Institute for Fiscal Studies

Preparations for replacing EU funding for Wales

Response to the Finance Committee of the National Assembly of Wales's Call for Evidence

IFS Mimeo

Nicolo Bird
David Phillips

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Preparations for replacing EU funding for Wales

Response to the Finance Committee of the National Assembly of Wales's Call for Evidence

Nicolo Bird
David Phillips
Institute for Fiscal Studies

Note

David Phillips is an Associate Director at the Institute for Fiscal Studies, with responsibility for leading analysis of local and devolved government finance, and taxation in developing countries. Nicolo Bird is a project research officer at the Institute for Fiscal Studies. However, the views and opinions expressed here are those of the authors only; the IFS has no corporate views.

Summary

This note is a response to the consultation from the Finance Committee of the National Assembly for Wales concerning preparations for replacing European Union (EU) funding for Wales, focusing on the options available for how these funds will be distributed across the UK (both to Wales and within Wales).

The key points made by this note are:

- EU funds are currently either pre-allocated to member states or the case of structural funds particular regions within them according to formulae based on state/regional characteristics; or are competitive funds that can be bid for by governments, universities, businesses and other organisations.

- Wales is due to receive over 5 billion Euros in funding from the pre-allocated funds for the 2014–2020 EU budget period, which is more than 3 times the average per capita figure for the UK as a whole, reflecting high levels of regional development funding (particularly for West Wales and the Valleys). It has recently received less than a population share of funds from some of the main competitive funds.

- The UK (and therefore Wales) will continue to operate existing EU schemes until at least the end of 2020 (and perhaps June 2022 in the case of farm payments). But beyond that decisions will need to be taken about whether to replace these schemes, and if so, the level of funding and the way that funding is allocated.

- Some have suggested the Barnett Formula could be used to allocated replacement funding post-Brexit. The Barnett Formula is simple and well understood. The Welsh Government also has significant flexibility over how it spends annual increments to its funding as a result of the application of the Barnett formula. But the formula has design flaws which mean its use the allocation of funding to replace current EU schemes should be avoided. In particular it takes no account of differences in population growth, or differences in the initial levels of funding. The latter results from its use of nominal *cash-terms* changes in English budgets per person as the basis of changes in allocations to devolved governments. This can lead to spending levels to converge between England and the devolved nations: the so-called Barnett squeeze, which could be severe in this instance.

- An Indexed Per Capita (IPC) formula could be used that avoided this problem. But the UK and Welsh governments may want to allocate funding in ways that account for more than just relative population growth and initial levels of funding. This could include using local, regional or national level characteristics, and competitive bidding processes. There are also decisions to be taken as to whether funding schemes will be designed and operated at the UK level, devolved government level, or some other level (e.g. city-region).

- Different ways of allocating money would involve different incentives – including for growth and development and environmental improvements. They may also be associated with different outcomes. The optimum allocation method and governmental level for allocation decisions is likely to differ between funding purposes (e.g. between regional development funds and research funds).

1. Introduction

This note is a response to the consultation from the Finance Committee of the National Assembly for Wales concerning options to replace current European Union (EU) funding, and exploring different approaches to administer replacement funding streams in order to benefit Wales. This response covers the following areas:

- How existing EU funds are allocated in the UK and how much Wales receives.

- Assessing the impact and suitability of allocating EU funds using the same method as the Block Grant received from HM Treasury, which utilises the Barnett formula.

- Some of the pros and cons of other options in allocating funding post-Brexit, including the administrative issues and choices posed.

At the start, it is worthwhile highlighting that the likely ending of the UK's current contributions to and receipts from the EU budget is only one of the effects Brexit is expected have on the UK's (and hence Wales') public finances. Indeed, if Brexit affects the size and composition of the economy, the effect of this on the public finances (via both spending and revenues) could be larger than the impact of changes in contributions to and receipts from the EU budget. Indeed, in its assessment in the 2016 Autumn Economic and Fiscal Outlook, the Office for Budget (OBR) responsibility forecast that in 2020–21, the economic effects of Brexit would lead to an increase in borrowing of £15 billion – larger than the UK's net contribution to the EU budget of around £10 billion.[1] Note also that in the draft agreement with the EU, the UK has agreed to take part in EU programmes until the end of 2020, and continue contributions to the EU for liabilities incurred up until the end of this period The OBR estimates that incorporating these, the UK will still be contributing a net £5 billion to the EU in 2022–23.[2] This wider fiscal context should be borne in mind when considering the likely impact of Brexit on government spending in Wales, and the funding available for schemes to replace existing EU programmes.

2. An overview of major EU funding schemes

Broadly speaking, there are two different types of funding that the UK and Welsh governments may want to replace post-Brexit: **pre-allocated funds**, such as the common agricultural policy (CAP) and the structural funds for economic development, that are agreed to at the outset of the EU's seven year budget cycle (the multi-annual finance framework (MFF)), and; **competitive funds**, e.g. Horizon 2020 and Erasmus+, which involve competitive bidding for funding against other projects across the EU.

Pre-allocated funds are largely aimed at disadvantaged geographical areas or economic sectors. Therefore, pre-allocated funds are most likely based on some characteristics

[1] Office for Budget Responsibility, *Economic and Fiscal Outlook November 2016,* 2016, available at: http://obr.uk/efo/economic-and-fiscal-outlook-november-2016/. Note that the £15 billion figure was based on a relatively smooth transition – in a 'no deal' scenario, in which the UK reverted to World Trade Organisation rules, the economic effects could be much larger. And they could continue grow beyond 2020. See, for instance, Dhingra et al, *The costs and benefits of leaving the EU: trade effects,* Economic Policy, Vol 32. Pp 651–795: https://academic.oup.com/economicpolicy/article-abstract/32/92/651/4459728?redirectedFrom=fulltext.

