

What are the impacts of an international migration quota?: A UK perspective

Second Prize – 3rd Year Undergraduate Category

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Introduction

Immigration is a divisive topic. The decision about how many and whom we should allow into our country is as much a moral dilemma as it is an economic problem. In the last general election a range of immigration proposals were presented to the voters and amongst the different ideas the policy which prevailed was a cap on migration.

The UK is part of the European Union which considers labour market mobility central to the success of the single market. Member states are prohibited from introducing measures to control EU migration such as quota or any other barrier. Therefore, the cap on immigration will only affect immigrants entering the UK from outside the EU. Typically there are four legal ways in which non-European immigrants can enter the UK:

- work,
- study,
- asylum and
- family reunification.

The quota will reduce immigration through the work and family routes. The cap will directly

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lower the number of immigrant workers granted access into the UK and thus lower the number of family members accompanying immigrants into the UK.

Assessing the economic impact of the quota is a difficult task. Empirical investigations often contradict one another whilst data collection is often plagued with difficulties. To unravel what the impacts of the quota are, this essay will consider the effects on some of the most hotly debated economic topics of immigration including wages, employment and GDP. Social problems and people's attitudes to immigration are part of the government's motivation for the quota, however analysing these in an economics context is somewhat inappropriate and therefore these issues are a notable exception from the analysis.

Firstly a brief explanation of the policy and economic theory is necessary to focus one's mind on this difficult topic.

Policy

Prior to the immigration quota the UK controlled non EU migration using a points based system. Potential immigrants fell into one of the five tiers shown below:

Tier	Description
Tier 1	Highly skilled individuals to contribute to growth and productivity without a job offer
Tier 2	Skilled workers with a job offer to fill gaps in the UK labour force
Tier 3*	Low skilled workers to fill specific temporary labour shortages (<i>*Never introduced</i>)
Tier 4	Students
Tier 5	Youth and temporary: people coming to the UK to satisfy primarily non-economic objectives.

Each tier required applicants to score a sufficient number of points to gain entry into the UK. In

Tiers 1 and 2, *the work route*, points were awarded for criteria such as age, qualifications and prospective salary with a total of 50,000 work visas being issued in 2009¹.

The immigration quota was part of the conservative party's promise to limit net migration at the 'tens of thousands level.' Today, the policy involves a cap on Tier 1 migration of 1,000 and Tier 2 migration of 20,700 with further reductions likely. Intra-company transfers in which employees of multinational companies are transferred from an overseas branch to the UK are not included in the quota; however that may change in the future. The other Tiers have also not been affected by a quota and therefore are not the focus of this essay.

Immigrant workers, especially those from Asia, often bring immediate family members and dependants with them to the UK. Indeed for every 100 immigrant workers that entered the UK in 2010 88 family members accompanied them². Family members are usually issued visas allowing them to work regardless of their skill level. Therefore the quota will impact the supply of both skilled and unskilled workers. Research published in the 'Migration Observatory' (*Blinder, 2012*) found that the typical family immigrant is a wife from Asia with little human capital.

Analysing the economic impact of the quota is complex. Immigration data is notoriously difficult to collect and different measures produce vastly different results. Even the simplest question of 'how many immigrants enter the UK in a given year' is surprisingly difficult to answer. For example the International Passenger Survey estimated that 303,000 immigrants entered the UK in 2009 whereas the visa issuance measure places that figure at 550,000.³

