

# Demographics and Scotland's Future



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## About the Scotland Institute

The Scotland Institute is a progressive and independent think tank set up to deal with the changing face of Scotland. It aims to investigate the implications of devolution while finding innovative solutions to the old problems of social exclusion, and to encourage Scotland's competitiveness in the global market. Through high-quality comprehensive research and policy making it hopes to put Scotland on a path towards a more competitive, progressive, and optimistic future.

‘We look to Scotland for all  
our ideas of civilisation.’

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Voltaire

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## Chairman's Statement



Will an independent Scotland be able to pay its pension obligations? This is a bellwether issue in the ongoing independence debate, and understanding this is crucial to understanding Scotland's future fiscal prospects as an independent country.

The main reason why the question is raised is because on current figures and trends, Scotland is set to have an increasingly older and sicker population than the rest of the UK. This means a relatively smaller working population paying taxes, and a relatively larger dependent pensioner population claiming pension benefits, as well as a higher burden on the NHS. Currently Scotland pays 4% more in pension costs relative to the UK, and because of its lower average health rates, 22% more in relative disability benefits costs. This is set to only get worse.

The SNP has been very keen to stress that it aims to maintain benefit levels and not raise the pension age, so the only way to tackle the incoming fiscal squeeze in an independent Scotland is to try and fix the demographic problem: we need more, younger people of working age, paying taxes and not claiming entitlements.

But according to the ONS, natural population growth, growth produced by the local population having more babies than there are deaths in a given period, will produce only about 0.25% increase in population in Scotland between 2010 and 2035 on current trends. So by the SNP's own admission, most of the necessary population increase will have to come from immigration.

On current trends, the population is expected to increase by 2.5% in the period to 2035, and 90% of that increase is expected to come from net immigration. The SNP and the opposition Scottish Labour and Liberal parties are very welcoming to these newcomers, but on our calculations this represents a sizeable shortfall.

Just how many immigrants we will need to come to Scotland every year from now till 2035 is a complicated issue with many variables: the calculations are dependent on what happens to North Sea Oil revenues, the overall economic performance of Scotland, and changes to tax and benefits policies, among many others. But assuming all other things remain equal, we will need not a 2.5% but an 8% increase in the population of Scotland in the next two decades, or in other words, we need 20,000 more immigrants per annum than we are currently expecting.

Can Scotland attract that many? There is nothing to say that this is an impossible task, but it will not be an easy one. Scotland's yearly net immigration figure in the last decade has been 20,000. The majority have come as part of one-off influxes to the UK coinciding with EU enlargement into Eastern Europe. But there are no other foreseeable waves of enlargement in the current European climate, and ONS projections see net immigration climbing down to around 15,000 per annum in the coming decades. This is the climate in which an independent Scotland would have to double its rate of immigration.

Independence will enable Scotland to adopt more immigrant-friendly policies than the rest of the UK. This is a key part of the SNP vision. So post-independence, Scotland can certainly aim to adjust this demographic deficit by advertising itself to global migrants.

But pursuing an agenda of boosting immigration raises its own problems. England has a completely different demographic situation, and the political climate at Westminster is decidedly against increasing immigration. This means that an independent Scotland and the rest of the UK will find that they need hugely different immigration policies. And that raises the spectre of the unthinkable: the rest of the UK may not be able or willing to support a Common Travel Area policy with Scotland as currently exists between the UK and Ireland. And if that happens, we will see border guards along Hadrian's Wall before too long. That is unthinkable. But it may well end up being politically inevitable in case Scotland becomes independent.

**Dr Azeem Ibrahim**  
Executive Chairman

# 1. Summary

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For many aspects of the independence debate, the Scottish public are struggling to acquire information on key issues. One such theme is the affordability of pensions if Scotland votes for independence. Some of this lack of clarity is the consequence of the nature of the political debate about independence with one side emphasising the purely negative aspects and the other tending to accentuate the positives. In addition, fundamentally, the issue of affordability of pensions reflects the wider debate about the state of Scotland's finances in the case of independence.

The SNP's argument for the fiscal stability of an independent Scotland rests on three main assumptions<sup>1</sup>:

1. that revenues from the oil industry will remain as they are, or grow slightly, over the next 30 years<sup>2</sup>;
2. that Scotland is a net contributor within the UK (in that, if the revenues generated in Scotland are compared to expenditure in Scotland then this ratio is currently below that which would accrue to an independent Scotland); and,
3. that policies can be put in place in an independent Scotland that will address current economic and fiscal problems far more effectively than those of the UK Government. Specifically these include proposals to:
  - a. increase productivity by 0.03% per annum (i.e. 5.2% in total to 2029), and,
  - b. to increase Scotland's working age population by a mixture of expanding employment and encouraging inward migration.

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1 Scottish Government 2013b. Scotland's Future: Your Guide to an Independent Scotland. Edinburgh: Scottish Government.

2 Scottish Government 2013c. Scotland's Future: from the Referendum to Independence and a Written Constitution. Edinburgh: Scottish Government, Scottish Government 2013a. Oil and Gas Analytical Bulletin. Edinburgh: Scottish Government.



While the issue of oil production is contested<sup>3</sup>, there is independent evidence to support the view of the Scottish Government<sup>4</sup> that substantial production is possible over the next 20 years. Equally the issue of Scotland's contribution is disputed, but again, the data from the annual *Government Expenditure and Revenue Scotland*<sup>5</sup> (GERS) reports does underpin the claim that an independent Scotland will have fiscal advantages, not least a lower debt-GDP ratio (there will also be disadvantages, such as the strong likelihood of paying higher interest rates on Government debt).

The Scotland Institute has recently published an analysis of the practicality of the Scottish Government's proposals to increase productivity<sup>6</sup>. Our conclusion was that the Scottish Government has correctly identified the problem, but that its focus on education-industry links means it lacks the policies needed. In part (and this is an important theme in this paper too), this is because 90% of the workforce who will be working in the mid-2020s is already at work<sup>7</sup>. More importantly, following other studies<sup>8</sup>, we argue that if productivity is to be improved, it is critical to start from a focus on what type of work, and what type of working conditions, are needed.

This paper focuses on the demographic issues connected with ensuring that Scotland has sufficient people in work to generate the revenue needed to sustain pensions. All the themes sketched out above potentially have an influence on this calculation<sup>9</sup> as have variations in the age at which pensions become due<sup>10</sup>, however one problem with taking all such factors into account is that the central implications can become lost in the wider analysis. Thus this paper primarily

3 HM Treasury 2014. *Scotland Analysis: Fiscal policy and sustainability*. London: HM Government.

4 Robinson, M. 2014. *North Sea incentives to boost EnQuest* [Online]. London: Investor's Chronicle. Available: <http://www.investorschronicle.co.uk/2014/07/24/tips-and-ideas/share-tips/tips-of-the-week/north-sea-incentives-to-boost-enquest-MIfvyVzluLyGAzDJtEGrmO/article.html> [Accessed 26 July 2014].

Kemp, A. 2012. *Memorandum: The impact of potential Scottish independence on energy and climate change* [Online]. London: Energy and Climate Change Select Committee. Available: <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmenergy/writev/1912/sco16.htm> [Accessed 15 November 2013].

5 Scottish Government 2014b. *Government Expenditure and Revenue Scotland 2012-13*. Edinburgh: Scottish Government.

6 Cook, R. 2014. *Addressing the Productivity Challenge Facing Scotland*. Glasgow: Scotland Institute.

7 Schifferes, J. 2014. *Human Capitals*. London: City Growth Commission.

8 Duffy, J., Gall, G. & Mather, J. 2013. *Working Together: A vision for industrial democracy in a Common Weal economy*. Glasgow: The Jimmy Reid Foundation, UKCES 2014. *Briefing on Apprenticeships in Scotland*. London: UKCES.

