



Written Evidence

THE BARNETT FORMULA THEORY AND PRACTICE

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Introduction

1. The Barnett Formula is named after Joel Barnett (now Lord Barnett) who was Chief Secretary to the Treasury when it was introduced in 1978¹. The use of a formula for allocating at least some expenditure among the territories (now called countries) of the UK goes back to 1888 when Chancellor George Goschen in preparation for Irish Home Rule introduced a set of proportions for allocating resources between England and Wales, Scotland and Ireland in the ratio of 80:11:9. This formula persisted in Scotland well into the 1950s whereas arrangements for Ireland went a different way with partition and devolved government in the North.

2. This short paper sets out the formalities of the Barnett Formula as they currently apply, with particular reference to Northern Ireland. It also gives some insight to how the formula has worked in practice. The detailed questions posed in the call for evidence are addressed in an annex.

The Barnett Formula Basics

3. The most common misconception about the Barnett Formula is that it determines the total allocation of public expenditure to Scotland, Wales and Northern Ireland. This is not the case. The formula is a mechanism that adjusts the public expenditure allocations at the margins. Moreover, it applies only to parts of public expenditure. It does not, for instance, apply to demand-led expenditure such as social security benefits which are funded on a need or claimant basis.

4. The three key elements of the Formula are:

- (a) changes in expenditure on services in England, England and Wales or Great Britain, depending on the coverage of the expenditure considered;
- (b) the degree to which the English et al services have counterparts in the devolved administrations. This is called the 'comparability proportions'; and

¹ The formula was devised by Sir Leo Pliatsky and has always officially been known as the funding formula. The term 'Barnett Formula' is attributable to Professor David Heald, a long time student of devolved finance in the UK.

- (c) each country's population as a proportion of the population of England, England and Wales or Great Britain depending on the coverage of the expenditure being considered.

The outcome of the formula is the product of (a), (b) and (c) and is known as the 'consequential'. This is the amount of additional spending made available to the devolved administrations.

EXAMPLE: Suppose expenditure on an English service increases by £100 million. The service is 100% comparable in Northern Ireland and Northern Ireland's population relative to England is 3.4%. Then Northern Ireland's consequential is $£100m \times 1.0 \times 0.034 = £3.4$ million.

As a rough rule of thumb a 1 percent increase in a comparable service in England would provide enough extra resources to fund a $\frac{3}{4}$ per cent increase in Northern Ireland.

Population Proportions

5. Population proportions are one of the more objective elements of the formula. There has been an erratic history of updating these percentages. Up until 1992 the mid-1976 population levels were used. In 1992 there was a one-off adjustment but from 1997 onwards the latest mid-year population estimates have been used. The failure to use up-to-date estimates was an advantage to Scotland where in the relevant period population proportion was actually declining. In the 2007 Spending Review the population proportions for Northern Ireland were 3.43% relative to England, 3.24% relative to England and Wales and 2.96% relative to Great Britain.

Comparabilities

6. Comparabilities are a key element of the formula and in some instances are open to considerable interpretation. Comparabilities are calculated as a weighted average of expenditures by the relevant Whitehall department. Up to CSR 2007 the basis of expenditures were the sub-programmes operated by the department. In CSR 2007 these were replaced by 'programme objects'. Comparability proportions for each devolved administration are estimated for each of these programme objectives and then a weighted average is constructed for the entire department using the baseline expenditures for each programme objective in the year immediately preceding the CSR.

7. Two problems arise with this approach. First, a weighted average of a Whitehall department's expenditure may not be a good guide to actual expenditures in a devolved administration. Sometimes the latter will gain and sometimes lose from this procedure. This is known as 'taking the rough with the smooth'.

8. Second, where administrative arrangements for delivering services differ substantially, estimating a consequential can be problematic. The classic example is local authority delivery of services in England that are delivered by central government in Northern Ireland. In England these services are part financed by central government grants and part by the Council Tax and the authority's share of the uniform business rate. Calculating a consequential on the total spend would give Northern Ireland an advantage by relieving local ratepayers of having to make a contribution. On the other hand a

consequential based on aggregate external finance (mainstream grants to local authorities in England) may fall well short of actual expenditure in Northern Ireland.