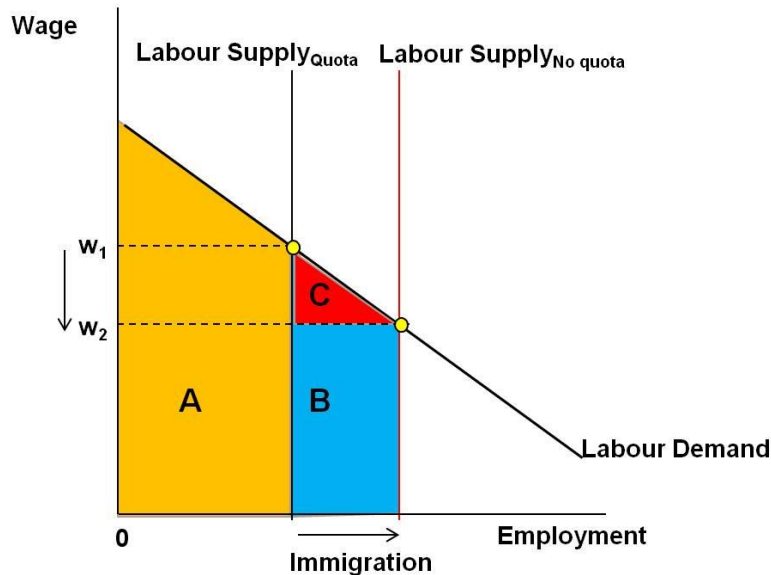
¹ Migration Advisory Committee Report: Limits on Migration, 2010

² Blinder, 2012

³ Office For National Statistics, 2011

Theory

Let us consider a static model of immigration. For simplicity we will assume that the UK is always at the full employment level and each worker earns the equilibrium wage. The diagram below shows us that higher levels of immigration cause wages fall and national income to rise:



The area constrained by the labour demand and labour supply curves represents national income. With an immigration quota national income is described by the orange area (A) and wages are at w_1 . When the quota is relaxed the labour supply curve shifts outwards. This lowers wages to w_2 and increases national income to ABC. The blue area, 'B' illustrates the welfare gain paid to the immigrant workers therefore the immigration surplus, which benefits the UK as a whole is shown by the red triangle 'C'. The model predicts that the immigration quota will preserve UK wages and limit national income growth.

Wages and Employment

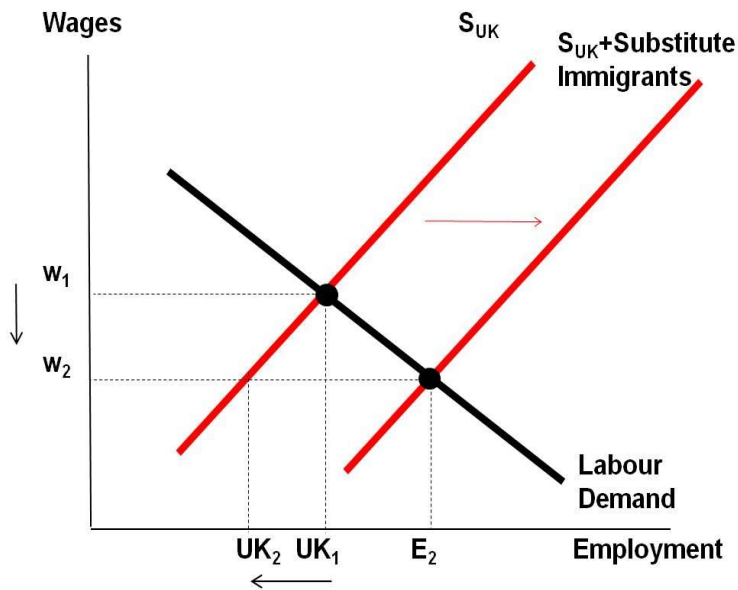
The theoretical framework predicted that immigration would lead to lower UK wages. Therefore a quota which prevents wages falling will protect the welfare of UK workers. In reality the evidence suggests that the impact on wages and employment depends on what type of worker

you are. Immigrants who possess an abundance of skills, experience and expertise are likely to complement UK workers whereas unskilled immigrants are likely to add competition for jobs. Skilled immigrants raise UK workers productivity by improving innovation and filling skills gaps, additionally they are usually well paid and stimulate aggregate demand through their consumption. On the other hand an increase in the supply of substitutable immigrant labour with no productivity gains may displace UK workers and lower wages.