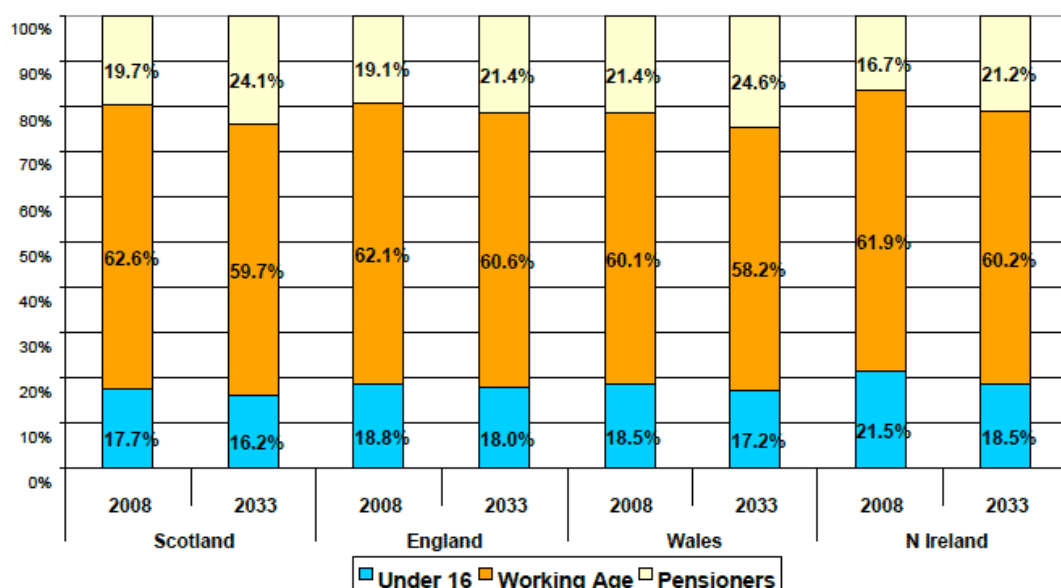
9 Phillips, D. 2013. *Government spending on benefits and state pensions in Scotland: current patterns and future issues*. London: IFS.

10 Scottish Affairs Committee 2014. *The Referendum on Separation for Scotland: Implications for Pensions and Benefits*. London: House of Commons.

sets out to estimate what level of net migration would be needed to ensure that Scotland retains the same ratio of people in work to those retired as will be the case in the rest of the UK by 2035.

At the moment, the ratio between the working age population and those retired in Scotland is very similar to that in the rest of the UK but on average Scottish workers are older and less healthy<sup>11</sup>. As a result, by 2033 it is estimated that in England, 60.6% of the population will be in the range 16-64<sup>12,13</sup> and for Scotland it will be 59.7<sup>14</sup>. This can be shown graphically as:

Figure 1-1: Age Related population profiles (component parts of the UK)<sup>15</sup>



This paper considers what additional net migration, over the current ONS estimates, would be needed to ensure the age-dependency ratio in Scotland remains the same as in the UK as a whole. In doing so, it makes no assumption

11 General Register Office for Scotland. 2014b. *Vital Events Reference Tables* [Online]. GROS. Available: <http://www.gro-scotland.gov.uk/statistics/theme/vital-events/general/ref-tables/index.html> [Accessed 26 July 2014].

12 ONS 2012. *National Population Projections*. London: ONS.

13 In this respect it should be noted that there are a range of possible calculations and the highest places the UK ratio at 45:100.

14 ONS. 2014b. *Projected Population of Scotland (2012-based)* [Online]. London: ONS. Available: <http://www.gro-scotland.gov.uk/files2/stats/population-projections/2012-based/j29825122.htm> [Accessed 24 July 2014].

15 Scottish Government. 2010. *Demographic Change in Scotland: Population Ageing* [Online]. Edinburgh: Scottish Government. Available: <http://www.scotland.gov.uk/Publications/2010/11/24111237/4> [Accessed 31 July 2014].

as to whether this equivalent ratio is sufficient, especially since the wider issue of an ageing population is a policy concern across the EU and OECD<sup>16</sup>. This accepts that Scotland will follow the wider demographic trend across Western Europe (of an ageing population) since it is unrealistic to assume net migration levels that will maintain the current ratio between those of working age and pensioners<sup>17</sup>.

With this goal, we have estimated that there will be a need for an additional net 10,000 migrants per year (i.e. a total of 220,000) in addition to the 335,000 already assumed in the current ONS calculations. In combination the two sources indicate a need for net migration of around 550,000 in the period to 2035. This is lower than some other estimates<sup>18</sup> principally as we have not attempted to model other key variables such as changes in retirement age or the other possible factors that will affect Scotland's overall fiscal position.

There are two problems that result from this estimate. First it is higher than the answers given by the SNP (who have suggested around 100,000 over current trends<sup>19</sup>) and secondly it questions whether the SNP does have the policy framework to address the issue. It is one thing to indicate (quite rightly) that the migration policy of the UK Government ill serves the needs of Scotland, it is another to construct specific policies to attract more net migrants (either by increasing immigration or reducing migration) and to cope with the consequential implications in terms of demand for housing and public services as well as to avoid the social issues that have occurred in some areas of England.

Equally, although the totals for net migration sound modest there is a need to address the question of where they will come from<sup>20</sup>. The growth in net migration

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16 OECD. 2014b. *Data: Population* [Online]. Geneva: OECD. Available: <http://data.oecd.org/pop/population.htm> [Accessed 24 July 2014], OECD. 2014a. *Annual Labour Force Statistics: Population Growth Rate* [Online]. Geneva: OECD. Available: <http://stats.oecd.org/index.aspx?queryid=27482> [Accessed 25 July 2014].

17 This was done using the model set out in section 4 as a test. The final outcome was the need for 1.4 million more net migrants than the current ONS projects, increasing Scotland's population from 5.3 million to around 6.4 million.

18 McCallum, D. 2014. Financial Reflections: Demographics. *The Future of the UK and Scotland* [Online]. Available from: <http://www.futureukandscotland.ac.uk/blog/financial-reflections-demographics> [Accessed 24 July 2014], Settle, M. 2014. *Independent Scotland 'would need one million immigrants'* [Online]. Glasgow: The Herald. Available: <http://www.heraldscotland.com/politics/referendum-news/independent-scotland-would-need-one-million-immigrants.24023950> [Accessed 24 July 2014].

19 Settle, M. 2014. *Independent Scotland 'would need one million immigrants'* [Online]. Glasgow: The Herald. Available: <http://www.heraldscotland.com/politics/referendum-news/independent-scotland-would-need-one-million-immigrants.24023950> [Accessed 24 July 2014].

20 Wiśniowski, A., Bijak, J. & Shang, H. L. 2014b. Forecasting Scottish Migration in the Context of the 2014 Constitutional Change Debate. *Population, Space and Place*, 20, 455-464.

to the UK since the late 1990s is mainly the one-off consequence of the EU accession of countries that were formally part of the Soviet economic zone. The process of adjustment effectively wrecked the existing economic systems and many, mainly the young and better educated<sup>21</sup>, migrated to look for work. There is little reason to believe there will be a similar EU expansion in the near future, meaning that Scotland will have to compete with other countries to attract new migrants from within the EU.

It is true that an independent Scotland could craft policies that differ from Westminster<sup>22</sup> that are more welcoming to those seeking work in another EU country, to migrants from outside the EU as well as to refugees and asylum seekers. However, the desire to retain free movement with the rest of the UK (similar to the Irish Common Travel Area<sup>23</sup>) will place constraints on the ability of an independent Scotland in this respect<sup>24</sup>. In that case, it maybe more realistic to address other demographic issues, such as fertility rates and workforce participation, rather than look to net migration as the main means to solve Scotland's demographic problem.

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21 Szczerbiak, A. 2012. *Poland within the European Union: New Awkward Partner or New Heart of Europe?*, London, Taylor & Francis.

22 Huysmans, J. & Buonfino, A. 2008. Politics of Exception and Unease: Immigration, Asylum and Terrorism in Parliamentary Debates in the UK. *Political Studies*, 56, 766-788.

23 Citizens Information. 2014. *Common Travel Area between Ireland and the United Kingdom* [Online]. Dublin. Available: [http://www.citizensinformation.ie/en/moving\\_country/moving\\_abroad/freedom\\_of\\_movement\\_within\\_the\\_eu/common\\_travel\\_area\\_between\\_ireland\\_and\\_the\\_uk.html](http://www.citizensinformation.ie/en/moving_country/moving_abroad/freedom_of_movement_within_the_eu/common_travel_area_between_ireland_and_the_uk.html) [Accessed 31 July 2014].

24 Bijak, J., Kupiszewska, D. & Kupiszewski, M. 2008. Replacement Migration Revisited: Simulations of the Effects of Selected Population and Labor Market Strategies for the Aging Europe, 2002–2052. *Population Research and Policy Review*, 27, 321-342.

## 2. Introduction

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### 2.1 Context

The Scottish Government has produced two substantial reports<sup>25</sup> setting out the reasons why it believes that the Scottish economy will prosper with independence and also why their stated goal of higher public expenditure and lower taxation is feasible. Their argument rests on two main claims. First, that Scotland is, on average, a net contributor to the UK so retaining more of that surplus in Scotland will ensure an immediate improvement for the public finances (allied to having a lower debt:GDP ratio than the rest of the UK<sup>26</sup>), in turn this is related to the debate about future revenue streams from North Sea oil extraction. The second claim is that with independence comes the ability to address several fundamental weaknesses in the Scottish economy. Two approaches were set out in the recent *Scotland's Economy: the case for independence*:

1. Increasing the number of people in work by a combination of addressing the reasons for under-employment and unemployment and encouraging more immigration. This will also, it is claimed, offset the problem of how to pay for pensions as the proportion of retired people would otherwise be higher in an independent Scotland than in the rest of the UK;
2. Increasing productivity by 0.03% per annum up to 2029 (i.e. a total growth of 5.2%). If achieved, the additional economic activity will be worth around £2.4bn (at current prices) in terms of public revenues<sup>27</sup>.

