**Off EU Go. Brexit, the UK Labour Market and Immigration**

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**Abstract**

Immigration remains a highly contentious issue and its purported effects in the labour market are still contestable. Against this background, the UK looks set to undertake a large overhaul of its immigration policy following the decision to leave the EU. To try to inform the debate, this study summarises the key patterns and changes in the UK labour market regarding immigration in the run-up to and the immediate aftermath of the Brexit vote. The paper then offers some ideas that could explain why immigration appears to have had little effect, either positive or negative, on the wage and employment outcomes of UK-born residents. It next outlines the current state of the labour market and the role of EU immigrants in it as the UK edges toward Brexit. The paper then considers where change may be seen most strongly following Brexit and discusses the many possible immigration policy options open to the government after the UK leaves the EU.

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**1. Introduction**

Immigration’s effects on the labour market continues to be one of the mostly keenly contested areas of economics and in the wider public debate. Immigration to the United Kingdom, (UK), has risen significantly over the past twenty years and was almost certainly a key driver underpinning the decision to leave the European Union, (EU), following the result of the UK referendum in June 2016. Yet more than two years after one of the most significant votes and consequent changes of policy direction in recent history are we any wiser as to the consequences? The short answer is of course no, since Brexit has not yet happened, nor will it before 2021[[1]](#footnote-1). Intermediate negotiations do not appear to have yet produced any definitive plans. As such no policies have yet emerged to elucidate what the labour market environment, the focus of this article, is likely to look like after that time. What we can do instead is look at what has happened in the labour market in both the run-up to and the short period of time following the vote. Using this we then undertake some informed speculation as to likely areas of immigration policy that will help shape the labour market in years to come.

Section 2 gives some background to the key patterns and changes in the labour market and in (EU) immigration in the run-up to the Brexit vote in an effort to see if the immigration damaged the economic prospects of UK-born workers, which, if so, could have helped explain the Brexit vote. Section 3 outlines the current state of the labour market and the role of EU immigrants in it with a view to assessing what has happened following the vote and where change, if indeed sustained change in migrant numbers there will be after Brexit, may be seen most strongly. Section 4 considers some of the many possible labour market related immigration policy options open to the government after the UK leaves the EU.

**2. The Way We Were**

Despite the largest collapse in GDP for 80 years, the Great Recession did not generate the major rises in unemployment, or falls in employment in the UK, that many commentators had expected. Instead the adjustment to the large negative shock was primarily manifested in falling real wages – in the order of 10 to 15% depending on which price deflator is used - unprecedented in modern British history and of similar magnitude across the wage distribution.[[2]](#footnote-2) Arguably the recession may have fed some of the resentment seen in public opinion polls over this period toward rising immigration.[[3]](#footnote-3) However it is hard to see a connection between the timing of changes in unemployment and or falling real wages with the pattern of immigration. As Table 1 and Figure 1 show, immigration to the UK had been growing from around 1995, primarily from outside the EU until the admission of the A10 accession countries in 2004, when Britain, Ireland and Sweden opened up their labour markets to migrants from the former central and Eastern European Soviet bloc along with Cyprus and Malta. Immigration from the EU thereafter began rising, primarily from these countries, in tandem with continued rises in Non-EU immigration.

**Table 1: Immigrants and the UK Population**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total  (millions) | UK-born (millions) | Immigrant (millions) | EU (millions) | Non-EU  (millions) | Immigrant share (%) | EU share |
| ***Total*** |  |  |  |  |  |  |  |
| 1975 | 55.3 | 52.1 | 3.2 | 0.9 | 2.3 | 5.8% | 1.6% |
| 1995 | 57.2 | 53.3 | 3.8 | 1.1 | 2.7 | 6.7% | 1.9% |
| 2003 | 58.7 | 53.6 | 5.1 | 1.3 | 3.8 | 8.7% | 2.1% |
| 2016 | 64.7 | 55.6 | 9.1 | 3.6 | 5.5 | 14.0% | 5.6% |
| 2017 | 65.0 | 55.5 | 9.5 | 3.7 | 5.8 | 14.6% | 5.6% |
| 2018 | 65.5 | 56.3 | 9.2 | 3.6 | 5.6 | 14.1% | 6.0% |
| ***Working age*** | |  |  |  |  |  |  |
| 1975 | 33.6 | 31.2 | 2.5 | 0.7 | 1.8 | 7.3% | 2.2% |
| 1995 | 36.4 | 33.4 | 3.0 | 0.8 | 2.2 | 8.2% | 2.0% |
| 2003 | 38.0 | 34.0 | 4.0 | 0.9 | 3.1 | 10.5% | 2.3% |
| 2016 | 41.0 | 33.6 | 7.4 | 2.9 | 4.5 | 18.0% | 7.1% |
| 2017 | 41.1 | 33.4 | 7.7 | 3.0 | 4.8 | 18.8% | 7.2% |
| 2018 | 41.2 | 33.7 | 7.5 | 2.9 | 4.6 | 18.2% | 7.0% |

**Source:** author analysis of Labour Force Survey. Working age population is 16-64.

However as Figure 1 also shows immigration from the EU and elsewhere rose in the run up to the recession and kept rising through the recession and beyond. So it is hard to argue that (EU) immigration is associated with increased unemployment of UK-born workers, since it rose both while unemployment of the UK-bornwas rising *and* while unemployment of the UK-born was falling.

**Figure 1. Immigration and Unemployment of UK-Born, 1995-2018**



**Source:** Author analysis of Labour Force Survey.

Notes: population used is working age (16-64). Vertical solid line shows timing of Brexit vote.

