



Overcrowded Islands?

The challenges of demographic change for
the United Kingdom

Lord Hodgson of Astley Abbotts CBE

CIVITAS

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Author

Robin Granville Hodgson (The Lord Hodgson of Astley Abbotts CBE) grew up in the little Shropshire village of Astley Abbotts. After graduating from St Peter's College, Oxford, he spent five years in North America where he took an MBA at the Wharton School of Finance.

On his return to the UK he set up *Granville and Co*, a specialist private equity and investment banking business focussed on the midmarket sector. After 30 years as Chief Executive and then Chairman, the business was sold to a US Investment Bank. Since then he has invested in and chaired a number of early-stage companies. In 1972, he was adopted as the Conservative parliamentary candidate for Walsall North. He fought the two 1974 General Elections and in 1976 he was elected MP for the seat at a by-election following the disappearance of the sitting

member John Stonehouse. After losing the seat in 1979 he became an active volunteer member of the Conservative Party ending up as Deputy Chairman of the party in the 1990s.

He was created a life peer in 2000. His particular focus, in addition to trade, industry and finance, has been the charity and voluntary sector. He has authored a number of reports for the Government on the sector – most recently on the regulation of third party campaigning. He is an officer of several all-party parliamentary groups. He has a long-standing interest in the strategic implication of demographic change. In 2017 he published a pamphlet 'Britain's Demographic Challenge'. This publication takes that discussion a stage further.

He is married to Fiona, who as Baroness Hodgson of Abinger is a peer in her own right, and they have four children and one grandchild.



Executive Summary

The population of the United Kingdom has grown fast in recent years – an increase of 6.6 million since 2001 with a further increase of 5.6 million expected by 2041. The UK is a geographically small island, and one which is relatively crowded by comparison with France and Germany. Indeed, a majority of British people think that this country is already overcrowded and that steps should be taken to prevent population pressures becoming greater.

Nobody doubts the value that new arrivals bring to this country, but we appear recently to have been careless about their impact on the economic position of the ‘settled population’ – defined as being all members of our society irrespective of race, colour or creed. The economic arguments for immigration are not as strong as has been historically claimed and special pleading for immigration has become the default option, impacting upon our poor productivity performance. Now sections of our settled population, especially the young and over 50s, find themselves the victims of ‘underemployment’.

More importantly, issues of population growth tend to have been seen only through an economic prism. So we have also been careless about the non-economic consequences of rapid population growth for our environment, our ecology and our society. To house the expected increase in population we are likely to have to build over an area the size of Bedfordshire by 2041 which will further increase the rate of species loss and lead to further environmental degradation. Shortages of water are expected to occur within the next twenty years (particularly in South East England) and our food security will be further reduced at a time when world food shortages are expected

to rise. A lack of integration has contributed to a reduction in our sense of national belonging.

Demography has a long fuse. Policies set in train now will only reach their full demographic implications in the 2030s and beyond. The reality is that the challenges posed by rapid population growth receive very limited attention from Government. And any attention is only given on a department by department basis – with no-one responsible for joining the dots. Yet polling shows that an overwhelming majority of the population (74%) believe the government should have a national strategy addressing population issues.

To develop this much desired and much needed national strategy, a Demographic Authority should be established, along the lines of the Office of Budget Responsibility (OBR) which has proven to be successful in providing independent and authoritative analysis of the UK’s public finances. The Demographic Authority’s mission would be to establish a proper evidence base, to provide expert advice and to recommend actions to local and national government as well as other bodies, to undertake research into demographic development and to draw up long term strategies to meet the challenges of population growth. The authority should report annually to Parliament and provide an authoritative basis for public discussion and policy formulation.

It is a new road, and not an easy one to travel, but one on which we need to set out on without delay. In his book *The New World Order*, Henry Kissinger wrote ‘To undertake a journey on a road never before travelled requires character and courage: character because the choice is not obvious; courage because the road will be lonely at first’. He is right – but undertake it we must.

Foreword

Many people and organisations have played essential roles in helping me put this pamphlet together. In particular, I need to thank Andrew Oswald Professor of Economics at the University of Warwick, Keith Corkan of Woodfines Solicitors, James Sefton Professor of Economics at Imperial College London, Alasdair Rae Professor of Urban Planning at the University of Sheffield, David Miles Professor of Financial Economics at Imperial College Business School, Mark Hofman, Professor Nicholas Oulton of the Centre for Macroeconomics at the London School of Economics, Richard [Lord] Layard founder and former Director of the Centre for Economic Performance at the London School of Economics and Robert Rowthorn Professor of Economics at the University of Cambridge and Warwick.

As regards organisations I am indebted to various officials at the Office of National Statistics,

Simon Beard and Lauren Holt at the Centre of Existential Risk, Will Tanner Director of the think tank UK Onward, Madeline Sumption of the Migratory Observatory, Sallie (Baroness) Greengross of the International Longevity Centre and Robert Joyce Deputy Director of the Institute of Fiscal Studies.

Finally, last but not least, my thanks are due to Rory Chapman who has been my Research Assistant on this project. He has helped to pull together the many strands of this debate. Without him I would have never reached the finishing line.

This has been a challenging project because of the breadth of the subject. But it raises issues that will shape our country for many years into the future and so are worth serious discussion.

While my thanks are due to all who allowed me to pick their brains, the conclusions are, of course, mine alone.

Preface: the Coronavirus

The research and writing of this pamphlet took place during the winter and early spring 2019-20. But as the pamphlet was about to be printed the virus struck.

It is too early to assess the long-term demographic implications of the pandemic so with some minor changes the text has been left unaltered.

Nevertheless, two strategic implications are

already clear. The first is that increased population, and no less important higher population densities, make the implementation of policies such as social distancing significantly more challenging.

The second is that the pandemic threw into sharp relief the questions posed by an increased population for food security in a country which currently only grows about half the food it eats.

Introduction

In an article in the *Daily Telegraph* on 25th October 2007, a journalist named Boris Johnson wrote: 'It is time we had a grown-up discussion about the optimum quantity of human beings in the country and on this planet. Do we want the South East of Britain, already the most densely populated major country in Europe, to resemble a giant suburbia? This is not, repeat not, an argument about immigration per se, since in a sense it does not matter where people come from and with their skills and their industry, immigration adds hugely to the economy. This is a straightforward question of population and the eventual size of the human race.'

This pamphlet is intended to help set that 'grown-up discussion' underway. It seeks to achieve this, first by considering and analysing the conventional economic argument for increasing our population. It draws attention to the hitherto largely neglected qualitative impacts of population growth – on our countryside, our environment, our ecology and our society. It explains that demographic issues have long term generational implications most of which are irreversible. It points out that to date no part of government has responsibility for considering and responding to these multifaceted challenges. Finally, it makes recommendations to fill that gap.

Each of us makes demands on our country. Too often these demands are only seen in narrow economic terms – in, for example, the demand for jobs. While these economic demands are clearly important, there are other no less important demands that are too often overlooked. We make demands on each other – issues of societal harmony and social cohesion; on our environment – resulting from the space needed for housing, roads, schools, hospitals etc; finally on the delicately balanced ecology of our country – leading to the shortages of precious resources such as water or the disappearance of species as a result of loss of habitat. Demography attempts to

capture and map the interlocking effects of this multi-dimensional challenge.

Increases in our population come about from two sources:

- *The Natural Increase*

The excess of births over deaths. Births themselves are measured by the Total Fertility Rate ('TFR') defined as the number of children each woman has. A country with a stable population will have a TFR of about 2.1 to allow for women who have no children.

- *Net Immigration*

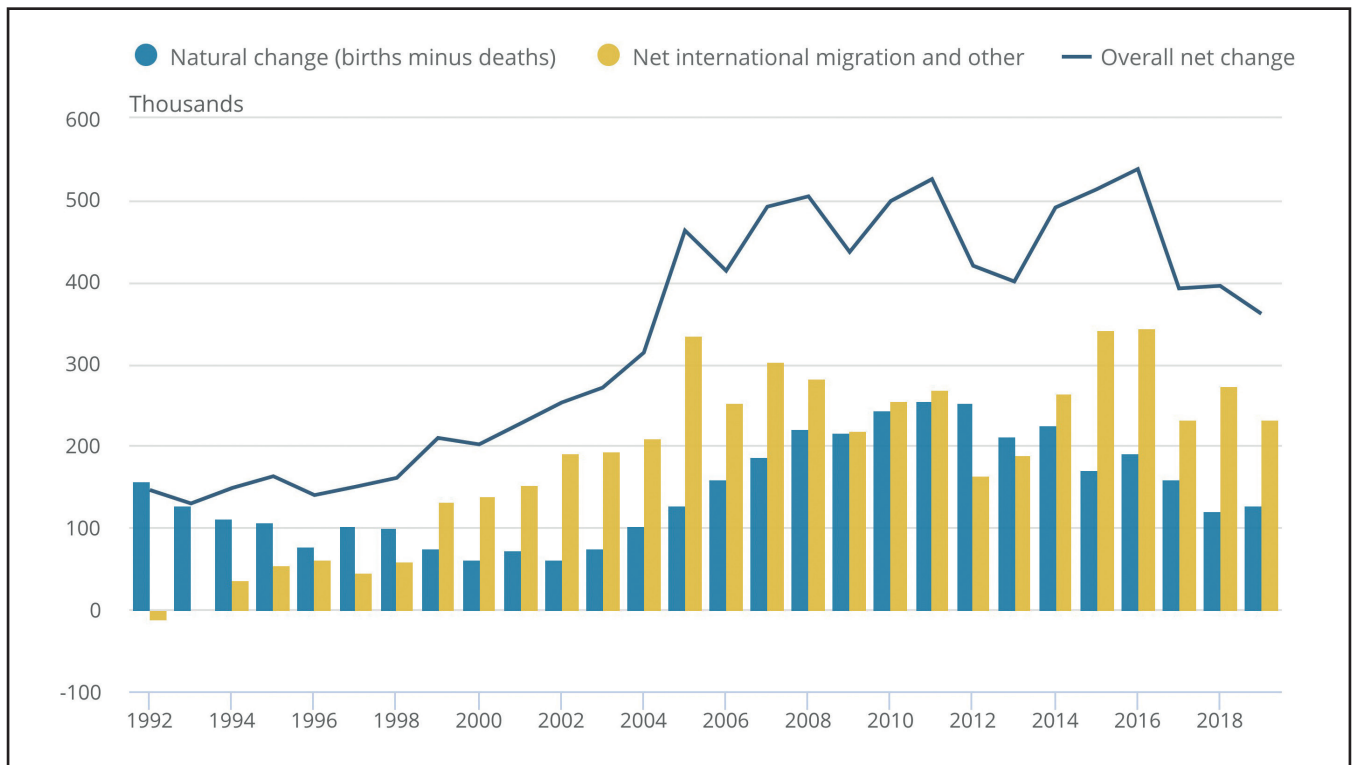
Which has three components (post Brexit likely to be two) made up of first net immigration from EU of which we have no control, second, net arrivals from countries outside the EU (which we have always been able to control if we choose to) and thirdly people leaving the UK to live permanently overseas.

Figure 1 overleaf demonstrates the annual increase in the UK's population split between natural increase and net migration. It also shows that since the mid 1990's the rate of growth in the UK's population has increased dramatically. Despite a fall in the last twelve months the yearly increase is still some two and a half times higher than that of the mid 1990's.

The sensitivities

Any discussion of these two above factors needs to proceed with extreme sensitivity. The first – the natural increase – might imply that the State might, or should, have some say in the number of children each woman has – an assumption which any right-minded individual would find unacceptable. The second – the level of net immigration – is often quickly seized upon as implicitly carrying a racial bias.

But demography is agnostic about these two factors. Demography measures and provides facts and estimates about the overall impact of

Figure 1: Population change for UK mid-1992 onwards

Source: ONS, 2019

the existing population as well as the impact of likely future changes in its size and structure – irrespective of race, colour or creed. In short, demography presents data on which calm rational discussion – ‘a grown-up discussion’ – can be based.

So, to be clear, where this pamphlet refers to ‘the settled population’ it means every person legally entitled to live, and currently living, in the United Kingdom irrespective of race, colour or creed. No less importantly, it does not matter whether the person arrived here last year or 500 years ago – every one of us will at some time in the past have been an immigrant!

Quantitative versus qualitative

There is another challenge. Demographic impacts can be divided between quantitative and qualitative ones. Some attempt can be made to measure the former; one can measure various aspects of economic wellbeing such as levels of wages, demand for housing etc. But qualitative aspects – such as changes in societal happiness, the impact of the loss of availability of open

countryside – are only now beginning to be considered worthy of measurement.

Lex Rieffel (2020) fellow of the Stimson Centre in Washington wrote in the *Financial Times*: ‘Few thoughtful economists today believe that GDP per capita is a sensible measurement of wellbeing. While there is as yet no consensus as to how to measure wellbeing, it has to include non-input factors such as clean air, good governance and social justice.’

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Stimson Centre, 2020

In the words of Aleksandr Solzhenitsyn, they are more than ‘the mould grown on the rock

of economics.’ Writing in 2019, Gillian Tett in the *Financial Times* explained the background of a new academic discipline known as ‘economic anthropology’. This, inter alia, looks at economics in terms of the widest possible definition of social and economic ‘exchanges’ and values rather than just monetary transactions. She wrote ‘we need to recognise the sense of dignity and community created by jobs that cannot be captured by numbers.’

Nevertheless, to date, discussion of the results of demography has tended to be examined almost exclusively through an economic prism. And the many other factors of great importance to our fellow citizens tend to be ignored. As has been pithily summarised, ‘not everything that counts can be counted and not everything that can be counted counts’ (Cullis, 2017, p. 1).

Timescale

And, there is the question of timescale. Demographic issues have very long, indeed generational, fuses – so a change in our TFR or the level of net immigration will take 15-25 years to show its full effect. So, it is not surprising that faced with this minefield – in which almost every statement is capable of being misinterpreted – and in which the outcomes of any decision will take years (certainly longer than the next General Election) to become apparent that politicians conclude that ‘here be dragons’ and pass by.

Public opinion

But while politicians and the overwhelming mass of the commentariat look the other way, our fellow citizens who make up the settled population of the country do not. They see the results of demographic change in their everyday lives. This is brought home by many opinion polls. For example, a *YouGov* poll in 2018 found that 73% of us think the UK is too crowded and 64% felt that the population was growing too rapidly (Population Matters, 2018). No less than 74% believed that the government should have a national strategy addressing population issues.

Special position of the United Kingdom

For a series of reasons, the UK, as a nation made up of islands, faces some potentially very serious demographic challenges. These include:

- Short-term – our population continues to grow fast – on average just under 1,100 people per day; 316 from natural increase, 202 net immigration from Europe, 679 net immigration from outside Europe balanced by 134 departing British.
- For a variety of reasons – all of them to be welcomed – the UK remains an attractive place to move to.
- Our population growth (and our prosperity) is geographically unbalanced – London and to some extent the South East are becoming ‘another country’ – a development underlined by the results of the EU referendum and, still more strikingly, in the 2019 General Election.