[2] Office for Budget Responsibility, *Economic and Fiscal Outlook March 2018,* 2018, available at: http://obr.uk/efo/economic-and-fiscal-outlook-march-2018/.

linked to specific needs or priority areas (for instance, promoting growth in less developed regions, or investing in agricultural sustainability). Conversely, competitive funds are aimed to support the best projects available across Europe, sometimes regardless of needs or location. For example, high-quality research might have significant positive externalities from which the entire EU - and indeed world - can benefit.

Table 1 shows the amount of EU funds pre-allocated to the UK over the 2014–2020 period. The sources of EU spending are divided into two broad categories: **European Structural and Investment Funds (ESIFs)**, and **Common Agricultural Policy (CAP)**.

Table 1. Pre-allocated EU funding in the UK over the 2014–20 period

	€bn 2014-20
European Structural and Investment Funds	**17.2**
European Regional Development Fund	5.8
European Social Fund	4.9
Youth Employment Initiative	0.2
European Maritime and Fisheries Fund	0.2
European Agricultural Fund for Rural Development / CAP, Pillar 2	5.2
European Agricultural Guarantee Fund / CAP, Pillar 1	**22.5**

Source: Table 1 from Ayers and Brien (2018).

Structural funds

The **European Regional Development Fund** (ERDF) and the **European Social Fund** (ESF) together are referred to as the **structural funds**. The ERDF is focused on innovation and research, support for SMEs, improving digital infrastructure and decarbonising the economy. Meanwhile, the ESF funds projects to increase labour market mobility, education and skills and enhance institutional capacity. How these funds are spent depends on both decisions taken at a European and national (and sub-national) level. After initial allocations of funds are made by the EU, member state governments (and sub-national governments to which authority is devolved to) have significant autonomy in managing the allocated funds.

Structural funds are allocated by the EU to regions within member states largely depending on their GDP per capita:

- Regions with GDP per capita below 75% of the EU average are designated as 'less developed regions' and are receiving 52% of total structural funds in the current MFF period covering the period 2014–2020. West Wales and The Valleys is included in this category;
- Regions whose GDP per capita is between 75% and 90% of the EU average are designated as 'transition regions' and are receiving 12%;
- Regions with GDP per capita above 90% of the EU average are designated as 'more developed regions', receiving 16%. East Wales is included in this category.

There are other elements to the rules for determining exact regional entitlement to these funds which depend on a combination of regional employment rates, number of unemployed people, population size and density, and educational attainment.[3]

Importantly, these rules can create big discontinuities ('cliff-edges'), as slight GDP or GNI per capita increases can lead to dramatic drops in funding. The discontinuity between less developed and transition regions is particularly salient. Governments can however re-balance how structural funds from the EU formula are allocated with the consent of the European Commission. For instance, during the 2014–2020 allocation of structural funds, the UK Government deviated from the framework set out by the EU formula by re-allocating funds to devolved governments, due to the considerable budget cuts to these administrations that would have otherwise occurred following the new EU formula used for that MFF period.

Common Agriculture Policy

Pillar 1, the European Agricultural Guarantee Fund, supports farmers' incomes in the form of direct payments and market-support measures according to the regulations set by the EU, while **Pillar 2, the European Agricultural Rural Development Fund**, provides more flexible support to promote development objectives in rural areas. In Wales, Pillar 2 of the CAP is named the **Welsh Rural Development Programme**.

CAP funds are allocated to member states and are then distributed within the member state. There is also an option to transfer funding to, or from, their respective national rural development allocations. In the UK, CAP budgets are first allocated by Westminster, after which these are administered by the devolved governments. They can then decide which of the various direct payment schemes to finance from this allocation subject to certain legislative limits. There are also a set of fixed rules that apply to all member states:

- 30 percent of payments must be conditional on farmer engaging in 'greening activities' covering at least 5 percent of the eligible area.
- Member states must increase payments to young farmers by at least 25 percent, though these payments must not exceed 2 percent of the total spending on direct payments.
- Member states must undertake some form of redistribution between those entitled to large and small direct payments.[4]

The joint aims of the two Pillars of the CAP are to: support viable food production, with a particular focus on income support for farmers; promote sustainable management of agricultural land, including boosting biodiversity and reducing greenhouse gas emissions; and lastly, boost employment and growth and tackle poverty in rural areas. It is worth noting that although the first pillar is entirely financed by the EU, the second pillar

---

[3] The detailed selection criteria for allocating structural funds can be found in Annex VII of the official regulation: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1303&from=EN

For a summary of the selection criteria, see Section 4.1 in Browne, J., Johnson, P. and Phillips, D., 'The budget of the European Union: a guide', IFS Briefing Note BN181, 2016 available at: https://www.ifs.org.uk/publications/8225.

[4] See Section 4.2 of Browne, J., Johnson, P. and Phillips, D., *ibid*, 2016.

programmes are co-financed by EU funds, and regional, national or local funds.[5] Although the rules for determining how much each country receives from the overall CAP budget are not published, allocations to EU member states for direct payments were historically based on farm production. However, this practise was ended in the early 2000s, and allocations are converging towards a common amount per hectare of agricultural land.[6]

Other Funds

Other pre-allocated investment funds include the **Youth Employment Initiative** (YEI) and the **European Maritime and Fisheries Fund** (EMFF), which promote labour-market outcomes for under 25 year olds and support fishing communities, respectively.

