RECOMMENDED The outlook for migration and macroeconomic implications

Supply Stocktake (8/10)

Note title: **The outlook for migration and macroeconomic implications**

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THE OUTLOOK FOR MIGRATION AND MACROECONOMIC IMPLICATIONS

Key points:

- Net migration was close to its historical high in the year to 2014 Q3, at 298,000. Migration has increased strongly over the past couple of years, and has been significantly stronger than incorporated in the LFS population estimates by the ONS.

- In the Benchmark forecast we have revised up estimates of population by 0.3% by 2015 Q1 to reflect stronger migration. We have assumed that these extra migrants' propensity to work and their average hours of work are the same as the population average. Evidence from LFS micro data suggests this is a reasonable assumption. Employment and unemployment rates are therefore unchanged. But the level of employment is 0.3% higher, and level of productivity 0.3% lower.

- The recent strength in migration suggests the population is likely to grow more quickly over the forecast than assumed in the February forecast. The relative strength of the UK labour market is likely to continue to attract migrants, but the key determinant of migration in the near-term is government migration policy, which is particularly uncertain ahead of the general election.

- We propose a simple conditioning assumption that assumes net migration converges roughly to its ten-year average over the next few years. The population level is expected to by 0.7% higher by the end of the forecast, including the upward revisions over the past.

- The additional migrants who move to the UK to find work will increase the degree of labour market slack and put downward pressure on wage growth and inflation in the short term. Once they move into employment, the additional slack will fade.

- The number of migrants who move to the UK with a definite job will be a proportion of the number acting as 'latent slack' while searching for a job in the UK. The number of people moving with a definite job has increased in recent years but it is similar to levels seen immediately pre-crisis.

- The effect of migration on productivity will depend on the skills of migrants relative to UK nationals and also the ability of migrants to find jobs that are a good match for their skills. Migrants tended to be higher skilled than UK nationals, but there is evidence that they are less able to find good job matches when they arrive in the UK, so that average wages of migrants are similar to that of UK nationals.

- Migrants will boost demand, as well as supply, by consuming goods and services in the UK. Academic literature suggests the supply effects have tended to outweigh the demand effects, especially for lower paid jobs. These lower labour costs are estimated to have reduced some non-tradables prices prior to 2007, although there is less evidence since 2007.

Recent migration trends and implications for population over the past

1 Net inward migration was 298,000 in the four quarters to 2014 Q3, around 0.5% of the population. That was almost double net migration in 2012 Q4, the recent low, when it was 154,000 (**Chart 1**), and close to the record net inward migration of 320,000 in mid-2005. The increase in net migration since 2012 reflects an increase in the number of people flowing into the UK; the number of people leaving has remained broadly stable since 2011.

Chart 1: Higher recent net migration due to greater inward migration

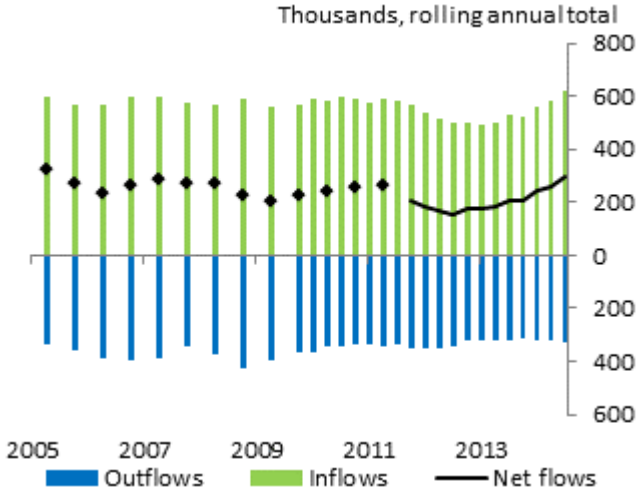
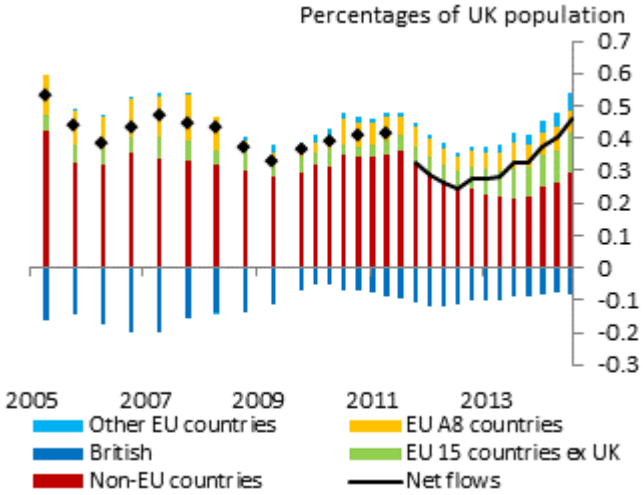