In effect, the SNP's argument is that Scotland's economy can grow by both increasing the numbers in work and increasing the productivity of that work. This report looks at the practical challenges in addressing the first issue, in effect what changes need to take place to ensure that Scotland has the working population needed to sustain its future prosperity.

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25 Scottish Government 2014c. *Scotland's Economy: the case for independence*. Edinburgh: Scottish Government, Scottish Government 2013b. *Scotland's Future: Your Guide to an Independent Scotland*. Edinburgh: Scottish Government.

26 Price, J. 2014. *Debt and Destiny*. Glasgow: Scotland Institute.

27 Cook, R. 2014. *Addressing the Productivity Challenge Facing Scotland*. Glasgow: Scotland Institute.

The underlying issue of an ageing population is common across the EU<sup>28</sup>, but unless remedial action is taken, an independent Scotland will have more retired people compared to the working age population compared to the rest of the UK.

## 2.2 Outline

Both sides of the independence debate have identified a threat to Scotland's ability to sustain its current, and future, pension requirements unless something is done to address the current demographic problem<sup>29</sup>.

The SNP essentially see independence as a critical step as this will allow the operation of a different immigration policy to the rest of the UK<sup>30</sup> (an approach building on earlier initiatives by the Labour-Liberal Democrat administration up to 2007<sup>31</sup>). This is also often seen not just as a means to address an identified problem but to set out an approach to migration (both those seeking work and those in need of asylum) that is more humane than the emerging consensus among the main Westminster parties who increasingly are describing inward migration as a major problem that needs to be controlled.

In contrast, Better Together<sup>32</sup> (in its various forms) and the Department of Work and Pensions make variations on the argument that the only way to secure Scotland's pension liability is by remaining as part of the UK<sup>33</sup>. However, these arguments are usually linked to making assumptions not just about population trends but the future value of oil revenues<sup>34</sup>. While there is a need to place the

28 OECD. 2014a. *Annual Labour Force Statistics: Population Growth Rate* [Online]. Geneva: OECD. Available: <http://stats.oecd.org/index.aspx?queryid=27482> [Accessed 25 July 2014].

29 McCallum, D. 2014. Financial Reflections: Demographics. *The Future of the UK and Scotland* [Online]. Available from: <http://www.futureukandscotland.ac.uk/blog/financial-reflections-demographics> [Accessed 24 July 2014].

30 Scottish Government 2013c. *Scotland's Future: from the Referendum to Independence and a Written Constitution*. Edinburgh: Scottish Government, Scottish Government 2014c. *Scotland's Economy: the case for independence*. Edinburgh: Scottish Government.

31 BBC. 2005. *McConnell defends talent campaign* [Online]. BBC on line news. Available: <http://news.bbc.co.uk/1/hi/scotland/4281749.stm> [Accessed 5 December 2011].

32 BBC. 2014. *Scottish independence: Brown says Scotland's pensions protected by UK* [Online]. Glasgow: BBC. Available: <http://www.bbc.co.uk/news/uk-scotland-27106954> [Accessed 24 July 2014].

33 Department of Work and Pensions 2014. *Scotland Analysis: Work and Pensions*. London: DWP.

34 Robinson, M. 2014. *North Sea incentives to boost EnQuest* [Online]. London: Investor's Chronicle. Available: <http://www.investorschronicle.co.uk/2014/07/24/tips-and-ideas/share-tips/tips-of-the-week/north-sea-incentives-to-boost-enquest-MIfvyVzluLyGAzDJtEGrmO/article.html> [Accessed 26 July 2014], Phillips, D. 2013. *Government spending on benefits and state pensions in Scotland: current patterns and future issues*. London: IFS, HM Treasury 2014. *Scotland Analysis: Fiscal policy and sustainability*. London: HM Government.



issue of demographics in the wider context of Scotland's economic prospects (and indeed how Scotland's economic prosperity will in turn make it attractive to potential migrants), the consequence has been to complicate any consideration of the level of net migration needed by including contested estimates of future oil production.

The challenge to Scotland (and this applies regardless of the September independence vote) is to ensure the proportion of working age individuals in the overall population will allow it to meet its public finance liabilities. At the moment, Scotland has a population of 5.31 million of whom 3.47 million are aged 16-65<sup>35</sup> (the usual definition of the potential working population), and of these 71.5% are in-work<sup>36</sup> (i.e. around 2 million). The latter ratio is lower than it was in 2008, due to the impact of the depression, but is higher than the average across the OECD of 65.6%<sup>37</sup>. However, this higher rate needs to be offset against the higher incidence of part time work in the UK of 44% compared to the OECD average of 40%<sup>38</sup>, in effect, especially given the numbers who report that they work part time out of necessity than choice, the UK employment rate masks a substantial degree of under-employment.

Up to the early 1990s, Scotland experienced sustained net emigration and then from 1990-2000 overall immigration and emigration were in balance. Since 2002, Scotland has had net immigration of around 20,000 per year. The ONS has estimated that in the period 2012-2035, net immigration will slow to 14-15,000<sup>39</sup> per year, in part due to the impact of the recession on available work, but also a consequence of the policies being adopted by the Westminster Government<sup>40</sup>. The need for ongoing net migration at a higher rate than the ONS estimate is

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35 General Register Office for Scotland. 2014a. *Mid-2011 and Mid-2012 Population Estimates Scotland* [Online]. Edinburgh: GROS. Available: <http://www.gro-scotland.gov.uk/statistics/theme/population/estimates/mid-year/2012/index.html> [Accessed 22 June 2014].

36 Scottish Government. 2014a. *Annual Population Survey, results for year to 31 March 2014* [Online]. Edinburgh: Scottish Government. Available: <http://www.scotland.gov.uk/Resource/0045/00453501.pdf> [Accessed 22 June 2014].

37 OECD. 2014c. *Employment Rates* [Online]. Geneva: OECD. Available: <http://stats.oecd.org/Index.aspx?DataSetCode=STLABOUR> [Accessed 25 July 2014].

38 OECD. 2014d. *Incidence of FTPT employment - common definition* [Online]. Geneva: OECD. Available: <http://stats.oecd.org/Index.aspx?DataSetCode=STLABOUR> [Accessed 25 July 2014].

39 ONS. 2014b. *Projected Population of Scotland (2012-based)* [Online]. London: ONS. Available: <http://www.gro-scotland.gov.uk/files2/stats/population-projections/2012-based/j29825122.htm> [Accessed 24 July 2014].

40 Dominczak, P. 2014. *David Cameron announces immigration benefits crackdown* [Online]. London: The Telegraph. Available: <http://www.telegraph.co.uk/news/uknews/immigration/10996721/David-Cameron-announces-immigration-benefits-crackdown.html> [Accessed 30 July 2014].

accepted across the political debate in Scotland<sup>41</sup> and, on balance, among the wider population<sup>42</sup>.

However, if migration is not to be the functional model increasingly set out by the Coalition Government, with no rights for those coming to study or work, and only those deemed capable of ‘contributing’ allowed to stay for limited periods, then attracting additional migrants will also have costs<sup>43</sup>. In particular, if the intention is for people to settle in Scotland for a period of time, they will bring their families with them with implications for the provision of primary and secondary education, as well as potentially placing greater demands on the existing housing stock. In addition, an independent Scottish government will need to address the potentially complicated issue of identifying the likely source of further net migration, especially as the underlying demographic problem will affect all the countries in the EU.

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41 Tindall, S., McCollum, D. & Bell, D. 2014. Immigration Policy and Constitutional Change: The perspectives of Scottish employers and industry representatives. Centre for Population Change.

42 McCollum, D., Findlay, A., Bell, D. & Bijak, J. 2013. Patterns and perceptions of migration, is Scotland distinct from the rest of the UK? : Centre for Population Change.

43 McCallum, D. 2014. Financial Reflections: Demographics. *The Future of the UK and Scotland* [Online]. Available from: <http://www.futureukandscotland.ac.uk/blog/financial-reflections-demographics> [Accessed 24 July 2014].