9. A further problem is 'departmental unallocated provisions' or in simple terms the reserves UK departments are encouraged to create against unexpected expenditure demands. The convention is that consequentials for these provisions are calculated on the assumption that they mirror the weighted average comparability of the department. In principle this is fine so long as when these resources actually are spent they follow this pattern. Otherwise the reserve may or may not end up in areas where comparability is significantly higher or lower than the average.

The 'Barnett Squeeze'

10. A mathematical feature of the Barnett Formula is that it should, other things being equal, tend over time to converge per capita spending on comparable services in the devolved administration towards the English per capita figure. This is known as the 'Barnett Squeeze'. The phenomenon arises because the formula gives Scotland, Wales and Northern Ireland additions equal in per capita terms to those in England (this is another way of saying these administrations get their population proportion relative to England of any increase). But it is generally the case that existing per capita expenditure on such services is greater than these marginal additions so that the average per capita spends will converge.

11. Theoretically the convergence phenomenon should be faster:

- (a) the greater the initial per capita lead in the devolved administration; and
- (b) the greater the increase in expenditure on comparable services in England.

Since the formula is entirely symmetric falls in English comparable expenditures should widen the per capital expenditure gap.

12. Empirical evidence for the 'Barnett Squeeze' is limited partly for data reasons and partly because the convergence is likely to be slow, so that other changes to expenditure not dependent on the formula can cloud the issue. The usual data source used is 'identifiable public expenditure' which is published in the annual Public Expenditure Statistical Analysis (PESA) which accompanies the Budget. Identifiable public expenditure is expenditure identified from administrative records as being in or on behalf of the devolved territory (country). Settling just what is identifiable expenditure in practice is an issue that at the margins provokes considerable debate, particularly in Scotland². The current identifiable expenditure ratios for the devolved administration relative to the UK set at 100 are:

² For example, J Cuthbert and M Cuthbert, "A Constructive Critique of the Treasury's Country and Regional Analysis of Public Expenditure", 2005, is an interesting example of the debate.

	2002/03	2007-08
England	96	97
Scotland	117	118
Wales	114	110
Northern Ireland	130	126

So over this period at least Northern Ireland and Wales appear to have been squeezed slightly but Scotland has extended its lead. However, not too much weight should be put on small movements over a short run of years particularly when classification changes and amendments to methodology are taking place.

Bypasses

13. One reason why theoretical Barnett Squeezes do not materialise is that additional allocations are made to the devolved administration outside the working of the formula. These are commonly referred to as ‘bypasses’.

14. Since the Treasury has invested heavily in the Barnett Formula they are generally resistant to bypassing it and significant departures are usually associated with either technically unavoidable changes or highly political issues. All the devolved administrations have benefited from bypasses at one time or another. Wales, for example, got over £200 million additional cover for Objective 1 EU Structure Funds programmes in the 1990s while Northern Ireland was given additional funding to support the privatisation of aircraft production and shipbuilding in the regions. Northern Ireland also secured additional funding to cover the series of Peace and Reconciliation Programmes launched by the EU in the mid 1990s and some costs associated with implementing the Good Friday Agreement.

15. In recent years the Treasury has tried hard to keep the devolved administration on a strict Barnett Formula diet and has largely succeeded. Despite announcements of new packages of support for devolution these usually turn out, on closer inspection, to be rescheduling of expenditure or movements in non-cash items in budgets.

Barnett and the Funding Rules

16. The Barnett Formula is the centre piece of the rules governing the funding of devolved administrations³. However, it is the interplay of the formula with these rules that gives the process texture and allows interesting possibilities to emerge.

17. Of particular interest is the rule that says ‘if the UK Government makes a general cut to the budgets of UK departments it is entitled to impose the same adjustments to the budgets of the devolved administrations’.

³ Funding the Scottish Parliament, National Assembly for Wales and Northern Ireland Assembly: Statement of Funding Policy, October 2007, HM Treasury.