“Around the mid-century, the UK will overtake Germany to have the largest population in Europe and England will overtake the Netherlands to have the greatest population density in Europe.

Kirk, 2017

- The ONS long term projections of the UK’s population is for continued rapid growth – 5.6 million more people by 2041; this is in addition to the 6.6 million increase in population already experienced since 2001 (ONS, 2019) – as a comparator, Greater Manchester’s population today is 2.55 million. So, we are going to need to build more than two cities the size of Manchester over that period. Around the mid-century, the UK will overtake Germany to have the largest population in Europe and England will overtake the Netherlands to have the greatest population density in Europe (Kirk, 2017).

Inexorable impact of demographic change

Though the results of demographic change may be slow to take effect they are however inexorable.

Newly born babies as well as new arrivals, now part of our settled population, quite rightly and quite properly, expect the same standard of living and same opportunities as the rest of us. Once a calendar year comes to an end it is self-evident that no more children can be born, and no more people may arrive from overseas in that year. As a result, it is possible to make reasonably accurate projections of the numbers of people in each year's cohort stretching ahead for 70-80 years.

That, in turn, enables us to estimate the demands that are likely to be made on our society and on our natural environment as the members of that cohort passes through the various stages of their lives on this earth.

So, it will be no good wishing in, say 2040, that we were not having to build 2 or 3 more cities the size of Manchester with all the consequent

changes to our countryside, the availability of scarce natural resources etc. By then the die will have been cast.

For this reason, if we were to conclude that the demographic projections for population levels in 2035-2040 might lead, in the broadest sense, to risks of increased societal strains, we need to take whatever remedial action is felt to be needed in the next few years.

That is why the French philosopher Auguste Comte famously coined the phrase that 'demography is destiny' (Greenhill, 2011). In the rest of this pamphlet, we shall look first at how the prospect of Brexit has changed our demographic outlook; then at what this may mean for our economy, our environment and our society; finally draw some conclusions and make some recommendations of actions that might usefully be taken now to establish a database on which an informed public discussion could take place and from which in turn political decisions could flow.

1.

The numbers

When I completed my first pamphlet in July 2017 on the demographic challenges facing the UK, several people were good enough to say that it was very helpful in that it untangled the challenges of demographic growth from the potentially toxic issue of immigration. Enoch Powell's infamous and rightly condemned speech in Birmingham has cast a long shadow and for too long made it impossible to raise the demographic issue even in the broadest terms. This has had the doubly unfortunate result that many of our fellow citizens have felt silenced about issues about which they feel strongly.

In this chapter, we analyse recent changes in the population of this country and how Brexit may have affected them; consider the differing impact on the various parts of the United Kingdom and draw attention to the position of France and Germany compared to the United Kingdom and England. We reflect on the inadequacy of official statistics and finally probe the latest 25-year projections.

However, many of the same people pointed out that my first pamphlet was produced under the shadow of Brexit which might result in a considerable change to our demographic prospects. Now the impact of Brexit is becoming clearer and we can begin to analyse the emerging demographic trends. So, how have the demographic numbers changed? (See Table 1 overleaf)

1.1 What do the figures reveal?

The most significant trend is a further large increase in net arrivals from the rest of the world. Since 2016, non-EU arrivals have increased by 42% so that annual net non-EU migration has now risen to 248,000 or 679 per day – an increase of 200 per day over two years. The UK has always been able to control this flow. So,

when the government talks about introducing a new immigration system 'to take back control', that statement needs to be judged against the background of a situation in which immigration levels from outside the EU, always controllable, have been rising sharply.

Since 2016, the net number of EU migrants arriving annually has dropped by 59,000 (162 per day) and now stands at 202 arrivals per day. The extent to which this is the result of a temporary psychological aftershock from Brexit or a permanent trend will not be clear for another year or two. But the figures reveal a sharp divergence in the rate of change between the different parts of the EU. There has been a net outflow (14,000 per annum) to the EU8 countries (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia). This may reflect an increase in the level of prosperity of those countries which linked to a fall in the value of the pound, had narrowed the relative economic gap. And the fact that the level of net migration from the EU2 (Bulgaria and Romania) – two countries where the prosperity gap remains wider – has reduced more slowly, tends to support this view.

But it may be this represents a more fundamental shift driven by more personal matters than Brexit. Jakub Krupa, a leading member of the UK's Polish expatriate community, was reported in the *Financial Times* of 11th December 2019 commenting on the reasons for this fall 'it's more that people realise that they have achieved what they wanted in the UK, be it saving some money for buying or building a property in Poland, or developing their career a bit, or starting a family' (Shotter, 2019).

The outflow of departing British remains constant at about 50,000 per year (130 per day). Many make the assumption that these will be exclusively white British. In fact, the picture is more complex than that. Some indeed will be

Table 1: Recent population increase in the UK

Comparison between the sources of population increase in the year 2016 and 2018					
		2016		2018	
		Annual Increase	Per Day	Annual Increase	Per Day
Migration Flows					
(a) Departing British		–50,000	–136	–49,000	–134
(b) From EU		133,000	364	74,000	202
(of which) EU15		73,000	200	47,000	128
(of which) EU8		5,000	13	–14,000	–38
(of which) EU2		54,000	147	34,000	93
(c) Non-EU		175,000	479	248,000	679
(of which) Asia		113,000	309	164,000	449
(of which) Rest of the world		49,000	124	76,000	208
Natural Increase (Excess of births over deaths)		178,000	488	115,000	315
	Births	775,000		731,000	
	Deaths	597,000		616,000	
Population Increase		435,629	1,193	388,000	1,063

Source: ONS 2017, ONS 2019.

Notes: EU Other and Other Europe citizenship groupings are not included as separate groups in the table but are included under the EU and non-EU totals. Original estimates of natural increase of 193,000 (529) per day in 2016 have subsequently been revised.

*EU15 states are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

*EU8 states are: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia.

*EU2 states are: Bulgaria and Romania.

white British moving to the sunshine of Spain or to live with children overseas but quite a number will be others who, after a lifetime working in the UK, retire to join friends and family in, say, Jamaica or Nigeria.

Finally, during the same period, the natural increase has fallen by some 60,000 (170 per day) so that our TFR now stands at 1.70 (ONS, 2018).

Many argued that Brexit would result in a reduction of the overall amount of net immigration because, it was felt, that the implicit Brexit message would be seen as hostile to new arrivals. Be that as it may, the reality is that the annual level of total net immigration is broadly unchanged. More importantly, as regards our likely future overall population levels, the annual total increase in population remains much, much higher than in the years before the then Labour government encouraged large scale immigration

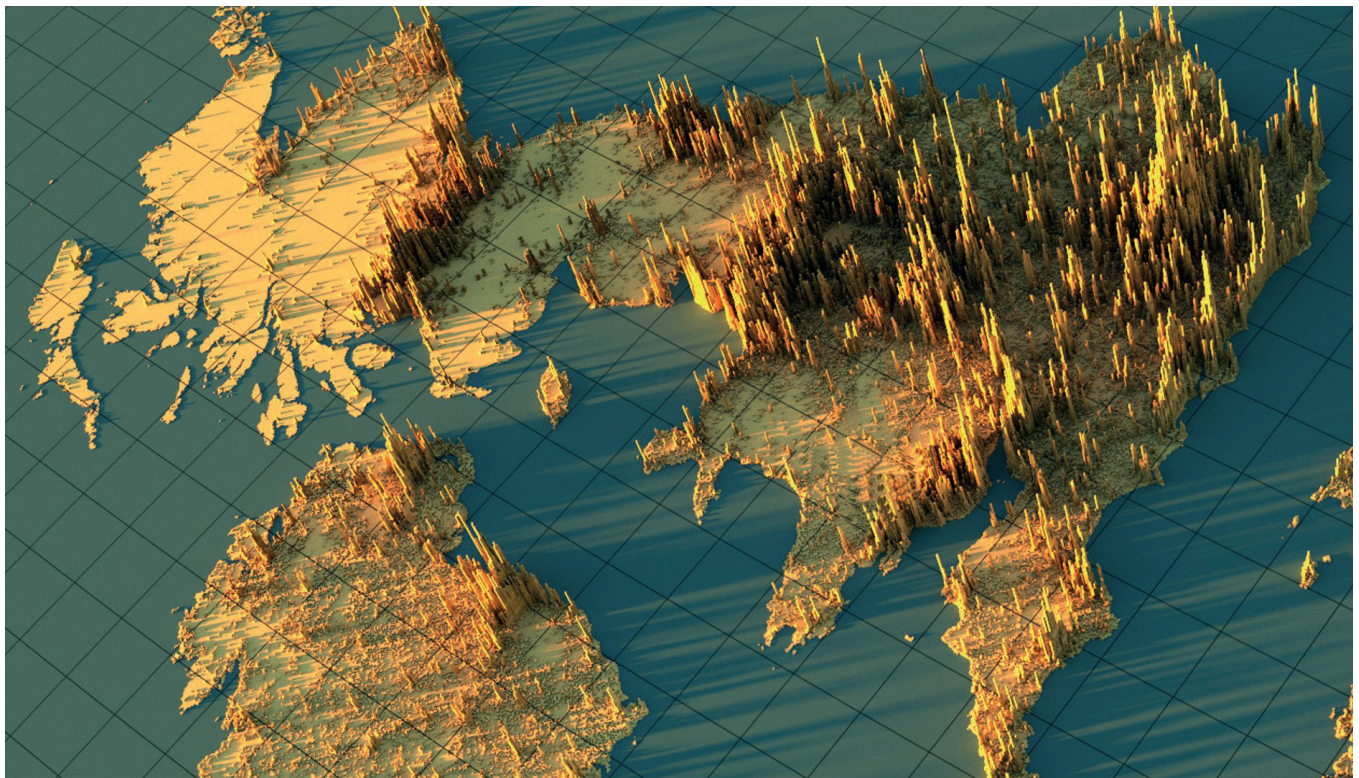
after its victory in 1997. For example, in 1995 the total increase in population (including the natural increase) was 143,600 or 393 people per day, less than half of the current level of 388,000 or 1,063 per day (ONS, 2018).

How have the different parts of the United Kingdom been impacted? Overall, these figures show an average increase in population density of 2.2% to 274 per sq. km. They also demonstrate clearly the continuing gravitational pull of London and the South East. London's population grew by 2.7% (235,000) over this two-year period. In broad terms for England the further from London the slower the population growth – the population of the South East grew by 2.1%, that of the North West by 1.7% and of the North East 1.3%. In so far as these figures may be linked to general economic prosperity, they emphasise the scale of the challenge facing the incoming

Table 2: Impact on different parts of the United Kingdom

Comparison of population size and densities of the UK countries and regions mid-2016 and mid-2018				
	Mid-2016		Mid-2018	
	Absolute numbers (000's)	Density (people per sq km)	Absolute numbers (000's)	Density (people per sq km)
Scotland	5,373	69	5,438	70
Northern Ireland	1,851	136	1,881	136
Wales	3,099	149	3,138	151
England				
North East	2,624	306	2,657	310
North West	7,173	509	7,292	517
Yorkshire and Humber	5,390	350	5,479	356
East Midlands	4,677	299	4,804	307
West Midlands	5,751	442	5,900	454
East	6,076	318	6,201	324
London	8,673	5,519	8,908	5,666
South East	8,947	469	9,133	479
South west	5,471	230	5,599	235
Total	54,786	420	55,977	430
Total	65,110	268	66,435	274

Source: ONS, 2019



Graphic representation of the population density of the United Kingdom (Rae, 2020)

government to show an understanding of the problems facing the 'Red Wall' seats – those long held traditional Labour seats – unexpectedly won by the Conservative Party at the General Election.

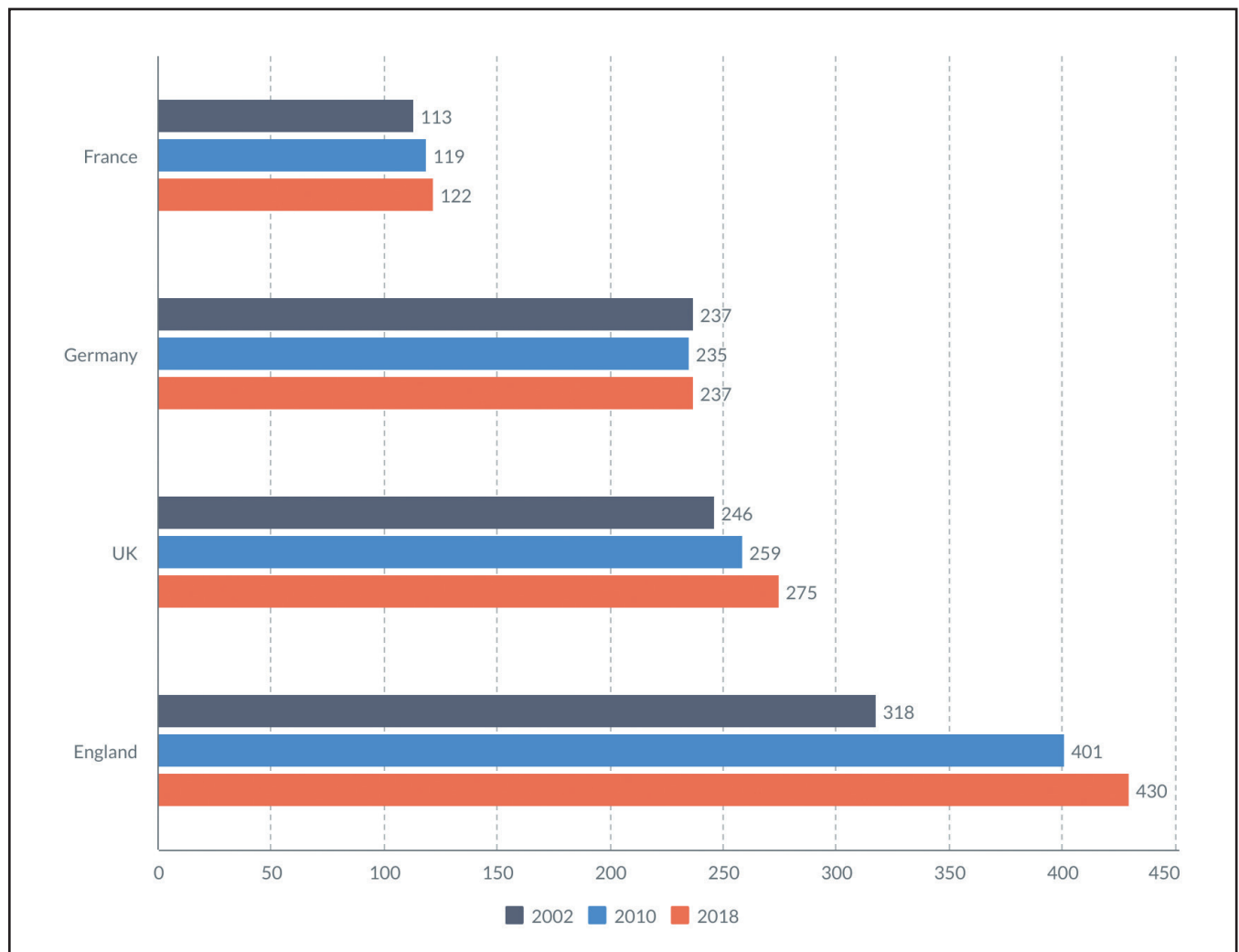
Another issue is Scotland. The Scottish Government has a policy objective of increasing Scotland's population, but it is an objective that has been, and continues to be, very hard to attain. The Scottish Government's report (2018) *Scottish Population Needs and Migration Policy* illustrates the growing divergence between Holyrood and Westminster. One challenge with making immigration a devolved matter and allowing Scotland to increase immigration is a possible subsequent drift of population southward so increasing the demographic challenge in England.

