

CHILDREN OF WHEN

Why housing is the solution to Britain's fertility crisis

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BRIEFING PAPER

EXECUTIVE SUMMARY

- In the UK and across the developed world populations are rapidly ageing and total fertility rates are substantially below replacement level—meaning a falling ratio of workers to dependents.
- In recent decades, immigration has propped up the supply of workers and kept the population pyramid in shape, but in the wake of Brexit, and an expected decrease in immigration, there is a clear need to raise birth rates.
- The nation's low birth rate is not just an economic problem. International survey data indicate that many women across the developed world are not able to have as many children as they would like.
- International evidence shows that housing markets have substantial effects on fertility: rising house prices may boost fertility for homeowners, but slash fertility amongst renters — between 1996 and 2014 157,000 children were not born due to the cost of living space.
- In little more than a decade, home ownership rates have collapsed among young people, as house prices and rents continue to rise. If current trends are maintained we may expect fertility to fall even further.
- Free-market reforms to housing regulations could help raise fertility and improve the country's long-term economic and social prospects.

INTRODUCTION

It is generally acknowledged that the United Kingdom suffers from a severe shortage of affordable housing, especially in its most populous and economically productive areas.

It is less well-acknowledged – though undisputed – that the country's fertility rate is below the replacement rate and has been for many decades. In practical terms this means a serious and growing shortage of workers and a worrying imbalance in the population.

There are increasingly far too many elderly people relative to the numbers of working-age taxpayers. In a post-Brexit world where immigration is likely to fall, the tax burden on the latter group is likely to rise, due to the increasingly expensive health and social care needs of the former.

This paper links these two issues by demonstrating that the housing crisis is, in part, causing the fertility crisis. It draws upon a broad array of theory and data, both from the UK and abroad. A literature review indicates that an inelastic housing market and small dwelling size both have negative effects on fertility.

The effect of house prices themselves is mixed; rising house prices increase fertility amongst existing homeowners, but have negative effects amongst renters. Homeownership rates are falling in the UK, especially amongst the young. If the homeownership rate continues to fall and the average age of first time buyers continues to rise, the net effect of rising house prices on national fertility is likely to become ever more negative.

Freemarket, pro-development housing reforms are likely to raise fertility and ensure that a high standard of living and healthcare remains affordable.

BACKGROUND: FERTILITY IN THE UK

Fertility in the UK has been below the replacement rate (around 2.08 children per woman) for many decades not matching or exceeding the replacement rate since 1972. Such low fertility was not always the historical norm; in the postwar years fertility rates were comfortably above replacement. As recently as 1964 the total fertility rate (TFR) had reached a peak of 2.93. A swift and catastrophic fall ensued, with TFR declining to 1.66 by 1977, and reaching a nadir of 1.63 by 2001. A small baby-boom then ensued, with TFR increasing steadily, and reaching 1.94 by 2010. Since then it has decreased again, and now stands at 1.82 (as of 2015) (Office for National Statistics, 2016a).

This tale of declining fertility is robust to different measures. The TFR is the average number of children that would be born to a woman if she went through her fertile years having children according to the current age-specific fertility rates. Consequently it is a synthetic measure and although a reasonable snapshot of current fertility across the population, it does not measure any real cohort of women. It may also be rather volatile if a large number of births are suddenly brought forward or delayed. By contrast, the completed family size measure tracks the actual average number of children born to women in a given cohort over the span of their reproductive lives. For the cohort born in 1969, the youngest cohort who can be safely assumed to have almost entirely finished reproduction and for whom data are available, the average number of children per woman is 1.91. By contrast, the average woman born in the mid-1930s had about 2.45 children (Office for National Statistics, 2016b).