Likewise, there was a sustained fall in real wages, unprecedented in recent UK history, which began in 2010 (Figure 2) in a period of rising immigration, (Total and EU). But real wages (of the UK-Born) also grew in periods when immigration was rising. Again it is hard to argue that trends in EU immigration line up with changes in real wages.

**Figure 2. EU Immigration and Real Wages of UK-Born Individuals**

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Source: Author analysis of Labour Force Survey.

Notes: Real hourly wages is median hourly wage of UK-born employees deflated by the RPI deflator. Sample Population is working age.

Another way to get a sense of this apparent lack of association between immigration and wages and employment of natives is to plot changes in wages or unemployment of natives against changes in immigration for a set of areas over time. This shows whether areas of the UK that had larger influxes of immigrants also had worse job and wage outcomes for the UK-born relative to other areas. Looking at changes over time also nets out other features of the local labour market that could also explain changes in unemployment and wages in those areas.

Figures 3 to 5 below attempt to do this. In the Figures each dot represents an area. The areas correspond, broadly, to English counties and Scottish and Welsh administrative areas. The solid red line summarises the relationship between changes in (EU) immigration into the area and changes in the unemployment rates of UK-born individuals living in that area over the period 2008 to 2016.[[4]](#footnote-4) If immigration increased unemployment, we would expect a strong *upward* sloping line: more immigrants would mean more unemployment for local workers. It is clear from the graph that there is no positive relationship between immigration and unemployment rates of those born in the UK. If anything, the relationship is negative, suggesting areas with more immigration experienced larger falls in unemployment for the UK-born over this period.

**Figure 3. Unemployment rates of UK-born and EU Immigration**



Source: Author analysis of Labour Force Survey. Notes: Each dot represents a UK “county”. The solid line is the predicted ‘best fit’ from a regression of the county percentage point change in unemployment rate of UK-born workers on the county-level percentage point change in share of immigrants. These are weighted by the sample population in each area.

So why do some people think immigration has hurt jobs? Look at two areas – dots A and B in Figure 3. Both have had increases in the EU immigrant share of over 5 percentage points – well above the national average. In area A, unemployment for the UK-born has risen. So in area A, it may feel like immigrants are bad for jobs. But area B also had a large increase in immigration, while unemployment there has fallen. Therefore, just because immigration and unemployment both go up in an area does not mean that immigration is the reason for rising unemployment, since it is quite easy to find areas where immigration went up and unemployment fell. Something else must underlie the misfortunes of UK-born individuals living in areas with rising unemployment over this period.

Figure 4 provides the same analysis of the impact of EU immigration on pay. Again, there is no apparent link between changes in the average (median) real wages of UK-born individuals and changes in immigration. Real hourly wages of UK-born workers changed at much the same rate in areas with high immigration as in areas where the change in EU immigration was low.

**Figure 4: Changes in Wage Rates of UK-born and EU Immigration**



Source: Author analysis of Labour Force Survey. Notes. See Figure 3. Median real hourly wages based on the RPI deflator. The solid line is the predicted ‘best fit’ from a regression of the county-level percentage change in wages on the county-level percentage point change in share of immigrants. These are weighted by the sample population in each area.

These findings do not change much if the group thought to be most vulnerable from immigration, low skilled UK-born workers is used instead of all UK-born workers. Figure 5 looks at the change in the NEET rate (“Not in Education, Employment or Training”) for low skilled UK-born, defined as those who left school at the minimum leaving age or younger. There is again no effect of EU immigration on their job prospects. If anything, the relationship is negative – NEET rates fell furthest between 2008 and 2016 in areas where EU immigration rose faster. But the estimate, like all others, is statistically insignificant.

**Figure 5: NEET (‘not in education, employment or training’) rates for less skilled UK-born and EU immigration, 2008-2016**



**Source:** Author analysis of Labour Force Survey. Notes: Each dot represents a UK county. The solid line is the predicted ‘best fit’ from a regression of county-level change in NEET rates for the UK-born less skilled on the county-level percentage point change in share of EU immigrants. The estimate is weighted by the sample population in each area.

Of course it would be unwise to draw strong conclusions about immigration’s effects from looking at aggregate trends. Many other factors in addition to immigration influence changes in wages and employment and it is important to try to control for these influences to isolate immigration’s effects. However these graphs effectively summarise the rather large body of academic economic literature that has analysed the issue of immigration’s effects on the employment and wages of “natives” in the UK which has concluded that, on average, immigration has had very little effect – either positive or negative - on the wages and employment conditions of UK-born individuals, on average, (see Manacorda, Manning and Wadsowrth (2011) or Lemos and Portes (2014). Neither does this average appear to mask large effects for more vulnerable economic groups. Some studies (Eg Dustmann, Frattini and Preston (2013), Nickell and Saleheen (2015) ) find small negative effects on wages and employment of UK-born at the lower end of the wage distribution. But it is important to note that these estimated negative effects are very small. Dustmann et al’s. (2013) estimates show each 1 point increase in the immigrant–native working-age population ratio led to somewhere between a 0.1% and a 0∙5% decrease in native wages at the bottom decile and a 0∙6% *increase* in wages at the median. Nickell and Salaheen (2015) find that a 10 percentage point rise in the migration ratio leads to somewhere between around a 0.2% and a 1.9% reduction in wages for native and immigrant workers combined in the semi/unskilled service sector. To put this in context, the actual UK migrant ratio grew from .07 to .15 between 1995 and 2017, a rise of 8 percentage points over a twenty year period. So *at most*, according to these estimates, wages at the bottom will have fallen by 4% over a twenty-two year period or by 0.18% a year.

