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## **The Economic Dimension of Europe's Immigration Debate .**

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## **The Economic Dimension of Europe's Immigration Debate .**

This paper provides a critical review of the economic costs and benefits involved in the international migration of labour. It commences with an examination of recent trends in migration. It then addresses the demographic argument for immigration and then turns to the more substantive economic analysis. Focusing on the 'indigenous population' it considers the benefits to consumers and employers, the economic contribution of skill complementarity and the macroeconomic benefits of migration in reducing inflationary pressures.

It then examines the potentially adverse economic impact upon competing labour and then considers the impact upon public finances. The limitations of the estimated effects is emphasised; in particular their failure to account for the impact upon social capital.

Although some broad criteria can be established for maximising the benefits to the indigenous population of immigration it emphasises the difficulty of establishing robust empirical estimates and the judgments involved in defining both the 'indigenous populations' and the appropriate timeframe. .

Keywords – European Union, immigration, economic impact, fiscal transfer

## **The Economic Dimension of Europe's Immigration Debate**

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Whilst historians may argue about the relative scale of contemporary global migration, its impact upon the societies of the developed world has been profound in the post war years. This is particularly true in Europe whose states have often been the source of immigrants rather than recipient countries. Initially viewed as a temporary post-colonial 'adjustment' immigration is now viewed as one of the drivers of 'globalisation', together with the mobility of capital and international trade. However its social impact and the onset of an economic recession has resulted in immigration policy moving up the political agenda in almost all of the EU's Member States, whether in the context of asylum, illegal immigration, legal settlement or citizenship. In Spain voluntary repatriation has been mooted, in Italy tightened registration and in the UK the adoption of a points system. But immigration policy also has an important EU dimension, for not only does the EU require the free movement and settlement of EU nationals but the granting of such citizenship by individual Member States effectively compromises the ability of other national governments to restrict extra-EU migration. This EU dimension is reflected in the adoption of a Communication<sup>1</sup> in June 2008 and the identification of migration as a policy priority in the 2008-2011 Integrated Guidelines of the Lisbon Strategy.

However much of the debate has been within the context of the claimed economic benefits of substantial immigrant flows. This paper will attempt to review these economic arguments, drawing upon the available empirical evidence and identifying their assumptions and limitations.

It begins with a brief description of the magnitude of EU migration, both by third country nationals and by EU nationals to other Member States. It then turns to an examination of the demographic arguments, before outlining the anticipated impact of

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<sup>1</sup> 'Towards a Common Immigration Policy' COM(2007)780

immigrants upon an economy. The paper then reviews the evidence for the impact of immigrants upon indigenous wages and employment and their fiscal contribution to public finances.

### *Trends*

Since the late 80's net migration into the EU-27 has been at least half a million per year, peaking at 2 m. in 2004 before falling marginally to 1.6 m. in 2005. Of this immigration Spain, Italy and the United Kingdom accounted for around three-quarters of the net inflow. In 2007 UK net migration totalled 174,603, in Spain 701,948 and in Italy 494,315. The largest inflow is from non-EU countries (3 m. 2004) into the EU-15 but there are also substantial intra-EU flows; 1.1 m. people emigrated in 2004 to another EU-25 country.

Estimates of the size of the immigrant population are far less reliable and are dependent upon the definition that is employed. For example, the use of citizenship as a criterion will result in different estimates depending upon the particular legal framework for its acquisition. Thus the restrictions on the acquisition of German citizenship by Turkish migrants results in the non-national population totalling 7.3 million (8.9% of population) in 2004. By contrast the United Kingdom, whose foreign-born population now totals 4.8 million (8% total), has a 'non-national' population of only 4.7%; 47 % of foreign-born residents having been granted citizenship. Similarly in France half of the residents aged 20 to 59 who were born in a non-EU country had obtained French citizenship. Whilst EU citizens resident in a country other than their own were 2.1% of the total population, non-EU citizens totalled 4%. The proportion of non-EU citizens in 2007 was relatively high in Germany (5.8%), Greece (6.5%), Spain (6.4), Cyprus (6.1%) and Austria (6.6%). In absolute terms the largest concentration of foreign citizens are residing in France, Germany, Italy, Spain and the United Kingdom<sup>2</sup>.

In all Member States other than Belgium, Cyprus, Ireland and Luxembourg, the majority of foreigners are citizens of non-EU countries. Nonetheless it is worth reviewing the evidence on the extent of intra-EU migration. The substantial movement of

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<sup>2</sup> The figures for the Baltic States are complicated by the anomalous position of the Russian communities.

Europeans in the immediate post-war years reached its peak around 1973. With the recession induced by the first oil-price shock, combined with the increasing economic convergence of the EU's regions, intra-EU migration declined dramatically. The absolute number of EU workers in Member States other than their own fell by one-third between 1973 and 1984. By 2005 of the EU15 working age population of 180 million approximately 19 million were foreign-born and of this 2.7 million were citizens of another EU15 Member State and 600,000 from the new EU10. The largest concentration of EU15 citizens is found in Luxembourg (33% of working age population), Cyprus (5.5%) and Belgium (4.4%), and of EU10 citizens in Ireland (1.9%) and Austria (1.4%). However new patterns of migration may be emerging. The UK, Sweden and Ireland decided not to apply any restrictions on labour market access at the accession of the EU10 from 2004. In the case of the UK the government anticipated an inflow of 13,000, whereas it has been estimated that 600,000 workers, principally Poles, migrated in the first 18 months. A survey of mobility intentions within a five-year period found that 7% of Estonians, Latvians, Lithuanians and Poles anticipated relocating to another EU State, compared with only 2.7% in the EU 15 (EC 2006a). Data from the Labour Force Survey suggests that these migrants will be from the younger age groups, have medium skill levels short of tertiary education and will move into relatively low skilled occupations. It remains to be seen whether these features will result in the migration proving only temporary. A UK Home Office Accession Monitoring Report found that 62% of A8 workers intended to stay less than one year (September 2007). By contrast a Polish survey (July 2007) suggested that fewer than half of Poles who had migrated to the UK or Ireland intended to return to Poland. Recent research (Dustmann & Weiss 2007) suggests that such migrants frequently change their intentions and settle in the longer term. This would certainly be in keeping with previous migrant flows from poorer economies where permanent settlement is the norm.

