

# Information paper

## Quality and Methodology Information

### General details

Title of output:	Regional Gross Value Added (Production Approach)
Abbreviated title:	GVA
Designation:	National Statistics
Geographic coverage:	UK (NUTS)
Date of last SQR or QMI:	N/A
Contact details:	regionalaccounts@ons.gsi.gov.uk

### Executive summary

Regional Gross Value Added (GVA) is a legal requirement of the European Union (EU) statistical body, [Eurostat](#)<sup>1</sup>. Estimates are compiled in compliance with the European System of Accounts 2010 ([ESA10](#))<sup>2</sup> and are consistent with the standards set out in the United Nations System of National Accounts 1993 ([SNA93](#))<sup>3</sup>.

Regional GVA is the value generated by any unit engaged in the production of goods and services. It is measured at current basic prices, excluding taxes (less subsidies) on products. GVA plus taxes (less subsidies) on products is equivalent to Gross Domestic Product (GDP).

Regional GVA is measured by both the income and production approaches, this document relates to the production approach (regional GVA(P)). It is calculated as the total of all goods and services that are produced during the reference period (output), less goods and services used up or transformed in the production process (intermediate consumption).

There are two main types of output:

- output produced for the market (mainly by corporations). Market output is simply the total sales plus changes in inventories (as the amount produced, rather than sold, is what is required for GVA); and
- services that are not for market sale (mainly by government and non-profit institutions serving households (NPISH)). Non-market output is difficult to value as there is often no meaningful selling price. By convention, it is therefore valued as the sum of the costs of production.

Intermediate consumption is defined as all goods and services used up or transformed in a process of production. This includes raw materials, power and fuel, rental on buildings and business services such as advertising, recruitment consultancy and cleaning. It specifically excludes staff costs and capital investment.

Regional GVA(P) is produced using both current and constant prices. When looking at the economy over time, the main focus is often whether more goods and services are actually being produced now than at some time in the past. For example, how far the changes over time are 'real' and how far they are the result of inflation. Current prices combine the effects of changes in both prices and quantities and do not allow for different regional price levels or changes in prices over time and so include the effects of inflation. The production approach allows deflation of current price estimates, since the production components can be broken down into price and volume indices. The resulting regional constant price GVA(P) series removes the effects of inflation by deflating the current price values with price indices and can be used to show the 'real' change in the quantity or volume of goods. This is often referred to as 'real GVA'.

The regional GVA(P) estimates cover the UK as a whole and are broken down to Nomenclature of Units for Territorial Statistics ([NUTS](#))<sup>4</sup> regions. NUTS is a hierarchical classification of spatial units

that provides a breakdown of the European Union's territory for producing regional statistics which are comparable across the EU. Regional GVA(P) estimates are compiled at two levels of NUTS geography:

- NUTS1: 12 regions - Wales, Scotland, Northern Ireland and the nine English regions, can be collectively referred to as regions. There is a thirteenth region known as Extra-Regio which accounts for economic activity that cannot be assigned to any specific region. For UK regional GVA(P) this consists mainly of oil and gas extraction on the continental shelf and the activities of UK embassies and forces overseas; and
- NUTS2: 37 regions - mainly groups of counties and unitary authorities and can be referred to as sub-regions.

National totals are allocated to regions using the most appropriate available regional indicators. A regional indicator is a dataset which provides data for calculating regional proportions which in turn are used to allocate national totals. They can be acquired from administrative sources and structural surveys. The national totals are consistent with those in the latest published [UK National Accounts Blue Book](#)<sup>5</sup>.

Estimates are produced annually in December and are published on the ONS website in the form of a statistical bulletin. The GVA(P) Statistical bulletin can be downloaded free from the National Statistics website at 9.30am on the day of publication. These GVA(P) estimates are then delivered to [Eurostat](#)<sup>1</sup> at the end of December.