How to explain these findings? It seems clear that the idea that the simple textbook theory that a rising supply of labour (more immigrants) will put lots of downward pressure on wages and employment can not explain what we have seen in the UK. Something else must be going on related to immigration that must be shifting out the labour demand curve to offset any shift in labour supply. One idea may be that, on average, immigrants complement domestic labour rather than directly substitute for domestic labour. If so, then a job can be done effectively by combining existing labour with immigrant labour, (skilled immigrants train domestic trainees for example). More productive sectors generate more demand elsewhere in the economy. Another idea is that there is no fixed amount of work to be done (the lump of output fallacy) so that more immigrants (or more of any group of individuals) do not compete for a fixed stock of jobs but instead demand more food, clothing, housing and the like and so provide more employment for everyone.[[5]](#footnote-5) Equally, immigrants may specialise in new sectors which can grow alongside existing sectors and not displace anyone. Immigrants may also work in sectors where their skill set is higher than required (occupational downgrading), again raising productivity of the sector and generating demand and employment for others elsewhere.

In truth, there is likely to be no single explanation, nor should we expect one. Much like the effects of the minimum wage in the UK that appear to have been spread across productivity gains, hours and prices there is probably a little of many things going on when it comes to immigration’s labour market effects which may well vary across sectors and occupation.

**3. The Way We Live Now**

If the recession did little to change the upward trend in immigration, it seems that the Brexit vote did. As Table 1 shows, the total number of EU migrants rose in the immediate aftermath of the vote, but around 2017 q1 began to fall back and has done so up to the time of writing. Interestingly so did the numbers of non-EU migrants.[[6]](#footnote-6)

Figure 6 shows that after the vote, changes in the population of EU nationals are the result of a fall in inflows and an increase in outflows.[[7]](#footnote-7) This appears to hold when the EU flows are split by area of origin. Inflows have fallen and outflows risen after the Brexit vote for A8, A2 and Other EU citizens alike.[[8]](#footnote-8) Of course it is hard to attribute these changes solely to the Brexit vote. Free movement ensures that individuals can leave or decide to go elsewhere if economic and/or political conditions shift in favour of migration to other countries. The UK has almost certainly experienced relative decline in favourability on both aspects - relative economic stagnation relative to much of the EU and political distancing from the EU - since 2016. The recovery of the other larger economies of Europe like Spain France and Germany over this period could provide alternative destinations for immigrants from the rest of the EU in an environment where future policy toward EU immigration in the UK is likely to harden. The depreciation of sterling against the Euro and other European currencies reduces the attractiveness of a given hourly wage to a prospective migrant from Europe. But it is hard to think that the Brexit vote in tandem with these other developments had nothing to contribute to these changes in flows, particularly when the flows from outside the EU seem to move in the opposite direction. As Figure 6 also shows inflows rose from outside the EU and outflows fell after Brexit.

**Figure 6. EU Migrant Inflows and Outflows**

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**Source:** Author analysis of LTIMs (2018). Note A2=Romania & Bulgaria. A8=Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. Other EU = all other EU member countries except A2 & A8.

Of the 3.6 million or so EU migrants currently resident in the UK, most (around 2.5 million) are employed, some 7% of the total UK employed population. Compared to the UK-Born population, EU migrants are much more likely to be employed. Since 66% of all EU migrants are in work compared to 47% of the UK-born, EU migrants are more likely to be current net contributors to fiscal revenues.[[9]](#footnote-9) Some 5% of the unemployed are from the EU and some 6% (around 200,000) of all students over the age of 16 are from the EU, (Figure 7). Around 3% of children, some 450,000 are EU migrants. EU migrants form less than 3% of all individuals above state pensionable age.

What this means going forward is that if the majority of EU residents are in work and the share of work accounted for by EU migrants is the largest of the shares across other states, then any fall in the numbers of EU immigrants, unless targeted, is likely to affect the world of work more than the education sector (nurseries, schools and colleges) or welfare services (pensions, welfare benefits) directly.[[10]](#footnote-10)

**Figure 7. EU Migrants Across the UK Population 2018**



**Source:** author analysis of LFS.

The distribution of EU workers in employment is far from even. As Figure 8 shows, some 48% of EU inhabitants live in London and the South-East. The EU migrant share of the population of London is also much higher than elsewhere in the UK, (at around 12% compared to the UK average elsewhere of 4.5%). A simple correlation indicates that there are fewer (EU) immigrants in Brexit-voting areas, (correlation coefficient = -0.30). It is true however that the rate of change in immigration has been greater in Brexit voting areas, though this association is still rather weak (correlation coefficient = .09).[[11]](#footnote-11)

Should the EU population continue to decline then it is perhaps in London and the South-East that we might expect to see more noticeable effects. This however assumes that the Brexit shock is spread evenly across the EU population and there are reasons to suspect, see below, that this may not be the case.

**Figure 8. EU Migrant Area Population Shares 2018**



Source: Author analysis of Labour Force Survey.

Equally EU immigrants in work are spread across the pay distribution with a clear difference in pay patterns between A8/A2 and other EU workers. A8/A2 workers tend to be in low paid work, much more so than others, while EU14 workers tend to be in higher paid jobs, more so even than UK-Born workers.[[12]](#footnote-12)

**Figure 9. Pay by Migrant Status 2018**



Source: LFS author calculations

As the outline of pay patterns in Figure 9 suggests, EU migrants are concentrated in certain sectors and occupations of the economy. Table 2 shows the broad sector EU workforce shares along with the industrial sub- sectors with much larger EU workforce shares. EU migrants while, on average, rather evenly spread across the UK workforce, do feature prominently in a few sectors. The sectors that employ the highest proportion of EU migrants are typically low wage, high labour turnover sectors (Eg Hotels, Domestic Help, Food manufacturing). Again there are exceptions to this. In the Air Transport and Scientific Research sectors, typically skilled sectors, around 12 to 13% of the workforce are from the EU.

