
Barnett Squeezed?

Options for a Funding Floor after Tax Devolution

Second Report on the 2016-17 Fiscal Framework
Negotiations for Wales

December 2016



Institute for
Fiscal Studies

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Contents

Executive Summary	4
1. Introduction	8
2. The Barnett Formula and relative expenditure levels in Wales	9
2.1 The Barnett Formula	9
2.2 The Barnett Squeeze	10
2.3 Relative Need	14
2.4 Recent trends in relative spending per head	15
3. Options for implementing a Barnett Floor	17
3.1 Simple Barnett Floor	17
3.2 Fixed Barnett Needs Factor	17
3.3 Variable Barnett Needs Factor	18
3.4 Projections with different Barnett Floor options	19
4. Interactions between the Barnett Floor and block grant adjustments after tax devolution	21
4.1 Managing Population Growth Risks	22
6. Conclusion	26

Executive Summary

This is the second in a series of reports by researchers from Cardiff University's Wales Governance Centre and the Institute for Fiscal Studies on the 2016-17 Fiscal Framework Negotiations for Wales. A previous report outlined options for adjusting the Welsh block grant after tax devolution, demonstrating that hundreds of millions of pounds are at stake for the Welsh budget. This report focuses on the expenditure side, namely the Barnett formula and how a funding floor might interact with the block grant after taxes are devolved to Wales from April 2018.

The Barnett Formula and relative expenditure levels

Although the Welsh Government is responsible for more than half of Welsh public spending, it has little capacity to raise tax revenues itself and depends on annual block grants from the UK Treasury to fund devolved services.

The block grant consists of Wales' prior year funding carried forward, plus a change to this amount as calculated by **the Barnett formula**. The aim of the Barnett formula is to provide the same pounds-per-person change in funding for the devolved governments as the change in funding for comparable public services in England.

Since the introduction of the formula in 1980, public spending per head in Wales has been higher than in England. However, due to Wales' initial higher level of spending, **an equal pounds-per-person** increase in spending in England and Wales represents **a smaller percentage** increase in Welsh spending. Over time therefore, funding per head in Wales converges to English per capita spending on comparable programmes, irrespective of relative need. This convergence is termed the "**Barnett Squeeze**".

The extent to which this convergence in relative funding will occur in practice depends on a number of factors:

- **Relative population growth:** If Wales' population grows relatively quickly, then the rate of convergence down to English funding levels increases.
- **Rate of growth in comparable expenditure in England:** Rapid growth in UK government spending accelerates convergence in relative funding, while lower spending growth reduces the rate of convergence.
- **Changes in devolved functions:** Relative funding levels can be influenced by the transfer of new functions to the Welsh Government, which can affect the size of the block grant separately from increments calculated by the Barnett formula.

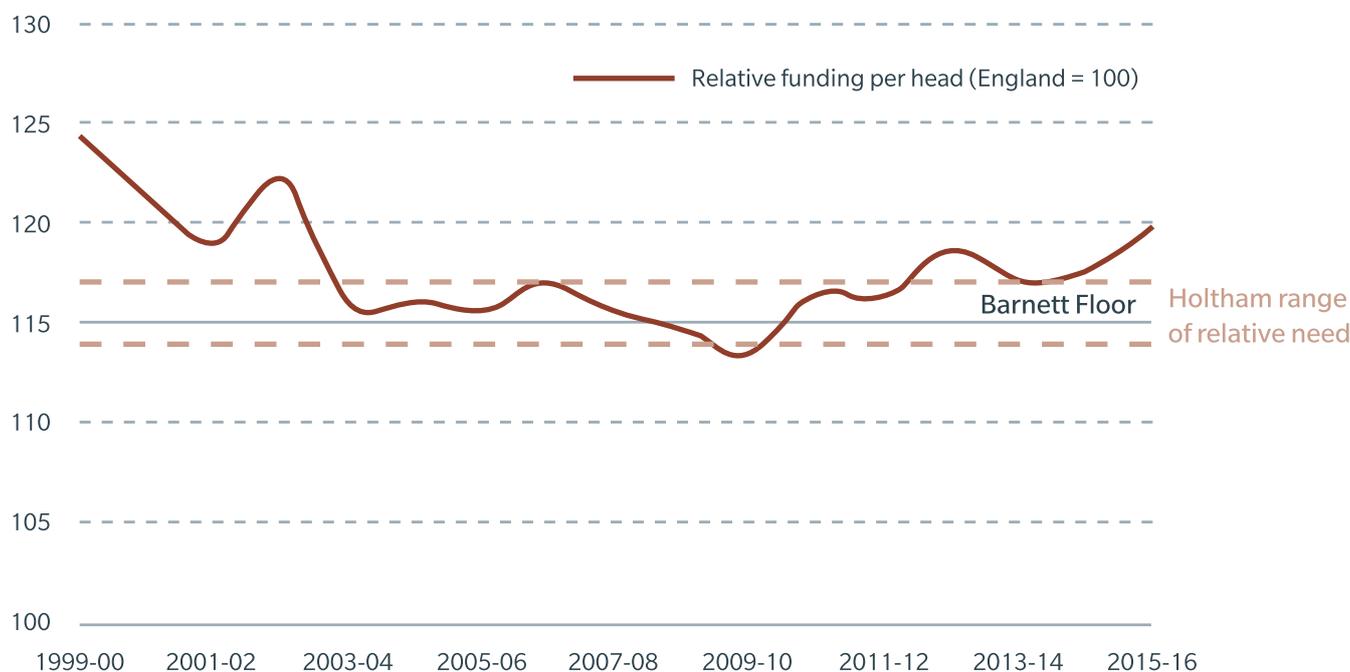
The size of the block grants and levels of relative spending per head across the countries of the UK today are largely the result of an historical accident – **there has been no link between block grant size and relative spending needs**.

The Holtham Commission (2008-2010) presented a range of indicative statistics confirming that the relative need for public spending in Wales was greater than in England, suggesting a relative funding need of 114% to 117% of English per capita spending. Based on this assessment, this suggested that Wales should receive around £115 per person to spend on devolved services for every £100 per person spent in England.

Figure E1 shows the estimated trend in relative expenditure per head in Wales compared with England, from 1999-00 onwards. At the onset of devolution, relative funding per head in Wales on programmes covered by the Barnett formula was almost a quarter higher than in England. Fast growth in expenditure across the UK in the early years of the last decade led to rapid convergence in relative funding.

However, in more recent years there has been an almost unprecedented restraint in public spending growth across the UK. In addition, the growth in the Welsh population has also fallen further behind relative to England. Alongside changes in funding responsibilities, these factors mean **that relative funding per head in Wales has diverged away from England's level since the start of the current decade. Although Wales was below the Holtham Commission's estimate of relative spending need at the start of the decade, by 2015-16, for every £100 per head spent in England on comparable programmes, approximately £120 per head was spent by the Welsh Government.**

Figure E1: Relative spending per head in Wales on programmes covered by the Barnett formula



Barnett floor options

That relative funding per head in Wales is currently above the Holtham Commission's estimate of relative need gives breathing room for policymakers to consider options for preventing future convergence if spending again begins to grow more rapidly. Over the past decade there have been numerous calls for a mechanism to be introduced which would stop relative funding levels in Wales from falling below an estimate of Wales' relative need in future, which would happen automatically and formulaically if once again subject to the influences outlined above.

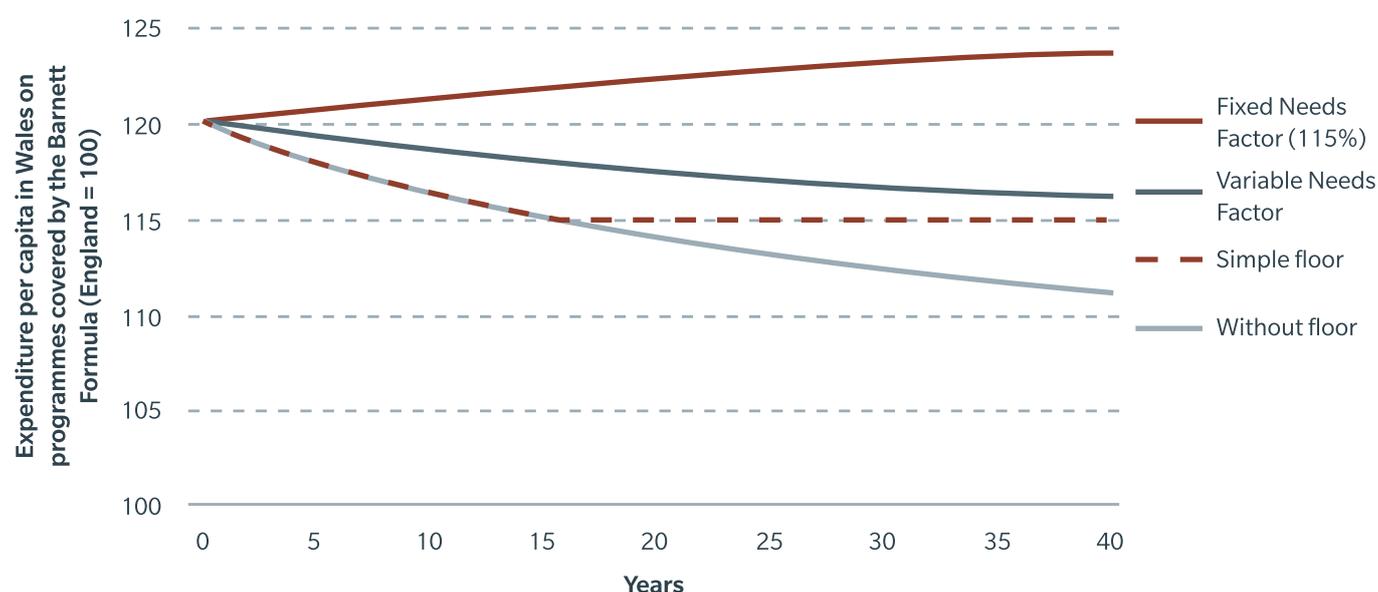
There are different ways in which such a funding floor could be introduced:

- **Simple Barnett Floor:** The Barnett formula would continue to determine changes in the Welsh block grant, but in the event that Welsh funding per head fell below 115% of the level in England a transfer would be made to the Welsh Government to offset these losses.
- **A Fixed Barnett Needs Factor:** The annual uplift of additional funds for Wales through the Barnett formula would be multiplied by a fixed needs factor (e.g. 115%).
- **A Variable Barnett Needs Factor:** This approach would introduce a needs factor which would result in relative funding in Wales converging towards an agreed level of relative need, regardless of relative population and public spending growth. This can be calculated by dividing the agreed level of relative need (115%) with the estimated level to which relative expenditure per person will converge towards in the absence of a needs factor (which will depend on relative population growth and growth in comparable expenditure).