In addition to the pre-allocated funding for Member States to manage, there are many different **competitive funds** that connect programme participants directly to the source of funding (there are no designated country allocations). In general, organisations apply to agencies of the European Commission for funding from these streams following calls for applications. Some of the most important programmes of the 2014-2020 period are **Horizon 2020** (H2020) with a budget of €77 billion, the **Connecting Europe Facility** with €22 billion and **Erasmus+** with €15 billion.[7]

3. Current EU funding in Wales

Table 2 shows the main areas of pre-allocated European funding in Wales between 2014 and 2020, which in total amounts to just over €5 billion.

The original budget allocated to Pillar 1 of the CAP was €2,245 million. However, the Welsh Government decided to take advantage of the flexibility allowed and shift 15% of this (€338m) to Pillar 2. This left an estimated budget of €1,907m for the EAGF, and increased EU funding to the Welsh Rural Development Programme (Pillar 2) up to €692m[8]. While Pillar 1 is entirely funded by the EU, matching contributions (amounting to €315m) from the public and private sector in Wales are required alongside this EU funding for Pillar 2.

For Pillar 1, the Welsh Government has been transitioning to a flat payment rate per hectare, with this due to be completed by 2019. England implemented similar flat rate schemes in 2015.[9] To introduce a redistributive element to the scheme, once payments exceed €150,000 every €1 notional increase in entitlement is reduced to €0.85. Once

[5] See: http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_3.2.6.html.

[6] The distribution is based on historical entitlements but with an adjustment over the current MFF period such that member states who previously received less than 90% of the average payment per hectare make up one third of the gap to 90% of the average by 2020, and all member states receive at least €196 per hectare in the same year. This is offset by a reduction in the per hectare amount for those member states who receive more than the EU average.

[7] On top of the abovementioned programmes, the EU's budget also provides funding to other areas, where it often shares responsibility with national governments including: science and technology; market regulation; consumer protection; transnational policing; border control, migration and asylum; and foreign aid. Central administrative costs make up around 6% of the budget – a figure which excludes the costs countries themselves bear to administer EU spending and policy.

[8] Welsh Government, *Common Agricultural Policy Reform: Wales Rural Development Programme 2014-2020 Final Proposals*, 2014: http://gov.wales/docs/drah/consultation/140219rdp20142020finalproposalsen.pdf

[9] European Commission, *Direct Payments: the Basic Payment Scheme from 2015',* 2015: https://ec.europa.eu/agriculture/sites/agriculture/files/direct-support/direct-payments/docs/internal-convergence_en.pdf.

payments exceed €200,000, this falls to €0.70 above that threshold; above €250,000 this falls to €0.45 above that threshold, and payments are subject to an overall cap of €300,000.

Pillar 2, the Welsh Rural Development Programme provides funding to many different projects, including LEADER (a cooperation scheme to work with people from rural areas in Wales, UK or Europe), Glastir (a sustainable land management scheme), PROSOIL (research for soil health and management), and Hybu Cig Cymru – Meat Promotion Wales.

Table 2. EU Funding in Wales, 2014-2020

	€m 2014–2020
European Structural and Investment Funds	
European Regional Development Fund	1,409
European Social Fund	1,007
European Maritime and Fisheries Fund	20
Welsh Rural Development Programme / CAP, Pillar 2	692
European Agricultural Guarantee Fund / CAP, Pillar 1	1,908
Total	**5,016**

Note: The figures account for €337m (15% of the EAGF budget) transferred from Pillar 1 to Pillar 2 of the CAP.

Sources: European Union Open Data Portal; UK Government, '*Guidance: European Maritime and Fisheries Fund (EMFF)*', 2016; Welsh Government, *Common Agricultural Policy Reform: Wales Rural Development Programme 2014-2020 Final Proposals*, 2014.

€1,409 million was allocated to the ERDF to promote economic development projects in Wales, while €1,008 million was allocated towards the ESF. This puts the Welsh budget for structural funds just above €2.4 billion over the seven-year period, which represents around 22 percent of funding from the EU towards structural funds in the UK.

As explained in the previous section, structural funds are targeted heavily towards disadvantaged regions, and therefore a larger budget is allocated to West Wales and The Valleys (€2.01 billion) than East Wales (€406 million), due to the former being categorised as a 'less-developed' region, while the latter is 'more developed'. In per capita terms, West Wales and The Valleys receives around €135 per person per year from structural funds, East Wales receives around €50 per person per year, while the UK average is around €24 per person per year.

