

# Background Quality Report: Defence Economics Trade Statistics

## Section 1: Introduction

### 1.1 Overview of the Statistical Output

The Trade Section of UK Defence Statistics (UKDS) 2012 previously included the estimated value of export orders of Defence equipment and services and payments made for services consumed by MOD establishments overseas (referred to as Balance of Payments for Trade in Services or BoP). From 2013 these tables have been incorporated into a new Finance and Economics Bulletin called "Trade, Industry & Contracts". This bulletin is an amalgamation of 3 Sections from the old UK Defence Statistics and is aimed to be published in late August each year.

The MOD's Balance of Payments (BoP) statistics support the ONS estimate of the value of the UK's BoP, which is a measure of the UK's trading account with the rest of the world, one of the UK's key economic statistical series.

From 2015 the Trade, Industry & Contracts bulletin comprises a pdf document, which focuses on commentary and data visualisations, supported by separate excel tables where the data supporting the visualisations and the time series can be found.

#### History

The statistics contained in the Trade section of Defence Economics Finance & Economics annual bulletin: "Trade, Industry & Contracts" have been produced for over 30 years. Until 2009, this family of statistics included additional tables on Defence Import and Export deliveries but due to data quality problems and resource constraints we now publish only two tables: estimates of identified export orders of Defence equipment & services; and MOD estimated Balance of Payments for Trade in Services. Further information outlining the rationale for the cessation of import and export delivery statistics was published on the Defence Statistics website and can be found on Page 29 at [this link](#).

From 1<sup>st</sup> April 2013 the Directorate formerly known as DASA was split into two one-star analytical business areas within the Head Office Strategy Directorate – Defence Economics and Defence Statistics. Trade statistics are published by Defence Economics and are referred to as such in this document. Current and historical publications are stored on the GOV.UK website and are updated regularly by the Directorate of Defence Communications. Links to current and historic publications are contained within publications and are signposted on the GOV.UK website.

The ONS publish UK estimates of Government Trade in Services as part of the National Statistics product "The Pink Book" and on a quarterly basis as a Statistical First Release. Production of these statistics are a statutory requirement covered by [EU statistical legislation](#). The ONS have confirmed that if Defence Economics were to cease production of these figures, they would lack a significant element of the Government Services total and would necessarily have to produce alternative estimates for the MOD's contribution. This could have a major impact upon the quality of the National Statistics contained in "The Pink Book".

The 2 trade statistics tables we produce are badged as Official Statistics.

### **Strengths and Weaknesses**

Strengths of these statistics are that they are clear and include commentary and links to related publications, including extensive documentation relating to methods and data employed. Balance of Payments statistics also fully comply with the [ONS's Pink Book](#) definitions.

Weaknesses are that there are some quality issues with the underlying data. Additionally, the export statistics are only a snapshot of orders at the end of the year which may not truly reflect the value of exports that are actually delivered (see [Accuracy](#) section for further details).

### **Improvements**

UK Trade & Industry (UKTI) now have their Export Order estimates published as Official Statistics, which have been quality assured by Statisticians within the Department for Business, Innovation & Skills. It is the high levels numbers from the UKTI publication that are used in the Defence Economics Bulletin.

The Trade, Industry & Contracts bulletin has been restructured to include more commentary and visualisations to support the user's understanding of the statistics. This improvement has been applied to both of the Trade tables.

### **Latest Publications**

1. [Finance & Economics Bulletin: Trade, Industry & Contracts - 2016](#)
2. [Defence Statistics Bulletin No 8](#) – Challenges and issues with Defence Export statistics
3. [Defence Statistics Bulletin No.11](#) – Methods & Data Sources relating to MOD Balance of Payments Statistics
4. [2004 National Statistics Quality Review](#) (NSQR) – Part 3 which covers Balance of Payments & Trade Statistics
5. [Defence Statistics Bulletin No 4](#) – Balance of Payments method prior to 2004 NSQR
6. [Annual Report for Strategic Export Control](#)
7. [The Pink Book](#) - Detailed annual estimates of the UK balance of payments, including estimates for the current account (trade in goods and services, income and current transfers), the capital account, the financial account and the International Investment Position.
8. [Export orders 2015](#) announcing the latest Defence and Security export statistics
9. [Methodology used in producing the Defence and Security export statistics - 2015](#)