1.2 Experiences of other major European countries

What has been the experience of France and Germany – the two most comparable EU states – over the same period?

Over the past 16 years, the density of population in France has increased by 9% but remains less than half of the UK (The World Bank, 2019). Over the same period, German density of population has essentially flatlined. In the UK, it has risen by 12% even though this is from a much higher base figure. And the difference is shown in still greater relief if one looks at England alone where the density now is 430 people per sq. km (ONS, 2019) compared to Germany (237 per sq. km)

Figure 2: Population density of major European countries



Source: ONS (2015), Statista (2018)

and France (122 per sq. km) (The World Bank, 2018, Figure 2).

1.3 How accurate are the numbers?

There are a number of reasons for doubting the accuracy of the official numbers. Given that it is a legal requirement to register births and deaths only the figure of the natural increase can be wholly relied upon. One unfortunate product of the weakness of official statistics is a prevalence of anecdote and opinion.

(i) Weaknesses of the International Passenger Survey

One critique of ONS statistics is that many figures are based on extrapolations of surveys. The International Passenger Survey, originally designed as a travel and tourism poll (Warrell et al., 2016), is carried out by the ONS and produces estimates that are based on interviews with a stratified random sample of passengers entering and leaving the UK on the principal air, tunnel and sea routes. The UK is the only EU country, other than Cyprus, that relies on passenger questionnaires for data collection (Ibid). There are also particular concerns about the accuracy of the IPS as a tool for immigration estimates. First, the IPS does not cover every entry point into the UK, which means that some 10% of arrivals will not be covered (ONS, 2018). Surveys are not taken when travelling across the land border between Ireland and Northern Ireland. Airports do not sample 24 hours a day – samples are only taken from 06.00 to 23.00. Importantly participation in

these surveys is voluntary. Finally, the information gathered from the survey are statements of intent, so arrivals may well not end in the job or in the part of the country they initially stated.

(ii) The NINo Conundrum

When someone overseas enters the UK to work, they are required to obtain a National Insurance Number (NINo). The number of NINo's issued should, over time, reflect the aggregate figure of short term and long-term immigration. However, major discrepancies can be found between the number of NINo's issued and net immigration figures. Take the latest three years for which figures are available. Put crudely, there could have been 216,000 more arrivals to this country over the three years 2015-17 than officially recorded.

(iii) The level of Illegal Immigration

By definition, it is impossible to obtain accurate numbers on illegal immigration. From time to time appalling cases – like that of the recent tragedy in Tilbury (BBC News, 2019), where 39 people died in a refrigerated truck– make the papers. It is not clear whether this is the tip of the iceberg or the whole iceberg. Wood (2019) argues that tens of thousands of illegal migrants enter the country every year because of a failure to remove people who fail to receive asylum and remain here unchecked. The Home Office has not published any of the extent of illegal immigration since 2005 but the highly regarded Pew Research Centre (2019) argues there may be as many as

Table 3: Difference between immigration and NINo's issued

	Immigration (short and long)	NINo's	Difference
2017	723,000	771,000	48,000
2016	773,000	825,000	52,000
2015	801,000	917,000	116,000
Total	2,297,000	2,513,000	216,000

Source: ONS 2016, ONS 2017, ONS 2018.

Note: The immigration includes both short-term and long-term immigration

1.2 million unauthorised migrants living in the UK. In connection with this, it is worth noting that, according to Home Office statistics, at 31 March 2020:

‘171,000 Bulgarian citizens and 564,000 Romanians had sought settled or pre-settled status, which allows migrants to stay and work in the UK, compared with an estimated 109,000 Bulgarians and 457,000 Romanians who were officially resident in the year to June 2019.’

(*The Times*, 2020).

That is an apparent overall underreporting of 169,000.

1.4 The future

Someone once described the making of 25-year projections as being the equivalent of trying to land a ping pong ball on the end of a fishing line in a bucket in a gale. This is particularly true with

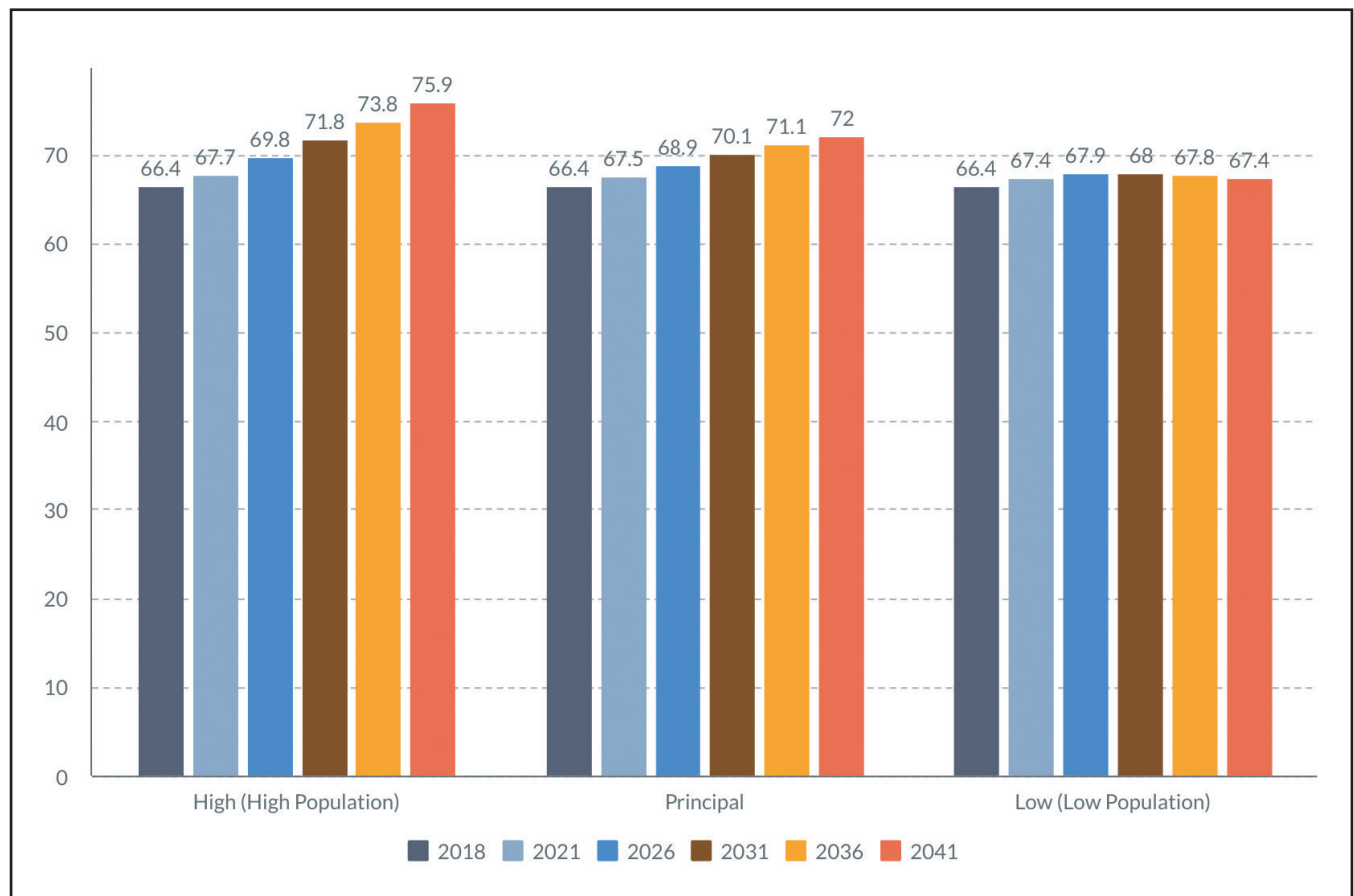
demography where very small short-term changes can have a major impact over a generation.

So, it is very important to be clear about the key assumptions which underline any such forecasts. These are – a) the total fertility rate (TFR) – the number of children each woman is expected to have b) the level of life expectancy – and c) net immigration.

The Office of National Statistics (ONS) produces projections of population levels stretching up to 65 years into the future. For a shorter period, up to 24 years, they produce three forecasts – principal, high and low.

As in past years, the ONS has produced three forecasts showing the levels of the UK population in 25 years’ time (see Figure 3). How do these projections differ from those made two and four years earlier? The TFR in the UK is slowly falling and is currently at 1.70 (ONS, 2018). But most importantly ONS forecasts assume that net

Figure 3: 25-year projection from ONS



Source: ONS 2019

migration falls to 190,000 from 2023 onward (previously 185,000). As we have seen in Table 1, net migration stands currently at 273,000 or more than 100,000 above that assumption. If this planned reduction is not achieved the population in 2041 will reach 74.5 million (just below the high net migration projection).

Further out still, extended projections by the ONS show that on the basis of a fertility rate of 1.88 and net migration of 190,000 per year the population of the United Kingdom will reach 101 million by the year 2100.

In summary, the principal population projection

of the UK's population has dropped by 1.7 million over the last 4 years. But that principal figure still represents an increase of some 6 million over today's figure of total UK population of 66.4 million. So much for the numbers, we now need to look to the individual impacts of demographic change in more detail. None of these are standalone – they all interact. Each government department may consider, and react to, the challenges in their area of responsibility but there is yet to be a government department responsible for undertaking a comprehensive strategic review.

Table 4: Comparisons between ONS projections

Comparisons of ONS population projections (in millions)			
Year projections were based	2014	2016	2018
High (High Population)	77.9	76.2	75.9
Principal	73.7	72.5	72.0
Low (Low Population)	69.2	68.1	67.4
Period Ending	2037	2039	2041

Source: ONS 2015, ONS 2017, ONS 2019.

2.

Why do we want population growth?

The economic arguments have always been central to any discussion about the need for population growth (especially that resulting from migration). At its most simple, these are twofold. First, we need more people to keep our economy growing (the ‘economic’ argument). Second, we need more people from overseas either because they are skilled, talented and so help boost our economy or because they will undertake vital jobs which the settled population cannot, or will not, undertake (the ‘organisational’ argument).

The justification for any immigration policy must surely be that, first, it increases GDP per head and continues to do so over the long term. It hardly seems sensible to encourage people to come to this country to make ourselves poorer. In making this assessment the term ‘average’ needs to be used with caution. If, for whatever reason, one section of the population benefits disproportionately the overall average may rise even as many of the population are seeing no economic improvement. So some argue that using a ‘median’ figure may well give a more accurate measurement of the overall impact. Second, such a policy should not lead to the ‘crowding out’ of members of the settled population whether in general economic terms, in a reduction in the availability of fulltime employment or a distortion in ensuring a fair sharing of any increase in our national wealth.

Any policy which does not meet these two tests seems unlikely to command public confidence in the long term.

2.1 Is the ‘economic’ case valid?

Several studies have cast doubt on the economic efficacy of the policies followed to date.

First is the Government’s tendency to use increases in total GDP as a measurement of

success. This surely is the wrong metric – if it were the right one then China (total GDP \$14 trillion) is hugely more successful than, say, Switzerland (total GDP \$715 billion). A more relevant metric must be GDP per head where Switzerland has a GDP per head of \$61,400 as opposed to China with a GDP per head of \$16,700 (Investopedia, 2020). A House of Lords (2008, p.1) report ‘found no evidence for the argument, made by the Government, business and many others, that net immigration – immigration minus emigration – generates significant economic benefits for the existing UK population.’ As regards the argument that we need more skilled people, in 2016 a study undertaken by the OECD found that migrants arriving in the UK have lower test scores on both literacy and numeracy than the average British citizen (Kuczera, 2016).

...found no evidence for the argument, made by the Government, business and many others, that net immigration – immigration minus emigration – generates significant economic benefits for the existing UK population.

House of Lords, 2008

2.1.1 Negative impact on UK productivity

More specifically there is a growing body of evidence that widespread immigration is an important factor in our poor productivity record – generally agreed to be the Achilles’ heel of the UK economy.

For example, Professor Nicholas Oulton, of the London School of Economics, studied the paradox of how Britain has regained high levels of employment post 2008 but nevertheless has experienced continued low productivity growth

over the same period (Oulton, 2018). Oulton compared the economies of countries similar to the UK and found that one cause of Britain's low productivity growth appeared to be the combination of high levels of immigration, linked to low rates of export demand. In the years since 2008, many European countries have also suffered from a deficiency in export demand. However, they did not have the high levels of immigration – especially of low and semi-skilled immigration – experienced in the UK. Oulton has concluded that high immigration levels tend to impede labour productivity growth.

2.1.2 Distortion of capital spending

David Miles, a Professor of Financial Economics at Imperial College, writing in *The Times*, 30th November 2019, noted that Britain has a low savings rate. Savings generate the funds needed to repair or replace depreciating assets (schools, motorways and hospitals etc) and the papers frequently carry stories evidencing the fact that the country is struggling to keep up with these demands. But this challenge is accentuated if our population is increasing rapidly because we will need continually to enlarge our stock of capital assets not merely maintain the existing. Miles argues that a rapidly growing population results in an inability to maintain assets per person and so predicts that so long as our population is increasing at its present rate the rate of growth of capital assets for our settled population will inevitably be reduced.

Often, when analysing the effects of immigration on the economy, calculations only take into account immigrants' productive function. Put simply, it is argued that if migrants pay more tax than they draw in benefits, this must be advantageous to the country. In reality, the situation is more complicated than this. A migrant coming to the UK will need additional capital expenditure to ensure he or she has a proper standard of living. For example, a migrant will need to be housed and this consequently increases their capital cost as regards the rest of the population since houses are expensive and in short supply. Thus, it is argued that governments have been forced to increase the

rate of spending on capital goods to cater for the needs of new arrivals and that the spending per head for new arrivals is greater than that for the settled population. Research by Mark Hofman (in the latter stages of being published) has found that between 2007 – 2016 the rate of capital spending per head for the migrant population was 6.6 times that of the domestic population.

Consequently, high levels of net immigration have meant that this accelerated capital spending rose from 0.4% of GDP in 1997 to 2.7% in 2016. These calculations suggest that real economic resources may be being diverted towards migrants in the form of increased spending on capital goods as opposed to improving the standard of living of the settled population.

