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## UNITED KINGDOM: RECENT MIGRATION SUGGESTS A SUBSTANTIAL BRAIN GAIN

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### 3.1 INTRODUCTION: REVIEW OF THE LITERATURE

A decision to migrate is not always easy. We shall view the motives and reasons that drive such a decision-making process as neither good nor bad on their own merits, but rather as a series of incentives generated by the environment or, in certain cases, »nudged« by environmental conditions (for example, government policies).

For instance, as Eurofound (2014) suggests with regard to youth employment, a high proportion of those who change jobs can be experiencing upward job mobility and making decisions voluntarily, with no negative connotations. In fact, this type of worker is likely to engage in »job-shopping«, sampling different jobs to find the right fit.

Another factor is shifts in labour market needs. The skill set of a given region and or cohort of workers in a certain labour market form the supply side and it is not imbalances on the demographic side that usually provoke a mismatch – for example, a baby-boom or an increase in life expectancy – but the changing nature of demand for particular skill sets. This can lead to a disconnection between domestic labour flows and economic needs, which may require the sourcing of an immigrant labour force. Not surprisingly, a Eurobarometer report from 2011, *Awareness of Home Affairs* (Eurobarometer 76.4), revealed that 42 per cent of Europeans thought »the EU should encourage labour migration from non-EU countries to help tackle demographic challenges and labour shortages« (although only 33 per cent in the United Kingdom agreed). Therefore, the results from the December 2014 wave (Standard Eurobarometer 80) are alarming, because a staggering 18 per cent of the European population consider immigration an important national issue, indeed the third most important after unemployment and the economic situation. In the United Kingdom, it has become a paramount public concern, with a 38 per cent of the population mentioning it as an important national issue.

During the first decade of this century, 70 per cent of the growth in the European labour force derived from immigration, while the share of the tertiary educated increased by 50 per cent in the same period (OECD/European Union

2014). EU27 immigrants are more likely to have a tertiary diploma than those from third countries. Internal migration in Europe has been characterised by an increasing share of highly qualified migrants.

Because migration policies have become more selective, so has the proportion of highly educated immigrants likely to have to underuse their skills and competences, obtaining lower returns in the process. This contradicts the basic model in terms of which migration flows are explained, within the framework of which one would expect migrants to move to regions with higher expected returns. However, over-qualification is a fact. Furthermore, it is not only the individuals concerned who are obtaining less economic returns from their education and knowledge, but the host society overall.

To the already mentioned problems of (i) under-usage of the full capacities of the migrant labour force and (ii) the tensions in the domestic population regarding increased migration, we have to add (iii) the problems that arise in the countries of origin of the diaspora due to the loss of talent and skill sets.

According to Agunias and Newland (2012), the value of diasporas is much more than the 400 billion US dollars or so that they sent home in remittances in 2010 if we took into account their transferrable skills, knowledge and networks, which are such an important part of the knowledge-based economy. Indeed, the very term »diaspora« refers to ties to the country of origin, in contrast to migrants who lose their connections after a generation. It is in this sense that the authors stress the importance of national programmes designed to attract talent back home, so-called »brain circulation«. Furthermore, the authors point out the importance of cooperation with destination countries. They cite the United Kingdom as an example: the offices of the UK Department for International Development (DFID) are encouraged to consult diaspora groups in formulating country assistance plans. DFID recruits workers for the Senior Executive Service from diaspora members who then fill senior positions in the governments of post-conflict countries. Thanks to a programme funded by the DFID in March 2008, the NGO Voluntary Service Overseas (VSO) helped people from diaspora communities to work as volunteers in their countries of origin.

### 3.1.1 AN EXPLANATORY MODEL OF BRAIN DRAIN/GAIN

A more contemporary approach to migratory processes considers brain drain as the outflow of qualified labour, with reference to both source and destination country (Hartmann and Langthaler 2009). In this case, countries compete for talented workers that leave their countries of origin for a variety of reasons, including personal, professional and environmental. These push/pull forces can be analysed and categorised in an effort to make it easier for the source countries, which suffer from brain drain, to try to attract their diaspora back. On the other hand, the source countries, enjoying a »brain gain«, are likely to make efforts to further enhance incentives to qualified immigration.

Apart from the environmental aspects, which can be assessed by the macroeconomic monitoring of the regions, Dustmann et al. (2011) explain the individual motives for migration based on human capital investment. This is important because it highlights that migratory flows are due to decisions based on »capital accumulation«: individuals move where human capital can be acquired more efficiently. The authors bring up the issue of »brain circulation« and the incentives that have to be put in place for such »return« to happen. In this way, apart from learning and skills accumulation, other reasons for return are identified, such as consumption preferences, retirement and purchasing power differences. Finally, while some arguments are given to extend the possibilities of the model, it is pointed out that possible positive externalities may exist in both brain drain and brain gain flows.

### 3.1.2 POLICY-MAKING IN THE AGE OF BRAIN DRAIN

Apparently, on the verge of economic recovery, it seems pressing consider the processes that have led people throughout the European Union to move around it and beyond. However, even today high unemployment rates afflict several EU regions. The situation is particularly severe with regard to young people. Indeed, according to Eurofound (2014), young people are traditionally more affected by unemployment during crises and are more exposed to changes in the environment.

Furthermore, the north/south divide – some may argue that there is primarily an east/west divide – still holds, with unemployment rates as high as 26.2 per cent in Greece (Eurostat 2014 – ILO estimate), 25.1 per cent in Spain and 15.4 per cent in Portugal, while the United Kingdom averages 7.2 per cent and Germany 5.2 per cent. In terms of youth unemployment, Spain is worst afflicted at 53.2 per cent, followed by Greece at 52.4 per cent, while the United Kingdom remains at 16.9 per cent and Germany around 7.7 per cent.

The EU countries are aware that a »brain drain« exists and have put in place machinery to ameliorate its negative effects. It is important to note the migration flows conceptualised as a »brain drain« apply not only to Europe but also to the United States, Canada and Australia, among other countries. In this framework, it is not surprising that a plethora of policies aimed at reducing the brain drain – or to increase the brain gain – have emerged in Europe. Giannoccolo (2005) has categorised such policies in seven groups: immigration poli-