## 3. Background

### 3.1 Data

#### 3.1.1 Scotland

This section sets out some of the key data sets and information to explore the current position and estimated trends. Table 3-1 shows the main changes in Scotland's population between the 2001 and the 2011 censuses:

Table 3-1: Changes in Scotland's population 2001-2011<sup>44</sup>

	2001	2011	Change (%)
<b>Total usual resident population</b>	5,062,011	5,295,403	+4.6%
<b>UK-born resident population</b>	4,870,440	4,926,119	+1.1%
Scottish-born resident population	4,410,400	4,411,884	+0.03%
<b>Non-UK born resident population</b>	191,571	369,284	+92.8%
Non-UK born as share of the region's population	3.8%	7%	+84.3%
<b>European-born</b>	55,766	172,243	+167.7%
<b>EU-born*</b>	41,836	134,910	+222.5%
Accession countries since 2001		76,689	

In effect, the Scottish born population has remained static at 4.4 million people but there has been a small increase in the numbers born elsewhere in the UK (by 50,000) living in Scotland and a substantial increase in the numbers born outside the UK (170,000), most of whom were born in Europe. The bulk of non-UK born residents live in Aberdeen (30,000), Edinburgh (75,000) and Glasgow (70,000). Overall, 93% of the population living in Scotland were born in the UK compared to 87% for the UK as a whole<sup>45</sup>.

By 2012, it is estimated that Scotland's total population increased to 5.3 million<sup>46</sup>, of whom 914,000 are under 16, 927,000 are over 65 and 3.47 million form the working age population. The detailed age profile is:

44 Krausova, A. & Vargas-Silva, C. 2013. Scotland: Census Profile. Oxford: The Migration Observatory., p. 4

45 Ibid.

46 General Register Office for Scotland. 2014a. *Mid-2011 and Mid-2012 Population Estimates Scotland* [Online]. Edinburgh: GROS. Available: <http://www.gro-scotland.gov.uk/statistics/theme/population/estimates/mid-year/2012/index.html> [Accessed 22 June 2014].

Table 3-2: 2012 Age Distribution of Scotland's population<sup>47</sup>

Age Range	Total	Proportion
0-15	914,671	17
16-24	628,760	12
25-34	680,012	13
35-44	707,468	13
45-54	795,012	15
55-64	661,926	12
65-74	507,265	10
75-84	309,244	6
85+	109,242	2
All ages	5,313,600	100

### ■ 3.1.2 Comparing Scotland to UK and other EU countries

The population data for Scotland can be compared to a number of European countries as:

Table 3-3: Proportion in particular age groups, Scotland and selected comparative countries<sup>48</sup>

Age Range	Resident Population		Immigration			Emigration		
	Total	Proportion	UK	Non-UK	Proportion all Immigration	UK	Non-UK	Proportion all Emigration
0-15	914,671	17.2%	6,349	4,595	13.5%	5,913	3,348	13.6%
16-24	628,760	11.8%	10,897	14,315	31.1%	9,877	6,891	24.6%
25-34	680,012	12.8%	11,142	11,211	27.6%	12,333	9,244	31.6%
35-44	707,468	13.3%	6,563	3,241	12.1%	5,650	3,190	12.9%
45-54	795,012	15.0%	4,522	1,335	7.2%	3,567	1,645	7.6%
55-64	661,926	12.5%	3,108	746	4.8%	2,281	997	4.8%
65-74	507,265	9.5%	1,468	309	2.2%	1,461	563	3.0%
75-84	309,244	5.8%	632	102	0.9%	636	216	1.2%
85+	109,242	2.1%	435	46	0.6%	360	106	0.7%
All ages	5,313,600		45,116	35,900		42,078	26,200	

This simplifies the population figures into those under 16 (young), those aged 16-65 (Working age) and those over 65 (retired)<sup>49</sup>. Using these three categories it is possible to work out the ratio between those of working age and those too young or past retirement, and, more specifically, the ratio between those of working age and those past the notional retirement age (final column).

This shows the differences between the EU as a whole, those countries that form the euro-zone, and, separately Finland, Norway and Sweden. When looking at the three Nordic countries, the UK as a whole and Scotland, only Norway has a significantly different dependency ratio. In terms of the ratio working age and retired people, Scotland appears to face a similar problem to the bulk of the EU.

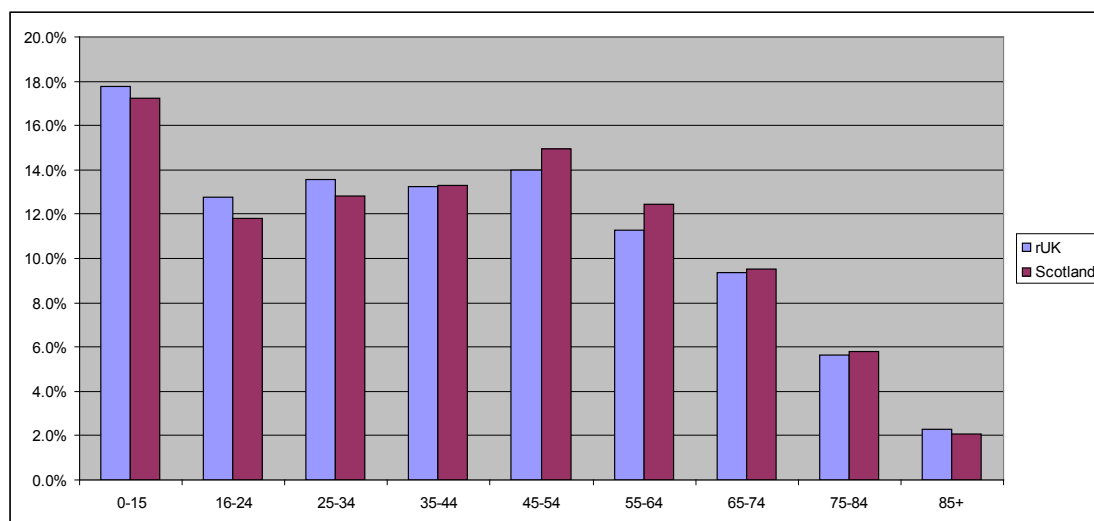
47 Ibid.

48 OECD. 2014b. *Data: Population* [Online]. Geneva: OECD. Available: <http://data.oecd.org/pop/population.htm> [Accessed 24 July 2014].

49 It is necessary to note that not everyone over 65 is outside the labour market, but the focus here is on the affordability of the universal right to a state pension at that age.

However, when the data is broken down the nature of the problem becomes more obvious. In effect, compared to the rest of the UK, Scotland's workforce is, on average, older, and thus will retire sooner than the average across the UK:

Figure 3-1: Population by Age Band, rUK and Scotland<sup>50</sup>



In consequence, over the next 20 years the current relative balance between those of working age and those in retirement will break down and Scotland will face a much higher dependency ratio than the rest of the UK.

The second major issue is one of worse health in Scotland compared to the rest of the UK. There are two parts to this, overall life expectancy and an estimate of the years of health life expectancy. At the moment (table 3-4), men born in Scotland have a slightly lower life expectancy than the rest of the UK (75.3 years compared to 77.7) but a substantially lower healthy life expectancy (60.1 years compared to 63). At the point of retirement, overall life expectancy is similar (16.4 and 17.6 years) but Scottish men can only expect 8.8 years of healthy life. A practical consequence of this is that expenditure on disability benefits is 22% higher than in the UK as a whole but at the moment pensions spend is only 4% higher<sup>51</sup>.

50 ONS. 2014a. *Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2013* [Online]. London: ONS. Available: <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcmm%3A77-322718> [Accessed 25 July 2014].

51 Phillips, D. 2013. *Government spending on benefits and state pensions in Scotland: current patterns and future issues*. London: IFS.

Table 3-4: Relative Health Statistics, Scotland, and the UK<sup>52</sup>

		At Birth		At 65	
		Life Expectancy	Healthy Life Expectancy	Life Expectancy	Healthy Life Expectancy
Males	United Kingdom	77.7	63.0	17.6	9.9
	Scotland	75.3	60.1	16.4	8.8
Females	United Kingdom	81.9	65.0	20.2	11.5
	Scotland	80.1	63.5	19.0	10.7

In combination with a closer study of the demographic profile of Scotland (figure 3-1), this starts to identify the reasons why an independent Scotland needs to expand its population if it is to meet its pensions liability. Unless the current situation is addressed, the proportion of retired people will become substantially higher than it is in the UK and the effect will be compounded by ongoing health problems in the working age population.