Chart 2: The increase in net migration is broad based across countries



2 Recent increases in net migration are broad based across nationalities. Compared with 2012, there has been a slight net reduction in the number of Britons leaving the UK, and more non-Britons are arriving in the UK (**Chart 2**). Non-EU nationals can account for the highest proportion of net inward migration, and inward migration from these countries has increased (accounting for almost a third of the increase). The increase in net migration from EU member states is broadly evenly split between nationals of countries who were members before May 2004 (the 'EU 15 countries', which excludes the UK) and those who have joined since: each accounts for about a third of the total increase.

3 Net migration has been stronger over the past couple of years than historical norms for the UK and is above the EU average. Data for England compiled in Mitchel (1988)[1] suggest that between 1851 and 1964 there was an almost continuous, and sometimes very large, outflow of people: over this time Mitchell estimates around 120,000 people left the UK per year. ONS data for the United Kingdom suggest this trend continued until the 1980s, and it has only been since the mid-1990s when net inward migration has been persistently positive (**Chart 3**). These strong flows into the UK are only slightly above the average in the EU. Although there is lots of heterogeneity across countries, over the period 2009-2013 – the latest five years of available comparable statistics – net migration into the UK has been slightly above the mean and median average across the EU (**Chart 4**).

[1] Mitchell, B.R. (1988), '*British historical statistics*', Cambridge University Press, pages 77-80.

Chart 3: Net migration has been strong by historical standards since 1997

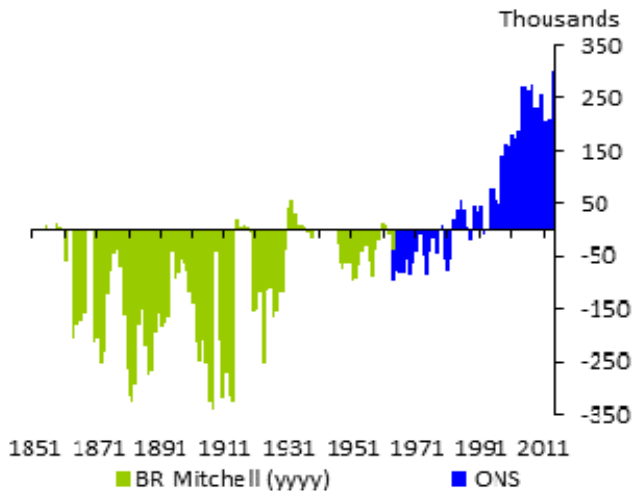
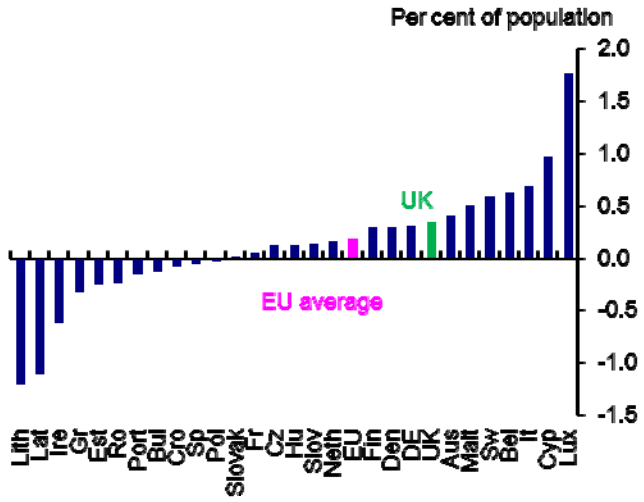


Chart 4: Net migration into the UK is above the European Union average in over the period 2009-2013



4 The level of the population is likely to be higher than the current published ONS estimates due to higher net migration, and this will be reflected in the May Benchmark forecast. The ONS population estimates that underlie the Labour Force Survey (LFS) labour market statistics are based on net inward migration of around 165,000 a year since 2013: the actual increase has averaged around 254,000 per year (**Chart 5**). That extra migration over the past couple of years raises the level of the population by around 0.3% by 2015 Q1 (**Chart 6**).[2] The ONS projections were last updated using 2012 data. Stronger net migration flows will not be incorporated into ONS population statistics until later in 2015 and will not be reflected in the LFS until 2016. Given the disparity the greater-than-expected migration causes with the ONS' current population estimates, we propose increasing the population estimate in the May Benchmark in line with the additional migration.