Any consideration of immigration statistics, whether flows or 'stocks', will be affected by unrecorded illegal immigration. Estimates of the extent of illegal immigration in Europe can only be derived indirectly. Very few European countries are able to produce even informed estimates. One of the few reliable sources of information

arises from the ‘regularisation’ of illegal immigrant that has taken place in some EU states. Italy, for example, ‘regularised’ 217,000 undocumented foreigners in 1998 despite having ‘regularised’ 256,000 only two years earlier (OECD 2000). Further circumstantial evidence can be derived from trends in asylum applications. In the case of the United Kingdom applications increased from 6,200 in 1985 to 80,315 in 2000, 73% of which were rejected. However asylum applications can offer an alternative to simple undocumented immigration and may represent a ‘substitute’ strategy.

In terms of their contribution to the EU labour market the participation rate of non-EU citizens at 67% was similar to that of EU nationals (71%), but their employment rate was substantially lower (55%, compared to 65% for EU nationals). This is reflected in the unemployment rates that are almost twice as high (17%) as those for EU nationals (9%). In the United Kingdom the unemployment rate amongst EU 25 nationals was 4.3% in 2005 and 9.3% for non-EU nationals<sup>3</sup>. Although the employment rate of non-EU nationals is above that of EU nationals in the new Member States, as well as Greece, Spain and Portugal, for the remainder employment rates are significantly lower. In the case of Belgium, Denmark, Finland, the Netherlands and Sweden these differences are greater than 20%. Surprisingly the employment rate for the high-skilled non-EU nationals is particularly poor in comparison with that of EU citizens (63% compared with 83%). For non-EU women employment rates are lower for all skill levels, although most pronounced for those with high skills, with a difference greater than 20%.

### ***Demographics***

Much of the EU economic argument in regard to immigration has focused upon demographic trends (EC 2006b). With a birth rate of 1.5 children in the EU 25, well below the replacement rate of 2.1, combined with increasing life expectancy, Europe faces an ageing population. The working age population (15 to 64 years) will fall by 48 million between 2006 and 2050 with the dependency ratio for the elderly set to double to 51%; i.e. only two persons of working age for each person age 65 and above. However a

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<sup>3</sup> E.g. in the UK Bangladeshi women have a employment rate of only 19% compared to Accession 8 EU immigrants of 80% (House of Lords 2008 para. 35)

recent projection (EC 2006c) suggest that the total number of persons in work in the EU25 will continue to increase until around 2017; two-thirds as a result of the increasing participation in the labour market of married women and one-third from a substantial increase in the employment rate for older workers (55 to 64 years). Nonetheless it is anticipated that the ageing of the population will reduce the average annual growth rate of GDP for the EU25 from 2.4% from 2004-2010 to only 1.2% between 2030 and 2050 under current policies. Not only will an ageing European population reduce economic growth it will also have an impact upon public spending. Public expenditure on pensions, health and services for the elderly is expected to increase by 10% between 2004 and 2050 (3% to 4% of EU GDP). The combination of a reduced tax base from falling working populations, combined with increasing public expenditure on the elderly, presents a major challenge for the pension and social security systems of many EU Member States. Some writers have advocated sustained immigration as one solution to these problems. Although under current trends it is anticipated that an additional 40 million will settle in the EU between now and 2050 and that most will be of working age, the EC recognises “that immigration can only partially compensate for the effects of low fertility and extended life expectancy on the age distribution of the European population” (EC 2006b). In terms of public expenditure it is acknowledged that immigrants may temporarily help to reduce the financial impact of an ageing population through their contribution to public pension schemes. “However, economically active immigrants will also, over time accumulate their own pension rights. Their longer term contribution to a sustainable balance in public finances will therefore depend on the existence of well-designed pension schemes (EC 2006b)”. Sustained immigration as a solution to demographic ageing in Europe can therefore only be a temporary measure when viewed from a longer perspective, for immigrants themselves age, adding to the dependency ratio.

### *Analysis*<sup>4</sup>

I now wish to turn to a more systematic examination of the economic arguments as to the impact of immigration. Migration will have an impact on both receiving and origin

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<sup>4</sup> For a discussion of the welfare analysis see Dearden (1999) and for a more detailed theoretical review Dustmann (2008b)

countries. There will be a ‘distributional’ dimension to both the acquisition of benefits and the imposition of costs within any country, and these costs and benefits will have both a short and long-term dimension.

From a global perspective welfare would be expected, in theory, to be maximised through the free movement of all factors of production including labour. Such a free movement of factors will equalise their prices, which if they reflect their marginal productivities, will ensure the optimum employment of global resources. A debate has taken place as to whether free trade in goods and free movement of capital (and its embodied technology) will be sufficient to achieve global welfare maximisation without the need for labour mobility. But once account is taken of the reality of impediments to free trade, limited mobility within states or distortions arising from imperfect competition and taxes, labour mobility emerges as necessary for global welfare maximisation. However in this paper I will be focusing solely upon the welfare implications for the indigenous population of a State. This reflects the reality of the policy environment where the sovereign state retains the right to determine the criteria for entry and settlement within its territory. It would be expected that the exercise of such discretion will principally, although not exclusively, reflect the interests of the indigenous population.

I will begin by making a simplifying, but I believe realistic assumption, that capital and its embodied technology is internationally mobile. This implies that an addition to the labour supply from immigration will not reduce labour productivity through the lack of complementary capital (‘capital thinning’), although an inflow of unskilled labour may still reduce average productivity and therefore GDP per capita. In the absence of capital mobility average wages would fall with a redistribution to the owners of capital.