This raw data needs to be put into context. Firstly, there exists large regional variation in fertility within the UK. Northern Ireland is unusually fecund, its TFR

actually drifting above the replacement rate in 2008, though now it hovers just below it (1.96 in 2015). By contrast, Scotland's TFR is a worrying 1.56 (as of 2015). Very large variation in TFR exists within the London area, ranging from Barking & Dagenham (2.41) to Camden (1.22). Some of this variation can be linked to population differences resulting from immigration, since women not born in the UK tend to have higher fertility rates than those born here. The small baby boom from 2001-2010 was very largely due to a rapid increase in mothers not born in the UK as a percentage of the overall population of mothers (Office for National Statistics, 2013).

Secondly, by European standards, the UK's TFR (1.82) is quite impressive, certainly as compared to Germany (1.50) and Austria (1.49), Italy (1.35), and Spain (1.33). A number of other European countries have TFRs that approach replacement level, such as France (1.96), Iceland (1.80), and Sweden (1.85), but none exceed it, with the sole exception of Turkey (2.14) (Eurostat, 2017).¹

Nevertheless, sub-replacement TFR poses severe problems. In the very long run, assuming no immigration and no improvement in TFR, it would bring the eventual, literal death of the nation (though this is not remotely a realistic scenario). In the shorter term, low TFR (combined with decreasing mortality rates) means that the population ages. Median age rises and the ratio of working-age adults to older adults becomes increasingly low. Both of these trends are present now in the UK: median age rose from 35.4 to 40.0 years between 1985 and 2014, and is projected to rise to 42.9 years by 2039. The population increases in the "85 and over" category are the most stark; this group doubled in size as a percentage of the population (from 1 to 2%) between 1985 and 2010, and is projected to constitute almost 5% (4.85) of the total population by 2035 (Office for National Statistics, 2015).

THE COSTS OF LOW FERTILITY

The economic costs of this ageing process are vast. Lower mortality and fertility rates imply a rise in the dependency ratio (the ratio of non-workers to workers). The consequences for public finances are obvious. 55% of welfare spending currently goes to pensioners (as of 2014/15). In an ageing population this number is likely to rise even further. As of 2014 there were 3.2 working-age people for every pensioner; by 2037 this number is projected to fall to 2.7 (House of Commons Library, 2015).² The rise in the numbers of very old people - as discussed above - presents an additional burden. The average 85 year old is estimated to cost the NHS three times as much as the average 65-74 year old (House of Commons Library, 2015). While the government has successfully bitten the bullet and is in the process of raising the state pension age, political reality makes cutting pensioner welfare very difficult. The elderly are much more likely to vote than the young, and there are a lot of them.

¹ All TFRs reported here are correct for 2015. TFRs for 2016 are not yet available. For some reason Eurostat and the ONS have slightly different numbers for the UK's TFR in 2015 (1.80 vs 1.82). I have used the ONS' number.

² Note that this analysis was done before the EU referendum vote, and consequently an updated number would probably be lower still.

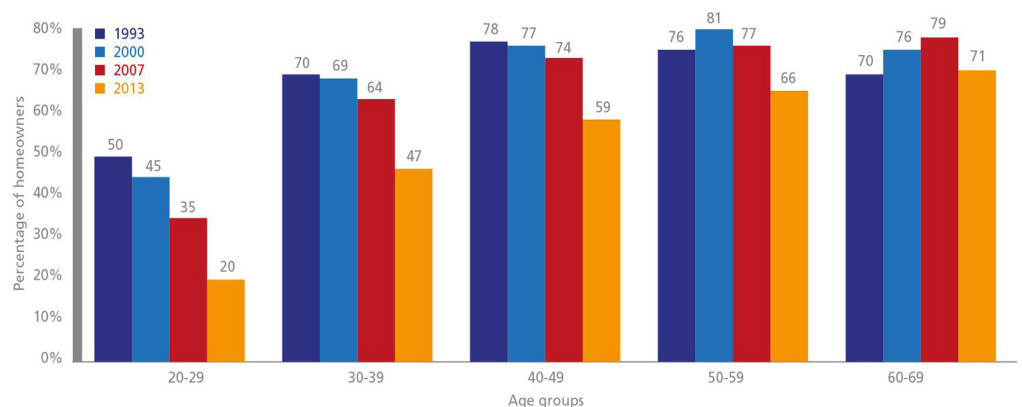
Neither should the social costs of low fertility be ignored. Survey data reveal a consistent mismatch between desired and actual completed fertility. Neither men nor women are having as many children as they would like; this problem is even worse in most other European countries (Livingstone, 2014). The direct long-term costs to their psychological well being may well be fairly substantial. Shrinking family size means that the old increasingly cannot rely on their close family to care for them in their protracted dotage, and a far greater burden of care is placed on the few adult children who are available (Government Office for Science, 2016, p.73). More speculatively, it has been suggested that such demographic failure may incline the middle-aged and elderly towards extremist right-wing politics, as they see extremely rapid demographic replacement in the generations below them caused by low indigenous fertility and high immigration (and, of course, higher immigrant fertility) (Douthat, 2016).