## **1.2 Producer Information**

These statistics are produced by the Defence Expenditure Analysis branch within the Defence Economics Division of the Ministry of Defence (MOD). The responsible statistician for these statistics can be contacted by emailing [DefStrat-Econ-ESES-DEA-Hd@mod.uk](mailto:DefStrat-Econ-ESES-DEA-Hd@mod.uk)

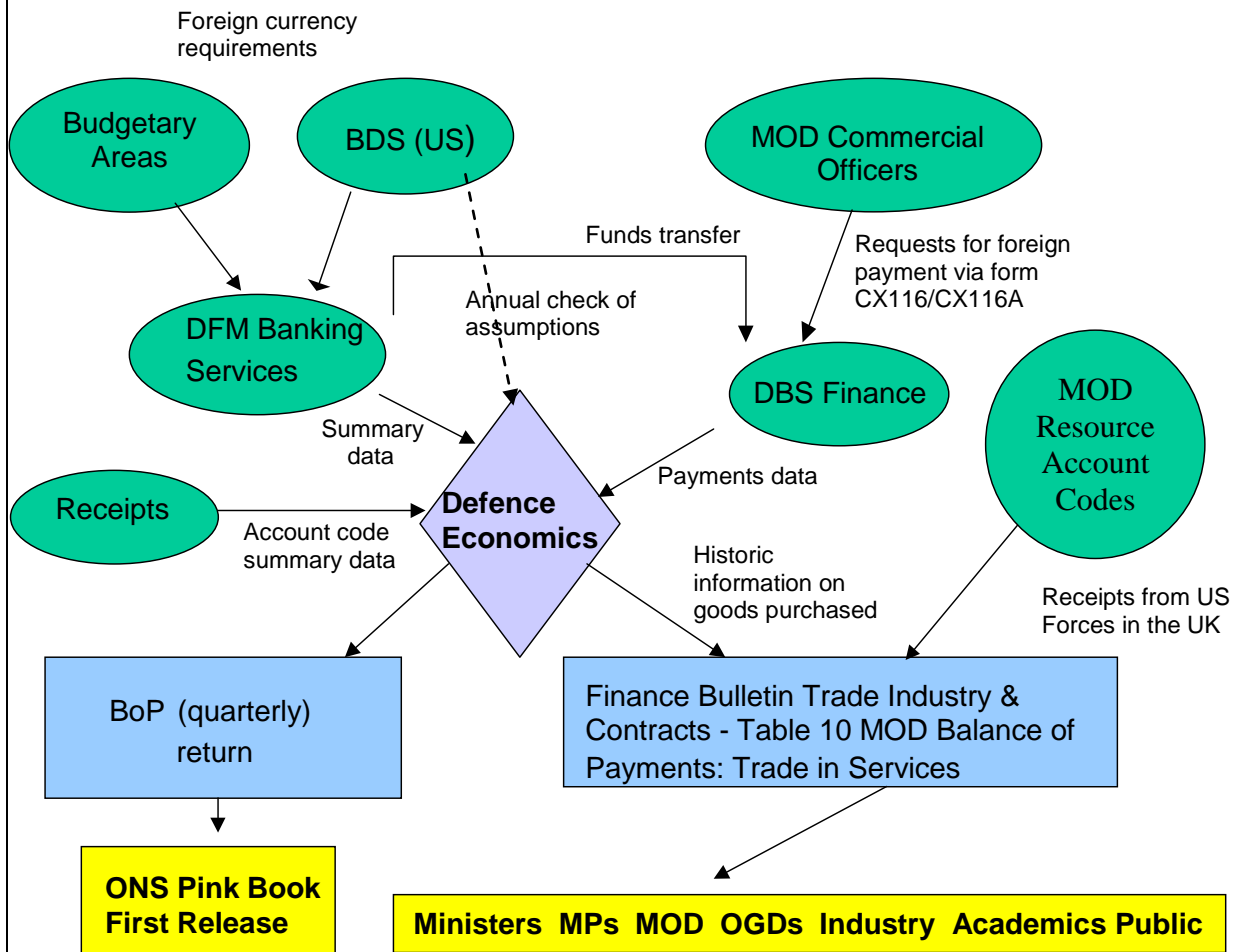
Further details about how to contact Defence Economics and Defence Statistics can be found [here](#).

