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THE BREXIT AND ITS ECONOMIC IMPACTS ON THE CONSTRUCTION INDUSTRY

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In June 2016, the United Kingdom voted to depart from the European Union (EU) with 51.9% of the votes versus 48.1%. A short-term increase in the overall construction project costs is anticipated due to shortage of less-expensive skilled workers and more costly construction equipment imports from the EU. This may result in slower growth for commercial and residential industry sectors. The long-term issue of Brexit will affect private investment in British infrastructure. As demand increases globally on construction of new civil infrastructure or rehabilitation of existing systems, the global investors and Engineering, Procurement and Construction (EPC) firms will be more mindful and conservative in investing in UK projects. The UK government will seek more private financing for the country's capital projects as easier access to the EU funds - as existed prior to Brexit - may no longer be an alternative. The UK will be a riskier destination for private investors or Public-Private Partnerships (PPP's) because of the developing instability and complexities in the new post-Brexit econo-political environment. As a result, a slower turnout in major infrastructure projects is anticipated. This paper investigates the economics of the post-Brexit UK and the opportunities and threats to the construction industry. It addresses the role of the government and the availability of public funding and how construction regulations and standards will be impacted as a result.

Keywords: United Kingdom, Economics, Skilled labor, Training, Equipment and materials costs, Housing and infrastructure projects.

1 INTRODUCTION

The process of the United Kingdom (UK) leaving the European Union (EU) formally began on March 29, 2017. It was agreed that the UK has roughly two years from that date to negotiate and implement a new relationship with the EU. On Dec. 8, British and European Nation negotiators announced an agreement regarding the country's separation settlement: Britain will pay an exit bill of £35 billion to £39 billion; there will be no official "hard border" between Northern Ireland (which is currently part of the UK) and the Republic of Ireland (an official EU member), and EU citizens in Britain – and vice-versa – will retain a number of rights (Kenton 2019).

The "Brexit bill," or financial settlement the UK owes Brussels following its withdrawal, has been a major point of discussion for both sides of the spectrum. During the campaign, a large financial settlement would therefore irritate many Brexit supporters; most of who believe that the UK should not have to pay anything. "Leave" voters base their support for Brexit on several factors, including the European debt crisis, immigration, terrorism and Brussel’s bureaucracy. Britain has long been wary of the European Union's projects, which Leavers feel threatens the UK's sovereignty: the country never opted into the European Union's monetary union, meaning that it uses the pound instead of the euro. It also refused to share open borders with a number of other European nations. Opponents of Brexit also cite a number of reasons for their position. One is the risk involved in pulling out of the EU's decision-making process, given that it is by far the largest destination for British exports. Another is the economic and societal benefits of the EU's free movement of goods, services, capital and people across borders. A common thread in both arguments is that leaving the EU would destabilize the British economy in the short term and make the country poorer in the long term.

Construction in the United Kingdom accounts for a significant proportion of output and employment. The construction industry is vital to building homes in the United Kingdom where housebuilding has been below demand for decades. The construction industry is also vital to delivering the infrastructure that the UK needs (Dromey *et al.* 2017).

The construction industry in the UK already faces significant challenges such as low productivity; slower rate of incorporating innovative methods and also dysfunctional skills system. The Brexit threatens to increase these significantly by triggering a crisis for the industry. This could have serious consequences for the UK economy in general.

Businesses in general, with few exceptions, mainly wanted to stay in EU for facilitated financial transactions and easier access to global services, goods and skilled labor. Brexit invoked fears of losing jobs, properties and conventional travel benefits for many. However, the “Leave” supporters campaigned for it mainly for the following reasons: (1) there was a perception in the UK that the EU imposed too many rules on business and charged billions of pounds a year in membership fees for much less in return; (2) the UK wanted to make all its own laws again, rather than being created through shared decision-making with other EU nations; and (3) immigration was a major issue for Brexit supporters who wanted UK to take back full control of its borders and reduce the number of people coming to UK to live and/or work.