Figure E2 shows the projected effect on relative spending per head in Wales of the various Barnett floor options. It assumes 4% spending growth (in nominal terms). Annual population growth in England is set at 0.5% while population growth in Wales is set at 0.2% (close to the average projected growth rates over the next 40 years). Relative spending per person in Wales begins at 120% of the English level (around its estimated 2015-16 level), while the Simple Barnett Floor and the fixed Needs Factor is set at 115%.

Under these assumptions, without a floor in place, relative funding in Wales would squeeze down to around 108% of the English level in the long-run and drop below 115% in 15 years. If increments in Welsh funding were multiplied by a fixed Needs Factor of 115%, then relative funding in Wales would diverge even further from the level in England, towards approximately 125% in the long-run. With increments in Welsh funding multiplied by the variable Needs Factor, relative funding in Wales would converge towards 115% of the level in England, from its initial level of 120%.

Figure E2: Projected effect on relative spending per head in Wales under different Barnett floor options



Interaction with Block Grant Adjustments after tax devolution

After the devolution of taxes, a downward adjustment will be made to the existing block grant to compensate HM Treasury for the tax revenue they will no longer receive. It is likely that the block grant adjustment (BGA) will be indexed in some way to growth in comparable revenues in the rest of the UK (rUK). Welsh revenues would need to grow as quickly as revenues in rUK to keep up with the amounts taken away from the block grant.

A key question is which government will bear the spending and revenue risks associated with population growing at different rates in Wales and England under the options for implementing tax devolution and a funding floor. Slower population growth would also mean slower growth in tax revenues in Wales. The Welsh Government could be insulated from this population-related risk (by indexing BGAs to revenues per head in rUK– the **Per-capita Indexed Deduction or PCID** method), or not (by using an approach based on the way the Barnett formula treats population changes – the **Comparable Model**).

Introducing a fixed needs factor would see the Welsh Government continue to be exposed to relative population growth on the spending side, as is currently the case under the Barnett formula. This would arguably be symmetric to the Comparable Model option for BGA; for instance, Welsh budgetary gains from a slowdown in relative population growth on the spending side would be (partially) offset by losses on the revenue side, and vice versa.

On the other hand, the variable needs factor explicitly strips out the effect of differential population growth on the spending side, and under the simple floor option, once relative funding in Wales hits the level of the floor, then the Welsh Government would get 115% of per head funding in England regardless of its population growth. If introduced alongside the PCID method of indexing the BGA, these options would mean the UK Government symmetrically bearing population-driven risk to the Welsh Government's spending and revenue.

This could be seen as appropriate, given that population policy is arguably more closely associated with UK powers over immigration and the macro economy than with the Welsh Government. There would also be other benefits of such an approach. First, unlike use of a fixed needs factor Barnett floor, a variable needs factor funding floor would lead to the underlying block grant (per person) trending to 115% of comparable spending in England. This seems desirable if we put any weight on 115% as a needs factor. Second, use of the PCID approach to indexing the BGA may have benefits in terms of financial accountability by providing a 'benchmark' against which Welsh revenue performance can be judged.

1. Introduction

After a decade of debate, argument and consensus-building in Wales over the need for fiscal powers, wide-ranging reforms in the Welsh Government's taxation and borrowing powers are on their way. From April 2018, the Welsh Government will introduce two devolved taxes to replace the Stamp Duty Land Tax (SDLT) and Landfill Tax in Wales, and a £2 billion share of Income Taxes raised in Wales is also likely to be devolved to Wales without the need for an affirmative vote in a referendum. Combined with local authority revenues, this will mean that almost a fifth of all revenues raised in Wales will be under the Welsh Government's control.

The Welsh Government and HM Treasury are currently engaged in multi-million pound negotiations at a body named the Joint Exchequer Committee to set the future 'Fiscal Framework' in which future Welsh Governments' finances will operate. As argued in a first report by Cardiff University's Wales Governance Centre and the Institute for Fiscal Studies on these negotiations, the method chosen for implementing tax devolution may seem a technical issue but it is far from trivial: Hundreds of millions of pounds are at stake for the Welsh budget. But despite the growing importance of own-sourced revenues, the vast majority of future Welsh Government budgets will still be funded by block grants from the Treasury. Annual changes to these block grants will still be determined by the infamous Barnett formula.

One of the elements of the Barnett formula that has been much criticised in Scotland, Wales and Northern Ireland is its tendency to squeeze down relative spending per head in the devolved countries towards English levels over time. As illustrated by the Holtham Commission (2008-2010), by the end of the first decade of devolution relative spending per head had actually fallen below an estimate of relative spending need in Wales.¹ This led to calls from across the political spectrum for a mechanism to be introduced to stop further convergence in per capita spending. This minimum level of relative funding, or 'Barnett Floor', was announced by the UK Government at the 2015 Spending Review for the duration of the current parliamentary term. It will prevent funding in Wales on programmes covered by the Barnett Formula from falling below 115% of the level in England, at least until the next UK General Election in 2020.

But the temporary nature of this solution and uncertainty about how the floor will interact with Wales' new devolved taxes leave many questions unanswered. As highlighted in the communique following the October meeting of the Joint Exchequer Committee,² a key issue facing the two governments is how future block grant adjustments after tax devolution will interact with the Barnett Floor, and whether this funding protection will be extended beyond the current UK parliamentary term.

This second joint report on the 2016-17 Fiscal Framework Negotiations for Wales therefore focuses on the expenditure side after tax devolution, namely the Barnett formula and how a funding floor (if made permanent) might interact with the block grant after Income Tax, Stamp Duty and Landfill Tax are devolved to Wales.

The second section of this paper analyses the implications of the Barnett Formula for relative expenditure per head in Wales. It also presents an updated estimate of the current level of relative spending per head in Wales on programmes covered by the formula, noting that relative spending has increased relative to England primarily because UK spending restraint (austerity) reduced real-terms spending in both Wales and England. The third section evaluates three different ways in which a long-term Barnett Floor could be implemented. Drawing from the first joint paper in this series which discussed the multi-million pound consequences of different methods of adjusting the Welsh block grant, the final section explores how a funding floor might interact with the method chosen of adjusting the Welsh block grant after tax devolution.

1 Holtham Commission. (2009). Independent Commission on Funding and Finance for Wales. Funding devolved government in Wales: Barnett and beyond, First Report.

2 Welsh Government and UK Government, 25 October 2016: Joint Exchequer Committee (Wales). <http://gov.wales/newsroom/finance1/2016/58689578/?lang=en>

2. The Barnett Formula and Relative Expenditure levels in Wales

2.1 The Barnett Formula

Upon the establishment of devolution in 1999, the newly-established National Assembly for Wales and (later) the devolved executive, the Welsh Government, assumed control of more than half of Welsh public spending from the UK Government's territorial office of state, the Welsh Office. With little capacity to raise tax revenues itself, as with UK government departments at Whitehall the Welsh Government has depended on annual block grants from the UK Treasury; one to fund its current spending and another for its capital spending. These block grants comprise the overall *Departmental Spending Limit* (DEL) for Wales. The Welsh Government is then free to decide how to allocate this funding on the services it is responsible for.

The block grant consists of Wales' prior year funding carried forward, plus an uplift to this amount as calculated by the Barnett formula. The aim of the Barnett formula is to provide the **same pounds-per-person** change in funding for the devolved governments as the change in funding for comparable public services in England.

At each of the UK Government's periodic Spending Reviews, the Barnett formula calculates the change in the Welsh block grant based on changes to the multi-year spending plans for each UK department. To account for the fact that not all functions of the various UK departments are devolved to Wales, the various sub-programmes of each department are assigned a factor that reflects whether the function is devolved (100%) or not devolved (0%). A weighted sum of these individual percentages for each departmental sub-programme is then used to calculate a *comparability factor*. This captures the extent to which the spending of the UK department is devolved to Wales, and how much should be passed on to the Welsh Government to fund devolved services. These comparability factors range from zero (for wholly non-devolved departments such as the Ministry of Justice) to 100% (for areas that are completely devolved to Wales, such as education).

The change in the Welsh Government's block grant is calculated by applying the following calculation to every UK Government department:

$$\begin{array}{ccc} \text{Cash change in a UK} & \times & \text{Department's} \\ \text{department's DEL} & & \text{comparability factor} \\ & & \times \\ & & \text{Wales' population as} \\ & & \text{a share of England's} \end{array}$$

The sum of this calculation across all UK Government departments yields the change in the Welsh block grant. The latest comparability factors and the Welsh/English population ratio used are published in the Statement of Funding Policy which accompanies UK Government Spending Reviews.³

When spending policy changes are announced at the annual budget or Autumn Statements, the Treasury determines whether or not the specific item of expenditure (e.g. extra spending on free school meals) reflects a policy area that is devolved to Wales. If it is, a full 100% factor is used and the spending policy change leads to a change in the Welsh block grant.

The Barnett formula began operating for Scotland and Northern Ireland in 1979, and was extended

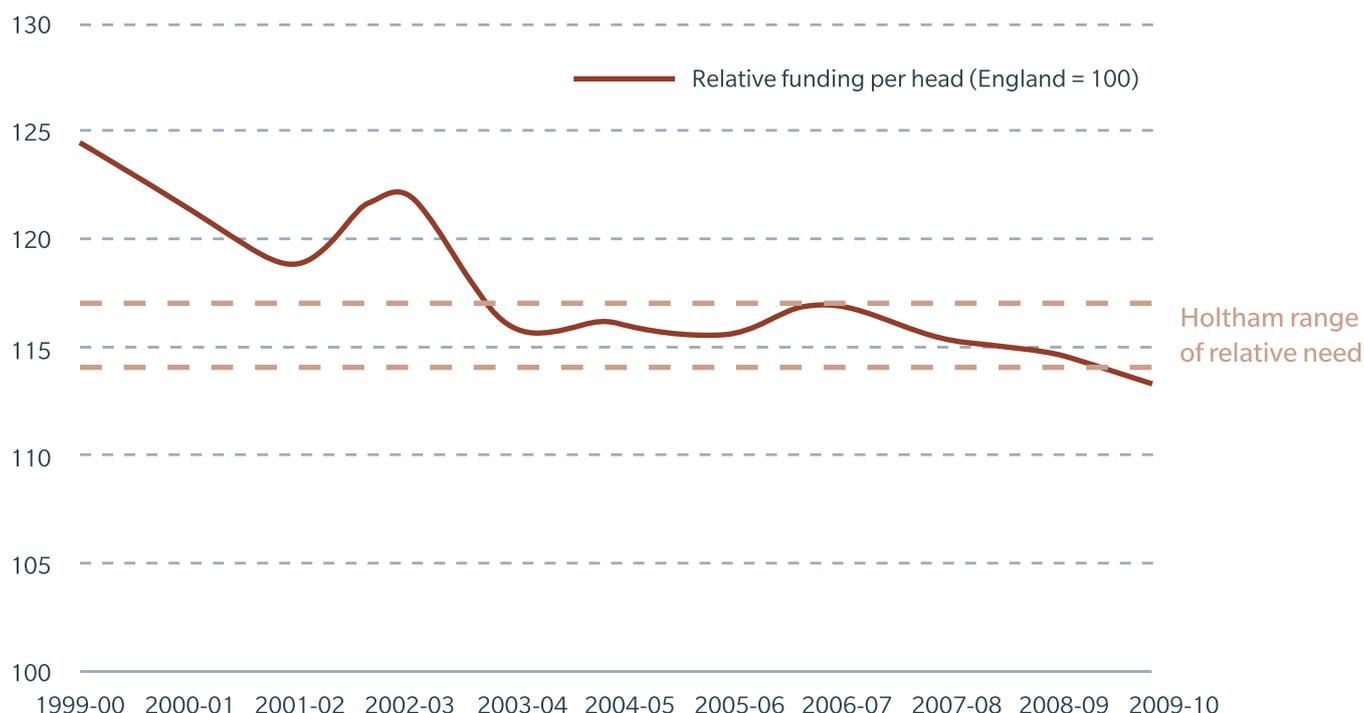
³ HM Treasury (2015). Statement of Funding Policy: Funding the Scottish Parliament, National Assembly for Wales and Northern Ireland Assembly, November 2015.