2.1.3 Inappropriate methods of measuring success

An article by Chris Giles in the *Financial Times* (2017) suggested that the main beneficiaries of the current policy are the immigrants themselves and the better off members of our settled population who have increased access to low cost labour.

'Some aspects of EU membership have not been so good for the British economy. Today one in 20 UK residents was born in another EU country. But numerous studies have shown that most gains from immigration have fallen to the immigrants themselves. Apart from a net benefit to public finances of importing workers, free movement has not itself obviously increased British people's prosperity.'

“...free movement has not itself obviously increased British people's prosperity.

Chris Giles, *Financial Times*, 2017

Tim Congdon (2019) writing in *The Critic* pointed out that according to the IFS while output per head has increased by 2.5% since 2008 – a meagre increase but an increase nonetheless – the low paid have become significantly poorer.

For men at the 10th percentile (the bottom 10%) real pay is 12% below the level of 2008.



Picking grapes on the Rathfinny Estate, Daily Telegraph

So, this group, clearly, has not been sharing in any general growth in our national prosperity. To summarise, while the pamphlet is not an economic textbook, there are enough ‘straws in the wind’ to justify a thorough examination of the result of past policies.

2.2 Is the ‘organisational case’ valid?

Another argument for immigration is that it provides skills unavailable amongst the settled population or takes on jobs the settled population do not want to undertake.

It would be a brave and, indeed foolhardy, person who tried to argue that every member of the settled population was ready to take on each and every job. But there is evidence that policies followed to date have led to a degree of ‘crowding out’ of the settled population both in individual sections of the economy and in terms of the conditions of work. ‘Special pleading’ has resulted in recruiting from overseas becoming the ‘default option’ in many areas.

2.2.1 Sectors special pleading

Two sectors where employers have been quick to reach for the immigration ‘default option’ and claim that without widespread immigration their activities will become unviable are agriculture and engineering.

First seasonal work in agriculture. It is clearly much more efficient and economic from the employer’s point of view to ask an agency overseas to provide a specified number of workers between specified dates; for it to deal with all the paperwork and to arrange for their arrival and their departure. And, of course, because these recruits, even at UK basic rates of pay, are earning substantially more here than in their home countries, they may be ready to put up with suboptimal living conditions for the duration of their employment.

Pressed on this, employers will generally claim that members of the settled population won’t work under these conditions. But Youth Employment UK, an organisation helping young people to find

work, explains that young people lack awareness of the job opportunities in, for example, fruit picking because growers don't bother to target them (White, 2017). Youth Employment UK rejects the assertion that young people are too lazy for agricultural work.

They argue that growers need to spend time convincing potential young recruits that there is a worthwhile job to be had. Farmers do not recognise the skills of young people – who incidentally are four times more likely to be unemployed than any other age group (Ibid). There are practical examples where a different approach has worked well. The Rathfinny Wine Estate in East Sussex (Mintz, 2018) – employs 140 workers, on a temporary basis, nearly all are local, and the company has managed to create a sense of work ethic and community. Is there a compelling reason as to why this could not be repeated more widely across the country?

The pandemic showed both sides of this argument in stark relief. Concordia, a work placement charity running a scheme to provide vital seasonal agricultural labour, was approached by over 50,000 people (The Times May 2). Some farmers responded positively to this development being “really impressed by their enthusiasm”; but others held to the conventional view that “the government is somewhat deluded in thinking the ‘great British workforce’ is capable of doing this. They find it too physical”.

A second area is the engineering industry where employees frequently bemoan the lack of expertise in STEM amongst members of the settled population.

But talking to recent engineering graduates, one learns how few end up working in engineering. In part this maybe because insufficient effort is made to ‘sell’ engineering as a worthwhile career – by universities as well as the engineering industry – so graduates instead convert to accountancy or finance. But more relevantly engineering graduates report a reluctance by firms to take on graduates without direct work experience and it is, of course, difficult to get experience if you cannot get a job in the first place! By contrast, candidates can be found overseas who already

have two or three years’ experience at highly competitive remuneration levels.

The end result of this approach is best illustrated by the Higher Education Statistics Agency (HESA) survey on the destinations of students after leaving UK higher education. HESA records the Standard Occupation Classification category of those respondents in employment. Of the UK and EU-domiciled leavers from undergraduate courses in engineering who responded to the survey, and were in employment 6 months after graduating, only 49.8% were employed in roles categorised as ‘engineering professionals’. So, less than half our engineering graduates become engineers!

2.2.2 Reduction in employer training

These two examples reflect a widespread trend of a reduction in the amount of spending by employers on employee training. The Centre for Learning and Life Chances in Knowledge, Economies and Societies (2013, p.1) found ‘that the volume of training per employee has been going through a substantial decline over a period of at least a decade and a half’. Further, in 2019, the Think Tank Onward reported that ‘Since 2011 employer spending per trainee has fallen by 17% in real terms and adult learning participation in the UK is lower than it has been in two decades’.

2.2.3 Effect of underemployment

In a previous section we looked at two specific sectors where members of the settled population appeared to be disadvantaged. But there is the general challenge of ‘underemployment’ which may be accentuated by high levels of immigration.

The UK has an enviable record in job creation but the ONS reported recently that there are more than 3.2 million people who would like to work more hours. Of these, there are 869,000 who are in part-time jobs but would like full-time employment (Edwards, 2017). This has to be a great setback to these individuals personally, but it has a wider implication. US academics David Blanchflower and David Bell (2018) (with a team of IMF economists) have shown that this underemployment significantly reduces wage growth.

Meanwhile, Business Insider (Edwards, 2017, 2018) found that levels of underemployment are higher now than during the 2008 financial crisis and that the levels of unpredictable employment (for example zero-hour contracts) are growing far faster than levels of full-time work. In this connection it is worth noting that the ONS requires that you only need to work one hour a week to be categorised as employed. So, the notion that we need more immigration to fill job vacancies may be overstated when there are growing numbers of the settled population wishing to work more hours. The disadvantage of underemployment is more pronounced for women. In December 2018, the UK had record levels of female employment at 71%; but this was still 10% lower than men (Powell, 2019). Furthermore, '41% of women in employment were working part-time compared to 13% of men (Ibid, p.1)'.

And there is a specific demographic which suffers particularly from underemployment – the over 50's. A Foresight Report (2016) argues that raising our economic productivity is inextricably linked to the success of employment of older people. High levels of unemployed elderly have particular impacts on the economy as it changes the dependency ratio – the ratio between those in work and paying taxes and those unemployed, not paying taxes and often reliant on state assistance. Any increase in the number of over 50's in work will reduce public spending and improve the funding of state pensions.

By 2030, the number of over 65's in Britain is set to increase by a half (Partington, 2018). Hence, the question will be whether employers are prepared for this surge. According to the Centre for Ageing Better (2018), a quarter of employers admit they are unprepared for the growing number of older workers. To set all this in context, currently 14% of 50-year olds are unemployed; by 60, this figure rises to 35% and by 65 rises to 65% (Foresight, 2016).

In 2018, parity in the state pension age was achieved and, for the first time, women and men receive their state pensions at the age of 65. Under the Pensions Act 2011, this pension

age rise will reach 66 by October 2020 and will increase to 67 and then 68 between the years of 2037 and 2039. These rises in the state pension age will mean that many more over 60's will be required to continue to work.

More importantly, people are increasingly remaining fitter for longer. So many more will want to work on past pension age – perhaps because they must to supplement inadequate earlier savings but maybe equally importantly to give a continuing sense of purpose to their lives.

Too many employers assume that older people will be less productive, less committed and less energetic. In fact, surveys show the opposite, and that older workers are more disciplined and conscientious (Kersting, 2003). They also have a vital commodity – work experience which seems to be increasingly undervalued. But nearly always the career sections of company websites are made up of glossy photos of young people (Clark, 2019) which clearly delivers a message about the employer's preferred age.

...there are one million people aged 50 and above who are unemployed but wish to go back to work under the right circumstances.

House of Commons report, 2018

A 2018 House of Commons report found that there are one million people aged 50 and above who are unemployed but wish to go back to work under the right circumstances. But issues of age discrimination and prejudice result in many being disenfranchised by the labour market. The demographic structure over the next decades (and its implications for the dependency ratio) mean it will be critical to devise policies to address this issue. We must do better than the case of Professor Goodenough – a pioneer of the lithium-ion battery – who, forced by Oxford University to retire at 67, has become the oldest person to win a Nobel Prize (aged 97) working in the USA (*Financial Times*, 2019).

2.3 Issue of morality

The UK has an interest – both moral and practical – in creating a stable world where individual states can offer their citizens a decent standard of living and quality of life. We surely have a moral duty to do what we reasonably can to help our fellow mankind – but more practically without such stability, anger and frustration will not only render the world an ever more dangerous place but also increase the number of desperate people moving to seek a better life for themselves and their families.

To achieve stability a country needs expertise at every level. It needs trained administrators, technologists, entrepreneurial businessmen, doctors, nurses and teachers. Many less developed countries are being deprived of these resources by the immigration policies of the developed world. Stark examples of states facing the ‘brain drain’ include Jamaica, Grenada and Haiti where skilled emigration has reached the level of 80% (Oberman, 2013).

“Many less developed countries are being deprived of these resources by the immigration policies of the developed world. Oberman, 2013

Often one reads that the NHS would ‘collapse’ without recruitment from overseas. However, recruiting doctors from overseas, especially the less developed world, inevitably impacts on the quality of the latter’s public services. In 2010, when the Ebola crisis hit Sierra Leone, the country had a total of 136 doctors – one doctor for every 45,000 people (Sharples, 2015) by comparison the UK has one doctor for every 360 people (Donnelly, 2014). At the same time, the NHS was employing 27 doctors who had been trained in Sierra Leone (Sharples, 2015).

Similarly, the UK also recruits nurses from Malawi – another low income country. Malawi has one of the lowest levels of health and social indicators in Africa (Harrigan, 2001). Recruiting Malawian nurses may improve their individual economic prospects and our health service but,

at a macro level, it serves to exacerbate Malawi’s domestic difficulties.

Nor is this issue confined to the less developed world. In an article in the Financial Times on skilled Polish emigration the Prime Minister, Mateusz Morawiecki, said ‘our increase per head is at least 5% lower as a result of this immigration. This is a huge tax that Poland has paid to the rich countries of the west.’ (Shotton, 2019)

Is this how we contribute to creating a stable world? The United Kingdom is a rich country. Should we not be able to plan to train the required number of teachers, doctors, nurses etc. from our settled population?

2.4 Fourth industrial revolution

The Fourth Industrial Revolution is already underway as a result of advancements in Artificial Intelligence (AI) and automation. The impact of these new technologies on the workplace is complex and multidimensional. However, there appears to be good reasons to believe that the revolution will result in a reduction in employment opportunities. According to the ONS, Lincolnshire is expected to experience the highest losses as a result of increased automation in farming while London and the South East will be least affected (Collinson, 2019). The Bank of England estimates that over the next 10-20 years the UK could lose up to 15 million jobs to automation (Points & Potten, 2017). Price Waterhouse Coopers (2019) analysed 200,000 jobs in 29 countries with developed economies and predicted that by 2030 automation will have taken over 44% of lower educated jobs (GCSE or below) and 36% of medium educated jobs.

“The Bank of England estimates that over the next 10-20 years the UK could lose up to 15 million jobs to automation.

Points & Potten, 2017

While the Fourth Industrial Revolution may positively affect the economy with a rise in productivity – the essential factor in achieving increases in prosperity per head – there may be

unwelcome externalities in the shape of increased unemployment or underemployment, which will raise difficult political questions. How will the unemployed be able to pay sufficient contributions to their pensions to provide them with a reasonable standard of living in their old age (West, 2015).

At the same time, the jobs that remain are likely to be transformed. Automation and AI will make the gig economy increasingly prominent. Some have predicted that by 2050, as many as 5 billion of the 6 billion workers worldwide will be employed by the gig economy (Jones, 2019). In these jobs, workers won't be reporting to a human boss, but instead to 'Robbo Bosses'. As a result, layers of middle management are likely to disappear, creating additional societal challenges. Wright (2019) highlights the loss of middle-class jobs by underlining that by 2029, 50% of clerical roles and 30% of finance and insurance jobs will be lost to automation.

There are, of course, many who argue that we should not worry about the employment consequences of the Fourth Industrial Revolution because the first three industrial revolutions resulted in increased employment opportunities. On the other hand, there are those who argue that the speed and the extent of the revolution compared to the earlier ones means that the overall employment outcome will not be so benign on this occasion. If, as seems arguable, the future holds, if not fewer, at least no increase in jobs, then we might be better advised to focus on preparing our settled population for these shocks rather than encouraging new arrivals.

2.5 Recent government policy

Against this background how has government policy developed. In 2018, a report from the Migration Advisory Committee (MAC, 2018), the independent public body that advises the government on migration issues, made the economic argument for stemming the number of unskilled migrants. The MAC specifically recommended that the annual salary threshold of those entering the UK should be £30,000. If these changes were made, the MAC argued that the settled population would gain economic benefits.

Following this advice, the May Government published a White Paper on 'The UK's Future Skills-Based Immigration System' (HM Government, 2018). The White Paper proposed that after free movement had ended, there should be a selective immigration policy applied to EU citizens which would drive up skills and at the same time control numbers. This would be in line with the current non-EU skills-based immigration system, which prioritises higher-skilled workers. However, the White Paper did not accept the recommendation for a £30,000 salary threshold as the Government believed circumstances would arise that required 'heightened flexibility'. The obvious danger to this approach is that once a policy becomes 'flexible' it opens the way to widespread 'special' pleading from individual interest groups of the type identified earlier.

The present Government first changed approach by ignoring the 2018 MAC recommendations and instead seeking to implement an Australian-style points system. Under an Australian-style system, migrants could enter the UK so long as they could speak English, had sought after skills and arrive with a concrete job offer. But most significantly the government again declined to set a hard cap on the total number of arrivals permitted under the proposed system.

As before, this reluctance to follow a strict line may well result in widespread special pleading and consequently continuing higher levels of immigration.

In the last few weeks, a further report from the Migration Advisory Committee (2020) has rejected a full points-based system for the UK. Instead the Committee has recommended a mixed system where the minimum salary threshold has been reduced to £26,600 for those with a job offer and a points-based system for skilled workers coming to the UK without an arranged job. Again, there would be no cap on the number of arrivals. These policies need to be considered against a background where the average UK wage is £37,428 per annum; the median salary, perhaps the best measurement was £29,400 and the average salary for those 25 and over on the minimum wage is £17,000 per annum. There must

be a risk that these new changes to the thresholds will pose a continuing challenge to the job prospects of our settled population. Additionally, the *Times* (Swinford, 2020) suggested that, in certain circumstances, the threshold could be reduced further to £23,000.

