

# Background Quality Report: International Defence Statistics

## Section 1: Introduction

### 1.1 Overview of the statistical output

The International Defence section of UK Defence Statistics (UKDS) Chapter 1 includes data on the MOD's Operations and Peacekeeping costs and provides comparisons between the UK and other nations spending on Defence.

#### History

International comparison statistics have been included in UKDS for 10 years in various guises. They complete Chapter 1 in setting the resource context for the rest of UKDS and help to place UK military expenditure in a global context. This section comprises of: Operations and Peacekeeping costs; NATO countries' expenditure (in real terms and as a % of GDP); top world-wide military spenders (spend, spend per capita); and graphs comparing the UK and some key NATO allies against a set of key comparators (%GDP, spend per capita, spend per serviceman, military personnel per thousand population).

The majority of these statistics are sourced from external bodies such as NATO and SIPRI and the associated tables are not badged as National Statistics as we have no control over the quality of the data. DASA perform the conversion from current to constant prices and to US dollars. We also perform the conversion using Purchasing Power Parities (PPP).

#### Limitations of International Defence data

Making international comparisons confronts a number of widely documented issues relating to the comparability and granularity of the international source data. Making direct comparisons will never be straightforward because:

- Defence expenditure data are merely input measures which give them only limited usefulness as an indicator of military strength, capability or burden.
- Whilst there are standardised definitions of defence spending and accounting conventions used by international organisations, principally the UN and NATO, not all countries record and publish their defence spending in accordance with such definitions and conventions.
- Some countries actual defence expenditure may be very different from their budgeted expenditure.
- Differences in national tax regimes and the treatment of pension contributions can lead to significant distortions in expenditure.
- Departments other than defence departments may be deemed to contribute to defence whilst some spending by defence departments can be categorised as supporting other activities.
- The choice of conversion method (e.g. Market Exchange rates or Purchasing Power Parities) used to convert to a common currency or from current to constant (real terms) prices can result in significantly different rankings of global defence spending.

Using market exchange rates (MER) for instance tends to undervalue the currency and hence the scale of expenditure of lower income countries. Attempts are often made to circumvent this problem using Purchasing Power Parity (PPP) rates. These use currency conversion rates which equalise the overall price of a bundle of goods and services in each country. However PPP rates can be highly inaccurate because of the difficulty of allowing for differences in quality and devising appropriate and relevant "weighting" of individual goods and services. Civilian based PPPs may also not be representative of defence goods and services.

- [Click here](#) for more information on the measurement and uses of Purchasing Power Parity (PPP) rates.

### **Strengths and Weaknesses**

The strengths of these statistics include the clarity of presentation and context, commentary, clear signposting relating to data limitations and footnotes which include links to data sources and the graphs which show how the UK compares to some of its allies.

Weaknesses are that we have no control over the quality of the data and that they are a measure of inputs not outcomes or capabilities.

### **Latest Publications**

1. [International Defence](#) section of UKDS 2011.

## **1.2 Producer Information**

These statistics are produced by the Defence Expenditure Analysis branch within Defence Analytical Service and Advice (DASA) which is part of the Ministry of Defence (MOD). The statistician responsible for these statistics is Nick Bennett who can be contacted by emailing [DASADESA-DEA-HOB@mod.uk](mailto:DASADESA-DEA-HOB@mod.uk)

Further details about how to contact DASA can be found [here](#).

## **1.3 Summary of method and processes used to compile outputs**

We are supplied with the accounts data underlying Tables 1.18 and 1.18a by MOD accountants.

We source the data underlying Tables 1.19 and 1.20, from NATO and the data for Table 1.21 from the Stockholm International Peace Research Institute (SIPRI). We use deflators from the NATO website to convert data into constant prices and we use PPP rates published by the OECD. All data sources are fully signposted in the footnotes to the tables.

