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[By email]

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Dear Ms Hillier,

Impact of relative population growth on funding per head under the Barnett formula

In July 2019, the Public Accounts Committee published a report on *Funding for Scotland, Wales and Northern Ireland* (the One Hundred and Eleventh report of session 2017-19).

In response to the Committee's third recommendation, the Government said that:

HM Treasury will write to the Committee in advance of Spending Review 2020 explaining the impact of relative population growth on funding per head under the Barnett formula.

I attach a technical note on this, and hope it is useful to the Committee.

Tom Scholar

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Background on the Barnett formula

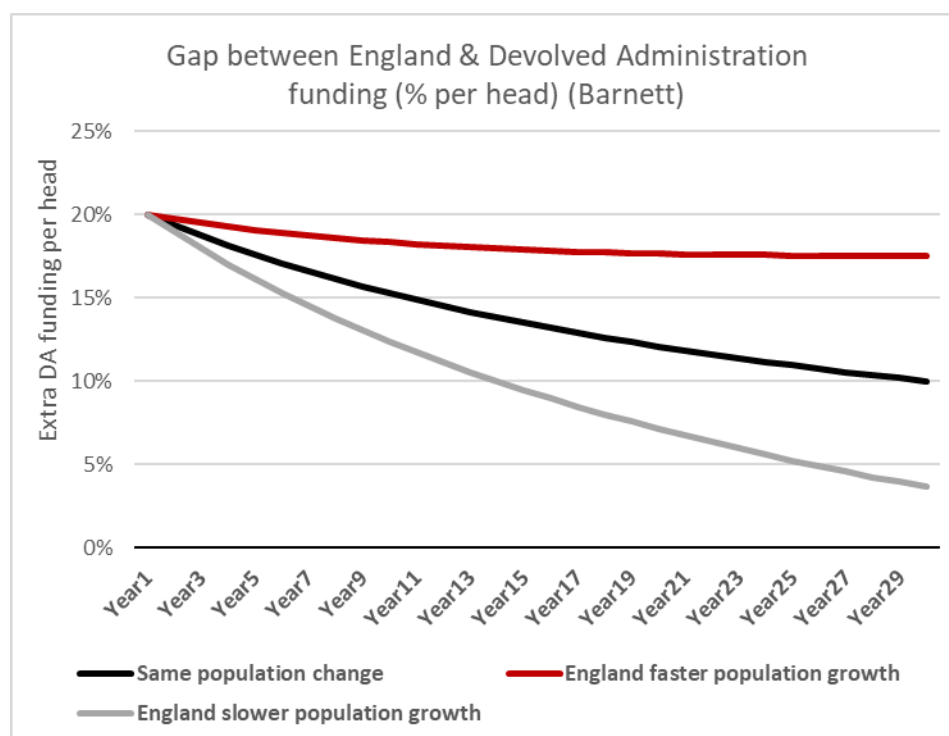
1. The Barnett formula determines changes to the block grant funding allocated to the devolved administrations by the UK government in relation to departmental spending within Departmental Expenditure Limits.
2. Under the Barnett formula, the Scottish Government, Welsh Government and Northern Ireland Executive receive a population-based proportion of changes in planned UK government spending on comparable services in England, England and Wales or Great Britain as appropriate.
3. The Barnett formula therefore does not determine the total allocation for each devolved administration afresh each time it is applied – it just determines how much is added to (or deducted from) the existing block grants.
4. There are three factors that determine changes to each devolved administration's block grant under the Barnett formula:
 - The quantity of the change in planned spending in UK government departments
 - The extent to which the relevant UK government department's spending is comparable with the services carried out by each devolved administration (comparability percentage)
 - Each country's population as a proportion of England, England and Wales or Great Britain as appropriate. This is based on the latest ONS population estimates.
5. The change to the funding allocations for each devolved administration is therefore calculated mechanically through the formula:

$$\begin{array}{ccccc} \text{Change to} & & & & \\ \text{planned UK} & & & & \\ \text{Government} & \times & & \times & \text{Appropriate} \\ \text{spending} & & \text{Comparability} & & \text{population} \\ & & \text{percentage} & & \text{proportion} \end{array}$$

Illustrative effect of population growth on relative funding per head

6. The effect of population growth on relative funding per head is shown in Chart 1. This uses an illustrative dataset to compare UK Government funding for England and devolved administration funding in three scenarios:
 - Populations grow at the same rate
 - England's population grows faster
 - England's population grows slower
7. This dataset also assumes that a) the devolved administration funding per head is initially higher than in England (which was the case for all three devolved administrations when the Barnett formula was introduced) and b) funding in England increases in cash terms throughout the period (which again has generally been the position).

Chart 1



Scenario 1 - Equal population growth and convergence effect (black line in the chart)

8. The devolved administration receives the same amount of additional funding per head as in England, which represents a smaller percentage increase per head for the devolved administration.
9. Over time, the accumulation of smaller percentage increases will inevitably lead to a convergence towards equal levels of funding per head.

Scenario 2 - Faster England population growth (red line in the chart)

10. In this scenario the devolved administration receives a larger change in funding per head than England. This is because, as the existing block grant is unchanged by differential population growth, the change in funding is shared among a smaller population than the scenario above where population growth is equal.
11. Convergence towards England funding per head will therefore be slower and the devolved administration has relatively higher funding per head than in Scenario 1.

Scenario 3 - Slower England population growth (grey line in the chart)

12. In this scenario the devolved administration receives a smaller change in funding per head than England. This is because, as the existing block grant is again unchanged by differential population growth, the change in funding is shared among a larger population than the scenario above where population growth is equal.
13. Convergence towards England funding per head will therefore be faster and the devolved administration has relatively lower funding per head than in Scenario 1.

Fall in England funding and the divergence effect

14. The above scenarios demonstrate the outcomes when public expenditure in England is rising. If instead we were to assume that public expenditure in England falls throughout the period, devolved administration funding per head diverges away from England funding per head.
15. This is because the Barnett formula works symmetrically so where the devolved administration receives a smaller percentage increase per head when spending in England grows, when spending falls the percentage decrease is also smaller.
16. The differential population growth effects are the same as above, albeit they affect the degree of divergence away from England funding per head (rather than the degree of convergence towards England funding per head).

Historic trends

17. Since 2015 mid-19 ONS population estimates show that England has experienced an average annual population increase of 0.72%, whereas average population growth has been lower in Scotland (0.43%), Wales (0.39%) and Northern Ireland (0.57%).
18. Chart 2 illustrates the growth in mid-year ONS population estimates over a longer-term trend since 1978, the year in which the Barnett formula was first used. The chart demonstrates that the population in both Scotland and Wales has grown at a slower rate compared with England. Northern Ireland's population has grown at a faster rate than England.

Chart 2