18. Alternatively the reductions in UK departments could be fed through the Barnett Formula to give negative consequential (reductions) to the devolved administrations.

19. An interesting combination is to apply across the board cuts to baselines including those in the devolved administrations and then give Barnett consequential on any allocations restored to UK departments. Since the latter are based on population proportions while baseline proportions are usually higher this is an indirect way of cutting budgets for devolved administrations within the rules.

Setting Baselines: Needs Assessment

20. Baselines do not enter into the Barnett Formula except as weights in the calculation of the departmental weighted average for comparabilities. However, baselines are very important. As baselines stand at the moment they are historical constructs reflecting a myriad of past changes, including changes from previous applications of the Barnett Formula. A systematic revision of baselines requires some form of Needs Assessment.

21. The basic idea of a Needs Analysis is to start with a benchmark for expenditure in some policy area which in the UK is usually expenditure in England. This expenditure is then associated with a number of 'objective factors' such as total population or population structure for those receiving the services and this gives an idea of the unit cost of the service 'Objective' in this sense means factors that cannot readily be adjusted by policymakers. The pattern of objective factors in the devolved authorities is then compared to the same factors in England to give an idea of how much more or less it would take to deliver the same service as in England in the circumstances of the devolved administrations. Comparing this to actual expenditure shows whether the devolved administration is over or under provided for that service.

22. This is the barest outline of the technique and in practice Need Assessments are data heavy exercises fraught with difficulty in matching expenditure data and properly identify relevant factors. They work best where services are clearly linked to population such as in education or health programmes but are much less successful in areas such as economic programmes.⁴

23. The only official Needs Assessment in the UK was carried out in 1976 in preparation for devolution to Scotland. Only a summary report was published in 1979. Since devolution did not occur at that time this work faded from view, although there were periodic updates carried out internally by the Treasury. In 2001 the Northern Ireland Executive initiated a unilateral update of Needs Assessment but that work was abandoned when Direct Rule returned.

24. Needs Assessment is often presented as an alternative to the Barnett Formula but that can not be the case. The exercise is too resource-intensive to be repeated annually and there are concerns that as time goes on fundamental changes in the character of

⁴ See <http://www.scotlandoffice.gov.uk/freedom-of-information/document.php?release=78&doc=179> ,for a description of the technique used for an update of the 1979 study for Scotland.

services in one area of the UK as opposed to another progressively render the needs assessment technique invalid.

25. Some commentators have argued that the approach adopted by the Commonwealth Grant Commission in Australia for allocating monies to the States could be adopted in the UK even though the constitutional situation is rather different. However, this again is an elaborate exercise and certainly not immune from political influence.

Conclusions

26. The Barnett Formula has been operating in its basic form for thirty years and has been incorporated into a comprehensive set of funding rules for the devolved administrations. It is a uniquely British approach to devolved financing with nothing similar elsewhere in the world.

27. Critics of the formula generally focus on two issues. The first is a fear that repeated use of the formula as the main means of adjusting devolved budgets will lead to steady convergence to English per capita expenditure on services. The other, which is basically the same point, is that using a formula that only takes account of population proportions is a poor way of capturing relative need.

28. One approach would be to replace the formula by one which was the reciprocal of the relative outputs of the devolved administration and the UK (or England). In Northern Ireland's case the relative output (GVA) ratio is 80% so this formula would give Northern Ireland approximately 125% of comparable spending in the UK. Since regional productivity figures are notoriously unreliable this would not seem much of an advance.

29. Combining other factors with population in the formula raises the question of what these should be and what relative weight they should have. This in turn can lead down the path to what statisticians call an index number problem.

30. Convergence is an inherent characteristic of the formula but in practice has not been a critical issue. When devolution began some commentators feared that the new administrations would quickly run out of money as the formula took its toll. In fact the reverse could be argued, that the devolved administrations, at least initially, had rather too much money and made some unfortunate spending decisions as a result.

31. Another aspect of the formula is not its impact on the devolved administration but on England or at least the perception among some English commentators that it gives the devolved administrations too much. This, of course, is a misconception arising from confusing the baseline expenditure in the devolved administrations with changes in these baselines. Whether the devolved administrations have too much of a share of public expenditure or too little is not a question the Barnett Formula can answer.