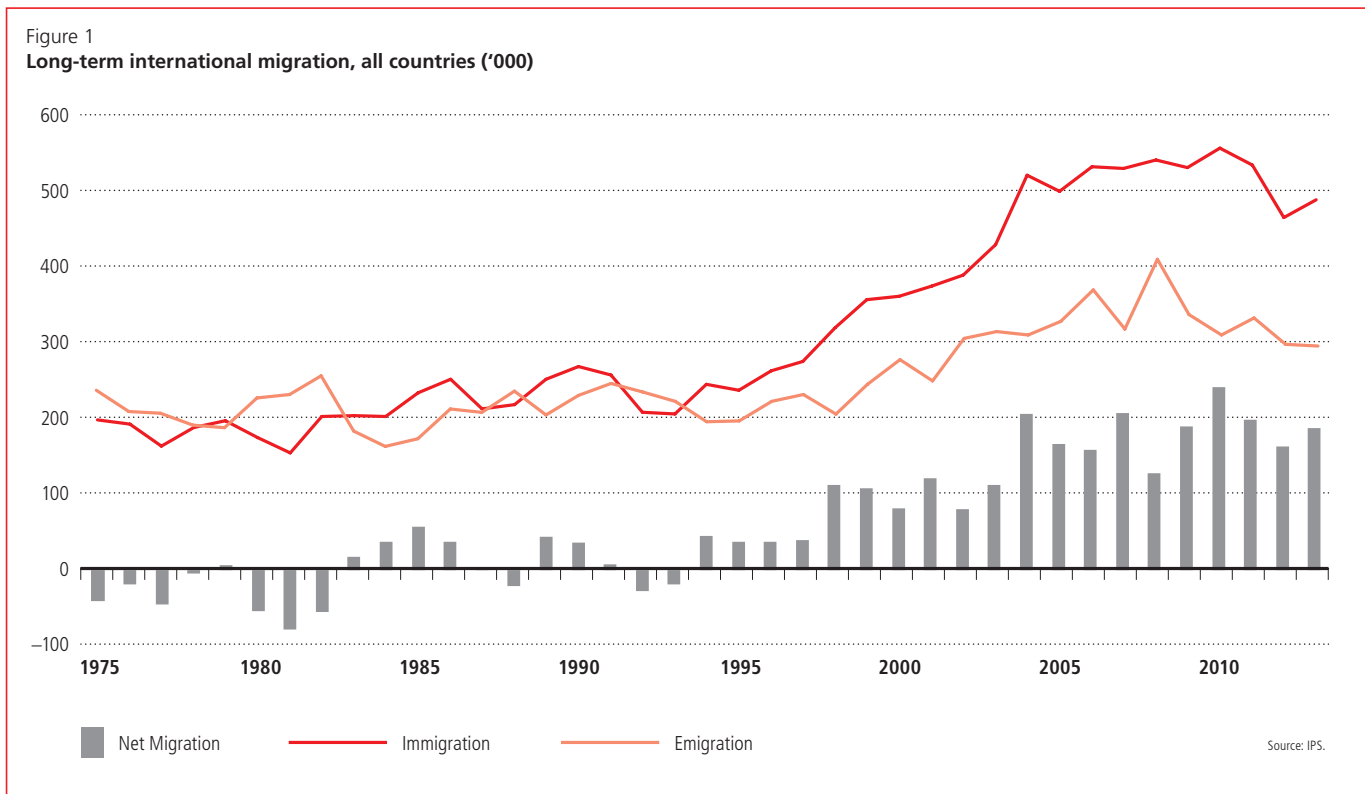
cies, incentives to researchers and relatives, grants and scholarships, tax and wages, investment in research, marketing and recruitment, and studies and analysis of the immigration policies of other countries.

At the same time, it is necessary to establish mechanisms of cooperation, such as the »EU Blue Card« directive, adopted in 2009 to attract talent and highly skilled workers. In the United Kingdom, the number of residence permits issued to non-EU students was above 247,000 (2011), while the country opted out of existing Directives concerning researchers. It is EU policy to increase R&D investment to 3 per cent of GDP (European Commission 2002). This should had been seen as an opportunity to raise the profile of careers in science and technology, becoming an incentive for change in education, training and mobility conditions in Europe to improve the region's attractiveness in comparison with competing areas. However, Hartmann and Langthaler (2009) suggest that measures like this one may provoke further brain drain from developing countries as there are no firm statements and measures to ensure this will not happen due to the Directive. Besides, the European Commission has been aware of the situation and the concepts of »circular migration« and »mobility partnerships« were introduced to be incorporated in public policies that benefit both destination and source countries. Recent events indicate that measures are urgently needed, such as the influx of Zambian doctors and nurses to the UK health service (Velde and Grimm 2005).

At national level, several countries – in particular southern European ones – which became a net emigration focus, or »brain drain« areas, have rushed to establish policies to reverse outflows and incentivise inflows. Milio et al. (2012) look at the case of Italy, conceptualised as a diaspora, but also at its apparent inability to attract talent to the country, afflicted by a series of ineffective and uncoordinated policies. On the other side, the British and Swiss cases are presented as examples of policies with proven success in curbing the brain drain. In the case of the United Kingdom, a fund was launched in 2000 to attract young foreign scientists and the return of British researchers (one reason given for the increase in university fees since 2009 is increased research funding). Outflows did not stop but the United Kingdom has been successfully replacing them with foreign talent (brain gain), a phenomenon known as »brain circulation«.

At European level, in December 2012 the European Commission proposed a Youth Employment Package aimed at reducing high levels of youth unemployment and social exclusion among young people (Eurofound 2014). These measures are supposed to guarantee employment, education, apprenticeships or training to the under 25s within four months of leaving school or becoming unemployed. This initiative is based on the idea of youth transition, especially with regard to the effects of unemployment on mobility – both social and geographical – which is strongly related to the brain drain/brain gain phenomenon.

Even civil society has started to react, for example, the NGO Europatriates, whose stated mission is to provide young Europeans with the feeling that »Europe is doing something for them and that Europe is helping them«. A six-step programme has been articulated (Europatriates, n.d.), which is inspired by the Youth Employment Package and the concept



of »expatriate«. The programme proposes to (i) generate a personal development plan, (ii) fund apprenticeships via the European Investment Bank (EIB), (iii) set up an employment »radar system« (a big data-based tool designed to search for job opportunities), (iv) obtain financing for SMEs that hire young unemployed people after a trial period, (5) create networked infrastructure capable of managing the whole process and (6) provide training for short and temporary deployments.

### 3.1.3 »MIGRANT, THE UK NEEDS YOU!«

What is unquestionable is that there is a real labour shortage in the United Kingdom. The Migration Advisory Committee (MAC) – an independent, non-statutory, non-time limited and non-departmental public body that advises the government on migration issues – identified that only 3 per cent of the total annual inflow of non-EU work migrants has accounted for shortages, which is a route for obtaining a Tier 2 visa (skilled workers with a job offer in the United Kingdom). In its report (MAC 2015), several roles in health care, overhead power lines and digital technology are identified as suffering from a labour shortage.