to Wales from 1980. The formula (with only slight modifications) has since been the basis by which the budget limits for Wales, Scotland and Northern Ireland have been set. The formula’s ‘mechanical’ approach to budget allocation was seen as a way to avoid cabinet disputes over territorial funding for Wales, Scotland and Northern Ireland. Expenditure in each country at the point of introduction of the formula was taken as the baseline, with the formula determining subsequent changes in expenditure.

2.2 The Barnett Squeeze

Since the introduction of the Barnett formula, public spending per head in Wales has been higher than in England. However, changes to Wales’ overall funding levels result from the requirement that increases in comparable spending in England should produce the same pounds-per-person increase in expenditure in Wales. Due to Wales’ initial higher level of spending, a given **pounds-per-person** increase in spending represents a **smaller percentage increase** in Welsh spending. Over time therefore, relative funding per head in Wales formulaically converges to English per capita spending on comparable programmes, irrespective of relative need. This convergence in relative funding has been termed the “Barnett Squeeze”. As shown in Figure 1, the effect of this convergence is particularly conspicuous when public spending levels are rapidly increasing, as during the 2000s.

Figure 1: The “Barnett Squeeze”: Trends in relative expenditure per head in Wales on programmes covered by the Barnett Formula from 1999-00 to 2009-10 (England=100)



Source: Authors’ calculations using HM Treasury PESA data and UK Government Statement of Funding Policy documents.

The effect of spending increases on Wales’ relative funding levels can be demonstrated by a hypothetical example, as in Table 1. Suppose the initial Welsh block grant is £14 billion, and spending per person in Wales is 115% of the level in England. The UK Government decides to increase spending on a devolved area (such as education) by £20 billion, which through the Barnett formula leads to an equivalent per person increase in Welsh spending of £1.13 billion (£20 billion multiplied by a 100% comparability factor, multiplied by the current 5.69% population share). Assuming no change in population, these changes in aggregate spending translate into an equal £368 increase in spending *per person* in both Wales and England. However, because of the higher initial level of spending per person in Wales, this represents a 9% increase in England but only an 8% increase in Wales. As a consequence, Wales’ relative funding declines from 115% of England’s to 114%.

TABLE 1: Example of “Barnett Squeeze” effect after increases in comparable English spending

	England		Wales		
	£ billions	£ per person	£ billions	£ per person	£ per person index (England = 100)
Initial spending level	214	3,937	14	4,528	115
<i>Increase in spending</i>	20	368	1	368	
New spending level	234	4,305	15	4,896	114

The extent to which this convergence in relative funding between Wales and England will occur in practice depends on a number of factors:

- **Relative population growth:** Although the Barnett Formula allocates a population share of changes in comparable public spending in England to Wales, differences in the rate of population growth between Wales and England influence relative funding levels. This is because the Barnett Formula only determines changes in the block grant, reflecting the latest population shares: **the size of the previous year’s grant that constitutes the majority of the current year block is not adjusted to account for the new population ratio.** If the Welsh population grows relatively quickly, then the rate of convergence in funding increases. Conversely, if the Welsh population grows relatively slowly, then the rate of convergence decreases.
- **Rate of (nominal) growth in comparable expenditure in England:** Annual increments in Wales’ block grant are calculated in cash, or nominal terms (i.e. not taking inflation into account). Not accounting for inflation, higher spending growth increases the rate of convergence in relative funding, while lower spending growth reduces the rate of convergence. **Decreases in comparable expenditure in England will actually cause a divergence in relative funding levels.**
- **Changes in devolved functions or departmental profile of spending:** Relative funding levels can be influenced by the transfer of new functions to the Welsh Government, which has an impact on the size of the block grant that is separate to increments from the Barnett formula. Furthermore, differences between planned departmental spending and outturns can be caused by End-Year Flexibility (the ability to carry forward underspending), although the effect on convergence would likely be observed in the short term only.

A model of how the first two factors influence convergence or divergence in relative funding levels is described in Box 1. The influence of these factors on relative funding per head in Wales can also be demonstrated by simplified projections of the effect of the Barnett formula, shown in figures 2 and 3.

BOX 1: Modelling the causes of convergence and divergence in relative funding

Cuthbert (2001)¹ constructs a simplified model of how the Barnett formula operates in Scotland, which can also be applied to Wales. The paper supposes that expenditure in England grows at a constant rate, θ , so that

$$E_{t+1}^E = \theta E_t^E$$

where E_t^E denotes expenditure in England in year t . It also supposes that there is a constant rate of growth of population in England relative to Wales, so that

$$\frac{P_{t+1}^E}{P_t^E} = \lambda \frac{P_{t+1}^W}{P_t^W}$$

where P_t^E denotes the population in England in year t , and P_t^W the population of Wales.

The model constructed in the paper implies that when $\frac{\lambda}{\theta} < 1$, then the relative spending in Wales compared with England will converge geometrically to the limiting value, \bar{R} ²:

$$\bar{R} = \lambda \frac{(\theta - 1)}{(\theta - \lambda)}$$

Therefore, in this model, **the long-run level to which relative funding in Wales will converge towards under the Barnett Formula is a function of expenditure growth in England and the rate of relative population growth.**

It can be noted that if population growth in Wales matches that of England (meaning $\lambda = 1$), relative funding in Wales will converge towards the English level of per capita funding. However, if the Welsh population grows at a slower rate (so that $\lambda > 1$), relative funding in Wales will converge towards a level higher than in England.

1 Cuthbert, J. (2001), 'The effect of relative population growth on the Barnett squeeze', Quarterly Economic Commentary, Vol. 26, No. 2, pp 34 – 37, University of Strathclyde (<http://strathprints.strath.ac.uk/52628/>).

2 Ignoring the complicating factor of lags in the population ratio applied in the Barnett Formula. See Annex of Cuthbert (2001) for derivation of this equation.

Figure 2 shows the effect on relative funding due to population growth in Wales diverging from England over a 40-year period. Comparable spending in England is assumed to grow by 4% annually (in nominal terms), with per-person increases passed on to the Welsh block grant. Relative funding in Wales on programmes covered by the Barnett formula is initially assumed to be 120% of England's level. England's population is assumed to grow in line with the Office for National Statistics' (ONS) principal population projections, and Wales' annual population growth is modelled from 0.4% points below England's growth rate to 0.4% points above.

As illustrated in the chart, sustained differences in population growth between Wales and England can greatly impact the trend in relative funding in Wales. When population growth in Wales matches England's, relative funding converges towards the English level of funding. With faster population growth, relative funding in Wales converges quickly, and funding per head falls below England's level after around 25 years. With sustained slower population growth in Wales however, convergence occurs much more slowly and towards a much higher level than 100% of England's spending per head.

Differences in population growth between Wales and England will likely be an important factor in the path of relative funding levels in Wales in coming years. While England's population is projected to grow by almost 0.8% this year, Wales' population is only projected to grow by 0.3%. If this trend is sustained, it would be anticipated that any future Barnett convergence would occur more slowly than it has in the past.

Figure 2: Projected effect of difference in population growth on relative funding per head in Wales (England=100)