Chart 5: Net migration has been stronger than assumed in ONS population estimates

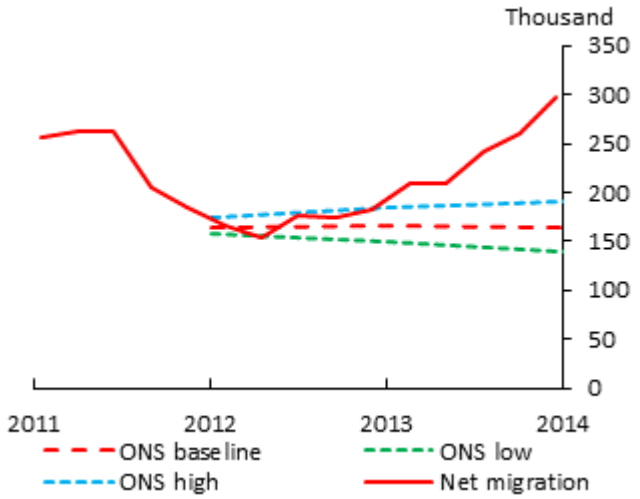
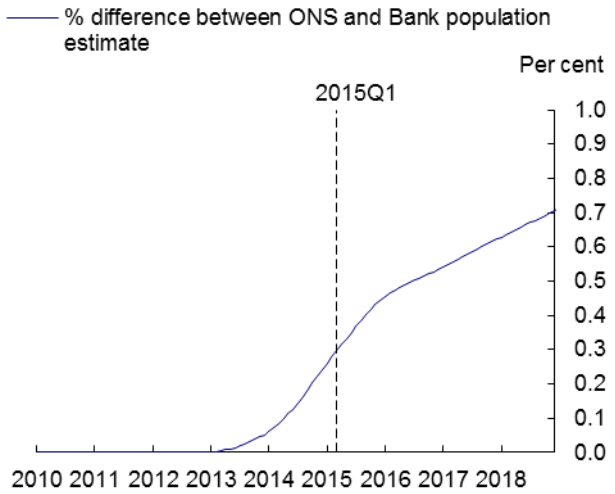


Chart 6: Population level revised up by 0.7% by end of May forecast period



5 Although there is evidence that migrants have slightly different labour market characteristics to UK nationals (**Table A**), for simplicity we intend to assume they are the same as the general population until they are incorporated into official statistics. Assuming the employment and unemployment rates of the extra

[2] 0.2pp reflects available data on net migration up to 2014 Q3; the rest reflects projections for migration over the past six months.

migrants are the same as those in the LFS means that the level of employment, unemployment and inactivity are all 0.3% higher in 2015Q1. Average hours worked of new migrants are assumed to be in line with those of existing workers in the UK. In terms of overall labour supply, this simplification is acceptable because while participation rates of migrants aged between 25 and 64 – those of prime working age – are a little lower than for the native population (**Chart 7**) average hours worked are a little higher (**Chart 8**).

Chart 7: Participation rates for prime working age migrants slightly lower than native population…