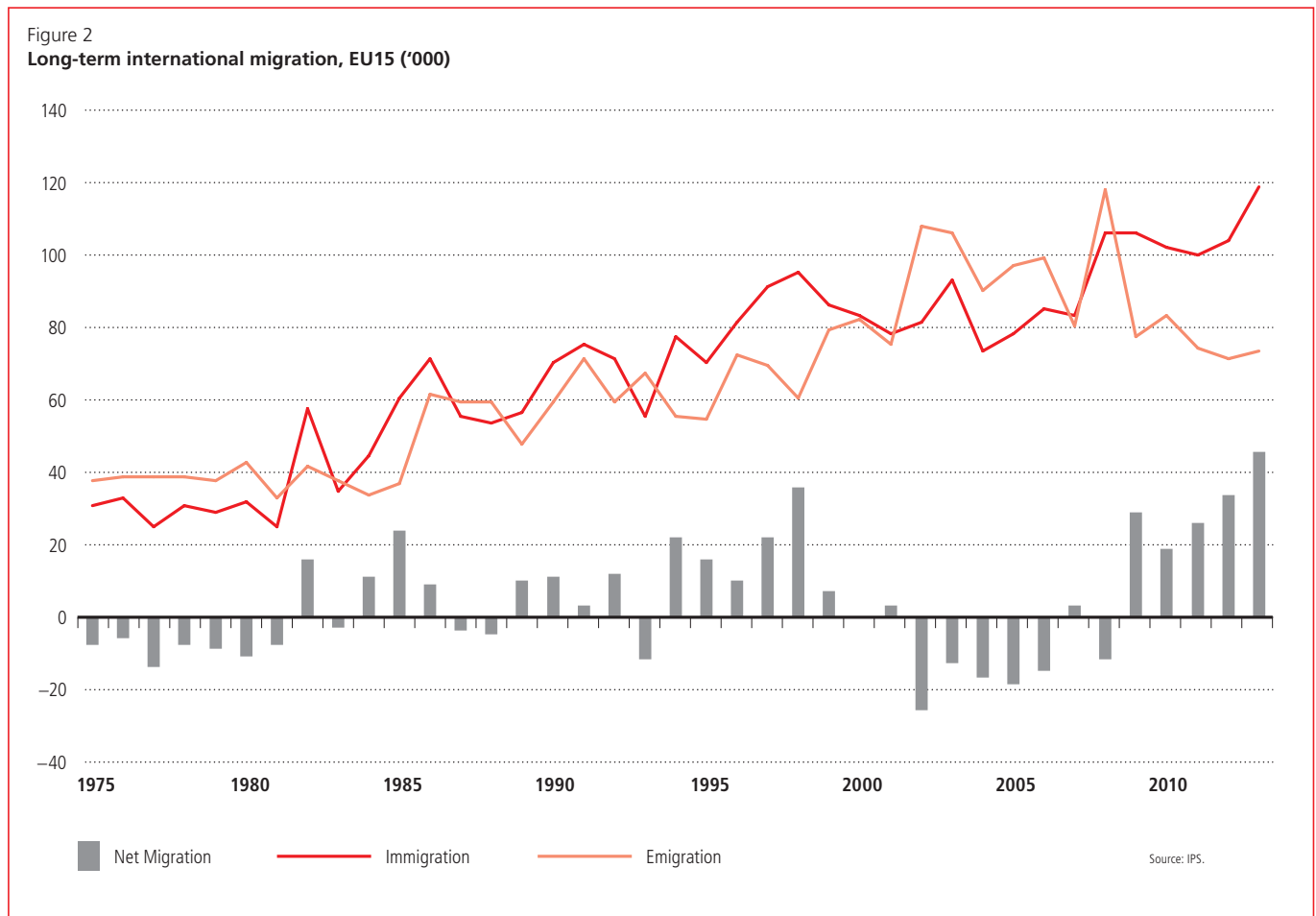
According to MAC (2015), »net migration of EU migrants to the UK was modest until the expansion of the EU in 2004, rising to a peak of 127,000 in 2007. Although it fell sharply with the onset of the financial crisis in 2008, by the end of 2013 it had almost returned to the 2007 level«. As for emigration, it »doubled from around 50,000 in the late 1990s to around 100,000 in 2006/07. It has since declined again to 57,000 in 2013«. But these figures concern overall migrants, not taking the »brain drain/gain factor« into account.

## 3.2 UK BRAIN GAIN AND BRAIN DRAIN – DESCRIPTIVE ANALYSIS

There is no single authoritative source, publication or even manager of migration data in the United Kingdom. The choice of data set will therefore depend largely on the particular research question. Another issue with UK data is their limited scope and, at times, reliability. In addition, not all data are equally available and defined for the four UK countries of England, Wales, Scotland and Northern Ireland. Sourcing reliable data becomes increasingly difficult with regard to detailed personal characteristics, such as origin, birthplace, education or region.

Brain gain or drain refers to the movement between countries of highly educated or skilled workers. The present study uses job category and highest education level as indicators. The two data sets used are the International Passenger Survey (IPS) and the UK Labour Force Survey (LFS). The IPS is a voluntary survey of passengers travelling to and from the United Kingdom. The survey is interested mainly in long-term migration, which is defined as an intended stay of at least 12 months. This is consistent with the UN definition of migration. The data set is also the sole basis for estimating UK emigration. One of the main limitations of the IPS is its lack of comprehensiveness, as it excludes migration between the Republic of Ireland and Northern Ireland, as well as – largely – refugees and asylum seekers. Furthermore, the sample is relatively small, so that detailed stratification may result in large margins of error.

The IPS is the basis for long-term migration numbers. As can be seen in Figure 1, net migration to the United Kingdom was relatively net neutral until the end of the 1990s. Since the beginning of the century, however, the United Kingdom



has experienced an increased net inflow of migrants. While annual immigration has more than doubled from about 200,000 migrants between 1975 and 1995 to over 500,000 in more recent years, this has been partly offset by higher emigration numbers, which indicates streams of migrants into the countries of origin.