## **1.4: Other Documentation**

- [DASA Pre-Release Access lists](#)
- [DASA confidentiality policy](#)
- [DASA revisions policy](#)

## 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.

These statistics are often used within the MOD to provide context in papers, press lines and briefings. They were recently used to underpin benchmarking work for the Strategic Defence and Security Review and to influence the recent Spending Review settlement. The production of the tables has placed the Defence Expenditure Analysis branch in a position to offer guidance on the use of these statistics to others within the Department and they have formed the basis of several international collaboration projects.

Externally to the MOD, policy think tanks such as the Royal United Services Institute (RUSI) and International Institute for Strategic Studies (IISS) have used the data for policy papers and think pieces. We occasionally receive contextual questions from academics and interested parties.

### Unmet User Needs

We have received some internal requests for performance metrics measuring international defence capabilities.

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

The data in Table 1.18 (MOD Operations and Peacekeeping Costs) is audited by the National Audit Office on an annual basis.

There are a number of issues surrounding the accuracy of NATO and SIPRI data which include compliance with definitions, different treatment of pension contributions and tax regimes, and conversion methods. This is explained further in the section [Limitations of International Defence data](#). In addition, as some countries do not provide returns to SIPRI, some of their figures are estimates. DASA has no control over the quality, reliability and coverage of the data contained in Tables 1.19-1.21.

### Revisions

We reflect any revisions made by the statistics producers using r markers. We follow the [DASA 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.

The publication date for UKDS is determined by DASA and approved by the UK Statistics Authority. We publish the latest available data which is determined by the publication schedules of NATO and SIPRI and the MOD Resource Accounts.

There have been no punctuality issues with these statistics.

**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.

DASA publish this data through UK Defence Statistics which is freely available on the DASA website. This section of UKDS receives around 90 web hits each month. The data can be downloaded in several formats (e.g. Excel, PDF and HTML) and is accompanied by commentary to provide supporting information, along with links to relevant publications.

The level of detail in these tables is limited by the available data but we have chosen the formats to be clear and understandable. We have been working to improve the clarity of these statistics and to this end UK Defence Statistics 2011 includes some additional graphs and maps to illustrate the data.

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.

Tables 1.18 and 1.18a use accounts data and therefore these tables are consistent with the MOD's Resource Accounts. The data in Tables 1.19-1.20 is consistent with that published by NATO and SIPRI.

NATO and SIPRI have different definitions of military expenditure which additionally differs from the definition of Defence Expenditure used to compile the MOD's accounts and Table 1.1 in UKDS. It is not therefore possible to compare spending figures from these different sources.

In addition, from 2004 NATO has adopted a revised definition covering the defence expenditure of member states. The new definition also seeks to exclude expenditure on Other Forces which are structured, equipped and trained to support defence forces and which are realistically deployable. Most nations have now reported defence expenditures according to this new definition, and in some cases (Greece, Turkey, Italy, Luxembourg, Portugal and Turkey), this has resulted in a significant apparent decrease in defence expenditures.

More information relating to the revised NATO definition can be found on the [NATO website](#). More information relating to the SIPRI definition of military expenditure can found on the [SIPRI website](#).

The sourcing of long run time series data from NATO has allowed the presentation of data in Charts 1.22a-d to be more comparable. All four countries are now presented on a consistent basis using the NATO definition for military spending.

**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 which are relevant to 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.

Users are encouraged to provide feedback on UKDS through the feedback tool on the DASA website or through the annual consultation meetings. Users are informed of the latest changes to these statistics through the annual consultation meeting which offered the opportunity for feedback. [Minutes from the Official Statistics Consultation meeting](#) and the [DASA user feedback report](#) are available on the DASA website.

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.

These tables are produced purely through data from external organisations or administrative data.

**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 [DASA confidentiality policy](#)

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 [DASA Pre-Release Access lists](#) are available on the DASA website.

We maintain good links with policy colleagues to ensure that these statistics are understood and prevent misuse. UKDS contains commentary explaining these statistics.