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Chair, Treasury Committee
House of Commons
London
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Dear Chair,

I write in response to the Treasury Committee's call for evidence for its inquiry on *Regional imbalances in the UK Economy.*

The Office for Statistics Regulation (OSR)[1] provides independent regulation of all statistics produced by the UK Government, Devolved Nations and by all related public bodies[2]. The OSR is the independent regulatory arm of the UK Statistics Authority[3] (the Authority), which was established by the Statistics and Registration Service Act 2007 (the SRSA).

We set the standards producers of official statistics must meet through the statutory Code of Practice for Statistics[4]. We assess compliance with this Code, and where the Code is met in full, the Authority designates the statistics as National Statistics. We also report publicly on system-wide issues, and on the way in which people are using statistics, celebrating when people uphold the standards and challenging publicly when they are not. There are three foundational pillars of the Code, referred to as TQV:

- Trustworthiness: trusted people, systems and processes
- Quality: robust data, method and statistics
- Value: statistics that serve the public good

We have based our evidence to the Committee on these, focusing on the UK's regional[5] data rather than the broader debate about regional imbalances. Our regulatory work over the last five years covers many regional economic statistics (see Annex A). We have worked with data suppliers, statistics producers and statistics users to assess the extent to which these statistics serve the public good and how they can be developed to meet unmet needs going forward. We use the body of evidence from that work to address some of the Committee's questions.

We make the following key points:

- There is a range of official statistics on regional economic performance. They should be considered alongside other forms of data published by Government and others – and all data, whether classified as official statistics or not, should seek to adhere to high standards of trustworthiness, quality and value (which we describe as voluntary adoption of the Code of Practice's pillars).
- There are some limitations to the current data sources, both in terms of data gaps and in terms of quality.
- There is a significant use of modelled data, which apportions national level data to regions using formulae, as opposed to directly observed data, which is gathered at the local level.

[1] https://www.statisticsauthority.gov.uk/osr/
[2] https://www.statisticsauthority.gov.uk/national-statistician/producers-of-official-statistics/non-crown-bodies/
[3] https://www.statisticsauthority.gov.uk/about-the-authority/
[4] https://www.statisticsauthority.gov.uk/code-of-practice/
[5] Where we use the term 'regional' we mean both the regions of England and the UK's Devolved Nations

- It may be worth considering a network of regional statistical observatories, akin to the Bank of England's regional agents, that can help provide ONS and others with better insight into regional economic issues.

It is worth noting that, in general, users in the UK and abroad have access to a wide range of regional economic data, accessible to all, often coherent and comparable internationally and at aggregate geographic levels (regions and countries).

I hope this evidence is helpful to the Committee. Please do not hesitate to contact me if I can be of any further assistance.

Yours sincerely,

Ed Humpherson

Office for Statistics Regulation written evidence: Regional imbalances in the UK Economy – Treasury Committee

Official statistics and other forms of data

Our first point concerns official statistics and other forms of data. Most of our regulatory work focuses on official statistics produced by central government bodies – Whitehall Departments, devolved administrations and the Office for National Statistics (ONS). There is also a much wider range of statistical research, economic analysis and management information that is published by a diverse group of organisations which is also relevant to understanding the regional performance of the economy.

Many users of statistics and data do not see a distinction between information labelled '*official statistics'* and other government numerical data. Their perception of the quality of government research or numerical information can affect their views of the quality of official statistics, and as such, there is a real danger of perceived bad data driving out good data[6].

We are willing to comment on and review information that is relevant to understanding regional performance even if it is not produced as official statistics. For example, we have received inquiries about regional economic data in Devolved Nations' budget documentation, and in statistical research about important local sectors (such as Oil and Gas in Scotland[7,8]). Rather than take the view that we do not regulate numerical information that is not labelled as 'official statistics', we promote the application of the Trustworthiness, Quality and Value (TQV) principles to anyone producing data, statistics and analysis, whether they are inside or outside government, which we view as relevant to all kinds of data and numerical information.

