

## Example 1

### **Does Britain Have a Productivity Gap? If so, what are the reasons for the UK's poor productivity?**

The G7 is a group of the seven most advanced economies in the world - consisting of France, Germany, Italy, Japan, the United States, Canada and the UK. When placed against the rest of the G7 the UK ranks sixth place for productivity, with Japan ranking seventh and the 'gap' between the UK and the G7 average reaching 16.6% in 2016, the most recent figures reported by the ONS.<sup>1</sup>

Data from the ONS supports the view that the UK lags in terms of productivity relative to its G7 peers, this data will be discussed further below. Data also suggests that the productivity gap is an outcome of the financial crisis. The International Comparisons of Productivity (ICP) suggests that the difference between the UK's post-downturn actual productivity performance, relative to its pre-downturn productivity trend "was 15.6% in 2016, around double the average of 8.7% across the rest of the G7."<sup>2</sup> One view is that monetary policy has played a role in the UK's productivity slowdown. The Monetary Policy Committee (MPC) cut interest rates in an attempt to stimulate aggregate demand<sup>3</sup> from 4.5% in March 2008 to 0.5% a year later.<sup>4</sup> Since 2008, the MPC has continued to set interest rates low (currently at 0.75%) relative to pre-crisis levels. An unintended consequence of this policy is that low interest rates have fuelled the large rump of highly unproductive firms in the UK, also known as 'zombie firms'. This has resulted in an increase in the misallocation of resources within the economy weighing heavily on productivity levels.<sup>5</sup> **(1 mark for analytical / evaluative comment that is based on the research)** According to the Financial Times, in 2018 Britain had "far fewer companies than France and Germany doing a bit better than average, and a lot more doing significantly worse".<sup>6</sup> Britain's 'long tail' of unproductive zombie firms

1

<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2016>

2

<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2016>

<sup>3</sup> <https://www.theguardian.com/business/2017/jun/21/productivity-crisis-uk-real-wage-growth>

<sup>4</sup> <https://www.bbc.co.uk/news/business-11013715>

<sup>5</sup> <https://uk.reuters.com/article/uk-bis-markets-zombie/low-interest-rates-spawn-rise-in-number-of-zombie-firms-bis-idUKKCN1M30PS>

<sup>6</sup> <https://www.ft.com/content/6ada0002-9a57-11e8-9702-5946bae86e6d>

relative to France and Germany could be a factor in why it has demonstrated poorer productivity levels. In addition to this, during this time the UK was known to hold on to workers throughout the crash which negatively impacted the economy's productivity figures in the long run. Cyclical 'labour hoarding' occurred as real wages fell which meant it was cheaper for employers to retain workers as well as replacing capital with labour, however, this meant that firms only became less productive <sup>7</sup> as it halted R&D investment. The impact of 2008 on monetary policy and subsequently zombie firms seems to suggest that the financial crisis seems to catalyse a productivity gap. **(1 mark for analytical / evaluative comment that is based on the research)**

