Development of a balanced measure of regional gross value added

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Introduction

Why are we doing this?

For many years we have compiled estimates of regional gross value added (GVA) using the income approach, whereby the components of income (compensation of employees, mixed income, rental income, gross trading profit and surplus, non-market capital consumption, holding gains, taxes less subsidies on production) are summed to give a measure of GVA on a workplace basis.

More recently we have developed an alternative measure of regional GVA using the production approach, whereby GVA is calculated as total output of goods and services less the value of goods and services used up in the production process (intermediate consumption). The principal aim of this second estimate is to provide the means to calculate estimates with the effect of price inflation removed, known as “real” GVA. However, it also presents us with a further complication.

Having two independent estimates of regional GVA (in nominal or current price terms) presents us with a communication issue. There is only one true value of GVA for any given area and no statistical estimate based on sample surveys will ever be able to guarantee complete accuracy. We are therefore faced with having two different answers to the question “what is GVA?” and no definitive way to advise users on which one to believe.

The same issue exists in the national accounts, where there are three different approaches to measuring gross domestic product (GDP), compiled using income, production and expenditure. To provide users with a single definitive estimate of UK GDP the three approaches are combined in a “balancing process” that seeks to identify the strengths and weaknesses of each measure and give them appropriate weight in informing a single “balanced” estimate of GDP.

We have created a similar balancing process for the two approaches to measuring regional GVA, and have aimed to make the process as automated as possible, using quality measures for the major components of both estimates to determine the weight given to each estimate in the construction of a balanced GVA estimate.

This development will provide a significant increase in the data made available to users, as the production approach includes the capacity to provide more detailed industry estimates alongside the component breakdown of income-based GVA, all based on a coherent and internally consistent framework of balanced regional GVA.

Methodology

How are we doing it?

Both income and production approaches seek to measure the same quantity, but using different conceptual methods and different data sources. Each such measure has its own innate strengths and weaknesses, some of which can be measured to some degree. In principle, we should be able to make use of our knowledge of the relative strength of the two measures to come up with the best possible single estimate of regional GVA.

The approach we have taken can be summarised in six stages:

1. Assign weights to each component of the income and production measures;
2. Assign quality metrics to each component in each region;
3. Multiply quality by weight and aggregate to a single quality metric for each measure;
4. Use these two quality metrics to derive a single weighted estimate for each region;
5. Apply any necessary manual intervention to address anomalous results;
6. Feed the balanced estimates back into the detailed industry and component breakdown.

An early question we faced was at what level of geographical and industrial breakdown we should carry out the balancing process. We decided that the best approach was to apply the process at the most detailed level possible, that being the lowest level where estimates can be provided by both income and production approaches. That level is NUTS2 sub-regions (the lowest level of geography compiled within the production measure) by 33 industries (the lowest level of industry compiled within the income measure).

We will now go through those six stages in more detail.

1. Component weights

The income approach sums the components of income (compensation of employees, mixed income, rental income, gross trading profit and surplus, non-market capital consumption, holding gains, taxes less subsidies on production) to give a measure of GVA. In the production approach, GVA is calculated as total output of goods and services less the value of goods and services used up in the production process (intermediate consumption).

In addition, there are several places in both measures where some element of GVA is separated out for a particular purpose, requiring an individual treatment to apportion it to the regions. Many of these have arisen following the implementation of changes necessary to comply with the terms of the European System of Accounts (ESA) 2010, as new data sources have been found to measure specific activities in both national and regional accounts.

As a result we have a fairly long list of components that are used in each of the two measures of regional GVA. Naturally, the precise contribution of each of these components varies by industry, by region, and by year, and we can only accurately measure these contributions once we have a degree of certainty about the “final” value of each.

One problem we face here is that in carrying out the balancing process we are changing those very component values that provide the weights, and so we risk the whole process becoming recursive. To avoid this issue we decided to use the UK national total for each component, by industry, by year, instead of the regional totals. The national total comes from the most recently published UK National Accounts Blue Book (or in some cases unpublished components of that dataset) and is unchanged by any regional process. It is therefore unaffected by the balancing process and provides us with a consistent weighting structure across all regions.

The table in Annex A shows all of the components currently used in each measure, with the national weights (as proportions of total GVA) for 2014 taken from the 2016 Blue Book dataset. In general the component weights do not vary much from year to year, although over time they can and do gradually change. Table 1 below summarises this information to show the weights in 2014 as percentages of the main components by their principal data sources.

Component	ABS	ASHE	BRES	Other
GVA (Income approach)				
Compensation of Employees	6.6	23.4	23.4	1.5
Gross Trading Profits	14.5	0	0	8.4
Rental Income	0	0	0	12.3
Mixed Income	0.2	0	0	4.7
Non-Market Capital Consumption	0	0	0	2.2
Taxes on Production	0	0	0	1.8
Holding Gains	0.3	0	0	0.1
Gross Trading Surplus	0.1	0	0.2	0.01
Subsidies on Production	0	0	0	0.3
Total (all income components)	21.7	23.4	23.6	31.3
GVA (Production approach)				
Output - Intermediate Consumption	70.8	0	12.7	16.5

Table 1: Summary of component weights in 2014, by data source (%)

2. Quality metrics

As we can see from Table 1, a relatively small number of components represent a very large proportion of total GVA, by either measure. Most of these components are estimated on a regional basis by data from three ONS business surveys: the Annual Business Survey (ABS); the Annual Survey of Hours and Earnings (ASHE); and the Business Register and Employment Survey (BRES). In 2014 these three data sources collectively represented 69% of the income measure and 84% of the production measure.

One advantage of the extensive use of our own survey data is that it allows us to measure certain quality aspects of the data by analysis of the individual records (microdata) contributing to the aggregate survey results (macrodata) that we use to apportion components to regions. One of these quality metrics is the coefficient of variation (cv), which provides a measure of the extent of variability of individual survey responses to the mean value of the population.

The cv is defined as the ratio of the standard deviation to the mean, and it provides a handy standardised metric to indicate the volatility inherent in the survey data (i.e. how much the results are likely to vary depending on which companies happen to have been included in the sample). In simple terms, then, it provides a measure of the general reliability of the survey results. The smaller the cv, the more stable and reliable is the estimate.

With the help of the teams who compile the business surveys, and of ONS methodologists, we have obtained the cv metrics for all three survey datasets used in the compilation of regional GVA, and we have established procedures that will provide updated quality measures each year as new survey data become available.

We have converted these cv metrics to a quality scale that is presented as a proportion with values from 0 to 1, where 1 is the highest quality possible and 0 is effectively worthless. The conversion is based on advice from ONS methodologists that any result with a cv of 50 or higher is too volatile to be trustworthy. We have used the following conversion:

Quality metric = (100 minus (cv multiplied by 2)) divided by 100 *with a minimum value of 0*

This procedure gives us quality metrics for the main components of both income and production measures, but there are many more components for which we lack such statistical metrics. In general these components carry little weight in the overall measure of GVA, but we still need some way to include them and take account of their relative contributions to the overall estimate.

For the remaining components, where we lack a measure of quality, we have estimated the conceptual quality of the data we are using to apportion the component to regions against the guidance provided in the European Union Manual on Regional Accounts Methods (2013). The Manual provides advice and guidance to statisticians on the best data and methods to use to compile regional statistics, and it uses an ABC rating system, where A represents the ideal method, B is an acceptable alternative, and C is a generally inferior or poor quality method.

To relate these ABC ratings to our quality scale, we again sought the advice of ONS methodologists, who suggested that a cv of less than 10 represented good quality, a cv between 10 and 20

represented medium quality, and a cv between 20 and 50 represented low quality. Taking these bands as a guide, we assigned the mid-point value on our scale to each rating, as follows:

A = band from 1 to 0.8 = 0.9

B = band from 0.8 to 0.6 = 0.7

C = band from 0.6 to 0 = 0.3

The table in Annex B shows the ratings we have assigned to each of the components for which we lack a cv quality metric. The same ratings have been applied to all regions and all years, whereas the cv quality metrics will vary across regions and years.

The GVA(P) dataset does not currently include estimates for the latest (provisional) year. For the purpose of compiling the test dataset we have created a provisional year estimate by simply rolling forward the regional proportions for each component and applying these to the UK total for the provisional year. This is to allow us to produce a balanced estimate for that year; otherwise we would only have the income measure for the latest year and that might result in misleading annual growth rates between the latest two years.

The rolled forward components have all been assigned a C rating for the latest year as they are not based on any real information relating to that year, merely the pattern shown in the previous year.

When we implement balanced GVA we will update the GVA(P) compilation process to produce estimates for the provisional year, using actual data where they are available. For the other components, mostly those measured using data from the Annual Business Survey (ABS), we intend to measure the annual growth in turnover from the VAT administrative dataset and use that to project forward from the ABS data. We believe this method warrants a B rating, owing to the strong correlation between turnover and output.

3. Aggregate quality weights

Now that we have a weight for each component showing how much they contribute to the overall GVA estimate and a quality metric for each component showing how reliable they are as a measure of the regional distribution of that component, we can combine these into a single weighted quality metric for each of the two approaches.

GVA(I) Quality = Sum for all income components (weight multiplied by quality metric)

GVA(P) Quality = Sum for all production components (weight multiplied by quality metric)

Mathematically, we can see that if all of the quality metrics were equal to 1 then the overall quality measure for both approaches would also be 1, as the weights must themselves sum to 1. In practice, of course, none of the quality metrics will be equal to 1 (indicating a perfect measure) so each will reduce the overall quality measure in relation to its contribution to the total estimate.

These two numbers provide a simple way to show the relative quality of the two GVA measures, and can be used to calculate a weighted arithmetic mean of the two GVA estimates. This process of deriving twinned quality measures has been done for each region, by industry, by year, resulting in a matrix of paired quality metrics.

4. Automated balancing

The matrix of paired quality metrics is used to calculate the balanced GVA estimates. For each region, by industry, by year, the two quality metrics are used to calculate a weighted arithmetic mean of the income and production estimates. Because the calculation is entirely based on weights and quality metrics that are available in advance, the entire balancing process can be coded into an automated compilation system. Therefore, as soon as the income and production measures have been finalised we can run the balancing process and produce balanced estimates of regional GVA.

You can see the results of this on our test dataset (using data from last year's GVA(I) and GVA(P) publications) in the spreadsheet that we have published with this article and public consultation. The charts show both income and production measures in their unbalanced state, along with the balanced estimate for each region, and each industry within each region, as time series.

Because we have been able to automate the process and avoid any additional lengthy procedures, we expect to be able to publish balanced regional GVA to the same timetable that we have managed for the income and production measures, that being around the middle of December each year.

The advancement of GVA(P) by a year in order to produce balanced provisional estimates means that we will be providing real GVA estimates, with a more detailed industry breakdown, one full year earlier than we have ever done before. This is a big step forward in improving the timeliness of regional GVA statistics ahead of our parallel development of quarterly output indicators for English regions, which should be available from late 2018.

5. Quality assurance

The German military strategist Helmuth von Moltke famously noted that "No battle plan survives contact with the enemy." Although this observation was intended for a military context, there is a clear analogy in the world of statistics: "No statistical plan survives contact with the data." No matter how well we design the process for automated balancing, there will inevitably be times when anomalies in the data produce unbelievable results. For that reason we need to be able to make manual interventions to stop the estimates diverging too far from perceived economic reality.

In the compilation of the UK Regional Accounts we benefit from the knowledge and expertise of a group of statisticians, economists, national accountants, researchers and data analysts in organisations across the countries and regions of the UK. These people have agreed to devote some of their time to help us quality assure the regional estimates, by providing feedback reflecting their expert knowledge of the economy in their region. In this way they provide a safety net to ensure that the estimates we produce make sense and are explainable in the context of real economic events going on in each region.

This peer review network will have already provided advice and guidance on both income and production measures of regional GVA, before the balancing process even begins. The information provided will be used to inform any further decisions needed to address anomalous results coming out of the balancing process.

When the balancing process is properly embedded in our regular compilation process, we will look to the peer reviewers to provide a further check on the balanced results prior to publication. For this first test dataset and its accompanying consultation, we will be asking those people to provide us with detailed comments on the balanced estimates as part of our assessment on how well the process is working.

6. Derivation of detailed components

Once the balanced estimates have been finalised at the NUTS2 level by 33 industries, we then feed the revised GVA estimates back into our income and production compilation systems to generate all of the other levels of geography, industry, and components of income that we want to publish.

From the income approach we generate the following components of income:

- Compensation of employees
- Mixed income of self-employed people
- Rental income
- Gross trading profits of private corporations
- Gross trading surplus of public corporations
- Non-market capital consumption
- Holding gains
- Taxes on production
- (less) Subsidies on production

We also use the income approach to derive estimates for NUTS3 level areas, which are published with a more aggregated industry breakdown. These NUTS3 estimates are the starting point for our further breakdown to derive GVA estimates for Local Authorities, from which we can construct Local Enterprise Partnerships (LEPs) and Combined Authorities.

From the production approach we generate a more detailed industry breakdown at the NUTS2 level, which are then deflated to provide real GVA estimates as chained volume measures. The NUTS2 data are also aggregated to form NUTS1 regions, and again these are deflated to provide chained volume measures.

This is one of the more technically difficult parts of the balancing process. All of our components and industries have known national totals, and we have to ensure that the regions sum to these totals. When we change the GVA value for a particular region in a particular industry, the regions will no longer sum to the correct national total. We therefore have to go through an iterative process of constraining the regional values so that they sum to the correct national value.

The process is iterative because each time we constrain the regional values in one dimension (such as ensuring the detailed industries sum to the correct values) we change the total in another dimension (such as the total for one or more of the income components). The iterative process constrains in one dimension and then the other in turn, gradually moving the set of components and industries towards a position where they all sum to the correct totals while retaining the balanced GVA value for each region and industry.

Outputs

What are we going to produce and publish from the new balanced measure?

One of the benefits of the balanced measure of GVA is that it should be more reliable and more stable than either of its component estimates, as it gives more weight to the component that is judged to be of better quality, for each industry and for each region. It is therefore less prone to variation coming from anomalous survey data affecting any single component of output or income.

This greater reliability means that we can have more confidence in estimates that are disaggregated to more detailed industries (according to the Standard Industrial Classification (SIC) 2007), and to smaller geographic areas.

The framework of the production measure, GVA(P), provides the facility to break the balanced estimates down to 114 industries, corresponding to the industrial make-up of the UK National Accounts supply and use tables. However, in some sectors the fine detail of these industries may be beyond any reasonable expected use. For example, there are six sub-divisions of the chemical manufacturing industry.

Our aim is to provide estimates at the 2-digit level of SIC 2007, as far as we can while maintaining the confidentiality of individual company information. In cases where publishing at the 2-digit level might disclose such information, we will aggregate industries to the point where the data are no longer potentially disclosive.

These detailed industry estimates will be provided for the NUTS1 and NUTS2 levels of geography, and as they are coming from the GVA(P) system they will be available in both nominal (current price) values and as real, deflated (chained volume) measures.

Our investigation into the number of business enterprises operating in each region has led us to combine the following industries at the NUTS1 and NUTS2 levels.

NUTS1	SIC 05 to 08 (mining and quarrying, excluding mining support activities)
	SIC 11 to 12 (manufacture of beverages and tobacco products)
	SIC 19 to 20 (manufacture of coke, refined petroleum and chemicals)
	SIC 36 to 37 (water supply and sewerage)
	SIC 97 to 98 (households as employers and own use production)
NUTS2	SIC 02 to 03 (forestry and fishing)
	SIC 05 to 09 (mining and quarrying)
	SIC 11 to 12 (manufacture of beverages and tobacco products)

SIC 14 to 15 (manufacture of wearing apparel and leather products)
SIC 16 to 17 (manufacture of wood and paper products)
SIC 19 to 21 (manufacture of coke, refined petroleum, chemicals and pharmaceuticals)
SIC 24 to 25 (manufacture of basic metals and fabricated metal products)
SIC 36 to 37 (water supply and sewerage)
SIC 38 to 39 (waste disposal and remediation activities)
SIC 50 to 51 (water and air transport)
SIC 65 to 66 (insurance, pension funding and auxiliary financial activities)
SIC 97 to 98 (households as employers and own use production)

Estimates at the NUTS3 level (and below) will initially still be limited to broad industry groups, and will only be available as nominal values. We plan to expand upon this provision in another of our development projects, the Flexible Geography project, which aims to provide smaller building blocks that can be used to construct estimates for any user-defined area of interest.

The only change to the NUTS3 industry groups is to combine SIC Section A (agriculture, forestry and fishing) with SIC Sections B, D and E (mining and quarrying, electricity, gas, water and waste). This is also to prevent the disclosure of confidential information.

The full component breakdown of the income measure will still be available for all NUTS levels in nominal values, and this too will be limited to the current industry breakdown (SIC section and sub-section for NUTS1 and NUTS2; broad industry groups for NUTS3).

Finally, although the statistical bulletin we publish each year will focus on the balanced measure of GVA, both income and production datasets (in their unbalanced form) will also be available to users who are interested in seeing all three estimates and understanding how and where they differ.

User engagement

Your chance to tell us what you think of it.

The purpose of this article is to explain why we are producing balanced GVA estimates and how we are going about it. It also provides our current ideas for what we ought to be publishing from this new development, and how we intend to present those statistics for users.

We now want to give you the opportunity to tell us what you think of these ideas, so that we can take account of your views in the decisions we have still to take prior to publication. We are carrying out a formal user consultation on these test statistics, and you can find an online survey that you can complete alongside this article.

The dataset that we have published with this article will allow you to see for yourself what effect the balancing process has had on last year's GVA estimates. We are still working on improving the coherence and consistency of the two existing GVA measures, and we expect the two measures to be even closer by the time we produce the first true balanced estimates in December 2017. It will still help us to know what aspects of the test results you feel have quality issues, so that we can take whatever additional steps are needed to ensure that the statistics are fit for purpose.

Annex A: Weights of income and production components, 2014

2014 weights	Industry (SIC 2007)	A	A	B	CA	CB	CC	CD	CE	CF	CG	CH
		01	02-03	05-09	10-12	13-15	16-18	19	20	21	22-23	24-25
Components of GVA Income												
Compensation of Employees	Earnings (ASHE)	0	0.147	0.058	0	0	0	0	0	0	0	0
	Employees (BRES)	0	0.147	0.058	0	0	0	0	0	0	0	0
	Employee costs (ABS)	0	0	0	0.651	0.563	0.659	0.803	0.626	0.360	0.728	0.722
	Employee costs (Defra)	0.288	0	0	0	0	0	0	0	0	0	0
	Offshore Oil	0	0	0.150	0	0	0	0	0	0	0	0
	Onshore Forces	0	0	0	0	0	0	0	0	0	0	0
	Offshore Forces	0	0	0	0	0	0	0	0	0	0	0
	Embassies Staff	0	0	0	0	0	0	0	0	0	0	0
	Labour Force Survey	0	0	0	0	0	0	0	0	0	0	0
Gross Trading Profits	Operating Surplus (ABS)	0	0.279	0.095	0.289	0.268	0.204	0.089	0.236	0.472	0.181	0.207
of Other Corporations	Research & Development	0	0.017	0.003	0.010	0.004	0.003	0.009	0.067	0.120	0.017	0.012
	Mixed Income (Defra)	0.138	0	0	0	0	0	0	0	0	0	0
	Offshore Oil	0	0	0.581	0	0	0	0	0	0	0	0
	Onshore Oil	0	0	0.008	0	0	0	0	0	0	0	0
	Wages & Salaries	0	0	0	0	0	0	0	0	0	0	0
Gross Trading Profits	Operating Surplus (ABS)	0	0	0	0.007	0.028	0.027	0	0.006	0.001	0.011	0.013
of Partnerships	Partnerships Income (HMRC)	0	0.101	0.002	0	0	0	0	0	0	0	0
	Mixed Income (Defra)	0.232	0	0	0	0	0	0	0	0	0	0
Rental Income	Commercial Rent	0.018	0.018	0.002	0.004	0.015	0.005	0.001	0.005	0.001	0.007	0.002
	Cross-border Income	0	0	0	0	0	0	0	0	0	0	0
	Household Rent	0.043	0	0	0	0	0	0	0	0	0	0
Mixed Income	Operating Surplus (ABS)	0	0	0	0.010	0.061	0.060	0.002	0.002	0.000	0.021	0.021
	Sole Traders (HMRC)	0	0.247	0.001	0	0	0	0	0	0	0	0
	Mixed Income (Defra)	0.102	0	0	0	0	0	0	0	0	0	0
	Homegrown Drugs	0	0	0	0	0	0	0	0	0.038	0	0
	Imported Drugs	0	0	0	0	0	0	0	0	0	0	0
	Prostitution	0	0	0	0	0	0	0	0	0	0	0
Holding Gains	Operating Surplus (ABS)	0	0	0.008	0.012	0.044	0.014	0.075	0.035	0.005	0.011	0.001
	Personal Holdings	0.003	0.005	0	0	0	0	0	0	0	0	0
	Offshore Holdings	0	0	0.029	0	0	0	0	0	0	0	0
Gross Trading Surplus	Operating Surplus (ABS)	0	0.016	0	0	0	0.004	0	0	0	0	0
of Public Corporations	Public Sector Emp (BRES)	0	0	0	0	0	0	0	0	0	0	0
	Central Bank	0	0	0	0	0	0	0	0	0	0	0
Non-Market	Other NMCC	0	0	0	0	0	0	0	0	0	0	0
Capital Consumption	Research & Development	0	0	0	0	0	0	0	0	0	0	0
	Civil Service	0	0	0	0	0	0	0	0	0	0	0
	Roads	0	0	0	0	0	0	0	0	0	0	0
	Ships	0	0	0	0	0	0	0	0	0	0	0
	Aircraft	0	0	0	0	0	0	0	0	0	0	0
	Weapons	0	0	0	0	0	0	0	0	0	0	0
	Other Military	0	0	0	0	0	0	0	0	0	0	0
	Hospitals	0	0	0	0	0	0	0	0	0	0	0
	Schools	0	0	0	0	0	0	0	0	0	0	0
	Universities	0	0	0	0	0	0	0	0	0	0	0
	Population	0	0	0	0	0	0	0	0	0	0	0

2014 weights	Industry (SIC 2007)	A	A	B	CA	CB	CC	CD	CE	CF	CG	CH
		01	02-03	05-09	10-12	13-15	16-18	19	20	21	22-23	24-25
Components of GVA Income												
Taxes on Production	Motor Vehicle Duty (GB)	0.003	0.003	0.00004	0.0001	0.0007	0.0003	0	0	0	0.0003	0.0003
	NI Driver & Vehicle Agency	0	0	0	0	0	0	0	0	0	0	0
	OFWAT	0	0	0	0	0	0	0	0	0	0	0
	OFTEL	0	0	0	0	0	0	0	0	0	0	0
	Consumer Credit Act Fees	0	0	0	0	0	0	0	0	0	0	0
	Construction Industry Training	0	0	0	0	0	0	0	0	0	0	0
	Engineering Industry Training	0	0	0	0	0	0	0	0	0	0	0
	Home Grown Cereals Authority	0	0	0	0	0	0	0	0	0	0	0
	Horticultural Development	0.004	0	0	0	0	0	0	0	0	0	0
	British Potato Council	0	0	0	0	0	0	0	0	0	0	0
	Meat and Livestock Commission	0	0	0	0	0	0	0	0	0	0	0
	Milk Development Council	0	0	0	0	0	0	0	0	0	0	0
	Office of the Rail Regulator	0	0	0	0	0	0	0	0	0	0	0
	Sea Fish Industry Board	0	0.015	0	0	0	0	0	0	0	0	0
	Horserace Levy Board	0	0	0	0	0	0	0	0	0	0	0
	Financial Services Compensation	0	0	0	0	0	0	0	0	0	0	0
	Emissions Trading Scheme	0	0	0.002	0.0002	0	0.0003	0.011	0.001	0.0001	0.002	0.002
	Carbon Reduction Commitment	0.0001	0	0.0004	0.0001	0.0002	0.0002	0.005	0.0001	0.0002	0.0001	0.0004
	Bank Payroll Tax	0	0	0	0	0	0	0	0	0	0	0
	National Non-domestic Rates (GB)	0.005	0.008	0.003	0.011	0.011	0.020	0	0.016	0.002	0.019	0.017
	NI Non-domestic Rates	0.0001	0	0.0002	0.0003	0.0002	0.0006	0.0004	0.0005	0.0001	0.0006	0.0006
	Crossrail Business Rate Supplement	0	0	0	0	0	0	0	0	0	0	0.0001
	OFGEM	0	0	0	0	0	0	0	0	0	0	0
Subsidies on Production	Agriculture (Defra)	0.167	0	0	0	0	0	0	0	0	0	0
	Housing Equity Injection	0	0	0	0	0	0	0	0	0	0	0
	Housing Revenue Accounts	0	0	0	0	0	0	0	0	0	0	0
	INFRACOS	0	0	0	0	0	0	0	0	0	0	0
	London & Continental Railways	0	0	0	0	0	0	0	0	0	0	0
	Network Rail (Public)	0	0	0	0	0	0	0	0	0	0	0
	Network Rail (Private)	0	0	0	0	0	0	0	0	0	0	0
	Research & Development Tax Credits	0.0001	0.003	0.0004	0.004	0.004	0.002	0.003	0.005	0.0007	0.002	0.002
	Royal Mail Group	0	0	0	0	0	0	0	0	0	0	0
Components of GVA Production												
Output less	Output - IC (ABS)	0	0.958	0.216	0.952	0.998	0.991	0.993	0.971	0.925	0.988	0.987
Intermediate Consumption	Government	0	0	0	0	0	0	0	0	0	0	0
	Armed Forces	0	0	0	0	0	0	0	0	0	0	0
	Sole Traders (HMRC)	0	0	0	0	0	0	0	0	0	0	0
	Research & Development	0.001	0	0.002	0.007	0.002	0.002	0.007	0.029	0.038	0.012	0.013
	R&D Oil & Gas Extraction	0	0	0.004	0	0	0	0	0	0	0	0
	Tobacco	0	0	0	0.041	0	0	0	0	0	0	0
	Public Corporations	0	0.042	0	0	0	0.008	0	0	0	0	0
	NPISH	0	0	0	0	0	0	0	0	0	0	0
	Central Bank	0	0	0	0	0	0	0	0	0	0	0
	HM Treasury	0	0	0	0	0	0	0	0	0	0	0
	Onshore Oil	0	0	0.008	0	0	0	0	0	0	0	0
	Offshore Oil	0	0	0.770	0	0	0	0	0	0	0	0
	Imputed Rental	0	0	0	0	0	0	0	0	0	0	0
	Cross-border Income	0	0	0	0	0	0	0	0	0	0	0
	Homegrown Drugs	0	0	0	0	0	0	0	0	0.038	0	0
	Imported Drugs	0	0	0	0	0	0	0	0	0	0	0
	Prostitution	0	0	0	0	0	0	0	0	0	0	0
	Agriculture (Defra)	0.999	0	0	0	0	0	0	0	0	0	0
	Labour Force Survey	0	0	0	0	0	0	0	0	0	0	0

2014 weights	Industry (SIC 2007)	CI	CJ	CK	CL	CM	D	E	F	G	H	I
		26	27	28	29-30	31-33	35	36-39	41-43	45-47	49-53	55-56
Components of GVA Income												
Compensation of Employees	Earnings (ASHE)	0	0	0	0	0	0.152	0.221	0.259	0.315	0.336	0.332
	Employees (BRES)	0	0	0	0	0	0.152	0.221	0.259	0.315	0.336	0.332
	Employee costs (ABS)	0.690	0.626	0.747	0.689	0.564	0	0	0	0	0	0
	Employee costs (Defra)	0	0	0	0	0	0	0	0	0	0	0
	Offshore Oil	0	0	0	0	0	0	0	0	0	0	0
	Onshore Forces	0	0	0	0	0	0	0	0	0	0	0
	Offshore Forces	0	0	0	0	0	0	0	0	0	0	0
	Embassies Staff	0	0	0	0	0	0	0	0	0	0	0
	Labour Force Survey	0	0	0	0	0	0	0	0	0	0	0
Gross Trading Profits	Operating Surplus (ABS)	0.114	0.170	0.136	0.106	0.280	0.623	0.429	0.157	0.217	0.210	0.216
of Other Corporations	Research & Development	0.099	0.028	0.052	0.153	0.019	0.003	0.001	0.001	0.005	0.0004	0.0005
	Mixed Income (Defra)	0	0	0	0	0	0	0	0	0	0	0
	Offshore Oil	0	0	0	0	0	0	0	0	0	0	0
	Onshore Oil	0	0	0	0	0	0	0	0	0	0	0
	Wages & Salaries	0	0	0	0	0	0	0	0	0	0	0
Gross Trading Profits	Operating Surplus (ABS)	0.016	0.005	0.012	0.010	0.022	0	0	0	0	0	0
of Partnerships	Partnerships Income (HMRC)	0	0	0	0	0	0.004	0.007	0.027	0.024	0.010	0.030
	Mixed Income (Defra)	0	0	0	0	0	0	0	0	0	0	0
Rental Income	Commercial Rent	0.008	0.006	0	0.003	0.004	0.008	0.005	0.051	0.010	0.006	0.010
	Cross-border Income	0	0	0	0	0	0	0	0	0	0	0
	Household Rent	0	0	0	0	0.001	0	0	0	0	0	0
Mixed Income	Operating Surplus (ABS)	0.030	0.027	0.018	0.015	0.046	0	0	0	0	0	0
	Sole Traders (HMRC)	0	0	0	0	0	0.002	0.017	0.225	0.039	0.061	0.023
	Mixed Income (Defra)	0	0	0	0	0	0	0	0	0	0	0
	Homegrown Drugs	0	0	0	0	0	0	0	0	0	0	0
	Imported Drugs	0	0	0	0	0	0	0	0	0.023	0	0
	Prostitution	0	0	0	0	0	0	0	0	0	0	0
Holding Gains	Operating Surplus (ABS)	0.033	0.125	0.007	0.012	0.043	0.002	0.003	0.011	0	0.0001	0.0005
	Personal Holdings	0	0	0	0	0	0	0	0.0002	0.001	0	0.0002
	Offshore Holdings	0	0	0	0	0	0	0	0	0	0	0
Gross Trading Surplus	Operating Surplus (ABS)	0	0	0	0	0.005	0	0	0	0.0001	0	0
of Public Corporations	Public Sector Emp (BRES)	0	0	0	0	0	0	0.038	0	0	0.004	0.0003
	Central Bank	0	0	0	0	0	0	0	0	0	0	0
Non-Market	Other NMCC	0	0	0	0	0	0	0	0	0	0.015	0
Capital Consumption	Research & Development	0	0	0	0	0	0	0	0	0	0	0
	Civil Service	0	0	0	0	0	0	0	0	0	0	0
	Roads	0	0	0	0	0	0	0	0	0	0	0
	Ships	0	0	0	0	0	0	0	0	0	0	0
	Aircraft	0	0	0	0	0	0	0	0	0	0	0
	Weapons	0	0	0	0	0	0	0	0	0	0	0
	Other Military	0	0	0	0	0	0	0	0	0	0	0
	Hospitals	0	0	0	0	0	0	0	0	0	0	0
	Schools	0	0	0	0	0	0	0	0	0	0	0
	Universities	0	0	0	0	0	0	0	0	0	0	0
	Population	0	0	0	0	0	0	0.012	0	0	0	0

2014 weights	Industry (SIC 2007)	CI	CJ	CK	CL	CM	D	E	F	G	H	I
		26	27	28	29-30	31-33	35	36-39	41-43	45-47	49-53	55-56
Components of GVA Income												
Taxes on Production	Motor Vehicle Duty (GB)	0.0001	0.0002	0.0004	0.0001	0.0004	0.0001	0.001	0.002	0.001	0.002	0.0002
	NI Driver & Vehicle Agency	0	0	0	0	0	0	0	0	0	0	0
	OFWAT	0	0	0	0	0	0	0.002	0	0	0	0
	OFTEL	0	0	0	0	0	0	0	0	0	0	0
	Consumer Credit Act Fees	0	0	0	0	0	0	0	0	0	0	0
	Construction Industry Training	0	0	0	0	0	0	0	0.002	0	0	0
	Engineering Industry Training	0	0	0	0	0	0	0	0.0002	0	0	0
	Home Grown Cereals Authority	0	0	0	0	0	0	0	0	0	0	0
	Horticultural Development	0	0	0	0	0	0	0	0	0	0	0
	British Potato Council	0	0	0	0	0	0	0	0	0	0	0
	Meat and Livestock Commission	0	0	0	0	0	0	0	0	0	0	0
	Milk Development Council	0	0	0	0	0	0	0	0	0	0	0
	Office of the Rail Regulator	0	0	0	0	0	0	0	0	0	0.0002	0
	Sea Fish Industry Board	0	0	0	0	0	0	0	0	0	0	0
	Horserace Levy Board	0	0	0	0	0	0	0	0	0	0	0
	Financial Services Compensation	0	0	0	0	0	0	0	0	0	0	0
	Emissions Trading Scheme	0	0	0	0	0	0.014	0	0	0	0	0
	Carbon Reduction Commitment	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.001	0.0001	0.001	0.0002	0.0004
	Bank Payroll Tax	0	0	0	0	0	0	0	0	0	0	0
	National Non-domestic Rates (GB)	0.009	0.011	0.025	0.009	0.012	0.035	0.041	0.005	0.048	0.019	0.053
	NI Non-domestic Rates	0.0003	0.0003	0.0008	0.0003	0.0004	0.001	0.001	0.0002	0.001	0.001	0.002
	Crossrail Business Rate Supplement	0	0	0	0	0	0.0001	0	0.00004	0.0003	0.0001	0.001
	OFGEM	0	0	0	0	0	0.002	0	0	0	0	0
Subsidies on Production	Agriculture (Defra)	0	0	0	0	0	0	0	0	0	0	0
	Housing Equity Injection	0	0	0	0	0	0	0	0	0	0.00005	0
	Housing Revenue Accounts	0	0	0	0	0	0	0	0	0	0.000004	0
	INFRACOS	0	0	0	0	0	0	0	0	0	0	0
	London & Continental Railways	0	0	0	0	0	0	0	0	0	0	0
	Network Rail (Public)	0	0	0	0	0	0	0	0	0	0	0
	Network Rail (Private)	0	0	0	0	0	0	0	0	0	0	0
	Research & Development Tax Credits	0.001	0.001	0.0007	0.002	0.003	0.0002	0.0002	0.0002	0.0003	0.000002	0
	Royal Mail Group	0	0	0	0	0	0	0	0	0	0.00002	0
Components of GVA Production												
Output less	Output - IC (ABS)	0.903	0.970	0.962	0.871	0.974	0.997	0.861	0.742	0.974	0.867	0.946
Intermediate Consumption	Government	0	0	0	0	0	0	0.095	0	0	0.044	0
	Armed Forces	0	0	0	0	0	0	0	0	0	0	0
	Sole Traders (HMRC)	0	0	0	0	0	0	0	0.257	0	0.058	0.053
	Research & Development	0.097	0.030	0.038	0.129	0.018	0.003	0.001	0.001	0.003	0.0004	0.0003
	R&D Oil & Gas Extraction	0	0	0	0	0	0	0	0	0	0	0
	Tobacco	0	0	0	0	0	0	0	0	0	0	0
	Public Corporations	0	0	0	0	0.008	0	0.043	0	0.0002	0.031	0.001
	NPISH	0	0	0	0	0	0	0	0	0	0	0
	Central Bank	0	0	0	0	0	0	0	0	0	0	0
	HM Treasury	0	0	0	0	0	0	0	0	0	0	0
	Onshore Oil	0	0	0	0	0	0	0	0	0	0	0
	Offshore Oil	0	0	0	0	0	0	0	0	0	0	0
	Imputed Rental	0	0	0	0	0	0	0	0	0	0	0
	Cross-border Income	0	0	0	0	0	0	0	0	0	0	0
	Homegrown Drugs	0	0	0	0	0	0	0	0	0	0	0
	Imported Drugs	0	0	0	0	0	0	0	0	0.023	0	0
	Prostitution	0	0	0	0	0	0	0	0	0	0	0
	Agriculture (Defra)	0	0	0	0	0	0	0	0	0	0	0
	Labour Force Survey	0	0	0	0	0	0	0	0	0	0	0

2014 weights	Industry (SIC 2007)	J	K	L	M	N	O	P	Q	R	S	T	ALL
		58-63	64-66	68	69-75	77-82	84	85	86-88	90-93	94-96	97-98	
Components of GVA Income													
Compensation of Employees	Earnings (ASHE)	0.287	0.261	0.029	0.279	0.291	0.297	0.435	0.383	0.244	0.265	0	**0.234**
	Employees (BRES)	0.287	0.261	0.029	0.279	0.291	0.297	0.435	0.383	0.244	0.265	0	**0.234**
	Employee costs (ABS)	0	0	0	0	0	0	0	0	0	0	0	**0.066**
	Employee costs (Defra)	0	0	0	0	0	0	0	0	0	0	0	**0.002**
	Offshore Oil	0	0	0	0	0	0	0	0	0	0	0	**0.002**
	Onshore Forces	0	0	0	0	0	0.126	0	0	0	0	0	**0.006**
	Offshore Forces	0	0	0	0	0	0.017	0	0	0	0	0	**0.001**
	Embassies Staff	0	0	0	0	0	0.007	0	0	0	0	0	**0.0004**
	Labour Force Survey	0	0	0	0	0	0	0	0	0	0	0.934	**0.004**
Gross Trading Profits	Operating Surplus (ABS)	0.334	0	0.042	0.143	0.271	0	0	0	0.263	0.161	0	**0.144**
of Other Corporations	Research & Development	0.018	0.004	0.0002	0.053	0.005	0	0	0.007	0.012	0.001	0	**0.012**
	Mixed Income (Defra)	0	0	0	0	0	0	0	0	0	0	0	**0.001**
	Offshore Oil	0	0	0	0	0	0	0	0	0	0	0	**0.009**
	Onshore Oil	0	0	0	0	0	0	0	0	0	0	0	**0.0001**
	Wages & Salaries	0	0.368	0	0	0	0	0.014	0.088	0	0	0	**0.035**
Gross Trading Profits	Operating Surplus (ABS)	0	0	0	0	0	0	0	0	0	0	0	**0.001**
of Partnerships	Partnerships Income (HMRC)	0.011	0.014	0.009	0.141	0.041	0	0.001	0.057	0.063	0.018	0.003	**0.026**
	Mixed Income (Defra)	0	0	0	0	0	0	0	0	0	0	0	**0.001**
Rental Income	Commercial Rent	0.009	0.067	0.109	0.007	0.015	0	0.002	0.002	0.005	0.004	0	**0.026**
	Cross-border Income	0	0	0.002	0	0	0	0	0	0	0	0	**0.0003**
	Household Rent	0	0	0.760	0	0	0	0	0	0	0	0	**0.096**
Mixed Income	Operating Surplus (ABS)	0	0	0	0	0	0	0	0	0	0	0	**0.002**
	Sole Traders (HMRC)	0.023	0.001	0.003	0.074	0.066	0	0.008	0.051	0.124	0.134	0.063	**0.041**
	Mixed Income (Defra)	0	0	0	0	0	0	0	0	0	0	0	**0.001**
	Homegrown Drugs	0	0	0	0	0	0	0	0	0	0	0	**0.0003**
	Imported Drugs	0	0	0	0	0	0	0	0	0	0	0	**0.003**
	Prostitution	0	0	0	0	0	0	0	0	0	0.131	0	**0.003**
Holding Gains	Operating Surplus (ABS)	0.001	0	0.001	0.001	0.001	0	0.0002	0.0001	0.0003	0.0003	0	**0.003**
	Personal Holdings	0	0	0	0.0003	0	0	0	0	0	0	0	**0.0002**
	Offshore Holdings	0	0	0	0	0	0	0	0	0	0	0	**0.0004**
Gross Trading Surplus	Operating Surplus (ABS)	0	0	0.007	0	0	0	0	0	0	0.008	0	**0.001**
of Public Corporations	Public Sector Emp (BRES)	0.012	0	0	0.001	0.004	0	0.003	0.002	0.0001	0	0	**0.002**
	Central Bank	0	0.002	0	0	0	0	0	0	0	0	0	**0.0001**
Non-Market	Other NMCC	0	0.00004	0	0.002	0	0.086	0	0	0	0	0	**0.005**
Capital Consumption	Research & Development	0	0	0	0	0	0.006	0.077	0	0	0	0	**0.005**
	Civil Service	0	0	0	0	0	0.067	0	0	0	0	0	**0.003**
	Roads	0	0	0	0	0	0.026	0	0	0	0	0	**0.001**
	Ships	0	0	0	0	0	0.004	0	0	0	0	0	**0.0002**
	Aircraft	0	0	0	0	0	0.038	0	0	0	0	0	**0.002**
	Weapons	0	0	0	0	0	0.009	0	0	0	0	0	**0.0004**
	Other Military	0	0	0	0	0	0.020	0	0	0	0	0	**0.001**
	Hospitals	0	0	0	0	0	0	0	0.024	0	0	0	**0.002**
	Schools	0	0	0	0	0	0	0.011	0	0	0	0	**0.001**
	Universities	0	0	0	0	0	0	0.009	0	0	0	0	**0.001**
	Population	0.001	0	0	0	0	0	0	0	0.017	0.001	0	**0.0004**

2014 weights	Industry (SIC 2007)	J	K	L	M	N	O	P	Q	R	S	T	ALL
		58-63	64-66	68	69-75	77-82	84	85	86-88	90-93	94-96	97-98	
Components of GVA Income													
Taxes on Production	Motor Vehicle Duty (GB)	0.0001	0.0003	0.00002	0.001	0.002	0	0.00003	0.0001	0.0003	0.002	0	**0.0006**
	NI Driver & Vehicle Agency	0	0	0	0	0.0001	0	0	0	0	0	0	**0.000002**
	OFWAT	0	0	0	0	0	0	0	0	0	0	0	**0.00002**
	OFTEL	0	0	0	0	0	0	0	0	0	0	0	**0**
	Consumer Credit Act Fees	0	0.004	0	0	0	0	0	0	0	0	0	**0.0003**
	Construction Industry Training	0	0	0	0	0	0	0	0	0	0	0	**0.0001**
	Engineering Industry Training	0	0	0	0	0	0	0	0	0	0	0	**0.00001**
	Home Grown Cereals Authority	0	0	0	0	0	0	0	0	0	0	0	**0**
	Horticultural Development	0	0	0	0	0	0	0	0	0	0	0	**0**
	British Potato Council	0	0	0	0	0	0	0	0	0	0	0	**0**
	Meat and Livestock Commission	0	0	0	0	0	0	0	0	0	0	0	**0**
	Milk Development Council	0	0	0	0	0	0	0	0	0	0	0	**0**
	Office of the Rail Regulator	0	0	0	0	0	0	0	0	0	0	0	**0.00001**
	Sea Fish Industry Board	0	0	0	0	0	0	0	0	0	0	0	**0**
	Horserace Levy Board	0	0	0	0	0	0	0	0	0	0	0	**0**
	Financial Services Compensation	0	0.003	0	0	0	0	0	0	0	0	0	**0.0002**
	Emissions Trading Scheme	0	0	0	0	0	0	0	0.00001	0	0	0	**0.0003**
	Carbon Reduction Commitment	0.0004	0.0004	0.00003	0.002	0.0004	0	0.0004	0.00001	0.0002	0.0001	0	**0.0003**
	Bank Payroll Tax	0	0	0	0	0	0	0	0	0	0	0	**0**
	National Non-domestic Rates (GB)	0.011	0.015	0.003	0.015	0.012	0	0.003	0.003	0.025	0.010	0	**0.015**
	NI Non-domestic Rates	0.0004	0.00002	0.0001	0.0005	0.0004	0	0.0001	0.0001	0.001	0.0003	0	**0.0004**
	Crossrail Business Rate Supplement	0.0001	0.0001	0.00003	0.00005	0.0003	0	0.0002	0.0002	0.001	0.0001	0	**0.0001**
	OFGEM	0	0	0	0	0	0	0	0	0	0	0	**0**
Subsidies on Production	Agriculture (Defra)	0	0	0	0	0	0	0	0	0	0	0	**0.001**
	Housing Equity Injection	0	0	0.004	0	0	0	0	0	0	0	0	**0.0005**
	Housing Revenue Accounts	0	0	0.0003	0	0	0	0	0	0	0	0	**0.00004**
	INFRACOS	0	0	0	0	0	0	0	0	0	0	0	**0**
	London & Continental Railways	0	0	0	0	0	0	0	0	0	0	0	**0**
	Network Rail (Public)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Network Rail (Private)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Research & Development Tax Credits	0.004	0.0003	0	0.002	0.001	0	0	0.0001	0.001	0.0002	0	**0.001**
	Royal Mail Group	0	0	0.002	0	0	0	0	0	0	0	0	**0.0002**
Components of GVA Production													
Output less	Output - IC (ABS)	0.955	0.992	0.260	0.909	0.984	0	0.502	0.413	0.894	0.591	0	**0.708**
Intermediate Consumption	Government	0.015	0	0	0	0	0.945	0.423	0.579	0.099	0	0	**0.121**
	Armed Forces	0	0	0	0	0	0.025	0	0	0	0	0	**0.001**
	Sole Traders (HMRC)	0.003	0	0	0.075	0	0	0	0	0	0	0	**0.025**
	Research & Development	0.014	0.003	0.0001	0.010	0.003	0.030	0.069	0.005	0.007	0.001	0	**0.012**
	R&D Oil & Gas Extraction	0	0	0	0	0	0	0	0	0	0	0	**0.0001**
	Tobacco	0	0	0	0	0	0	0	0	0	0	0	**0.001**
	Public Corporations	0.013	0.002	0.012	0.006	0.014	0	0.007	0.003	0.001	0.002	0	**0.006**
	NPISH	0	0	0	0	0	0	0	0	0	0.275	0	**0.006**
	Central Bank	0	0.002	0	0	0	0	0	0	0	0	0	**0.0001**
	HM Treasury	0	0.001	0	0	0	0	0	0	0	0	0	**0.0001**
	Onshore Oil	0	0	0	0	0	0	0	0	0	0	0	**0.0001**
	Offshore Oil	0	0	0	0	0	0	0	0	0	0	0	**0.011**
	Imputed Rental	0	0	0.726	0	0	0	0	0	0	0	0	**0.092**
	Cross-border Income	0	0	0.002	0	0	0	0	0	0	0	0	**0.0003**
	Homegrown Drugs	0	0	0	0	0	0	0	0	0	0	0	**0.0003**
	Imported Drugs	0	0	0	0	0	0	0	0	0	0	0	**0.003**
	Prostitution	0	0	0	0	0	0	0	0	0	0.132	0	**0.003**
	Agriculture (Defra)	0	0	0	0	0	0	0	0	0	0	0	**0.006**
	Labour Force Survey	0	0	0	0	0	0	0	0	0	0	1.000	**0.004**

Annex B: ABC quality ratings assigned to components

Components of GVA Income		Quality		Components of GVA Income		Quality
Compensation	Earnings (ASHE)	cv		Taxes	Motor Vehicle Duty (GB)	A
of Employees	Employees (BRES)	cv		on Production	NI Driver & Vehicle Agency	A
	Employee costs (ABS)	cv			OFWAT	B
	Employee costs (Defra)	A			OFTEL	B
	Offshore Oil	A			Consumer Credit Act Fees	B
	Onshore Forces	B			Construction Industry Training	C
	Offshore Forces	B			Engineering Industry Training	C
	Embassies Staff	A			Home Grown Cereals Authority	A
	Labour Force Survey	B			Horticultural Development	A
					British Potato Council	A
Gross Trading Profits	Operating Surplus (ABS)	cv			Meat and Livestock Commission	A
of Other Corporations	Research & Development	A			Milk Development Council	A
	Mixed Income (Defra)	C			Office of the Rail Regulator	A
	Offshore Oil	B			Sea Fish Industry Board	A
	Onshore Oil	B			Horserace Levy Board	C
	Wages & Salaries	C			Financial Services Compensation	B
					Emissions Trading Scheme	A
Gross Trading Profits	Operating Surplus (ABS)	cv			Carbon Reduction Commitment	A
of Partnerships	Partnerships Income (HMRC)	B			Bank Payroll Tax	B
	Mixed Income (Defra)	A			National Non-domestic Rates (GB)	A
					NI Non-domestic Rates	A
Rental Income	Commercial Rent	C			Crossrail Business Rate Supplement	A
	Cross-border Income	B			OFGEM	B
	Household Rent	B				
				Subsidies	Agriculture (Defra)	A
Mixed Income	Operating Surplus (ABS)	cv		on Production	Housing Equity Injection	A
	Sole Traders (HMRC)	B			Housing Revenue Accounts	A
	Mixed Income (Defra)	A			INFRACOS	B
	Homegrown Drugs	C			London & Continental Railways	B
	Imported Drugs	C			Network Rail (Public)	B
	Prostitution	C			Network Rail (Private)	B
					Research & Development Tax Credits	A
Holding Gains	Operating Surplus (ABS)	cv			Royal Mail Group	B
	Personal Holdings	C				
	Offshore Holdings	B		**Components of GVA Production**		
Gross Trading Surplus	Operating Surplus (ABS)	cv		Output less	Output - IC (ABS)	cv
of Public Corporations	Public Sector Emp (BRES)	cv		Intermediate	Government	cv
	Central Bank	A		Consumption	Armed Forces	B
					Sole Traders (HMRC)	B
Non-Market	Other NMCC	C			Research & Development	A
Capital Consumption	Research & Development	A			R&D Oil & Gas Extraction	A
	Civil Service	A			Tobacco	cv
	Roads	A			Public Corporations	cv
	Ships	A			NPISH	C
	Aircraft	A			Central Bank	A
	Weapons	A			HM Treasury	C
	Other Military	B			Onshore Oil	B
	Hospitals	C			Offshore Oil	B
	Schools	B			Imputed Rental	B
	Universities	C			Cross-border Income	B
	Population	C			Homegrown Drugs	C
					Imported Drugs	C
					Prostitution	C
					Agriculture (Defra)	A
					Labour Force Survey	C