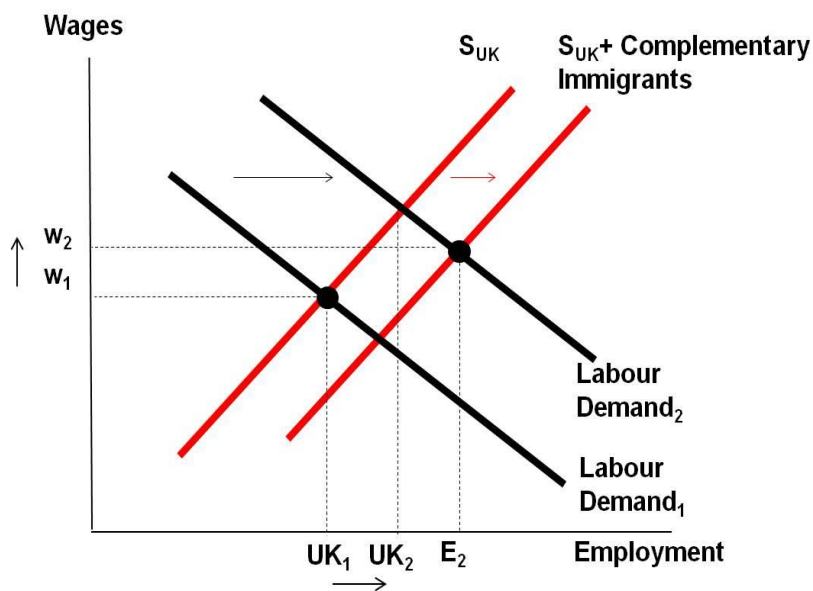
For firm evidence we turn to a study by Dustmann (2005) who investigated data spanning 1997-2005. Contrary to our model his findings suggest that immigration has a positive effect on UK wages. He estimated that a 1% rise in the ratio of immigrants to UK workers leads to a 0.6% increase in median wages. However delving a little deeper into his study we find that that workers in the lowest decile of earnings experience a 0.5% decrease in wages whilst workers whose earnings lie in the ninth decile enjoy a 0.4% increase in wages. This provides compelling evidence that immigration harms the least well paid who possess little human capital and benefits the well paid skilled workers.

Turning our attention to employment, Dustmann found similar results – the impact of immigration varies across education groups. Workers educated to the GCSE level are adversely affected by immigration, whereas workers at educated to degree level are positively affected.

Building on our static immigration model from earlier we can separate the effects on substitutable and complementary immigration.



An influx of (unskilled) substitute immigrants increases the supply of labour. This leads to a fall in wages to w_2 , some UK workers are not prepared to work at this wage and UK employment falls to UK_2 . The immigrant workers are prepared to work at the lower wage and supply their labour from the distance UK_2 to E_2 . The overall effect is lower wages and displacement of UK workers.



Complementary (skilled) immigration shifts both the demand and supply of labour curves. Their expertise increases labour productivity which shifts the demand for labour curve. The overall effect is a higher wage of w_2 and increased UK employment to UK_2 .

From the empirical evidence and theory we can conclude that the quota will benefit the unskilled UK labour by suppressing competition for jobs, but harm skilled UK labour through lost productivity gains. This evidence is based upon the short and medium term effects of immigration. In the long run the evidence suggests that the labour market smoothes out the short run effects. This is known as the lump of labour fallacy. In the long run there are not a fixed number of jobs and an economy adapts to the labour available. For example after WW2 there was a baby boom which subsequently increased the size of the UK labour force, however the unemployment rate remained constant during that time. (*Walker, 2007*) The time taken to smooth out the short run effects depends somewhat on the business cycle, in a boom where investment and confidence is high the economy is likely to adapt more quickly than when the economy is in a recession.

Government Finances and GDP

Measuring the fiscal impact of immigration is especially difficult. Some people claim that immigrants are a burden on the tax payer whilst others argue that they more than pay their way. In 2002 the Home Office commissioned a report with the intention of discovering the net effect immigrants had on the government finances. The study was conducted by Gott and Johnston (2002). They investigated the fiscal year of 1999/2000 and found that the net contribution of the 5million migrants was positive to the tune of £2.5bn, approximately 0.27% of GDP. This figure has been widely used to show that the UK benefits from immigration and tighter controls, such as a quota, will be detrimental to the treasury.