**Figure 1** <sup>8</sup>

**UK productivity levels are weaker than several other large economies**

GDP per hour worked, 2016 (% above/below UK level)\*

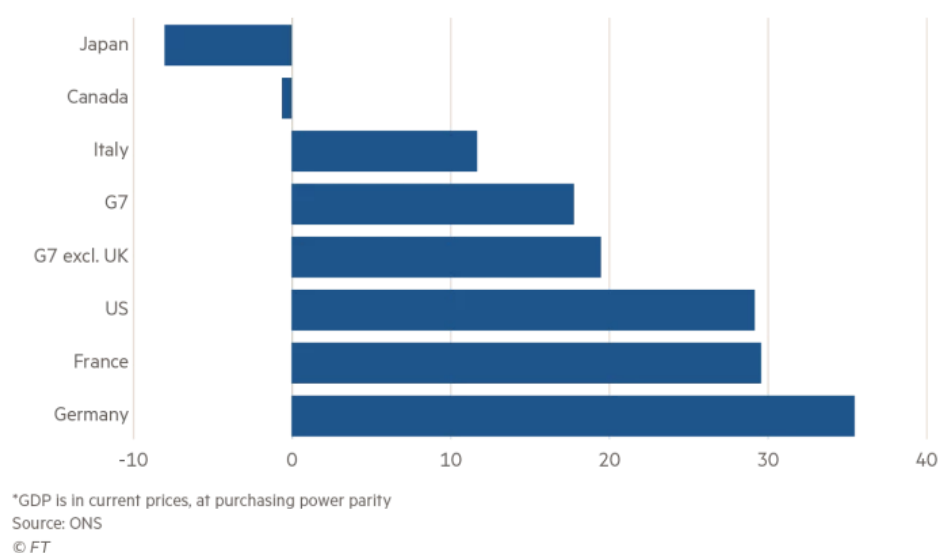


Figure 1 evidences that Germany, France and US are ahead of the UK in terms of productivity. This project will explore theories behind the disparities including, the Small and Medium Enterprises (SMEs) in Germany, employment aspects of French law and the effect of 'creative destruction' in the US.

<sup>7</sup> <https://www.ft.com/content/f4ee26a8-0262-11e2-b41f-00144feabdc0>

<sup>8</sup> <https://www.ft.com/content/6ada0002-9a57-11e8-9702-5946bae86e6d>

It is evident from looking at figure 1, which shows the productivity levels of the other members of the G7 in comparison to Britain that in 2016 Germany, the G7's most productive economy<sup>9</sup>, was 36% more productive in terms of output per hour worked. **(1 mark for interpreting relevant supporting data, tables, infographics, diagrams, charts and or/graphs)** This is, it is argued because German workers are exposed to vocational training from a young age<sup>10</sup> which plays an important role in preparing workers to fill Germany's most productive sector of the economy, the *Mittelstand*. This is the sector of SMEs and "is any business with fewer than 250 employees"<sup>11</sup>. In a recent research project carried out by NatWest, which investigated Germany's SMEs in comparison to the UK's, it was revealed that "UK SME employees, on average, generate £147k worth of output per year - less than half that of their German counterparts (£335k per worker, per year)."<sup>12</sup> This evidence demonstrates that Britain's SMEs sector could be responsible for a large proportion of the blame, in terms of why the UK is lacking in productivity. However, a long-term study of the German *Mittelstand* and UK SMEs would possibly reveal whether this is a new phenomenon or historic. **(1 mark for analytical / evaluative comment that is based on the research)** Over two-thirds of all UK businesses are family owned.<sup>13</sup> According to an article from *The Economist*, "One reason for their [family businesses] lower productivity is that family firm's value stability, and the chance to hand on the business to the next generation, over innovation."<sup>14</sup> - This means there are a large number of firms that are particularly vulnerable to the 'Buddenbrooks effect'. The *Buddenbrooks* effect refers to the idea that the founder of a business, usually a grandparent, works hard to get the business to be successful. It then gets passed down onto the parents, over time, and eventually onto the grandchildren. Due to the fact that it has been, effortlessly, handed to the grandchild, the business usually loses momentum in terms of productivity, resulting in a lack of profit, as they are less motivated in comparison to their grandparents.<sup>15</sup> **(1 mark for using applied economic theory in the context of**

<sup>9</sup> <https://www.rbs.com/rbs/news/2018/06/natwest-research-shows-effect-of-productivity-gap.html>

<sup>10</sup> <https://www.ft.com/content/442fb59c-d138-11e8-a9f2-7574db66bcd5>

<sup>11</sup> <file:///H:/Downloads/SN06152.pdf>

<sup>12</sup> <https://www.rbs.com/rbs/news/2018/06/natwest-research-shows-effect-of-productivity-gap.html>

<sup>13</sup> <https://www.ifb.org.uk/advocacy/about-family-business/>

<sup>14</sup> <https://www.economist.com/britain/2017/12/07/family-owned-firms-hold-part-of-the-answer-to-the-productivity-puzzle>

<sup>15</sup> <https://www.theguardian.com/lifeandstyle/2011/oct/01/great-dynasties-buddenbrooks-effect-ian-sansom>

**the issue)** Referring back to the same article from *The Economist*, it says that two-thirds of Germany's *Mittelstand* being family businesses, 49% are owned by those who have a degree, thus, making them more productive than their British counterparts.