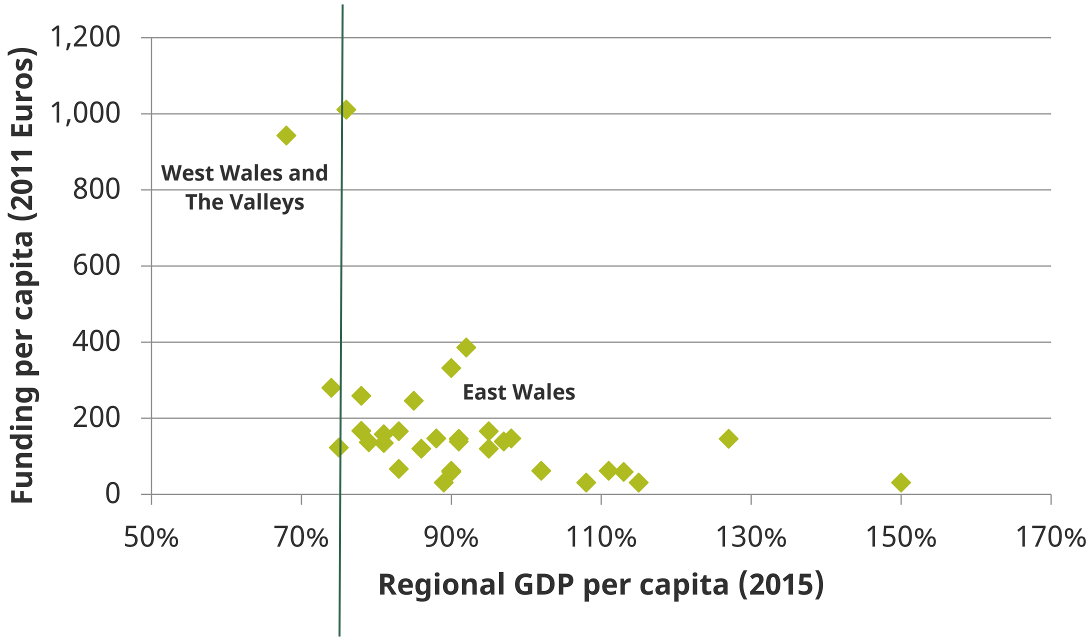
Major allocations of structural funds in Wales include:

- Funding for apprenticeships and traineeships, amounting to £233 million in West Wales and the Valleys and £48 million in East Wales.

- Funding for the Communities4Work, Bridges2Work and Active Inclusion Wales programmes that support the long-term unemployed into work, consisting of £45 million in West Wales and the Valleys and £9 million in East Wales.

- The Wales Business Fund which provides financial support to small and medium sized businesses (via Finance Wales), with a £75 million contribution for West Wales and the Valleys and £10 million for East Wales.
- £81 million for road and rail schemes in West Wales and the Valleys.
- £38 million for town centre regeneration in West Wales and the Valleys.
- £28 million to promote tourism by creating "must visit" destinations in West Wales and the Valleys.

Figure 1. Regional GDP per capita (2015) and funding per capita (2014–2020)



Note: Data excludes London and Scotland (except Highlands and Islands).

An estimated €20m was also allocated to the European Maritime and Fisheries Fund.

Information on EU competitive funding secured by Welsh organisations is relatively scarce. However, Wales has slightly underperformed in securing competitive funding relative to UK averages. As of September 2017, Welsh organisations secured €83 million of Horizon 2020 funding, which represents 2.1 percent of the total UK share[10]. Wales has done better in securing Erasmus+ funding at €29 million over the 2014–2017 period, which represents 5.7 percent of the UK share.[11]

10 UK Government, *UK's participation in horizon 2020: September 2017*, 2017: https://www.gov.uk/government/statistics/uks-participation-in-horizon-2020-september-2017

11 Erasmus+ statistics: https://www.erasmusplus.org.uk/statistics.

4. Assessing post-Brexit funding options

4.1. Calculating future budget changes using the Barnett formula

The draft agreement between the EU and UK on the UK's withdrawal from the EU states that the UK will continue to take part in EU programmes until the end of the current MFF in December 2020.[12] Furthermore, the UK government's environment secretary has said that direct payments to farmers would be guaranteed at their current level until the 2022 UK general election in England, with funding for devolved governments to continue with their schemes until this date too. However, beyond that point there are big decisions to be taken about how to allocate any funding that will replace these EU schemes. In this section we briefly discuss the Barnett formula and its appropriateness as a mechanism for allocating funding that is returning from the EU. We do this because the Scottish Parliament's Finance Committee raised this as a possibility in its recent call for submissions to its Funding of EU Competences inquiry.[13]

What is the Barnett formula?

The **Barnett formula** was introduced to Wales in 1980 to mechanically determine the year-to-year changes in the block grant funding the devolved governments receive from Westminster. Since the devolution of a number of additional taxes, commencing in 2015-16, this block grant has been adjusted to account for these new revenue streams. However, the Barnett formula continues to be used to determine the changes in the *underlying* block grant (prior to these adjustments) each year.

The underlying block grant in any year consists of the prior year's block grant plus a change in the amount calculated using the Barnett formula. Under the formula, the change in the block grant depends on changes in the departmental expenditure limits (DELs) of UK government departments; the share of that department's functions that are devolved to Wales (summarised by a 'comparability percentage'); Wales' population as a proportion of England's; and since 2018–19 a new needs based factor of 105%.[14]

Cash change in DEL of UK government department	**x**	**Department's comparability percentage**	**x**	**Wales' population share**	**x**	**Needs based factor for Wales (105%)**

The overall change is then the sum of the changes implied by changes in the DEL of each UK government department.

[12] Source: 'Draft Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community', available at: https://ec.europa.eu/commission/publications/draft-agreement-withdrawal-united-kingdom-great-britain-and-northern-ireland-european-union-and-european-atomic-energy-community-0_en.

[13] See: http://www.parliament.scot/parliamentarybusiness/CurrentCommittees/107948.aspx.

[14] This was agreed as part of Wales' new fiscal framework, in an effort to put a "floor" in the level of funding for Wales relative to England.