## Output quality

This document provides a range of information that describes the quality of the data and details any points that should be noted when using the output.

ONS has developed [Guidelines for Measuring Statistical Quality](#)<sup>6</sup>; these are based upon the five European Statistical System (ESS) Quality Dimensions. This document addresses these quality dimensions and other important quality characteristics, which are:

- Relevance;
- Timeliness and punctuality;
- Accuracy;
- Coherence and comparability;
- Output quality trade-offs;
- Assessment of user needs and perceptions; and
- Accessibility and clarity.

More information is provided about these quality dimensions in the sections below.

## About the output

### Relevance

(The degree to which the statistical outputs meet users' needs.)

The project to develop a measure of regional GVA using the production approach was initiated in response to the Review of Economic Statistics for Policymaking by Christopher Allsopp in 2003. One of the recommendations of the review was for the development and publication of regional GVA at constant prices, which involves deflating annual data that are produced at current prices.

Early work on the project concerned the development of appropriate methodology and the identification of suitable data sources for regional GVA(P). This stage of the project culminated in the publication of an article in 2007. The article discussed possible methods and concluded that the best option would be a hybrid approach involving several data sources and deflation methods, based upon their availability and suitability as measures for each industrial sector of the economy. The first experimental results were compiled in 2008, but initial results raised some issues of data quality. Subsequent improvements in the Annual Business Survey (ABS) have led to improved data quality in regional GVA(P).

More recently there has been renewed interest in the GVA(P) project because of the development of the new [\(ESA10\)<sup>2</sup>](#), which came into force in 2014. This includes the legal requirement for EU Member States to provide real measures of annual regional GVA growth to Eurostat by 2017. Such measures are provided by the use of current and constant price GVA(P) and their subsequent processing into a Chained Volume Measure (CVM).

ONS are required to provide estimates of UK regional constant price GVA(P) to [Eurostat<sup>1</sup>](#) by December 2017 in accordance with EC legislation.

Current price estimates are published for regional GVA(P) as a time series from 1998. An index of CVM (where CVM is presented as a proportion of a base year) time series is also published. Both time series are produced for NUTS1 and NUTS2 levels.

Both regional GVA estimates are published using the [Standard Industrial Classification 2007 \(SIC07\)<sup>7</sup>](#), in keeping with EU regulations. For both NUTS1 and NUTS2 levels, data are provided for 20 industries plus 13 manufacturing sub-sections.

The annual provision of regional and sub-regional GVA at NUTS2 level is an EU requirement. Regional GVA(P) estimates have also proved to be of interest to UK government, the devolved administrations of Northern Ireland, Scotland and Wales, and several government departments.

### **Meeting future needs**

A project to produce a balanced estimate of current price regional Gross Value Added using both the established estimates by the income approach and regional GVA(P) estimates is under way. This will take the different strengths of the two approaches to produce a single stronger estimate. This balanced current price estimate will then be used to produce constant price estimates and CVMs.

### **Reviews and changes**

Feedback from the first publication of experimental regional GVA(P) in December 2013 highlighted an issue with the constant price methodology. The regional real GVA data did not appear consistent with the national figures published. This inconsistency arose from the different methodologies used to produce the national and regional estimates.

National estimates are made using three approaches (income, output and expenditure) which are then balanced to form stable current price estimates. These balanced estimates are then deflated using expenditure deflators to give national real GDP figures. Regional GVA(P) current estimates are deflated using output deflators to produce regional real GVA. This results in the observed inconsistencies.

A different methodology was developed where regional GVA(P) constant price estimates were constrained to be consistent with the national figures. A short release [\(Regional Gross Value Added \(Production Approach\), Deflation Methodology for Regional GVA\(P\)\)<sup>9</sup>](#) was published in January 2014 with CVM indices produced using both methodologies. Feedback from users indicated that the new method was preferred by most, but there was demand for the former method. As a result the new methodology was adopted as the primary method, but the estimates using the former method would also be published. This resulted in a rerelease of the bulletin with new estimates and links to the previous estimates.

