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## THE IMPACT OF BREXIT ON LABOUR MIGRATION AND LABOUR MARKETS IN THE UNITED KINGDOM AND THE EU

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*Nowadays, migration to the United Kingdom remains to be one of the most debatable issues as far as the Brexit is concerned. Many speculations have been made regarding the impact of Brexit and its effect on the social and economic status of the UK. Even though the issue has been deeply explored and analyzed, the implications of the nation's withdrawal from the European Union still remains to be uncertain. The only sure thing is that such a drastic move will have profound repercussions as far as movement and settlement on the UK is concerned.*

*Our paper seeks to examine the impact of Brexit on migration in the United Kingdom using the example of Polish migrants. We examine the recent trends and development and elaborate on the future of EU migrants in the UK and UK citizens residing in the EU (which might be about 3 million people on both sides of the spectrum). Moreover, we discuss possible scenarios of UK migration policies after the country will eventually leave the EU in a few years, and assess the impact of immigration to the UK on the British and European economies.*

**Keywords:** labour migration; immigration; labour market; Brexit; United Kingdom; European Union

**JEL classifications:** F20, F22, J61

## ВЛИЯНИЕ «БРЕКСИТА» НА ТРУДОВУЮ МИГРАЦИЮ И РЫНКИ ТРУДА В СОЕДИНЕННОМ КОРОЛЕВСТВЕ И ЕС

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*В настоящее время миграция в Соединенное Королевство по-прежнему остается одним из самых обсуждаемых вопросов, связанных с «брекситом». Было сделано много предположений о значении «брексита» и его влиянии на социально-экономическое положение Великобритании. Несмотря на то, что этот вопрос глубоко изучен и проанализирован, последствия выхода страны из Европейского Союза все еще остаются неопределенными. Единственное, в чем можно быть уверенным, – так это в том, что такой радикальный шаг будет иметь серьезные последствия для движения населения в Великобритании.*

*Наша работа направлена на изучение влияния «брексита» на миграционные процессы в Соединенном Королевстве на примере польских мигрантов. Мы исследуем последние тенденции, а также анализируем перспективы будущего как для мигрантов из ЕС, проживающих в Великобритании, так и для граждан Великобритании, проживающих в ЕС (численность которых может достигать 3 миллионов человек как в одном, так и в другом случае). Кроме того, мы обсуждаем возможные сценарии миграционной политики Великобритании после того, как страна окончательно выйдет из состава ЕС через несколько лет и оцениваем влияние иммиграции в Великобританию на экономику Великобритании и Европейских стран.*

**Ключевые слова:** трудовая миграция; иммиграция; рынок труда; «брексит»; Великобритания; Евросоюз

### Introduction

Ever since the United Kingdom (UK) voted to leave the European Union due to an unprecedented media campaign than once again unveiled the desperation of mass media and media culture (see e.g. Čábelková et al., 2015), the issue of Brexit and its impact on immigration can only be theorized. Under Article 50 of the EU Treaty, negotiations would have to follow so as to determine the course that the nation will take in terms of its relationship with other commonwealth countries (Bevir et al., 2015). Prime Minister Theresa May on one of her address to the UN said that this move does not mean that her country is turning away from the world (MacShane, 2015). It is difficult to establish whether she has prior knowledge of what would happen upon Brexit. Her appearance to the world and her speeches have shown that she knows the direction that UK will take once the process is completed. The only thing that remains certain is that a complete restriction of immigration would require drastic changes and amendments to be made to the existing policies (Currie, 2016).

The policies and directives set by the EU allow its members to move and work in the member states freely without any limitations (Dhingra et al., 2016). This issue, however, hangs in the balance ever since the United Kingdom decided to exit the EU. What are the migration implications of this move? Could it mean that the nation will start imposing restrictions on the migration policies of the union? Concerns have been raised on the increasing number of immigrants who enter the country ever year.

This paper sets its goals by examining the prerequisites for Brexit and its economic implications with a special focus on labour markets and labour migration. We employ an empirical model that allows us to make generalizations and to draw conclusions regarding the possible post-Brexit scenarios.