In perfectly competitive labour markets the addition to labour supply of immigrants will lower wages in that particular sector. Although this may depress wages for the indigenous labour force already employed in that sector, it will also lower the prices of the good or services for which that labour is employed. Such a fall in prices will offer a welfare gain to consumers of that good or service, leading in turn to an increase in demand for that product. This will be reflected in additional demand for

labour, which in turn will raise wages back towards the previous level. How far wages will return to the previous level cannot be predicted *a priori* as this will depend upon quantitative responses to changes in the prices of the product and of wages ('elasticities').

These theoretical predictions are dependent upon real goods and labour markets meeting the requirements of 'perfect competition'. Central to the prediction of a limited impact of immigration upon indigenous employment and wages is flexibility in the both the factor and goods market. If the labour market is segmented (e.g. skilled and unskilled labour cannot be substituted) then an inflow of unskilled labour will only affect unskilled indigenous workers raising the skilled-unskilled wage differential. If wages are sticky and fail to adjust to the increased labour supply, then unemployment may result. Further problems could arise if the displaced indigenous labour is inappropriately trained or insufficiently mobile to gain alternative employment. Flexibility in the pattern of output and openness to trade offer an alternative adjustment mechanism (sometimes referred to as 'factor price sensitivity' or as a 'structural hypothesis'). In the absence of wage flexibility adjustment can occur through shifts to more labour intensive modes of production within firms or shifts to more labour intensive industries. But it is also possible that an employer with monopoly power may acquire the gain from any wage reduction arising from the increased labour supply as increased profits, with no reduction in the product price and therefore no subsequent increase in output and employment.

We also need to give some consideration to the nature of the benefits arising from expanded economic activity. Any migrant is both a producer and a consumer and will receive payment equal to their marginal product, again under the assumptions of perfect competition. Thus their claim upon the resources of the economy will be equal to their contribution to that economy. However there are circumstances where the two elements may diverge. I have already identified the potential gain to indigenous consumers from reduced product and service prices (both public and private), but there are also circumstances where there is a potential gain for the indigenous labour force. This arises where the immigrant labour provides a complementary skill that raises the productivity of the existing indigenous labour force; i.e. there is an 'externality'. For example, the availability of skilled immigrant labour may create employment opportunities for

unskilled unemployed indigenous labour. However even in this case it has been objected that reliance on immigrant labour to meet skill shortages inhibits firms from investing in the necessary educational and training necessary for sustained long term growth<sup>5</sup>. It could thus be regarded as only a short-term solution for a long-term problem.

So far I have reviewed the micro analysis of the impact of immigration. At the macro level immigration will also have an impact. Of greatest importance is the effect it may have upon inflationary pressures in the economy and therefore the natural rate of unemployment. As a contribution to labour supply, as we have seen, it can reduce wage rates compared to what they would have been and will have a depressing effect upon production costs. The inflow of migrant labour may also have a restraining effect upon indigenous labour through inhibiting higher wage demands from organised labour. But lower immigrant wages may also merely reflect lower average productivity if the inflow is of unskilled labour, in which case the lower wages have no impact on unit labour costs and therefore inflationary pressures. To further complicate the analysis immigrants will also be contributing to an increase in aggregate domestic demand which could contribute to inflationary pressures if the economy is already operating near capacity. However if the migrants are temporary they are likely to have a high savings ratio and the inflow of cheap labour may reduce firms' investment as they maintain labour intensive modes of production. Finally, and probably of least significance, if an economy is running a balance of payments deficit and an immigrant community engages in substantial remittance payments, this may raise the economic cost of the subsequent adjustments required to restore an equilibrium<sup>6</sup>.

But immigrant labour may generate a further benefit to the indigenous population through their contribution to the average costs of the provision of services, particularly in the public sector. If the costs of a service are declining through 'economies of scale', then the consumption of this service by immigrants will reduce the average costs of its provision to all. However if the costs of a service are increasing then immigrants will be imposing an additional cost on the indigenous population. In practice these additional costs are likely to occur in areas where public services are already working beyond their

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<sup>5</sup> see House of Lords (2008) paras 86-92 for the UK case.

<sup>6</sup> For the UK the government estimates that such remittances are between £3 bn. and £4 bn. annually.

optimum capacity and where facilities will need to be duplicated to meet additional need. Provision of schools, health facilities, transport and housing are all areas where problems may arise. A further complication arises if the funding of these services involves an element of cross-subsidisation, as is usually the case with the tax system, or if immigrants make an unusually high demand upon the service. Thus if immigrants are concentrated in low income occupations, and therefore make a less than average contribution to taxation, while at the same time making above average claims upon some public services - if, for example, they are accompanied by dependents who are economically inactive - then a net economic loss may be incurred. Another important aspect in this regard will be whether immigrants are permanent or 'rotational'. Immigrant flows are complex and include internationally mobile highly skilled workers and students as well as permanent immigrants. UK evidence from the International Passenger Survey suggested that the majority intended to stay for less than four years, but outflows amongst immigrants from developing countries are relatively small and falling (Home Office 2001). Permanent migrants are likely to make greater claims upon public services over their lifetime, especially in retirement.

### ***Labour Market Impacts***

Much of the econometric evidence examining the impact of immigration upon the wages and employment of indigenous labour has been undertaken in the US. A survey of this work by Freidberg and Hunt (1995) concluded that the evidence suggested that immigration had had very little effect upon the labour market experience of indigenous labour. However not all of these studies reached the same conclusion. While Butcher and Card (1991) and Lalonde & Topel (1991) found little evidence to suggest that immigrants depressed the wages of indigenous un-skilled labour and were complementary to the skilled indigenous labour force, Borjas (1991) challenged this view, emphasising the considerable decline in the earnings and employment prospects of indigenous and skilled labour.