At the same time the Government has introduced a new Global Talent immigration rule to replace the existing Tier 1 (Exceptional Talent) system. The two are broadly similar except that the new system widens the applicable categories and removes the existing cap of a total of 2,000 admissions per annum.

The MAC report is as ever a very thorough document, but it contains a number of statements which do not inspire confidence that this new system, designed to limit low skilled immigrants, will fulfil its policy objective. First, commenting on past experience, the MAC concludes ‘There is very limited data on outcomes for migrants on these programmes that did not require a job offer, but it appears a sizeable proportion did not end up working in highly-skilled jobs as was intended’ (MAC, 2020, p.39).

Second, the Report shows the enormous pressure faced by the MAC effectively to abandon all controls. As examples, ‘a majority of respondents agreed that there should not be a salary threshold above the minimum wage’ and ‘there was stronger support for the idea of a salary threshold that was in some way variable to reflect employer needs, than there was for a single salary threshold, although views were mixed (Ibid, p.82)’. As the MAC pointed out, this was the inevitable conclusion of ‘an employer driven system’ (Ibid, p.1).

2.6 Conclusion

There can be little doubt that a level of immigration is an essential part in preserving the economic health and cultural vitality of the nation.

On the other hand, a key determinant of a person’s self-confidence and sense of self-worth undoubtedly is purposeful, secure work. As Professor David Blanchflower (2019) points out in his recent book ‘Not Working’ – ‘unemployment hurts, and it hurts a lot’.

Past policies have been based on suboptimal metrics which have had two consequences. First, there has been a degree of ‘crowding out’ of the settled population. There seem strong arguments both that we have not worked hard enough to ensure that there is worthwhile economic activity for all members of our settled population; and also to ensure that worthwhile economic activity is available from the end of education for as long as an individual wishes or is able to continue to work.

Second, one is forced to the conclusion that high levels of immigration – particularly low skilled immigration – have not only held back financial rewards for sections of our settled population but also, critically for our general prosperity, have played a significant part in this country’s poor productivity record.

Continuing to follow the existing policies as we face the challenge of the Fourth Industrial Revolution seems to take no account of the likely knock on effects for our settled population. New policies could open the way to greatly improved productivity with a consequent lift in this country’s economic record and an improvement in the life chances of each one of us. An essential part of this would be acceptance by government, industry and commerce that looking overseas for recruits cannot be the ‘default option’.

However, as made clear earlier far too much of the argument about demography has historically revolved around economic issues. There are also substantial non-economic impacts for all of us resulting from population growth and to these we now turn.

3.

Population growth, environment and ecology

Arising population makes significant demands on the environment and ecology of the country. First, and most obviously, through an increased demand for housing and linked to this a requirement for roads, offices, factories, shops, schools, hospitals etc. These together will mean that substantial areas of our countryside may have to be built over.

Second, less noticed but potentially more serious, is an increased demand for scarce resources – in particular a growing need for water. Finally, these stresses feed through into the ecology of the country with many species under strain and some already lost forever.

3.1 Implications of house building

We have to work from the assumption that, as a society, we must provide a reasonable standard of housing for our settled population. The present position with substantial numbers wishing, but nevertheless unable, to get on the housing ladder is unsatisfactory from every point of view.

But what are the implications of that simple objective? First how many houses are we going to have to build to house the 6 million population increase expected over the next 20 years?

There are two potential metrics. First the average number of people per dwelling in the country which is 2.3 (Statista, 2020). So, to house the 6 million more people expected to live in the UK by 2041 under the ONS principal projection we will need to construct 2.6 million dwellings over that 22-year period. This will require, on average, the construction each year of 120,000 dwellings and in turn will require us to build an average of 2,300 per week, 330 per day and 14 per hour – one every four minutes – night and

day seven days a week for the next twenty years. And this is without allowing for any much-needed improvement to our existing housing stock.

The above figures are based on the ONS central population projection which expects annual net immigration to fall from its existing level of 273,000 to 190,000; if this reduction is not achieved our population will be 2.5 million higher and consequent demand for housing will increase by 1 million higher at 3.6 million homes over the next 20 years.

The second metric is the level of future household formation since this will be a major driver in the demand for housing. The ONS (2018) estimates that ‘the number of households in England is projected to increase by 4.0 million (17%) over the next 25 years, from 22.9 million in 2016 to 26.9 million in 2041’.

Let us take the lowest of these estimates – what space will 2.6 million dwellings take up? This is not easy to answer precisely because it depends on the mixture of housing – clearly not all construction will be of houses, there will be flats, sheltered housing etc and the homes themselves will be of varying sizes.

However, rough calculations are possible. Current government policy proposes a net residential density of 30-50 houses per hectare (12-20 houses per acre). The recent average is 32 houses per hectare (12 per acre) (Communities and Local Government, 2010). But this definition of net residential density covers only the house, the garden and half the width of the access road outside it. Some planners have suggested that an additional 20 – 25% of space is needed to give sufficient open and recreational space. But in turn, that makes no allowance for the associated economic support activity required – shops,

factories, offices, connecting roads. It does not seem unreasonable to estimate that overall this would mean an average residential density of 21 homes per hectares (8 homes per acre).

On that basis, for each 1 million homes constructed we need to set aside 50,000 hectares (125,000 acres). Since it is likely that we will have to build at least 2.5 million homes we may need to build over 125,000 hectares (325,000 acres) – a space larger than the county of Bedfordshire – over the next twenty years.

It should be remembered that this is in addition to any part of the government's present plan to build 300,000 homes per annum to address the demand from the existing settled population. These pressures also make themselves felt in other ways. In the understandable rush to build more homes, quality has often been sacrificed to quantity and a diminishing use of vernacular building styles. If one was dropped in the centre of many modern housing estates one could not tell whether one was in Truro, Norwich or Stockton on Tees. An important consequence has been the risk of failing to create an environment conducive to the emergence of new communities.

Already some major schemes are underway. For example, one idea put forward is to build the Oxford-Cambridge Arc. The plan will result in building one million new homes to create a series of mini towns stretching between Oxford, Milton Keynes and Cambridge. This will concrete over an area the size of Birmingham (Booth, 2018). The Council for Protection of Rural England has stated if this arc is created then England's countryside will be changed forever as Oxford's greenbelt will be lost (CPRE, 2019).

The amount of land occupied by buildings has increased by more than 11% in the last decade alone (Hellen, 2020). Danny Dorling, Professor of Geography at Oxford University was quoted in *The Times* (2020) 'In absolute terms, this is very likely to be the largest increase in the number of square miles that have been tarmacked or paved in any decade in British history. And the sad truth is that much of the land lost is ancient British woodlands that have persisted since 1600'. It has been reported that more than 1,000 ancient

woods are at risk from property development and more than 50 are in Areas of Outstanding Natural Beauty (Webster, 2020).

The last decade is very likely to have seen the largest increase in the number of square miles that have been tarmacked or paved over in British History.

Professor Danny Dorling, 2020

3.2 Impact on scarce resources

Forecast changes in the UK population rarely form part of the debate on the future availability of scarce resources. But it is undeniable that the larger our population the greater the environmental risks (Kuhleemann, 2018) – chief amongst these are potential shortages of water and food. In addition, there are the spatial requirements of the programme to boost the amount of energy generated from non-renewables.

3.2.1 Water shortage

The Government has accepted that action is needed to mitigate water scarcities in the future. The Government estimate that by 2050 there will be significant water deficits for agriculture (HM Government, 2017). Sir James Bevan, the Chief Executive of the Environment Agency, depicts the existing water policy in Britain in stark terms. Sir James describes Britain's water situation as entering the 'jaws of death' as within 20 years Britain will not have sufficient water supplies (GOV.uk, 2019). Bevan argues that wasting water must become 'as socially unacceptable as blowing smoke in the face of a baby or throwing plastic bags into the sea' (The Telegraph, 2019). When water scarcity hits, domestic agricultural productivity is likely to be curtailed because arable and horticultural crops are located in the driest parts of the UK (CCC, 2013). Scenarios suggest that by 2050 some regions of the UK could have a demand for water that is 150% higher than available supplies (CCC, 2017).

An article in the *Financial Times* in October 2018 headed 'Rivers run dry in the thirst for drinking



In Hertfordshire, the river Beane ran dry due to water extraction (Financial Times)

water’ blamed ‘England’s daunting demographics and changing climate’. The problem will be particularly acute in London. London is already very dry – surprisingly it receives less average rainfall than Barcelona, Rome, Miami or Sydney; and on a per capita basis has less rainfall available than Morocco or Turkey (Simons, 2019).

Undoubtedly some part of this problem is due to the reductions in this country’s rainfall as a result of climate change – an issue that is itself linked to the wider implications of world population growth.

But the major part is due to population growth in this country – on average each one of us uses 140 litres of water per day. Of course, we can take other remedial actions by each of us reducing our water use or creating more extensive storage facilities with the construction of new reservoirs – though the latter will be at the expense of a loss of more open space otherwise available for growing food or for recreation.

3.2.2 Food insecurity

The UK is not food self-sufficient. We currently only produce 50% of the food we consume (Gov. uk, 2017) with the other half of our food secured

through reliance on free trade in the global market. The Government argue that the resilience of food security is ensured through global food markets – not self sufficiency (Kirwan & Maye, 2013). The Department for Environment, Food and Rural Affairs (Defra) state that even if the UK were at maximum production, self-sufficiency would be unlikely (Defra, 2014). This is a critical factor and forms part of the challenge of ‘over consumption’ (i.e., that as a nation we are already consuming 301% more resources than our global footprint justifies) (Global Footprint Network, 2019).

“...as a nation we are already consuming 301% more resources than our global footprint justifies.

Global Footprint Network, 2019

The rate at which the UK relies on the global market has been growing since the 1980s. Tim Lang, a Professor of Food Policy at City, University of London, has made the obvious case that the only way to provide greater food security is by having

higher levels of self-sufficiency (BBC Countryfile, 2018). However, the National Farmers Union argues that self-sufficiency has been in decline because of a rising population – ‘the land cannot keep pace with the number of mouths to feed’ (NFU, 2015, p.6).

Britain imports from over 180 countries worldwide (Defra, 2018). Hence, any debate on UK food security will need to take into consideration potential constraints on global food supplies (Kirwan & Maye, 2013).

In addition to the impact on crop production of the forecast water shortages discussed above, there is the issue of soil degradation. Stable crop production is dependent on high-quality soils. The rapid growth of the UK population during the second half of the 20th century led to pressures for increased levels of food production and this, in turn, led to soil degradation (Defra, 2011). According to the Environmental Audit Committee, already, one-quarter of agricultural land has suffered from acute soil degradation

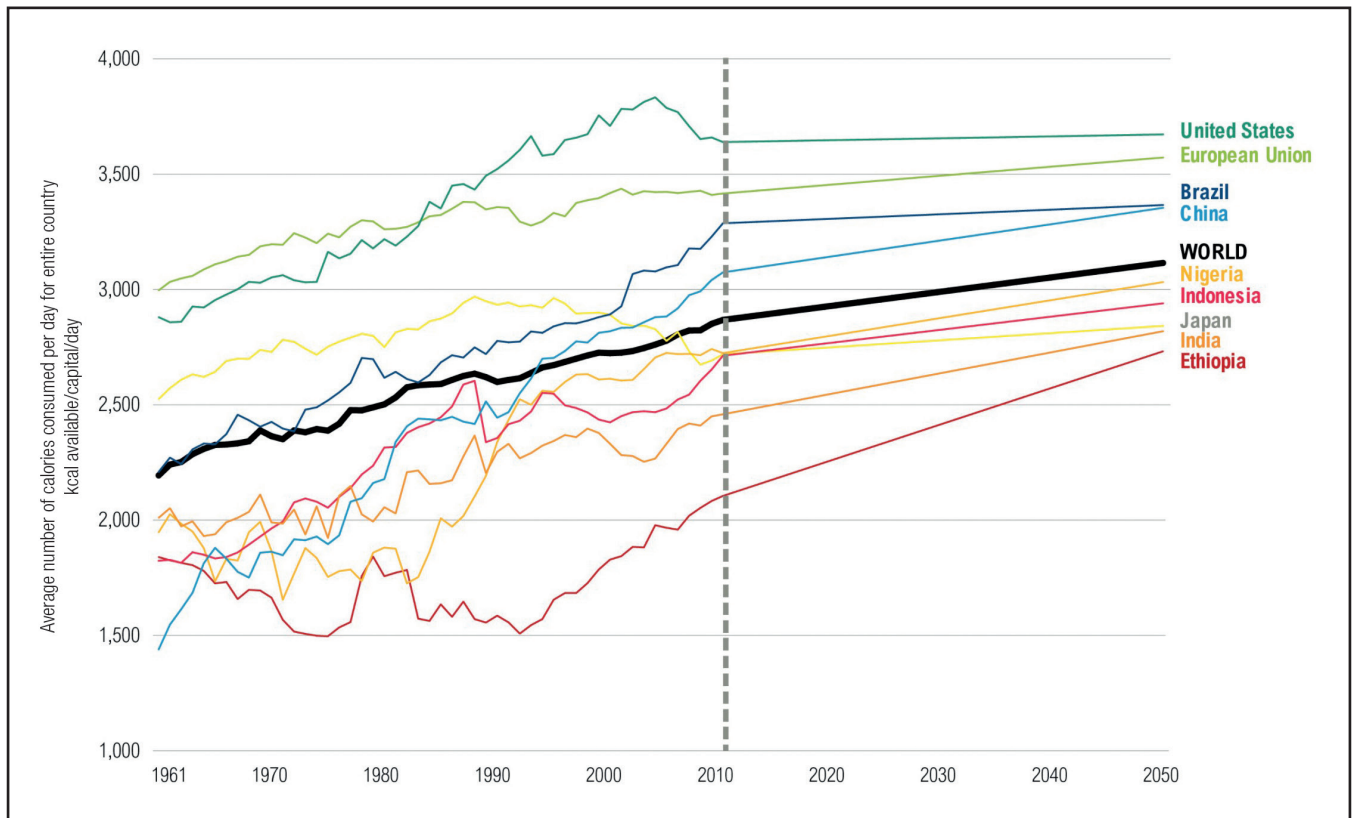
(EAC, 2012). Any further increases in agricultural intensification seem likely to worsen soil structures (EAC, 2012).

If we cannot produce enough food at home, we have to rely on food production overseas. This is not a risk-free option. World food prices are expected to rise in the future as a result of the loss of natural resources and climate change (WEC, 2016). The process of food production requires land space, fertile soils, and plentiful water for irrigation. However, the need for increased food production as a result of the rapid growth in global population levels has left agricultural soils degraded and water scarcities increased (Kuhlemann, 2018).

Additionally, there are now few agricultural lands left open to cultivation unless rainforests are cleared and so biodiversity is further reduced (Conway, 2012).