Sadly it is not that simple. Using the exact same data Coleman (2004) made some reasonable adjustments which changed the figure considerably. For example in 1999/2000 the government ran a budget surplus, Coleman found that in a 'normal' year of a balanced budget £1.3bn can be wiped off the net contribution. Other adjustments found that the net contribution of immigration could lie anywhere between £-0.4bn and £2.6bn. This is shown:

TABLE 5 Alternative estimates of the fiscal impact of migrants in the UK 1999/2000

	Tax £ billion	Expenditure £ billion	Balance £ billion	% GDP	% individual consumption
Original	31.2	28.8	2.5	0.27	0.36
Adjustment					
Corporation tax	-0.8				
Budget balance	-1.3				
After first adjustment	29.1	28.8	0.4	0.04	0.06
Adjustment					
Immigration and citizenship		0.7			
After second adjustment	29.1	29.5	-0.4	-0.05	-0.06
Adjustment					
Defense		-1.9			
Debt interest		-1.1			
After third adjustment	29.1	26.6	2.6	0.28	0.36

Source: *Coleman, 2004*

Slightly more recent research from Rowthorn (2008) looks at the fiscal year 2003-2004 and found the net contribution to be slightly positive and worth £0.6bn.

Whilst the overall fiscal impact of immigration is likely to be small there are significant variations across immigrant groups. In reality it is likely that some immigrants are net contributors and some make a negative contribution. In theory the fiscal impact depends on migrants' characteristics (skills, age, and length of stay), their impacts on the labour market and public service entitlements. For example highly skilled migrants in well paid jobs pay more tax than low skilled migrants in low paying jobs and young migrants are more likely to be healthy than older migrants who require more health services.

The impact of immigration on growth and government finances are closely linked. Unsurprisingly studies into economic growth have produced varying results. The former immigration MP, Liam Byrne, claimed that immigration is worth £6billion to the UK and was responsible for 15-20% of economic growth since early 2000's⁴. However the National Institute of Economic and Social Research (2006) found that immigration has a slightly negative impact on GDP per capita.

⁴ Home Affairs - Minutes of Evidence 2007

Since there are so many factors affecting the growth and fiscal contributions it is very difficult to assess the impact of the quota. However in his lecture at the UEA (2011) Professor David Metcalf spoke of the conflict of interest between the Home Office and the Treasury. He remarked that the Treasury have a preference for increased migration whereas the Home Office tries to limit it. His observation was that the fiscal impact of non EU immigration is slightly positive and the immigration quota would have a negative effect on GDP. Ceteris paribus his research found that GDP will lower by approximately 0.04 percentage points (or £559m) in the first year and approximately 0.22 percentage points lower (or £2.8bn) over 5 years.