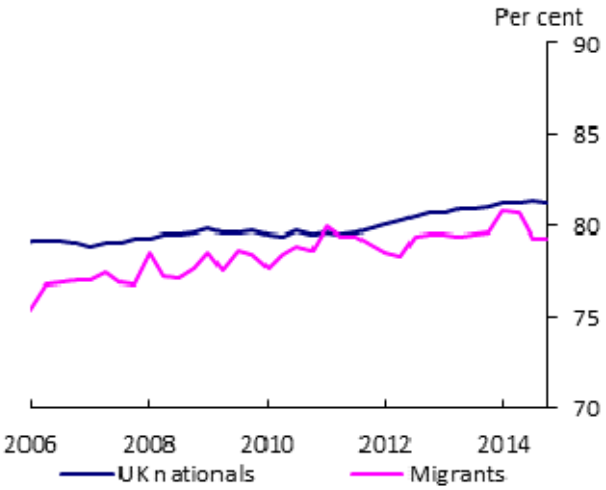


Chart 8: … while average hours worked are a little higher

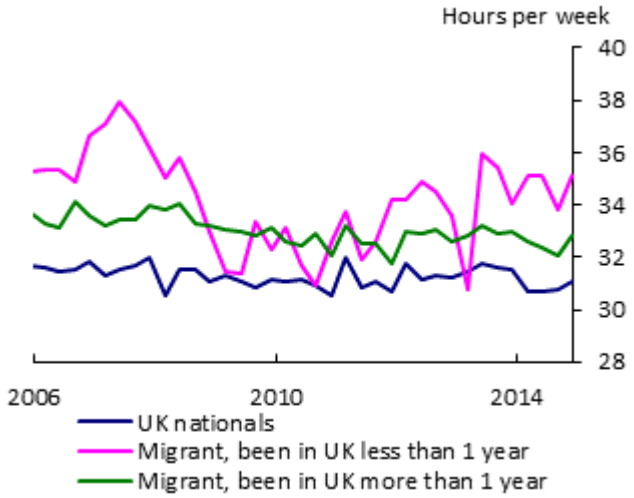


Table A: Migrant labour market characteristics

	2005				2014			
	UK national	Foreign national			UK national	Foreign national		
	Total	< 1 yr	>1 yr	Total	Total	< 1 yr	> 1 yr	Total
Employment rate	58.7%	52.4%	51.5%	51.7%	60.2%	40.8%	56.6%	55%
Self-employment rate	7.8%	3.3%	6.9%	6.3%	8.7%	3.8%	8.7%	8.2%
Participation rate	63.1%	70.2%	64.3%	65.2%	62.6%	59.5%	71.4%	70.3%
Unemployment rate	4.9%	9.9%	8.2%	8.5%	5.5%	13.7%	6.3%	6.9%
Average hours worked	31.7	35.2	33.7	33.1	31	35	32.8	32.9

6 The higher employment level – in heads and total hours – mechanically means that the level of productivity in 2015 Q1 is 0.3% lower than estimated using published ONS labour market data. Independently measured GDP data should in principle, already capture the output of employed migrants. The main source of potential bias in the early GDP output data would be if migrants were disproportionately working in very small companies not captured in early data (specifically unregistered businesses), but that impact is likely to be small.

The outlook for migration and population

7 The outlook for net migration to the UK is highly uncertain, but is likely to depend on a number of factors such as government migration policy, the UK's economic performance relative to other countries and social factors, such as the presence of prospective migrants' friends or family in the UK. Mitchell, Pain and Riley (2011)[3] estimate that around ¾ of the variation in net migration between 1992-5 and 2004-7 reflects

[3] J. Mitchell, N. Pain & R. Riley (2011), '*The drivers of international migration to the UK: A panel-based Beysian model averaging approach*', The Economic Journal, Vol 121, issue 557.

changes in policy (such as the enlargement of the EU in 2004). The effects of policy can also be seen in the fall in international migration for study, which fell after 2011 as restrictions were made on the number of student visas available. Migration for study is one of the main reasons for strong net migration in the UK (**Chart 9**) and is likely to be less sensitive to fluctuations in relative business cycles than migration for work reasons. Net migration from outside of the EU can be more than accounted for by those moving to the UK for formal study or to accompany another migrant (**Chart 10**).