If population and food consumption trends continue, and the pace of food production struggles to keep pace under environmental pressures, then

Figure 4: World food demand



Source: World Resources Institute, 2020.

world food shortages are likely to occur within the next few decades (Lang, 2014). Hence, the World Economic Forum has predicted that the world is entering an era of food insecurity (WEC, 2019). It is forecast that there will be a food requirement of an addition of 7.4 trillion calories by 2050 more than 50% above the 2010 figure of 13.1 trillion (World Resources Institute, 2017).

3.2.3 Spatial needs of renewable energy source

The third key scarce resource on which modern society depends is energy. Until recently we have relied on energy generated from coal – a very efficient source but one that inflicts unacceptable damage on our world climate. A more recent development has been nuclear energy about which many have environmental doubts and is likely to be unacceptable as a source for all our energy needs.

So, as a country, we have embarked on a path to increase greatly energy generated from renewable sources. Though this activity may be climatically beneficial it is exceptionally space needy. Research suggests that if we had to generate 100% of our energy from renewable sources, we would have to cover an area the size of Wales with solar panels and/or wind turbines (Oswald, 2009). While some of these activities can be located offshore there is bound to be increased pressure on land usage.

3.2.4 Climate Change

The prospective changes in the world's climate ratchets up all these risks. Warmer temperatures will limit crop production (Paarlberg, 2010) causing lower yields and rising food prices (WEC, 2016).

Alongside higher temperatures, food security will be challenged by extreme weather events and unpredictable rainfall (Lee et al., 2015), which will destabilize markets and cause volatility in prices (WEC, 2016). Furthermore, extreme weather causes risk to food chokepoints (critical junctures on transport routes through which exceptional volumes of trade pass), which the growing international food trade (and Britain) is

increasingly dependent on (Bailey & Wellesley, 2017).

There is a final twist to this story. In an effort to minimise the need for working capital, food suppliers and food retailers, especially the major supermarkets now run their supply chains on very narrow margins for error. As a result, various commentators have described the UK as being between as little as five and nine meals from anarchy (Simms, 2010).

3.3 Ecological impact

Sir David Attenborough giving evidence to a House of Lords Select Committee said, 'people depend on the natural world for their sanity and sense of proportion'.

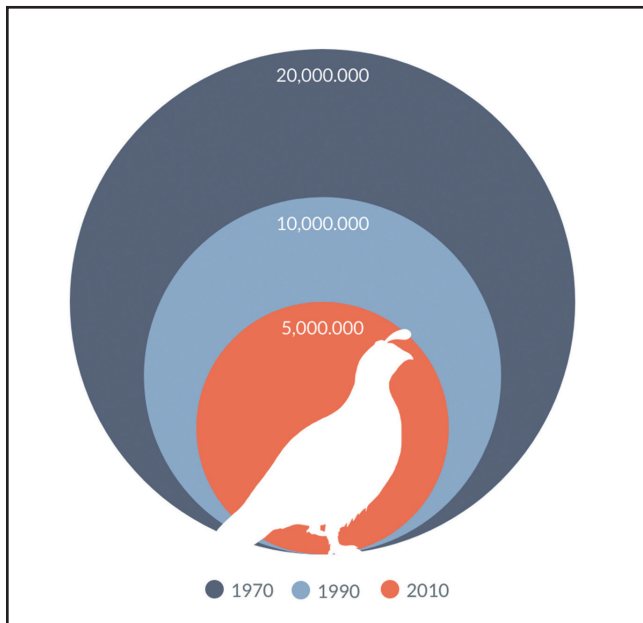
Population growth has had a devastating impact on our ecology. Natural habitats have disappeared as a result, on the one hand, of more land needed for housing and economic activities and, on the other, of the intensification of agriculture to produce 'more food'.

The greater intensification of food production has had dire consequences for species loss (Defra, 2011) and this trend has worsened within the last 20 years (EAC, 2012). Growth in food production requires more intensive land use and so leads to a reduction in biodiversity (Foresight, 2011). In global terms, the UK has already been described by State of Nature 2016 report as one of the 'most nature-depleted countries in the world' (Johnston, 2016).

The Natural Ecosystem Assessment found that 30% of habitats have declining biodiversity and many others are in a reduced or degraded state for which they believed that population growth was in part responsible (EAC 2012). In 2013, the first-ever State of Nature report showed that 3 in 5 UK species are declining (Zyla, 2019).

The interconnectivity of biodiversity is highly complex. But a couple of specific examples of the effect on the wild bird life and pollinators serve to underline the challenges.

Isabella Tree (2018) notes in her book 'Wilding' that in 1970 there were 20 million pairs of farmland birds – such as quails or yellowhammers – by 1990 this number had halved and further that

Figure 5: Number of farmland birds

Source: Tree 2018

by 2010 it had halved again. One of the farmland birds most affected was the turtle dove, a bird made famous by the Twelve Days of Christmas. It is unlikely that young people in our country will have heard, let alone seen, a turtle dove as the RSPB (2019) notes that between 1970-2007 their population declined by 89%. This decline in turtle doves reflects that 97% of wildflower meadows – their natural feeding ground after their annual 3,000-mile migration from West Africa – have been lost since WW2 (Tree, 2018). Country Life (January 2020) recorded, inter alia, a 93% decline in nightingales and 89% decline in starlings.

This loss of wildflower meadows is also affecting wild bumblebee populations. In the UK, 8 out of 25 bumblebee species have declined since 1940, two have become extinct (Graystock et al., 2013) and seven are now endangered (JNCC, 2019). It is estimated bumblebees have suffered the highest proportion of losses of any invertebrate group (Goulson & Darvill, 2010). And as bumblebees have become fragmented their genetic diversity has reduced so increasing their vulnerability to parasites (Graystock et al., 2014). Bumblebee loss has implications for the future of our wildflowers as bumblebees pollinate wildflowers that have adapted specifically for bumblebee pollination

(Goulson, 2010). More generally, pollinators are responsible for the reproduction of two-thirds of flowering plant species globally, which underlines their importance for plant reproduction (Graystock et al., 2013).

While classified as livestock, honeybees in the UK are also in decline (Ward, 2018) partly due to habitat loss (Lamiri, 2018). The consequences of honeybee loss are both economic and environmental. Commercial honeybees in the UK are viewed as crucially important, since they perform a lucrative dual role of producing honey and pollinating agricultural crops. Unsurprisingly, the rapid decline in honeybees has galvanized concern amongst environmentalists, apiarists, scientists (Nimmo, 2015) and the UK government (Sutherland & Downing, 2017). A UK bee population report found that ‘the strength and health of honeybee colonies has declined, making it more difficult for beekeepers to maintain their hives in good condition’ (Downing & Sutherland, 2017, p.5). Hives in poor condition are more likely to create disease reservoirs, which spill over into native bumblebee populations too.

These threats to our biodiversity have highly practical implications. Without sufficient bees and other insects to act as pollinators, there is likely to be a dramatic fall in the output of the horticultural sector. Hamish Symington of the Department of Plant Science at Cambridge was quoted in *The Times* of 22nd January 2020 as saying, ‘about 75 per cent of our food crops depend on pollination in some way’.

Other consequences may be intangible but no less real. For example, what value do we put on our children being able to hear a bird singing in the wild or to see a wildflower meadow in full bloom?

3.4 Government policy

The Government Green Paper, ‘Our Green Future’ published in 2018, is an imaginative document outlining many worthwhile government initiatives, but it makes only one small reference to demographic change stating, ‘population growth and economic development will mean more demand for housing and this government



About 75% of our food crops depend on pollination, Dept. of Plant Science at Cambridge University

is committed to building many more homes' (HM Government, 2018, p.7). Given the scale of the challenges outlined above, this seems an underwhelming reaction.

More worryingly in September 2019, the Natural Capital Committee – a government body established to monitor environmental progress – issued a response to the Government Progress Report on the 15 Year Environment Plan which read, 'Unfortunately, the Progress Report does not, in fact, tell us very much about whether and to what extent there has been progress. On the contrary, the Progress Report provides a long list of actions, and presents very little evidence of improvements in the state of our natural capital'.

3.5 Conclusion

From a demographic point of view, it seems unarguable that insufficient analysis has been undertaken of the wider environmental and ecological consequences of policies which are projected to result in a substantial increase in the population of the United Kingdom over the next 20 years.

Open space disappearing, food security reduced, water shortage apparently inevitable, ecological damage continuing – for none of these is demography the only cause. But equally, in none of these does an increase of 6-9 million in our population improve this country's situation.

4.

Population growth and our society

There are several challenges in writing this section. The first is the danger of an undue preoccupation with the negatives – portraying Britain as morose, dissatisfied and edgy. In fact, a majority of our fellow citizens think Britain is the best place in the world to live in but nevertheless, perhaps unsurprisingly, they want it to become more productive, happy and more tranquil (Phillips, 2019). This was evidenced by a YouGov poll of 20,000 English which revealed that in all age groups the majority of people are proud to be British (BBC, 2018). And more than two-thirds of over 65's (67%) said England is better than most other countries in the world.

Another challenge is to avoid an undue focus on the minority communities in our society. Of course, they too, like all of us, make impacts on our society but those impacts are only tangentially linked to their race, colour or creed.

The most important and difficult challenge is to untangle the different impact that population increases have on the various parts of the United Kingdom and the different views of these changes held by the settled population of those areas. Central city dwellers, especially in London, live with a high degree of population density and its ancillary challenges and so may have less awareness of and interest in the impact demography has on the wider environment (Green Belt etc). By contrast, suburban dwellers and residents of smaller towns and villages may be more likely to see these challenges at first hand.

'Social cohesion' has been described as 'muddling along together'. That may seem a rather inadequate term but in this section, we examine how demography may impact on our ability to 'muddle along together'.

4.1 Significance of rate of change

A number of studies and books have argued that it is the rate at which demographic change takes place which is a critical factor. The argument runs that the vast majority of the members of the host society accept, even happily accept, slow levels of population increases. It is when it is perceived to be high – evidenced by pressure on roads, public services, housing and neighbourhood makeup etc – that concerns arise.

In his book 'White Shift' Eric Kaufmann evidences this trend in the UK (Kaufmann, 2018). Kaufmann a professor at Birkbeck College, University of London is Canadian by nationality, so he brings an outsider's perspective. He points out that in 1991 about 90% of the population were drawn from the white Britain ethnic majority. During the next decade, this declined to about 87.5%. This 2.5% decline took place with barely a ripple in society.

But during the next decade to 2011, a number of the poorer Eastern European countries joined the EU and were able to take advantage of the free movement of labour. At the same time, the Blair Government encouraged widespread immigration from the New Commonwealth. As a result, the records from the 2011 Census showed that White British fell by 7.7% during that decade (BBC 2020). It seems likely that it was this higher rate of demographic change which provided the background to some of the concerns which have persisted to the present day.

And what gave additional impetus to these concerns was the feeling amongst the settled population that the consequences of these changes could not even be discussed (the 'racist' taboo). In particular it should not be assumed that, in this case, 'settled population' is another name for

‘white population’ – polling has found considerable concern amongst the minority communities about rapid rates of demographic change. A poll by Coms Res found that 34% of the British Asian community thought UK immigration was too high compared to 8% saying it was too low (Coms Res, 2018).

4.2 A sense of belonging and wellbeing

One can identify several trends in our society that are, at least in part, the result of the demographic policies of the past 20 years – the emergence of inward-looking working-class communities – predominantly white – which have not shared in any improvement in national societal or economic standards; the creation of minority communities some of which have become large enough to become ‘communities within communities’ and where, again in some cases, the values that bind us together appear to be, at best, given lip service; and finally a larger more inchoate group which see the country as appearing to be changing – ‘losing their country’ as Martin Wolf put it in an article in the *Financial Times* (2016) – at an unacceptably rapid rate.

This is a huge topic but for the purpose of this pamphlet one is trying to pick out these parts of our past demographic policies that have given rise to these challenges so that future policies ameliorate rather than reinforce them. Above all we need to avoid the politics of division. This is an area where it is vital that we learn to ‘muddle along together’.

Belonging

I was lucky enough to chair a year long Select Committee for the House of Lords that produced a report March 2018 entitled ‘The Ties that Bind: Citizenship and Civic Engagement in the 21st Century’. An important thread in evidence from our witnesses and the written submissions, we received was on the one hand a wish to belong to and feel part of a greater whole, but on the other hand, a view that any sense of belonging had diminished in recent years.

Where does this feeling of being unrooted come from? Modern society based increasingly

on a faceless, disembodied technologies play a major part but so does unduly rapid population growth especially in a spatially limited island. As an example, for a white person to say ‘I am not a racist but...’ is, in the prevailing climate, taken by the commentariat to be a tacit admission by that person that he or she is a racist. Of course, these are clumsy words and indeed the person might be a racist. But it could well be argued that the underlying reason for this statement could be rephrased as ‘I’m generally worried about what is going on – please listen to me!’

In an article in *The Times* in June 2015, David Aaronovitch put it another way ‘I have a regular correspondent – let us call him Igor – who writes to me from Offa’s Dyke to complain about the modern world... Running through Igor’s protestations is a sense of bewilderment. And in this he captures what I now feel. What many of us are feeling and expressing. How could they? Why would they? Why didn’t we know? What is it about them that we just don’t get?’

Too rapid population growth may play a significant part. Lawrence Mead in his book ‘Burdens of Freedom – Cultural Difference and American Power’ (2019) explores this issue from a US point of view. He sees the world as being divided between western countries with an individualistic culture and non-western countries which rely on a more collective approach. He argues that cultural changes occur much more slowly than economic ones.

It was a widespread refusal by successive governments to accept that concerns about the results of the demographic policies being followed could properly be raised that helped accentuate divisions in society. My Select Committee Report published in March 2018 concluded ‘The Green Paper has too narrow a definition of integration. It focuses almost exclusively on the integration of ethnic minority groups, with scarcely a mention of the challenges faced by disabled people, LGBT people, people in rural and some coastal communities, working-class communities and all those who feel marginalised in our society. At the same time, it is insufficiently clear on the red lines that define acceptable behaviour in modern

Britain, especially in relation to the treatment of women and LGBT people. The Government seems not to appreciate the fundamental point that integration as a British citizen cannot take place without an understanding of what it means to be a British citizen' (House of Lords, 2018, p.12).

There were other recommendations made in the Report, all of which would have increased importance if our population were to continue to grow rapidly. First, critically, there is a need to improve the understanding and acceptance of the values that bind our society together. As Louise Casey, author of the 'Review into Opportunity and Integration' (2016), put in evidence to the Committee 'you do not pick and choose the laws of this country. The laws that protect religious minorities are the same ones that say I am equal to a man. You do not pick the ones you want. It is not a chocolate box of choice... if you are uncomfortable with that, I now say that is tough'.

Second, that Citizenship Education – explaining it in both practical and theoretical ways how our country works – was essential for all pupils at both primary and secondary levels. Finally, that every citizen must be able – and, no less importantly, ready to learn – to speak English.

