

Background Quality Report

International Defence

1. Introduction

1.1 Overview

These statistics present comparative information on UK defence spending and that of other countries. The underlying data are used for a wide range of purposes both within the Department and externally to provide accountability and transparency to parliament and the public

The International Defence Expenditure Bulletin (henceforth in this document 'International Defence') is produced annually and contains spending data from the most recent full calendar year for which data are available.

This Bulletin presents defence expenditure of NATO member states and expenditure as a percentage of their GDP. A comparison of two international defence spending data sources focuses on the top worldwide spenders. Defence expenditure trends for the UK, Germany, France and the USA are also displayed.

The Bulletin comprises a PDF document, which focuses on commentary and data visualisations, and is supported by separate Excel tables that contain the data behind the text and visualisations.

1.2 Background and Context

The Ministry of Defence (MOD) has published international comparison statistics since 2001. Prior to 2013, these statistics were published as part of an annual MOD statistics UK Defence Statistics (available [here](#) for the year 2010 onwards). Since 2013 these figures have been published as the standalone International Defence Bulletin. Although this Bulletin began relatively recently, the external data sources we use allow some of the time series we report to extend back to 1980.

The 2017 Bulletin includes: NATO countries' expenditure (in real terms and as a percentage of GDP), NATO countries' equipment expenditure as a percentage of defence spending, top world-wide military spenders, the differences between two widely used sources of international defence spending estimates, the effect on estimates of the currency conversion methodology employed, and a section providing in-depth focus on the UK and some key NATO allies (USA, France and Germany) on a set of key comparators (percentage of GDP spent on defence, defence spending per capita, spend per service person, and the number of military personnel per thousand population).

The majority of these statistics are sourced from external bodies such as NATO, the Stockholm International Peace Research Institute (SIPRI), and the International Institute for Strategic Studies (IISS). Since MOD has no control over the quality of data from these sources, the associated tables in International Defence are not Official Statistics.

MOD performs the conversion from current to constant prices and to US dollars for recent NATO spending data. It also performs the conversion of SIPRI data using Purchasing Power Parities (PPP) which enables the comparison of currency conversion methodologies. Where necessary any transformations of data in the Focus on NATO Allies section were also carried out by MOD.

1.3 Methodology and Production

These statistics are produced by the Defence Expenditure Analysis area within Defence Economics, which is part of MOD. The responsible statistician for these statistics can be

contacted by emailing DefStrat-Econ-ESES-DEA-Hd@mod.gov.uk. Further details about how to contact Defence Economics and Defence Statistics can be found [here](#).

The data underlying Tables 1-4 (as listed in the supplementary Excel tables) and associated charts is taken from [NATO's Defence Expenditures of NATO Countries \(2010-2017\)](#) publication (published 29 June 2017). Table 5 figures are taken from the [SIPRI Military Expenditure Database 2016](#) and the [IISS Military Balance 2017](#) publication. Table 6 presents expenditure data taken from the SIPRI military expenditure database 2016 (details above). The expenditure data for Table 7 is also taken from the SIPRI military expenditure database and the PPP rates used are those published by the [International Monetary Fund](#) (IMF, updated April 2017). The data for the remaining tables relating to close NATO allies has been taken from the NATO release (details above), and population estimates have been sourced from the IMF (details above). All data sources are fully signposted in the footnotes to the tables.

A detailed methodology is given in the p15-16 of the Bulletin.

2. Relevance

These statistics are often used within the MOD to provide context in papers, press lines and briefings. In 2010 and 2015 they were used to underpin benchmarking work for the UK Strategic Defence and Security Review (as well as for the Australian SDSR) and to inform the corresponding Spending Review settlements. The production of the tables has placed the Defence Expenditure Analysis branch (the producers of this Bulletin within MOD) 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; this is a strength of the International Defence Bulletin.

There have been some internal requests for performance metrics measuring international defence capabilities. There is consistent interest in making international comparisons based on defence 'outputs' rather than 'input' measures, and these statistics provide information solely about the latter of these. The lack of 'output' measures could be considered a weakness of this Bulletin.