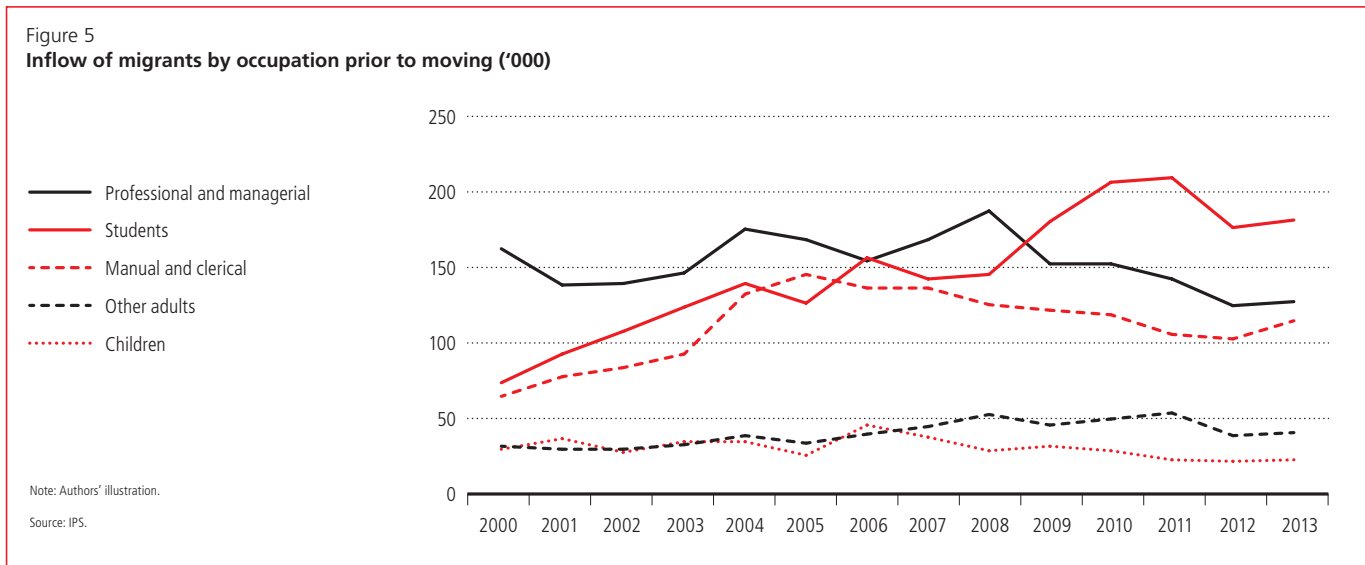
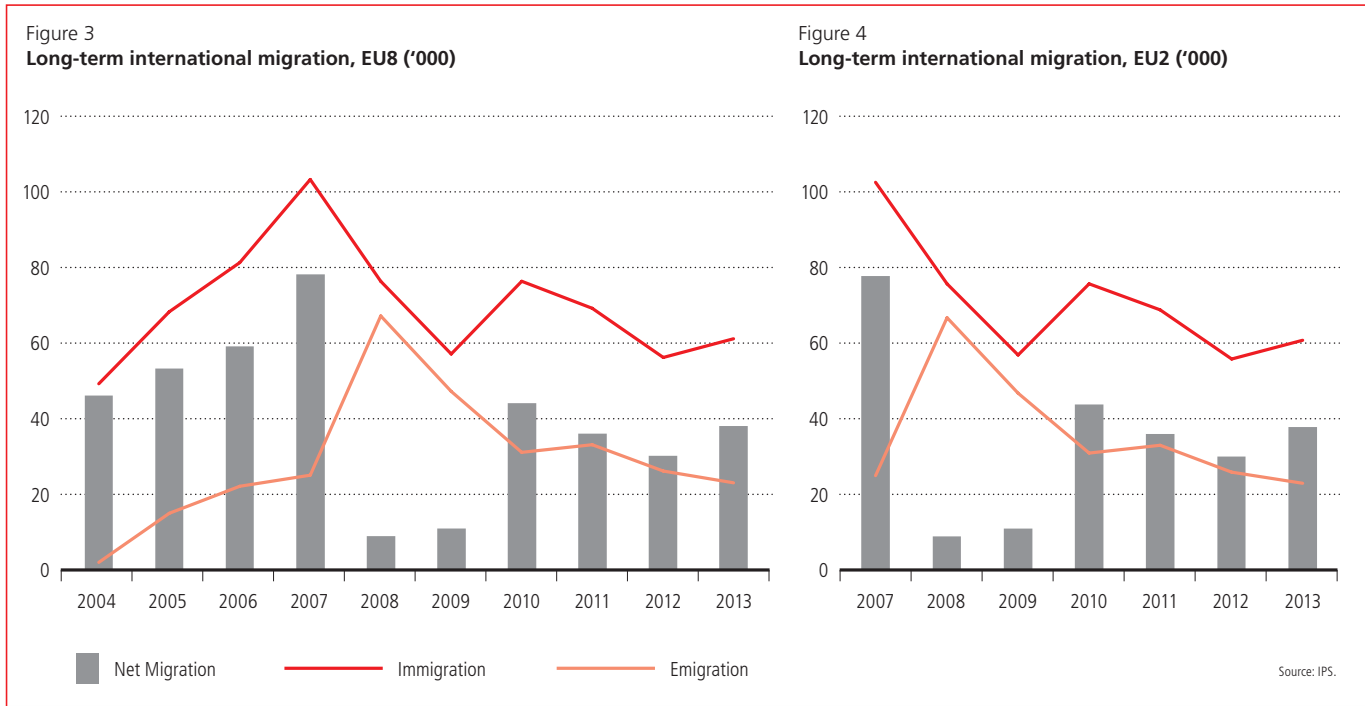
Migration between the United Kingdom and other EU15 countries has increased steadily since 1975, as Figure 2 illustrates. Migration and immigration were closely matched, with overall net migration steady. Since the recession, net migration has been positive, partly reflecting the higher influx of workers from southern European countries deeply affected by the recession and debt crisis.

Given the close proximity to other EU15 countries, with their large population, the migration numbers are fairly low. One of the most profound changes in UK mobility patterns was the accession of the EU8 countries of central and eastern Europe. When the EU8 nations entered the European Union in 2004, the United Kingdom lifted its entry restrictions for the new members. Until 2011, EU8 and EU2 (Romania and Bulgaria) citizens were required to register in the Worker Registration Scheme to enter the United Kingdom. Because other countries, such as Germany – which was previously a popular destination country for central and eastern Europeans – maintained barriers to entry, migration flows were effectively redirected towards the United Kingdom. This redirection has had a lasting effect and the number of EU8 citizens – in particular from Poland – living in the United

Kingdom has increased dramatically. The accession countries all have a communist past and have much lower average wages and higher unemployment rates, creating a strong migration incentive. In addition to the economic factors, EU accession offered the possibility of free movement for the first time. Figure 3 shows migration estimates from the EU8 to the United Kingdom. However, the numbers underestimate the true extent of mobility. In 2004, the influx is shown to be about 50,000, but National Insurance number allocations suggest immigration of about 120,000. This discrepancy is likely to be due to migrants' not stating their long-term mobility intentions.

The year 2007 saw another round of accessions with Romania and Bulgaria (the EU2) becoming part of the EU. For EU2 nationals, transitional restrictions were enforced and remained in place until 2013. The lifting of the restrictions explains the spike of migration from Romania and Bulgaria in 2013. However, the United Kingdom is not expected to be the main destination country for EU2 migrants, who had a strong preference for southern European countries prior to the recession.

The IPS provides data on citizenship and usual occupation prior to migration. The occupation groups are »professional and managerial«, »manual and clerical«, »students«, »other adults« and »children«. Migrants with higher skills and education are likely to be contained in the categories »professional and managerial« and »students«. The relative size of these groups within the immigration flows indicates



the total size of brain gain in the United Kingdom. The data can be further broken down into the citizenship groups British, EU15, EU8, EU2 and non-EU. The analysis is replicated for emigration, which gives an indication of brain drain experienced, as well as the countries benefitting from it. A limitation of the analysis is that it cannot eliminate so-called »brain circulation«. A highly skilled immigrant to the United Kingdom may initially be captured as brain drain, but immigration flows usually generate counter-migration flows of individuals migrating back to their country of origin. Such counter-migration differs fundamentally from emigration, but a repeated cross-sectional design is not able to identify return-migrants as it does not trace individuals over time. Hence, if a highly skilled migrant returns to their country of origin, this would be counted as contributing to a UK brain drain.