Chart 9: Formal study is the main reason for net migration to the UK

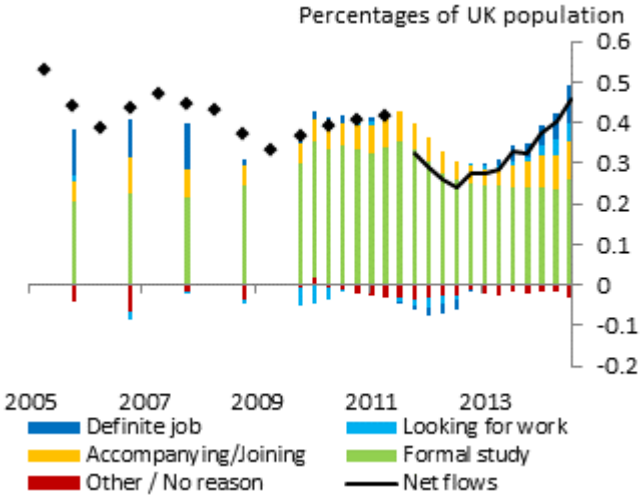
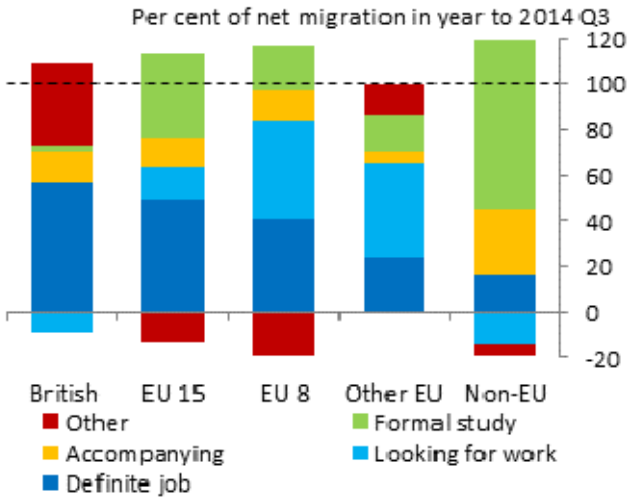
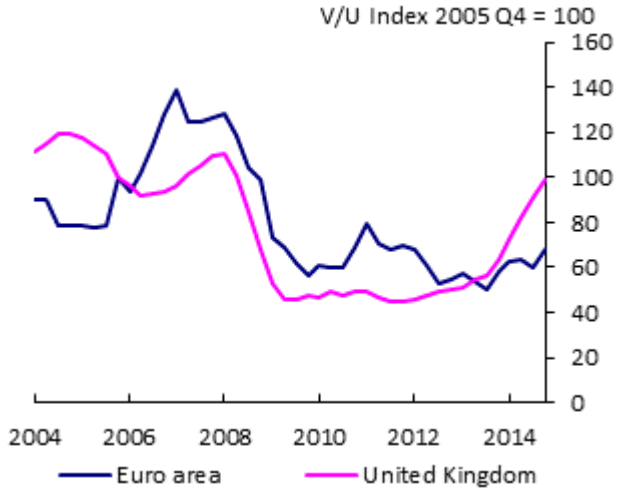


Chart 10: Europeans move to the UK for work, other nationalities to study



8 The presence of friends and families is an important factor determining the destination country for migrants. Agents report that, as the numbers of migrants settling in the UK has grown, many firms and recruitment agencies are able to readily access friends and family networks of existing migrant employees.[4]

Chart 11: Vacancy to unemployment ratio highlights improvement in UK labour market conditions



9 The UK's relative economic performance is also a factor affecting migration flows. Over the past couple of years, a relative improvement in UK labour market conditions has probably increased the incentive to migrate to the UK: the vacancy to unemployment ratio in the UK has been increasing, for example, at the same time it has remained broadly flat in the euro area (**Chart 11**). Agents' contacts also report that they have heard more reports of companies looking overseas for recruits as the UK labour market has tightened (particularly for higher skilled occupations).

10 In the near-term, although net migration was close to a record high in the year to 2014Q3, other short-term indicators of migration don't point to any immediate sharp fall in migration. **Chart 12** compares net migration to the annual change in estimates of the number of non-UK national's resident and in employment in the LFS and the number of registrations by

foreign nationals for National Insurance numbers. The correlation between the measures is only approximate, but all of these indicators have picked up slightly between Q3 and Q4, albeit by less than earlier in 2014.

Chart 12: Short-term indicators of migration

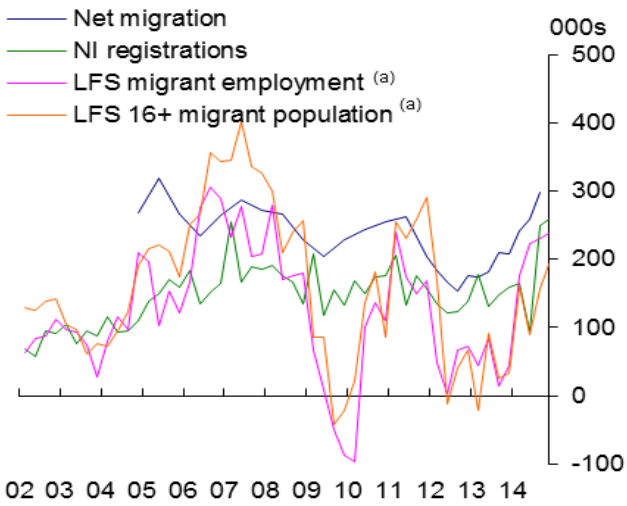
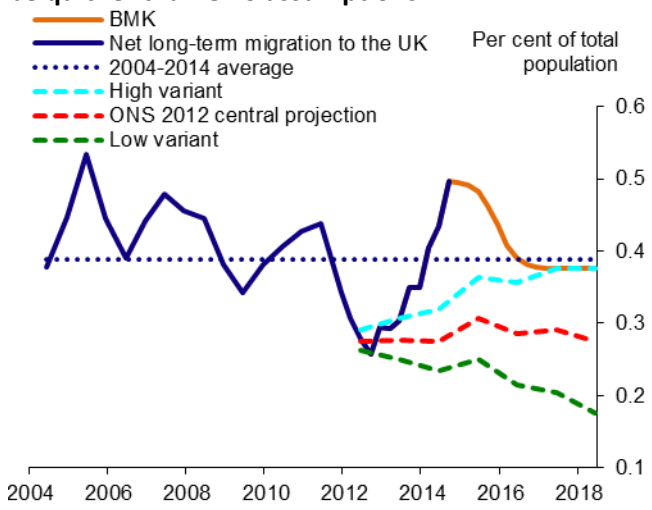