32. Should the formula be abandoned or replaced with some other funding mechanism? That is essentially a political rather than a technical question but some points that need to be kept in mind are:

- The Barnett Formula does remove the need for detailed negotiations with the Treasury on the minutiae of budgets in Spending Reviews – a very big plus;

- It offers some protection to any existing expenditure advantage enjoyed by a devolved administration; and
- Its workings alongside the other funding rules are reasonably well understood so it offers a degree of stability that a replacement might take a long time to deliver.

ANNEX: RESPONSES TO QUESTIONS

1. Application of the Formula in Practice

- a. Are the present disparities in public expenditure per head of population between the countries of the UK a consequence of the Formula itself, the historic baseline or of other factors? To what extent are those disparities related to need?
- b. What effect does the Barnett Formula have in terms of equity and fairness across the UK as a whole?
- c. What effect does the Barnett Formula have on the aggregate control of public expenditure?
- d. What measure of flexibility do the Devolved Administrations (DAs) presently enjoy in allocating funds, between various policy areas, between capital and current spending, and for accounting purposes? Is there any need for reform in this area?

Response

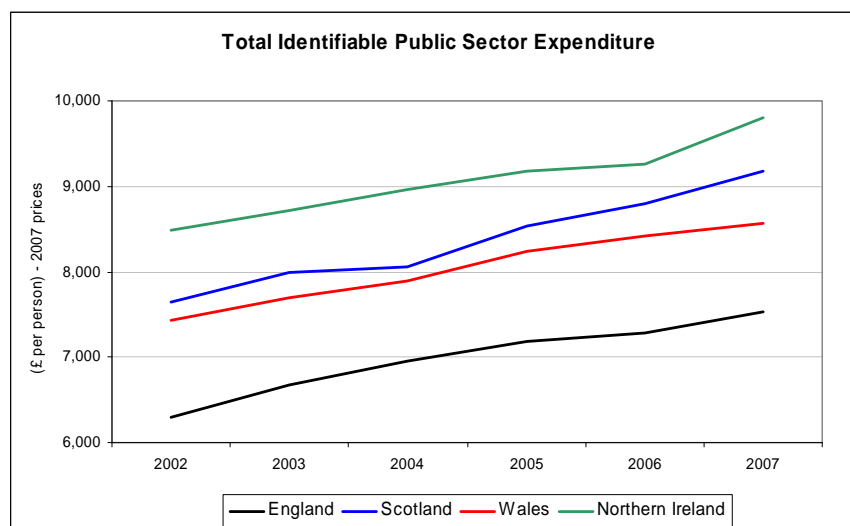
- a. The current relativities between public expenditure per head in the countries of the United Kingdom are the result of decades of fiscal arrangements, including special deals and the outcome of successive rounds of applying the Barnett formula, and relative population growth between these countries. In Northern Ireland special factors such as the acceptance of the need to 'make up leeway' in expenditure in areas such as road infrastructure in the 1960s and the effects of the 'troubles' which spread far beyond security issues to loosen up funding from the Treasury all played a part.
- b. The Barnett formula takes population as the effective measure of need but equity is not only an expenditure issue it also refers to tax effort so that shortfalls in the use of population as a guide to equitable treatment in expenditure have to be balanced with the cost to other regions in making good a shortfall of revenue in any country of the UK.
- c. It reinforces control because the mechanism allows the Treasury to know exactly how much a given increase in comparable expenditure per head in England will cost in aggregate simply by using the comparabilities and relative populations for the rest of the UK to establish an overall control total.
- d. The devolved administrations have total flexibility to allocate their Assigned Budget (the bit controlled by the Barnett formula) subject to the normal rules of the public expenditure regime which usually prevent veering from capital to resources (current). Changing this needs to balance the need for flexibility with the need for discipline in financial planning and the protection of capital spending which is always an easy target in the short term.