Why the Barnett formula is inappropriate for allocating replacement funding

The Barnett formula therefore aims at providing £1.05 per person change in funding for the Welsh Government for every £1 per person change in funding for comparable public services in England. This figure is arbitrary, and there are other flaws which mean that **the Barnett Formula is inappropriate for use in allocating funding to replace existing EU funding streams**. To summarise, the key issues with using the Barnett formula are:

- First, the Barnett formula simply calculates changes in funding year-to-year. **It does not say how the initial level of funding should be determined.**

- Second, if initial allocations were similar to existing EU allocations, Wales' allocation per person would be substantially higher than England's. If the replacement funds increased in cash terms over time, the equal pounds-per-person increase provided by the Barnett Formula would represent a **smaller percentage increase in Welsh funding**. Thus, over time, funding per person in Wales would converge towards funding per person in England. This convergence is known as the '**Barnett Squeeze**'.

- In practice, lower population growth in Wales has largely prevented the "Barnett Squeeze" from happening for existing funding allocated according to the Formula. This relates to another flaw in the formula: **it does not properly take into account (differences in) population growth.**[15] Under the Barnett formula, the funding per person received by Wales would be lower the higher is population growth relative to England's.

So over time, the use of the Barnett formula could lead to a relative squeeze on the amount of funding Wales receives to replace EU funding; and the amount received per person would be sensitive to relative population growth in Wales. This all seems undesirable.

To illustrate the problem, Figure 2 shows the projected effect of using the Barnett Formula to calculate replacement funding in both Wales and England between 2020 and 2050. Estimates are obtained by using the current annual budgets from pre-allocated EU funds from the 2014–20 period, and projecting forward on the basis of:

- Office for National Statistics Population Projections;[16]

- An assumption of 4% annual nominal growth in spending on these replacement schemes in England;

- And a 2% annual inflation rate.[17]

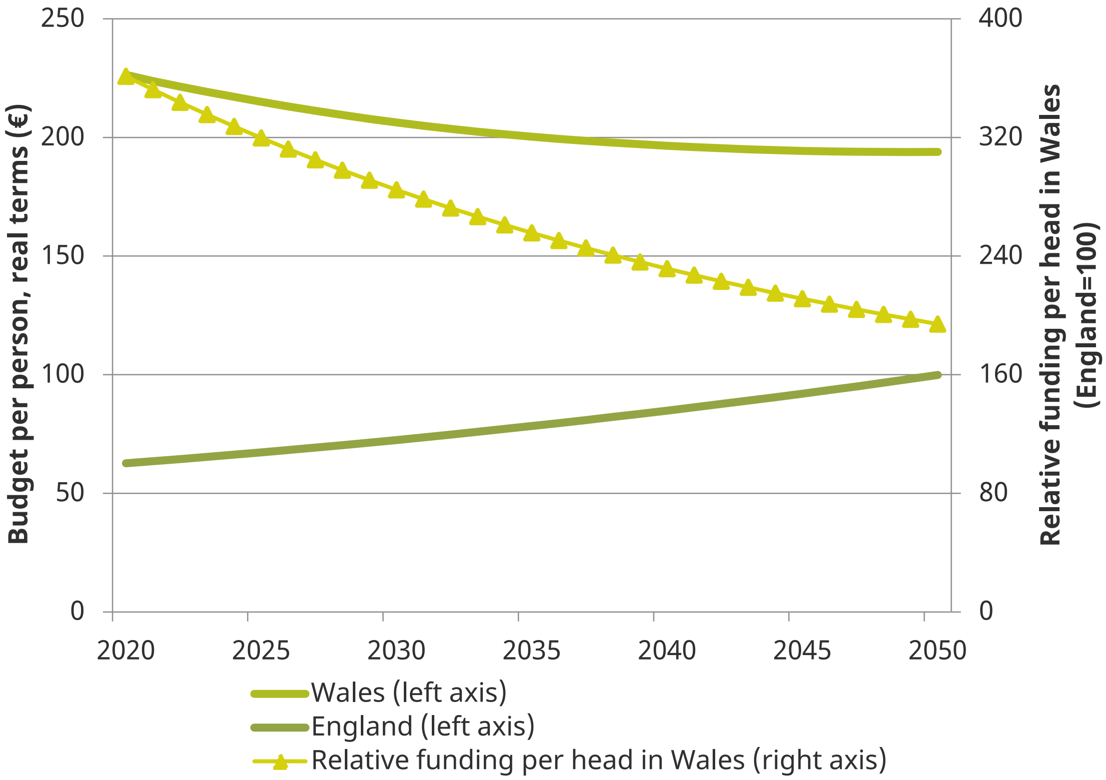
---

[15] This reflects the fact that while the population shares used to calculate c*hanges* in the block grant are updated, the existing *level* of the block grant is not updated as relative population shares change.

[16] Office for National Statistics (ONS), *All data related to National Population Projections: 2016-based statistical bulletin*, 2017 [accessed April 26th 2018]: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2016basedstatisticalbulletin/relateddata

[17] The combined assumption of 4% annual nominal growth in spending and 2% annual inflation implies that spending on these replacement schemes in England would roughly keep pace with annual real-terms economic growth projections of around 2%.

Figure 2. Projected change in budget allocation per person using the Barnett formula



Source: Authors calculations using data sources cited in the text.

The left axis shows the change in annual funding per person (in real terms) in both England and Wales. From €226 per person in Wales in 2020, **Wales would see EU-replacement funding falling in real-terms falls over time**: to €206 per person in 2030 and €196 per person in 2040 before it stabilises and in the very final year of the projection (2050) starts to slowly increase again. The average annual real-terms fall in real-terms funding per person would be 0.9% in the 2020s; 0.5% in the 2030s; and 0.1% in the 2040s.