### Labour migration in the United Kingdom

Over the past two decades, there has been a relative growth in the immigration levels to the UK. Data from reports shows that most of the immigrants come from the Commonwealth countries even though the British mass media have always attempted to put a blame on migrants from Central and Eastern Europe or Turkey (Glazar and Strielkowski, 2010; or Strielkowski and Weyskrabova, 2014). The case of migrations from Central and Eastern Europe is a very peculiar once since the region is distinguished by the low productivity and various social, economic and administrative burdens that push many people to migration to more successful and wealthier countries (Janda et al., 2013; Strielkowski and Čábelková, 2015).

From 1995, the number of immigrants living in the UK has tripled from 0.9 million to 3.3 million (Strielkowski et al., 2016). According to the Social Market Foundation, only 12% of migrants from the EU states would qualify to move into the UK after Brexit. Introduction of such regulations that would cut down the number of migrants will definitely promote illegal immigration. This would in turn increase the burden on social amenities and other basic services such as hospitals and schools. Increased pressure on the nation's resources would lead to an economic downturn.

According to Tilford (2015), Brexit would have fundamental impacts on the European migration cycle. For instance, it would provide a better means for the state to control the inflow of immigrants from the member states of the EU to the UK. The main concern raised by most of the British citizens is that the Brexit would have a worse impact on their standards of living since their jobs and salaries would be at risk.

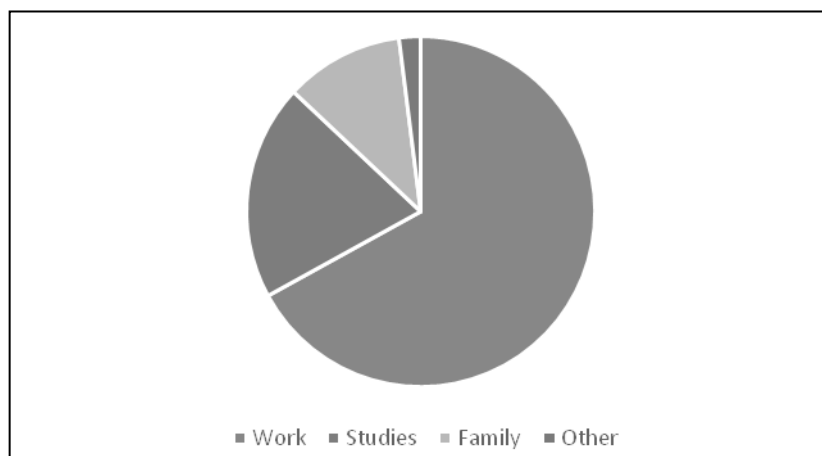
It is imperative to note that once Britain decides to close its doors to immigrants, then it will also be exiting the European market, which happens to be the largest economic block in the world. The UK must therefore allow free movement into the country so that it can fully explore the European market. Moreover, an influx of human resources is also one of the main factors that promote the nation's economic development. In addition to tak-

ing high-end professionalized jobs, immigrants also tend to accept job opportunities that UK natives would not undertake. This leaves a small gap for unemployment and increases the nation's productivity.

One of the main concerns that arise from Brexit is the fact that experts are yet to establish the overall change in the relationship between EU members. It is imperative to note that there will have to be a replacement for UK's membership as far as migration is concerned. For the best possible results, the nation would have to sign an agreement that would enable citizens from the union to move and work freely in the nation. This would serve as a suitable cooperation agreement that would still boost economic development in the regions. If the UK implemented such policies upon its exit from the EU, then maybe there would be a lower migration rate.

Dhingra et al. (2016) observe that if UK does not adopt migration agreements with EU states, then there would be adverse effects as far as free movement to the nation is concerned. Considering the fact that most of the individuals living and working in the nation are from EU member states, the results of any limitations would be extreme. If the nation decides to adopt a new set of policies that would instead focus on introducing admission requirements, then it would mean that immigration rules are similar for both EU and non-EU members.

If the same immigration rules applied to anyone who wanted to settle or work in the UK, then the number of immigrants would be cut down significantly. Under normal circumstances, non-EU citizens are assessed in terms of their work qualification. This means that similar rules imposed on the EU states would limit the number of immigrants to the UK. Obtaining a legal permit to live and work there would be extremely hard since there would be increased competition. Irwin (2015) notes that most individuals migrate to the UK for work-related reasons. This places studies in the second place and family unification in the last. Other reasons account only for a small percentage of the immigrant population.