After Brexit most of the ***existing*** EU workforce would still be eligible for British citizenship or leave to remain (having the requisite years of residence in the UK). So the workforce is unlikely to disappear overnight. It is at ***the hiring*** margin that employers in the high EU share industries, particularly the high turnover sectors, may face difficulties after Brexit without some sort of sectoral quotas, seasonal schemes or adjustment period. The annual hiring rate in the UK is typically between 12 and 17% of the total workforce, depending on the state of the economic cycle. But low wage sectors such as those in the Table tend to have higher turnover. The annual hiring rate in the hotels sector (SIC555) is more than one quarter of the workforce and EU workers comprise around a similar fraction of new hires. Around one third of new hires in Food Manufacturing (SIC 10) are from the EU. [[13]](#footnote-13)

**Table 2. Sectoral Distribution of EU immigrants, 2018**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total Employment | % of sector who are EU immigrants | Average  hourly Wages | Hiring rate1 | % of hires from EU |
| ***Largest EU Sectors*** |  |  |  |  |  |
| Food Manf.(SIC10) | 300,000 | 30% | £10.00 | 18% | 31% |
| Domestic Serv(SIC97) | 50,000 | 26% | £9.20 | 22% | 27% |
| Hotels (SIC55) | 350,000 | 18% | £8.40 | 26% | 22% |
| Warehousing(SIC52) | 400,000 | 16% | £10.70 | 17% | 22% |
| Textile Manf.(SIC13) | 70,000 | 14% | £10.90 | 16% | 15% |
| Plastic Manf.(SIC22) | 160,000 | 15% | £10.60 | 13% | 14% |
| Chemic Manf.(SIC20) | 100,000 | 13% | £12.10 | 10% | 29% |
| Air Transport (SIC51) | 70,000 | 13% | £15.70 | 15% | 36% |
| Building (SIC41) | 890,000 | 13% | £13.80 | 13% | 12% |
| ***Broad Sector Average*** |  |  |  |  |  |
| Agriculture | 350,000 | 6% | £8.80 | 8% | 12% |
| Energy | 590,000 | 5% | £14.50 | 12% | 8% |
| Manufacturing | 2,900,000 | 11% | £12.30 | 13% | 16% |
| Construction | 2,900,000 | 9% | £13.00 | 12% | 8% |
| Retail & Accomod. | 6,000,000 | 9% | £8.30 | 23% | 11% |
| Transport | 2,900,000 | 9% | £13.50 | 15% | 14% |
| Finance | 5,600,000 | 7% | £13.70 | 16% | 10% |
| Public Admin. | 9,600,000 | 5% | £12.50 | 13% | 7% |
| ***UK*** | 32,100,000 | 7.4% | £11.50 | 16% | 10% |

*Source*: LFS four-quarter average ending 2018q1. Note 1. Hiring rate is approximated by the percentage of the workforce in employment for less than 1 year. Average wage is median hourly wage.

Table 3 focuses on the occupations with the largest workforce shares of EU migrants. Many of these occupations are less skilled manual occupations, consistent with the industrial distribution of migrants shown in Table 2. Again there are exceptions. EU migrants comprise a much higher than average share of the scientific research and higher education professionals. Again the reliance of EU workers in hiring in many of these occupations (which together account for around 5% of the total workforce) is apparent.[[14]](#footnote-14)

Another feature of EU migration apparent from Table 3 is that in many of the less skilled occupations highlighted in Table 3 there are many more EU graduates than might be expected from the UK graduate share in the same occupations. This “occupational downgrading” may reflect job shopping among migrants not subject to work permit restrictions. Some migrants may be in what they regard as temporary jobs, while learning the language and assimilating with UK institutions or while engaging in more extensive job matching.[[15]](#footnote-15) Dustmann, Frattini and Preston (2013) suggest that this may help explain why they find evidence of more downward pressure on wages toward the bottom of the pay distribution. Certainly a greater relative supply of workers in low wage work and a willingness to accept lower wage among EU-graduates is consistent with this observation. [[16]](#footnote-16) Conversely productivity growth in the low wage sectors that employ more graduates could be improved leading to more employment opportunities and less downward wage pressure in these sectors. As ever more empirical evidence on this issue is needed.

**Table 3. Occupational Distribution of EU immigrants, 2018**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total employment | | % of sector who are EU immigrants | % of UK-Born in sector who are grads. | % of EU in sector who are grads. | % of new hires EU |
| ***Largest EU Workforce Share*** | | |  |  |  |  |
| Packers (9134) | | 115,000 | 49% | 3% | 25% | 50% |
| Food Processing (8111) | | 140,000 | 45% | 7% | 22% | 48% |
| Scientific research(2321) | | 30,000 | 24% | 71% | 85% | 36% |
| Childminders (6122) | | 110,000 | 20% | 12% | 49% | 35% |
| Storage (9149) | | 430,000 | 20% | 5% | 28% | 21% |
| Assemble&Routine(813) | | 300,000 | 18% | 11% | 42% | 21% |
| Cleaners (9233) | | 650,000 | 17% | 2% | 20% | 14% |
| Builders (5319) | | 240,000 | 16% | 12% | 14% | 9% |
| Chefs (5434) | | 330,000 | 15% | 8% | 28% | 22% |
| Waiters (9224) | | 280,000 | 15% | 9% | 38% | 15% |

*Source*: LFS. Classifications based on SOC 2000 codes averaged over four quarters. Note a graduate is defined as having left full-time education aged 21 and over.