Figure 5 illustrates the inflow of all migrants grouped by occupational category. The low number of children moving is not surprising as a large portion of mobility involves people of working age. The figure also clearly demonstrates that the two leading immigration categories are »professional and managerial« and »students«. There is no obvious trend in the number of professionals and managers moving to the United Kingdom, however, while the number of students has clearly increased. The United Kingdom has among the highest shares of foreign students, who contribute strongly to the academic sector as well as to the economy. It is difficult to establish clearly whether students can be counted as brain gain or brain drain. Students constitute a brain drain if, on graduation, they remain in the country and work in a skilled profession. The United Kingdom previously encouraged the labour market integration of foreign UK graduates by providing easy access to work visas following completion of study. On one

Figure 6  
**Inflow of migrants who were students prior to moving and citizenship ('000)**

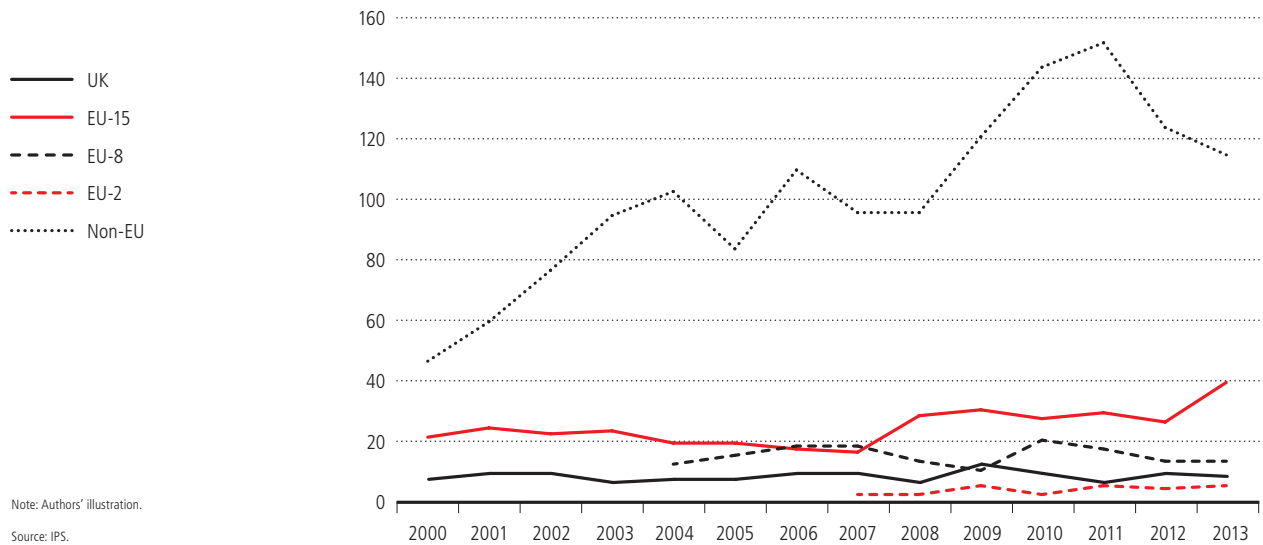
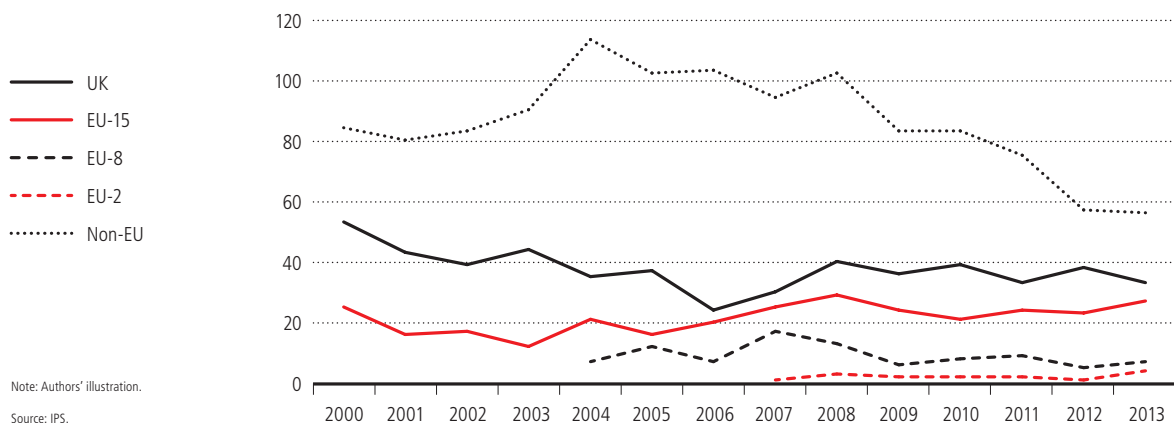


Figure 7  
**Immigrants who were in managerial or professional positions prior to moving and citizenship ('000)**



hand, the United Kingdom offers a 12-month visa extension to students who are finishing their doctoral degrees to find work in the United Kingdom. On the other hand, obtaining a Tier 2 General Visa requires students to find a sponsor and meet a minimum salary requirement, which can be a substantial barrier to staying.

While there was a slight increase in the number of students from EU15 countries, European nationals contribute little to the overall number of foreign students. Quantities from the EU2 and EU8 are very low, which indicates that these national groups migrate mainly for work. The increase in foreign student immigration was driven largely by non-European students, in particular from China.

Figure 7 highlights that non-EU nationals are the largest contributors to brain gain with regard to highly skilled professionals. The second largest group are UK nationals who are returning to the United Kingdom. Some of the UK citizens

may have obtained their UK citizenship outside the country, such as the children of UK expatriates. This group is closely followed by EU15 nationals. Overall, NMS citizens contribute little to the overall brain gain from highly skilled professionals.

Figure 8 depicts the inflows of workers who were in manual jobs prior to immigration. A noticeable trend is the substantial decrease in workers from non-EU countries. The then coalition government (2010–May 2015, now succeeded by a majority Conservative government) of Conservatives and Liberal Democrats pledged to reduce immigration numbers. As they cannot limit EU mobility, the only option was to enforce stricter rules for non-EU citizens. Initially, there were plans to implement a work visa for low-skilled workers entering sectors with a labour shortage. However, this type of visa has never been enforced due to the large inflow of manual workers from the NMS. EU8 countries are the second largest group in the category and – relative to its total migration

Figure 8  
Inflow of migrants who were in manual positions prior to moving and citizenship ('000)

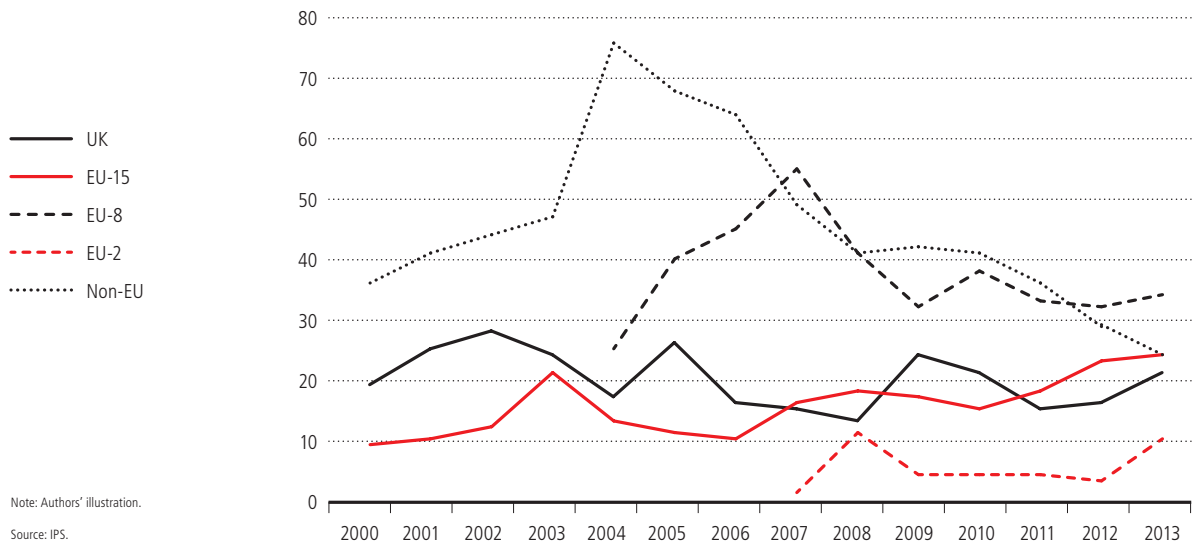
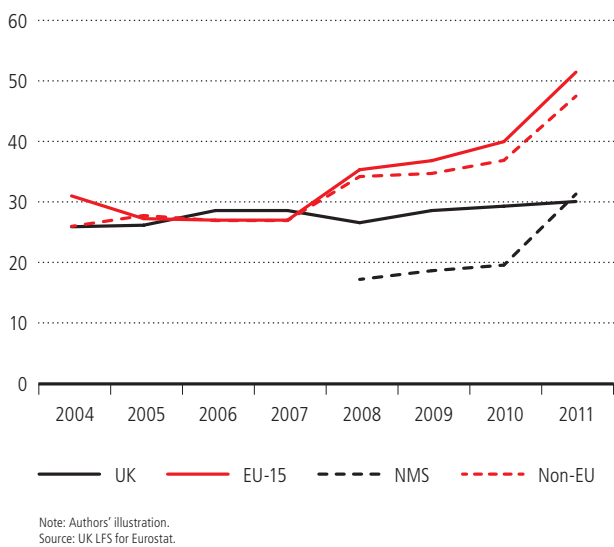