2 THE UNITED KINGDOM ECONOMY AND CONSTRUCTION INDUSTRY

The construction industry contributes 90 billion pounds to the UK economy which accounts for 6.7% of the total UK economy (Construction 2025 2013). There are 2.9 million jobs filled in the construction industry, which approximately is 10% of the entire UK job market. The construction industry in the UK is a key contributing factor to other economic sectors mainly the housing market; commercial property; transportation; water; energy and digital communication infrastructure. It is expected that 1.7 – 2.5 million new homes will be built by 2025. The UK Government is planning to invest £110 billion in the energy sector in the next decade and another £100 billion in water infrastructure systems over the next 20 years (Construction 2025 2013).

The UK Government’s Strategic Priorities for the construction sectors are through further focusing on: (1) Smart Construction and Digital Design; (2) Sustainable Construction; and (3) Improved Trade Performance (Construction 2025 2013). To realize the above Strategic Priorities, the construction industry relies heavily on educated skilled workforce for improving the construction industry image and increases the workforce capability. This is also vital in improving more-complex stakeholder demands through delivering stronger, sustainable and more resilient supply chain that is made possible via effective research and development (Construction 2025 2013).

After a significant slowdown during the Global Financial Crisis of 2017 and 2008, the construction industry in the UK grew steadily between 2012 and 2017. In Third Quarter of 2018, the construction industry output was 14% higher than that of the First Quarter of 2008 while the whole UK economy output grew by 15% over the same period (Rhodes 2018). Housing projects accounted for 25% of the 2017 total UK construction output, of which 4% was publicly-funded projects and 21% private, while infrastructure accounted for 12% of total construction projects (Rhodes 2018).

According to the UK Office of National Statistics (2019), the construction sector's consolidated growth was only 0.7% (compared to 7.1% in 2017). There was a 1.1% increase in all new work (versus 7.4% for 2017), which was mainly due to a 2.9% increase in private new housing and 2.6% increase in infrastructure output.

3 SHORT-TERM EFFECTS OF BREXIT ON THE UK CONSTRUCTION INDUSTRY

The residential and commercial construction industry in the United Kingdom felt the effects of Brexit when the decision to rescind from the European Union was first made public. Between the date of the referendum (June 2016) and August 2017, the sterling pound fell approximately 17.6% of its value compared to the Euro (Dromey *et al.* 2017). It is important to note that the construction industry in the United Kingdom is heavily reliant on migrant workers, and these migrant workers make up for the disparity between the native UK workers who are retiring within the next decade and those native UK workers entering the construction field. The non-native UK workers had mainly saw opportunities of higher income in the UK and strong currency as they save towards the retirement. The pound depreciating in value essentially reduced the savings of the non-native UK workers. The immediate depreciation in value of the pound rendered the United Kingdom far less attractive to non-native UK workers, relative to other EU nations. According to Dromey *et al.* (2017), even before the Brexit announcement, non-native UK workers had already begun to leave the United Kingdom mainly because of these two reasons: (1) the pound depreciated in value, and (2) non-native UK workers had no guarantees of being permitted to stay and continue working in the post-Brexit United Kingdom.

Employers in the construction sector are concerned with retaining these individuals rather than recruiting new workers. The infrastructure projects in the United Kingdom are dependent on private funding where the private investors may not decide to withdraw from funding such infrastructure despite the economic and political uncertainty as a result of Brexit. This is mainly due to the fact that the infrastructure projects are usually low risk investments and they have minimal correlation with the foreign exchange and equity markets. It is expected, however, that Direct Construction Costs (labor, equipment and materials) may see an increase in prices.