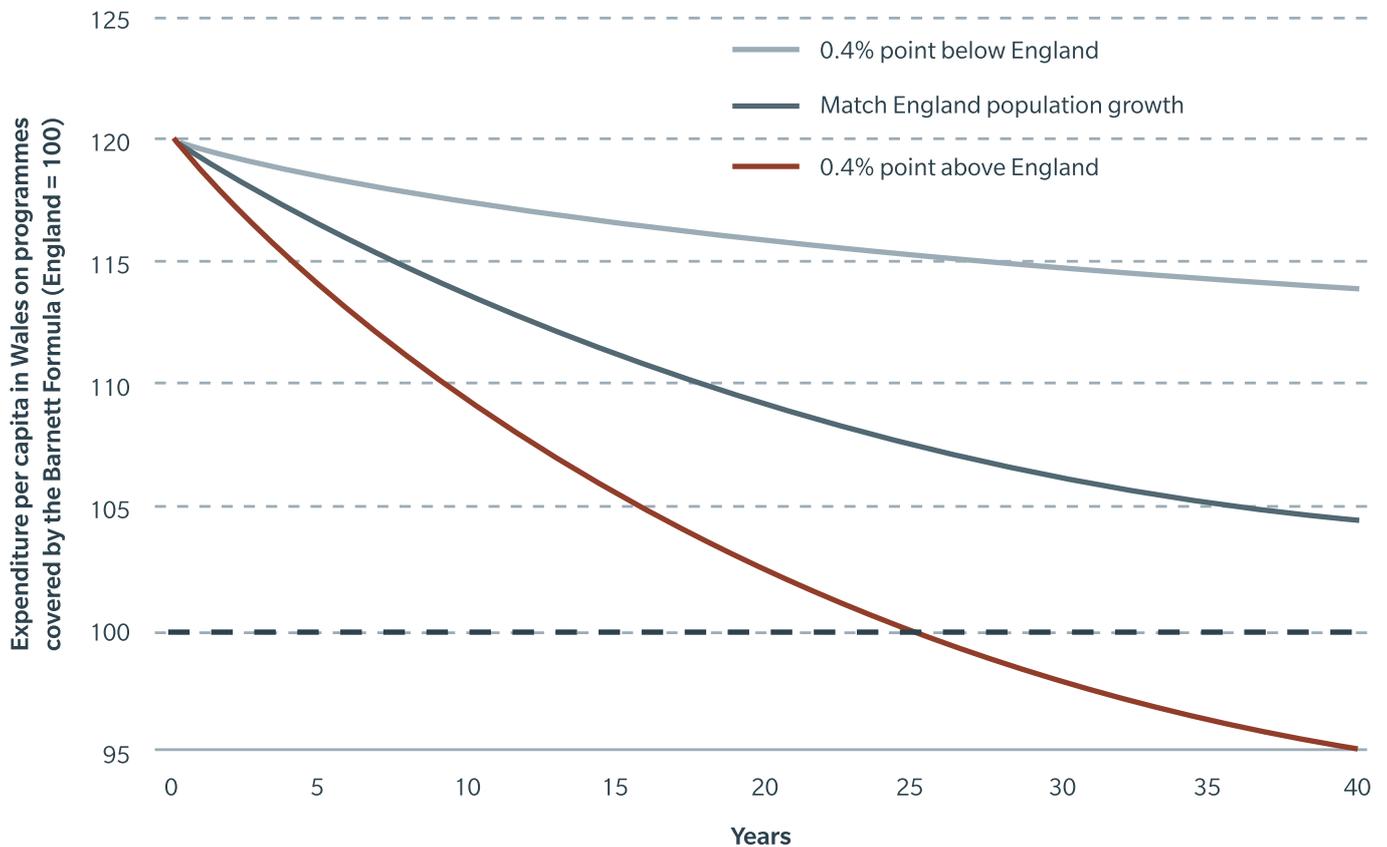
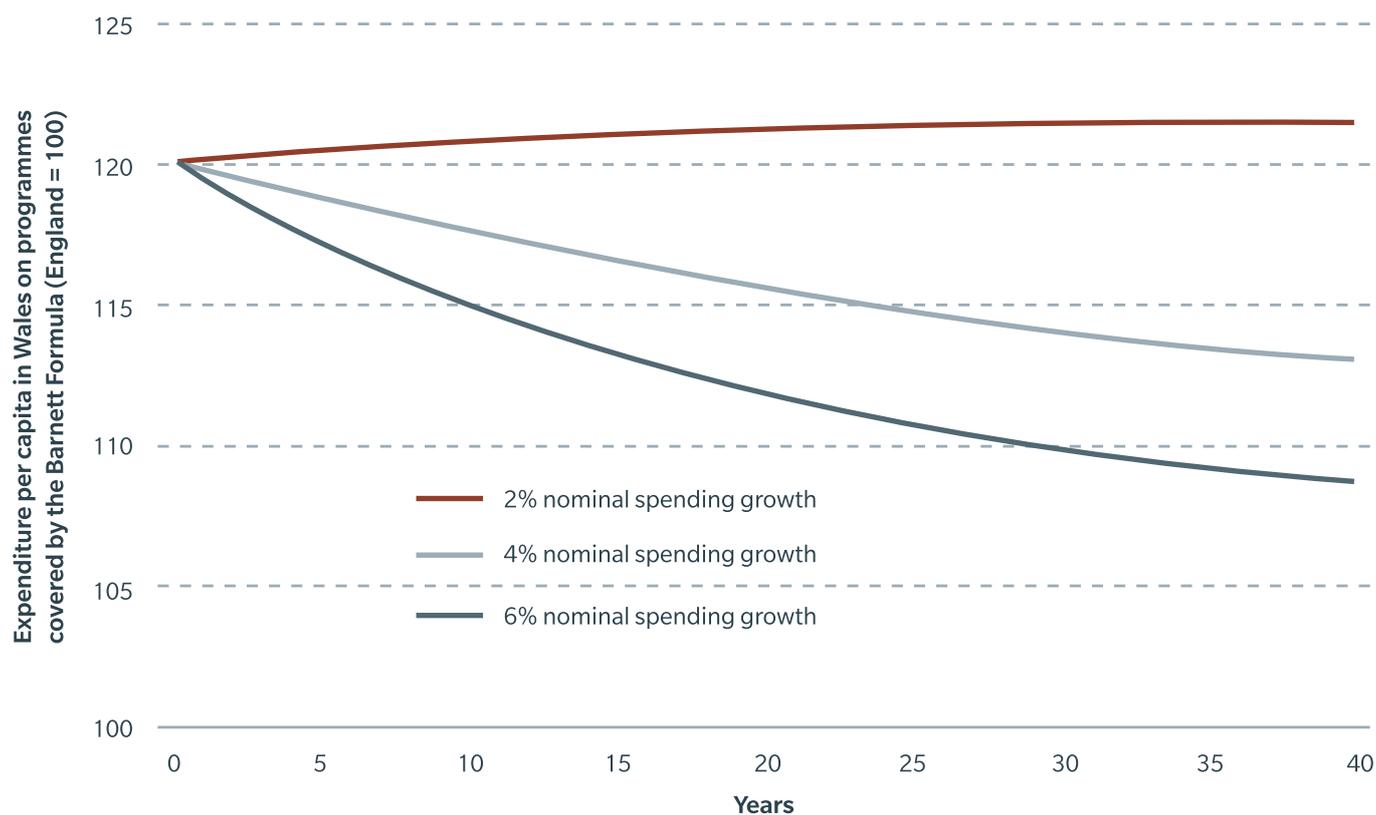


Figure 3 shows the modelled effect of varying rates of growth in comparable expenditure on relative funding in Wales. The principal population projections for Wales and England from 2015-16 are used, while the nominal rate of growth in comparable expenditure is varied.

Different rates of growth in comparable expenditure in England have very different consequences for Wales' relative funding. Relative funding levels in Wales converges more quickly when faster spending growth (of 6% per year) is sustained, falling below 115 after around a decade, and below 110 after 30 years. Conversely, no Barnett 'squeeze' is projected with lower spending growth (of 2% per year): relative funding in Wales actually diverges slightly from the level in England over time.

Figure 3: Projected effect of varying rates of expenditure growth on relative funding per head in Wales (England=100)



Rearranging the formula illustrated in box 1, and given projected population growth rates in Wales and England, it can be estimated comparable expenditure in England would have to grow by at least 2.5% per year for there to be any convergence in relative funding over the next 10 years.

2.3 Relative need

The long-standing system of allocating block grants to Wales, Scotland and Northern Ireland means that the size of the block grants and levels of relative spending per head across the countries of the UK today are largely the result of an historical accident - influenced by the historical level of spending in the countries before the Barnett formula was introduced in the late 1970s and subsequent trends in relative population and expenditure growth.⁴ Unlike the systems that have been used to allocate funding to different parts of England, there is no link between block grant size and spending needs in any particular country. This means that the devolved governments have been exposed to risks that affect spending needs, such as different patterns in ageing or illness, or general socio-economic factors.

The Holtham Commission presented a range of indicative statistics which confirmed that the relative need for public spending in Wales was greater than in England. Concentrating on seven indicators reflecting demographics, levels of deprivation and relative costs of providing public services, the Commission suggested attributing importance to each indicator according to how important each of the indicators appeared to be to actual budgetary allocations made to fund devolved activities within England, Wales and Scotland. The actual budgetary allocations were taken as the “revealed preference” of governments.

From the indicator data available at the time, this calculation generated an overall estimate of Welsh relative need of approximately 115% of England’s per capita level. Based on this assessment of

⁴ Furthermore, relative funding levels have been influenced by ‘formula bypass’ i.e. funding being allocated outside the strict operation of the Barnett formula.

relative need, this suggested that Wales should receive £115 per person to spend on devolved activities for every £100 per person spent on comparable activities in England. The Commission suggested that Wales' relative need for funding per head would rise to 117 (when England is set at 100) if the formula was modified to account for the need for Welsh language provision and Wales' lower tax capacity (which influences local authority revenues). An alternative approach taken in the Commission's first report was to calculate the funding that Wales would receive from the UK Government if it were treated as a region of England. It concluded that Wales would receive at least £114 per person for every £100 of comparable English spending.

It should be noted that an updated assessment of relative need in Wales may be different from the Commission's estimates if it were based on more recent data.

2.4 Recent trends in relative spending per head

A challenge in assessing relative levels of funding per head in Wales is that the UK Government does not publish figures on spending in England on programmes that are covered by the Barnett formula. Therefore, aggregates of expenditure in England have to be estimated. This paper follows the methodology of the Holtham Commission⁵ and the methodology published jointly by the UK Government and the Welsh Government in 2012.⁶ This method involves applying the comparability factors published in the Statement of Funding Policy for each UK Government department to departmental expenditure limits (DEL) published in the most recent Public Expenditure Statistical Analyses (PESA).⁷ For example, since Wales' comparability factor for expenditure by the Department for Transport (DfT) is 80.9%, comparable expenditure in England on transport is taken to be 80.9% of the departments DEL. Total comparable expenditure in England is then compared on a per head basis with the DEL allocated to Wales in each year.⁸

Figure 4 shows the estimated trend in relative expenditure per head in Wales compared with England, following the methodology outlined above, from 1999-00 onwards. At the onset of devolution, relative funding per head in Wales on programmes covered by the Barnett Formula was around 125% of the level in England. Fast growth in expenditure across the UK in the early years of the last decade led to rapid convergence in relative funding. By 2009-10, relative funding in Wales was below the Holtham Commission's estimate of relative spending need.

However, in more recent years, there has been an almost unprecedented restraint in public spending growth across the UK. In addition, the growth in the Welsh population has also fallen further behind relative to England. Alongside changes in funding responsibilities, these factors mean that relative funding per head in Wales has diverged away from England's level. Relative funding per head in Wales in 2015-16 has risen to around 120% of the level in England, and given the extended spending restraint planned for the next five years, relative funding will likely diverge further in coming years.

Although relative funding per head in Wales is currently above the Holtham Commission's estimate of relative need, convergence and divergence are intrinsic to the Barnett formula. If public spending begins to grow more rapidly the Barnett Squeeze could return, with the result of again bringing Welsh spending back down towards English per capita levels.