Chiswick (1991) had criticised many of these early studies for their use of cross-state or cross-city data, observing that the mobility of immigrant and indigenous labour

(endogenous mobility) would itself ensure that any inter-state or inter-city wage differentials would be eliminated in the long run. This objection was addressed by Borjas's (2003) analysis of labour data for the period 1960 - 1990 and 1998 - 2001 by education and work experience. Arguing that the size of the indigenous workforce in each skill group is relatively fixed, unlike that of the immigrant population, and that skill groups are poor substitutes, the impact on wage differentials of changes in the immigrant contribution to these skill groups can be isolated. His analysis finds that the annual earnings of the indigenous labour force have been depressed by 6.4% for every 10% increase in the supply of immigrant labour. The greatest reduction is experienced by those who failed to complete high school education (8.9%) and the least by high school graduates (2.6%). These results proved robust even when addressing the difficult problem of 'work experience' - defined as the time elapsed since entry into the labour market. However as this study employs the 'factor proportions' approach its estimates are only as robust as the validity of the assumed elasticities of substitution between indigenous and immigrant labour.

Card (2005) in his most recent work acknowledges that labour mobility, in response to changing wage rates or employment opportunities, does present problems for those attempting to isolate the impact of immigration through examining local labour markets. Local labour market analysis also requires a recognition of the heterogeneity of the immigrant inflow and the need to classify it by skill. Therefore in his analysis he assigned immigrants and the indigenous labour force to skill groups and assumed that within such skill groups they were perfect substitutes - in contrast to Borjas whom, we have seen, also differentiated skill groups by 'work experience'. Immigrant concentration in US cities has doubled since 1980 to 18% of the population and one third of these are unskilled (high school 'drop outs'). He has therefore focused upon the impact of immigration upon unskilled indigenous labour. He employs previous immigrant concentrations as an 'instrumental variable' to statistically remove the influence of changing labour demand conditions in the labour markets (see below) and thereby isolate the impact of changing labour supply. He finds a small negative effect of immigration upon unskilled indigenous employment but no impact upon their wage levels. He also

finds no correlation between outflows of indigenous and skilled labour and inflows of immigrants.

Two possible explanations are offered for this failure to observe any relationship between immigration and unskilled wages. Firstly, the Heckscher-Ohlin model, where adjustments in the structure of local industry (i.e. a shift to labour intensive firms) compensates for the increase in the supply of unskilled labour. The evidence on industry shares across cities fails to support this hypothesis. However an alternative explanation may be provided by focusing upon intra-firm changes, with an adjustment to more labour intensive modes of production in the face of an increase in unskilled labour supply. An alternative approach to focusing upon local labour markets is to examine time series data on changes in immigrant densities/concentrations in relation to economy wide labour market outcomes. Utilising such a time series approach is dependent upon assumptions about trends in such influences as the skill bias of technological change. Card observes that the relative wages of unskilled to skilled indigenous labour has remained nearly constant since 1980 despite the substantial inflows of unskilled migrant labour.

European studies are more fragmentary but in general appeared to confirm much of the American evidence that any adverse consequences for indigenous labour of immigration are modest and concentrated upon the low paid (see the review by Dustmann and Glitz (2005), Okkerse (2008c)). Barrett (2005) simulated the impact of immigration upon Ireland between 1993-2003 and estimated that they raised GDP by 3% but depressed the wages of the low-paid. Similarly Keuschnigg & Kohler (2002) found that the immigration of Eastern Europeans after enlargement would increase Austrian GDP but reduce average wages by 0.5 % for every 1 % addition to the labour force. Other European simulation studies emphasise the crucial importance of wage flexibility in realising potential gains (Boeri & Brucker (2005), Weyerbrock (1995)).

Angrist and Kugler (2003) however have made an interesting contribution to the literature. Utilising European Economic Area country data on employment rates and immigrant densities for the period 1983-99, they consider the role of institutional elements in creating labour market inflexibility and the consequences for the impact of immigration. While various institutional arrangements such as redundancy pay, trade

union negotiated pay rates, minimum wage legislation or the existence of social insurance, may protect indigenous workers from competition in the labour and product markets, it will also create wage inflexibility. Factors that increase labour costs are likely to inhibit the entry of new firms in response to the increased supply of low-cost immigrant labour. If firms' entry is constrained and immigrant and indigenous labour are substitutable, then the anticipated adjustment process that will restore employment and wage levels after immigration will not occur. Angrist and Kugler's approach has the advantage that indigenous labour is unlikely to itself migrate between countries in response to changing labour market conditions in the way that US labour is likely to be geographically mobile. However they still employed the instrumental variable of distance from Sarajevo, as they attempted to identify the impact on immigration of the Balkan wars. Without the instrumental variable they estimated that with non-EU residents representing 5% of a labour force 100 additional immigrants will result in the loss of 35 male indigenous jobs. Employing the instrumental variable the coefficient on employment was between -0.05 and -0.08; implying that a 10% increase in a foreign share of the labour force reduced indigenous male employment by 0.5%. Again if 5% of the labour force is foreign born an increase of 100 immigrants in the labour force will displace 83 male indigenous jobs.

Winter-Ebmer et al (2000) in their Austrian study found that the principal impact of immigrants was upon the probability of the existing unemployed re-entering the labour force; i.e. a 1% increase in the immigrant share of the labour force resulted in a 5% increase in unemployment duration. Hunt (1992) in examining the impact of repatriates from Algeria to France, although limited in his ability to distinguish specific institutional mechanisms, nonetheless found some supporting evidence that labour market inflexibility may be responsible for the enhancement of the adverse effects of immigration. This conclusion is reinforced by Gross (2002, 2004) in his French time-series analysis which emphasises the importance of distinguishing between the short and long-running effects of immigration. In the short run he identifies increasing unemployment as a result of the increase in job search time, but in the long run immigration creates more employment.