### ■ 3.1.3 Current Migration Trends

In consequence, net inward migration is an obvious means to address the problem of an ageing population. Table 3-5 shows the 2012 migration flows by age group:

Table 3-5: Resident Population and Migration data by age band<sup>53</sup>

Age Range	Resident Population		Immigration		Emigration			
	Total	Proportion	UK	Non-UK	Proportion all Immigration	UK	Non-UK	Proportion all Emigration
0-15	914,671	17.2%	6,349	4,595	13.5%	5,913	3,348	13.6%
16-24	628,760	11.8%	10,897	14,315	31.1%	9,877	6,891	24.6%
25-34	680,012	12.8%	11,142	11,211	27.6%	12,333	9,244	31.6%
35-44	707,468	13.3%	6,563	3,241	12.1%	5,650	3,190	12.9%
45-54	795,012	15.0%	4,522	1,335	7.2%	3,567	1,645	7.6%
55-64	661,926	12.5%	3,108	746	4.8%	2,281	997	4.8%
65-74	507,265	9.5%	1,468	309	2.2%	1,461	563	3.0%
75-84	309,244	5.8%	632	102	0.9%	636	216	1.2%
85+	109,242	2.1%	435	46	0.6%	360	106	0.7%
All ages	5,313,600		45,116	35,900		42,078	26,200	

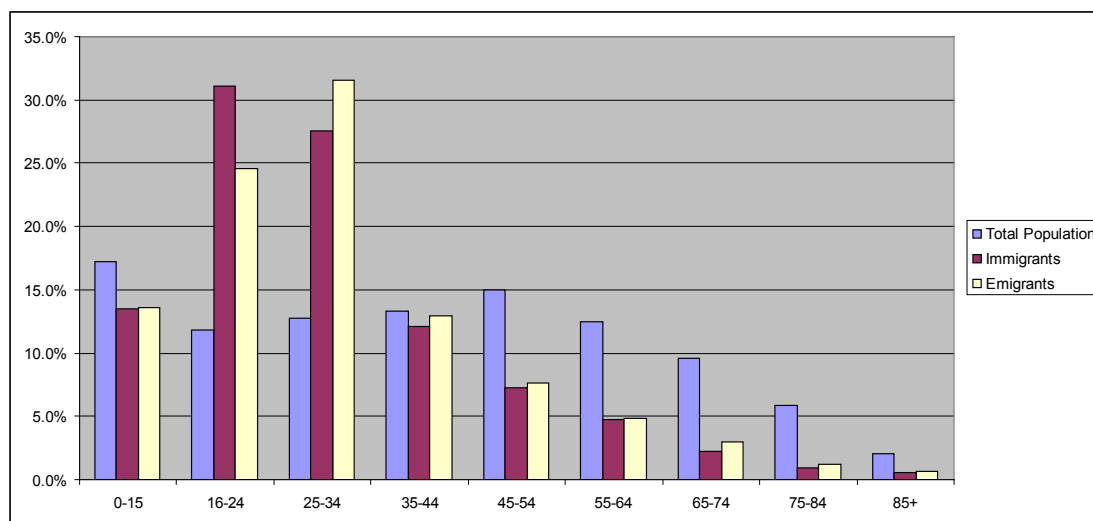
This compares Table 3-2 to the data on net migration for Scotland (both within the current UK and outside). As is to be expected, migration is mostly a choice of the young (16-34), but there are some interesting trends in table 3-5. These are shown more clearly in figure 3-2 (below). In effect, the most common age for immigrants is 16-24 and for emigrants is 25-34. This tends to suggest that a

<sup>52</sup> ONS 2011. Health Expectancies at birth and at age 65 in the United Kingdom, 2007–2009. London: ONS.

<sup>53</sup> General Register Office for Scotland. 2014a. *Mid-2011 and Mid-2012 Population Estimates Scotland* [Online]. Edinburgh: GROS. Available: <http://www.gro-scotland.gov.uk/statistics/theme/population/estimates/mid-year/2012/index.html> [Accessed 22 June 2014].

substantial portion of these population flows is connected with taking up periods of study at Scottish universities and a subsequent return to their country of origin. The reverse also seems to apply with the relative parity between those emigrating in the 16-24 age band and the immigration rate at 25-34. Clearly this is not the only explanation, but does add to the evidence that when talking about migration rates it is important to remember this is not a homogenous group.

Figure 3-2: Population and Migration by age band

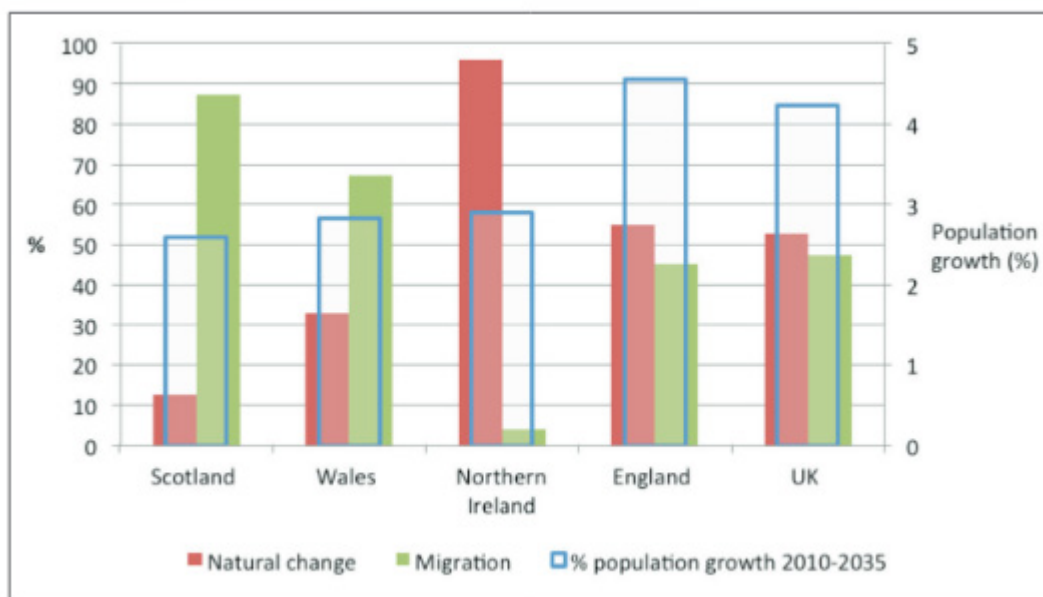


Migration within the UK has been volatile in recent years. For example, there was net emigration to rUK of 2,152 in 2010-11 and immigration of 3,038 in 2011-12<sup>54</sup>.

Overall the ONS estimates that Scotland's population will increase by just over 2.5% between 2010 and 2035<sup>55</sup> on current trends. However, only 10% of this growth will come from natural growth (i.e. a higher birth rate than death rate) and 90% will be the result of net migration. Thus even before there is a need to address meeting the challenge of a further expansion of the working age population, it is worth noting how reliant Scotland will be on net migration:

54 Ibid.

55 McCollum, D., Findlay, A., Bell, D. & Bijak, J. 2013. Patterns and perceptions of migration, is Scotland distinct from the rest of the UK? : Centre for Population Change.

Figure 3-3: Natural Change and Migration as drivers of population growth<sup>56</sup>

Estimating future migration trends, especially in the context of a newly independent Scotland<sup>57</sup> is complex. As identified above, currently net migration between Scotland the rest of the UK is roughly in balance though it changes from year to year. In terms of wider migration flows, the Scottish Government is clear it intends to adopt a less restrictive approach than that of the current Westminster Government<sup>58</sup>. In many ways this is welcome, especially if it means a Scottish Government adopts a more humane approach to the problems faced by refugees and those seeking asylum. However, a practical constraint that will remain will be the desire to maintain a common travel area with the rest of the UK. On this basis, the Scottish Government may find its scope for a radically different approach is limited due to this policy constraint<sup>59</sup>. The consequence is a relatively wide divergence between different commentators as to the likely impact of independence on net migration but on balance it is believed this will increase in terms of migration from outside the UK and stay more or less static within the UK.

<sup>56</sup> Ibid., p. 3

<sup>57</sup> Wiśniowski, A., Bijak, J. & Shang, H. L. 2014a. Forecasting migration in Scotland: Potential impact of Independence on future Trends. Southampton: Centre for Population Change.

<sup>58</sup> Scottish Government 2013b. Scotland's Future: Your Guide to an Independent Scotland. Edinburgh: Scottish Government.

<sup>59</sup> Shang, H. L., Bijak, J. & Wiśniowski, A. 2014. Directions of impact of Scottish independence on migration: A survey of experts. Southampton: Centre for Population Change.



### 3.2 Benefits and Costs of migration

The benefits of inward migration are well known. Key to the argument is that it helps address problems in existing age profile, take up otherwise vacant jobs and generally increase the levels of economic activity. Those who come to study rather than work enrich the experience of all students at our Universities.