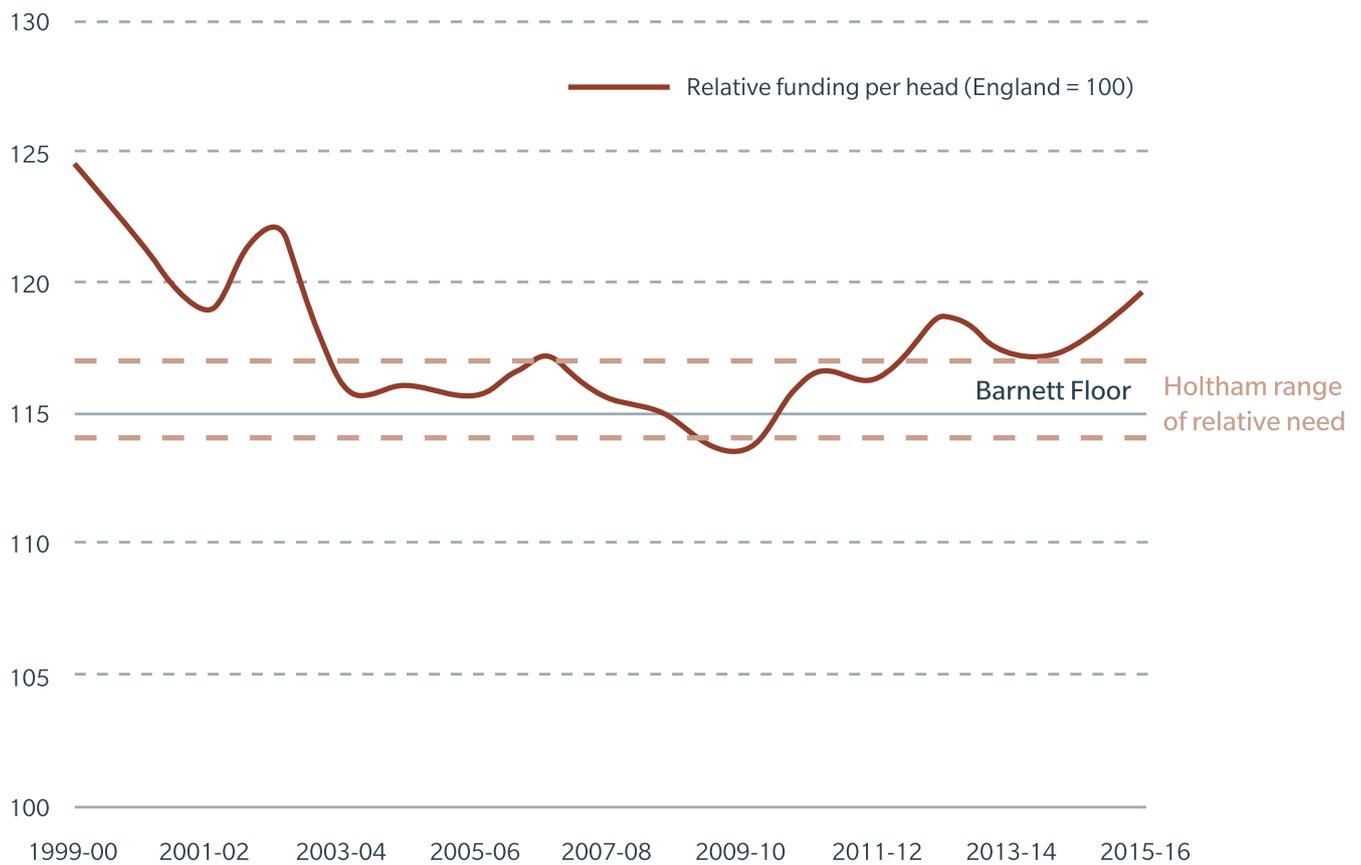
5 Holtham Commission. (2009). Independent Commission on Funding and Finance for Wales. Funding devolved government in Wales: Barnett and beyond, First Report. Annex 2

6 Welsh Government and HM Treasury, October 2012: "Funding Reform: Joint Statement of Progress".

7 HM Treasury, Public Expenditure Statistical Analyses (PESA) 2016.

8 Adjustments have been made to comparable expenditure in England to reflect the Business Rates Retention Scheme from 2013-14 onwards, and to the Wales DEL to reflect the devolution of Non-Domestic Rates from 2015-16. Furthermore, the comparability factor for Home Office spending was changed from 2010-11 onwards to reflect the transfer of police grants from DCLG to the Home Office as described in PESA 2013.

Figure 4: Trends in relative expenditure per head in Wales on programmes covered by the Barnett Formula (England=100)



Source: Authors' calculations using HM Treasury PESA data and UK Government Statement of Funding Policy documents.

For extended discussion of the methodology and assumptions used to estimate trends in relative expenditure, see the online annex to this report and the data on the Wales Governance Centre website.⁹

⁹ Available at: <http://sites.cardiff.ac.uk/wgc/publications/>

3. Options for implementing a Barnett Floor

That relative funding per head in Wales is currently above the Holtham Commission's estimate of relative need gives breathing room for policymakers to consider options for preventing future convergence. Over the past decade there have been numerous calls for a mechanism to be introduced which would stop relative funding levels in Wales from falling below an estimate of Wales' relative need in future. The Welsh Government sees such a funding floor as a priority, to ensure the "threat of convergence to future Welsh budgets is ended once and for all".¹⁰

This section analyses some of the ways in which a long-term Barnett Floor could be implemented. The analysis assumes that the agreed level of relative funding need is 115% of per head spending in England, taken from the Holtham Commission's estimates. A key (and as yet unanswered) question is whether this estimate of relative need would be kept constant at this level, or subject to updates in the future. A fixed or updated estimate would determine what risks and fiscal incentives the Welsh Government would face with regards to changes in relative spending need.

3.1 Simple Barnett Floor

A simple funding floor set at 115% of per capita spending in England is the arrangement implemented by the UK Government for this parliamentary term. Because relative spending per head in Wales is currently above this minimum level, the mechanism is unlikely to have any impact on the Welsh block grant in the short term.

Under this arrangement, the Barnett formula would continue to determine changes in the Welsh block grant, but in the event that Welsh funding per head fell below 115% of the level in England a transfer would be made to the Welsh Government to take funding up to that level.

Although straightforward in theory, the floor mechanism is deceptively simple and conceals several implementation challenges. It would require an agreed definition of English comparable spending over time, and an ongoing assessment of relative funding levels in Wales. These figures can change significantly from time to time, for example, when additional responsibilities and funding are transferred to the Welsh Government. Plans and actual outturns for departmental spending can also vary significantly, potentially leading to funding shortfalls only being identified with a significant lag. This could lead to frequent disagreements between the two governments on the need for or the size of any additional payments due to the Welsh Government, perhaps after the financial year in question has long since passed.

This approach means that the Welsh Government continues to bear the risks of differential population growth, unless relative funding reaches the floor. After this point, any differential population growth risk is borne by the UK Government, as the Welsh Government would still get 115% of comparable English funding per head regardless of relative population growth.

3.2 Fixed Barnett Needs Factor

A second approach, first suggested as a temporary arrangement by the Holtham Commission's first report to prevent any further convergence, would be to introduce a 'Needs Factor' into the Barnett formula. Under this method, the annual uplift of additional funds for Wales through the Barnett formula would also be multiplied by the needs factor of 115%.

¹⁰ Welsh Government (2015) Developments in fiscal devolution, *Treasury Paper 2*. WG25352. Available at: <http://gov.wales/docs/caecd/publications/150515-treasury-paper-2-en.pdf>

Changes to the Welsh Government’s block grant under this approach would be calculated by applying and summing the following calculation for every UK Government department:



Although suggested by the Holtham Commission as an immediate priority, it was considered only as a temporary arrangement to prevent any further convergence until more comprehensive Barnett reform could be agreed. This approach would begin to increase relative funding levels immediately at the point of introduction (as opposed to the Simple Floor method described above). As this formula amendment would only apply to **changes** in spending, it would **not** require ongoing agreement between the governments of where relative spending levels are in each year.

Using this approach over the long term would significantly alter trends in relative funding in Wales. As in the simplified model of the operation of the Barnett formula illustrated in Box 1, the level to which relative funding per head in Wales converges towards in the long-run depends on (a) relative population growth and (b) the rate of growth in comparable expenditure in England. When population growth matches that of England, relative funding in Wales will converge towards the English level of per capita funding. However, if the Welsh population grows at a slower rate, relative funding in Wales will converge towards a level higher than in England.

If a Needs Factor of 115% is included in the Barnett formula, then the long-term level of convergence will be 15% higher than it would have been in the absence of the Needs Factor. For example, if population growth in Wales matches England, then relative funding would converge towards 115% of the level in England. However, if the Welsh population grows at a slower rate, relative funding in Wales will converge towards a level higher than 115% (see figure 4 below). If the Welsh population grew at a faster rate than England in the future, then relative funding in Wales could still converge towards a level lower than 115%.

This means that if a Needs Factor is included in the Barnett formula then the Welsh Government would be exposed to risks over differential population growth. Given projected trends in relative population growth, relative per head spending in Wales would be likely to converge to a level much higher than a 115% of England’s level.

3.3 Variable Barnett Needs Factor

A third approach would also introduce a needs factor as in the second method above, but **would require relative funding in Wales to converge towards an agreed level of relative need**, regardless of relative population growth and public spending growth between England and Wales. We term this approach the “Variable Barnett Needs Factor”.

To show how such a system might work, assume an agreed level of relative need (\bar{N}). The required needs factor for Wales can be constructed using an estimate of the level to which relative expenditure per person will converge towards in the absence of a needs factor (call it \bar{R}). As described in box 1, this can be estimated as:

$$\bar{R} = \lambda \frac{(\theta - 1)}{(\theta - \lambda)}$$

where λ denotes relative population growth in Wales compared with England, and θ denotes the rate of growth in comparable expenditure in England.

The required variable needs factor to be included in the Barnett formula for funding to **always converge to the agreed level of relative need** is therefore:

$$\text{Variable Needs Factor} = \frac{\bar{N}}{\bar{R}}$$

For example, if given levels of relative population and expenditure growth means that funding in Wales will converge to 110%, and the agreed level of relative need is 115%, then increments in funding allocated to Wales should be multiplied by around 105%. If population growth in Wales matches England, then since $\bar{R} = 1$ the variable needs factor would be the same as the fixed needs factor method described above.

Changes to the Welsh Government block grant would therefore be determined by this calculation, applied to and summed across UK departments:



The variable needs factor method would permanently end the threat of future convergence in relative funding below 115% of English per capita funding, and would also prevent further divergence in relative funding away from England's level, as has occurred in recent years. The Welsh Government would not be exposed to any future risks of differential population growth, as its funding would always converge towards the agreed level of relative need.

The rate of convergence towards this level would depend on how quickly comparable expenditure in England is growing. **Convergence would also require the Variable Needs Factor to be updated on a regular basis even if the underlying (fixed) needs factor remained constant.** This is because changes in the relative rate of population growth (λ) and the rate of growth in comparable spending in England (θ) affect this factor. To the extent that outturns for population growth or comparable spending growth differ from forecasts, reconciliation adjustments to the Welsh Block Grant could be required once outturn data is available (although if forecasts are not systematically biased on one direction or the other, they may cancel each other out in the long term and could potentially be ignored).