Chart 13: May Benchmark net migration assumed to be quicker than ONS assumptions



(a) Change on a year ago.

11 Looking further ahead, we propose a simple conditioning assumption that assumes net migration converges to its ten-year average over the next few years. Recent *Inflation Report* forecasts were conditioned on the ONS' principal population projection that also underlay the Labour Force Survey, and which assumed net migration of around 165k a year. Given the consistent strength of net migration over the past decade – averaging over 230k a year – a higher assumption seems more plausible. The forecast now assumes net migration gradually falls back from recent highs so that net migration is around its 2004-2014 average by late 2016 (**Chart 13**). Including the expected revisions to the back data discussed above, the May Benchmark population projection ends the forecast 0.7% higher than assumed in the February 2015 Inflation Report (**Chart 6**).

Effect of migration on labour productivity

12 The effect of migration on productivity will depend on the skills of migrants relative to UK nationals and also the ability of migrants to find jobs that are a good match for their skills. If migrants are higher skilled than UK nationals then this would raise the average level of human capital per worker. But if migrants are unable to find a job which matches their skills, and take lower-skilled occupations for which they are over-qualified, the boost to productivity from higher human capital would be at least partially offset.

13 Overall, migrants tend to be better educated than UK nationals, but there is evidence that they are less able to find good job matches when they arrive in the UK, so that average wages of migrants are similar to that of UK nationals. As a percentage of their respective population stock residing in the UK, a greater share of EU and rest of world migrants have degree level education than the UK-born population does.[5] But **Chart 14** shows an increase in the level of EU nationals working in low skilled occupations in the most recent data, which is echoed by the Bank's Agency contacts. There has been an increase in the proportion of migrants who have been in the UK for less than a year working in the elementary sector (farm workers, packers, mail sorters

etc.) (**Chart 15**). Overall, these effects appear to net out, with migrants, on average, having similar wages to UK nationals – this suggests there is likely to be no compositional effect on productivity.

Chart 14: Employment of migrants by skill level

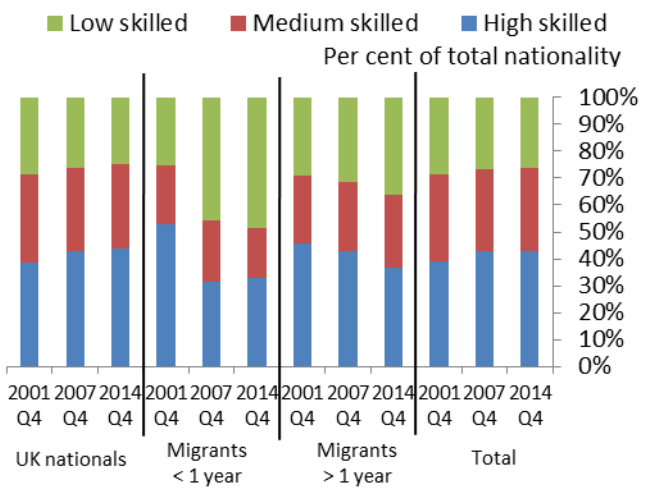
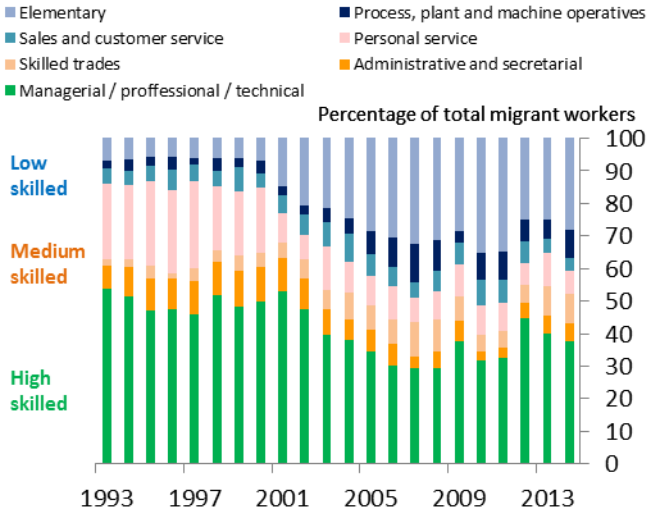