In terms of the costs there is a worrying lack of serious data<sup>60</sup> which has led to most of the current political debate being couched in terms of prejudice and perceived electoral advantage. However, unless, as the Conservative Party is increasingly proposing, immigration is couched purely in terms of benefits for the receiving country<sup>61</sup>, then inevitably in addition to those of working age there will be dependents (either elderly or young). Equally new arrivals will create demand for social services, health and housing.

A number of studies have attempted to address this lack of knowledge<sup>62</sup>. The consensus is that migrants make much lower use of public services and social security than the domestic population<sup>63</sup> (not surprising given their age profile), however, this is not consistent. An NIESR report for the UK as a whole suggested that migrants made:

- more use of education than the non-migrant population (£1,449 per head compared to £1,190<sup>64</sup>);
- less use of personal social services (£463 per head compared to £515);
- substantially less use of health services (£1,602 compared to £2,003); and,
- overall less use of state provided services (£3,514 compared to £3,708<sup>65</sup>).

60 Migration Observatory. 2013. *Migrants impacts on public services: no systematic data and analysis* [Online]. Oxford: Migration Observatory. Available: <http://www.migrationobservatory.ox.ac.uk/top-ten/7-impacts> [Accessed 25 July 2014].

61 The Economist. 2012. *Immigration: The Tories' barmiest policy* [Online]. London: The Economist. Available: <http://www.economist.com/news/leaders/21564841-britains-immigration-policy-crippling-business-and-economy-wake-up-mr-cameron-tories> [Accessed 1 May 2013].

62 Demireva, N. 2014. *Immigration, Diversity and Social Cohesion*. Oxford: The Migration Observatory, Poppleton, S., Hitchcock, K., Lymeropoulou, K., Simmons, J. & Gillespie, R. 2013. *Social and Public Service Impacts of International Migration at the Local Level*. London: Home Office, George, A., Meadows, P., Metcalf, H. & Rolfe, H. 2011. *Impact of migration on the consumption of education and children's services and the consumption of health services, social care and social services*. London: National Institute of Economic and Social Research.

63 George, A., Meadows, P., Metcalf, H. & Rolfe, H. 2011. *Impact of migration on the consumption of education and children's services and the consumption of health services, social care and social services*. London: National Institute of Economic and Social Research.

64 Ibid., p. 38

65 Ibid., p. 45

Since various Scottish governments have actively encouraged migration, and this has been effective in attracting families who wish to settle, the overall usage of state services by migrants in Scotland is higher than elsewhere in the UK at £3,845<sup>66</sup>, reflecting the greater take up of primary and secondary education. At the moment, different local authorities in Scotland are taking different approaches. Some are actively planning for more immigration and others believe they will be able to adapt and cope if their local population increases<sup>67</sup>. A related issue is that inward net migration is not evenly distributed in Scotland and that there maybe a need to devise policies for some council areas that do not apply elsewhere. So, far, reports from local councils indicate there has been a relative lack of cohesion between the Scottish Government policy to increase net migration and the extent that individual local councils have had to adapt.

Since it is clear that most non-UK arrivals to Scotland in the period 2001-2011 tended to three main cities<sup>68</sup> (Glasgow, Edinburgh and Aberdeen), then it is likely that any additional migration in the period to 2035 will follow a similar pattern. If so, it is important that the Scottish Government works with these local councils to ensure that the necessary resources are provided and that local provision of schools etc reflects the expected demand.

Equally, it is important to stress that net migration will consist of a number of different elements. Some, as now, will be students moving to (or out of) Scotland for their studies. Some of these may then opt to stay after completing a degree but many will return to their country of origin. Equally, many current migrants, as now, will come from other EU countries in search of work. Finally, individuals will arrive seeking refuge and asylum status<sup>69</sup>. Each of these groups will place a different set of demands on local services.

A recent paper for the Home Office<sup>70</sup> notes how different types of migrants place different demands on local services. In particular, refugees and asylum seekers tend to have the highest levels of need, reflecting the circumstances of their arrival. In addition, the report notes that all migration can place substantial pressure on housing especially at the cheaper end of the private rented market (72% of those

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66 Ibid., p. 47

67 Packwood, H., Findlay, A. & McCollum, D. 2014. Engaging with immigration policy on the ground: A study of Local Authorities in Scotland Southampton: Centre for Population Change.

68 Krausova, A. & Vargas-Silva, C. 2013. Scotland: Census Profile. Oxford: The Migration Observatory.

69 Crawley, H. 2010. Chance or choice? Understanding why asylum seekers come to the UK. London: Refugee Council.

70 Poppleton, S., Hitchcock, K., Lymperopoulou, K., Simmons, J. & Gillespie, R. 2013. Social and Public Service Impacts of International Migration at the Local Level. London: Home Office.



who have lived in the UK for 3-5 years live in this sector). In terms of social cohesion, the impact varies both according to the existing levels of poverty and social support, existing level of diversity (i.e. the more diverse an area already is the lower the impact<sup>71</sup>) and the numbers arriving in a particular area.

## 4. Modelling the Implications

### 4.1 Working Assumptions

Currently there are varying estimates<sup>72</sup> of how much an increase in population over the current trends ranging from 2,000 more per year<sup>73</sup> (SNP) to 60,000-70,000 a year<sup>74</sup>. One problem is that many of these models not only look at the need to address the ratio between the working age population and those who are retired (the dependency ratio) but add in assumptions around future oil revenues, overall economic performance, and tax and benefit policy. With this in mind the basic model in this paper concentrates just on the ratio between the working age and the dependent population. In other words, that everything else remains the same. To do this, the following approach has been adopted:

- Take the current population (in 5 year blocks);
- Use age-related mortality<sup>75</sup> data to reduce this population;
- Move 20% of the remaining population in each group to the next age group (ie assume an even spread within age bands);
- Add new births, using age-related fertility rates<sup>76</sup>;
- Add ONS estimates of net migration under current policy conditions<sup>77</sup>;
- Repeat 23 times to take the current 2012 population to 2035.

72 Wiśniowski, A., Bijak, J. & Shang, H. L. 2014a. Forecasting migration in Scotland: Potential impact of Independence on future Trends. Southampton: Centre for Population Change.

73 Settle, M. 2014. *Independent Scotland 'would need one million immigrants'* [Online]. Glasgow: The Herald. Available: <http://www.heraldscotland.com/politics/referendum-news/independent-scotland-would-need-one-million-immigrants.24023950> [Accessed 24 July 2014].

74 Amior, M., Crawford, R. & Tetlow, G. 2014. Fiscal sustainability of an independent Scotland. London: Institute for Fiscal Studies, Comerford, D. 2014. The Ageing Population Problem. *ESRC: The Future of the UK and Scotland* [Online]. Available from: <http://www.futureukandscotland.ac.uk/blog/ageing-population-problem> [Accessed 25 July 2014].

75 General Register Office for Scotland. 2014b. *Vital Events Reference Tables* [Online]. GROS. Available: <http://www.gro-scotland.gov.uk/statistics/theme/vital-events/general/ref-tables/index.html> [Accessed 26 July 2014].

76 Ibid.

77 ONS. 2014b. *Projected Population of Scotland (2012-based)* [Online]. London: ONS. Available: <http://www.gro-scotland.gov.uk/files2/stats/population-projections/2012-based/j29825122.htm> [Accessed 24 July 2014].

## 4.2 Model

From this a simplified model can be produced that reflects the main variables in Scotland's likely demographic changes under a number of scenarios. For each year, the calculations were:

Table 4-1: Population estimation model<sup>78</sup>

Age Band	2012-13 Population	Death Rate	Remaining Population (-Death rate)	Number who progress to next age band	Revised Number in Age group	Estimated Birth Rates	Estimated infant mortality	Revised Age groups (net births added to 0- 4)	ONS Migration	Revised 2013-14 Age Group
0-4	294,300	58	294,242		294,242	0	0	357,323	587	357,910
5-9	282,600	28	282,572	58,848	223,724	0	0	223,724	587	224,311
10-14	275,100	27	275,073	56,514	277,407	0	0	277,407	587	277,994
15-19	315,600	126	315,474	55,014	316,974	3,446	36	316,974	4419	321,393
20-24	368,900	147	368,753	63,094	360,673	11,306	123	360,673	4419	365,092
25-29	351,300	386	350,914	73,750	340,258	17,741	195	340,258	406	340,664
30-34	340,600	374	340,226	70,182	343,794	19,249	213	343,794	406	344,200
35-39	314,200	628	313,572	68,045	315,709	9,744	108	315,709	504	316,213
40-44	374,200	748	373,452	62,714	378,783	2,294	24	378,783	504	379,287
45-49	407,800	1,631	406,169	74,690	394,193	0	0	394,193	337	394,530
50-54	392,500	1,570	390,930	81,233	384,387	0	0	384,387	337	384,724
55-59	346,400	3,464	342,936	78,186	345,983	0	0	345,983	301	346,284
60-64	317,300	3,173	314,127	68,587	323,726	0	0	323,726	301	324,027
65-69	297,300	6,540	290,760	62,825	296,522	0	0	296,522		296,522
70-74	224,900	4,947	219,953	58,152	224,626	0	0	224,626		224,626
75-79	183,600	11,016	172,584	43,990	186,746	0	0	186,746		186,746
80-84	130,300	7,818	122,482	34,516	131,956	0	0	131,956		131,956
85-89	73,000	12,410	60,590	24,496	70,610	0	0	70,610		70,610
90 and over	37,700	6,409	31,291		55,787	0	0	55,787		55,787
	5,327,600	61,500	5,266,100		5,266,100	63,780	699	5,329,181	13,695	5,342,876

