The relationship between economic growth and population growth.
In this Brief, the Sheffield Political Economy Research Institute (SPERI) considers the relationship between population growth and economic growth in the UK. The fact that populations and economic output tend to grow in tandem, albeit at different rates, has been well-documented. However, given the severe difficulties the UK economy has experienced in recent years (and, in terms of living standards, continues to experience), it is worth revisiting this evidence to consider what it tells us about the nature of the present recovery. In advance of the Scottish independence referendum, an Annex repeats the analysis, but looks only at Scotland.

Background

- In general, growing economies need growing populations, increasing the supply of both workers and consumers, although the precise nature of this relationship is of course complex and variable.

- The remarkable success of Western economies in the past 200 years is therefore associated with strong population growth. Yet population growth is problematic if it outpaces increases in productivity (Gamble, 2014).

- The current recovery in the UK economy has been plagued by concerns about GDP per capita. Despite the recovery in GDP since 2013, output per head remains 6 per cent below its pre-recession peak, whereas it was significantly above peak at this stage after all other postwar recessions in the UK (ONS, 2013; 2014).

- Very strong population growth helps to explain why GDP per capita, and therefore living standards, continue to stagnate – although it may be that aggregate GDP growth would have been even lower without population growth.

Evidence

- The chart below demonstrates the stagnation in GDP per capita evident since the financial crisis, and in particular since the coalition government took office.

Source: Office for National Statistics.
GDP per capita has stagnated, despite the ostensible economic recovery, precisely because population growth has been so rapid in recent years. The chart below demonstrates the relationship between economic growth and population growth in the UK since the mid-1960s.

Sources: World Bank; Office for National Statistics.

Clearly, although economic growth is more volatile than population growth, and both of course grow at vastly different rates, the trends are closely related for most of this period.

In general, high population growth in the mid-to-late 1960s was matched by high economic growth, and lower population growth in the 1970s was matched by lower economic growth.

Similarly, higher population growth from the mid-1980s onwards was matched by relatively high economic growth (with the exception of the early 1990s recession).

However, the relationship between economic growth and population growth appears to have broken down, or loosened, from the early 2000s onwards. The population has continued to grow at an extremely fast rate, while the economy has experienced a severe recession and stagnation, before beginning to recover in 2013.

Analysis

The apparent link between population growth and economic growth in the UK has weakened in the past decade.

Clearly, economic circumstances since the recession have been unusual, but this shift was in fact evident before the financial crisis.

Crucially, previous recessions in the post-war era appear to have only temporarily interrupted the relationship between population growth and economic growth, yet 5 years on from the latest recession, there is little evidence of the relationship being restored.

The type of jobs that the UK now tends to create – low-paying jobs in the services sector (Berry, 2014) – helps to explain the change. Rapid population growth, outpacing productivity,
is incentivising firms to concentrate in labour-intense but low value-added industries.

- This further harms productivity, and therefore economic growth, by disincentivising investment in capital-intense industries.

- On the other hand, it is possible that the recovery would have been even slower without the very strong population growth being experienced. The government’s withdrawal of funds for public investment, and failure to reform UK capital markets, means capital-intense industries are in no position to provide a platform for sustainable economic recovery.

- The implications of this possibility are particularly alarming: the UK is unable to take advantage of the potential for population growth to drive economic growth, yet at the same time requires ever-stronger population growth to furnish a services-led economy.

- The political implications for parties opposed to or sceptical of high immigration are intriguing. Curbing immigration has been a key ambition for the Conservative Party in government. Yet the coalition government has presided over a period of remarkably high immigration.

- It is not clear that the UK can develop a growth model in the foreseeable future which functions without strong population growth. If a future Conservative government were more successful in curbing immigration, and therefore population growth, an alternative economic strategy supporting capital-intense industries may be required to sustain economic growth.

**Conclusion**

The link between population growth and economic growth in the UK appears to have weakened, but the implications of this shift are not clear. Certainly, productivity improvements are not driving the present recovery in economic output, and it may be that rapid population growth, in the context of the increasing dependence on labour-intense industries, offers the only viable path to growth for the UK economy. The political implications of this are also unclear, given that the Conservative-led coalition government has ostensibly sought to reduce immigration. What is clearer is that unless an alternative growth model is found, we can expect the downward pressure on living standards to continue even as output grows.

**References**


Annex: Scotland

- The upcoming referendum in Scotland on independence from the United Kingdom means it is worth looking at the relationship between population growth and economic growth in Scotland in isolation.

Sources: Scottish Government; Scottish General Registrar Office.

- Scotland has generally experienced lower growth than the UK overall, but also greater economic stability. Interestingly, Scotland’s population was actually declining for much of the period studied here.

- From mid-1990s onwards, however, Scotland’s economy generally grew faster than UK as a whole. Its population did not grow as fast as the UK’s, but it was growing at a much faster rate than has been normal over time for Scotland alone.

- Like the UK as a whole, Scotland experienced very high population growth in years before, during and immediately following the severe economic downturn. But this growth has significantly slowed again in last two years, while the economy continues to recover strongly.

- It is not possible to conclude, therefore, that population growth is fuelling economic recovery in Scotland. However, it may be that Scotland is benefitting from strong economic growth in UK as a whole, which, in turn, is to some extent being driven by rapid population growth.
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