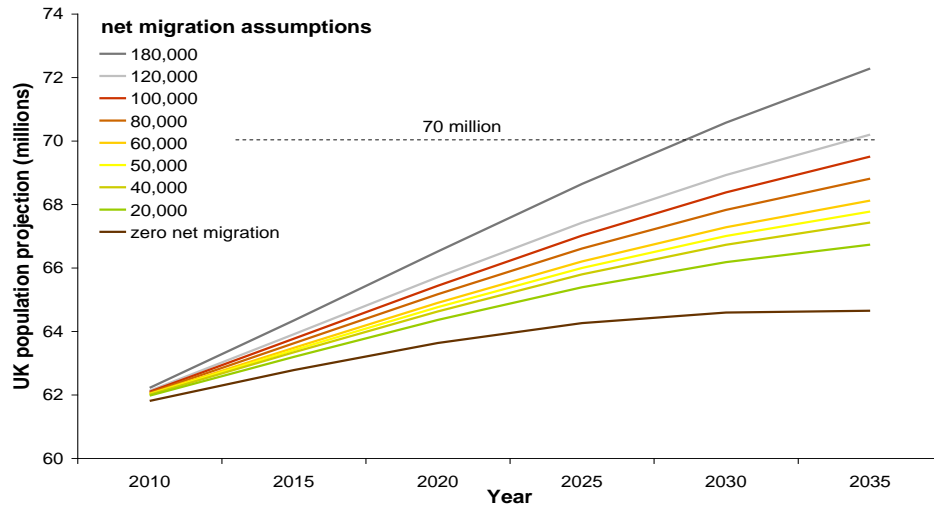
Population and Pensions

Immigration increases population. Half of the increase of the UK population between 1991 and 2010 was due to migration⁵. Today the UK is the most densely populated country in Europe⁶ a fact which has caused concern to many citizens and pressure groups. Recently the home secretary justified the cap on immigration arguing that it is vital to control "the rate of change of population so that our public services and attitudes can cope with a controlled change in population." (*Teresa May, 2011*)

The figure of 70million has emerged in recent years as the "'tipping point' at which campaign groups believe the ever increasing population will become 'unsustainable'" (*Daily Mail, 2011*). Research from the Migration Advisory Committee forecasts the impact different levels of net migration have on population.

⁵ Office for National Statistics 2010

⁶ BBC News 2012



Source: Migration Advisory Committee. (2010)

In 2010 net migration was at the 180,000/year level (the highest line). In order to prevent the population exceeding 70million by the end of the century, net migration would need to fall the 50,000/year mark, (the middle yellow line).

Lobbyists argue that immigration increases the strain on schools, hospitals and housing. However those in favour of immigration claim that it improves the UK's dependency ratio, the number of dependant people (such as the elderly) to those who are in the labour force. The UK's ageing population has led to fears of an impending pensions 'time bomb'. Falling fertility rates and higher life expectancy have increased the number of dependant people to productive people in the UK. In 2050 it is predicted that the dependency ratio will reach 0.48 almost double today's figure of 0.25⁷. This creates difficulties funding the state pay as you go pension system, in which those in the labour force pay (through taxes) for the pensions of the elderly.

Increasing the number of economically active people through immigration lowers the dependency ratio. Typically immigrants are young and therefore expand the labour force, paying taxes which ease the pressure of funding state pensions. However this is not necessarily a long term diffusion of the pension's time bomb as the immigrants may eventually settle in the UK and need support themselves. Data on immigration settlement in the UK is lacking, however a study conducted in the USA found that half of all immigrants returned home within two years (Reyes, 2007). Either way the short term effect of the quota will lower the level of net

⁷ Department for Work and Pensions, 2008

immigration, with the government targeting a level of the “tens of thousands” by the end of parliament. This will temper both population and labour force growth.

Conclusion

If the government achieves its target of cutting net migration to the ‘tens of thousands’ then undoubtedly there will be some winners and some losers of the quota. The existing evidence would predict that unskilled workers will fare better than skilled workers due to suppressed competition for jobs and the absence of complementary migration. However, in the long run the lump of labour fallacy suggests that the employment effects will smooth out.

The quota was implemented in April 2011, however thus far the labour market, treasury and population impacts have been negligible. The quota appears to have been ineffective with employers utilising the intra-company transfer’s route which were not included in the quota to maintain Tier 1 and 2 migration at around the 50,000 level (*Financial Times*, 2011). Indeed net immigration is predicted to reach record levels of 250,000 this year⁸ suggesting that the cap on immigration has had no impact whatsoever.

It is likely that the quota will be adjusted to achieve what it is supposed to do: cut migration. When this happens the net economic impact will most probably be slightly negative mainly due to the lost productivity gains from skilled migration. That said employers may simply decide to increase recruitment of migrant workers from within the EU undermining the efforts to control population. On the other hand firms may decide to up-skill their current workforce which will benefit UK workers, but cost the firms. Therefore the overall economic impact of the immigration quota depends on how employers and the EU migrants respond to the policy change.

The issues discussed in this essay are the hotly debated economic arguments with both sides presenting strong cases. However this only tells half the story. The UK’s motivation to cap immigration is largely concerned with non economic reasons such as people’s attitudes and social problems. In order to gain a holistic view these issues need to be considered in addition to the economics. A fact which underlines how difficult a topic immigration is.

⁸ Institute for Public Policy Research, 2012

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