In effect, the current population was decreased by applying age-related death rates to give the column 'Remainder'. Of these, a fixed proportion was then moved into the next age band to give 'Revised Age Group'. Age related fertility data was then used to estimate live births and a standardised infant mortality rate was then applied. This number is then added to the 0-4 age band. The resulting column (revised age group), shows the net effect of ageing, deaths and births on the population resident in Scotland. Finally the current ONS net migration estimate is added to produce the age group used for the next round of calculations (2013-14 age group).

<sup>78</sup> The data in this model has mostly been drawn from the General Register for Scotland historical series and the ONS forward estimates. The outcomes have been tested against GROS data, in particular in terms of the total number of live births, infant mortality and the population death rate. Overall, this model implies a 3% increase in Scotland's population to 2035 compared to the 2.5% estimated by the ONS.

Keeping to these assumptions, gives the following age profile for Scotland at five yearly intervals up to 2035:

Table 4-2: Estimate of Scotland's Population (current trends)

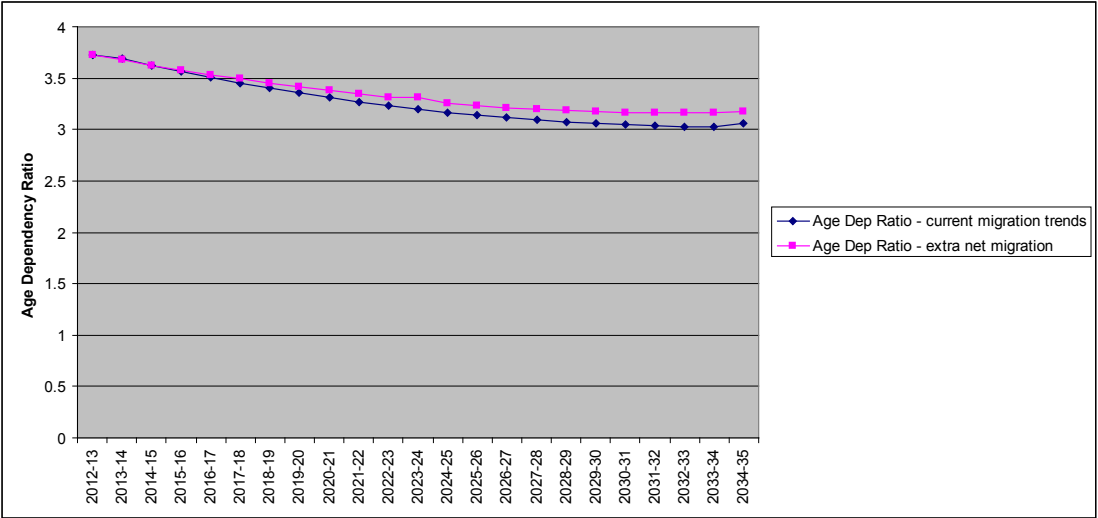
	2012-13	2014-15	2019-20	2024-25	2029-30	2034-35
Age Band	Total Pop	Total Pop	Total Pop	Total Pop	Total Pop	Total Pop
0-15	852,000	869,108	923,270	951,392	959,154	961,898
16-24	684,500	677,911	642,838	650,078	675,608	697,194
25-34	691,900	689,173	697,178	686,942	681,401	689,525
35-44	688,400	688,207	679,470	685,573	686,791	684,654
45-54	800,300	775,900	735,206	699,575	682,877	676,491
55-64	663,700	676,709	700,088	696,772	677,100	657,375
65-74	522,200	529,904	557,446	575,765	583,276	578,445
75-84	313,900	318,711	333,099	352,534	367,951	377,044
85+	110,700	119,660	139,013	151,245	161,447	156,450
All	5,327,600	5,345,283	5,407,608	5,449,876	5,475,605	5,479,076
Age Dep Ratio	3.73	3.62	3.36	3.17	3.06	3.06
Working Age Ratio	1.96	1.91	1.77	1.68	1.64	1.64

Two versions of the dependency ratio are offered. The first is the ratio between the working age population (16-64) and those retired (65+). The second is the ratio between the working age population and those still in compulsory education added to those who have retired. Taking these calculations as a baseline, it is possible to work out what extra net migration is needed to ensure the age-dependency ratio declines to the same level it would if Scotland remained in the UK. A key assumption in this respect is that any additional net migration will have the same age profile as the current migrants (i.e. there will be non-working as well as working individuals).

This tends to indicate a need for a net increase of 20,000 migrants per annum (of whom 12% will be aged 0-16) per annum. This is lower than David Comerford's estimate of 68,000 but he also tried to take account of some proposed policy changes that have been ignored in this analysis so far<sup>79</sup>. This gives a total net migration in the period up to 2035 of 220,000 in addition to the 335,000 assumed by the ONS. Overall this implies that Scotland's population will increase by 8% compared the ONS estimate of a 2.5% growth. The impact of this on the age dependency ratio is:

79 Comerford, D. 2014. The Ageing Population Problem. *ESRC: The Future of the UK and Scotland* [Online]. Available from: <http://www.futureukandscotland.ac.uk/blog/ageing-population-problem> [Accessed 25 July 2014].

Figure 4-3: Age Dependency Ratio (current trends and extra net migration)



### 4.3 Variables and Policy Options

#### 4.3.1 Possible policy variations

As discussed in the introduction, a deliberate choice in this paper was to set aside other factors that could influence the age-dependency ratio needed to sustain Scotland’s expected pension liability. However, in reality, this is infeasible as inevitably independence will bring a number of changes, some positive, some negative and some unanticipated. Some of these variables are set out below:

Table 4-3: Possible additional economic and fiscal changes

Issue	Positive or Negative?
Oil revenue	UK Government, and the IFS, asserts this will fall placing greater pressure on the finances of an independent Scotland <sup>1</sup> . Scottish Government and other sources indicate either stable production over this period or the capacity for it to increase <sup>2</sup> .
Higher Borrowing costs	In general this seems to be the assumed outcome of a variety of studies. An independent Scotland will face additional interest on its debt for some time <sup>3</sup> .
Total Debt Burden	In general, it is agreed that Scotland will have a lower debt:GDP burden than the rest of the UK (even given the uncertainties of any pre-independence negotiations) <sup>4</sup>

Policy Changes	The SNP has indicated it would not follow the current Westminster plan to increase pension age from 65 to 67. Maintaining this stance would add to the additional net migration identified above <sup>5</sup> .
Population health	An improvement in overall population health in Scotland would have a number of effects. First it would increase the numbers able to undertake paid work across their working life, second it would reduce the cost to the NHS of an infirm, elderly, population. Of course, the other consequence is that people live longer and thus draw their pension for a longer period.
Working past 65	Whether or not the state pension is raised, there is already evidence that a growing number of those over 65 continue to work. Some of this may be involuntary, but for others, it reflects the benefits of reaching their 60s in relatively good health. As such, this group will contribute earnings and tax revenues as well as be in receipt of their pension.

There are other factors that could adjust the basic calculations set out in section 4.2, such as changes in average wages, average hours worked, productivity and overall tax and benefit rates. Equally, the type of work taken up by both the current population and any new arrivals is important. If, as on current trends, this is characterised by short term contracts, low wages and low levels of job security, the expected benefits in terms of taxes and other contributions will not happen. As with the productivity debate, the nature of work, as well as the volume of work, will be important.