2. Formula By-Pass and the Barnett Squeeze

- e. Has convergence of levels of public spending in Scotland, Wales and Northern Ireland based on the English level of spending happened and, if not, why?
- f. To what extent did bypassing of the Formula occur before 1999? Has scope for such “Formula by-passes” changed? What have been the consequences of that change in scope?

Response

- e. The evidence on convergence based on identifiable public expenditure figures is ambiguous and depends on the period examined (unfortunately changes in methodology for estimating identifiable public expenditure and sorting out the assigned budget elements for long periods, including times when this concept did not exist, makes this sort of analysis dubious). The chart below shows consistent figures but only over a five year period. The absence of strong convergence is noticeable.



- f. There has been extensive bypassing of the formula going back decades. As noted in the main text, Northern Ireland got money outside the formula for the EU Peace and Reconciliation Programmes from 1996 onwards as well as money for police and prisons reforms which went through the Northern Ireland Office, the benefit of which will, in due course, be inherited by the devolved administration. Wales got additional cover for Objective 1 receipts as a political arrangement. There were also deals done in Scotland and all of these are merely a sample.

Getting special deals from the Treasury has become more difficult and especially where these add to the baseline. Thus virtually all of the financial package given to the NI parties when devolution was restored after the St

Andrew's agreement involved additions within a financial year and not a permanent baseline uplift.

3. Data Quality and Availability

- g. Are sufficient data available to enable a clear understanding of how public spending is distributed across the UK and to show the working of the Formula as set out in the Statement of Funding Policy?
- h. What additional data, or ways of presenting data, would be necessary to undertake a new needs assessment, or otherwise to reform the Formula?
- i. What additional data, or ways of presenting data, should be available to ensure that the Formula is transparent in its application?
- j. What body should undertake the collection and publication of such data?

Response

- g. In general there is sufficient information to estimate the distribution of public expenditure in the UK but it is scattered across many publications and is very difficult to interpret when the underlying institutions vary. Thus estimating expenditure on schools, for example, is virtually impossible to do on a consistent and accurate basis. Similarly housing expenditure is a nightmare to sort out. In the same way even though comparabilities and population figures are published in advance, working out whether the additions to the devolved countries are accurate is really only possible with inside knowledge.
- h. Needs Assessment is an enormously data heavy exercise and offers endless possibilities for argument. The 1979 Study was only a summary document and there are detailed individual programme studies behind it which were never published. A classic argument at that time which has never been resolved is, what is a good measure of health, mortality (which is fairly definite) or morbidity (which isn't). It is crucial to realise that the formula has nothing to do with needs assessment which is a periodic way of resetting the baseline whereas the formula is an ongoing way of adjusting it.
- i. / j. It is an illusion to think that public expenditure and its presentation can be entirely divorced from politics. Spending Review documents, funding rules and statistical publications involving public expenditure are very carefully vetted.

4. Need for Reform / Alternatives to the Existing Formula

- k. Do the advantages of the Formula as presently constituted outweigh its disadvantages?
- l. Should the Barnett Formula be (a) retained in its current form, (b) amended or (c) replaced entirely?

- m. Should the Barnett Formula be replaced by a system more adequately reflecting relative needs, costs of services or a combination of both? If so, what factors should be considered as part of a needs assessment?
- n. What practical and conceptual difficulties (particularly for defining 'need') would arise in carrying out a needs-based assessment? How can these difficulties be overcome?
- o. Should a needs-based assessment seek to encompass a wide-range of factors or be limited to a smaller number of indicators of 'need'?
- p. Who should carry out a needs-based assessment, if one were to take place?