In the case of the UK the foreign-born working population has increased significantly in the last ten years from 2.3 million in 1975 to 4.1 million in 2005 (11 ½% of the working age population) and this has resulted in increased attention to this issue by both policymakers and by academics.

Dustmann et al (2006), in the most substantial and often quoted recent study, have attempted to estimate the impact of immigration upon wages and unemployment utilising Census data for 1971, 1981 and 1991, New Earnings Survey Data for 1980 and 1990 and the Labour Force Survey from the 1990s. The model they employ makes the usual assumptions of perfect competition – including an open economy, free entry of firms, with flexible output, wages and prices. They recognise the major difficulties presented in undertaking a geographical analysis of the impact of immigration. Amongst other econometric problems they discuss the problem of simultaneity – that a correlation between an inflow of immigrants and an area's economic success reflects the attraction of an immigrant flow rather than a causal relationship. Here the depressive impact upon wages may be obscured by the generally positive state of the region's economy. This is the problem identified by both Chiswick and Borjas. To address it Dustmann employs instrumental variables i.e. the concentration of immigrants in an area in a previous period. He argues that the presence of an existing immigrant community will have attracted further immigrants independently of current economic conditions. This however assumes that immigrant concentrations are unrelated to current economic conditions. Over the time period (ten years) that Dustmann is considering this appears unlikely. A second major problem arises from the inability of the census data to distinguish between foreign and UK born workers and the very small sample sizes available from the Labour Force Survey. Given these reservations what are Dustmann's results? From the Census data he finds a 1% increase in immigration increases total unemployment by 0.38% (0.5% excluding London). The New Earnings Survey results suggest a positive effect of immigration on wages for both manual and non-manual workers. The greatest impact is upon female non-manual workers where a 1% increase in immigration is associated with an 8.8% increase in wages. The Labour Force Survey data allowed Dustmann to isolate the impact of immigration upon the indigenous labour force alone. His estimates suggest

a 1% increase in immigration will raise indigenous unemployment by 0.18% and increase their wages by 1.9%. This study also found evidence that the outflow of some indigenous labour was associated with the growth of immigrant concentration. This further complicates the simultaneity problem already discussed and may have other wider economic implications. These modest results of the impact of immigration are compatible with the US and European evidence that has already been reviewed.

But this study appears to contradict the findings of Card and Lemieux (2001) that the return to education in the UK is sensitive to the relative supply of skilled workers, which will be affected by the inflow of immigrants. Work by Manacorda et al (2006), utilising cross-sectional data from the UK Labour Force and General Household Surveys on male wages and employment for the years 1975-2005 reconciles these apparently contradictory findings by establishing the existence of segmented labour markets. Indigenous and immigrant labour (defined as 'foreign-born') are found to be imperfect substitutes within age-education groups such that the only significant effect of increased immigration is to depress the wages of existing immigrants. Thus they estimate that a 10% increase in the immigrant share of the working population increases the immigrant-indigenous wage differential by approximately 2%. Thus indigenous wages remain unaffected as suggested by Dustmann (2005).

However in their later studies Dustmann et al (2007, 2008a), examining the period 1997-2005, did find some evidence that immigrants had adversely affected the wages of the unskilled, although only modestly. They estimated that a 1% increase in the relative numbers of immigrants in the workforce lowers the wages of the lowest paid 5% of the working population by 0.6%, while raising the wages of the median wage earner by 0.7%. But these estimates of the impact upon the low-paid will be complicated the impact of the national minimum wage which may have ameliorated the effect of the downward pressure on the wages of the low paid<sup>7</sup>.

Gilpin et al (2006) have examined the more recent pattern of immigration into the UK from the EU8 accession countries of central and eastern Europe, who have added 0.5% to the UK labour force and whom are concentrated in low-skill occupations (1.7% of

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<sup>7</sup> See Low Pay Commission Report 2006.

low-skill labour force). Over 80% of EU aid migrants are earning between 47% and 63% of average UK hourly earnings. Utilising data from the Labour Force Survey and the Workers Registration Scheme (WRS) for these migrants, Gilpin et al attempt to identify the impact upon the indigenous unemployment and wages for the period May 2004 to November 2005. Although UK unemployment increased by 90,000 in 2005 they find no correlation between the numbers of those registering with WRS and employment, the claimant count for unemployment benefit, notified vacancies or nominal wage growth. However some doubts remain as to the accuracy of WRS, which may fail to account both for those who may have subsequently left the UK and those who have entered but failed to register. Gilpin et al also attempt to address the recurring simultaneity or endogeneity problem – the attraction of migrants to buoyant labour markets. As in other studies they employ instrumental variables in their econometric estimation of the impact of migration upon the claimant count – lagged migration and the proportion of immigrants in the population younger than 16. In a large number of regressions - including sub regions for London and the Eastern region, agricultural regions and an aggregate estimate - the relationship between unemployment and EU 8 migration is found to be small and statistically insignificant.

Riley and Weale (2006) have undertaken a similar study. Although, like Gilpin et al, for the most part their results are statistically insignificant, the data suggest EU8 immigrants have lowered earnings across all skill levels. In the low-skill sectors minimum wage legislation is an important consideration, creating wage stickiness. We would therefore expect the impact of EU8 immigration to be reflected in unemployment levels rather than wage reductions. This is found to be the case by Riley and Weale who estimate that it has resulted in a 0.2% to 0.3% increase in unemployment. Simulating the effect of immigration on economic growth they find that it accounted for 0.9% of the 5.3% growth in 2004 and 2005. However this does not necessarily represent a welfare gain to the indigenous population save insofar as there is a transfer in the fiscal system in the manner described above, the issue to which I now turn.