**4. The Way of the Future**

It is of course conceivable that the downward trends in EU migration that began in 2016/2017 will continue without the government perceiving a need to impose restrictions, assuming that reducing migrant numbers were the sole focus of future immigration policy. Indeed it may well be that the change in direction of EU immigration flows following Brexit has already forced some adjustment, so the immediate migration response of increased outflows and a fall in inflows after the vote, outlined in section 3, has forced firms to address the new reality without there being any change in policy.[[17]](#footnote-17)

It could also be argued that if rising (EU) immigration had little effect on the UK-born workers then if EU immigration falls after Brexit might we also expect little effect with no change in immigration policy? If we assume that the econometric models on which these findings are based control for other factors then these are the best estimates we have about immigration’s labour market effects, whether immigration is rising or falling.[[18]](#footnote-18) However this may not necessarily be so, since going forward things will not be governed by the same macro-environment in which EU immigration was rising. It is the effect of the *interaction* of changes in the external environment alongside immigration trends that we are much less certain of. Alongside possible restrictions on the movement of labour from the EU, the ending of free trade with the EU that could accompany Brexit, the change in the exchange rate that will accompany Brexit, the change in UK growth path that will accompany Brexit, the relative performance of other economies are all added unknowns that mean going forward may not be the same as going back. Nor can it be said with any certainty that the preferences of any new administration, were there to be an intervening general election, would be the same as the current administration. In short, predicting the future is tricky.

***Immigration Policy Options***

Assume instead that, regardless of the labour market evidence, some time after 2019 (or in 2021 when the transition period is set to end) the UK government administration of the day will perceive the need place some restrictions on the freedom of movement of EU citizens into the UK, (as may the EU on UK citizens). If Brexit allows government the opportunity to stop the free movement of labour from the EU and to look at immigration policy anew then what should it do? With regard to future immigration policy, a debate should probably be had as to whether any new policies should deal with the immediate consequences of Brexit or focus on immigration policy in the long-term as a strategy. The two issues are not necessarily the same. The immediate consequences of Brexit may be very different from what governments may want from a long-term immigration strategy.

An economist might suggest that the design of policy, should be based on the assessment of its relative costs and benefits, with the aim of choosing the policies that have the greatest benefit relative to the cost. Quantifying costs and benefits is never easy, particularly when it is not always obvious which constituent policy is being designed for. Is it the UK Government? Is it UK businesses? Is it UK citizens? Is it the different countries of the UK? Is it the UK born population rather than all UK citizens? What about the preferences of the EU? None of these various constituencies will be equal beneficiaries and how to quantify and weight the preferences of the various competing agencies all add to the complexity of policy design with regard to forming a judgement of the various policy options with regard to economic efficiency and equality of outcomes. This is the difficulty the government of the day will face.[[19]](#footnote-19)

On the policy response to the short-term consequences of Brexit, it would be a mistake however to think that employers (or schools or colleges) are going to lose 7% of their populations immediately. Any adjustment will be on the flow not the stock of migrants. The inflow of migrants is, on average, around 10% of the stock. Outflows are around 5% of the stock.[[20]](#footnote-20) So any changes in EU migrant numbers will be incremental rather than large scale. Most of the sectors in Tables 2 and 3 are non-graduate jobs – although as shown there are many EU graduates undoubtedly working in these sectors. So certain firms and sectors would also have to look around for different sources of labour, raise wages or change their methods of working, (though any firm that relies on a never ending supply of EU workers in an environment of free movement of labour in and out of the country has an unstable business model) .

But consequences there may be, and government will have to decide if the demands from the sectors most affected, such as those highlighted in Tables 2 and 3 above, in the short-run need to be addressed alongside a longer-term immigration strategy. One option would be to allow sector-specific and time limited or seasonal migration schemes (from the EU or elsewhere) to allow workers into these less skilled sectors over the medium term until businesses had adapted to the new policy environment. How long the medium term should be is again a matter for debate. The downside of such a policy is that sectors may postpone any changes to their business model.

***Who Gets in?***

Any future work-related migration policy is therefore likely to involve rationing of places and with it the selection of migrants. This means thinking about whether to adapt existing schemes or introduce new ones. This in turn means the government has to look at its current net migration target of 100,000 to decide whether it will remain or not.[[21]](#footnote-21) Assuming it remains in place then this has implications over the numbers of individuals allowed in under the different entry routes (essentially work, family or students), and the spread or differential treatment to EU over Non-EU citizens.[[22]](#footnote-22) For example given current flow numbers outlined in Figure 6 the government would have to reduce EU net migration to zero to achieve its notional target of net 100,000 (and rely on continued net emigration of British citizens). Or it will have to impose additional restrictions on non-EU movements into the UK.

Work visa are currently based around the notion that bringing in migrants alleviates skill shortages. While firms always have the option to raise wages or change the capital mix in these situations, such adjustments may take time and so a visa scheme can address “short-term” shortages. This in itself creates incentive problems, since once on a shortage list, occupations have less incentive to train their own or adopt alternative ways of working.[[23]](#footnote-23) Conversely a policy of importing skilled labour from abroad could facilitate more training of local workforces, by skilled immigrants, if training is rationed.[[24]](#footnote-24) Non-EU work visas to the UK are currently restricted to “graduate-level” jobs. Any quotas on work visas on EU nationals after Brexit are also likely to favour graduate sector jobs. This is partly because the existing immigration policy for Non-EU citizens is almost exclusively restricted to graduate-level jobs and partly because the net fiscal contribution from graduates is likely to be higher than from non-graduate jobs. [[25]](#footnote-25) Whether there are more shortages in this area or in vocational sector, due to Britain’s relatively poor training record, (OECD 2017) is open to discussion.[[26]](#footnote-26) It may be that a revised shortage list could be broaden, again, to include vocational jobs.