Chart 15: Employment by occupation for migrants who have been in the UK for less than a year



14 There is some evidence that competition from migrants may affect the productivity of UK workers in some sectors. Agents report hearing frequently that low-skilled migrant employees' productivity tends to be better than that of some local workers, which has resulted in lower unit labour costs. And, some contacts report productivity improving across the entire workforce as migrant workers provide an example to others.

Implications for labour market slack

15 A little under half of gross migrant inflows to the UK over the past few years were for work reasons, of these, about a third were looking for work and hence most likely to add to the unemployment pool. Until they find work, migrants who search for work in the UK will increase the degree of slack and put downward pressure on wages. Over the past, these migrants are captured in the unemployment rate.[6] Over the forecast, the effect on slack will depend on the speed at which the unemployed are assumed to find work. Migrants who have been in the UK for at least 12 months tend to have lower unemployment rates than those who have been in the UK less than a year (**Chart 16**). This may simply reflect the time taken for migrants to settle in the UK labour market: unemployment rates for longer-term migrants are only a little higher than the native population; therefore we don't propose to alter our longer-term unemployment projection for migration. One risk to the assumption is that intelligence from the Bank's Agents suggests that recent migrants tend to have lesser English skills than migrants from a few years ago so it is possible that future migrants will be less effective at finding work.[7]

[6] While we expect LFS unemployment in heads to be revised up when the ONS population estimates are revised to account for the higher migration numbers, we do not expect large revisions to the unemployment rate.

Chart 16: The longer a migrant has been in the UK, the less likely they are to be unemployed

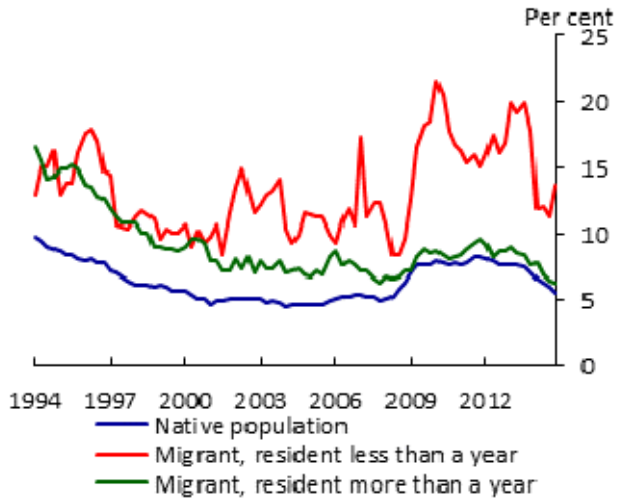
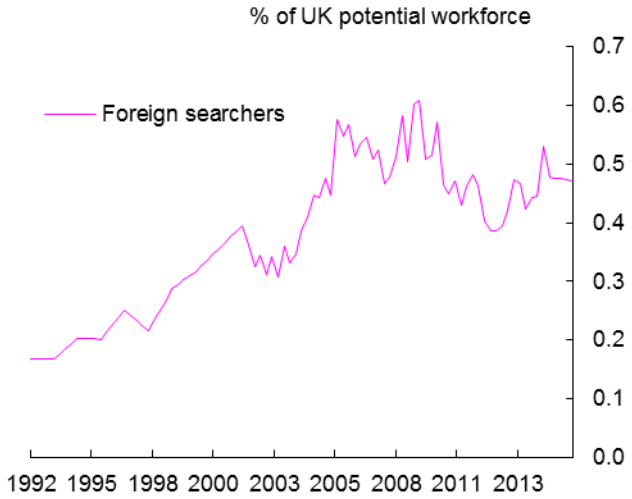


Chart 17: The pool of foreign workers searching for UK jobs appears to be similar to that pre-crisis



16 Prospective migrants are also likely to search for work in the UK whilst abroad, and so put downward pressure on wages as latent slack. Successful job applicants appear in the migration statistics as having a 'definite job', and represent about two-thirds of gross migrant inflows for work reasons. If businesses perceive there is a pool of available labour abroad, or scope to offshore domestic production, that will probably also put downward pressure on wages in the UK.