Response

- k. The formula has the benefit of 30 years of refinement behind it and it's interaction with the other funding rules is reasonably well understood. It offers a considerable degree of protection to the devolved administrations and it is by no means certain that they would be better off with a direct negotiation approach. There is no favourite alternative formula that has been thoroughly tested in the many situations that the Barnett formula has survived. In the absence of an alternative formula that all of the devolved administrations could unite behind they should weigh heavily the very great risks of direct negotiation with the Treasury which, after all, represents, in one sense, the 80% of taxpayers that keep the rest afloat.
- l. If there is a workable formula that is fair to all who have a stake in financing the devolved administrations then it should certainly be adopted. None of the solutions presented by academics begin to approach this requirement.
- m. Practicalities have to be considered in this matter. It is not ideal that devolved administrations get their share of changes in a Spending Review on the basis of the average comparability of English departments but at least they get their allocations on the day of the Spending review announcement. Would the devolved administrations be prepared to await the announcement of detailed allocations within English departments, which might be months behind the broad allocation to these departments' as a whole, before they knew the resources they had available? The preparation of estimates takes a long time and if the devolved administrations are dependant on the final distributions made by Whitehall Ministers amongst their comparable programme objectives to inform them of what their consequentials might be they would be a long way behind in their planning process.
- n. The concept of 'need' has to be anchored in criteria that are relatively immune to manipulation in the short term. That is why the 'objective' factors used in traditional needs analysis tend to be population based such as the total population or its structure for various client groups such as school age children. Alternatively physical measures such as population density or even physical area might be used for some programmes. The more that one moves away from these relatively immutable factors the greater the difficulty in relation to need. Unemployment is a good example. What does this

mean? Is it the administrative measure of claimants – Northern Ireland 38,000 - or perhaps the Labour Force Survey definition - 42,000 - or perhaps economic inactivity in the population of working age - circa 100,000. The easier that a weighting factor like this can be manipulated by definition the less valid it is in a needs assessment. In addition it is a central assumption of needs assessment that throughout the UK administrations are striving to the same basic standard of public provision, the benchmark for which is provision in England. If that is in fact a deficient benchmark (as it might be in education, for instance) in what sense is the need being properly assessed. In 1979 when this technique was adopted it was at the cutting edge of methodology for a relatively homogeneous country. This may no longer be the case.

- o. The larger the number of factors in any assessment of need the greater is the problem of assigning weights to these factors to come to an overall judgement. This is rich ground for argument. If a small number of factors are included that are closely correlated the result of a composite indicator is not much different than for a single indicator such as population proportions.
- p. If this is going to be done then it cannot be a Treasury led exercise as in the past. Probably the best way forward would be a joint exercise by independent bodies from the various jurisdictions, such as the Institute for Fiscal Studies in London and research institutes or universities in the devolved countries. The funding should be borne jointly with a joint steering group drawn from officials in all of the countries involved.

5. Decision-making and Dispute Resolution

- q. How effective, appropriate and fair are the processes and criteria by which HM Treasury determines matters relating to the Barnett Formula? In particular, is the way HM Treasury determines whether items of spending in England do or do not attract consequential payments under the Formula, and claims by the DAs on the UK Reserve, appropriate and fair?
- r. Are the existing procedures for resolving disputes between HM Treasury Ministers, territorial Secretaries of State and the Devolved Administrations about funding issues adequate?
- s. How could dispute resolution procedures be improved?

Response

- q. On paper the procedures are very fair. Officials from the Treasury and the devolved administrations meet well in advance of the conclusion of the Spending Review and agree the necessary figure work regarding population proportions and degrees of comparability. Outside Spending Reviews the situation is less well structured and less transparent. Typically an initiative will be announced for England and when the DAs ask about their share the

response will be that this is an existing allocation which is being re-brigaded and of course the DAs already have their consequentials. What is particularly annoying is when the Treasury announce at very short notice a change which though not strictly part of the formula nevertheless has implications for the DAs. The revisions made to certain UK departmental baselines just before the SR 2007 announcement is an example.

- r. At the end of the day how negotiations between Ministers go depends on the force of the argument and the strength of the individuals. A DA with a good case and supported by a strong Secretary of State generally prevails over a Chief Secretary. However if the argument is weak and particularly if the Chancellor sees no merit in it the Treasury will usually carry the day. The current dispute between the DAs and the Treasury over bearing a share of additional resource releasing efficiency savings in UK departments (the Barnett formula working in reverse) should be instructive in this matter.
- s. Perhaps inserting a 'no surprises' clause in the Funding Rules could help but this could be honoured more in spirit than practice.