This is in contrast to the situation that would pertain under such a scenario in England. Funding for schemes to replace EU schemes would increase by around 1.5% a year in real-terms, from €62 per person in 2020 to €100 per person in 2050.

As a result, overall funding per person in Wales would fall from 361% of the English level in 2020 to 194% of the English level in 2050. **Therefore the real-terms squeeze would be accompanied by an even bigger relative squeeze in funding, compared to England.**

These squeezes arises because the Barnett formula takes no account of the higher initial levels of funding in Wales – which means a given cash change translates into a much smaller percentage change – and is based on nominal changes rather than real-terms changes in funding. Note that the squeeze would be even larger if Wales's population were not projected to grow slower than England's, and the new 105% 'needs' factor in the formula had not been introduced for Wales: funding would fall to 181% of the English level by 2050.

5. The pros and cons of different post-Brexit funding options

It would be possible to use an amended formula that did not suffer from the issues identified above. For instance, if one wanted to deliver the same percentage change in funding per person in Wakes as in England, the **Indexed Per Capita (IPC)** formula used as part of Scotland's Fiscal Framework could be adopted.[18]

However, this is not the only option available. And the choice of how to *index* any replacement funds over time is just one of several choices that need to be made. Other key choices include:

- How to determine *initial level* of replacement funds for the UK as a whole, and how to allocate these funds between different parts of the UK, including Wales;
- Whether funding allocations are hypothecated for particular purposes (as under current EU programmes) or whether they become part of general funding;
- Whether existing political geographies are the most appropriate basis for any funding calculations and allocations or whether new political geographies should be used instead (e.g. based on functional economic areas).
- And whether the UK (or perhaps parts of the UK) continues to take part in particular European funding programmes.

Different options will have different pros and cons, and will entail different fiscal incentives for the replacement schemes. The best choice seems likely to differ between funding purposes (e.g. between regional development and general scientific research).

In this section we discuss the issues and options for different funding areas: regional development; agricultural funding; and research and innovation. We motivate this discussion by discussing the pros and cons of using the **IPC** method to index the replacement funding (putting to the side, to begin with, the other key decisions that need to be taken).

The pros and cons of indexing funding using the IPC method

There would be a number of benefits from using the IPC approach to index the replacement funding over time:

- **Simplicity**: Similar to the Barnett Formula, it provides a quite simple mechanical framework that could help avoid disputes over year-to-year budget allocations.
- **Flexibility**. If based on the Barnett Formula, the funding increments provided under this approach could be spent by the Welsh Government (and other devolved governments) as it saw fit, providing maximum budget flexibility and discretion.

[18] HM Treasury, Scottish Government, *'The agreement between the Scottish government and United Kingdom government on the Scottish government's fiscal framework'*, 2016, https://www.gov.uk/government/publications/the-agreement-between-the-scottish-government-and-the-united-kingdom-government-on-the-scottish-governments-fiscal-framework.

- **Changes in population**: In contrast to the original Barnett formula, it would account for needs arising from population changes over time in Wales.

- **No disincentives for growth**: By basing the formula on population growth and public spending in England, it doesn't create disincentives for economic growth that could arise under more complex formulas that took into account updated socio-economic conditions (note that this also applies to the Barnett formula).

However, there are also some more drawbacks worth considering. These include:

- **Needs and disadvantage**: By basing changes in funding only on changes in funding in England and changes in population, such an approach would not take account of changes in Wales's relative need for funding. For instance, if areas of Wales became relatively more economically disadvantaged, there would be no increase in funding for regional economic development (unlike under existing EU schemes).

- **Other policy objectives**: More generally, such a mechanical approach means the allocation to Wales would not really take into account the purpose for which the funding is ultimately being used for. This includes things like promoting economic growth, environmental sustainability, or more broadly areas which might have positive externalities. There could also be scope for more competitive or outcome-based criteria.

There is therefore a trade-off between simplicity, flexibility and discretion on the one hand, and targeting of funding at particular areas or particular outcomes on the other. We now discuss considerations related to these for the different policy areas currently funded by EU programmes.

Options and issues for regional development funding

The first question to address is whether EU funding aimed at promoting economic development, particularly in disadvantaged regions, should be replaced by new UK or devolved government schemes. Related to this it will be important to consider what the objectives of any such funding are such as: promoting and supporting economic growth; reducing regional disparities; reducing intra-regional socio-economic inequalities; and promoting environmentally sustainable development; etc.

Alongside this it will be important to consider how any post-Brexit funding sits alongside other elements of UK and Welsh economic and regional policy. This includes schemes operated by the UK government (such as City Deals and the Industrial Strategy) and schemes operated by the Welsh Government (such as Prosperity for All, Enterprise Zones and Business Wales). Bachtler and Begg (2017), highlight how regional development policy has suffered from instability and inconsistency in approaches.[19]

There are further practical issues that would need to be addressed in designing regional funding policy:

- **What characteristics should be used for assessing 'need' for regional funding, and at what geographical level should such assessments take place?** As already

[19] Bachtler, J. and Begg, I., Cohesion policy after Brexit: the economic, social and institutional challenges, Journal of Social Policy, Vol. 4, pp 745–763.

mentioned, allocations of EU funding to regions are based on GDP per capita, as well as regional employment and unemployment rates, population size and density, educational attainment and geographical remoteness. An obvious question is therefore whether these are the right characteristics to base funding allocations on, or whether there are other characteristics that should be used. This could include measures of deprivation (such as the Index of Multiple Deprivation), inequality measures (such as inequalities in earnings, or household incomes) and updated measures more suitable for UK or Welsh contexts (such as different measures of population sparseness or geographical remoteness).