This approach was adopted for the second publication of the [Regional GVA\(P\) Statistical bulletin<sup>8</sup>](#) on December 2014.

## Main data sources

The primary input datasets for the compilation of regional GVA(P) are listed in the table below. The data are acquired from both internal (ONS) and external sources.

**Table 1: Summary of main data sources for indicators used in regional apportionment**

Data source	Nature of data	Uses
Annual Business Survey ( <a href="#">ABS</a> ) <sup>12</sup>	An ONS structural business survey, a sample survey of enterprises	Allocates output and intermediate consumption for bulk of the UK economy (80%)
Annual Survey of Hours and Earnings ( <a href="#">ASHE</a> ) <sup>10</sup>	An ONS workplace-based sample survey of wages and salaries	Used in conjunction with BRES data to allocate public expenditure (5% of UK economy)
Business Register and Employment Survey ( <a href="#">BRES</a> ) <sup>11</sup>	An ONS structural business survey, a sample survey of enterprises. Used to define regional public employment numbers	Used in conjunction with ASHE data to allocate public expenditure (5% of UK economy)
Agricultural Accounts from Department for Environment, Food and Rural Affairs ( <a href="#">Defra</a> ) <sup>13</sup>	Structural business survey of the agricultural sector, a sample survey	Used to output and intermediate consumption for part of agricultural sector (crops and livestock) (1% of UK economy)
Self-Assessment (Pay As You Earn and Self Assessment), Her Majesty's Revenue and Customs ( <a href="#">HMRC</a> ) <sup>14</sup>	Administrative data provided by HMRC, the national tax authority. Derived from self-assessment tax returns completed by self-employed sole traders	This forms an indicator which is used to apportion gross value added for sole traders (1% of UK economy)
Regional Gross Value Added (income approach) <a href="#">GVA(I)</a> <sup>15</sup>	ONS estimates of regional gross value added by the income approach	Allocates GVA for household and finance sectors (13% of UK economy)

### Timeliness and punctuality

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.)

ONS currently publishes estimates of regional GVA(P) at NUTS1 and NUTS2 levels annually in December. All estimates are constrained to the latest published [UK National Accounts Blue Book](#)<sup>5</sup>.

At NUTS1 and NUTS2 levels, estimates of 20 industry sections (plus 13 manufacturing sub-sections) are published 24 months after the end of the reference period. Estimates are available from 1998.

The availability of key datasets in the production process is a factor in the publication timetable. For example, HMRC self assessment data become available at the end of October. The availability of balanced Blue Book UK totals dictates the provision of industrial estimates published 24 months after the reference period. Regional GVA(P) estimates have not missed publication deadlines because of data unavailability or any other factors.

For more details on related releases, the [UK Government Statistics Release Calendar](#)<sup>16</sup> is available online and provides 12 months' advance notice of release dates. In the unlikely event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the [Code of Practice for Official Statistics](#)<sup>17</sup>.

## How the output is created

The production of regional NUTS2 Real Gross Value Added is a legal requirement of [Eurostat](#)<sup>1</sup>.

A detailed description of the methodology used to compile Regional GVA estimates can be found in the [Regional Accounts Methodology Guide](#)<sup>18</sup>.

Regional GVA estimates are produced at current basic prices and measured using the production approach.

The components of production based GVA are:

- output; and
- intermediate consumption.

GVA is then calculated as output less intermediate consumption.

The UK Regional GVA estimates are constrained to the latest published published [UK National Accounts Blue Book](#)<sup>5</sup> totals. The Blue Book is the annual publication of United Kingdom National Accounts by ONS.

Data sources used as regional indicators are collated, analysed and validated. Outliers are identified using graphical analysis and quality adjustments are assigned where necessary. Where appropriate, any queries are referred back to the suppliers. The resulting validated datasets are then included in the Statistical Analysis System (SAS) output production system.

The final datasets are fed directly into the output production system following analysis and validation. The production system then creates the regional GVA estimates (including published variables and components). It is intended that in future these will be submitted to established peer reviewers for feedback, prior to the publication phase. Any changes resulting from this feedback would then be implemented via further production runs.

The process can be described in three stages: Data collection; Analysis and quality assurance; and Publication.

### Data collection

- Request data from both internal and external sources.
- Data received.
- Liaise with suppliers and query anomalies.

### Analysis and quality assurance

#### Format data for analysis and validation

- Different data sources are given a standard format for importing into the analysis system.

#### Create/refine analysis tools

- Calculate growth rates, industrial and regional shares, proportions and indices.
- Create checks (if datasets are UK total check data is consistent with latest published [UK National Accounts Blue Book](#)<sup>5</sup>).
- Reformat data for uploading to SAS.
- Create latest data estimates if necessary.

### Validation

- Data examined for inconsistencies and for unexpected changes over time, such changes queried with supplier.
- Impute missing and suppressed data.
- Make adjustments based on time series graphs.

### Analysis

- Analysis of data as a time series.
  - Compare variables against previous years' data.
-

- Use data to identify 'drivers'; these can be further investigated to provide background to any significant changes to overall data.
- Identify further anomalies, work back through the calculations to further investigate data that do not make sense.
- Analysis checked by the rest of the team.

### **Cyclical movement of data**

- After a dataset is formatted, initial validation, tool creation and analysis is conducted. Data are then quality checked by all production team and any further validation, refinement of analysis tools or analysis are carried out. The cyclical process repeats until issues are resolved.

### **Data output calculation**

- All input datasets are entered into SAS which calculates the output data.
- Continuous QA by all production staff.

### **Sign off output calculation**

- Meet with Deputy Director and agree sign off.

### **Publication Statistical bulletin**

- Text is created, checked and finalised.
- Charts (online charts and Excel downloads) and presentation tables are created and checked.
- Produce a .pdf version for pre-release recipients.
- Draft statistical bulletin which is checked then published on the ONS website.

### **Reference tables**

- Data are transferred from SAS to MS Excel. Tables are checked and formatted and published on the ONS website.

### **Eurostat transmission**

- Format data for transmission via MS Excel.

### **Regional GVA production process National totals**

National aggregates (national control totals) for components are allocated to NUTS1 and NUTS2 regions using appropriate regional indicators. The control totals are consistent with those in the latest published [UK National Accounts Blue Book](#)<sup>5</sup>. Control totals for public expenditure and for sole traders are also supplied and treated separately from the rest of economy. These control totals are supplied to Regional Accounts branch by National Accounts branches in ONS. Industry totals are obtained from [UK Supply and Use Tables](#)<sup>19</sup> (except for the latest unbalanced years). These estimates are then revised in the following year's publication.

The national aggregates are split and re-allocated to regions using the most appropriate regional indicator available.

### **Validation and quality assurance**

#### **Accuracy**

(The degree of closeness between an estimate and the true value.)

All regional GVA(P) estimates are constrained to the published [UK National Accounts Blue Book](#)<sup>5</sup> totals. Below the UK level, NUTS1 to NUTS2 estimates are constrained to sum to the UK totals.

As mentioned in the How the output is created section, national totals for GVA(P) components (consistent with the latest Blue Book publication) are collated and allocated to regions using the most appropriate regional indicators. Consistency checks are built into the processing system to ensure that regional aggregates tally with national totals.

The key regional indicators are acquired from published administrative data and structural business surveys. These data are subject to a rigorous validation process including a mechanism for referral back to data suppliers where appropriate.

Sample sizes can vary. These variations are unavoidable in the collation of reliable time series data for the calculation of GVA(P). Improvements in the GVA(P) methodology or changes in administrative source data allow for reviewing the available sources for higher quality datasets or more timely publications. This is an ad hoc and continuous process which does not include major revisions to the methodology of GVA(P).

The vast majority of source data are updated annually, but some datasets are published biennially or on an ad hoc basis. These missing values are imputed as stated in the validation process (see previous page). As with sample size, potential improvements to the methodology are reviewed whenever new data become available or when significant changes to the source data affect the final values. Where no recent estimate is available, the previous year's data may be used. It is important to note, however, that these issues are rare because of the completeness of the main source data.

### **The review process**

Input datasets are compared to the data received in previous year's deliveries. Large fluctuations against previous years are investigated. Following investigation, any anomalous data that remain unexplained are followed up where appropriate with the relevant data providers for clarification.

The Regional Accounts team then makes adjustments to the source datasets where necessary.

Outputs for publication are subject to rigorous scrutiny, including looking at growth and shares, graphical depictions and comparisons with previous data. Resulting anomalies are investigated and rectified where necessary. Feedback from this process is documented on the Regional Accounts database and any actions implemented within the results.

The Regional Accounts team has links with an established peer reviewer network, the regional GVA(P) project intend to consult this network from 2015. The network includes the devolved administrations of Northern Ireland, Scotland and Wales, BIS, the ONS London regional presence stationed at the Greater London Authority (GLA) and the ONS regional economist. Regular dialogue has resulted in significant refinements to the peer review process. Regional intelligence will be shared and we will keep peer reviewers informed of any significant developments.

A Regional Accounts Government User Group (RAGUG) has been established and met for the first time on 24th June 2014. This group consists of experts from devolved administrations and government departments and the regional accounts production team. Its remit is to review the work of regional accounts production (including GVA(P)) and to offer advice and criticism on our work and on future developments and improvements.

### **Revisions**

The complex process by which the GVA estimates are produced means that it is not currently possible to define the accuracy of the estimates in terms of detailed statistical properties, for example through their standard errors. Therefore, the reliability of the estimates is measured by the extent of revisions. UK estimates will be affected by revisions to the published [UK National Accounts Blue Book](#)<sup>5</sup> control totals, while revisions to NUTS1 and lower level estimates will come from revisions to the data used to apportion the UK GVA(P) estimates and revisions to the Blue Book.

The regional accounts revisions policy mirrors that of published [UK National Accounts Blue Book](#)<sup>5</sup> where national totals are subject to revision in 'open' years. The whole time series is open to revisions from the Blue Book. In addition, revisions to the regional indicator datasets will impact upon the regional GVA estimates.

It is important to note that there are other aspects of accuracy, which revisions analysis cannot attempt to measure. A value can be reliable (as in not revised) without being accurate.

## Coherence and comparability

(Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain for example, geographic level.)

### Coherence

Estimates of approximate GVA are also published as part of the [ABS](#)<sup>12</sup> release. These estimates are used in the production of annual [Supply and Use Tables](#)<sup>19</sup> for the compilation of the UK GDP. The ABS GVA estimates differ from the UK Regional Accounts estimates in a number of ways:

- Regional Accounts GVA estimates are constrained to National Accounts Blue Book totals;
- Regional Accounts GVA estimates are analysed and produced as a time series; and
- ABS estimates represent the UK business economy, which is around two thirds of the UK economy but excludes agriculture, public sector and financial sector.

### Comparability

The production of regional GVA is a legal requirement under the European System of Accounts. Currently this is fulfilled by the outputs of the regional GVA(I) system which is an accredited National Statistic. Regional GVA(P) is currently an experimental statistic. Although conceptually identical, the different methods and data sources used in the two measures inevitably result in differences between the regional GVA(I) and regional GVA(P) estimates.

Gross Value Added (Income Approach) estimates published in December 2014 are available on a consistent basis at all NUTS levels back to 1997 on a [SIC 2007](#)<sup>7</sup> basis.

A comparison of the regional GVA(I) and regional GVA(P) current price estimates was made and published in the Statistical bulletin [Regional Gross Value Added \(Production Approach\)](#)<sup>8</sup>. This comparison allows users to see where the scale of any differences between estimates across industries and regions, and to provide advice on the appropriate use of the experimental statistics. It demonstrated that estimates made by the two approaches were similar.

The Scottish Government (SG) produces an index of CVM of Scottish GDP in basic prices (equivalent to GVA), which is a National Statistic using methods and sources consistent with the ONS GDP statistics for the UK ([Scottish National Accounts Project \(SNAP\)](#))<sup>22</sup>. The SG estimate provides the best estimate of total Scottish GVA/GDP.

[Northern Ireland Executive Programme for Government](#)<sup>23</sup>, the [Northern Ireland Executive Economic Strategy](#)<sup>24</sup> and the [Welsh Government's Programme for Government](#)<sup>25</sup> also produce National Statistics on their respective economies at constant prices. As for Scotland these should be taken as the definitive estimates in preference to the experimental regional GVA(P) estimates.

## Concepts and definitions

(Concepts and definitions describe the legislation governing the output, and a description of the classifications used in the output.)

Regional GVA is a legal requirement under EU law and supplied to [Eurostat](#)<sup>1</sup> consistent with the standards set out in the [\(ESA10\)](#)<sup>2</sup>.

On December 2013, Regional GVA(P) estimates were published using [SIC 2007](#)<sup>7</sup>, in keeping with EU regulations.

The regional GVA(P) estimates cover the UK as a whole and are broken down to [NUTS](#)<sup>4</sup> regions. NUTS is a hierarchical classification of spatial units that provides a breakdown of the European Union's territory for producing regional statistics which are comparable across the Union. Regional GVA(P) estimates are compiled at two levels of NUTS.

Geography:

- NUTS1: 12 regions - Wales, Scotland, Northern Ireland and the nine English regions, can be collectively referred to as regions. There is a thirteenth region known as Extra-Regio which accounts for economic activity that cannot be assigned to any specific region. For the UK this consists mainly of oil and gas extraction on the continental shelf and the activities of UK embassies and forces overseas; and



- NUTS2: 37 regions - mainly groups of counties and unitary authorities; can be referred to as sub-regions.

## Other information

### Output quality trade-offs

(Trade-offs is the extent to which different dimensions of quality are balanced against each other.)

Regional GVA(P) results are published 24 months after the reference period. The time lag between publication and the period to which the data refer is the minimum required to produce estimates of a high enough quality to meet all user needs. These results are revised when improved data become available.

Further information on release dates can be found in the Timeliness and punctuality section of this paper.

### Assessment of user needs and perceptions

(The processes for finding out about uses and users, and their views on the statistical products.)

In July 2011, the UK Regional Accounts team met with [Eurostat](#)<sup>1</sup> as part of a quality initiative aimed at encouraging harmonisation of compilation methods for regional statistics. Eurostat raised various issues which were discussed in detail for example: the compilation of imputed rent estimates; the composition of UK gross fixed capital consumption; derogation requests; and the ongoing arrangement for transmission of regional accounts data to Eurostat. During the meeting Regional Accounts agreed to provide population data directly to Eurostat for use in their estimates of GDP per capita. Regional Accounts have participated in a Eurostat Task Force of Member States to develop a regional accounts methodology manual, which is now complete and published. The team has frequent dialogue with Eurostat.

The Regional Accounts team has developed links with the devolved administrations of Northern Ireland, Scotland and Wales, the ONS London regional presence stationed at the GLA, and an ONS economist. As previously mentioned, these are the key domestic users of the regional GVA statistics. Regional Accounts generally meet these users on an annual basis to share views on methodology and ongoing developments.

For more information on the use of Regional GVA outputs and the peer review process, please refer to the How the output is created section.

In 2014, Regional Accounts introduced RAGUG which replaced the Technical Advisory Group that was in place to advise on the regional GVA(P) project. The intention for the group is to meet biannually and discuss data, methods and user needs.

## Sources for further information or advice

### Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice).

The [GVA\(P\) Statistical bulletin](#)<sup>8</sup> datasets are available for download after 9.30am on the day of publication

The [GVA\(I\) Statistical bulletin](#)<sup>15</sup> and [Time Series](#)<sup>20</sup> datasets are available for download after 9.30 a.m. on the day of publication.

[UK Government policy on pre-release](#)<sup>21</sup> of data allows a list of agreed officials to have access to data 24 hours before publication.

The [Regional GVA\(P\) Statistical bulletin](#)<sup>8</sup> conforms to the standards set out in the [Code of Practice for Official Statistics](#)<sup>17</sup> for the protocol on release practices.

For queries on the regional GVA(P) series, compilation methods, quality information or if you are experiencing difficulties in finding the latest figures, contact the Regional Accounts team by e-mail: regionalaccounts@ons.gov.uk or by telephone on 01633 456878.

ONS's recommended format for accessible content is a combination of HTML webpages for narrative, charts and graphs, with data being provided in usable formats such as CSV and MS

Excel files. The ONS website also offers users the option to download the narrative in PDF format. In some instances other software may be used, or may be available on request. Available formats for content published on the ONS website but not produced by the ONS, or referenced on the ONS website but stored elsewhere, may vary. For further information please refer to the contact details at the beginning of this document.

For information regarding conditions of access to data, please refer to the links below:

- [Terms and conditions \(for data on the website\)](#)<sup>26</sup>;
- [Copyright and reuse of published data](#)<sup>27</sup>;
- [Pre-release access \(including conditions of access\)](#)<sup>28</sup>; and
- [Accessibility](#)<sup>29</sup>.

In addition to this Quality and Methodology Information, Basic Quality Information relevant to the regional GVA(P) publication can be found in the background notes of the [Regional GVA\(P\) Statistical bulletin](#)<sup>8</sup>.

## References

	Reference	Website location
1	Eurostat	<a href="http://ec.europa.eu/eurostat">http://ec.europa.eu/eurostat</a>
2	European System of Accounts 2010 (ESA10)	<a href="http://ec.europa.eu/eurostat/web/esa-2010/overview">http://ec.europa.eu/eurostat/web/esa-2010/overview</a>
3	United Nations: Introduction to the System of National Accounts, 1993 (SNA93)	<a href="http://unstats.un.org/unsd/nationalaccount/sna.asp">http://unstats.un.org/unsd/nationalaccount/sna.asp</a>
4	Nomenclature of Units for Territorial Statistics (NUTS)	<a href="http://ec.europa.eu/eurostat/web/nuts/overview">http://ec.europa.eu/eurostat/web/nuts/overview</a>
5	UK National Accounts Blue Book	<a href="http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/the-blue-book--2014-edition/index.html">http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/the-blue-book--2014-edition/index.html</a>
6	Guidelines for Measuring Statistical Quality	<a href="http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guidelines-for-measuring-statistical-quality/index.html">http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guidelines-for-measuring-statistical-quality/index.html</a>
7	Standard Industrial Classification (SIC 2007)	<a href="http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html">http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html</a>
8	Regional GVA (Production Approach)	<a href="http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--production-approach-/december-2014/stb-regional-gva-p--december-2014.html">http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--production-approach-/december-2014/stb-regional-gva-p--december-2014.html</a>
9	Regional Gross Value Added (Production Approach), Deflation Methodology for Regional GVA(P)	<a href="http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--production-approach-/deflation-methodology-for-regional-gva-p-/index.html">http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--production-approach-/deflation-methodology-for-regional-gva-p-/index.html</a>
10	Annual Survey of Hours and Earnings (ASHE)	<a href="http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/annual-survey-of-hours-and-earnings/index.html">http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/annual-survey-of-hours-and-earnings/index.html</a>
11	Business Register and Employment Survey (BRES)	<a href="http://www.ons.gov.uk/ons/guide-method/surveys/respondents/business/a-z-of-business-surveys/business-register-and-employment-survey/index.html">http://www.ons.gov.uk/ons/guide-method/surveys/respondents/business/a-z-of-business-surveys/business-register-and-employment-survey/index.html</a>
12	Annual Business Survey (ABS)	<a href="http://www.ons.gov.uk/ons/about-ons/get-involved/taking-part-in-a-survey/information-for-businesses/a-to-z-of-business-surveys/annual-business-survey/index.html">http://www.ons.gov.uk/ons/about-ons/get-involved/taking-part-in-a-survey/information-for-businesses/a-to-z-of-business-surveys/annual-business-survey/index.html</a>
13	Defra, UK aggregate agricultural accounts	<a href="https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts">https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts</a>
14	HMRC Statistics (Pay As You Earn and Self-Assessment)	<a href="http://www.hmrc.gov.uk/statistics/industry.htm">http://www.hmrc.gov.uk/statistics/industry.htm</a>

15	Regional GVA(I) Statistical bulletin	<a href="http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach-/december-2014/stb-regional-gva-dec-2014.html">http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach-/december-2014/stb-regional-gva-dec-2014.html</a>
16	UK Government Statistics Release Calendar	<a href="https://www.gov.uk/government/statistics/announcements">https://www.gov.uk/government/statistics/announcements</a>
17	Code of Practice for Official Statistics	<a href="http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html">http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html</a>
18	Regional Accounts Methodology guide	<a href="http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/regional-accounts/regional-accounts-methodology-guide.pdf">http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/regional-accounts/regional-accounts-methodology-guide.pdf</a>
19	Supply and Use Tables	<a href="http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/a-guide-to-supply-and-use-process/index.html">http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/a-guide-to-supply-and-use-process/index.html</a>
20	Regional GVA(I) Time Series	<a href="http://www.ons.gov.uk/ons/datasets-and-tables/data-selector.html?dataset=ragv">http://www.ons.gov.uk/ons/datasets-and-tables/data-selector.html?dataset=ragv</a>
21	UK Government Pre Release Access	<a href="http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/pre-release-access/index.html">http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/pre-release-access/index.html</a>
22	Scottish National Accounts Project (SNAP)	<a href="http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/snap">http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/snap</a>
23	Northern Ireland Executive Programme for Government	<a href="http://www.northernireland.gov.uk/pfg">http://www.northernireland.gov.uk/pfg</a>
24	Northern Ireland Executive Economic Strategy	<a href="http://www.northernireland.gov.uk/economic-strategy">http://www.northernireland.gov.uk/economic-strategy</a>
25	Welsh Government's Programme for Government	<a href="http://wales.gov.uk/about/programmeforgov/?lang=en">http://wales.gov.uk/about/programmeforgov/?lang=en</a>
26	Terms and conditions (for data on the ONS website)	<a href="http://www.ons.gov.uk/ons/site-information/information/terms-and-conditions/index.html">http://www.ons.gov.uk/ons/site-information/information/terms-and-conditions/index.html</a>
27	Copyright and reuse of published ONS data	<a href="http://www.ons.gov.uk/ons/site-information/information/creative-commons-license/index.html">http://www.ons.gov.uk/ons/site-information/information/creative-commons-license/index.html</a>
28	Pre-release access (including conditions of access)	<a href="http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/pre-release-access/index.html">http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/pre-release-access/index.html</a>
29	Accessibility	<a href="http://www.ons.gov.uk/ons/site-information/information/accessibility/index.html">http://www.ons.gov.uk/ons/site-information/information/accessibility/index.html</a>