### *Fiscal Transfers*

The fiscal impact of immigrants will depend upon three components - their tax contributions, benefit receipts and the use of publicly provided goods and services. Direct tax contributions will be determined by their employment status and earnings, in turn dependent upon their labour characteristics – e.g. skills, qualifications, occupation, etc. Their pattern of consumption will determine their contribution to VAT and household formation to local council taxes. Their claim upon welfare benefits will be influenced by their employment status, income level, health, dependents, etc, within the context of domestic legislation in regard to entitlement. Some of these characteristics will also determine their claim upon public services such as health, public housing and education. We would also expect that the fiscal affects will change over an individual's life cycle. Thus children will incur the costs of education, although expected to be net contributors on average during their working life. Those who are retired will make net claims upon public finances through pension payments and health costs. We will therefore expect that immigrants are more likely to be net contributors where there are young, but of working age, unaccompanied by dependents, highly skilled and who return to their country of origin before retirement or when unemployed (rotational immigration). Finally, following from the discussion above, indirect fiscal effects may result from the displacement of indigenous labour or any reduction in their wage rate and therefore their tax payments.

I am now going to examine in some detail one of the few UK studies of the fiscal effects of immigration (Gott & Johnston 2002) as this illustrates the considerable challenge that such an exercise represents. Utilising the Labour Force Survey for 1999/2000 their cross-section analysis suggests that migrants contributed £31.2 bn. in taxes while increasing public expenditure by £28.8 bn, a net contribution of £2.5 bn (Net Annual Fiscal Impact: NAFI). As in this year public finances were in surplus it is more meaningful to compare this with the contribution by the UK-born population. Migrants' net contribution is estimated at just under 10%, while that of the UK-born population is just under 5%. This often quoted study is however subject to a number of serious limitations.

Firstly there is the difficulty of defining the immigrant population. Gott and Johnston focus upon the foreign-born population and include children who accompanied their parents to the UK. However it excludes second generation migrants who are born in the UK and children born to families where only one parent was not UK-born. The latter is an important consideration since in the Asian communities arranged marriages between UK-born husbands and foreign wives frequently occurs. Calculations are particularly sensitive to the exclusion of immigrant dependants. Thus Gott and Johnston note that the NAFI ratio halves from 1.18 to 1.09 (£1.09 of taxes contributed for every pound received in government expenditure) if UK-born dependents are included. A recalculation by Migration Watch (2006) to allocate 50% of the education cost of dependants to immigrants where *either* parent is foreign-born (489,000 children: 13 % of total) results in the £2.5 bn. net contribution transforming into a £200 m. deficit. However it might be argued that expenditure upon dependants' education represents an investment in human capital whose costs will be covered by the subsequent earnings and tax contributions of these age cohorts.

Secondly, in their calculation of immigrant claims upon social housing or housing benefit the authors recognise that they are unable to allow for their concentration in the South East of England where housing costs are particularly high. Nor do they make any allowance for buildings-based local authority Council tax and the implications of the high housing occupancy levels of some immigrant communities, reducing their per capita contribution to this indirect tax.

Thirdly, the receipt of Social Security is simply calculated according to the proportion of those receiving benefits that are foreign-born. The largest proportion of the foreign-born population in the UK is of working age, with significant under representation amongst those of state pension age. Given that immigrants in 1999 had a higher propensity to claim all social security benefits than the UK born population, except for sickness and the state pension, the failure to account for their age profile and accumulating claims upon the state pension fund, may represent a significant omission

Similarly there is no allowance for differential claims upon health and education services by some immigrant communities. Gott and Johnston allocate expenditure upon

education and health care solely by reference to immigrants' share of the total population in the relevant age group. "This analysis assumes that per capita values are similar for migrants and UK born residents in each age group." (Page 29). The special educational needs of immigrant children<sup>8</sup> or the particular health demands of some immigrant communities are not addressed in this study. There also remain some other elements of public expenditure where the immigrant population may be imposing above average costs. For example, 14% of the UK's 80,000 prison population were foreign nationals in 2007<sup>9</sup> incurring a cost of almost £420m for their incarceration<sup>10</sup>. Implicit in this approach of allocating claims upon public expenditure in proportion to population share is the assumption that the immigrant population is imposing average costs in its consumption of a public good or service. Where such a service is experiencing economies of scale, and average costs are falling, apportioning the average cost is an overestimate of the costs being imposed. However where services or goods are fully utilised and average costs are rising, the marginal cost of provision of a service will be greater than that of the average cost to the community. This is likely to be the case in the current situation in the UK, particularly in the southeast of England where immigration is concentrated, and where problems are arising in the provision of health, education, transport and housing<sup>11</sup>. Some of these additional costs may not themselves be reflected in public expenditures but in private costs. It is, for example, estimated that house prices will be 13% higher as a result of immigration than they otherwise would have been over the next 20 years in the UK (House of Lords 2008). But other costs may not be reflected in either public or private costs (externalities) e.g. congestion costs.

In terms of tax revenue difficulties arise with possible differences in VAT contributions. The study assumes that immigrants consume the same mix of goods and services as UK-born residents. However some immigrant communities repatriate substantial sums to support family members in their country of origin. This will be at the

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<sup>8</sup> In 2007 12% of all pupils did not have English as their first language

<sup>9</sup> Ministry of Justice, Population in Custody Monthly Tables, December 2007

<sup>10</sup> defined by ethnicity 22% of the prison population in 2003 was non-white imposing costs of £635 m.

<sup>11</sup> 16% of social housing is being provided to the foreign-born population (Equalities Commission 2009). It is estimated that one in three of new households will be immigrants over the period 1996 to 2021 (House of Lords 2008 para 162).

expense of UK purchases upon which VAT would be paid. The allocation of corporation tax paid by companies also raises problems. The study allocated these tax revenues simply on the basis of population share in the absence of knowledge as to the extent of direct or indirect dividend payments to the immigrant community. A further problem arises with the 28% of UK companies controlled by overseas shareholders and UK companies which are subsidiaries of foreign firms. The treatment of corporation tax revenues can significantly affect NAFI; for example, removing 28% of corporation tax revenues reduces immigrants NAFI from 1.09 to 1.06.