### 1.3 Summary of Method and Processes used to Compile Outputs

UK Trade and Industry (UKTI) Defence and Security Organisation provide the data on export orders which they gather through a survey of defence suppliers and which they publish in annual UK Defence & Security Export Statistics. Data is then aggregated and input directly into Finance & Economics Bulletin: Trade Industry & Contracts - Table 9.

The following diagram shows the data flows for production of Balance of Payments statistics.

Further detail about the production of these statistics can be found in Defence Statistics Bulletin Nos. [4](#), [8](#) and [11](#).



### 1.4: Other Documentation

- [Defence Statistics Pre-Release Access lists](#)
- [Defence Statistics confidentiality policy](#)
- [Defence Statistics revisions and corrections policy](#)
- [Statement on Quality guidelines](#)
- [Disclosure Control and Rounding policy](#)
- [User Engagement Policy](#)
- [Statement of Administrative Data Sources](#)

## Section 2: Quality Dimensions

**2.1 Relevance:** The degree to which the statistical product and underlying data meet user needs for both coverage and content.

The Balance of Payments information supports the ONS estimate of the value of the UK's trading account with the rest of the world for the provision of Government services between UK residents and non-residents, and transactions in goods not freighted out of the country in which the transaction takes place. Defence Economics figures for MOD imports and exports of Trade in Services contribute a significant percentage of the Government Services total. The ONS are required to produce UK estimates of Government Trade in Services as part of the National Statistics product "The Pink Book" and the Balance of Payments data has to be provided to EUROSTAT under EU regulations. The ONS have confirmed that if Defence Economics were to cease production of these figures, the ONS would lack a significant element of the Government Services total and would necessarily have to produce alternative estimates for the MOD's contribution. This could have a major impact upon the quality of the National Statistics contained in "The Pink Book".

Export orders information is used by secretariat staff to answer Parliamentary Questions (PQ) and Freedom of Information (FOI) requests, and to produce briefings. Supplier level data is no longer provided to Defence Economics on the grounds of Commercial sensitivity. We receive a small number of PQs and FOIs on the value of export orders to particular countries, which we would normally refer to UK Trade & Industry.

### Unmet User Needs

We have had requests to reinstate the production of import and export deliveries statistics. This would require changes to HMRC systems and would involve large resource costs.

**2.2 Accuracy:** The closeness between an estimated result and the (unknown) true value, and the accuracy of the raw data.

There are a number of issues with the accuracy of the defence export orders statistics.

- Export orders can be subsequently cancelled, prolonged or changed after the initial order is placed and therefore will differ from actual export deliveries. Data on export deliveries is no longer available due to data quality problems and resource constraints.
- There are problems with differentiating between dual use (equipment which could be used for civilian as well as military purposes) and single use export orders, particularly relating to aircraft.
- The data on export orders is provided by UKTI from their survey of known Defence contractors. We are unable to assess the coverage or quality of this survey, although from 2013 the data was published following input and assessment by BIS statisticians.

Further discussion of data quality issues relating to exports data can be found in Defence Statistics Bulletin No. [8](#).

The issues surrounding data quality issues for BoP data can be found in Defence Statistics Bulletin Nos. [4](#) and [11](#). These are summarised below.

- There are problems mapping MOD administrative data to ONS definitions.
- There are time lags between the authorised foreign currency expenditure figures and when the expenditure is reported as a bill payment.
- It can be difficult to determine the destination of the currency from the currency unit, although some improvements in data sources have been seen since 2012.

### Revisions

Corrections to Finance & Economics Bulletin - Trade Industry & Contracts tables are signposted online and accompanied by notes to the tables or a full Defence Statistics Bulletin. We follow the [Defence Statistics Revisions Policy](#).

**2.3 Timeliness and Punctuality:** Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.

We provide Balance of Payments data to the ONS to meet their requirements and timescales. These in turn are determined by EUROSTAT publication cycles.

The publication date for Finance & Economics Bulletin: Trade Industry & Contracts is determined by the availability of data and is finalised 28 days before the publication date. The trade tables are published approximately 8 months after the end of the calendar year that the data relates to.

All recent releases of these tables have been punctual.