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. Occasionally contextual questions from academics and interested parties are received.

3. Accuracy

There are a number of issues surrounding the accuracy of NATO, SIPRI, and IISS data which include compliance with definitions, different treatment of pension contributions and tax regimes, and conversion methods. This is explained further in this document (Section 6 - Coherence and Comparability). In addition, as some countries do not provide returns to SIPRI or IISS, some of their figures are estimates. MOD has no control over the quality, reliability and coverage of the data contained in tables sourced from these organisations.

Revisions

Revisions made by the statistics producers are reflected with 'r' markers. We follow the [Defence Statistics revisions policy](#).

4. Timeliness and Punctuality

Timeliness

The aim is to publish this Bulletin in late summer and the statistics usually refer to the previous Calendar Year. However, the timeliness of the Bulletin ultimately depends on when the source data is released by NATO, SIPRI and IISS. In 2013, no expenditure data

was published by NATO. This delay meant that there was no International Defence Bulletin in 2013, and the 2014 Bulletin contained both the 2012 and 2013 data.

Punctuality

The International Defence Bulletin is not an official statistic publication so does not appear on the [MOD's Calendar of Upcoming Releases](#) section of GOV.UK.

5. Accessibility and Clarity

Accessibility

A PDF of this Bulletin and the accompanying Excel tables are published and freely available on the GOV.UK website.

Clarity

The level of detail in the Bulletin and accompanying tables is limited by the available data but the formats chosen should be clear and understandable.

The strengths of these statistics include the clarity of presentation and the clear signposting of data limitations. The selection of key facts to focus on in the commentary and charts is also a strength, helping the reader make sense of the large amount of underlying data.

MOD has received no feedback relating to accessibility and clarity. If you have feedback please contact us.

6. Coherence and Comparability

Coherence

The statistics in all Tables are consistent with those published by NATO, SIPRI and IISS. Where MOD has converted data into US dollars or to constant prices, this methodology has been agreed with NATO statistical experts.

NATO, SIPRI and IISS have different definitions of military expenditure which, additionally, differ from the definition of Defence Expenditure used to compile the MOD's accounts, presented in the Departmental Resources Statistical Bulletin. It is not therefore possible to easily compare spending figures from these different sources.

Comparability

When undertaking international comparisons of defence it is important to consider some well documented issues relating to the comparability and granularity of the international source data. Making direct comparisons will never be straightforward because:

- 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. The standards themselves are not always transparent, adding to the difficulties of comparing estimates produced by different organisations. More information relating to the revised NATO definition can be found on the NATO website. Expenditure is included for countries that provide Military Assistance; expenditure is not included for countries receiving assistance. More information relating to the SIPRI definition of military expenditure can be found on the SIPRI website.
- 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 (MER) or Purchasing Power Parity (PPP) rates) used to convert to a common currency can result in significantly different rankings of global defence spending. Using MER for instance tends to undervalue the currency, and hence the scale of expenditure, for countries with lower national incomes. Attempts are often made to circumvent this problem using 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 "weightings" 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.

7. Trade-offs between Output Quality Components

There is occasionally a trade-off between timeliness and comparability; the timing of the publication of these statistics ultimately depends on when the source material is released.

8. Assessment of User Needs and Perceptions

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, requests for information received from within the MOD and from outside, are monitored and responded to accordingly.

Current assumptions about users and uses of these statistics are contained in Section 2 - Relevance. If you use these statistics in another way please contact us.

9. Performance, Cost and Respondent Burden

These tables are produced purely using data collected by external organisations. The Bulletin published by MOD placed no additional burden on the respondents.

10. Confidentiality, Transparency and Security

In producing these statistics, MOD adheres to the [Defence Statistics confidentiality policy](#).

MOD maintains good links with policy colleagues to ensure that these statistics are understood and prevent misuse. The International Defence Bulletin contains commentary explaining these statistics.

11. Contact Details

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