Again, referring to figure 1, in comparison to the UK, France and the U.S were measured in 2016 to be 29% and 28%, respectively, more productive than the UK. French workers are entitled to tighter labour laws. Introduced in 2017 was the law that gave French workers, 'the right to disconnect', which may be the key to their success, in terms of productivity. A French worker is only legally required to work a 35-hour week<sup>16</sup>, 7 hours per day and after that, they have the right to turn off from all things associated with work. However, this arrangement comes with a cost, as firms which decide to invest in France are taking into account, in order to adapt to less input from their labour force, firms invest in a large amount of capital to compensate.<sup>17</sup> **(1 mark for analytical / evaluative comment that is based on the research)**

Although U.S productivity levels appear higher than in the UK, it is possible that U.S productivity levels are distorted by a small cluster of hugely successful firms. Evidence shows that "For the 274 companies started in 2003 or later that have reached unicorn status (a start-up company with a value of over \$1billion), half are in the U.S., and nearly two-thirds of the 148 U.S. unicorns are based in California."<sup>18</sup> The free-market outlook that the U.S. holds may help to boost productivity throughout the economy. In comparison to European countries, the U.S. government does not support unproductive firms. It eliminates the 'lame-duck' through 'creative destruction', a theory coined by Joseph Schumpeter, an Austrian economist. Schumpeter describes this as the "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one".<sup>19</sup> In other words, it helps to drive productivity through destroying unproductive firms by creating more innovative ideas which overrule the weaker firms. This fast-paced innovation, a key component for advancing productivity, helps to keep the U.S. at the forefront of technology. **(1 mark for using applied economic theory in the**

<sup>16</sup> <https://www.bbc.co.uk/news/world-europe-38479439>

<sup>17</sup> <https://www.economist.com/europe/2016/03/03/working-nine-to-four>

<sup>18</sup> <https://hbr.org/2018/05/18-of-the-top-20-tech-companies-are-in-the-western-u-s-and-eastern-china-can-anywhere-else-catch-up>

<sup>19</sup> <https://www.investopedia.com/terms/c/createdestruction.asp>

**context of the issue)** In stark contrast, the UK, London in particular, is home to only 60 unicorns<sup>20</sup> which suggests the UK may be suffering from a lack of innovation, particularly in new hi-tech industries such as information technology, driverless cars etc. Indeed, the so-called FAANG group (Facebook, Apple, Amazon, Netflix, Google) all happen to be US companies. This is a clear potential reason for a productivity gap between the US and the UK, and suggests the UK is actually suffering from a lack of ‘creative destruction’ and an inability to jump to new innovative and productive industries across the economy as a whole. **(1 mark for analytical / evaluative comment that is based on the research)**

According to Figure 1, Japan’s productivity was measured at approximately 8.7% behind the UK in 2016. There are many potential different reasons for low productivity in Japan. For example, Japanese workers have a particularly conservative approach to labour reforms, creating a homogeneous labour market. Evidence from BBC shows that there are only 1.28 million foreign workers living in Japan, a record-breaking number for the country.<sup>21</sup> A homogenous workforce limits the extent to which new ideas and innovation can be brought into firms which, theoretically, caps productivity in the long run. In comparison to the UK, Japan’s foreign worker population translates into only “1% of Japan’s population, compared to 5% in the UK or 17% in the US” in 2018.<sup>22</sup> **(1 mark for interpreting relevant supporting data, tables, infographics, diagrams, charts and or/graphs)** Although, in theory, a homogeneous workforce should dampen productivity, there is information from an economics report, “Workforce Diversity and Productivity: An Analysis of Employer-Employee Match Data”<sup>23</sup> which shows that “establishments that employ a more diverse workforce are no less productive than establishments that employ a more homogeneous workforce”.