**Chart 1:** Graphical representation and reasons for moving to the UK

**Source:** National Statistics (2016)

Chart 1 above provides a graphical representation of the immigrant populations and their reasons for moving to the UK. The most frequently mentioned reasons include the following: work – 67%, studies – 20%, family – 11%, or other – 2%.

Over the recent past, concerns have been raised over the impact of increased immigration rates on jobs and unemployment in the UK. Many British citizens argue that immigrants increase the rate of unemployment in the nation, thereby increasing job competition in the nation. Studies have, however, shown that such an increase in the population increases the amount of goods and services consumed in the nation. This in turn leads to

an overall increase in production that reflects a rise in the country's revenue. The main advantage of unrestricted movement is that it supports free trade and cooperation among EU nations. This means that the countries are provided with a wide range of talents and skills, thereby enabling commercial growth.

Liddle (2014) notes that one of the main reasons behind these apprehensions is the accession of 8 Eastern Europe nations. This was probably the largest expansion for a union to date. Many EU members signed consents that imposed some restrictions on free movement. The UK, however, allowed for free movement into the nation for members of the A8 countries. This saw the highest number of immigrants to the country with an excess of over 650,000 citizens from Poland. Most of them took jobs as workers between 2004 and 2007. It was therefore believed that high immigration rates lowered the income levels in the employment sector.

This was just but a common perspective of the free market principles and as such most people did not know is that this did not apply to all sectors of the economy. Whereas some jobs require man power and manual work to be done, most call for knowledge, specialized training and a specific sets of skill that involve professionalism. A well-synchronized work environment would provide the best output for many industries. According to Jurado et al. (2013), most of these individuals come from other EU nations since the number is limited in the UK. In most cases, the skill-set required is not available from UK-born citizens and as such external workers are needed. This means that the benefits of immigration are far stretched and in most cases contribute to the development of UK's economy.

#### **Implications for the UK's return migration**

Currently, there are over a million British citizens living in European nations (Tilford, 2015) with some sources placing this number at about three million (e.g. Stielkowski et al., 2016). This means that they enjoy the rights imposed by the EU including the right to visit and work in the nation of their choice. They also have an equal access to both health and education systems in the member states. It is imperative to note that this will not be the same once the UK exits the EU. There are many uncertainties associated with this move. For instance, the member states of the union might decide to adopt and implement new laws regarding British immigrants. In addition to this, the laws may also affect those who are already living in their nations implying that they would be treated as foreigners.

The criteria to be used for British immigrants will be different in different European countries. The UK may formulate individual immigration agreements with each member state but the possibility of implementing such a policy would take years. This would mean that the member states could either decide to charge British citizens more upon entry to their nations, or impose tougher immigration rules.

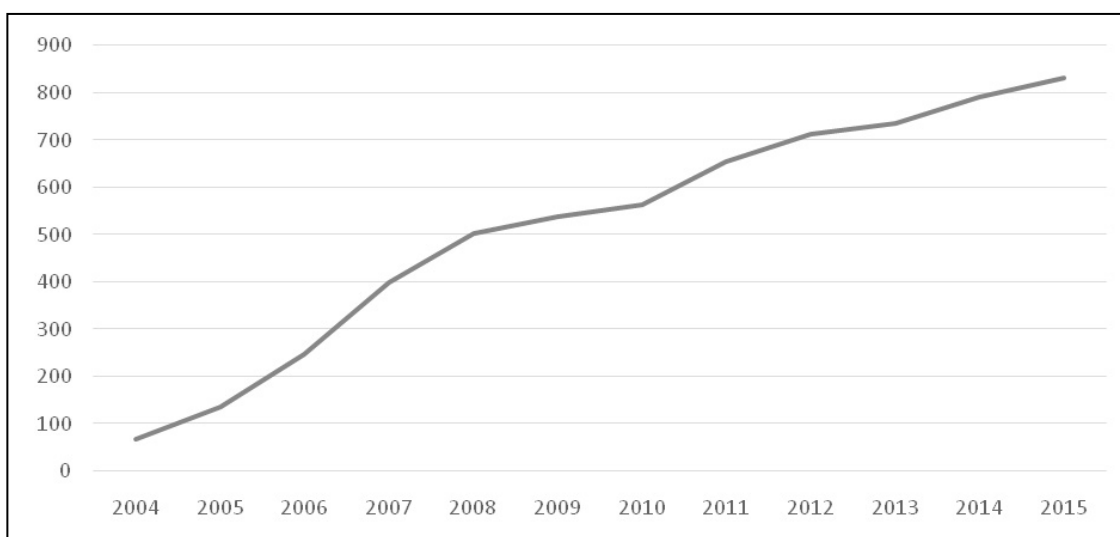
The fate of British citizens who have attained the retirement age while in EU member states is also uncertain. For instance, after Brexit, they may no longer have the right stay in a nation of their choice. This would also mean that those individuals who have not secured permanent jobs in European nations would have to go back to the UK, since self-employment would not be considered in this case. Many of the member states will use Brexit as an excuse to depot any British citizen who breaks the law while in their country. This implies that the crime in question could either be trivial or serious. As a result, movement to such nations may be deterred, hindering economic cooperation and regional development.