THE HOUSING MARKET IN THE UK

The crisis of housing in much of the UK has been so widely discussed that it does not need extensive review here. Readers desiring an informed overview of the general dire picture are advised to consult Niemitz (2012). Some especially relevant statistics, however, are worthy of mention.

Homeownership rates among young people are falling and continue to fall. Simultaneously, the average age at first home purchase has risen; it is now 30 (32 in London). As recently as 1991 two-thirds of 16-25 year olds had purchased property. The figure now is approximately just one in ten. The following graph is illustrative of the problem.

Figure 1:
Percentage of homeowners by age group and year



Source: Authors' calculations based on data from the Survey of English Housing from 1993/94 to 2007/08 and the English Housing Survey from 2008/09 to 2013/14.

Changes in dwelling size are considerably harder to track, but a recent analysis by Savills sheds some light on the situation (Hudson, 2015). Homes built prior to 1919 are, on average, 102 metres squared, whereas those built between 1981 to 1990 are just 83.9 metres squared. Those built since 1991 are somewhat larger, to 91 metres squared. While it is important to note that older dwellings may well be larger in part because they have been around for longer and consequently are more likely to have been extended by the additions of lofts, conservatories, or basements, the overall impression of a considerable fall in dwelling size of new-build homes throughout the 20th century is probably accurate, despite a recent rebound. Intuition would suggest a bidirectional relationship between the trends in dwelling size and fertility.

Savills also note significant distributional issues with modern new-build homes. The welcome expansion in the size of new homes built since 1991 has come about because of a rise in the numbers of very large new homes, partly counterbalanced by a parallel rise in the number of new small flats. There is a distinct lack of homes in the middle of the size distribution; that is, we are not building enough of the type of homes suitable for that young people wishing to start a family that are still affordable. are most likely to want to buy (and that they can afford).

HOW THE HOUSING MARKET AFFECTS FERTILITY

It may seem strange and counter-intuitive to argue that economic factors affect the decisions of couples when it comes to childbearing. Indeed, we do not suggest that the decision to either remain childless or begin a family is one that is largely motivated by economic factors. We do strongly maintain, however, that variation in completed family size is very substantially driven by financial considerations. Children cost money, and much of that cost is predictable from the outset. When weighing the decision as to whether or not to have another “marginal child”, parents who simply cannot afford to do so will often not, no matter how much they might want another baby for other reasons. Strong quasi-experimental evidence of the large effects of “the price of children” on fertility is found, most notably, in a recent paper analyzing the effects of the privatizations of the Israeli kibbutzim, which are estimated to have cut fertility by an average of 0.65 children per woman (Ebenstein, Hazam & Shimon, 2015).

The economics of the housing market affect fertility in a number of ways.