3.4 Projections with different Barnett Floor options

Figure 5 shows the effect of relative spending per head in Wales compared with England, under the three options for a Barnett Floor set out above. It assumes comparable spending in England grows at 4% annually (in nominal terms). Population growth in England is set at 0.5%, while population growth in Wales is set at 0.2% (close to the average projected growth rates for the next 40 years). Relative spending per person in Wales begins at 120% of the English level (around its estimated 2015-16 level), while the Simple Barnett Floor is set at 115%.

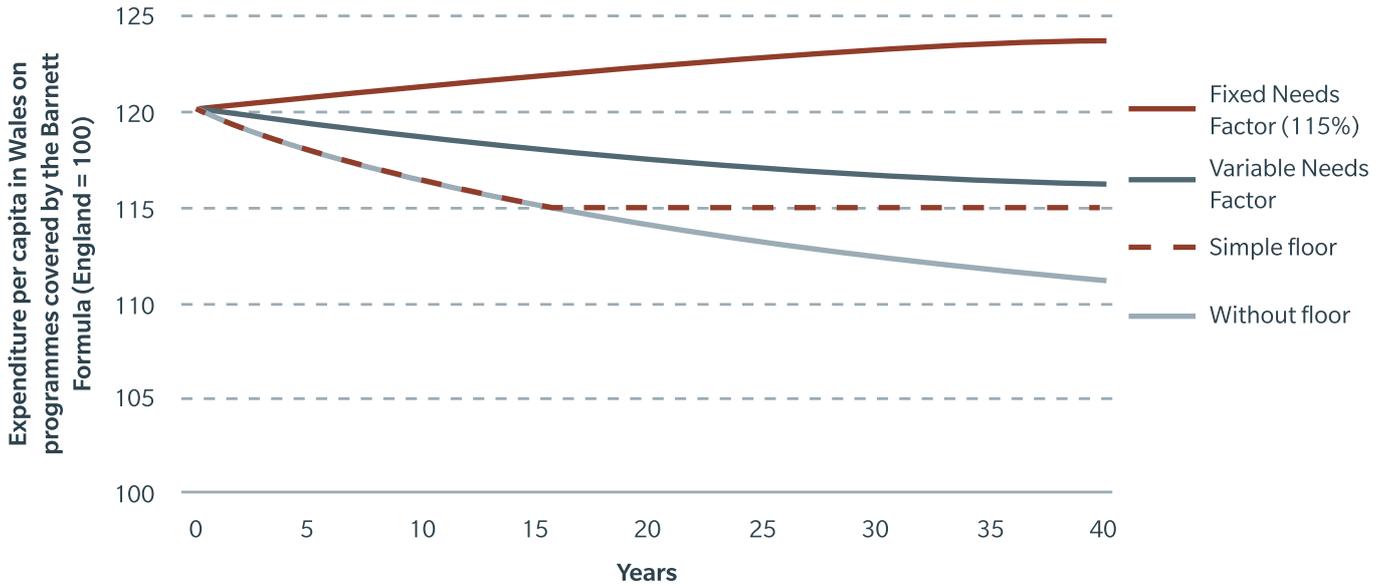
Under these assumptions, without a Barnett floor in place, the relative funding level in Wales would squeeze down to around 108% of the English level in the long-run. After around 15 years, relative funding per head in Wales would fall to below 115% of the English level. With the simple floor in

place, additional payments would be made to the Welsh Government in order to maintain relative per head funding at the level of the floor.

If increments in Welsh funding were multiplied by a fixed needs factor, then under these assumptions relative funding in Wales would diverge further away from the level in England, towards approximately 125% in the long-run (15% higher than the long-run level of convergence without the needs factor).

With increments in Welsh funding multiplied by the variable needs factor (of around 105% in this case) relative funding in Wales would converge towards 115% of the level in England, from its initial level of 120%.

Figure 5: Projections of relative funding levels in Wales on programmes covered by the Barnett Formula, under different Barnett Floor options



4. Interactions between the Barnett Floor and Block Grant Adjustments after tax devolution

Following the October meeting of the Joint Exchequer Committee (Wales), a joint communique issued by the two governments reported that Ministers considered how the mechanism of adjusting the block grant after tax devolution should interact with the Barnett formula and any future funding floor.¹¹ To shed light on this debate, this section outlines how the various different options for adjusting the block grant and for a Barnett floor would modify the risks faced by the Welsh Government.

From April 2018, the UK's Stamp Duty Land Tax (SDLT) and Landfill Tax will be “switched off” in Wales and replaced by two devolved taxes, to be collected by the newly-formed Welsh Revenue Authority. At some point in coming years, a £2 billion share of Income Taxes raised in Wales is also likely to be devolved to the Welsh Government, without the need for an affirmative vote in a referendum. After the devolution of these taxes, **a downward adjustment will be made to the existing block grant**, to compensate HM Treasury for the tax revenue they will no longer receive. The ultimate effect of tax devolution on the Welsh budget will be determined as much by how these downward adjustments will change in future years, as it will be the actual change in devolved revenues.¹²

As outlined in the first joint Wales Governance Centre and Institute for Fiscal Studies paper in this series, it is likely that the block grant adjustment (BGA) for tax devolution will be indexed in some way to growth in comparable revenue in the rest of the UK. This would mean that Welsh devolved revenues would need to grow as fast as revenues in the rest of the UK in order to keep up with the amounts being taken away from the block grant through the BGA. If Welsh revenues grew relatively quickly, then the Welsh Government budget would grow, while if Welsh revenues grew relatively slowly, the Welsh Government would lose out. This approach has the benefit of pooling UK-wide economic risks (as UK-wide recessions would impact revenues in the rest of the UK as well as devolved revenues), and also provides an incentive for the Welsh Government to grow its tax base.

In order to deliver a more financially-accountable Welsh Government and National Assembly for Wales, the funding floor arrangement would need to apply to the underlying Welsh block grant before the adjustment for devolved taxes is applied (otherwise the Welsh Government could rely on the funding floor to restore relative Welsh funding per head to 115% of the English level, even if Welsh tax cuts had caused funding to fall below the floor). Nonetheless, the funding floor is an additional complexity that did not apply in the Scottish negotiations.

This section considers the possible interactions between Welsh devolved taxes, block grant adjustment methods and the three possible floor mechanisms outlined in the previous section. To avoid unnecessary complexity it focuses only on the two block grant adjustment mechanisms that feature in the final Scottish Fiscal Framework agreement, namely:

- **Per Capita Indexed Deduction**, which would index block grant adjustments to revenue growth in the rest of the UK and taking population divergence into account (this is to be used for Scotland's block grant reductions for a six-year transition period through to 2021-22); and the
- **Comparable Model**, which aims for “Barnett symmetry” on both the expenditure and revenue sides of the budget but takes into account Wales' lower per capita revenues than the rest the UK.

11 Welsh Government and UK Government, 25 October 2016: Joint Exchequer Committee (Wales). <http://gov.wales/newsroom/finance1/2016/58689578/?lang=en>

12 For discussion of Block Grant Adjustment methods see Wales Governance Centre and the Institute for Fiscal Studies, October 2016: “For Wales Don't (Always) See Scotland”: Adjusting the Welsh Block Grant after Tax Devolution. First Report on the 2016-17 Fiscal Framework Negotiations for Wales.

4.1 Managing population growth risks

A critical issue in the Scottish negotiations (and one which is equally important in Wales) was the extent to which the Barnett formula and the method of adjusting the block grant would expose the devolved government to **differential population growth risks**, in particular the slower growing population in Scotland (and Wales) relative to England. Over time, slower population growth means that tax revenues are also likely to grow more slowly in Wales than in the rest of the UK, regardless of the performance of the Welsh economy. Not factoring in this slower population growth could well result in Welsh devolved revenues not being able to keep pace with cuts to the Welsh block grant after tax devolution. Under the agreed method of adjusting the Scottish block grant after its fiscal devolution, the BGA will change according to the change in **per-capita revenues** in the rest of the UK, rather than total revenues, insulating Scotland from its slower population growth.

If also adopted in Wales, this option, known as **Per-capita Indexed Deduction (PCID)**, would insulate the Welsh Government from revenue risks associated with its slower growing population. During the Scottish Fiscal Framework negotiations last year however, the Treasury’s position was that this method would not align with the exposure of the Scottish Government to differential population growth risk through the Barnett formula (see section 2.2).¹³ The Treasury instead suggested an alternative option, known as the **Comparable Model (CM)** that would introduce a “comparability factor” for revenues as well as expenditures. These factors would reflect the difference between per capita revenues in the devolved countries and the rest of the UK. For instance, if revenue per head in the rest of the UK for a particular tax is £100, but the equivalent figure for Wales was £89, then the comparability factor would be 89%.

Using these two BGA methods, Table 2 considers how each option for the Barnett Floor would change the population risk faced by the Welsh Government, and compare with the different methods of adjusting the block grant. For each Barnett Floor and BGA option, the Table illustrates which government would **bear the risks of the Welsh population growing differently to the rest of the UK**. Budget risks from diverging population growth are shown both for the expenditure side (Wales’ relative funding levels) and the revenue side (Wales’ BGA & devolved taxes). Green boxes indicate the combination of options which would result in symmetry in treatment of population risks on both the expenditure and devolved revenue sides, while red boxes indicate asymmetry of treatment.

TABLE 2: Who bears population risk?				
		Barnett Floor options		
		Simple Barnett Floor	Fixed Barnett Needs Factor	Variable Barnett Needs Factor
Block Grant Adjustment options	Per-capita Indexed Deduction	UK Government on revenue. Welsh Government on expenditure side (<i>until relative per head spending hits floor</i>).	UK Government on revenue side. Welsh Government on expenditure side.	UK Government on revenue and expenditure side.
	Comparable Model	Welsh Government on revenue side. Welsh Government on expenditure side (<i>until relative per head spending hits floor</i>).	Welsh Government on revenue and expenditure side.	Welsh Government on revenue side. UK Government on expenditure side.

13 See letter from Chief Secretary to the Treasury, Greg Hands to Pete Wishart MP, “Revising Scotland’s Fiscal Framework”, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/500284/CST_response_SAC.pdf

As shown in the upper row of Table 2, the PCID method of adjusting the Welsh block grant would insulate the Welsh Government from differential population growth risks on the revenue side, as the UK Government would bear the risk of differential population growth. This means that the effect of tax devolution on the Welsh Government budget would depend only on relative trends in per-capita revenues: the Welsh Government would not gain extra funds through faster population growth nor lose out from slower population growth. If the Variable Needs Factor floor were introduced, there would be symmetric treatment of population on the expenditure side because Wales' relative funding would not benefit if its population grew relatively slowly. In contrast, under the Simple Barnett Floor the Welsh Government would continue to bear population risks on the expenditure side until relative per head funding converges to the level of the floor. After this point, the Welsh Government would receive 115% of England's per capita level of spending, irrespective of population trends.