<sup>20</sup> <https://www.techworld.com/picture-gallery/startups/who-are-uks-unicorns-how-did-they-reach-their-valuations-3687718/>

<sup>21</sup> <http://www.bbc.com/capital/story/20181210-more-seniors-more-foreigners-how-japan-is-rapidly-changing>

<sup>22</sup> <http://www.bbc.com/capital/story/20181210-more-seniors-more-foreigners-how-japan-is-rapidly-changing>

<sup>23</sup>

[https://www.researchgate.net/publication/4825660\\_Workforce\\_Diversity\\_and\\_Productivity\\_An\\_Analysis\\_of\\_Employer-Employee\\_Match\\_Data](https://www.researchgate.net/publication/4825660_Workforce_Diversity_and_Productivity_An_Analysis_of_Employer-Employee_Match_Data)

Japanese firms are thought to be unproductive due to employee's tendency to work excessively long hours. Workers in Japan are prone to working the longest hours globally, according to BBC, "Nearly a quarter of Japanese companies have employees working more than 80 hours overtime a month, often unpaid." These long and unpaid hours reduce a workers capacity to improve their output per hour. A study proves that there is a negative correlation between the hours of sleep a worker receives and their output per hour.<sup>24</sup> This is because sleep deprivation decreases the accuracy of the output produced as well as harming workers health. Consequently making it extremely difficult for workers to improve their standard of living as productivity stagnates.<sup>25</sup>

In addition to this, Japanese employers are prone to cyclical labour hoarding. Japanese business culture has evolved in such a way that it has developed a second workforce, named the 'window tribe'. These are 'employees whose services were no longer needed, but that the company could not or did not want to fire', would be given a pleasant spot by the window.<sup>26</sup> It is then left to the unwanted employer to take the initiative to resign from their position. The aforementioned features of Japan's economy underpin the disparity between the UK and Japan's productivity levels. **(1 mark for in-depth, substantive analytical or evaluative comment)**

**In this section the candidate also demonstrated the following:**

- ◆ **Marks for research sources that are relevant and strongly support the arguments put forward**
- ◆ **Using economic terminology on a number of occasions**
- ◆ **Full, consistent referencing throughout the report, using footnotes or endnotes**

<sup>24</sup> <https://www.theguardian.com/commentisfree/2018/mar/26/succeed-business-sleep-profits-employees-bosses>

<sup>25</sup> <https://fpcj.jp/wp/wp-content/uploads/2017/11/8f513ff4e9662ac515de9e646f63d8b5.pdf>

<sup>26</sup> <https://japanintercultural.com/en/news/default.aspx?newsID=299>

## Exemplar 2

### Does Africa benefit from Chinese investment and trade?

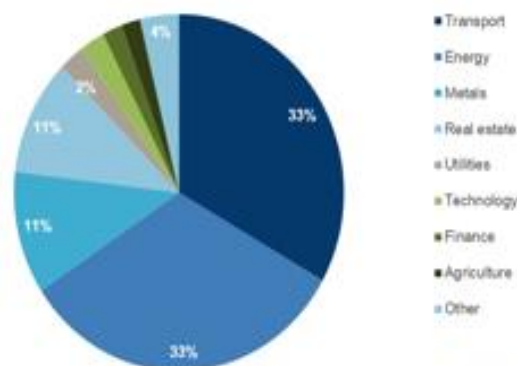
#### NIGERIA



With 17%<sup>27</sup> of Chinese investment going there, Nigeria is the biggest African recipient of investment from China. Nigeria is an obvious destination for Chinese funding due to its abundance of oil, a resource that China needs to sustain its growth. Nigeria has received OOF and has been a significant trading partner to China.

Energy is the joint-biggest sector that China has been invested in across Africa (as shown in the chart below), and in Nigeria the China National Offshore Oil Corporation (CNOOC) has put in \$14bn and has pledged to increase this to \$17bn<sup>28</sup>. Oil and gas is a prominent sector of the Nigerian economy and so additional investment into this is beneficial. **(1 mark for interpreting relevant supporting data, tables, infographics, diagrams, charts and or/graphs)**