Wellbeing

In his recent book 'Can we be Happier?' Richard Layard wrote, 'we should judge the state of the world by how far people are enjoying their lives – by the amount of happiness there is' (p.21, Layard, 2020). Recent research (World Happiness Report), in which the UK ranks 15th out of 156 countries, suggests six factors that play a crucial role in establishing a sense of happiness (p.49, Ibid). Some are not unexpected (income, health, freedom) but others are more subtle – trust (mutual reliance), social support (from relatives or friends) and generosity (donations to charity).

The issue of trust and mutual reliance is a concept that comes under strain at times of rapid population growth. Members of the settled population need to be reassured that the system is working fairly. The British people place great weight on 'fairness'. Fairness is inevitably an elusive concept but it provides the means

whereby people consent to foregoing some particular advantage in favour of the greater good of the whole. These advantages forego are not only monetary, they may well be qualitative – e.g. accepting a degree of neighbourhood change. But an important part of this consent relies on transparency – on the clarity of what is being foregone and why. It is because a significant part of our settled population feel that in regards to demographic issues in particular, governments have not been candid and that trust has become strained.

"We should judge the state of the world by how far people are enjoying their lives – by the amount of happiness there is."

Richard Layard, 2020

The emphasis placed on 'social support' as an important factor in 'happiness' carries demographic issues. Of course, the primary source of social support is immediate family. But close behind this, and an important part of a sense of belonging is feeling part of a community. Evidence to the Select Committee revealed a widespread feeling that the sense of community was under stress matched by a sense of regret at what was taking place. This is a multifaceted problem but rapid population growth with its consequent environmental and other demands seems likely to make up a significant thread. Importantly within this is the human need for space. Octavia Hill, Co-Founder of the National Trust, wrote 'We all want quiet. We all want beauty. We all need space. Unless we have it we cannot reach that sense of quiet in which whispers of better things come to us gently'.

That need for space can be for physical space. A number of researchers have pointed out economic benefits of adequate physical space. For example, the world's National Parks are quoted to be worth £5 trillion a year for their ability to improve wellbeing (Buckley et al., 2019).

But there is also a need for mental space. Some researchers (but by no means all!) argue



Cities are now increasingly crowded

that the levels of mental stress are far greater in our cities than in the countryside. Either way the importance of mental wellbeing is being increasingly recognised. Less attention has so far been paid to the role that demographic pressures, inevitable in an increasingly crowded island, play in this. A study published in 'People and Nature' – journal of the British Ecological Society- by Kings College London, found that being outdoors and hearing birds sing gave a rise in greater mutual wellbeing (Blakely, 2019).

Elsewhere in this pamphlet there are calculations of the space that is likely to be lost to construction. Many of these construction schemes, whether big or small, arouse intense opposition – think of the proposal to extend Heathrow Airport, the building of HS2 or individual housing schemes. Opponents are often described, usually by people who are not so affected, as Nimbys (that is, 'not in my back yard'). In so far as these schemes are the direct result of population growth – and many are – a continuation of policies which reinforce the need for further schemes seem unlikely to create conditions in which societal wellbeing is increased.

4.3 Is Britain 'full'?

What factors might make people feel Britain is 'full'? These might include, in no particular order of importance, all or some of the following – reasonable access to open spaces for recreation and leisure, undue pressure on available public resources (e.g health, education etc), shortages of natural resources (e.g water), a sense of overcrowding (e.g. on public transport systems) or a decline in the sense of community (personal happiness and mutual wellbeing).

These issues can be triangulated from several points of view. As regards the level at which density of population reaches a tipping point, we tend to be a prisoner of our own experiences. Nevertheless, there are density levels at which the majority of the country would feel uneasy. Take the example of Hong Kong – most people in the UK would not want to live in such crowded conditions. That statement should not be taken as a criticism of the people of Hong Kong, merely a reflection of the different way our two societies have developed.

Even within this country there will be sharply divided views – the people around me as I write

at Westminster will likely have different views to people living near my home at Ludlow in rural Shropshire.

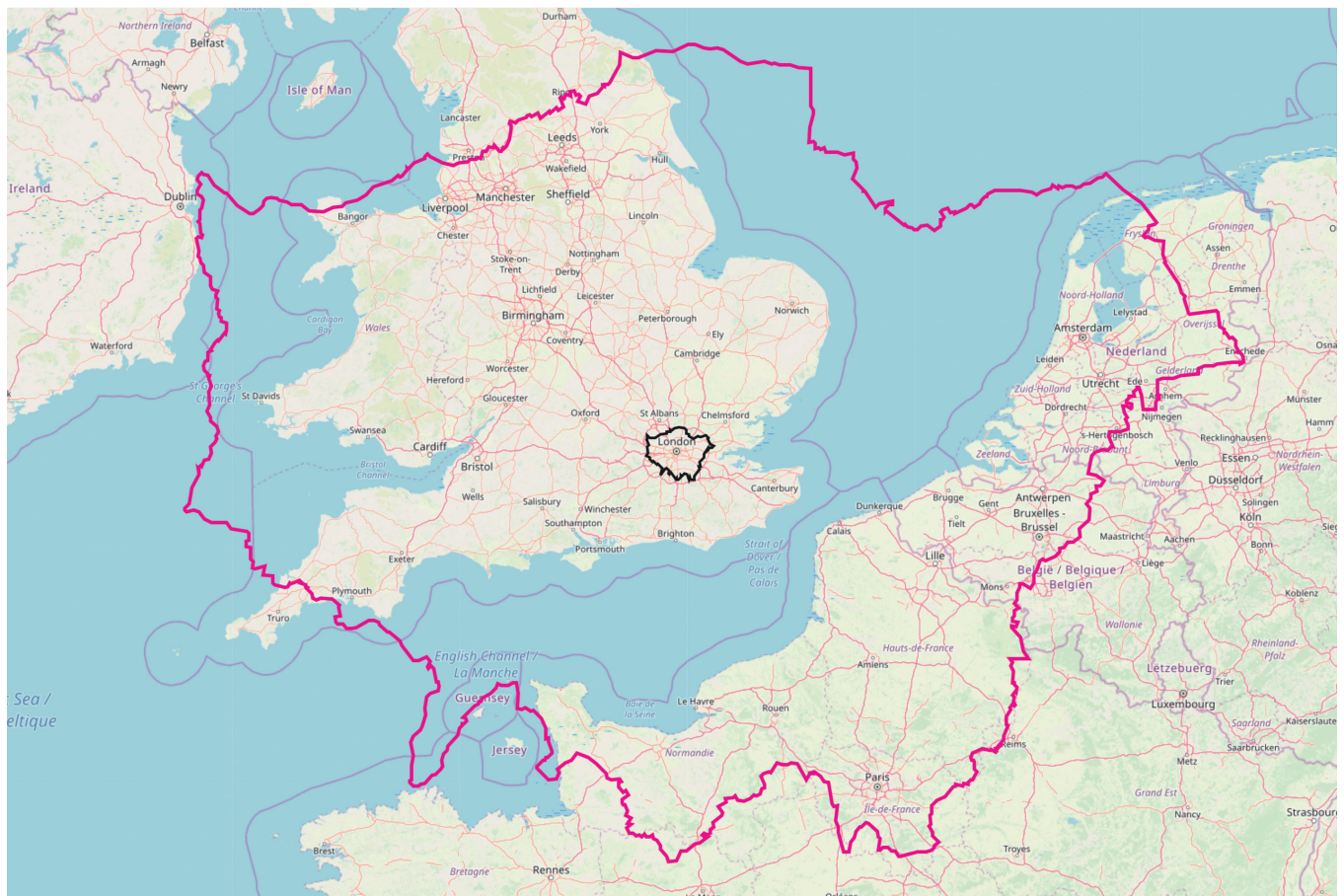
Research has been done on ‘fullness’ and this provides an evidential base which allows each one of us to form a personal judgement. Alasdair Rae of Sheffield University has done important analysis using the Corine Land Data System which divides all land into 44 different categories, 39 of which apply to the UK – we don’t have any olive groves! The category that corresponds most closely to ‘built up’ is called ‘discontinuous urban fabric’. This accounts for 5% of the total area of the UK from which one might be tempted to conclude there was no problem of overcrowding.

However, it is not as simple as that. Other Corine categories include ‘beaches’, ‘peatbog’ and ‘bare rock’. It is not a practical proposition to believe we could build on areas such as Snowdonia. If you add in these categories, we find we have now built on between 18-25% of the available land. And that percentage will inexorably rise as a result of the

construction of some 2.6 million homes needed over the next 20 years. At the same time, the land available for agriculture will fall so increasing the threat to our food security.

A second metric is to estimate how much habitable land is available to each of us and expressing that in easily understood terms – say a football pitch. Based on the current population and using the definition of habitable land above, one can calculate that each of us has about one-third of a football pitch to provide all our spatial needs. This is not just a space for living working and leisure, each one of us will have to provide our share of space for schools, hospitals, shops, offices and factories as well as the transport system that connects them.

Then, there is the demographic footprint of the UK – whether we are consuming more than our fair share of resources. The Global Footprint Network (2019) calculates a ‘total ecological footprint’ for each country. Based on each country’s population it calculates the demand for



Map of London's Ecological Footprint (Image: Alasdair Rae)

natural resources including the output of carbon which will, in turn, require a particular level of forest cover to provide the necessary absorption – our ‘carbon footprint’. The UK has done well recently with our carbon footprint dropping 12% between 2014 – 2016. However, we have an ecological footprint that exceeds our biocapacity by 301%. This means that by the beginning of May every year, we have used up our fair share of natural resources – for the whole of the year.

Those who argue that Britain has more than enough space should consider the following ecological footprint of London. Professor Alasdair Rae has created a map to demonstrate London’s ecological footprint which is the result of its population size.

To conclude, we have now built over about 25% of the available land – and this percentage is to rise further; on average each of us now has up to a third of a football pitch for all our spatial needs; finally, as a nation, we are collectively consuming three times our ‘fair share’ of resources. Whether collectively this means that the UK is ‘full’ will be a matter of personal judgement. But whatever one’s personal conclusion this surely is a matter worth some research and discussion – not least to begin a debate about whether the UK could ever be ‘full’ and if so, when.

4.4 Zero net migration/ family resettlement

Zero net migration does not mean there is no migration. Rather it is that for every permanent arrival there will be a permanent departure.

However, in the event, the demographic consequence is unlikely to be so simple. Take the following example; as can be seen in an earlier table, every year some 50,000 of our fellow citizens chose to leave these islands for good – some will be seeking fresh opportunities abroad but more are likely to be older, retiring to live in the sunshine or to join family or friends overseas.

Their replacements, the new arrivals, are predominantly likely to be economically active and thus a source of tax and other revenues. So that looks like a good outcome for UK plc. However, in due course, these arrivals, quite understandably, will wish to form relationships.

If these are with a member of the settled population the demographic impact is more limited. But if they chose, and many do, to marry someone from their original home community, the demographic impact changes substantially. Instead of a one for one exchange it is now one for two and becomes if they have, say, two children one for four. The right to marry whom one chooses and to live with them here is rightly seen as the mark of a civilized society.

One should not underestimate the numbers involved. In 2017, 44,000 of the EU migrants were part of family reunification – 17% of total immigration (Migration Observatory, 2017). Moreover, this category is much more likely to settle permanently in the UK. In 2011, 69% of those admitted on a family visa ended up either as a British citizen or with a permanent visa five years later.

A further direct result of this has been a rising percentage of UK births to mothers born outside the UK. They have a higher TFR (1.99) than those born in the UK (1.63) (ONS, 2019). In the most recent year, for which records are available, the three most common countries of origin for such mothers were Poland, Pakistan and Romania. In 1990, 11.6% (about 1 in 9) births in the UK were to mothers born overseas. Over the years since this percentage has grown steadily, last year reaching 28.2% (more than 1 in 4) though slightly below the prior year figure of 28.4% (ONS, 2019).

So, the demographic impact of migration has two parts. First that of the initial arrival but followed by a second stage as the migrant settles and has a family. As noted earlier, the economic or other consequences of this second phase rarely form part of policy debate. The Migration Observatory at Oxford University suggest that 21% of the natural increase expected in the years to 2035 will be an indirect result of immigration.

4.5 Dependency ratio

The dependency ratio maps the balance between those of working age and the rest. The rest is made up of two parts – those in education and so not yet having begun work and those in retirement having finished work.

Table 5: UK dependency ratio 1980 (projected figures for 2080) UK Dependency Ratio

UK Dependency Ratio	1980	2000	2020	2040	2060	2080
Old	23.4	24.4	27.8	35.6	39.4	42.3
Young	32.8	29.3	30.2	28.9	29.5	29.2
Total	56.2	53.7	58	64.5	68.9	71.5

Source: ONS 2019

The table above shows how the dependency ratios are expected to change over the next sixty years (ONS, 2019).

The potential seriousness of this was outlined in a paper produced by Mercer the recruitment consultant, reported in *The Times* in March 2018. Mercer suggested that over the period to 2025 the workforce will increase by 820,000, while the number of those aged 65 and above will increase by 2 million (Aldrick, 2018).

But there are arguments that this is a simplistic approach. First, the basic framework of the dependency ratio is based on an outdated social model with work defined as an activity that began after education finished at 15 and ended at 65 when, given the level of life expectancy, at that time, there was likely to be about 10 years of retirement. Now vanishingly few people begin full-time work at 16, the pension age is set to rise progressively over the next few years and the number of years during which a person remains physically and mentally active has increased substantially. The ONS reported in November 2019 that ‘70 is the new 65’ – that the life expectancy of a 70-year-old in 2017 was the same as that of a 65-year-old in 1981.

So, to enable a more effective analysis we need to change the definition of the dependency ratio to reflect modern conditions. Professor James Sefton and his colleagues at Imperial College London have produced some adjusted figures. As can be seen in the Table 5, the overall dependency ratio in 2020 was 0.58. If we amended the dependency ratios to assume that people began work at 20 and ended at 69 the dependency ratio drops to 0.564 – a significant 1.6% fall.

There are other reasons why what Chris Giles wrote in the *Financial Times* in August 2018 described as the ‘graph of doom’ may not be

an accurate prediction. Chris Giles highlighted a growing fiscal gap between tax revenues and the cost of social care, but we have already noted a significant level of underemployment amongst those aged 50-65. This is before making any allowance for people wanting, for lifestyle reasons, or needing, for economic reasons, to work on beyond the official retirement age.

If we were able to achieve a shift in our attitude toward the employment of older people, we would have a triple win of higher government revenues, a sector of our population given a new sense of purpose and fulfilment, as well as a reduced need to recruit overseas. While this pamphlet is about demography, not about methods of social care, one must not overlook the role that technology could play in reducing the need for continuous skilled trained care. For example, many people as they grow older prefer to stay in the familiar surroundings of their own home. For relatively modest sums, sensors can be installed in home or flats to ensure that help can be sent when it is needed. This will not end, but it could greatly postpone, the use of intensively and expensively trained people for end of life care.

