(by e-mail)

3 December 2024
Our ref: FOI06112024

Dear ███ ,

Re: Freedom of Information Request.

Thank you for your request for information under the Freedom of
Information Act, which we received on 06 November 2024.

You requested the following:

> *'First, I would like to request a copy of the multipliers used to calculate
> policy effects in the October 2024 Economic and Fiscal Outlook.
> Specifically, I would like to request the multiplier effects of real
> spending categories on real GDP, and nominal spending categories on
> nominal GDP, for the major spending categories (e.g., capital DEL,
> resource DEL, etc). If nominal multipliers are not available, I would like
> to request the effects of spending categories on the GDP deflator that
> allow nominal multiplier effects to be calculated.'*

We can confirm we do hold the information you have requested.

For your first request, Table 1.1 below sets out the multipliers of the different
tax and spending categories that we used in the October 2024 *Economic and
fiscal outlook*. Real GDP effects are calculated by deflating each category using
the appropriate pre-measures deflator and applying the relevant fiscal
multiplier. These multipliers imply that a discretionary tightening of 1 per
cent of GDP would initially reduce real output by 0.33 per cent in the case of
tax increases; 1 per cent in the case of investment cuts; 0.6 per cent in the
case of cuts to welfare spending; and 0.45 per cent for cuts to day-to-day
public services. They capture the effects of fiscal policy on the output gap and
the tapering of these multipliers to zero is consistent with the economy
returning to its productive potential by the forecast horizon, as monetary
policy, the exchange rate, and real wage dynamics adjust to the fiscal
stimulus.[1]

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[1] See also Box 3.2 of our July 2015 *Economic and fiscal outlook*.

Table. 1.1: Multipliers

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Tax	0.33	0.30	0.23	0.14	0.05	0.00
CDEL	1.00	0.83	0.43	0.23	0.07	0.00
AME	0.60	0.57	0.43	0.23	0.07	0.00
Compensation schemes AME	0.30	0.28	0.22	0.12	0.03	0.00
RDEL[1]	0.45	0.42	0.29	0.13	0.04	0.00

[1] Changes in RDEL broadly (but not fully) translate into changes in nominal government consumption and we assume that 50 per cent of permanent changes in nominal government consumption raises the implicit price of government consumption and, therefore, nominal GDP permanently.

Note: These are the multipliers we use for Autumn fiscal events. We have a slightly different profile for multipliers in Spring events.

We capture any medium- and long-run effects on potential output via different approaches. For example, in the October 2024 *EFO*, we explained how we thought the higher employer National Insurance contributions would affect labour supply and how public investment would impact potential productivity growth.

For this fiscal event, we used a different multiplier for spending related to the infected blood and Post Office horizon compensation schemes, assuming that it would be half the effect of our standard AME (welfare) multiplier. This reflected that it would be more evenly distributed across the income distribution than typical welfare payments and evidence that large windfall gains have smaller consumption effects. We also lowered the impact of the Budget package on GDP in 2024-25, relative to what the multipliers would imply, given outturn data was likely to already reflect some of the impact of the fiscal loosening. We made a small adjustment to the path in 2025-26 relative to what a mechanical application of the multipliers would suggest to reflect the size of the loosening and economy's proximity to its supply capacity.

To capture the full effects of the government policy changes on nominal GDP, we separately estimate the effect that changes in policy would have on inflation via the output gap (a 'Phillips Curve' relationship). We also calculate measures-specific effects on inflation (e.g. the impact of changes in excise duties and the pass through of changes in taxes on employment). Finally, for changes in RDEL, there is an additional, specific and permanent GDP deflator effect due to the way that the ONS measures the government consumption deflator.[2,3]

You also asked:

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[2] This is because there is no market price of government consumption, the ONS measures its volume either directly or indirectly. And some of these direct measures do not change when the cash value of inputs rises (e.g. pupil numbers when education spending increases). So, because changes in RDEL broadly effect nominal government consumption, they also change the implied government consumption deflator.

[3] We initially assumed that two-thirds of all increases in RDEL boosted GDP as reported in Box 3.2 of our July 2015 *EFO* but have since revised this to half.