The study also fails to take into account the tax and expenditure implications of any adverse employment effects upon the indigenous labour force, although as we have seen above such an estimation presents substantial difficulties. Nonetheless any displacement of indigenous labour or reduction in their wage rates will result in a greater claim upon Social Security benefits and a reduction in tax contributions. These adverse effects may be geographically widely dispersed, as demonstrated by Hatton and Tani (2001), who find that the substantial foreign immigration into the south of England has led to a significant reduction in migration into the region from elsewhere in the country. Rising housing costs and the lower wages resulting from immigration may therefore have deterred the unemployed from other parts of the country from relocating. As Gott and Johnston focus upon the differential fiscal contribution of immigrants and UK-born individuals, the failure to take into account any adverse indirect effects would lead to an over estimate of the differential.

Finally, the study is unable to address the life cycle impact of immigrants, which would require a time series analysis. This is recognised by the authors who utilise 1978 National Insurance data to describe the relative pattern of earnings of migrants over the next 17 years. The age-profile is similar for both indigenous workers and immigrants although the latter's earnings peak later and decline more slowly. Another important consideration in a life cycle context is whether migrants settle permanently. Any public investment in immigrants dependants education will be lost if they subsequently emigrate. In 2002 359,000 emigrated from the UK, of whom 48% were not British citizens. The pattern of settlement is likely to vary considerably between immigrant

groups. Circumstantial observation suggests that permanent settlement is more likely from developing countries and amongst the unskilled, but robust UK data is unavailable. Permanent settlement is also more likely to be accompanied by an inflow of dependants; of the 700,000 Non-British entrants to the UK in 1999 11% were dependants.

Sriskandarajah et al (2005) have recently updated the Gott & Johnston study. But following the methodology of Gott & Johnston they fail to address any of the criticisms outlined above with the exception of the apportionment of corporation tax. Utilising statistics on share ownership they adjust corporation tax revenue for overseas shareholders. This reduces the NAFI of immigrants for the year 1999/2000 to 1.06 and non-immigrants to 1.01. Their calculations for the succeeding four years shows the immigrant NAFI falling steadily to 0.99 in 2003/04 and that of the UK-born falling to 0.88. The ratio of immigrants NAFI to the UK-born NAFI changes from 1.05 (1999/00) to 1.09 (2001/02), increasing further to 1.12 in 2003/04. Thus according to their calculations immigrants make a net contribution to public finances throughout the fiscal cycle. Again Migration Watch (2006) recalculated these estimates to include 50% of the education costs of children where only one parent is foreign-born. This results in the immigrant NAFI falling from 0.99 (2003/04) to 0.89, the same as that of UK born residents.

Given these analytical difficulties and reservations it is not surprising that other international studies have produced inconsistent results<sup>12</sup>. For the US immigration has been estimated to provide a positive net contribution (Simon 1984), neutral (Blau 1984) and negative (Weintraub 1984); for Canada positive (Akbari 1989); for Austria positive (Kakwani 1986); for Switzerland positive (Straubaar and Weber 1994); for Germany both positive (Giseck et al 1994, Ulrich 1994) and negative (Miegel 1984, Wehrmann 1989). More recent estimates for Germany by the RWI Economic Institute suggested that migrants were making a net financial contribution of £12.3 bn., while for Spain IMERSO calculated that in 1998 immigrants' net contribution was £0.7 m.

The ambiguity of these results arises from the heterogeneous nature of the immigrant communities. It has already been observed that immigrants are more likely to

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<sup>12</sup> for a summary Ekberg (1998) and Okkerse L (2008c)

make a net contribution if they are highly skilled, with their associated higher activity rates and earnings, and are unaccompanied by dependants and do not permanently settle. In the UK immigrants have a lower level of economic activity, with an employment rate of 65.4% (2005), compared with 73.7% for those UK-born, and an unemployment rate of 7.4% compared with 4.7%<sup>13</sup>. However their average wages per hour are greater, at £11.60, than those who are UK born (£10.80). Nonetheless this disguises a substantial variation, with 9% of immigrants earning less than £5 per hour (UK-born 10%) and 23% earning more than £15 per hour (UK-born 20%). As would be expected this variation in earnings is reflected in the variation in qualifications - 49% of immigrants have no qualification or one awarded by a foreign institution (18% UK-born), 27% a degree (26%-UK born) – and in the occupational distribution, with a greater share of immigrants at both ends (e.g. 10% of all managers are foreign-born). However there is some longitudinal evidence that immigrants have higher rates of occupational progression than the indigenous population, especially those originating from developing countries. Shields & Wheatley-Price (1999) for the UK estimated that immigrants with degree level qualifications earn 30% more than unskilled immigrants, while language fluency raised hourly wages by 16% to 20%. Overall four factors have been found to influence immigrants' labour market experience - education, UK or foreign qualifications, English-language fluency and the years since migration. Nonetheless even when allowance is made for differences in socio-economic factors immigrants from non-European groups still manifest significantly lower levels of employment, participation and wages than the UK-born population. As a result their net fiscal contribution will vary significantly, as found by the Sriskandarajah et al(2007). Their report identifies both a considerable variation in the amount of tax paid by immigrant groups relative to the UK-born population and their claims upon social security benefits e.g. 1% of Poles claim income support compared to 39% of Somalis.

### ***Externalities and Dynamic Effects***

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<sup>13</sup> The relative unemployment rate in the UK is favourable compared to other European countries. Immigrants are twice as likely to be unemployed as the indigenous population in Denmark, three times in France and Finland and four times in the Netherlands.

None of the attempts to estimate the net fiscal contribution of immigrants have taken into account wider externalities. External costs will be geographically specific and will change over time. However since immigrants are more likely to be attracted to countries and regions which are economically buoyant we might expect external costs imposed by a shortage of social capital in transport, housing, education and social services, to be associated with labour inflows.

Most of the costs that have been considered so far would be regarded as static. However some commentators on immigration have emphasised the dynamic gains to an economy from a population inflow.