#### **Methodology and data**

After 1994, the immigration in the UK increased because of the unemployment decline. Since, in the context of a stable unemployment rate and fast economic growth, the migration inflows increased in the UK. UK attracted high-skilled immigrants because of the increasing income inequality in the last few decades (Hatton and Williamson, 2005).

The economic reasons for migrating from Poland to the UK are: wage and output per capita differentials, consistent economic disparities between regions and unemployment differentials, as Glazar and Strielkowski (2010), Stojanov et al. (2011), or Strielkowski and Weyskrabova (2014) noticed. The economic integration of Poland in the UK in 2004 and the immediate labour market openness in the UK had an important impact on Polish immigrants.

We analyze the macroeconomic determinants of migrating from Poland to the UK since 2004. In this context, we will build a Bayesian Bridge regression model to select the immigration determinants of the Poles in the UK in the period 2004–2015. After Brexit, a decrease in the GDP and in the economic growth is expected (Boronska-Hryniewiecka, 2016; Chu; 2016). Boubtane et al (2015) forecasted a decrease in labour productivity after Brexit. These expected changes in the values of the macroeconomic variables that are linked to Poles migration will affect the number of Polish migrants in the UK.



**Chart 2:** The number of Polish immigrants in the UK (2004–2015)

**Source:** Own results based on the Office for National Statistics (2016)

In the empirical model outlined in this paper, we consider a list of more potential determinants of migration from Poland to the UK in the period 2004–2015:

- Real GDP rate
- Unemployment rate
- Wage and salaried workers, total (% of total employment)
- Poverty gap at \$1.90 a day (2011 PPP) (%)
- Health expenditure, total (% of GDP)
- Real effective exchange rate index (2010 = 100).

The data we employ in our model are provided by the World Bank and they refer to the UK's economy.

The traditional regression models could offer misleading results when empirical data are employed, because of the violation of the method assumptions (Chiabai et al. 2014). In this context, the Bayesian nonparametric approach is better as it constructs flexible models as an infinite mixture of regression models with minimum assumptions on data. The ridge regression linear model proposes estimates via shrinkage.

For some data series,  $D_n = (X, y)$  with  $X = (x_{ip})_{n \times p}$  and  $y = (y_1, \dots, y_n)^T$  and a conjugate normal-inverse gamma prior density to  $(\beta, \sigma^2)$ , we have:

$$f(y|X, \beta, \sigma^2) = n_n(y|X\beta, \sigma^2 I_n) = \prod_{i=1}^n n(y|x_i^T \beta, \sigma^2)$$

$$\pi(\beta, \sigma^2) = n_p(\beta|m, \sigma^2 V) \text{ig}(\sigma^2|a, b) = \text{nig}(\beta, \sigma^2|m, V, a, b)$$

where:

$n_n(\cdot | \mu, \Sigma)$  – probability density function (pdf) of the n-variate normal distribution;

$n(\cdot | \mu, \sigma^2)$  – probability density function (pdf) of the uni-variate normal distribution;

$\text{ig}(\cdot | a, b)$  – probability density function (pdf) of the inverse gamma distribution (a represents the shape and b the rate,  $1/b$  - scale);

$\text{nig}(\beta, \sigma^2 | m, V, a, b)$  – probability density function (pdf) of the NIG distribution.