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

Defence Economics publish this data through Finance & Economics Bulletin: Trade Industry & Contracts, which is freely available on the GOV.UK website. The data in the 2016 Trade, Industry & Contracts Bulletin can be downloaded in several formats (e.g. Excel and PDF) with the pdf providing commentary and visualisations to support the excel tables. There are also links to relevant Defence Statistics Bulletins. Three Defence Statistics Bulletins relate to these statistics (see latest publications in section 1.1), and these are also available via the GOV.UK website.

The level of detail for Balance of Payments is a National Accounts requirement. Export orders are presented so that the data is clear and not commercially disclosive. A new addition since 2011 is a chart showing export orders by equipment type, and in 2015 a chart showing the UK position as a world exporter during the last 10 years and a pie chart showing the destination of UK export orders by region were also added.

We have received no feedback relating to accessibility and clarity. If you have feedback please [contact us](#).

**2.5 Coherence and Comparability:** Coherence is the degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar.

Comparability refers to the degree to which data can be compared over time and domain.

Balance of Payments data meets the requirements and definitions set out in the Pink Book and conform to EU Statistical legislation. They are therefore coherent with the National Accounts.

Due to improvements in the methodology used to identify receipts data there is a break in the Balance of Payments time series between 2002 and 2003. Further improvements to the quality, and location, of foreign currency expenditure has led to a further break in this time series between 2010 and 2011. Between 2013 and 2014 a further break in series has been caused by a re-categorisation of the expenditure recorded in one of the receipts Resource Account Codes (RAC) so that the receipts from US forces based in the UK are now more accurately recorded.

**2.6 Trade-offs between Output Quality Components:** Output quality components are not mutually exclusive in the sense that there are relationships between the factors that contribute to them. There are cases where the factors contributing to improvements with respect to one component lead to deterioration with respect to another.

There are no trade-offs in the production of these statistics.

**2.7 Assessment of User Needs and Perceptions:** Users are provided with products and services that meet their needs. The articulated and non-articulated needs, demands and expectations of external and internal users should guide the department.

A Service Level Agreement (SLA) with the ONS BoP team exists which sets out the standards required for the Balance of Payments Quarterly returns. Meetings are held on a regular basis to review the SLA and to discuss matters of mutual interest.

Users are encouraged to provide feedback on Statistical Bulletins. The further information page contained within each bulletin provides details on how to contact the responsible statistician and there is also the opportunity to do so through the feedback pages on the GOV.UK website. Users can be informed of the latest changes to statistics through the GOV.UK website and through consultation exercises where significant change is proposed.

More informally, we monitor the requests for information that we receive from within the MOD and from outside, and respond accordingly.

Our current assumptions about users and uses of these statistics are contained in [Section 2.1 - Relevance](#). If you use these statistics in another way please [contact us](#).

**2.8 Performance, Cost and Respondent Burden:** Resources must be effectively used. The desired outcome must be produced cost effectively. Respondent burden should be proportional to the needs of users and not excessive for respondents.

The statistics are produced using existing data sources and administrative data to minimise the burden on data suppliers and to reduce the cost to the public purse of their production.

The Balance of Payments data is a bi-product of data already produced and UKTI routinely collect the data used for the export orders tables: issues relating to respondent burden are managed by them.

**2.9 Confidentiality, Transparency and Security:** The privacy of data providers (e.g. administrations, enterprises and others), the confidentiality of the information they provide and its use only for statistical purposes must be absolutely guaranteed. The department must produce and disseminate statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

In producing these statistics, we adhere to the [Defence Statistics Confidentiality Policy](#). We provide the statistics to the ONS in summary form to prevent disclosure.

We adhere to the principles and protocols laid out in the Code of Practice for Official Statistics and comply with pre-release access arrangements. The [Defence Statistics Pre-Release Access lists](#) are available on the GOV.UK website.

Export orders are presented at sector level to prevent the disclosure of companies and equipment types. For BoP data, line level transactions data relating to services procured overseas are aggregated at country level to mitigate disclosure.

Apart from the ONS, we have little contact with users of Balance of Payment statistics. We include commentary alongside the tables so that users understand the uses and limitations of the statistics. These are further discussed in Defence Statistics Bulletins Nos. 4, 8 and 11 which can be found [here](#).