Any 2 reasons

**c. Explain the factors which are likely to determine the extent of gains in price competitiveness from a cheaper pound. [6]**

The depreciation of the sterling causes exports to be relatively cheaper in foreign currencies and imports to be relatively more expensive in sterling. This makes UK exports more price competitive in global markets.

Factors that determine the extent of gains in price competitiveness:

Extent of fall in pound

The extent of gains in price competitiveness from a depreciation depends on the extent of the fall in pound. According to extract 2, “experts warned that the pound will be pushed lower over the coming months as traders remain jittery.” Since investors are “worried about the UK’s economic prospects if it leaves the EU”, they are more reluctant to hold sterling-denominated assets for the next few months due to uncertainty. This causes demand for pound to fall further, causing the currency to depreciate further against other currencies like the USD.

‘Proportion of import content

The extent of gains in price competitiveness from a depreciation of the pound depends on the proportion of imported content in UK-made goods. Since “firms are exporters and importers” as they may not be able to own/ have control over essential FOP in their production, they have to import raw materials from other countries. Due to the depreciation of the pound, it pushes up the

prices of imported raw materials, raising the cost of production for domestic made goods (i.e. UK’s exports).

**d. With reference to Extract 3, discuss the possible policy options which UK can undertake in order to increase her competitiveness after Brexit. [8]**

Trade policies

Extract 3 mentioned that leaving the bloc could increase trade barriers that would raise costs for business and consumers and hence this may hurt competitiveness in UK. As such, UK should consider signing more free trade agreements with other countries. By having these trade agreements, this allows the producers in UK to have access to expanding global markets which therefore allows them to enjoy economies of scale. In addition, by adopting freer trade, this will allow UK producers to import raw materials at lower cost due to the elimination or reduction in tariffs. These reductions in the cost of production can be passed on to consumers in the form of lower prices, hence increasing the competitiveness level in the country.

Supply-side policy

The extract also mentioned that the vote to leave the European Union will diminish UK’s ability to attract and retain top talent.

Talents are essence to increase level of competitiveness in the country because they can increase productivity of labour which can decrease average cost of production. Again, these reductions in the cost of production can be passed on to consumers in the form of lower prices, hence increasing the competitiveness level in the country. At the same time, talents will have the skills to tap on research and innovation to produce better quality products. As such, UK can consider decreasing personal income tax so as to increase the attractiveness for the foreign talents to work in UK since disposable income increases. These foreign talents will complement the domestic workers by bringing along relevant skills to create new industries and job opportunities and they will also help to facilitate the transfer of skills to the locals. Therefore, as explained in the above, the increase in the pool of foreign talents will lead to an increase in price competitiveness. However, such tax cuts cannot guarantee that these foreign talents will be attracted to UK to work since there are also other factors such as cost of living to be taken into consideration.

Alternatively, UK can also invest in human capital domestically by implementing policies pertaining to education and training to expand the quantity of employable worker which also helped to increase labour mobility. Specific measures can include the setting up of retraining programmes for lower skilled workers who have been displaced by technology to obtain skills in greater demand; assisting the lower skilled workers to pursue training and education through grants or low interest loans and providing grants to firms that offer on-the-job training. However, these investments in human capital have a relatively long gestation period and may not always bring about positive outcomes. Moreover, the effectiveness of this policy largely depends on whether the UK government has the means to fund these training programmes.

e. Assess whether the gains from the Fourth Industrial Revolution would outweigh the losses. [10]

The fourth industrial revolution is a period of technological innovation and digital revolution. While the fourth industrial revolution can bring about benefits, it also bring about losses. Whether the gains would outweigh the losses depends on the cost-benefit analysis.

Gains from 4th IR:

• The adoption of new technologies will enable production to be more efficient and cost effective (Extract 4: labour-intensive firms should be able to boost profit margins as they substitute costly workers for cheaper robots or intelligent software) and in return, unit cost of production will fall which leads to an increase in short run aggregate supply from SRAS0 to SRAS1. As shown in Figure 1. This will lead to an increase in national income from Y0 to Y1, bringing about actual growth, and a decrease in general price level from P0 to P1.

Figure 1

• Price competitiveness of exports will increase since price of domestically produced goods and services are cheaper now. Assuming that the demand for export is price elastic, export revenue will rise. If these new technologies also leads to the improvement of the quality of products, this will increase non-price competitiveness thereby increase the demand for exports of the country and export revenue will rise further. The increases in export revenue will also bring about improvements to the current account, leading to a more favourable BOP position.

• The increases in export revenue will increase AD and at the same time, LRAS will increase from LRAS0 to LRAS1 since the adoption of new technologies will lead to accumulation of new capital which increases the productive capacity of the economy. This will bring about sustained growth as national income increases from Y0 to Y1 and price level fell from P0 to P1 as shown in Figure 2.

Figure 2

Losses from 4th IR

• However, the Fourth Industrial Revolution can create greater inequality. The low skilled workers who managed to retain their jobs will earn lower wages than before as automation substitutes technology for human labour, demand for low skilled workers will decrease, causing a downward pressure on wages. On the other hand, demand for high skilled workers increase and they will see a large increase in their wages. This widens the income gap between these two groups of workers, thereby creating more income inequity in the country as the rich can consume more while the poor will consume less with lesser dollar votes.

• Fourth Industrial Revolution can create structural unemployment. As seen in Extract 4, “clerical work, such as customer service, being replaced by artificial intelligence.” This implies that automation substitutes technology for human labour (i.e. low-skilled workers). These workers will be made structurally unemployed as they will be unable to find similar jobs elsewhere and are also unable to move into the new industries with the mismatch of skills.

• Developed countries such as the US have offshored operations to the emerging markets to leverage on their cost advantages (i.e. cheap labour). However, the emergence of new technologies brought forth by the fourth industrial revolution have “reduced the competitive advantage” of cheap labour in emerging markets. As such, emerging markets may gradually lose their competitiveness in the production of labour-intensive goods, some firms may be forced to shut down. If so, this may lead to a substantial degree of structural unemployment (esp. in the short term) as retrenched workers may not be able to pick up the relevant skills to take on jobs created in the new industries created. If so, the low skilled and low qualified workers suffer much more.

Synthesis:

Ultimately, whether the gains from the Fourth Industrial Revolution will outweigh the losses is dependent on whether the benefits gained from technological innovation will outweigh the unintended consequences created. This is largely dependent on the government’s ability to carry out appropriate policies to maximise the gains from technological innovations and at the same time, policies to minimize the costs of the unintended consequences.