Results using the Comparable Model are shown in the lower level of Table 2. As it would not factor relative population growth in calculating BGAs, this method would result in the Welsh Government losing out if its population grew relatively slowly after tax devolution, and gaining if its population grew relatively quickly. This would arguably be asymmetric to the introduction of the Variable Needs Factor on the expenditure side, which would stop the Welsh Government from benefiting from slower population growth on the expenditure side. In contrast, the Fixed Needs Factor would still see the Welsh Government bearing population risk, as it would benefit considerably in terms of relative funding if its population grew relatively slowly. For the Simple Floor option, the Welsh Government would not be protected from population risk on the revenue side and would continue to benefit from slower population growth on the expenditure side (until relative per head spending hits the 115% floor).

The potential difference these options would make to relative funding in Wales over time can be illustrated by simple projections. Using ONS' principal population projections for Wales and England, figures 6, 7 and 8 show the different trends in relative funding on the expenditure side under both the CM and PCID methods. Comparable spending in England is assumed to grow at 4% (in nominal terms) each year. Revenues per capita in Wales are assumed to grow at the same rate in Wales as in England, such that the analysis can focus on the impact of relative population growth rates on revenues.

Under these restrictive assumptions, the PCID method in each case leads to BGAs that exactly match devolved revenues – or the same relative funding levels as if tax devolution had never occurred. In contrast, because the Comparable Model does not account for Wales' slower population growth, these same assumptions lead to losses in the spending power of the Welsh Government relative to PCID. The cash-terms difference between the PCID and CM results in each figure is the same.

It is important to note that were revenues per capita to grow at a different rate in Wales than in the rest of the UK, then the relative funding level shown on the PCID line in each figure would not be the same as relative funding with no tax devolution. For example, slower revenue per capita growth in Wales would mean lower levels of relative funding compared with relative funding had tax devolution not occurred.

Figure 6: Effect of slower population growth with Comparable Model and PCID methods of BGA, with Simple Barnett Floor

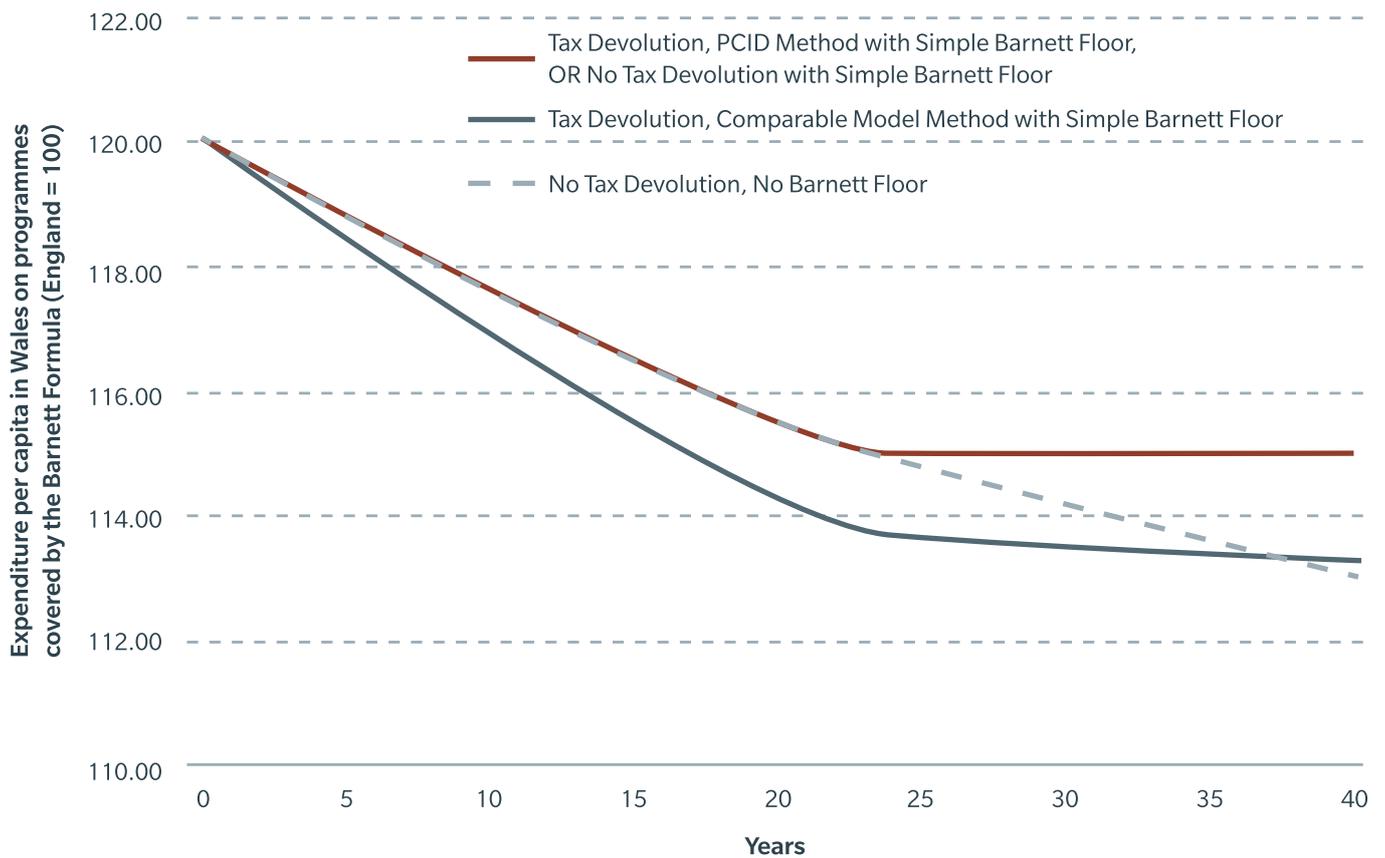


Figure 7: Effect of slower population growth with Comparable Model and PCID methods of BGA, with Fixed Barnett Needs Factor set at 115%

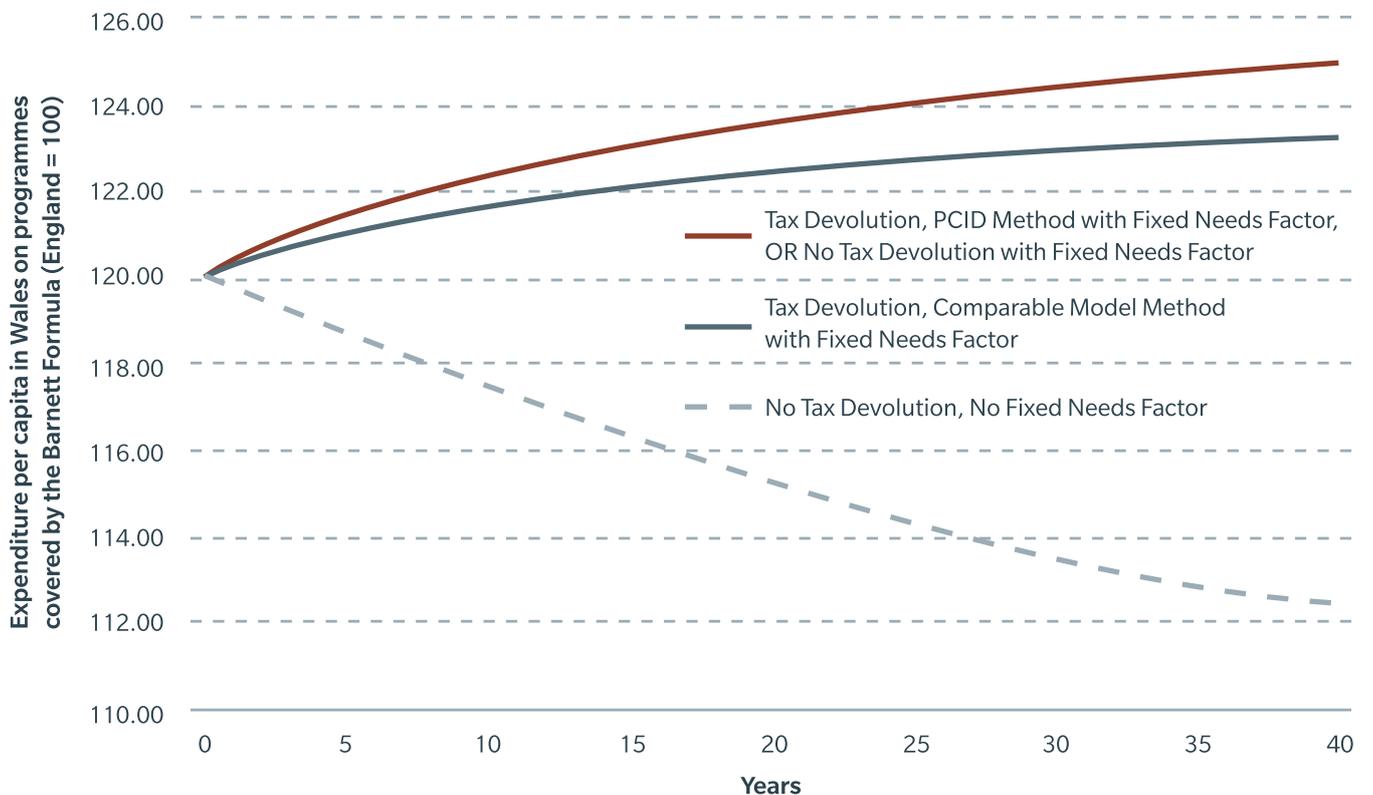


Figure 8: Effect of slower population growth with Comparable Model and PCID methods of BGA, with Variable Barnett Needs Factor