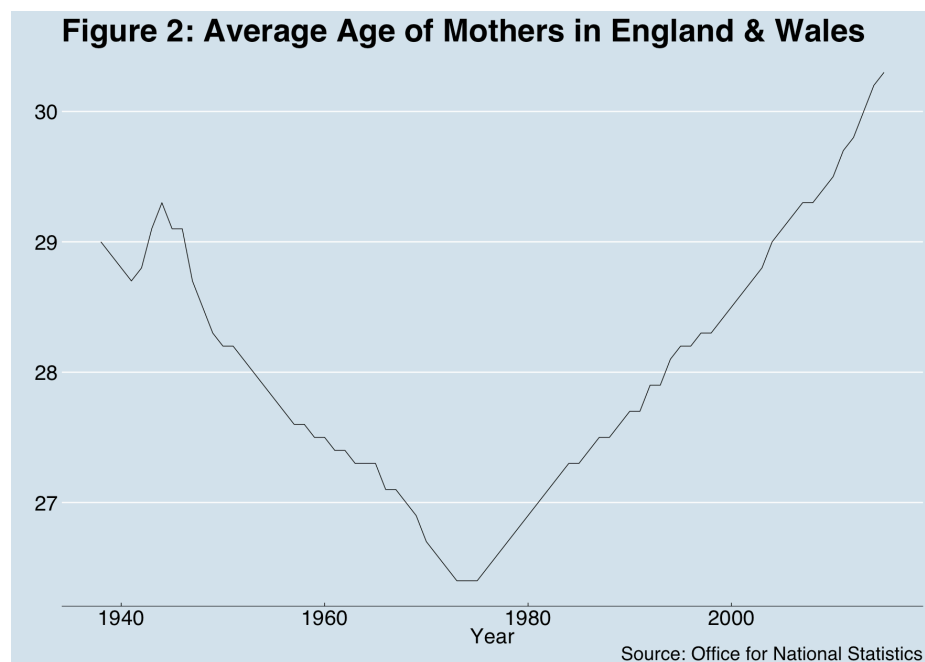
1. Rising rents typically cut fertility amongst renters.
2. Rising house prices probably raise fertility among existing homeowners; they certainly enable couples to have children earlier than they otherwise would. The rising value of their home gives them greater confidence that they will be able to afford another child.
3. Moving to a larger property probably has a positive causal effect on fertility, though most of the correlation between moving to a larger property and fertility is non-causal and is explained by selective moves (Kulu & Vikat, 2007).

4. More expensive housing also shifts tenure towards renting and away from homeownership: higher house prices means higher deposits, and higher rents make deposits harder to save for. In the ten years between 2004 and 2014 homeownership fell from 60% to 35% among 25-34 year olds—the key child-bearing demographic. This amplifies the negative effect of higher rents.

It is important to note that the existing literature on house prices and fertility in the UK only explains the past and gives hints as to what sort of trends we may expect in the future, *mutatis mutandis*. It does not have the predictive power we might expect because much of it is based on datasets from a world of lower prices and much greater mortgage accessibility³ (i.e before the financial crisis and recession). The full effects of the great collapse in homeownership rates amongst young people are only just beginning to show up.

That said, a recent working paper provides the first empirical estimates of the effects of changing house prices on births over the last few decades in England (Aksoy, 2016). The data span the years 1996 to 2014, and the analyses exploit local exogenous variation in refusal rates for major development projects, allowing rather more compelling causal inference than the typical OLS + controls analyses would permit. The three-year-average refusal rates function as an instrument, a variable highly correlated with the independent variable (house prices), but that is only correlated with the dependent variable (fertility) via the effect of house prices.

The IV analyses indicate that a 10% rise in house prices resulted in 4.9% decrease in births amongst renters and a 2.8% increase in births amongst home owners over the whole 18-year time period. The net effect is a 1.3% decrease in births over the entire period, equating to approximately 157,000 missing children. The effect sizes for London are, predictably, greater in magnitude (for both homeowners and renters).



³ Interest rates have stayed low - though are now on the rise - but obviously deposit affordability became a greater problem.

There are several indirect mechanisms by which this effect operates, over and above the straightforward scenario in which money that would otherwise be spent on children must instead be redirected towards rent and deposit-saving. The property they are able to buy will often be too physically small to fit a large family. Even when young people are able to buy suitable property, the process of saving can often take up many years, pushing women towards older motherhood. This in turn has a limiting effect on family size, in no small part because the time it takes to conceive rises with maternal age. The risk of birth complications also rises steadily with maternal age.