Few of the current large infrastructure projects in the UK that may be directly impacted by Brexit are: (1) Thames Tideway which is a sixteen mile long tunnel under the Thames River to capture, store and transport sewage and rainwater discharges that currently flow into the Thames River and (2) High Speed 2 which is a high-speed railway system responsible for connecting London, Birmingham, the East Midlands, Leeds, and Manchester. Such infrastructure projects are mainly made possible in part by private investors, the European Investment Bank (EIB), and the European Investment Fund (EIF). The United Kingdom needs investment in infrastructure due to ever-increasing demands for such with large-scale private funds as the UK is lacking sufficient national funds for such capital projects.

As a member of the European Union, the UK has had access to the EIB and the EIF which collectively invested billions of euros in the United Kingdom's economy. If the roles of the EIB and EIF are diminished, the government, moving forward, in the medium to long term, has to look for alternative options of inexpensive financing for its infrastructure projects mainly through the private investors who still have confidence in the UK's economy. The United Kingdom is known for its transparency and fair procurement practices, which are attractive features for private investors in governmental infrastructure projects. These transparency features and protocols are expected to remain un-changed in the post-Brexit United Kingdom.

4 LONG-TERM EFFECTS OF BREXIT ON THE UK CONSTRUCTION INDUSTRY

The long-term forecast of Brexit cannot be accurately determined. The most prevalent concern, however, will be the potential restriction of free movement of people and goods. Construction industry will be one of the main market sectors that may be heavily impacted by lower investor confidence stemming from the uncertainty over the post-Brexit UK economy (Timetric 2016).

The UK construction market is reliant on foreign labor from within the EU due to the insufficient numbers of new and existing skilled domestic workers. The UK construction industry is also reliant on imports for most construction materials and equipment from other EU countries, especially Germany, Sweden and Italy. Therefore, depending on how the new trade agreements are negotiated between the UK and the EU, it could have significant impacts on construction costs particularly if new taxes and tariffs are imposed on construction materials and equipment imports. In general, a sharp deceleration in economic growth is expected for the UK economy.

The UK is one of the EU's biggest beneficiaries of funds. Once the United Kingdom officially leaves the EU, the levels of the EU direct investments in the UK will be significantly plummeted squeezing industry margins even further. This will highly affect the commercial and residential construction industries as many contracting companies will have a hard time with labor and material costs. This may, in turn, drive multi-national companies out of the UK into other countries where it is easier to invest in new construction projects.

5 THE FUTURE OF BREXIT

According to Dromey *et al.* (2017), the United Kingdom (UK) currently has demographic challenges within the construction industry that will ultimately lead to shortages of skilled workers. It is expected that the Brexit exacerbates this shortage particularly within London and south-east Britain. These regions are heavily reliant on migrant European-born (EU-born) workers who have moved to the United Kingdom for work. The native-UK construction workforce is rapidly ageing with 43.4% over the age of 45, and nearly 387,000 construction workers who will approach retirement in the next decade, and approximately 1 million workers approaching retirement in the next two decades (Dromey *et al.* 2017). EU-born workers, and workers born outside of Europe (Non-EU-born), make up the majority of construction workers aged 25-44. Currently, the UK's skilled worker shortage is masked by the foreign workers, as they fill the void not filled by the UK-born workers. With the United Kingdom closing its borders and restricting movements as a result of Brexit, the future of the UK's construction industry needs to be looked at from various perspectives of the current construction workforce: (1) from the perspective of workers who already had some sort of construction industry; (2) from the perspective of young people entering the workforce; (3) construction workers who qualify for further education or other type of additional training, and (4) workers who have already completed some sort of apprenticeship who qualify for regular employment.

According to Dromey *et al.* (2017), only 57% of construction employers arranged or funded training for their staff in 2016 which is the second lowest of all industries, and far lower than the economywide average of 66%. This may be because it is more expensive to provide training in construction industry compared to the other sectors of the economy. Moreover, there may be low or non-existent incentives for construction workers in the industry to receive additional non-mandatory training to boost their careers with newer technologies and innovations in construction practices. The construction workers and industry leaders may not see a reason to change what is not broken. This is also amplified by recent reform that has limited public funding for further education.