“..even if this were not the case (net fiscal contribution) the wider benefits of immigration may be far more important”.”...migration can help fuel economic dynamism, capital formation and labour market flexibility.” (Sriskandarajah 2005).

Labour market flexibility, that is an increase in labour supply to meet increased demand without an accompanying increase in nominal wage rates, is certainly anticipated with immigration and yet most of the studies that I have reviewed have failed to identify any impact of immigration upon wages and employment, including that of Sriskandarajah et al. If such studies assert that immigration has had no adverse impact upon indigenous wages and employment then it is equally difficult to argue for the contribution of immigration to labour market flexibility including macro deflationary effects. It is also difficult to argue for the economic benefits of an associated capital inflow or additional savings as a contribution to economic dynamism. International capital markets are such that for most developed countries a capital constraint does not exist.

Some authors emphasise the benefits of entrepreneurship that may come with significant immigration. It is certainly the case in the UK that immigrants are slightly more likely to be self-employed (Home Office 2002), however this may reflect the difficulty of gaining access to both public sector and corporate employment. To employ a list of outstanding immigrants who have contributed to a country's public life, culture, research or economy as provided in a Home Office study (Glover 2001) as evidence of these wider benefits is particularly facile, as would be a critic who focused upon a list of foreign criminals, terrorists or fraudsters.

The recent House of Lords (2008) examination of the impact of immigration on the UK economy concluded that “although possible in theory, we found no systematic empirical evidence to suggest that net immigration creates significant dynamic benefits for the resident population of the UK” (para 69).

As the arguments become less clearly focused on the economic aspects an empirical approach becomes more problematic. Nonetheless it is possible in principle to identify an indirect economic consequence or a ‘shadow price’ in some cases. Some public costs are clearly identifiable but their assignment to immigration is much more controversial. Thus some critics of immigration policy have argued that the costs of immigration control and the asylum services should be included in any fiscal calculation. However since even tighter immigration controls would probably require even greater expenditures on border controls this appears a weak argument. By contrast the cost of supporting asylum seekers might be regarded as a more legitimate element in fiscal calculations given the close association between refugee flows and economic migration. Similarly the increasing costs of ‘security’ in the face of the current terrorist threat might be included as an indirect cost of immigration policy. This will depend upon whether the size of an immigrant community within which terrorists may shelter is an important element in increasing the costs of security operations or whether the security challenge is more of a product of the increase in international passenger flows or other factors.

Other possible economic costs can be investigated, at least in principle. For example, the requirement to adopt positive discrimination through ethnic quotas or targets to maintain social cohesion may impose an economic cost. If members of immigrant communities who are less productive than members of the indigenous population are employed at similar wage rates, than an economic cost is incurred and efficiency in the provision of a good or service reduced. There is evidence of a smaller wage differential between immigrants and indigenous labour in the public than the private sector in the UK (Home Office 2002). As private sector wages are more likely to reflect differential productivities than the public sector, through the stronger influence of competitive markets, and the public sector is more likely to be subject to the influence of ethnic recruitment targets, this may be reflecting this indirect cost hypothesis.

Some commentators have also referred to the cultural benefits of increasingly ‘multicultural’ societies. However not all of an indigenous population may value such changes and this may be reflected in increasing geographical separation i.e. ‘white flight’. Some indication of the value placed upon cultural homogeneity could be obtained were it possible to isolate the influence upon differential house prices of the ethnic/cultural composition of a community. A further economic cost could arise from cultural preferences through the corresponding migration of indigenous populations from regions or states. UK emigration figures are dominated by British citizens, representing a loss of human capital. An interesting empirical question might be to ask how far such emigration is in response to undesired changes in contemporary British society or to economic opportunities. At the regional/city level outflows of indigenous labour may be as likely to reflect deteriorating labour market conditions as a result of immigration as community cultural changes, and this potential phenomenon has complicated the impact assessments which were discussed above. As with other aspects of these studies there is conflicting evidence on the significance of the outflow of indigenous labour in response to immigrant inflows. Borjas (2003, 2006), Frey (1996), Filer (1992), Hatton & Tani (2005) regard it as significant, unlike Card (2001, 2005).

### ***Conclusion***

As we have seen the econometric evaluations of the impact of immigration upon indigenous wages and employment fails to consistently identify any strong effects. Okkerse (2008), summarising the results of his comprehensive review of the available immigration impact studies concluded that “immigration negatively affects wages of less skilled labourers and earlier immigrants” while “the probability that immigrants increased unemployment is low in the short run and zero in the long run” (page 24). Whether this arises from the limitations of the available data, the weaknesses of the labour market models or is an accurate reflection of the limited impact of immigration, is a matter of judgment. Although this analysis may be important within the context of concerns as to the impact of immigration upon particular skill groups or communities, that is the distributional impact - it is not a central issue in evaluating the overall contribution of

immigrants to the indigenous society's economic welfare. To consider this aspect one must examine their net fiscal contribution. But again we have seen that data limitations and definitional problems have presented serious challenges. Overall the available studies seem to suggest that the direct impact of immigration is fiscally neutral, the higher tax contributions of skilled immigrants offsetting the lower tax contributions and higher public expenditure requirements of the unskilled. The heterogeneous nature of immigrant communities represents a significant analytical challenge in this area of economic research and requires caution in the interpretation of the more aggregated studies.

All of the empirical studies have to choose their own definitions of the indigenous and immigrant communities, usually determined by the available data. Associated with these definitions must be that of the time period for analysis. Within the immigration policy debate are a substantial number of disparate issues. An evaluation of the impact of the substantial post-war migratory inflows into Europe from the developing world will differ significantly from an evaluation of the short run impact of EU8 migrants or of the temporary high-skill intra-EU migrant flows. Given these serious limitations and complexities it is hardly surprising that the economic case for immigration is often highly contentious and may be obscuring underlying political considerations, many of which nonetheless have significant economic implications.

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