While these estimates are demonstrative of trends we expect rising house prices to have in the future, again we must stress that it would be a mistake to the effect sizes themselves as predictive. If house prices continue to rise over the forthcoming 18 years the net negative effect on births is likely to be considerably greater than 1.3%, because a far greater percentage of the population of young people of fertile years are trapped in the rental sector now, compared to the recent past. Interestingly, a recent YouGov survey commissioned by the Council of Mortgage Lenders finds that home ownership aspirations remain very high, and have barely dropped, despite the stark reality of the market. 56% of current private renters want to own a home within the next two years, and 71% within the next ten (Council of Mortgage Lenders, 2016). That so many of them are unlikely to achieve these humble goals is its own tragedy.

POLICY SOLUTIONS

Our preferred solutions to the housing crisis have already been outlined elsewhere (Southwood, 2017) and need not be repeated in excessive detail. Green belts must be built on. Height and design restrictions need to be pared back, allowing time-honoured and well-loved high-density designs to spread. Stamp duty should be abolished. The former measures will add to the overall supply of liveable family housing. The latter will make the market more elastic by allowing elderly homeowners to downsize without suffering a serious financial penalty.

The aim of this paper is not to recapitulate the many merits of these measures, but to indicate that they are not simply a way of making the lives of the current inhabitants of this nation more bearable. They would be an immeasurable gift to our future citizens, and would go some way to ensuring that our current citizens are able to leave behind a true legacy of children, not just soulless buildings in the unlovely “International Style”.

More broadly, our governments must learn to construct policies that do not accidentally have the side effect of making it harder to have children. In education, we must be very careful to avoid the fate of South Korea, where almost the entire population goes on to (very expensive) higher education. No only does this unnecessarily protracted education deprive women of many of their most fertile years, but it also vastly raises the expected cost of each child, making large families an economically irrational choice for parents. It should be noted that this problem of expensive children is probably a far bigger issue than the reduction in available childbearing years.

The May government, for instance, is keen to open more grammar schools. Many objections to this policy have raised (for a rough summary, see Sabisky, 2016). Interestingly, one little-noted property of grammar schools seems to be their sizable and negative effects on female fertility (Clark & Del Bono, 2014).

Cutting the cost of children is therefore a policy imperative across many domains, beyond housing and education. The childcare market is, just like the housing market, over-regulated, expensive, and inflexible. UK childcare costs are some of the highest in the OECD (OECD, 2014). Few people are aware that childminders are obliged to register with Ofsted, who inspect them (one of the most grotesque examples of bureaucratic empire-building of recent times).

CONCLUSION

We do not pretend that broader social trends, beyond the scope of this paper, do not strongly affect fertility variation. In particular, the lowest-fertility countries in Europe seem to be those with both fairly high female labour force participation and low male contribution to childrearing and housework. Fertility decline is a matter of culture, not just economics, and reversing it will also require far-reaching cultural change. Male behaviour in the home needs to move on from the days of widespread stay-at-home motherhood, when a sharper division of labour arguably made more sense. Workplace cultures will have to become more accepting of women who have children, and in many ways it would make more sense if the educational system was structured so as to make it easier for women, if they so choose, to work, marry, and have a child or two before going on to university.

None of this changes the plain fact that economics matters, and, if we wish the total fertility rate to rise back towards the replacement level, the cost of living needs to fall. The problem of unaffordable and unsuitable housing - most keenly felt in areas where young people are most likely to wish to live and work, because of universities, social connections, and jobs - is a very substantial part of the overall cost of living issue. This paper has reviewed the literature that clearly demonstrates the empirical relationships between the availability of housing and the childbearing choices that couples make. Even if government policy is slow to change, it is our hope that this paper will raise awareness of the devastating consequences of sub-replacement fertility, and show that we need not regard the fertility rate as a variable beyond our control. It is not something like the speed of light. Demographic failure is our choice. It is not inevitable.

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