> '*Second, I would like to request a full list of the academic papers that have been used to provide an evidence base for these multipliers.*'

The interim OBR cited the evidence that it drew on to form its initial judgements around fiscal multipliers:

A review of estimates for fiscal multipliers for different policy instruments and countries is available in Fiscal Multipliers, Antonio Spilimbergo, Steve Symansky, Martin Schindler (IMF Staff Position Note), May 2009. Further evidence was taken from papers including: Fiscal Policy Action in the Banking Crisis, National Institute Economic Review, January 2009; Fiscal Stabilisation and EMU, HM Treasury, 2003; Public Investment and the Golden Rule: Another (Different) Look, Roberto Perotti (IGIER Working Paper No 277), 2006; and Estimating Tax and Benefit Multipliers in Europe, Ali J Al-Eyd and Ray Barrell, Economic Modelling (Vol 22), 2005.

Our multipliers for many Budgetary items have remained broadly in line with these initial estimates, although we have periodically reviewed these via many boxes over the years – of which some include sources referring to literature that influenced our current assumptions. Box 2.2 in our December 2019 *Forecast evaluation report* provides a list of said literature:

- T. Warmedinger, C. D. Checherita-Westphal, P. Hernandez de Cos, 'Fiscal Multipliers and Beyond', ECB Occasional Paper 162, June 2015.
- V. A. Ramey, 'Ten Years after the Financial Crisis: What Have We Learned from the Renaissance in Fiscal Research?'. NBER Working Paper No. 25531, February 2019.
- E. M. Leeper, et al. 'Fiscal foresight and information flows', Econometrica 81 (3), 2013.
- R. Barrell and M. Weale, 'The Economics of a Reduction in VAT', Fiscal Studies: The Journal of Applied Public Economic 30 (1), March 2009.

Our most recent reviews on these assumptions and the literature we surveyed to form them can be found in:

- Box 2.1 of our November 2020 *Economic and fiscal outlook*
- Box 2.2 of our December 2019 *Forecast evaluation report*
- Box 2.2 of our October 2017 *Forecast evaluation report*
- Box 3.2 of our July 2015 *Economic and fiscal outlook*

You also asked:

> '*Third, I would like to request the document that derives the OBR's multipliers from those in the evidence base.*
> *The third request is motivated by the unusual nature of the OBR's multipliers, which are year-by year point multipliers in response to permanent increases in government spending. For example, the multipliers in table 4.1 of Suresh et al. (2024) are year-by-year point multipliers on real GDP of a permanent increase in investment of 1% of pre-policy GDP. This approach is very different to the standard approach in the academic literature, which usually relies on cumulative multipliers for temporary effects on GDP of temporary increases in government spending. As such, it is almost impossible for an outside observer to directly compare the OBR's multipliers to those in the academic literature.*'

We do not hold this information. How we have combined empirical and other evidence to produce the multipliers above is ultimately a judgment by the Budget Responsibility Committee rather than a mechanical calculation. This involves deciding how much weight to apply to studies produced using different estimation techniques and/or using different samples of countries, periods, and policy changes, as well as considering the shape of the forecast as a whole.

We produce and report fiscal multipliers as the point estimates on the basis set out in the Table above, as doing so enables us to swiftly produce the forecast and transparently communicate its impacts to the public. Other organisations, such as the International Monetary Fund and Congressional Budget Office, also produce and report fiscal multipliers on this basis.

If you have any other queries about this letter, please send them to our enquiries inbox at obr.enquiries@obr.uk.

Yours sincerely

Freedom of Information Unit
Office for Budget Responsibility

Your right to complain under the Freedom of Information Act 2000

If you are not happy with this reply, you may request a review by writing to OBR Enquiries, Office for Budget Responsibility, 14T, 102 Petty France, London SW1H 9AJ or by email to obr.enquiries@obr.uk.

Any review request must be made within 2 months of the date of this letter.

It would assist our review if you set out which aspects of the reply concern you and why you are dissatisfied.

If you are not content with the outcome your complaint, you may apply directly to the Information Commissioner for a decision. Generally, the ICO cannot make a decision unless you have exhausted the complaints procedure provided by the OBR. The Information Commissioner can be contacted at: The Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF.