

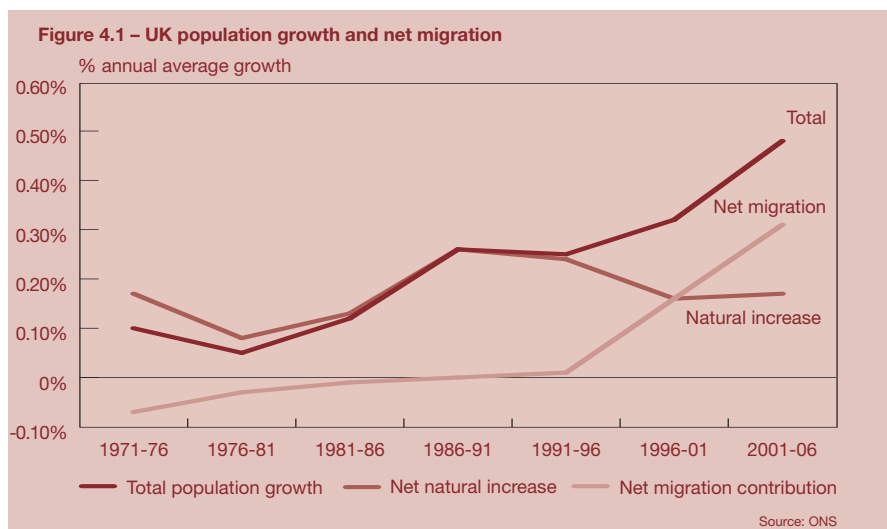
## IV – The economic impact of increased net migration to the UK

As is evident from recent comments by the Treasury and the Bank of England, the impact of migration on the labour market and economic growth has become an increasingly significant issue for fiscal and monetary policy. In particular, the Treasury cited increased expected future net migration to the UK as the main reason for its decision in the December 2006 Pre-Budget Report (PBR) to increase its best estimate of future trend GDP growth from 2.5% to 2.75%. Professor David Blanchflower of the Monetary Policy Committee (MPC) has also recently argued<sup>1</sup> that the rapid increase in migration from Eastern Europe to the UK following EU enlargement in 2004 has boosted the supply potential of the economy relative to demand, so reducing inflationary pressures and the need for higher interest rates. While not all MPC members may agree fully with Blanchflower's conclusion, the significance of migration for UK monetary policy is now widely recognised.

It therefore seems timely to look at this issue in more detail. We cannot hope to discuss all aspects of this complex economic debate in the present article, but we do aim to cover the key macroeconomic issues arising, drawing on the conclusions of recent research that has been carried out on this topic. We focus solely on the economic impact of migration, not wider social or political issues.

The discussion below is organised as follows:

- Section IV.1 reviews the evidence on the recent impact of increased migration on the UK labour market (i.e. employment, unemployment and wages);
- Section IV.2 assesses the potential impact on trend GDP growth;
- Section IV.3 reviews the implications for inflation and interest rates;
- Section IV.4 discusses the implications for the public finances and fiscal policy;
- Section IV.5 discusses the impact on national income per capita and economic welfare more generally; and



- Section IV.6 summarises and draws conclusions from the analysis.

### IV.1 – Impact of increased immigration on the UK labour market

A commonly held view is that increased immigration may increase unemployment by displacing indigenous workers. Most economists would be sceptical of this argument. First, they would point out that much immigration occurs to fill job vacancies arising from domestic skills gaps, in which case there should be no adverse impact on domestic unemployment. Second, even if immigration is competitive with domestic labour with similar skills, this will tend to keep wages lower than would otherwise be the case, so increasing the demand for labour and also allowing interest rates to be kept lower while still hitting the same inflation target (as discussed further in Section IV.3 below). Both these factors will tend to boost investment and output. With constant returns to scale, output should rise in line with the increase in labour supply and the unemployment rate should be unchanged<sup>2</sup>.

Blanchflower *et al.* (2007) provide an empirical analysis of these arguments, focusing on the impact of increased immigration from the 'A8' Central and Eastern European countries<sup>3</sup> that joined the EU on 1 May 2004. They begin by noting that the UK population grew only very modestly by just 4.9% between 1971 and

1999, more slowly than all other Western European countries except Germany (and much more slowly than the US, Canada or Australia). Between 1999 and 2006, however, the UK population has grown by a further 3.2% (i.e. around two and a half times as fast on an annual average basis<sup>4</sup>), driven primarily by increased net immigration<sup>5</sup>.

Figure 4.1 illustrates these shifting trends for five year period averages since 1971. We can see that net migration actually made a negative contribution to UK population growth between 1971 and 1986, but has made an increasingly positive contribution since 1996 and has been around twice as important as the net natural increase (i.e. births minus deaths) over the past five years.

### Scale and characteristics of recent migration from the A8 countries

According to Total International Migration (TIM) statistics from the ONS that are based primarily on data from the International Passenger Survey (IPS), around 35% of this net immigration in 2005 related to the A8 countries. Cumulatively, the IPS data suggest that total inflows from the A8 to the UK amounted to around 132,000 between January 2004 and December 2005, or around 112,000 after netting off outflows. The IPS only covers 'long-term' migrants intending to stay more than a year, however, and also only covers the principal air and

<sup>1</sup> D. G. Blanchflower, J. Salaheen and C. Shadforth, "The Impact of the Recent Migration from Eastern Europe on the UK Economy" Bank of England working paper, January 2007.

<sup>2</sup> This latter argument was succinctly explained by Charles Bean, the Bank of England's chief economist, in a lecture on 'Economists and the Real World' at the London School of Economics, 29 January 2003.

<sup>3</sup> Poland, Hungary, Czech Republic, Slovakia, Slovenia, Estonia, Latvia and Lithuania.

<sup>4</sup> UK population growth averaged 0.17% per annum in 1971-99, but accelerated to 0.45% per annum in 2000-2006

<sup>5</sup> Significant net immigration from Commonwealth countries has played an important role in this trend, as well as the recent increase in migrants from the A8 countries.

sea routes plus the Channel Tunnel (e.g. only inflows via Heathrow, Gatwick and Manchester airports are covered, while airline data suggest that many of those entering the UK from the A8 arrive at other regional airports). The ONS have plans to extend this coverage, but for the moment it seems likely that the IPS data may significantly underestimate actual inflows from the A8.

Blanchflower *et al.* therefore consider three other data sources, as summarised in Table 4.1. For the full period from May 2004 to September 2006, data on the number of people registering for National Insurance (NI) numbers (extrapolated by the authors from data for the shorter period from April 2004 to March 2006) and for the Workers' Registration Scheme (WRS) both suggest gross inflows of workers from the A8 countries of the order of around 500,000. However, Labour Force Survey (LFS) estimates suggest that only around half of these workers may still have been in the UK in September 2006, given that many will have only come for short working visits and then returned home. The fact that the population of Poland, which has accounted for 63% of the A8 workers registering with the WRS, decreased by only 17,000 (0.04%) between 2004 and 2005 also provides some indication that net flows may have been much lower than gross flows due to a large number of short-term returnees. Unfortunately there is no systematic data source available that allows these movements to be tracked, so considerable uncertainty remains around these estimates.

Further analysis of these various data sources suggests that migrants from the A8 countries are relatively young (82% aged 18-34 according to the WRS and 43% aged 18-24) with few dependents accompanying them. They are 58% male, relatively well educated but mostly in relatively lower skilled occupations such as factory operatives, catering and agriculture and, as such, tend to be relatively low paid (18% less than non-immigrants on average according to analysis of LFS data, and 20% less than non-A8 immigrants). Overwhelming they have come to work, not claim benefits. To the extent that their unemployment rate is slightly above average, this is explained by their relative

**Table 4.1 – Estimated number of immigrants from A8 countries since 2004**

Source	Available data (000s)	Coverage	Period covered	Adjusted data for period since A8 accession
National number Insurance (NI) registrations	382	All those registering for tax or benefit purposes (including self-employed)	April 2004 to March 2006	515
Workers Registration Scheme (WRS)	487	Employed workers (excluding self-employed)	May 2004 to September 2006	487
Labour Force Survey (LFS)	265	All aged 16-64 (staying > 6 months)	May 2004 to September 2006	265
Total International Migration (TIM) based largely on International Passenger Survey (IPS)	132	All long-term migrants (intending to stay > 1 year)	January 2004 to December 2005	215

Source: Blanchflower, Saleheen and Shadforth (2007), Table E. The adjusted figures in the final column are estimates by these authors, not PricewaterhouseCoopers.

youth (since unemployment rates tend to be relatively high for 18-24 year olds in particular).

### How has recent A8 immigration affected the UK labour market?

Casual observation might suggest that it has boosted labour supply relative to labour demand and so contributed to the recent tendency for annual earnings growth to be relatively subdued (generally just under 4% excluding bonuses) and for both employment and unemployment to show a rising trend over the past two years (the LFS shows employment up by 558,000 in August-October 2006 compared to two years earlier, with unemployment up by 306,000 over this same period). The fact that much of the recent increase in unemployment has been in younger age groups might also suggest a possible link with A8 immigration which, as noted above, is heavily weighted to younger workers.

However, there could clearly be other factors contributing to these recent labour market trends, including in particular:

- increased labour market participation by older workers (probably in part to compensate for lower projected pensions than earlier anticipated, although other factors such as shifts in labour demand and anti-age-discrimination legislation may also have had an effect);

- the lagged effect of the modest downturn in the economy during 2005; and
- a possible constraining effect on earnings growth from the threat of outsourcing/offshoring to cheaper locations abroad.

Blanchflower *et al.* provide one possible test of the effect of immigration on unemployment by looking at whether the UK regions<sup>6</sup> with the highest increase in unemployment rates in the year to Q3 2006 were also those where migration had increased the most between 2005 and 2006. In fact, however, they found this relationship was negative (but statistically insignificant) for total unemployment. For 18-24 year olds alone, they did find a weakly positive relationship (see Figure 4.2), but this was also statistically insignificant, suggesting that immigration trends explained at most only a small part of the recent upward trend in youth unemployment. These results were consistent with an earlier study by Gilpin *et al.* (2006)<sup>7</sup>, which found 'no discernible statistical evidence' that increased A8 migration had made a significant contribution to the recent rise in claimant count unemployment.

In terms of wage effects, there is some evidence as mentioned above that A8 immigrants themselves earn relatively low wages, and so will have held average earnings growth down to some degree, but

<sup>6</sup> It could be argued, however, that migration effects operate primarily at the level of local labour markets, which might not show up when looking at data for regions as a whole. We are not, however, aware of any quantitative research yet on the local labour market effects of recent A8 migration.

<sup>7</sup> Gilpin, N., M. Henty, S. Lemos, J. Portes and C. Bullen (2006), 'The impact of free movement of workers from Central and Eastern Europe on the UK labour market', DWP Working Paper no. 29.

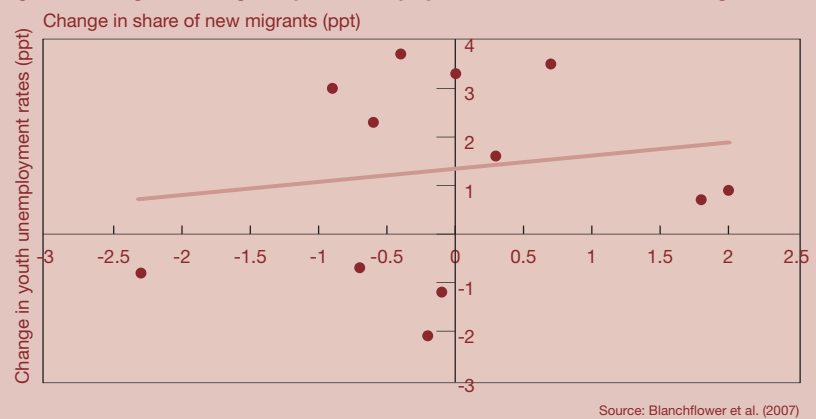
probably only by around 0.1 percentage points per annum over the past two years based on our calculations. There is little evidence of a significant impact of immigration generally on native UK employee wages from recent studies<sup>9</sup>. Rather it seems that immigrants generally tend to be imperfect substitutes for native workers, so reducing their impact on native wages, but again it is too early to have detailed studies on the specific impact of the latest wave of A8 immigrants. Earlier studies of the effects of major step increases in immigration around the world surveyed by Blanchflower *et al.* (2007) do not, however, point to large effects on native wages or employment rates, although some US studies suggest that lower skilled native workers tend to lose out from immigration to some degree, whereas higher income households benefit from the downward effect on goods and services prices because of the availability of lower paid immigrant workers. But, in general, most studies on this issue do not point to large effects.

In summary, there is evidence that the recent rise in UK immigration from the A8 has boosted total labour supply by more than 200,000 workers since April 2004 and possibly by as much as 500,000. This does seem to have played an important role in boosting UK employment levels, which rose by more than 550,000 in the two years to autumn 2006. There may have also been some slight upward effect on youth unemployment rates, but overall the available evidence suggests that immigration has not been the main factor driving the rise in unemployment over the past two years, which is more likely to have been a lagged response to the slowdown in UK economic growth during 2005. Since they are themselves relatively low paid, increased immigration from the A8 may have helped to hold down average earnings growth over the past two years, but there is no strong evidence of this depressing the wages of native workers (or indeed their employment rates).

## IV.2 Migration and trend growth

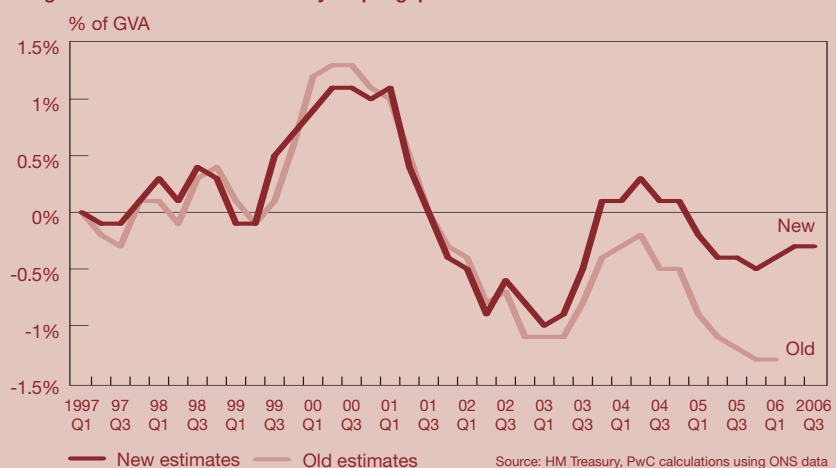
The upward revision in historic UK economic growth estimates in the 2006

Figure 4.2 – Regional changes in youth unemployment rates and share of new migrants



Source: Blanchflower *et al.* (2007)

Figure 4.3 – New and old Treasury output gap estimates



Source: HM Treasury, PwC calculations using ONS data

Blue Book caused the Treasury to reduce significantly its estimate of the 'output gap' in 2006/7 from -1.4% of non-oil GVA<sup>9</sup> (in Budget 2006) to only around -0.2% in the December 2006 PBR (see Figure 4.3). This new estimate is more consistent with other evidence (e.g. from business surveys of capacity utilisation) that suggests only a relatively small amount of spare capacity in the UK economy at present, and with the estimates of other leading analysts such as the IMF and the OECD.

This revision posed a challenge for the Treasury, however, in that it made its previous projection of significantly above trend GDP growth in 2007 and 2008 look less plausible without pushing the level of output well above trend and so prompting interest rate rises. The Treasury argued in the PBR, however, that increased migration justified an increase in its central estimate of future trend growth (in the five years from 2007 to 2011) from 2.5% to 2.75%. This was based on the following general argument:

- previously the Treasury had used the latest 2005 principal population projections from the Government Actuary's Department (GAD), which suggested working age population growth of around 0.4% per annum on average in 2007-11, compared to the 0.65% average in 2001-6; this reflected the number of women born in the post-1945 baby boom who would reach state pension age from 2006 onwards;
- the GAD's principal projection was, however, based on the assumption that net migration would decline from its 2004 peak of 223,000 to an average of 145,000 per annum from 2007 onwards; although migration did fall to 185,000 in 2005, the Treasury argued that it seems more likely to remain at this level in future than to decline further (see Figure 4.4); and
- on this basis, the Treasury assumed that working age population growth would average around 0.6% per annum in 2007-11, only slightly below the average

<sup>9</sup> See, for example, Dustmann, C., F. Fabbri and I. Preston (2005), 'The impact of immigration on the British labour market', *Economic Journal*, 115 (November), F324-F341.

<sup>10</sup> The Treasury uses non-oil Gross Value Added (GVA) rather than GDP in its trend growth and output gap calculations to avoid distortions arising from variations in North Sea oil and gas output, which tend to be largely unrelated to the general economic cycle.

of 0.65% in 2001-6, rather than falling to 0.4% per annum as previously assumed.

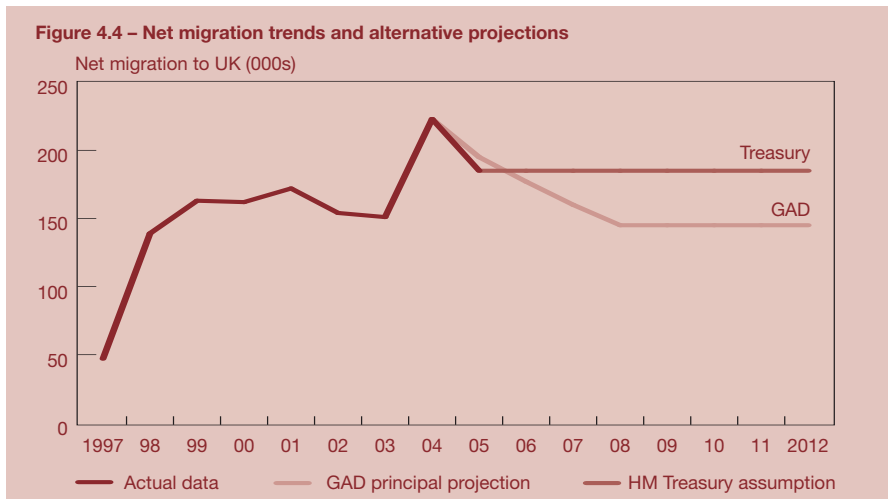
In addition, the Treasury argued that:

- the latest upwardly revised productivity growth data for 2001-6 provided support for the Treasury's earlier estimate that trend productivity per hour growth was around 2.25% per annum; and
- there was no good reason to change the earlier Treasury assumptions that a small trend decline in average hours per worker (-0.2% per annum) would be offset by the effect of a trend increase in the proportion of the working age population in employment (+0.2% per annum).

### Assessment of Treasury analysis

In relation to migration trends, the Treasury's argument certainly has some merit, particularly when it is borne in mind that the GAD projections were based on IPS/TIM migration data which, for the reasons discussed above, may tend to understate actual net immigration, particularly from the A8 since 2004. Earlier GAD population projections certainly did not anticipate the extent of the rise in immigration in 2004-5 and the Treasury's assumption is still some way below the alternative 'high migration' scenario put forward by the GAD in 2005, which envisaged net migration running at an average of 205,000 per annum from 2007 onwards. The Treasury's migration assumption is therefore well within the plausible range.

Nonetheless, it could be argued that there are sufficiently large uncertainties around future migration trends to justify waiting a while longer before making this change, at least until the ONS updates its official population projections in Autumn 2007 (having taken over this role from the GAD last year). This would allow more data to accumulate on: how far earlier growth in A8 migration rates can be sustained now that the immediate post-accession increase has occurred; what early indications are on migration from Romania and Bulgaria now they have joined the EU (but under a more restrictive regime as regards migration to



the UK than for the A8); and how this additional migration is impacting the wider UK labour market.

In relation to this latter point, there are clearly still uncertainties as to how far the relatively low wages of recent A8 migrants (as noted above) are reflective of lower than UK average productivity levels. This may not be the case, since casual observation (and indeed a recent employer survey by the Institute of Directors) suggest that A8 migrants may be more productive than UK workers in comparable occupations. To the extent, however, that A8 migrants tend to work in lower productivity occupations, this could have at least a marginal 'batting average' effect that might shave a small amount off trend productivity growth during the period when migration remains particularly high. Similarly, as noted above, there could be at least a small effect from migration in pushing up youth unemployment, even if these effects are not statistically significant in econometric tests.

More generally, there is a question as to whether the assumed 0.2% contribution to trend GDP growth from a rising employment rate can be sustained. The last two years have seen the total UK employment rate remain relatively flat, but it remains to be seen how far this is a cyclical pause or an indication that structural limits to the earlier trend rise in the UK employment rate are being reached.

Furthermore, even if the upward trend in the UK employment rate resumes, the new people coming into the labour market (aside from immigrants) will often be from groups

such as older workers, students and lone parents who frequently work part-time rather than full-time. This could tend to reduce average hours worked across the economy as a whole, possibly by faster than the earlier trend rate of decline, which is assumed by the Treasury to continue in 2007-11.

In summary, the Treasury's arguments for a higher future trend growth rate clearly have some force and may well turn out to be correct in time. Their new 2.75% central estimate is certainly well within the plausible range. But there are still considerable uncertainties both about future migration trends and about wider labour market and productivity developments. In these circumstances, there might have been a case for waiting a little longer for additional evidence to become available before revising up assumed future trend growth to 2.75%. That having been said, however, it can be noted that the Treasury did use a more cautious assumption of 2.5% trend growth in its PBR fiscal projections<sup>16</sup>.

### IV.3 – Implications for inflation and interest rates

The implications for inflation depend on the extent to which higher migration affects the balance between aggregate supply and aggregate demand. Clearly there are implications for both since migrant workers both produce and consume goods and services. An increased labour force will generally also encourage increased investment to equip these extra workers, which will also add to aggregate demand

<sup>16</sup>Previously the Treasury used a 2.25% trend growth assumption for the period beyond 2006, which did look very conservative, although this was offset by what most independent commentators considered to be an implausibly high initial negative output gap estimate.

(although there could also be some reduction in the average capital intensity of production due to the availability of additional relatively low cost migrant labour).

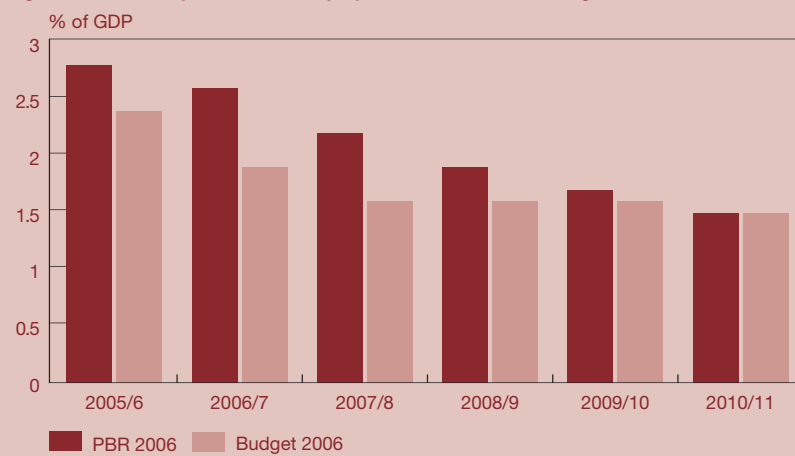
To the extent that migrant workers from relative low income countries such as the A8 will tend to send a proportion of their incomes home to help their families, however, the normal presumption would be that the initial effect would be to boost aggregate supply by somewhat more than aggregate demand, so tending to reduce inflationary pressures and allow the MPC to keep interest rates lower than would otherwise have been the case. Quantifying this effect is very difficult given the large range of other factors affecting inflation and interest rates, but statements in past MPC minutes and Inflation Reports support the view that migration has had some such effect in recent years.

Unless there is a permanent increase in the rate of inward migration, however, the effect on interest rates (and inflation) would be expected to be temporary, since lower interest rates should eventually move aggregate demand up into line with aggregate supply.

#### IV.4 – Implications for the public finances and fiscal policy

The practical significance of higher forecast future net immigration for the public finances is that the Treasury kept its GDP forecasts for the next few years broadly unchanged in the PBR, at the same time as it revealed a new much lower initial output gap estimate (see Figure 4.1 above). As such, tax revenue forecasts were also kept broadly unchanged in the PBR (apart from North Sea oil revenue projections, which were revised down for reasons unconnected with the general UK economic position). While the initial structural budget deficit is now estimated to be significantly higher due to the smaller output gap, this difference gradually disappears over the course of the projection period (see Figure 4.5). In practice, therefore, the fiscal policy impact of the new migration assumption was relatively small when considered together

Figure 4.5 – Treasury estimates and projections of structural budget deficit



with the effect of the output gap revision made at the same time in the PBR.

If we just look at the impact of higher assumed net immigration in the future without also considering the effect of the smaller initial output gap, however, then we can see that by 2011/12 it implies that GDP will be around 1.25% higher than it would otherwise have been and that, since tax revenues are around 40% of GDP, the latter will be around 0.5% of GDP higher than otherwise in 2011/12. Since the public spending plans pencilled in for the years beyond 2007/8 were left largely unchanged in cash terms in the PBR, however, this implies that future spending will be somewhat lower on a per capita basis (and as a share of GDP) than would have been the case without the revised migration assumption.