Another form of selection would be to target individuals rather than jobs, effectively reverting to a points based system, a form of which was in place in the UK the late 2000s. Coming up with a coherent points system is not an easy thing to do.[[27]](#footnote-27) Targeting individual graduates may not help graduate sectors if the graduates migrate to less skilled occupations (as suggested by Table 3). One benefit of having occupation-based entry shortage schemes rather than individual points based entry is that labour market signals determine which businesses are in shortage. In general it is hard for governments or agencies to pick winners. Letting firms and workers interact within informed general government imposed guidelines, (such as restricting entry to graduate jobs) is probably a better way to get good job matches. Restricting by occupation rather than people probably reduces migration flows more, since the set of eligible occupations is easier to restrict than a set of eligible individuals.

Despite the prominence and priority given to the shortage occupation list, a majority of non-EEA work-related migrants arrive instead by the resident labour market test, (RLMT).[[28]](#footnote-28) This allows employers to bring in non-EEA migrants, even if the job is not on a shortage list, if the firm can demonstrate that there are no suitable applicants from within the EEA. Whilst it may at first seem implausible that no suitable candidates can be found among the 500 million or so EEA citizens, the RLMT arguably is an alternative way of determining a skill shortage without the need for a dedicated shortage list. Such schemes do however need to be continually monitored to prevent abuse of the system. The test would also have to be amended to restrict initial employer search to the UK to accompany Brexit. Combinations of shortage lists and resident labour market tests do perhaps allow governments to select sectors it sees as priorities while at the same time allowing a degree of flexibility among employers. The issue, as ever, is getting the appropriate mix in order to balance the two interests.

Whatever combination of these methods is employed there are likely to be more shortages than most governments would allow to be filled by immigration without some sort of quotas. The current form of rationing within a set quota makes firms compete on salary which some businesses may be less able to do than others.[[29]](#footnote-29) This could prove to be anti-competitive in the long-run. Similarly quotas also need to be administered, presumably imposing as little cost and effort on firms and individuals as possible so to try to ensure that firms without large dedicated teams adept at working in the system do not lose out.

***Welfare and Work***

One possible model for EU migration after Brexit would be to allow for free-entry from the EU after Brexit with a fixed time interval in which to find a job, possibly accompanied by a registration scheme to help enforcement and monitoring of numbers. This would essentially be the status quo, since job seekers from the EU rather than those with a job offer are a minority of work related entries.[[30]](#footnote-30) It would not however be seen to address any worries over the chimera of “benefit tourism”. Whether real or imagined, this could be seen to be addressed by restricting entry to those with a job offer after Brexit, EU and non-EU alike. If the entry level were set at graduate jobs the going wage would exclude most of these jobs from tax credit payments, as is done with non-EEA migrants now. Welfare claims could then only be made after any subsequent spell of unemployment or sickness *and* granting of UK residency, again as is done with non-EEA migrants now.[[31]](#footnote-31)

However, even restricting labour migration to those with job offers in certain occupations does not automatically restrict migration to these sectors. There will be an issue about whether to let EU students work in the UK before and after graduation. At present, non-EEA student entrants can work for up to 20 hours a week in any sector while studying and can then stay in the UK six months after graduation in order to try to find a Tier 2 (effectively graduate) job. There are no limits on the numbers of students who can do this. Similarly family members of legally resident EU individuals will almost certainly be allowed to migrate to the UK under international law, like Non-EEA migrants at present. Non-EEA family migrants can work in any sector in the UK. There were no sector restrictions on self-employment for A2 workers during their transition period. Would something similar apply to all EU workers after any Brexit?[[32]](#footnote-32) There are also firms who can bring in employers from international subsidiaries in occupations not on a shortage list. Again decisions will have to be made on whether to extend or amend these work entry routes to EEA workers after Brexit.

***Area-Based Schemes***

There are also issues of regional or more likely country specific immigration schemes to consider. At the moment Scotland has some additional leeway over its work route since it has its own shortage occupation list. Country/Regional based schemes are easier to operate with temporary visas. With permanent residence, individuals can move away from the area which sought to attract migrants which can then negate the effect of the policy to attract migrants. But temporary visas bring other problems in the form of monopsony issues. If individuals are tied to a particular employer, this gives the employer more power over a worker than if the worker were free to choose where to work. More temporary working may place more demands on the UK’s new Labour Inspectorate to ensure working standards are met and indeed increase the likelihood that some individuals overstay the length of their visas.

***Cost of Hiring from Abroad***

In April 2017, the UK introduced an immigration levy (the “Immigration Skills Charge”) on any firm hiring (graduate) labour from outside the EU. The charge varies by firm size but does add to the existing firm costs of hiring migrant workers and is arguably selective in that more profitable firms may be more likely to be able to afford to pay the levy. It is too early to tell whether this has deterred some firms from hiring from outside the EU, but knowledge of this policy and its effects would be welcome in helping decide whether and how to extend to the hiring of workers from the EU.[[33]](#footnote-33) Other costs of recruiting from abroad include labour market tests whereby would-be employers have to demonstrate that they have tried unsuccessfully to recruit from the domestic labour market. Such tests can be opaque and easily manipulated and could be looked at again in a new policy environment. It is also possible to involve the workforce to try to ensure that working conditions do not change with the advent of migrant labour, as in Norway, (OECD 2014).[[34]](#footnote-34) Does the UK want to try that sort of system?