We have invited commitments to the TQV principles from Government and other organisations, either in respect to specific numerical outputs or more generally to all their important numerical information outputs. We invite those organisations to:

- compare their processes, methods and outputs against the recognised standards that the Code requires of official statistics; and
- demonstrate to the public their commitment to trustworthiness, quality and public value.

For example, we have worked with the Greater London Authority (the GLA), an important contributor of statistics for London, who have chosen to voluntarily apply the principles of the Code of Practice for Statistics[9]. The GLA produce many valuable outputs that provide in-depth insight into Greater London as a city-region. As a commitment to transparency and confidence in the statistics produced, some GLA bodies have chosen to comply fully with the Code, using it as a guide to their statistical production process. We are seeing many organisations[10] expressing interest in voluntarily adopting and applying the Code principles of TQV.

We invite the Committee to consider advocating to producers of numerical information on regional economies that are not official statistics, whether they are inside or outside of Government, that they commit to the voluntary adoption and application of the pillars of the Code of Practice for Statistics.

[6] https://www.statisticsauthority.gov.uk/how-to-stop-the-bad-data-driving-out-the-good/
[7] https://www.statisticsauthority.gov.uk/correspondence/response-on-oil-and-gas-analytical-bulletin/
[8] https://www.statisticsauthority.gov.uk/wp-content/uploads/2016/03/Letter-from-Ed-Humpherson-to-Jackie-Baillie-230316.pdf
[9] https://www.london.gov.uk/about-us/governance-and-spending/code-practice-statistics-voluntary-application
[10] https://www.statisticsauthority.gov.uk/code-of-practice/voluntary-application-of-the-code/list-of-voluntary-application/

Regional economic data

Local use of regional economic data to inform policy

With even more devolution in the UK to regional and local bodies such as Local Enterprise Partnerships (LEPs), Combined Authorities and city regions in England, and devolved national governments, user needs of regional statistics and data are changing. There is a strong and growing demand for data to be available at the regional and sub-regional levels, and for new data further exploring activity within the boundaries of these administrative regions. For businesses and officials with policy responsibility within the regions, good quality data is highly valued to help better understand how their economies function.

We have seen this increased appetite for information reflected in the OSR's regulatory work. Users of regional data have diverse uses for the data, and regional statistics are vital in providing the information necessary for these purposes. Regional bodies use statistics extensively in regional policymaking and analysis, in areas such as:

- establishing the growth sectors within regions to allocate funding support
- distributing European Support funding
- evaluating city deals and as triggers for further public funding support of such deals
- estimating the size of regional economies
- examining the regional distribution of the impacts of economic shocks
- examining the impacts of greater devolution and Brexit
- modelling regional business cycles

Quality and coverage of regional economic data

There is a wide range of regional economic data available in the UK. The quality of regional data is affected by the granularity that the data sources can provide, and/or the timeliness of the data provision.

ONS publications provide invaluable sources of regional data on economic growth and income measures, enabling users to drill down to very low levels of geography, such as the disaggregation to NUTS3[11] level available to analyse growth via Regional Gross Value Added (R-GVA)[12] and Regional Labour Productivity statistics[13], and income through Regional Gross household disposable income. Using NUTS classifications, ONS has adopted an internationally-comparable standard. These statistics are compiled using the most suitable sources currently available, allowing the degree of disaggregation into different geographies, sectors and components. ONS will also shortly introduce quarterly short-term indicators of regional GDP for the nine English regions and the three Devolved Nations.

In arriving at aggregate estimates, statisticians often combine both administrative and survey data sources (see Annex A), and then disaggregate to provide regional breakdowns (a top-down approach). Survey data is often limited in its depth: for example, the data used to compile R-GVA can become stretched at lower geographies, becoming increasingly volatile as it is disaggregated further. For most authorities that cover multiple NUTS3 regions, for example LEPs, reasonable estimates for the region can be constructed by combining data from NUTS3 regions to suit, however in cases where the geographies are quite different, the data is vulnerable to inaccuracy.

[11] Nomenclature of Territorial Units for Statistics
[12] https://www.ons.gov.uk/economy/grossvalueaddedgva/bulletins/regionalgrossvalueaddedbalanceduk/1998to2017
[13] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/datasets/regionalproductivitytimeseries

Public spending data for the countries and regions of the UK is provided from HM Treasury's (HMT) public expenditure database, which collates expenditure across the whole of public expenditure on a largely consistent basis from departments, within high-level categories. The publications produced from this database provide extensive analysis of public expenditure data. HMT's Public Expenditure Statistical Analyses sets out annual information on government spending, while the Country and Regional Analysis publication provides estimates for the allocation of geographically identifiable expenditure for the UK's countries and regions. These publications can be used for a wealth of regional fiscal analysis and provides the authoritative source for public spending per capita. HMT adopts international standards[14] to classify spending with as much disaggregation as possible whilst still maintaining international comparability. This does mean that public spending data is limited to NUTS1 (regional and devolved nation) level.

Finally, data on the investments made by the public sector at the UK level is good and very detailed. There is less information published on public sector investment, however, for the Devolved Nations and English regions. Whilst there is substantial data is available for the Devolved Nations on a Whole of Government Accounts basis[15], publicising this without careful presentation and comment risks misrepresentation. This is an area in which the Devolved Nations are seeking to improve.

Levels of regional statistics

Geographic areas that are of interest to users are constantly evolving. The long-established standard geographies for official statistics, such as Government Office Regions, are still valued by users. Users of statistics also require increased flexibility to align analyses with new functional areas where policy will be implemented. Users also want to be able to create their own geographies and access a wider range of economic indicators for local areas. In considering these user demands for flexible geographic analyses, there are some evident limitations in existing data sources.

The regional level (NUTS1) is still a high level and distributional variety within a region can easily be masked at such a high level. The more valuable statistics may well be those which can monitor change at a lower level of geography (e.g. Local Authority, LEP, Combined Authority, NUTS3). It is important for policymakers to make deep dives beneath the statistical surface, to be able to understand the economy region-by-region, city-by-city, town-by-town, industry-by-industry, and household-by-household.

Regional data gaps

We have been encouraged to see the extensive work going into the development of regional statistics. However, there are areas where statistics either provide insufficient value to users, or the quality of data is insufficient for the decisions that users wish to make based on the data. Areas where we have seen evidence that regional statistics are currently lacking include:

- productivity of the Department for Culture, Media and Sport sectors[16] at sub-UK levels
- intra-regional trade statistics

[14] COFOG (Classification of the Functions Of Government) https://ec.europa.eu/eurostat/statisticsexplained/index.php/Glossary:Classification_of_the_functions_of_government_(COFOG)

[15] The Whole of Government Accounts provide a way of reporting on the financial consequences of decisions, in particular by reporting on the assets created or the liabilities incurred each financial year by public bodies

[16] The DCMS sectors are Cultural, Digital, Creative, Gambling, Tourism, Sport and Civil Society

- statistics on the foundational economy[17], inclusive growth[18] and fair work[19] in the regions and nations
- more-up-to-date data on business start-ups in the regions and nations
- data on regional inwards investment: we have encouraged ONS to continue exploring new datasets to link to wherever possible, both within and outside of ONS partly to meet a need for data on the total value of capital investment through inward investment[20]
- data on government spending: data should be more comprehensible; this includes provision of better annual accounts from government departments. We have emphasised this in our recent work on public finances[21]. Also, there are data gaps about the quality of local government services. Central government sets the overall spending envelope and needs to understand how the amount of spending allocated impacts on performance; this has been highlighted in the Institute for Government's *Gaps in Government Data* report[22].

Uncertainty in regional and sub-regional economic data

During our regulatory work, we received feedback from users of regional and sub-regional economic data expressing concern that they can't tell whether the data they are using is based on observed economic behaviour or come from modelled estimates. They view data based on observed estimates as more reliable than modelled estimates.

At our request, the Office for National Statistics (ONS) conducted research[23] which indicated that between 23% and 32% of data measuring economic growth (Regional Gross Value-Added data) are directly observed at a regional level and collected in a way that can be immediately and wholly assigned to a single region. Between 49% and 51% of data are not directly-observed but are estimated using sampling and weighting techniques common to all sample surveys. Between 17% and 29% of data are modelled to provide regional estimates, most often by the apportionment of data collected for a larger area using some regional indicator. Most countries and regions of the UK have similar shares of observed, estimated and modelled data; the exception is Northern Ireland where there is a much higher proportion of observed data and much lower proportion of modelled data, due to the separate data collection that takes place there.

The Bean Review of Economic Statistics[24] noted that, in principle, statisticians could design better-quality sub-regional estimates by greatly increasing the quantity of information collected at a very fine spatial level. However, this would be costly not only for ONS but also for survey respondents. Survey sample sizes often become too small to provide reliable estimates for small areas. HMRC VAT data can provide near-census information for over 1.8 million businesses where statisticians can deduce their location from their postal address. ONS is now making good use of these data to apportion estimates down to workplace zones or census output areas, from which users can build their own specified areas.

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[17] The foundational economy consists of basic services and products. People rely on these services and products and they keep us safe, sound and civilised. Examples of the foundational economy are: care and health service; food; housing; energy; construction; tourism and retailers on the high street.
[18] Inclusive growth is economic growth that is distributed fairly across society and creates opportunities for all.
[19] Fair work is work that offers all individuals an effective voice, opportunity, security, fulfilment and respect
[20]Compliance Check of ONS's FDI statistics: https://www.statisticsauthority.gov.uk/correspondence/compliance-check-on-foreign-direct-investment-fdi-statistics/
[21] In 2019 we have completed a body of work surrounding public finances; see annex
[22] https://www.instituteforgovernment.org.uk/publications/gaps-government-data
[23]https://www.ons.gov.uk/economy/grossvalueaddedgva/articles/analysisoftheextentofmodellingandestimationinregionalgrossvalueadded/2018-03-28
[24]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/507081/2904936_Bean_Review_Web_Accessible.pdf

Changing the approach to producing regional and sub-regional economic data – making micro- to macro-economic statistics a reality

Andy Haldane, Chief Economist at the Bank of England said in a speech in May this year[25]:

> "*The public's understanding of the economy and policy is enhanced when messages are relevant to their lives and locality. Understanding of the economy is enhanced if it can tap into the lived, local experiences of companies and citizens making up the economy…it calls for new data, at a higher frequency and higher resolution, and new ways of stitching it together. It means making micro-to-macro a reality…"*

Conceptually, a preferable approach to the production of regional statistics would be to implement a bottom-up approach, compiling micro-level data to add up to a final aggregate figure. This would contrast with the often top-down approach of ONS and other statistics producers, which relies on applying regional and sub-regional metrics to 'apportion' data to those geographies. The micro to macro approach obviates the need for apportionment and modelling and improves estimates at lower levels of geography. The major drawback of this approach is its current feasibility; it is often not practical, or the data sources are not currently available, to provide the data necessary.

The Bank of England has a network of twelve regional agencies[26] based around the UK covering regions that are similar, but not exactly contiguous, to NUTS1 regions. The agencies primarily act as conduits back to the Bank's Monetary Policy and Macro-Prudential teams by assessing economic conditions – local, national and international – affecting businesses in their area. Each month the agencies hold a series of discussions with businesses to assess current business conditions and outlook to gather information about trends and developments affecting demand, costs and prices, employment, investment, exports and imports, based on the experiences of individual businesses.

A potential source of data to inform regional analysis could be the implementation of a network of ONS agents, with a similar role to those in the Bank of England, to bring a real-time overview of the regional economies into the public domain. ONS has already got a Centre for Subnational Analysis strengthening and improving stakeholder engagement around the UK. When we examined the extent to which statistics on city-regions were improving[27], we were aware of concerns that there was little capacity to conduct analysis in some of the new city-regions and a lack of awareness of what statistics are available. Although London-based, ONS's Centre for Subnational Analysis has made and is making a very significant effort to engage with analytical teams in city-regions.

The time may be right to expand that team and task them with an additional role like the Bank of England's regional agencies, which is to identify local intelligence to integrate and build a bottom-up system of economic data. This would be a good opportunity for collaboration throughout the production process with others producing data at regional levels such as Centre for Cities[28], who produce an array of data on cities across the UK.

Coherence between regional data sources is another area that is important to advance the availability of data. Nesta, who champion the model of local Offices for Data Analytics[29], has helped join up data for individual cities or regions and highlighted best practice as to how to implement this for the UK.

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[25] https://www.bankofengland.co.uk/-/media/boe/files/speech/2019/is-all-economics-local-speech-by-andy-haldane.pdf
[26] https://www.bankofengland.co.uk/about/people/agents
[27] https://www.statisticsauthority.gov.uk/publication/city-regions-impacts-systemic-review/
[28] https://www.centreforcities.org/
[29] https://www.nesta.org.uk/report/state-offices-data-analytics-uk/

The business case for expanding the role of ONS's outreach team to additionally identifying opportunities to integrate local data might be enhanced if the Committee were to recommend that local Offices of Data Analytics should investigate agreeing with ONS a minimum data set, and make arrangements for regular data supply to help ONS improve its regional and sub-regional economic data by moving increasingly to a micro-to-macro data approach.

Statistical producers in the coming years will have access to increasingly rich and varied data sources. An example of the work being done in this area is the production of Faster Indicators[30], led by ONS's Data Science Campus, which is a project designed to produce more timely economic information on the UK, at a granularity not currently present in official statistics. For example, initial findings from rich datasets available on port freight and road traffic have now been published, potentially offering new insights into areas such as inter- and intra-regional trade. By combining the insights from data science with local intelligence creates the potential to give far more malleable and timely regional data, giving added value to users, with more insight to inform economic analysis and policymaking.

Office for Statistics Regulation, August 2019

[30] https://datasciencecampus.ons.gov.uk/faster-indicators-of-uk-economic-activity/

Annex A

We have undertaken the following work on regional statistics in recent years:

Item	Publication date
Assessment of Statistics on Government Spending: Country and Regional Analysis[31]	May 2019
Systemic Review of the Public Value of devolved public finances[32]	May 2019
Compliance Check on ONS Labour Productivity statistics[33]	May 2019
Assessment of DCMS Sectors Economic estimates[34]	December 2018
Systemic review on improving Statistics on City-Regions[35]	July 2018
Assessment of Regional Gross Value-Added statistics[36]	June 2018
Compliance Review on the quality of ONS's Labour Force Survey estimates[37]	June 2017
Systemic review on The Geography of Economic Statistics[38]	June 2014

R-GVA statistics are constructed from the following data sources:

Source	Data type	Producer
Annual Business Survey (ABS)	Survey data	ONS
Labour Force Survey (LFS)	Survey data	ONS
Annual Survey of Hours and Earnings (ASHE)	Survey data	ONS
Business Register and Employment Survey (BRES)	Survey data	ONS
Agricultural Accounts	Survey data	DEFRA
Armed forces personnel data	Administrative data	Ministry of Defence
Onshore gas and oil profits data	Administrative data	BEIS
Regional estimates of bank and building society fees and commission and Financial Intermediation Services Indirectly Measured	Administrative data	Bank of England
Self-Assessment income tax data	Administrative data	HMRC
Value Added Tax (VAT) turnover data	Administrative data	HMRC

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[31] Assessment of Statistics on Government Spending: Country and Regional Analysis
[32] Systemic Review of the Public Value of devolved public finances
[33] Compliance Check on ONS Labour Productivity statistics
[34] Assessment of DCMS Sectors Economic estimates
[35] Systemic review on improving Statistics on City-Regions
[36] Assessment of Regional Gross Value-Added statistics
[37] Compliance Review on the quality of ONS's Labour Force Survey estimates
[38] Systemic review on The Geography of Economic Statistics