On the other hand, because oil production is not particularly labour intensive, these large investment figures may not necessarily equate to widespread job creation; the statistics confirm this as unemployment rose from 3.83% to 7.04%<sup>29</sup> (2011, when China began investing into Nigeria’s energy sector, to 2017), though other factors are involved. Nonetheless, there may be a positive multiplier effect triggered by the consumption, saving and taxation of those employed in the oil and gas industry. **(1 mark for analytical / evaluative comment that is based on the research)**



Source: Chinese Investment Tracker, AEI

BROOKINGS

<https://www.brookings.edu/wp-content/upl 1>

<sup>27</sup> "Figures of the week: Chinese investment in Africa - Brookings Institution." 6 Sep. 2018, <https://www.brookings.edu/blog/africa-in-focus/2018/09/06/figures-of-the-week-chinese-investment-in-africa/>. Accessed 21 Mar. 2019.

<sup>28</sup> "China's investment in Nigeria's oil sector to hit \$17 billion | The ...." 16 Jul. 2018, <https://guardian.ng/news/chinas-investment-in-nigerias-oil-sector-to-hit-17-billion/>. Accessed 21 Mar. 2019.

<sup>29</sup> Nigeria - Unemployment rate 2017 | Statistic - Statista." <https://www.statista.com/statistics/382366/unemployment-rate-in-nigeria/>. Accessed 21 Mar. 2019.

Another downside of investing in a resource such as oil, is that it can initiate the resource curse, also known as 'Dutch disease'. In 2017, 82%<sup>30</sup> of Nigeria's exports to China was oil and fuels, which illuminates this issue. By mainly investing in the energy industry in Nigeria, this can cause the currency to appreciate, and harm exports in other industries. With oil being a finite resource and quite a price-volatile commodity, Nigeria needs to diversify its economy and protect the industries that are not related to the oil industry, because when there is a downturn or they have exhausted their supply, the economy will need to be sustained by other industries. So with that point of view, Chinese investment in Nigeria's industry can be criticised on the basis that it encourages a dependency on an industry that isn't viable in the long run. **(1 mark for analytical / evaluative comment that is based on the research)** To counter this, it can be argued that it is Nigeria's responsibility to minimise the impact on other industries, through protective measures.

Lastly, oil and mineral revenues have, historically, fuelled corruption which has an opposite effect on development. Corruption in the oil industry normally takes the form of revenue being taken by those in power, and not actually being invested back into the economy, and research supports that this is more prominent in extractive industries<sup>31</sup>. Additionally, China is not yet one of the supporting countries for the Extractive Industries Transparency Initiative (EITI), a group that aims to promote transparency and accountability in the governance of natural resources. This is a cause for concern because the World Bank has estimated that as a result of corruption, 80% of energy revenues in the country only benefit 1% of the population.<sup>32</sup> Again though, this is a concern for the government of Nigeria to address, and it is their prerogative to ensure that local indigenous people reap the rewards from this rich natural resource. **(1 mark for analytical / evaluative comment that is based on the research)**

Asides from oil and gas, a \$600m Chinese loan<sup>33</sup> was given to Nigeria in 2013 to fund installations of CCTV cameras across the city of Abuja. However, there have been complaints that the CCTVs are "toys" as most of them do not work. This raises the question of quality in Chinese investment. The other issue illuminated in this case, is that the project was awarded

<sup>30</sup> "Why These Industries Are Prone to Corruption - Investopedia." 4 Oct. 2018, <https://www.investopedia.com/articles/investing/072115/why-these-industries-are-prone-corruption.asp>. Accessed 21 Mar. 2019.

<sup>31</sup> "Why These Industries Are Prone to Corruption - Investopedia." 4 Oct. 2018, <https://www.investopedia.com/articles/investing/072115/why-these-industries-are-prone-corruption.asp>. Accessed 21 Mar. 2019

<sup>32</sup> <https://www.globalcitizen.org/en/content/oil-in-nigeria-a-cure-or-curse/>

<sup>33</sup> "China in Nigeria's economy from Huawei to small businesses ... - Quartz." 20 Jun. 2018, <https://qz.com/africa/1310072/china-in-nigerias-economy-from-huawei-to-small-businesses/>. Accessed 21 Mar. 2019



to ZTE (a Chinese firm), rather than a Nigerian one. Perhaps more job creation would have occurred if a Nigerian company that employed local workers had been chosen because that would initiate a positive multiplier effect. There is a likely high propensity to consume in Nigeria so the additional earnings of local workers and resultant spending could have encouraged economic growth. **(1 mark for using applied economic theory in the context of the issue)**