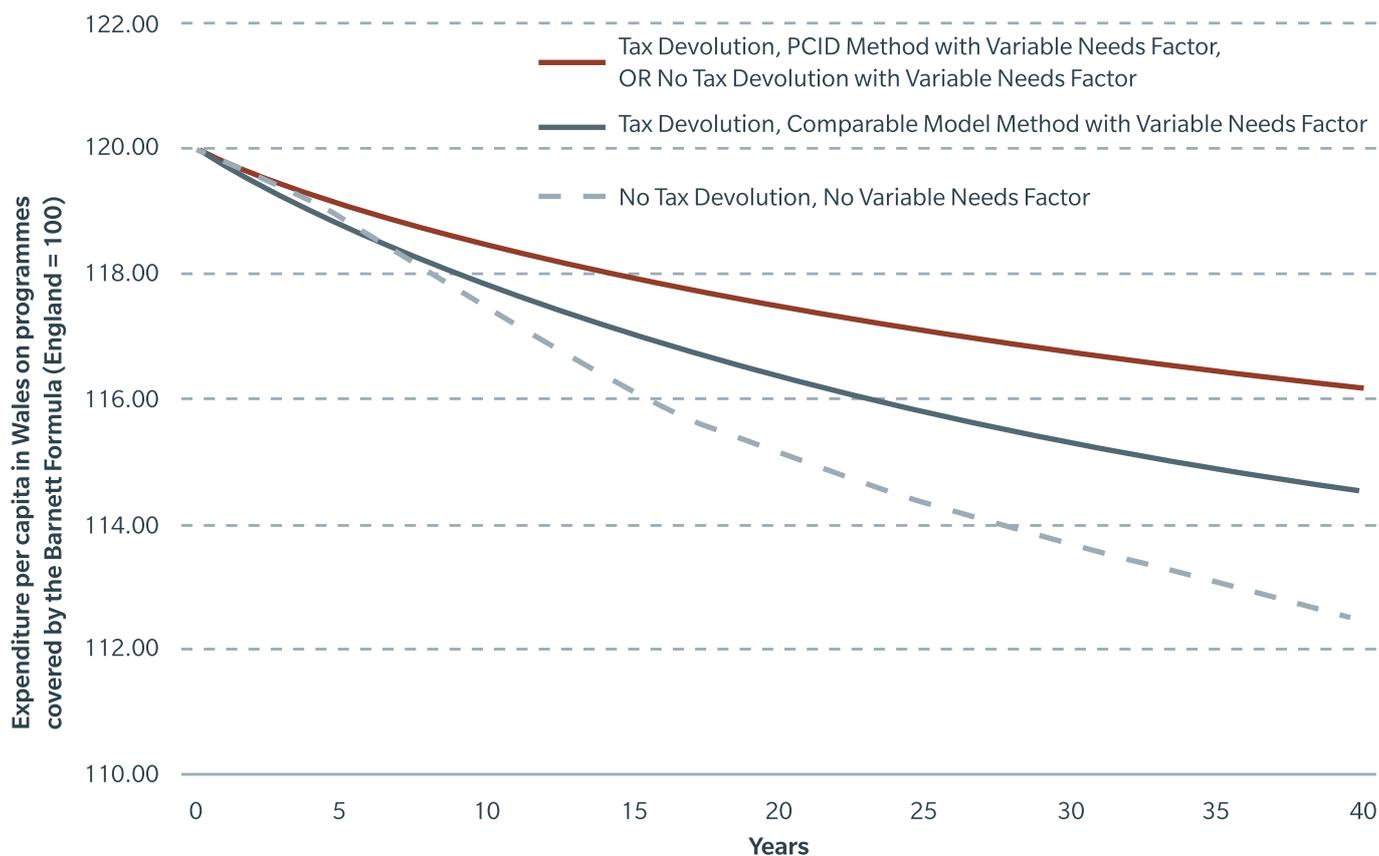


Figure 6 shows the projected trend in relative funding in Wales if a simple Barnett floor was in place, while figure 8 shows the projected trend in relative funding if the Variable Needs Factor were included in the Barnett formula. In both of these scenarios, the CM method of adjusting the Welsh block grant results in relative funding per head in Wales converging more quickly to the English level than under PCID, because revenues in Wales are growing more slowly than in the rest of the UK. Projected relative funding in Wales actually falls below the Barnett floor due to Wales' lower population growth. Falling below the 115% funding level is possible if the floor applies after applying the block grant adjustment for Welsh taxes.

Figure 7 shows the projected trend in relative funding in Wales if a Fixed Needs Factor (of 115%) were to be introduced into the Barnett formula. As explored in the previous section, given projected population trends this option would result in diverging relative funding for Wales above England's level. The CM method of adjusting the Welsh block grant would slow the pace of divergence due to slower revenue growth in Wales, but this offset would be smaller than the overall increase in Welsh relative funding due to the Fixed Needs Factor.

The potential difference in the size of the Welsh budget between these different options is large. Under the assumptions outlined above, introducing the Fixed Needs Factor with the PCID method of adjusting the block grant would mean that relative funding per capita levels in Wales would reach 122% of English funding after 10 years. This compares with Welsh relative funding per head of 117% of English funding over the same period if the simple Barnett floor and the CM method were introduced. In cash terms, this difference would be over £900 million, or just under £300 per person in Wales.

Conclusion

As the Treasury and the Welsh Government negotiate Wales' future Fiscal Framework, both sides will be aiming for an agreement that they can see as 'fair', and one that facilitates more financial accountability for Wales. Two parts of the new Framework will be key to both issues: the adjustment to the Welsh Government's block grant to account for its newly devolved revenues; and a 'funding floor' to prevent the Barnett Formula driving down the Welsh budget to English spending levels, despite Wales' higher spending needs.

In an earlier paper we considered the issue of block grant adjustments (BGAs), arguing that Wales' likely lower population growth and lower levels of income had implications for how these BGAs should be indexed over time. It was suggested that indexing the BGAs to changes in revenues per person in comparable regions of the UK (such as the North) or indexing revenues per person separately by tax band (so, for instance, rather than a single adjustment for all of income tax, there were three separate ones for the basic, higher and additional rates) might reduce the extent to which the Welsh Government faced revenue risks outside its control. This analysis still stands. In this paper we have focused instead on the options for future implementation of the funding floor, and how these different options interact with the BGAs.

The current funding floor involves a pledge from the UK government to ensure funding per person for the Welsh Government does not fall below 115% of the amount spent on comparable services in England. This figure was chosen as it fell within the range of relative need for Wales (114% – 117% of that in England) identified by the Holtham Commission. If the funding implied by the Barnett Formula were to fall below 115% of English levels, the Welsh block grant would be topped up to ensure the floor was met. However, this floor only applies for the current parliament and as we have shown, Welsh Government funding is currently a fair way above the floor.

Looking to the future, if the Welsh and UK Governments are serious about 115% (or indeed, any specific relative funding level) as a needs-based 'floor' to the Welsh Government's block-grant funding, the approach taken should be consistent with funding actually trending to that level. One way to do this would be to continue with the current basic floor and 'top-ups' to the Barnett-determined grant if that were to fall below the floor. The drawback with this is that it would require relative funding to be assessed on an ongoing basis (which is harder than it sounds). Alternatively, the Barnett-determined changes to the Welsh Government's block grant could be multiplied by a factor accounting for relative need, the rate of growth of population in Wales relative to England, and the rate of growth of comparable spending in England. Use of this "variable needs factor" in the Barnett Formula would slow the rate at which spending converged to the 115% floor but would avoid the need for annual calculation of relative funding and the allocation of a 'top-ups' if needed. It would, however, require updating to account for changes in population growth rates, or changes in the rate of growth of comparable spending in England.

A "fixed factor", that did not explicitly take into account relative population growth, or the rate of change in comparable spending in England, could be used in the Barnett formula instead. This would, to some extent, be simpler. But there would be no reason to expect such an approach to deliver funding that trended towards the 115% floor. A high fixed factor (such as 115%) would lead to relative funding for Wales significantly overshooting the 115% level, while a low fixed factor could lead funding to undershoot the 115% level. Choice of this "fixed factor" could simply become a zero-sum bargain between the Welsh and UK Governments about who gets what slice of the pie.

Our report has also considered what different methods for implementing the funding floor and indexing the BGAs imply for who bears the spending and revenue risks associated with population growing at a different rate in Wales than the rest of the UK. In its proposals for Scotland, the Treasury aimed to ensure that the devolved government bore both risks: it advocated its Comparable

Model, which takes little account of differential population growth for BGA indexation, alongside the existing Barnett formula. For Wales, an option that would see the Welsh Government bear population risks might result from a combination of the Comparable Model and a “fixed needs factor” Barnett floor for Wales (either at 115% or another fixed multiplier factor), both of which would take little account of differential population growth. **The symmetry between the Comparable Model BGA and the underlying Barnett formula would mean, for instance, that Welsh budgetary gains from a slowdown in relative population growth on the spending side would be (partially) offset by losses on the revenue side, and losses from a speed-up in population growth would be (partially) offset by gains on the revenue side.**

But this begs the question: is it the Welsh Government or UK government that is the most appropriate agent to bear the spending and revenue risk associated with differential population growth? Relative population growth is arguably more closely associated with Westminster powers over immigration and the macro economy than with the Welsh Government, and an outcome requiring the devolved government to bear these risks may result in smaller budgets due to factors outside of Welsh Government control.

In addition to the Comparable Model and a “fixed factor” Barnett floor that would see population risks borne by the Welsh Government, a second approach could also produce symmetry by having the UK government bear population-driven risk to the Welsh Government’s spending and revenue. **This could be achieved by Per-capita Indexed Deduction (PCID) approach to indexing the BGA on the revenue side, plus a simple floor or an “variable needs factor” in the Barnett Formula that explicitly strips out the effect of differential population growth on the spending side.** The amount the Welsh Government has to spend per person would neither fall relative to England if population growth in Wales sped up, nor rise if population growth in Wales fell. But it would still have the incentive to grow its revenues per person to boost its revenues, and reduce its spending needs per person, to stretch its budget further.

Going for symmetry in this way (a simple floor or “variable needs factor” combined with the PCID BGA) may also have a benefit in terms of accountability. One of the aims of tax devolution is to increase the financial accountability of the Welsh Government to the people of Wales for its performance in helping manage the economy and revenues. One way in which the Welsh people (or at least a subset of them!) may want to be able to do this is by comparing the amount of revenues the Welsh Government is actually raising with the BGA taken off the Welsh block grant to account for tax devolution.

Under the PCID method of indexing the BGA, when tax rates remain the same in Wales as in the rest of the UK, Welsh revenues will grow more slowly than the BGA if tax revenues per person grow less quickly in Wales than the rest of the UK, and more quickly than the BGA if tax revenues per person grow more quickly. Revenues would exactly keep pace with the BGA if revenues per person grow at the same percentage rate as the rest of the UK. This might be a useful rule of thumb for “bad” versus “good” Welsh Government performance on revenues.

On the other hand, using the Treasury’s Comparable Model would require Welsh revenues per person to grow at a faster rate than in the rest of the UK to keep pace with the BGA. This is because more tax would need to be raised from each person to account for population growing less quickly in Wales than the rest of the UK. It would therefore be harder for people to judge just how well the Welsh Government is managing Welsh revenues under the Comparable Model approach.

Finally, given the centrality of the Holtham Commission’s calculations of relative need in Wales to the debate about a funding floor, it is worth asking two questions. Will an updated estimate of relative need be made at some point? And will any such update be taken into account when setting the funding floor in future? It may be seen as somewhat odd if a funding floor in place in 2040 is still based on relative needs in 2010. If it is updated, the Welsh Government would find itself bearing less risk related to spending needs in future than in the past, while at the same time facing greater prospects for risk and reward on the revenue side as a result of tax devolution. This would bring the Welsh Government more into line with the needs-based equalization approaches that govern fiscal circumstances for most other major sub-state governments across the developed world.