Finally, a broad acceptance of the implications of the current dependency ratio as a reason for encouraging immigration ignores the inexorable lessons of compounding. A person who comes to this country aged 25 to work in a care home will in less than 50 years be thinking of entering the care home as a patient not as a worker. So, he or she will, in turn, require further increases in our population to provide the necessary additional care. The result of this approach, memorably described by Sir David Attenborough (2011) as an ‘ecological Ponzi Scheme’ would, if the then dependency ratio of 2006 were maintained, take the UK population to a 100 million by 2050 –

about 50% above the current projected level (Turner, 2007).

The issues raised by the dependency ratio are broad and extend well beyond demography. There may be lessons to be learned from other countries, in particular Japan. Increasingly the opportunities, as well as challenges of longevity, are being identified in books such as 'The 100 Year Life' co-authored by Lynda Gratton a Professor of Management Practice at London Business School which are now informing the policies of the Japanese Government.

4.6 Morality – refugees

The British are a generous people and are particularly inclined to want to help the less fortunate. The public outcry that followed the appalling photograph of the Turkish policeman carrying a drowned refugee baby out of the Mediterranean showed this.

So part of our general sense of what our country stands for in the modern world is that we should be seen to play a proper role in helping the less fortunate. So, a demographic policy that created a 'fortress Britain' as regards refugees would lead to widespread feelings of shame. In a recent poll, 25% of people said we should allow more people fleeing persecution or war in other countries to come to the UK (YouGov, 2018) – a far higher percentage than that for low-skilled economic migrants.

But there does need to be clarity as to what level of commitment is planned. That provides the basis for a proper policy discussion without which the issue of refugees and refugee numbers becomes the subject of anecdote and potential controversy.

4.7 Recent government policy

The Green Paper 'Integrated Communities Strategy', published in March 2018, made no mention of the impact and consequence of forecast of population increases. It focused almost entirely on ethnic minority integration. Ethnic minority integration is clearly an important issue but with net immigration still running at nearly 900 per

day we will have to run very fast to keep up with events. Taking the Green Paper as a whole one can only presume that the government believes that demographic changes play no part in the preservation or enhancement of civic cohesion.

4.8 Conclusion

It is hard to untangle the threads of the issue that are causing concern in our society. Worries about the country's future post Brexit, the uncertainties caused by the first rumblings of the Fourth Industrial Revolution and the pressures of social media would appear on most people's list. But demographic pressure as a 'wrap around' issue also ranks high as witnessed by public opinion polls on the subject and public reaction to major infrastructure projects.

It is often claimed that having stricter borders is isolationist and inward-looking, and this will in turn adversely affect social cohesion. Yet, there are plenty of other liberal democracies with far stricter immigration policies than the UK. Canada for example, has an immigration policy that The Atlantic (2018) describes as 'soft hearted but hard-headed'. The author of the article argues that Canada maintains an open-door reputation by being incredibly selective about whom it allows inside in the first place. Canada's selectiveness is exemplified by World Economic Forum report (WEC, 2017) on travel and tourism competitiveness. The report ranked the UK as the 20th on international openness country while Canada was placed at 60th globally. The disparity between the two countries is partly due to Canada being ranked the 120 out of 136 for restrictiveness of its working visa requirements. Canada is not alone, writing in *The Times* on 22 September 2018, Matthew Parris pointed out that Denmark, often seen as a beacon of Scandinavian tolerance and open-mindedness, imposed stricter requirements than the UK on non-EU arrivals. So, there appears to be plenty of scope for Britain to remain open-looking while also having stricter visa requirements as part of a new approach to immigration.

Conclusion

During the preceding chapters, we have found ourselves considering many issues that are of fundamental concern to our fellow citizens. For some, these issues are primarily economic – the availability of well-paid jobs and the prospect of advancement for themselves, their family and their community.

For others, it has been about changes to their environment – green fields and open spaces disappearing under roads or houses; or the reduction in wildlife and the impact on the ecology of our country. Another group is concerned about the pressures – some real, some psychological – on roads, on public spaces, on health facilities and, above all, on our rapidly changing society.

The role that demography plays in these issues is slowly being recognised and research into examining the effect of population change is increasing. But this research is too often siloed in its work. There is no interconnection between the various bodies examining demographic trends. The ONS role is limited to providing numerical records of what has happened and numerical estimates of likely future outcomes. The Migration Advisory Committee, as its name implies, looks at only one aspect of demographic growth and even this primarily on a quantitative basis. Meanwhile, where individual government departments consider these issues, they only do so from their own departmental perspective. Nobody has the responsibility for joining the dots together to provide a comprehensive analysis which, in turn, can provide a framework for public discussion and thence a basis for policy formulation.

Why is it that the issues of demography and population remain an issue that many are reluctant to see discussed? Some appear to fear that if this particular genie is let out of the bottle the whole country will fall into the hands of xenophobes. And others seem to see it as risking their vision of the UK as a ‘vision setter’ for the world and, as a result, becoming an inward-looking country

of Little Englanders. Of course, amongst our fellow citizens, there will be xenophobes who may seek to exploit the situation. But they are a tiny minority. The vast majority, by contrast, face the consequences of the issues we have been analysing in their day to day lives. They do not understand why this issue cannot be discussed and are resentful that it is not at least being considered. Indeed, some would argue that this failure to recognise and discuss rationally these challenges has been at the root of some of our present discomfort.

Background factors

There are a series of factors which provide a background to specific recommendations.

An issue that needs discussing

Foremost, government and the commentariat must recognise that future population growth poses a number of serious challenges which need discussing and responding to with an integrated strategic plan. Demographic effects are both long term and irreversible – people who live or have settled here legally must be entitled to share fully in all that the UK has to offer. We are all entitled to know what our government thinks the future holds and what plans it has to address the challenges and the implications – particularly where these have irreversible consequences. For example, houses and infrastructure once built cannot be unbuilt.

It is not a sufficient response to claim that this is all too far into the future to act now. Even worse to claim that it probably won’t happen and, further, if it does that then nothing can be done about it.

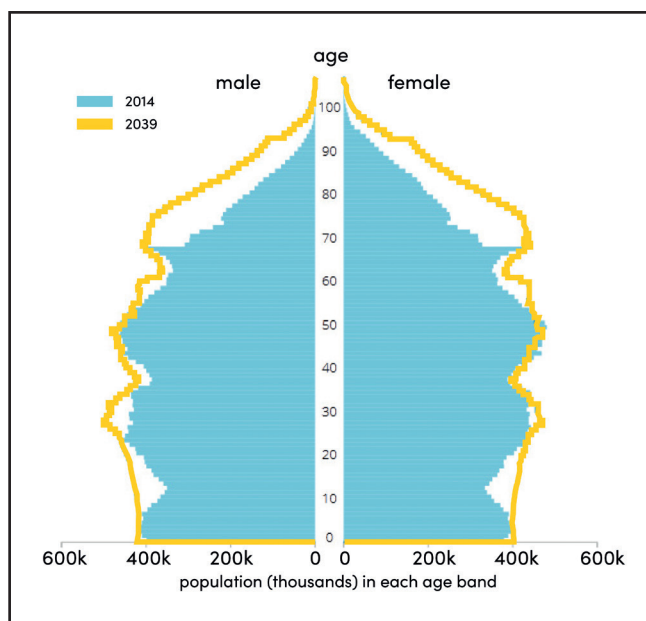
Standard of living or fiscal sustainability

Ronald Lee, a world-leading demographer, has led a team of researchers to estimate what level of population growth might be best for maximizing the per capita standard of living. James Sefton

of Imperial College (a member of Lee's team) has concluded in a report published in *Science* that some decline in population will lead to an improved per capita standard of living. On the other hand, if fiscal sustainability is considered more important an increasing population is a better approach.

The reason for this divergence can best be explained by the population tree below which shows the age distribution of the UK population compared to the actual figures of 2014.

Figure 6: Gendered population tree



Source: ONS 2019

Note: The population tree shows the numbers, in thousands, of people in each year cohort from 1 to 100 years olds split between men and women actual 2014 and projected for 2039

We begin and end our lives consuming more than average resources (on education at the beginning of our lives and on health and social care at the end). During the intervening period of our working lives we contribute more than the average.

The population tree shows that sharpest divergences in population size over the next twenty-five year period (2014 – 39) are first those aged between 5 and 20 (i.e. primarily in education) and second those aged over 70 (i.e. primarily in retirement). That is the essence of the fiscal problem.

If over time each slice of the population tree were to become more even and increases in life expectancy continue to flatten, the fiscal

challenge will slowly diminish and thus open the way for per capita GDP to begin to rise.

It is not just about economics

There is a need to recognise that the demographic challenge is not just about economics. It is equally about our ability to live in harmony with each other, with our environment and with our world.

Understanding regional differences

Demographic policies have to take into account their differing impact on the various countries and regions that make up the United Kingdom. The North-South divide is the most obvious example and one that must be of particular relevance to this new Conservative Government if it wishes to consolidate its recent electoral success in winning long held Labour seats and so creating a new Blue Wall of Parliamentary seats in the Midlands and the North. And the special position of Scotland must not be overlooked.

Understanding societal differences

Demographic policies have to take into account and try to bridge the very different attitudes towards population growth between those who are primarily, but not exclusively, urban city dwellers – particularly London based – as opposed to the rest of the country. These groups broadly reflect the attitudes of the ‘somewheres’ and the ‘anywheres’ described by David Goodhart (2017) in his book ‘The Road to Somewhere’.

Recommendations

Establishing a demographic authority

To provide a basis for examining and proposing action on these challenges the Government should establish a Demographic Authority. This would be a permanent independent body (along the lines of the Office of Budget Responsibility) charged with forecasting and analysing the demographic effects – short-term but particularly long-term – of government policies, making recommendations and, in so far as is possible, establishing a cross-party consensus.

Demography is not an area that responds well to jerks on the policy tiller at five-year intervals.

Terms of reference

The demographic authority would be responsible for establishing an evidence base on the demographic position of this country. Its terms of reference would require it, *inter alia*, to:

- Provide expert advice to government – local and national – as well as other bodies on demographic issues.
- Recommend action to be taken with regard to the present and future demographic position of the country.
- Comment on the demographic implications of proposed government policies.
- Note the extent to which previous recommendations of the Authority had been accepted and acted upon.
- Undertake research into demographic development – including learning from the experience of other countries.
- Lay out a long-term plan (50+ years) for the optimum level of population of the United Kingdom explaining the trade-offs required with a view, *inter alia*, to providing an informed basis for public discussion.

Reporting mechanisms

- The Authority would report annually to Parliament. The report would include:
- An update on demographic statistics – current and projected– with an explanation of the background to, and significance of, any changes.
- An outline of research completed during the year; the reasons for undertaking it and the conclusions reached.
- Any recommendations that have been made to government on the demographic implications of individual Government proposals which, in the view of the Authority, would have consequences for the demographic position of the UK.

Membership

The membership of the Authority would need to reflect the breadth of its remit. It will need to mix academics with practitioners and be geographically diverse. It will need to combine

some conventional thinkers with others of a more radical disposition. Importantly, it will need to be a small enough body so that it becomes a forum for recommending action rather than a talking shop.

Concluding thoughts

Despite many predictions of disaster and relative economic underperformance the United Kingdom remains a major world economic force. Maintaining this relative per capita prosperity for our existing settled population over the next half-century will, in any case, be challenging. But the UK is a geographically small island; and one which is already relatively crowded. We are therefore going to be one the first countries to test the implications of that often quoted phrase ‘anyone who believes in infinite growth in anything physical on a physically finite planet is either mad or an economist’ (Boulding, 1968).

As explained repeatedly elsewhere in this pamphlet demography has a long fuse. Policies set in train now will only reach their full demographic implications in the 2030s and beyond. And, as also noted earlier, a majority of our fellow citizens already think that this country is overcrowded and that steps should be taken to prevent population pressures becoming greater.

It remains to be seen whether governments, individual politicians and political parties will have the will to look beyond the next General Election (or two) to create a demographic framework that creates a balance between the varied entitlements of our settled population and the need for the dynamic provided by new arrivals; which preserves the country’s environmental and ecological inheritance while maintaining the role of the United Kingdom as a moral force particularly as regards the less developed world.

It is a new road but one on which we need to set without delay. It will not be easy. In his book ‘The New World Order’ Henry Kissinger wrote ‘To undertake a journey on a road never before travelled requires character and courage: character because the choice is not obvious; courage because the road will be lonely at first’. (Kissinger, 2014).

Appendix

Author's calculation of London's ecological footprint:

The population of Greater London is 8.8 million, which is then multiplied by the figure for how many hectares is in theory needed to support each person, which Professor Alasdair Rae worked out is 4.4 by using the London's Ecological Footprint Report (2003). The area of London multiplied by the ecological footprint gives an estimate of 387,200 sq. km.

Author's calculation of space available for each individual:

The population of the UK is 66.4 million. The land area of the UK is 243,000 sq. km. Habitable land area is assumed to be 75% of the whole resulting in 182,000 sq. km of habitable land. This gives a population density of 365 people per square kilometre which, in turn, means that each person has 0.27 of hectare. Football pitches averages 0.7 hectares which means that each one of us has about one third of a football pitch for all our spatial needs.

Authors calculation of space required for house building to 2041:

Recent housing density is 32 homes per hectare, but this allows for home and garden alone. Some planners suggest an additional 20-25% is needed to provide sufficient recreational space which would reduce the number of houses per hectare to 26. But in turn that does not allow for a pro rata share of the space for the necessary schools, hospitals, factories, offices, shops etc, this could reduce the figure to 21 houses per hectare. Accordingly, each 1 million homes will require just under 50,000 hectares and 2.5 million homes (the number estimated to be required to meet our increased population needs) will require 125,000 hectares. The county of Bedfordshire is 123,500 hectares.

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The UK population has grown fast in recent years – an increase of 6.6 million since 2001 with a further increase of 5.6 million expected by 2041. Even for a geographically small island, the UK is relatively crowded by comparison with France and Germany. Indeed, an overwhelming majority of British people think that the country is already overcrowded and that steps should be taken to prevent population pressures becoming greater.

In this thoughtful and persuasive pamphlet, Lord Hodgson of Astley Abbots takes stock of the scale of this change for the UK and the challenges it will bring. Whilst acknowledging the huge value that new arrivals bring to this country, the pamphlet argues that we have been careless about their impact on the economic position of the ‘settled population’ – defined as being all members of our society irrespective of race, colour or creed – as well as the non-economic consequences of rapid population growth for our society – in housing, environmental degradation, water shortages, food security and our sense of national belonging.

Demography has a long fuse. Any potential policies set in train now will only reach their full demographic implications in the 2030s and beyond. But the challenges posed by rapid population growth have traditionally received very limited attention from successive Governments, focused on short-term electoral cycles.

To develop a much-needed and much-desired national strategy, a Demographic Authority should be urgently established, modelled on the Office of Budget Responsibility (OBR) which has proven to be successful in providing independent and authoritative analysis of the UK’s public finances. By establishing a proper evidence base and devising long term strategies to meet the challenges of population growth, the demographic ‘long fuse’ can be forever saved from the long-grass.