In other words, the Treasury does not seem to be making any allowance for the possible demands on public spending from the additional migrants factored into its GDP growth and revenue projections. To the extent, however, that these are mostly workers aged 18-34 with few dependents in the UK (as the analysis of A8 migrants above suggests), this may be reasonable, since this age group should not make heavy demands on health or education services and, if they are working, are unlikely to be major social security benefit recipients. As such, we would expect this group to be particularly strong positive net contributors to the public finances<sup>1</sup>, at least to the extent that they are working in the formal economy and so paying taxes. Nonetheless, at least at the margin, the public spending

settlement pencilled in by the Treasury does look a little tighter than before to the extent that it must now cover a larger projected UK population.

#### IV.5 – Effects on national income per capita and general economic welfare

The impact of additional migration on GDP per capita will necessarily be less marked than its impact on total GDP. For example, the Treasury's new trend growth assumption implies that total GDP will be around 1% higher by 2010 than otherwise due to increased migration, but this is entirely due to a 1% rise in the working age population. Since the latter is around 60% of the total population, the implied rise in GDP per capita due to additional migration would be around 0.4% by 2010.

In addition, it is normal in welfare comparisons to look at national income per capita, which adjusts GDP for net overseas income flows. Since recent A8 migrant workers in particular may tend to send a significant proportion of their incomes back home, this is likely to imply a rise in national income per capita of somewhat less than 0.4%. Nonetheless, there should still be some positive effect on national income per capita from increased migration in this case.

Income per capita levels are not, however, the only element in economic welfare. Other economic effects to consider (excluding wider social impacts) might include:

<sup>1</sup> This is consistent with earlier studies showing a positive net fiscal contribution of migrants generally, such as Gott C. and K. Johnson (2002), *The Migrant Population in the UK: Fiscal Effects*, Home Office Research, Development and Statistics Directorate Occasional Paper No. 77. For the most recent A8 migrants, the likelihood of a positive net fiscal contribution seems even greater given their average age and typical lack of dependents, as well as the fact that most seem likely to return home rather than settle here on a long-term basis.

- increased congestion on roads and public transport; and
- increased pressures on constrained housing supply, tending to push up house prices and rents.

These two effects seem likely to be negative, particularly as migrants tend to be focused in the areas of the UK with the highest population density, such as London and other major cities. These negative effects may offset to some degree the positive impact on national income per capita from higher migration, although quantifying this trade-off would be difficult and is beyond the scope of this article.

## IV.6 – Summary and conclusions

UK population growth has accelerated significantly since the turn of the century, driven primarily by higher net immigration, and an unexpectedly high inflow from the A8 Eastern European countries that joined the EU on 1 May 2004 has added to this trend. Available estimates indicate that up to half a million workers may have come to the UK from the A8 since May 2004, although Labour Force Survey data suggest that perhaps around half of these may since have returned home. These migrants tend

to be aged 18-34 with high employment rates relative to UK averages for this age group (and so low benefit receipts), but also comparatively low wages despite relatively good education and skills levels. There is some indication from regional data that recent A8 migration may have boosted youth unemployment rates slightly, but there is no significant evidence of adverse effects on overall unemployment levels.

Recent increases in migration certainly provide some support for the Treasury's upward revision to its estimate of future trend growth from 2.5% to 2.75%. There are, however, still considerable uncertainties around both future migration trends and their likely impact on UK employment and productivity growth, so a case might also have been made for waiting for additional evidence to accrue before revising up estimated future trend growth.

It seems likely that migration has added to both aggregate supply and aggregate demand, but probably with a greater effect on the former. As such, inflationary pressures and so interest rates are likely to have been somewhat lower than would otherwise have been expected. Unless migration continues at recent high rates, however, this effect is likely to erode over time.

The practical impact on fiscal policy is limited because the Treasury's assumption of higher future trend growth due to increased migration is offset by a lower estimate of the current amount of spare capacity in the economy. Focusing only on recent A8 migration, however, the net fiscal impact seems likely to have been positive, since these workers are mostly relatively young with few dependents and so are not likely to make major calls on the public services. Nonetheless, public spending projections do not appear to have been revised up at all in the PBR to reflect higher future assumed migration, which suggests that (on a per capita basis) the squeeze on public spending growth pencilled in for the next spending review period will be tighter than earlier projected.

Finally, we considered the impact of increased migration on national income per capita. This should be positive, but will be less (in percentage terms) than the impact on total GDP both due to a higher total population and due to some of the income earned by migrant workers (particularly from the A8) being sent back home to their families. Higher national income per capita may also be offset to some degree by increased transport congestion and pressures on housing supply.