The UK vocational education sector does not give the construction workers the best of required skills and experience needed by employers so that they can progress into a sustainable career in the industry. Apprenticeships are also not efficient since many apprentices are unable to find permanent employment after completing a Level 2 apprenticeship. To combat this, the United Kingdom government has implemented two levies: (i) Construction Industry Training Board (CITB) Levy to advance and improve further education and skillsets for the construction workforce and (ii) the Apprenticeship Levy which is a payroll tax applicable to companies with a payroll higher than 3-million euro to boost employer investment in raining with a target goal of three-millions apprenticeships by the year 2020 (Dromey *et al.* 2017). Faced with post-Brexit uncertainties in construction industry, many small or medium-size UK construction firms would rather not to contribute and pay theses levies and would look for ways to reclaim their levy payments rather than using the funds pooled from the levies to provide training for their employees. This is also due to the fact that larger employers get proportionately more of the CITB grants than they contributed in the CITB levy while small and medium size employers are simply not incentivized to recuperate their funds for training of their employers" (Dromey *et al.* 2017).

These tax laws need to be reformed so that companies become incentivized to train their employees, provide apprenticeships or hire apprentices, and so that companies align their practices in such a way that helps the United Kingdom achieve its goals as outlined in Construction 2025 (2013), using advanced construction technology and modern methods of construction. To achieve technological advances and modernization in the construction industry, education is key. The construction industry is often not the first career choice for those entering the workforce, because it may be seen as dirty, and laborious. Therefore, education on the latest technological advancements is essential, not only for productivity, but also for retention of construction personnel, and to increase the numbers of UK-born workers entering the construction sector. By using the levy funds for effective education and efficient training, construction can be promoted as a career of choice. Currently, there is no guarantee from the government as to whether the EU nationals will be allowed to remain in the United Kingdom once the country formally exits the union as the UK Government also plans to limit the annual immigration.

As a member of the European Union, the United Kingdom allowed for free movement of goods within the EU, and this ultimately benefited the construction industry. By removing itself from the European Union, the United Kingdom may now face limits on the quantities of materials it can import or export, which could lead to economic uncertainty and inflation in the price of construction materials, equipment, and construction labor. Moreover, as a member of the European Union, the United Kingdom has had access to the EU funds that were invested in the country's major infrastructure projects. In the post-Brexit era, the UK Government may have to look for alternative inexpensive construction financing options. According to Catterall (2017), while the United Kingdom government may end up saving money on the EU membership fees, however, these savings will not be able to offset the total construction costs for current and future UK infrastructure projects.

6 SUMMARY AND CONCLUSION

The construction industry in the United Kingdom is already dealing with a shortage of technical talent. With approximately half of the UK-born workforce to retire within the next decade, and a shortage of UK-born workers entering the construction industry, the construction industry is heavily reliant upon migrant workers. Brexit only complicates matters as it restricts the free movement of skilled construction workers from both EU nations and other countries into the UK. There are also uncertainties present pertaining the work visas and labor rights for non-native workforce to remain in the post-Brexit UK. Moreover, establishment of hard borders between the UK and the EU will restrict free movement of construction material and equipment imports into the UK and may lead to higher construction costs. This will also be combined with potential tax hikes and new tariffs on the UK imports and exports.

The lack of UK-born native construction workers is a result of stereotypes and disinterest of the construction industry by younger generations, as well as poor recruitment and retention practices. This is also exacerbated partly by the historical hesitance of the construction industry to become modernized and implement the latest technological advancements.

The UK Government is looking into boosting the interests of the British construction workers who are ready to enter the workforce through tax and education reforms. However, the government would need to be cognizant of the post-Brexit ramifications with which the construction industry may deal with by closing its borders and limiting access to international private

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