Figure 9  
Share of highly educated migrants by place of birth (%)



The LFS data indicate that NMS migrants have lower shares of highly educated persons than individuals born in the United Kingdom. However, the 2011 data show a spike in the share of highly educated NMS citizens, which may owe largely to a readjustment in the sampling weights based on the 2011 census. This suggests that shares of highly educated NMS immigrants may actually be higher in previous years as well. The highly educated shares of EU and non-EU born have increased markedly since 2008 and exceed that of the UK-born.

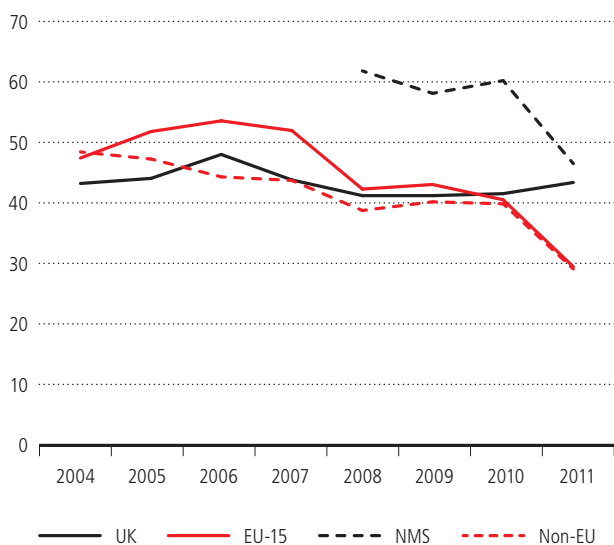
While NMS migrants exhibited lower than native shares of highly educated people, they far exceed the shares of medium high educated (see Figure 10). Furthermore, workers born in the NMS exhibit much lower shares of individuals with a low education (Figure 11). Workers born in the EU exhibit the lowest shares of low education. The native born workforce, on the other hand, exhibits the highest share of low educated. These statistics indicate that foreign workers add substantially to the workforce's education level in the United Kingdom.

The issue with regard to the analysis of shares of the workforce is that only net effects can be observed. Emigration and immigration cannot be untangled. Moreover, citizenship acquisition and the effect of younger cohorts entering and older ones leaving working age are likely to have a distorting effect. For 2007, 2010 and 2011, the LFS also recorded country of residence one year prior to the interview. This provides a better overview of the educational profiles of migration streams. However, the sample size is much smaller and less reliable than for stocks. Aggregating the data for the three waves can provide a more reliable picture. The resulting Figure 12 illustrates the educational profile of recent migrants to the United Kingdom with regard to their region of origin. The chart demonstrates that recent non-EU migrants exhibit the highest educational profile. This may be the result of

numbers – the inflow of manual labourers from the EU2 is substantial. Many migrants from the NMS countries work in agriculture and the hospitality industry.

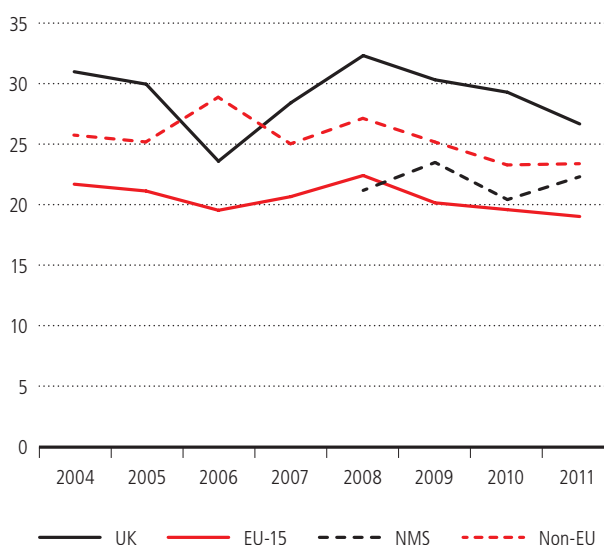
The LFS data can be a useful to complement the analysis based on IPS data. The UK LFS contains data on medium, high and low educational and skills level of individuals based on the ISCED scale. The figures can be cross-tabulated with coarse nationality groups that distinguish nationals, EU15 nationals (from 2007: EU27 nationals) and other foreigners. All data have been weighted with the provided sampling weights.

**Figure 10**  
Share of migrants with medium high education by place of birth (%)



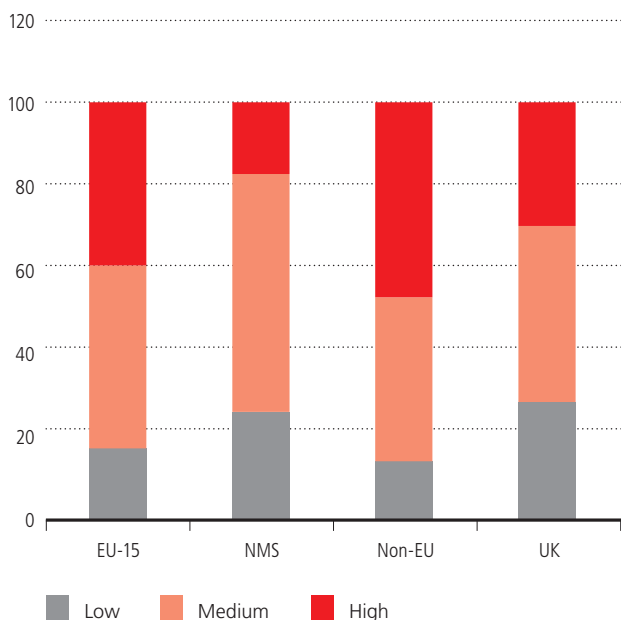
Note: Authors' illustration.  
Source: UK LFS for Eurostat.