There is also then the question of the geographic level at which assessments should take place. Currently, allocations of EU funding are based on so-called NUTS2 regions, of which there are two in Wales: East Wales and West Wales and the Valleys. The larger the geographical areas used, the greater the extent to which there could be significant inequalities *within* areas. If it were felt economic disadvantage is determined by local characteristics, and that positive (and negative) spillovers between locales are fairly limited, assessment and allocation of funding to smaller geographical areas may be beneficial. On the other hand, if it were felt that spillovers are greater, and there are benefits from choosing from the bigger pool of potential projects larger areas can support, there may be benefits from keeping relatively large geographic areas. There would remain the question of whether existing geographies are appropriate or some other geographies – such as functional economic areas – would be more appropriate.

- **How redistributive/'targeted' should the funding be?** Current EU schemes have a high degree of targeting at areas with low levels of GDP per capita. This reflects the splitting of regions into three categories – less developed, transitional, and more developed based on their GDP per capita. In particular, there is a cliff-edge in support at 75% of GDP per capita: the threshold where regions move from "less developed" to "transitional" status. Figure 1 above illustrates this for the UK as a whole, with the two less developed regions (West Wales and the Valleys and Cornwall) receiving much higher levels of funding per capita than other regions. A system that was less redistributive across the UK and, in particular, did not have such a cliff edge, would likely see reductions in the level of funding Wales receives. Moreover, East Wales generally receives more funding than most areas with comparable levels of GDP per capita.

  The question of how redistributive/targeted the funding should be links to its purpose: e.g. whether it is aimed at reducing geographical socio-economic inequalities, or boosting growth more generally.

- **At what level of government should decisions on allocations of funding to broad thematic areas and particular projects be taken?** Currently, for instance, the Welsh Government's European Funding Office decides which projects to fund. Is an all Wales body the right body to make such decisions. This approach contrasts with that in Scotland whereby the Scottish Government's Structural Fund Division makes allocations (each of more than €15 million) to other government departments, agencies and local authorities, structured around specific themes and aims. These organisations (termed 'lead partners') then allocate funds to particular projects and other organisations ('implementing partners').

Post-Brexit there will be a decision to take about the most appropriate approach. Should strategic decisions be taken at a higher level (e.g. the UK level) or at a lower level (e.g. a regional level within Wales)? Should decisions about specific projects be taken at a higher or lower level than now (e.g. at UK Government level, or at sub-local authority level)? One benefit of taking decisions at a higher level is that it may allow better value for money and greater impact as the best projects from a wider geographic area will be considered and funded. However, taking decisions at a lower level may allow funding to be targeted more at particular areas, and local knowledge to be taken into account when allocating funds.

- **Should the funding be ring-fenced for developmental purposes or should the organisations (such as Welsh Government or local authorities) to whom funding is allocated have much more discretion over its uses?** Ring-fencing funding for projects with a clear focus on socio-economic development may aid in the evaluation and transparency of funds. However, allowing greater discretion would allow government bodies (such as the Welsh Government or (groups of) local authorities) to spend money on areas they deem to be local priorities. This could include services not generally thought of as being related to economic development (such as health, social care, or general education) but which nonetheless could have significant impacts on economic and more general wellbeing.

- **How frequently and to what extent should allocations be updated to account for changing socio-economic conditions of different areas?** Currently, EU funds are allocated for seven year periods based on characteristics measured several years prior to the start of the funding period: for the 2014–2020 period, these years were 2007–2009.[20] A new assessment is made prior to the start of each MFF period, and the characteristics (and often the rules) are updated at that point, which could lead to changes in the relative funding allocations for different regions. Damping arrangements mean that in the current 2014–2020 period, regions receive at least 60% of the amount they received during the previous MFF period if their updated characteristics imply they would otherwise receive less.

  It would be possible to update the assessments more or less frequently under a replacement scheme. There is also the possibility of undertaking partial rather than full reassessments, so that changes in characteristics are only partially taken into account when updating funding assessments. A key trade off here is between redistribution/targeting on the one hand, and incentives on the other.[21] More frequent and fuller updates mean that funding is targeted more closely at areas based on the characteristics felt to reflect their 'need' for funding. But this also reduces the incentive for the public bodies allocated funding (such as the Welsh Government and local authorities) from taking action to improve socio-economic characteristics: such improvements see reductions in funding levels in future.

- **Is there a role for 'outcomes' as well as 'characteristics' in determining funding allocations?** One way to address this concern would be to base some of the funding on

[20] There is provision for a reassessment based on GDP in the period 2012–2014, but this does not appear to have been utilised.

[21] Another trade-off is between targeting and stability/certainty. Fuller and more frequent resets mean funding could be less certain, which might discourage organisations receiving funding from planning long-term interventions, instead going for 'quicker wins', in case funding is not continued.

‘outcome’ measures as well as local/regional characteristics. For instance, a fairly mechanical approach could be that as well as negatively depending on the *level* of GDP (some years prior), re-assessed allocations could depend positively on the *growth rate* of GDP. They could also depend upon evaluations of the projects funded by previous funding rounds, and more generally, of the economic and other policies of the areas in question: although the more subjective the assessments are made, the greater the scope for disagreement and a lack of transparency.