**Conclusions**

Rather like the quote attributed to Chou En Lai, on the consequences of the French revolution[[35]](#footnote-35), that it was too early to say, so the consequences of Brexit. There are still far too many unknown unknowns to say anything confidently about what will happen in the near future. There is still a dearth of evidence about Brexit and its consequences in the labour market to draw on to design policy, though there is enough evidence around to evaluate the effects of EU immigration in the run-up to the Brexit vote which could be used to inform future policy.

Immigration seems to matter much more politically than it does economically. All the empirical work that has been done on UK immigration shows very small labour market effects, either positive or negative, though its influences in cultural matters probably extends much further. Any reduction in EU immigration would make paying the deficit off a little harder – since EU migrants pay more in taxes than receive in benefits and public services (whereas UK-born and non-EU migrants receive more in benefits than they pay in taxes), but these net payments are not very big.

The options for future immigration policy are many and varied and there are no easy answers as to what to do or what to prioritise. As such this makes it hard to design a new migration system, even if that were wanted.

We can say that restrictions on EU workers after the UK leaves the EU look likely, but any adjustment will not be on the stock of EU migrants but in the numbers flowing in and out of the UK and these flows are much smaller. So any change is likely to be incremental, on average, though undoubtedly some sectors, typically lower paying, high turnover sectors, will be hit more than others. Brexit does allow the government the opportunity to make a serious consideration of its future immigration policy, but there is not much time to put a studied scheme in place before 2021. While that future almost certainly will place restrictions on numbers of EEA migrants, it may well be that immigration policy, like so many policies in the UK, evolves and reacts to events and the unforeseen consequences of previous actions.[[36]](#footnote-36)

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Appendix

**Figure A1. Cumulative Distribution Function of Hourly Wage by Immigrant Group**



Source: LFS author calculations

1. Assuming an exit deal is agreed on, which at the time of writing, is not yet a given. In the event of No Deal the government would have to think quickly about what to do about immigration from the EU after March 2019. [↑](#footnote-ref-1)
2. See Costa and Machin (2017) for more details on the extent of real wage falls over this period. [↑](#footnote-ref-2)
3. For example see the time series of concerns over immigration recorded by IPSOs/Mori <https://www.ipsos.com/ipsos-mori/en-uk/shifting-ground-attitudes-towards-immigration-and-brexit>