#### ■ 4.3.2 Problems and alternative policy options

As noted several times, Scotland is not the only country in Europe that faces similar population pressures. In effect, in addition to uncertainty about the impact of other factors (especially in the case of Scotland revenues from oil production), it is important not to see increasing net migration as the only valid policy lever. Not least, while opinions do vary substantially<sup>80</sup>, overall there is some scepticism as to whether an independent Scotland can attract so many more net migrants<sup>81</sup>. It

80 Shang, H. L., Bijak, J. & Wiśniowski, A. 2014. Directions of impact of Scottish independence on migration: A survey of experts. Southampton: Centre for Population Change.

81 Bijak, J., Kupiszewska, D. & Kupiszewski, M. 2008. Replacement Migration Revisited: Simulations

should be stressed this question is posed independent of accepting that the clear intent of the Scottish Government is to create a policy framework that is intended to achieve this goal.

It is unlikely there will be further blocks of accession to the EU that will have the net impact of the accession of the former Warsaw Pact states in 2004. The period between 1991 and 2004 had seen major economic problems in the countries involved as they moved quickly from a Soviet style economy to one based on open trade and open borders. The result was a substantial loss of population (mainly young and well educated) in search of opportunity elsewhere. In the absence of a similar trigger to further migration then Scotland will effectively need to compete for new migrants with many other EU countries.

In this case, the search for a solution in terms of net migration might be more difficult than expected, even if a Scottish government was much more welcoming than any likely Westminster government in the foreseeable future. If so, the need for extra migration might be offset by combinations of:

1. **Raising the pension age** – this is becoming a common response in many EU countries, and, to some extent, reflects the reality that many who are beyond the notional retirement age are already staying in the labour force. The negative side to this is that if no additional jobs are created, this simply increases the difficulty for young people seeking to enter the labour market;
2. **Increase workforce participation rates** – this would make it easier to pay for current pensions (and other social costs) but is a relatively short term solution as it does not address the underlying demographic problem. In addition, as noted, Scotland already has a relatively high (by EU standards) workforce participation rate, but the problem is the growth of low paid, part time and irregular work;
3. **Look to increase the birth rate** – in some ways this maybe as feasible a strategy as looking for more net migration. However, to do so, will mean needing to address problems such as the high cost and low quality of child care under the current arrangements<sup>82</sup>, and also, as with increasing net migration, this approach will be expensive in terms of short term increases in demands on social, educational and health services.

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of the Effects of Selected Population and Labor Market Strategies for the Aging Europe, 2002–2052. *Population Research and Policy Review*, 27, 321–342, Wiśniowski, A., Bijak, J. & Shang, H. L. 2014b. Forecasting Scottish Migration in the Context of the 2014 Constitutional Change Debate. *Population, Space and Place*, 20, 455–464.

82 Cook, R. 2012. The Personal, Social and Economic costs of Social Exclusion in Scotland. Glasgow: Scotland Institute, Ibrahim, A. 2014. Early Start 4 Scotland. Glasgow: The Scotland Institute.



## 5. Conclusions

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As with the Scottish Government's proposals in terms of improving productivity, in theory they have constructed a valid case. Improving productivity, if achieved, will indeed yield an additional £2.4bn of public revenue by 2030<sup>83</sup>. Equally, in the SNP argues that a net increase in migration will stabilise the ratio between the working age and retired population in Scotland, and thus secure the current pension provision. As David Comerford argues:

“It does however seem clear that, given it only requires Scotland to continue with the net migration levels of the past decade, eliminating the pensions cost gap between Scotland and the UK using more liberal immigration policy should be very possible and completely politically feasible<sup>84</sup>.”

This sounds optimistic, but if the overall goal is achievable there remain a number of questions. In every scenario that has been prepared, the net increase over current net migration is substantial. This paper estimates 20,000 per year if the goal is simply to ensure the age-dependency ratio in Scotland remains the same as that in the rest of the UK. We have deliberately neither tried to factor in other potential sources of variation in the ratio between taxes and state expenditure nor have we made a judgement as to whether simply mirroring the decline for the rest of the UK will be sufficient.

Other estimates indicate additional net migration of around 60,000 when the wider issue of public finances are taken into account. However, these, especially the reports by the IFS<sup>85</sup>, tend to follow the Office for Budget Responsibilities (OBR) assumption of declining oil revenues. Other information tends to indicate this might be too pessimistic<sup>86</sup>. In either case, whether the more optimistic approach is adopted or not, revenue from oil production does not remove the need to address the demographic problems of an ageing population (even if it might make it easier to manage the process of adapting).

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83 Cook, R. 2014. Addressing the Productivity Challenge Facing Scotland. Glasgow: Scotland Institute.

84 Comerford, D. 2014. The Ageing Population Problem. *ESRC: The Future of the UK and Scotland* [Online]. Available from: <http://www.futureukandscotland.ac.uk/blog/ageing-population-problem> [Accessed 25 July 2014].

85 Amior, M., Crawford, R. & Tetlow, G. 2014. Fiscal sustainability of an independent Scotland. London: Institute for Fiscal Studies, Phillips, D. 2013. Government spending on benefits and state pensions in Scotland: current patterns and future issues. London: IFS.

86 SCDI 2013. Survey of International Activity in the Oil and Gas Sector 2011-2012. SCDI, Scottish Government 2013a. Oil and Gas Analytical Bulletin. Edinburgh: Scottish Government, Robinson, M. 2014. *North Sea incentives to boost EnQuest* [Online]. London: Investor's Chronicle. Available: <http://www.investorchronicle.co.uk/2014/07/24/tips-and-ideas/share-tips/tips-of-the-week/north-sea-incentives-to-boost-enquest-MIfvyVzluLyGAzDJtEGrmO/article.html> [Accessed 26 July 2014].



A critical issue is to understand what will be the source of this net migration? There is no doubt that the political understanding of the need for more net migration is different in Scotland than it is in England. For example, Scotland has followed a policy over a number of years of encouraging recent graduates to stay for a period to work after graduation<sup>87</sup>. This, and the generally improving Scottish economy (thus reducing emigration), may well be one of the main reasons for the net growth of 20,000 per year in the period after 2002.

However, the main source of new arrivals in the UK since the mid-1990s has been the various EU accession countries in Eastern Europe (especially Poland). This has brought benefits, and tensions, to the UK, but has also harmed the economies of those countries. More recently, there is evidence that improving domestic economic performance in some of those countries may reduce future migration flows. On the other hand, the imposition of more restrictive immigration rules for England may make it easier for an independent Scotland to increase immigration as a result<sup>88</sup>.

The second main issue is related to the existing population. Improving health, productivity, wages and the proportion in full time work will all ease some of the immediate problems. However, like most of the EU, an independent Scotland will need at some stage to address the demographic pressure of increasing longevity and a shrinking working age population. Thus, seeking to avoid addressing the issue of the composition of the population is effectively only delaying having to deal with the underlying problem (and this is true regardless of whether Scotland votes for independence in September 2014).

If Better Together, and the UK Government, can be accused of excessive negativity, verging on outright mis-information, then the Scottish Government has been guilty of excessive optimism in the independence campaign. In political terms, both approaches make sense in the short term, but badly serve an understanding of the consequences for Scotland (whether it becomes independent or not).

As with our recent report on productivity<sup>89</sup>, this report indicates the scale of the challenge that an independent Scotland will need to meet if it is to achieve the

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87 BBC. 2005. *McConnell defends talent campaign* [Online]. BBC on line news. Available: <http://news.bbc.co.uk/1/hi/scotland/4281749.stm> [Accessed 5 December 2011].

88 Even if the UK Government cannot directly affect the numbers who arrive to take up work (or look for work) from elsewhere in the EU, the current sustained rhetoric is being treated in many other EU states as both a lack of commitment to the norms of the EU and implies the UK is not a welcoming destination.

89 Cook, R. 2014. *Addressing the Productivity Challenge Facing Scotland*. Glasgow: Scotland Institute.

goals set out in the White Paper<sup>90</sup>, and suggests there are worrying gaps in the extent the SNP has formulated policies to meet these challenges. On the other hand, both this report, and our earlier work on productivity, concur that the SNP has identified two key issues (improve productivity, increase net migration) that, combined with sustained oil revenues and a lower debt: GDP ratio, would form the basis of a prosperous Scotland.

In addition, if Scotland remains in the UK, these problems will remain and need to be addressed. What is in doubt in that case is whether effective solutions could be introduced in the context of the current constitutional settlement and whether, in the event of a no vote in September, the UK government will allow the level of devolution needed for a Scottish Government to implement policies that address these problems. In both instances, the current trajectory of policy and political debate at Westminster seems unlikely to allow the development of the policies needed to meet Scotland's specific needs.

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90 Scottish Government 2013b. Scotland's Future: Your Guide to an Independent Scotland. Edinburgh: Scottish Government, Scottish Government 2014c. Scotland's Economy: the case for independence. Edinburgh: Scottish Government.

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