**Figure 11**  
Share of migrants with low education by place of birth (%)



Note: Authors' illustration.  
Source: UK LFS for Eurostat.

**Figure 12**  
Educational profiles of natives and migrants by country of previous residence



Note: Authors' illustration.  
Source: UK LFS for Eurostat.

**Figure 13**  
Shares of natives and immigrants with high and medium high educational levels (%)



Note: Authors' illustration.  
Source: UK LFS for Eurostat.

restrictive entry criteria for non-EU citizens. EU15 migrants have a similarly strong educational profile. By analogy with the analysis of the stock of foreign workers, the recent inflow of NMS migrants displayed a relatively low share of highly educated individuals but also a low share of workers with low educational levels. In comparison, the UK born profile

has by far the highest share of workers with low educational attainment.

Generally, the United Kingdom has recently experienced a brain gain from immigration as the share of high and medium skilled immigrants is higher than that of the native population. The difference was about 10 percentage points in the years 2007, 2010 and 2011, as Figure 13 documents. The



Figure 14  
**Outflow of migrants according to occupation prior to moving ('000)**

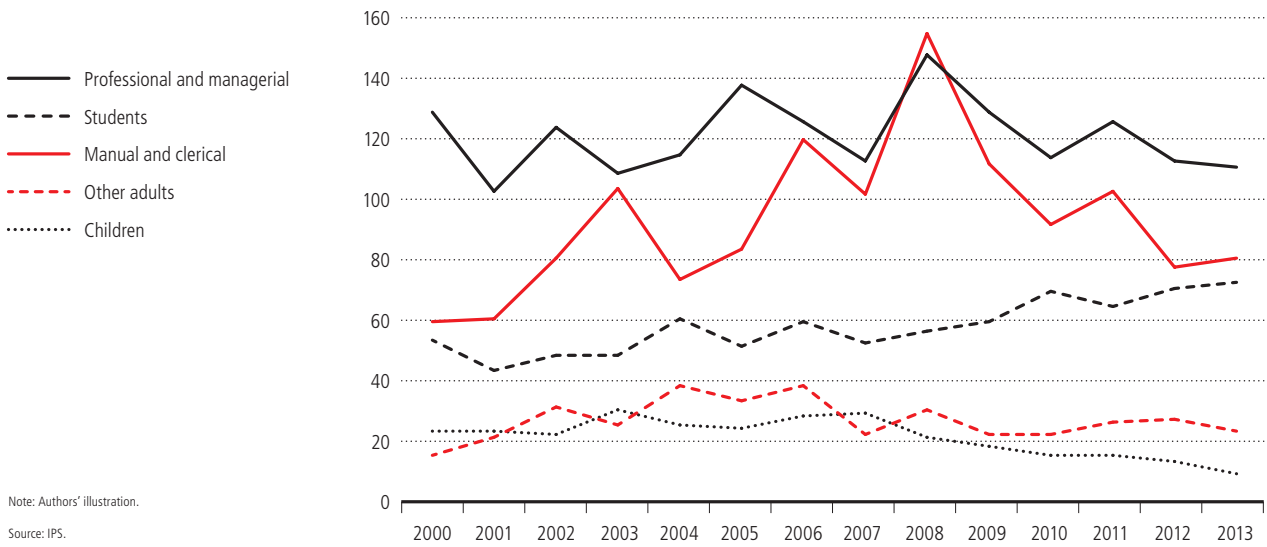
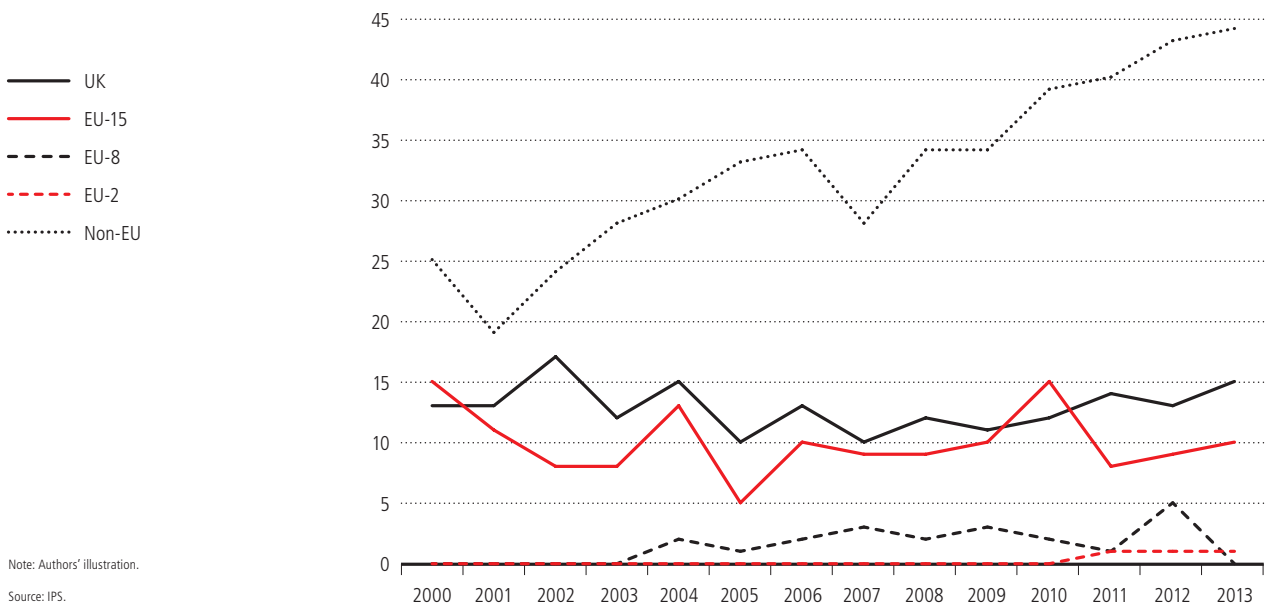


Figure 15  
**Emigrants who were students prior to moving and citizenship ('000)**