   Hatton (2016) concludes, on the basis of a cross-country cross-time study, that existing immigrant shares and higher welfare benefits rather than negative macro-economic shocks appear to be more important for explaining rising anti-immigrant sentiments, though recessions do appear to raise anti-immigrant feelings. [↑](#footnote-ref-3)
4. This period covers the Great Recession and subsequent recovery and also spans an interval where immigration was rising continually. The overall pattern does not change much if different start and end points are used – results available on request – though future work should examine changes in periods when immigration is falling. [↑](#footnote-ref-4)
5. For this to generate an outward shift of the (labour) demand curve rather than a movement along it, immigration must shift consumption patterns or productive potential in some way. [↑](#footnote-ref-5)
6. Population growth since 2016 is therefore driven mostly by changes among the UK-born of non-working age. [↑](#footnote-ref-6)
7. Note that inflows still exceed outflows in the period after Brexit according to the LTIMs data graphed in Figure 6, suggesting that the numbers of immigrants in the UK continues to rise. This is in contrast to the estimates from the Labour Force Survey which suggest that immigrant numbers have fallen since 2017q1. An investigation of the reasons for diverging information from different government official statistics on immigration is long overdue. [↑](#footnote-ref-7)
8. The 2004 and 2007 Accession countries respectively are A8=Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia; A2=Romania & Bulgaria. [↑](#footnote-ref-8)
9. This essentially drives the findings of Dustmann and Frattini (2014) which indicates that EU migrants are net fiscal contributors, unlike the UK-Born population. See HMRC (2017) for a disaggregation by EU countries of tax receipts versus tax credit payments and DWP (2017) for an assessment of welfare payments. [↑](#footnote-ref-9)
10. There may of course be implications for the funding of welfare and education services if tax revenues were to fall following a decline in the numbers of (employed) EU migrants and there be no offsetting rise in revenues from elsewhere. The LTIMS data (not shown here) suggest that suggests that EU speculative job search flows – rather than flows for those with a job offer were affected most after Brexit. [↑](#footnote-ref-10)
11. This basic finding does not change much if a lower level of disaggregation is used (local authority). See, among others Becker, Fetzer and Novy (2017) or Langella and Manning (2016) for a more detailed analysis of the determinants of the Brexit vote. The consensus of these papers is that, while the local area rate of change in immigration is positive and statistically significant determinant of the Leave share of the vote, relative economic deprivation explains more of the variation in the Leave vote than immigration. [↑](#footnote-ref-11)
12. Figure A1 in the appendix gives the cumulative distributions associated with these plots. The Figure shows that 90% of employees from the A8/A2 countries earn less than £15 an hour compared to 75% of UK-born employees and 60% of employees from other EU countries. [↑](#footnote-ref-12)
13. Food and Beverage retail (SIC 56) has the highest labour turnover rate in the UK, with around one third of the workforce typically hired each year. The LFS suggests that the EU share of the workforce in this sector is 11% and the share of EU workers in new hires is around 12%. The median hourly wage £7.50, equal to the level of the adult National Minimum Wage in 2017. [↑](#footnote-ref-13)
14. These patterns do not seem to be solely due to segmentation between EU workers into temporary work and UK-born workers into permanent jobs in the sectors highlighted in Table 3. While EU workers are over-represented in temporary jobs in these sectors, they are also over-represented in permanent jobs in the same sectors. Results (not shown) available on request. [↑](#footnote-ref-14)
15. To what extent this may be a constrained choice is hard to establish. [↑](#footnote-ref-15)
16. Again it should be emphasised that any estimated downward effect on wages is rather small. [↑](#footnote-ref-16)
17. See MAC (2017) and MAC(2018), Portes (2017) and Resolution Foundation (2017) for other views on immigration policy options going forward. [↑](#footnote-ref-17)
18. The coefficients in an econometric model implies symmetry of any estimated effect. [↑](#footnote-ref-18)
19. This is the role of social welfare functions/planners in Economics. The difficulties in quantifying the various preferences, costs and benefits remain. [↑](#footnote-ref-19)
20. To see this, compare the stocks given in Table 1 to the flows documented in Figure 1. The LFS also estimates the EU inflow (share of EU migrants who had been in the UK for less than one year) to be 10% in 2018 [↑](#footnote-ref-20)
21. Arguably trying to target a net migration figure in which government has, in the absence of time limited entry, little control over outflows, let alone inflows in an environment of free entry was not the most sensible policy to adopt. We leave this to economic historians to debate. [↑](#footnote-ref-21)
22. In practice freedom of entry currently applies to European Economic Area (EEA) nationals rather than EU nationals and Swiss nationals. It is unlikely that the UK will differentiate between these groups after Brexit. [↑](#footnote-ref-22)
23. Similar to a general non-time delimited policy, arguably this may have happened with some sectors placed on the existing UK Shortage Occupation List. Once on the list, without periodic re-assessments there is less incentive to try alternatives to hiring immigrants. [↑](#footnote-ref-23)
24. See Mountford and Wadsworth (2018) for a detailed discussion and an empirical investigation of these competing hypotheses. [↑](#footnote-ref-24)
25. Note this is graduate jobs not people. The definition of a graduate job is in turn is based on occupational classification and/or average wages in the occupation. [↑](#footnote-ref-25)
26. The Migration Advisory Committee (2011) report on occupation shortages highlights shortages in many vocational (non-graduate) occupations that were subsequently excluded from the shortage list used to determine the allocation of work visas in the UK. [↑](#footnote-ref-26)
27. That said Canada and Australia operate, in part, an individual points based immigration system. Canada recently re-weighted its points system toward skilled migrants with a job offer, OECD (2016). Australia’s individual points system also depends, partly, on the individual working in a (moving) set of shortage occupations. Both countries however, while certainly not offering unrestricted immigration, operate policies that can facilitate rising numbers of skilled immigrants. Rising numbers of skilled immigrants is unlikely to be a policy should the UK relinquish free movement of labour. [↑](#footnote-ref-27)
28. See for example <https://www.gov.uk/government/publications/immigration-statistics-year-ending-march-2018/summary-of-latest-statistics> [↑](#footnote-ref-28)
29. There will also be an issue about whether to let EU students work in the UK after graduation. At present, non-EEA graduates can stay in the UK 6 months after graduation in order to try to find a Tier 2 (effectively graduate) job. There are no limits on the numbers of students who can do this. Similarly family members of legally resident EU individuals will almost certainly be allowed to migrate to the UK under international law, like Non-EEA migrants at present. Non-EEA family migrants can work in any sector in the UK. [↑](#footnote-ref-29)
30. Job seeking flows have fallen to less than 30% of all job related flows in 2017 q4 from a peak of 41% in 2015q4, (LTIMS 2018). Job seekers from the EEA have been unable to claim Housing benefit in the UK since 2014. [↑](#footnote-ref-30)
31. Non-EEA Tier 2 migrants are on a job specific work permit. This means that they are tied to the job with the permit until they have indefinite leave to remain and are hence effectively excluded from the welfare system until this time. Should the firm they work for collapse or the individual be laid off during this period, migrants have two months to try to find an alternative sponsor. See <https://www.gov.uk/employee-lose-sponsor-licence> [↑](#footnote-ref-31)
32. Ruhs and Wadsworth (2017) show that the ending of transition restrictions in A2 workers in 2015 immediately reduced the numbers of A2 self-employed workers without reducing numbers of A2 employed. This suggests that work patterns adjust to the regulatory environment of the day. [↑](#footnote-ref-32)
33. There has only been two published quarters of inflow data since the policy was implemented. If anything work related inflows from outside the EU were up in the quarter (and on the year) after the policy began. [↑](#footnote-ref-33)
34. A general requirement for all work-related residence permits from outside the EFTA is that wage and working conditions for the job in question correspond to those for Norwegian workers in similar jobs. There are exemptions for to these rules for migrants in temporary work. See Bratsberg, Raaum and Roed (2014) for an analysis of immigrant performance in Norway. [↑](#footnote-ref-34)
35. It seems that Chou was referring to the student uprisings of 1968 not the revolution of 1789 as is commonly referenced <https://mediamythalert.wordpress.com/2011/06/14/too-early-to-say-zhou-was-speaking-about-1968-not-1789/>

    . [↑](#footnote-ref-35)
36. The Migration Advisory Committee is set to report on its recommendations for future EEA migration in September (2108) and the government is due to set out its proposals in a White Paper scheduled for October 2018. Let’s see. [↑](#footnote-ref-36)