Similar to other countries, Nigeria has also received investment in infrastructure particularly those allocated for railways. The \$11bn coastal railway from Lagos to Calabar, to link all the seaports in Nigeria, received \$6.1bn of funding in 2017 by China's Export-Import (EXIM) bank<sup>34</sup>. The Lagos to Ibadan \$144km track line has also been funded in part by the China EXIM bank. The interest rates on these loans is 1.5% which is much cheaper than the commercial rates of about 5%. However, in return for the cheap loans, Chinese contractors – the China Civil Engineering Construction Company (CCECC) – have been awarded the projects. While the construction of the Lagos-Ibadan railway is expected to create at least 100,000 jobs for Nigerians<sup>35</sup>, these are likely to be manufacturing jobs, while the managerial ones will stay with Chinese contractors. Regardless, these projects will improve connectivity and reduce costs for businesses and individuals. **(1 mark for analytical / evaluative comment that is based on the research)**

In terms of trade, again crude oil is Nigeria's biggest export to China. In 2017, Nigeria exported \$338million worth of crude and other petroleum products<sup>36</sup>, according to the United Nations International Trade Statistics database, which is about 47% of Nigerian exports to China. This is not comparable to the amount that Nigeria imports from China – Nigeria had a \$5.12bn trade deficit with China in 2017<sup>37</sup>. For example, Nigeria imported \$9m worth of toothbrushes from China and \$450m worth of motorbikes<sup>38</sup>. The benefit of importing from China is that consumer surplus is maximised because of the cheap prices. The issue with this is that Nigerian shelves are full of Chinese goods – China accounts for 50% of all imports to Nigeria<sup>37</sup>- when domestic suppliers could have manufactured the goods instead, but the cheap Chinese prices and deals signed have destroyed their demand. This again keeps Nigeria in the primary exports stage

<sup>34</sup> "China to construct the Lagos-Calabar coastal railway line in Nigeria." 5 Sep. 2017, <https://constructionreviewonline.com/2017/07/china-to-construct-the-lagos-calabar-coastal-railway-line-in-nigeria/>. Accessed 21 Mar. 2019.

<sup>35</sup> "Getting Nigeria's railways back on track with China's help - BBC News." 7 Dec. 2017, <https://www.bbc.co.uk/news/world-africa-42172955>. Accessed 21 Mar. 2019.

<sup>36</sup> "Download trade data | UN Comtrade ...." <https://comtrade.un.org/data/>. Accessed 21 Mar. 2019

<sup>37</sup> "Nigeria Trade - globalEDGE - Michigan State University." <https://globaledege.msu.edu/countries/nigeria/tradestats>. Accessed 21 Mar. 2019

<sup>38</sup> "Seven surprising numbers from China-Africa trade - BBC News." 5 Dec. 2015, <https://www.bbc.com/news/world-africa-35007900>. Accessed 21 Mar. 2019

of development. **(1 mark for analytical / evaluative comment that is based on the research)**

Walt Rostow developed his economic growth model which suggests that countries have to pass through 5 stages of development to reach economic development. In 2017 22.56%<sup>39</sup> of GDP came from extractive industries, compared to 8.55%<sup>39</sup> coming from manufacturing value added. According to his theory, Nigeria would currently be in the transitional stage (where extractive industries are the prominent sector) – this is only exacerbated by Chinese trade and investment. **(1 mark for using applied economic theory in the context of the issue)**

**In this section the candidate also demonstrated the following:**

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- ◆ **Using economic terminology on a number of occasions**
- ◆ **Full, consistent referencing throughout the report, using footnotes or endnotes**

<sup>39</sup> "Nigerian Gross Domestic Product Report - National Bureau of Statistics."  
<http://www.nigerianstat.gov.ng/download/678>. Accessed 21 Mar. 2019.