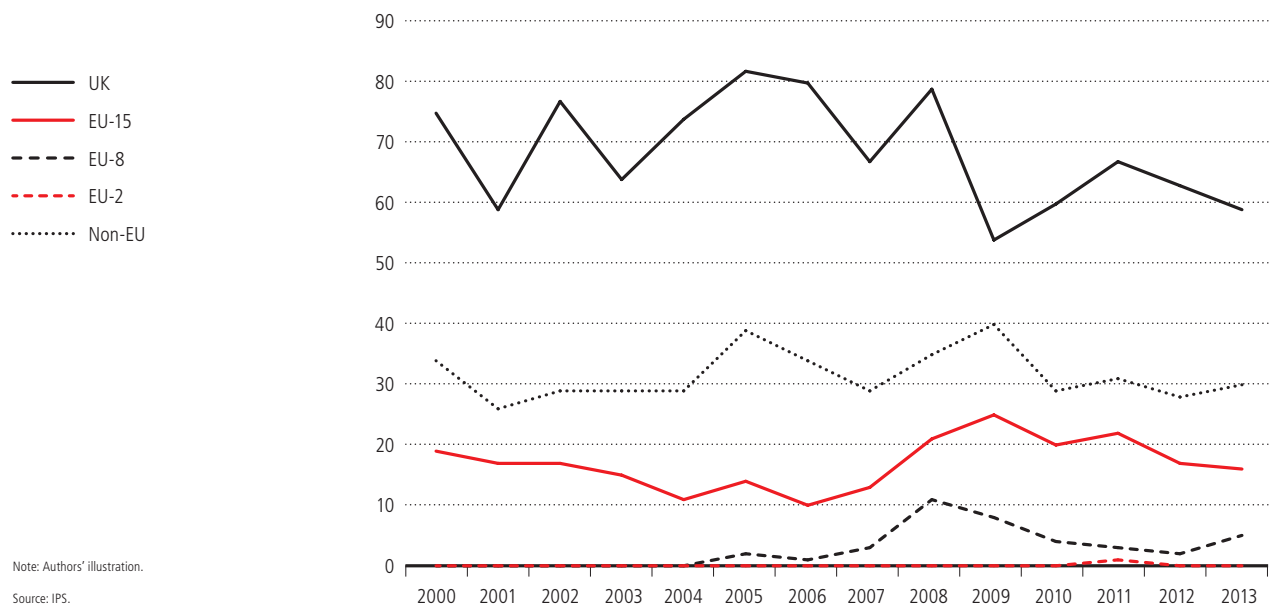
results highlight the fact that the United Kingdom has been successful in attracting highly educated and skilled workers. It also documents that, although it is unable to select migrants from the EU, the migration streams have exhibited a stronger skills and educational profile. With regard to immigration from the NMS, the share of highly skilled immigrants has been lower than that of the United Kingdom but also low skilled workers were much less prevalent.

Unfortunately, there are no data sources that can reliably estimate the brain drain from the United Kingdom as indicated by education level. LFS data can indicate a change in the educational profile of the UK-born over time, but that would not necessarily reflect emigration; it could be the result

of cohort movement. IPS data can, however, indicate the outflow of UK citizens according to their usual occupation. Emigration of managers and professionals as well as that of manual workers are the largest categories. The outflow of professionals and managers may not be primarily brain drain but return migration. When comparing outflow with the inflow (see Figure 5), the United Kingdom still experiences a net gain.

Figure 15 plots the outmigration of students by nationality. Outflow of non-EU students has increased significantly, but is in line with the higher immigration of non-EU students and indicates remigration. Student emigration is otherwise notably low as compared with inflows.

Figure 16

**Emigrants who were in managerial and professional positions prior to moving and citizenship ('000)**

The emigration of managers and professionals was largest in absolute terms for UK citizens. In 2011, about 12 per cent of the population were foreign born. Thus, in relative numbers, the outflow of UK citizens is relatively small. Generally, brain drain appears to be moderate and without any intriguing geographical patterns. It can be assumed that the bulk of emigrants return to their home countries. Apart from a slight recession spike, no obvious trends can be identified for non-UK citizens. Therefore, the largest losses would be to non-EU countries. In particular old commonwealth countries, such as Australia and Canada, as well as the United States have a significant pull for UK talent. This corresponds to classic notions of brain drain. On the other hand, there is also substantial return movement to new Commonwealth countries and the NMS. This type of migration of highly skilled workers is more like brain circulation as it involves previously immigrated talent that benefited the United Kingdom.

### 3.3 CONCLUDING REMARKS

The United Kingdom is seen externally as a net »receiver of brains«, as well as a country that is capable of managing its beneficial position with regard to talent flows so as not to take excessive advantage by abusing its dominant position to attract and retain talent from emerging countries. In fact, the United Kingdom has developed many initiatives that promote or enhance »brain circulation« to developing economies.

#### 3.3.1 CARRY ON »FAIR PLAY« POLICIES ON »BRAIN CIRCULATION«

While the highest proportion of highly skilled immigrants is from non-EU countries, the trend has been diminishing. However, this may respond more to restrictive immigration policies

than to goodwill with regard to »brain circulation«. Further analysis should be carried out to split the figures between non-EU countries and identify »brain gain« from emerging economies. Certainly, these policies would carry more benefits than the »warm glow« of having behaved properly and the positive externalities of re-emigration will affect the United Kingdom, too. Skilled individuals who return to their home countries have established links with the United Kingdom that may be beneficial for business and culture.

#### 3.3.2 IMPROVE POST-EDUCATIONAL »BRAIN GAIN« POLICIES

The non-European student population is the most important in terms of inflow of migrants for study reasons. Once these students graduate, they might decide to stay in the country if the regulations allow it. Obviously, this will be allowed if they qualify for a Tier 2 (General) visa or a Tier 1 (Graduate Entrepreneur) visa, which they could obtain without having to leave the country, or a Tier 5 temporary worker visa, which obliges the graduate to leave the country in order to apply for it. Regardless of the situation, it seems a waste of resources having managed to attract a »brain« to treat it as a »new brain«.

Although the numbers still put the United Kingdom in a net situation, the trend in terms of non-EU students is increasing, as is that of emigration (outflow). Using a marketing metaphor, businesses know that retaining a customer is cheaper than acquiring a new one. This certainly applies to the retention of foreigners who graduated in the United Kingdom. To obtain a position in a labour market, it is essential not only to have the required academic and technical skills but to be aware of the culture. Social and professional networks should also facilitate successful labour market integration. Overall, foreign students who graduated will have

acquired knowledge of social norms as well as established links that will give them an advantage over graduates from abroad. New analysis should be carried out in order to assess the type of graduates (UK higher education level) and the subject, in line with similar reviews already carried out by the MAC (Tier 1 Investor or Tier 1 Entrepreneur).

At the same time, even though emigration in this collective is fairly low, data should be collected to assess the »brain drain« of national graduates. At the moment, despite a substantial increase in student fees to £9,000 per year, the outflow of UK students to other EU countries offering much lower fees has been limited. This, however, may change in the future in particular if there are further substantial changes to the student loan system. The MAC analyses shortages not only in their own right, but also the rate of self-sufficiency and in the past has even proposed to incentivise the fulfilment of certain roles by national citizens through feeding the UK higher education system.

### 3.3.3 IDENTIFICATION OF OVER-QUALIFIED INDIVIDUALS

The share of highly educated immigrants has increased for both EU and non-EU nationals. While the points-based system should deter overqualification of non-EU migrants (low qualification jobs occupied by highly skilled individuals), there is still the risk that EU nationals take lower skilled jobs than expected, especially given that non-EU migrants have a strong educational profile and EU15 migrants have a similar one, but are not bound to the tier system. The NMS migrants have a lower educational profile in comparison with these. However, NMS citizens are also very likely to engage in downskilling. Lower skilled jobs in the United Kingdom may still pay better than positions in the NMS with a more highly skilled profile. Often, downskilling is accepted for a limited time and individuals eventually strive to find their way in the labour market and move upwards to match their skill set. In this case, downskilling would be a successful adaptation strategy that still generates brain gain in the end. However, excessive and widespread downskilling may be seen as allocative inefficiency and hence should be tackled. This, at the same time, would call for further collaboration between EU countries beyond the free movement of persons and a common human capital investment policy that would leverage overall EU human capital accumulation.

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