17 Estimates suggest the pool of foreign nationals searching for work in the UK is similar to pre-crisis levels and is a small percentage of the UK workforce. Workers searching for jobs in the UK cannot be directly observed, but it is possible to observe those who have been successful and have migrated to the UK with a job. The gross number of people reporting that the main reason for migrating to the UK is having a 'definite job' has risen since 2012 (**Chart 9**).[8] These successful migrants represent only a proportion of those searching for jobs in the UK. Using UK job finding rates as a proxy for job finding rates for foreign workers implies that foreign job searchers are equivalent to ½% of the UK workforce (**Chart 17**).[9] This number is similar to that in the immediate pre-crisis period, but is slightly higher than a few years ago, probably reflecting the relative improvement in the UK labour market. Some Agents' contacts have reported that they are increasing hiring directly from overseas or setting up offshore satellite offices in response to UK labour shortages.

Insights from academic research

18 Evidence from academic studies suggests the wages of lower-skilled workers are likely to be lower as a result of migration, although the impact on the average wage is more ambiguous. A number of studies estimated on pre-recession data suggest migrants do reduce wage growth a little, but others suggest migrants *raise* the average wage.[10] Reed and Latorre (2009)[11] estimate that a 1% increase in the migrant share of the

[8] There has also been a fall in the number of people leaving the UK with a definite job.

[9] The UK job finding rate is likely to overestimate the success of foreign workers searching overseas and hence underestimate the number of foreign searchers. But, to the degree that job finding rates indicates the degree to which job searchers are able to compete for work and put downward pressure on UK wages, a lower job-finding rate for foreign searchers would reduce their effect on UK wages. Using UK job-finding rates as a proxy therefore creates offsetting errors in the estimate of the degree of downward pressure on wages from foreign searchers.

for a discussion of the literature.

population is accompanied by between 0.1% and 0.3% fall in wages. Dustman, Fabbri and Preston (2005),[12] by contrast, find a 1% increase in the share is associated with 0.1-0.3% increase in the average wage. In part the conclusion of Dustman et at (2005) is attributed to migrants to the UK having a similar skill mix to the native population. Both studies agree the wages of lower skilled workers are likely to fall following an increase in migration. This is supported by other studies such as Nickell and Salaheen (2008)[13], who estimate a 1% rise in the migrant share of unskilled and semi-skilled workers in the service sector reduces the average wage in those sectors by around 0.5%.

19 Research which also covers the period since the start of the recession suggests the impact of migrants may have fallen. Frattini (2014)[14] finds that the estimated impact of higher migration on UK consumer prices has not been significant since 2007. That compares to the period between 1997 and 2007 when higher migration reduced the price of non-tradable goods and services. Tradable goods and service prices were not found to be affected by increases in migration. The downwards effect on non-tradable prices was concentrated in low wage sectors, as increased migration reduced labour costs in those sectors.

20 Other research, concentrating on the employment effects of higher migration (for example Devlin, Bolt, Patel, Harding and Hussain (2014)[15]), suggests that in normal times migrants do not displace native workers. Changes in migrant employment appears to mirror native employment growth. When there is deficient demand, however, they find some evidence that migrants account for a disproportionately high proportion of employment growth.

[11] Latorre, M. and Reed, H (2009), 'The economic impact of migration on the UK labour market', *Institute for Public Policy Research,* Economics of migration working paper 3.
[12] Dustmann, C. Fabbri, F. and Preston, I (2005), 'The impact of immigration on the UK labour market', *Economic Journal* 115: pages F324-41.
[13] Nickell, S. and Salaheen, J. (2008), 'The impact of immigration on occupational wages: British evidence', *Working Paper, Nuffield College, Oxford*.
[14] Frattini, T (2014), 'Impact of migration on UK consumer prices', *Migration Advisory Committee*
[15] Devlin, C., Bolt, O., Patel, D., Harding, D. and Hussain, I. (2014), *Home Office Occasional Paper*, March 2014.