- **Is there a role for competitive bidding between areas for funding allocations, as well as being projects within those areas?** Under present arrangements, funding is allocated to regions, and formal or informal competitive bidding is used to determine which projects to fund within that region. It would be possible to keep some (or all) funding back under a replacement scheme for competitive bids between regions. This would provide maximum flexibility for the government operating such a scheme (which could be the UK government or Welsh Government) and could improve value for money, but could lead to funding being less targeted at the most disadvantaged areas. Choices in this area should again reflect the overarching aims of any replacement regional development funding.

Finally, it is worth noting that the Conservative Party 2017 election manifesto committed it to a **Shared Prosperity Fund**. It said this fund would be:

> *“specifically designed to reduce inequalities between communities across our four nations. The money that is spent will help deliver sustainable, inclusive growth based on our modern industrial strategy. We will consult widely on the design of the fund, including with the devolved administrations, local authorities, businesses and public bodies. The UK Shared Prosperity Fund will be cheap to administer, low in bureaucracy and targeted where it is needed most.”*[22]

As yet, no further details on how the scheme will operate and at what level it will operate have been published.

Options and issues for agricultural funding

The replacement of CAP funds in the UK is a broad and complex issue which has already been covered in greater detail elsewhere.[23] As highlighted already the UK Government has pledged to maintain the “same cash funds” of support for farmers (as they receive under the CAP) until the UK general 2022 election. What system will be in place beyond that is as yet unclear – although a transition period involving some direct payments is expected to last until at least 2024, and the UK government has stated that future payments to farmers will be based on their contribution “public goods”, most notably environmental enhancement.[24] It has also stated that it will work with the devolved governments to ensure the overall framework for funding to replace the CAP “works for the whole of the UK”.

[22] Conservative Party, Forward, Together: Our plan for a Stronger Britain and a Prosperous Future, 2017.

[23] Downing, E. and Coe, S., *Brexit: Future UK agriculture policy*, Briefing Paper No. 8218, House of Commons Library, 2018.

[24] HM Government, A Green Future: Our 25 Year Plan to Improve the Environment, 2018.

This brings us to some of the key questions that need to be addressed when designing this replacement funding:

- ***What are the purposes of agricultural funding?*** The UK government has clearly highlighted the provision of public goods – including environmental enhancements. But there are other potential objectives from such funding, which include: supporting farmers' incomes; broader rural development; food security; improving animal welfare standards; boosting productivity; and export promotion. **There may be trade-offs between these different objectives.** For instance, it is possible that environmental enhancements and improved animal welfare standards might reduce agricultural production and therefore impact food security and exports. Transfers aimed at boosting farmers' incomes may discourage exit of less productive farmers, limiting the scope for entry or expansion of more productive farmers, impacting on productivity.

- **How much flexibility should devolved (or local) governments have over funding?** The most appropriate balance between these different objectives might differ according to local characteristics and preferences. There is therefore a question of how much flexibility devolved (or indeed local or regional) governments should have in the allocation of agricultural funding. The CAP increasingly allows for such flexibility and there is a question of whether a UK scheme should allow more flexibility or less (perhaps on the grounds of ensuring fair competition within the UK market).[25]

- **How should funding be allocated across the UK?** As discussed, the EU has been aiming to move towards allocating funding to member-states using a common per hectare basis. However, in part as a result of historic allocation systems based on production as opposed to land area, the amount per hectare currently varies significantly across EU member states and *within* EU member states, including the UK. For instance, while England, Scotland and Wales should all be operating schemes with flat payments per hectare (varying by land-type regions in the case of England and Scotland) by 2019, payments for land with the same characteristics will still differ between the nations.

Finally, it is worth noting that the replacement of CAP is just one of several key issues posed by Brexit for the agricultural sector, including tariffs, and market access between the UK and the EU for agricultural products.

Options and issues for research and innovation funding

The last area of funding we discuss in this note is research and innovation funding.

- **What is the purpose of science and innovation funding?** There are different ways in which science and innovation funds can be allocated depending on the objectives of this funding. Possible objectives include:
    - **Producing public goods**: making sure the projects that benefit wider society the most are being funded.

---

[25] Downing, E. and Coe, S., *ibid*, 2018, argue that under the CAP, the systems in operation in England, Scotland, Wales and Northern Ireland have diverged significantly to reflect differing needs and priorities.

- **Promoting regional development:** ensuring that organisations engaged in research and innovation in disadvantaged regions benefit relatively more from funding, in an effort to reduce geographical inequalities.

At what level should decisions about funding allocations for research and innovation be made*?* If the aim policy is to fund research with the highest potential for delivering public goods, then there would be a clear benefit from having competitive funding covering the largest possible geographic area. This could mean funding being determined at the UK level – supplementing the budget of UK Research and Innovating, for instance –, or the UK remaining in existing EU schemes (or their replacements) such as Horizon 2020 and Erasmus+. Some non-EU countries participate in these schemes (such as Norway or Turkey), generally making GNI-based contributions to the schemes overall costs.

The possibility of the UK taking part in such arrangements depends upon agreements between the UK government and EU. It is important to recognise the UK will have less influence on the priorities and design of future EU schemes from outside the EU than it does currently even if it takes part in these schemes.

As noted previously, Welsh-based organisations have traditionally been relatively unsuccessful at winning such funding from the EU. In financial terms, Wales might therefore receive less funding from UK-wide or EU-wide competitions than a Wales-specific allocation (e.g. based on population). Note, however that a UK-wide scheme (as well as a Welsh scheme) could take into account issues such as the promotion of research and development in disadvantaged regions, in addition to scientific quality and overall costs and benefits.