If joint prior distribution of  $(\beta, \sigma^2)$  follows a NIG distribution, in the marginal approach,  $\beta$  follows a Student prior distribution of mean  $m$  and covariance matrix  $V1(\beta) = \frac{b}{a-1} V$  and  $2a$  degrees of freedom.  $\sigma^2$  follows an inverse-gamma prior distribution of mean  $\frac{b}{a-1}$  and variance  $\frac{b^2}{(a-1)^2(a-2)}$ .

### Results and implications

Bayesian ridge regression model is a Bayesian linear regression model of normal prior distribution  $n_p(\beta|0, \sigma^2 \lambda^{-1} I_p)$  for  $\beta$ , conditionally on  $\sigma^2$ . If  $(\beta, \sigma^2)$  has a prior normal inverse-gamma distribution  $\text{nig}(\beta, \sigma^2|0, \lambda^{-1} I_p, a, b)$ , the inferential procedures for Bayesian normal linear regression model are used in case of the ridge regression.

The ridge regression permits fast OLS estimation of the parameters, even if the number of covariates ( $p$ ) is very large and the number of covariates is greater than the number of observations.

Using empirical data, we will compute the posterior probability that the standardized coefficient is within 1 standard deviation of 0 (PP1SD). If the value of this indicator is lower than 0.5, then the exogenous variable represents a significant predictor in the ridge regression. If PP1SD is less than 0.05, then that explanatory variable is a determinant for the number of Polish migrants in the United Kingdom.

Looking at the results our estimations presented in Table 1, one can see that the number of Polish migrant workers in the UK increased by almost 12 times in 2015 compared to 2004. One can deduce that the main reason for that is the Polish EU Accession in 2004.

**Table 1: Marginal Posterior Summary Estimates for Bayesian bridge regression**

| Variable                           | Slope    | PP1SD |
|------------------------------------|----------|-------|
| Real GDP rate                      | -40.253  | 0.139 |
| Unemployment rate                  | -60.953  | 0.162 |
| Inflation rate                     | 92.323   | 0.000 |
| Wage and salaries                  | -206.450 | 0.000 |
| Health expenditure                 | 156.625  | 0.008 |
| Real effective exchange rate index | 93.602   | 0.013 |

**Source:** Own results

The empirical results based on Bayesian bridge regression indicated that all the considered variables were determinants of the migration from Poland to the UK. As expected, the increase in the unemployment rate and the increase in the health expenditure in the UK did not encourage too much the migration. Contrary to expectations, even if the real

GDP rate decreased in the context of global financial crisis, the Poles continued to choose the UK as destination country.

### Conclusions and discussions

From the literature review, data analysis, empirical model results and implications presented above in this paper, it becomes quite clear that UK's exit from the EU (nicknamed Brexit by the media) might have adverse effects on migration. The process of withdrawal is not only complicated, but will also take many years to be finalized.

There are many unsettled issues with regard to labour migrants in the UK and UK citizens residing in the EU Member States. United Kingdom has always been an attractive place for the young EU citizens who wished to learn better English, experience the British way of leaving and to find jobs in catering, services, or academia. British academic sector (unlike for example Czech, Slovak, or Polish) has always been opened for foreigners which can be demonstrated on a very high percentage of foreign researcher or academics in UK universities and research institutions. And the flow was also going from the other side: for many elderly Brits, EU countries located in Southern Europe (Italy, Spain, Portugal) constitute favourite places of leisure and spending holidays. Both groups will suffer from the implications of Brexit.

Our empirical model revealed that the migrants in the United Kingdom (represented here by the sample of Polish migrants) were not attracted by the increases in wage and salaries, as they preferred to be employed even at lower wages than the minimum one, because of the high gap between salaries in the UK and Poland. The increase in the real effective exchange rate index attracted more immigrants. Even if the inflation rate increased and the price stability was affected, the Poles continued to come in the UK in a large number.

New agreements and policies would have to be negotiated between the UK and EU Member states. In addition to this, Brexit's impact on migration is uncertain implying most of the explorations are just speculations of what might happen. The UK legal system would have to make regular changes as far as migration is concerned. In the long run, the nation may be able to solve the issue of mass immigration at the expense of creating an economic downturn. All these are, however, uncertainties that are dependent on the turnout of Britain's future.

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