Executive summary

The Office for National Statistics (ONS) is committed to providing users with ways to assess the fitness for purpose of official statistics. This report, relating to UK Balance of Payments (BoP) estimates, aims to provide information on the usability of these estimates. The report is published as part of a full programme of work being carried out on statistical quality, information on which is available on the National Statistics (NS) website.

The UK BoP measures economic transactions between economic entities resident in the UK and the Rest of the World. It also draws a series of balances between inward and outward transactions, provides a net flow of transactions between UK residents and the Rest of the World, and reports how that flow is funded.

The UK’s BoP statistics are compiled at the same time as the National Accounts. The BoP is an alternative presentation of the Rest of the World sector which is a component of the Sector and Financial Accounts (SFA), and uses many common data sources.

A BoP Statistical Bulletin and time series dataset is published quarterly on the ONS website, 90 days after the end of the period to which the data relate to. There are a number of different sources used in the production of SFA and BoP statistics, some of which are collected in ONS’s surveys and some of which are provided by external partners such as the Bank of England (BoE) and HM Revenue and Customs (HMRC). Additional details of the methods followed and terminology used in UK BoP can be found in the methodology section of the UK BoP Pink Book.

Eurostat has established an annual BoP quality reporting process for all European Union (EU) Member States. This is one of the provisions in the recent EU Regulation of BoP Statistics. The reports are based around quantitative measures of quality developed by Eurostat which align with those assessed within this framework.

This document contains the following sections:
- Output quality
- About the output
- How the output is created
- Validation and quality assurance
- Concepts and definitions
- Other information, relating to quality trade-offs and user needs
- Sources for further information or advice

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, these are based upon the six European Statistical System (ESS) Quality...
Dimensions. This document addresses the Quality Dimensions and important quality characteristics, which are:

- Relevance
- Timeliness and punctuality
- Comparability and coherence
- Accuracy
- Output quality trade-offs
- Assessment of user needs and perceptions
- Accessibility and clarity

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

About the Output

Relevance

*The degree to which statistical outputs meet users' needs.*

Data sources used in the compilation of UK BoP are detailed in the methodological notes of the Pink Book. BoP statistics are compiled from a variety of sources, produced within the National Accounts SFA framework. Some of the main sources used in the compilation include:

- Overseas Trade Statistics (HMRC)
- International Trade in Services Survey (ONS)
- International Passenger Survey (ONS)
- Foreign Direct Investment Survey (ONS and BoE)
- Various Financial Inquiries (ONS and BoE)
- Ownership of UK Quoted Shares Survey (ONS)

The conceptual framework of the UK BoP corresponds to that of the International Monetary Fund's (IMF) BoP Manual, fifth edition (BPM5). This provides objective and coherent international standards to make data for the UK and other countries comparable, reflecting the needs of international and domestic users. The UK economic territory excludes the Channel Islands and the Isle of Man, which have their own fiscal and monetary authorities. BPM5 was compiled in close co-operation with the Statistical Office for the European Union (Eurostat), the Organisation for Economic Co-operation and Development (OECD), the United Nations, and the World Bank.

The UK BoP forms part of the broader system of UK National Accounts. The National Accounts are a closed system in which both sides of every transaction involving a resident economic entity are recorded. A set of accounts, the ‘Rest of the World Account,’ capture transactions that involve economic relationships with non-resident entities. The Rest of the World Accounts are presented from the perspective of non-residents; the reverse is true for the BoP presentation where the accounts are represented from the perspective of residents.

The international standard for National Accounts is the System of National Accounts, 1993 (SNA 93). The European Union published its own version of SNA93, European System of National Accounts (ESA 95) upon which the UK's National Accounts are based. BPM5, SNA93 and ESA95 are compatible.

BoP estimates are used by the Bank of England and the Treasury to inform decisions on monetary and fiscal policy. The Department for Business, Innovation and Skills also uses BoP estimates to identify international trade partners. International users include Eurostat and the IMF; Eurostat uses UK figures to compile aggregate EU accounts and the IMF collate data as a means of ensuring financial stability and sustainability.

Examples of how government departments use BoP estimates are:

- in providing ministerial briefing on the headline BoP and Trade statistics pre-release in advance of publication
- feeding data into their own regular analyses of the macro economy, and also into more ad-hoc and in-depth analyses. For example, importance of trade with particular countries or groups of countries, importance of trade in different commodities/services, identifying comparative advantage, changes in import and export prices, economic contribution from trade and income, and looking at inward and outward investment. These analyses/briefings are aimed to inform ministers/decision makers of the current/historical situation, and provide evidence for the policy debate
- BoP data are also of interest to a wider range of user groups including the media, researchers and other regional, national and international policy makers. Some users focus primarily on the
developments in the current account and their financing, including the sustainability of the current account imbalances in the longer term and the need for policy adjustments. Others focus on an analytic presentation, classifying the standard components of BoP and their relationship to other components (e.g., trade and direct investment, and foreign direct investment and productivity). The BoP allows a sector breakdown of the financial account and their relationship to domestic sources of finance.

Further details on use of the data can be found in the 2010 user engagement survey results at BoP user engagement survey results.

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.

Monthly trade statistics are available in the UK Trade Statistical Bulletin. This provides monthly estimates for trade in goods and trade in services about 40 days after the end of the reference period.

BoP estimates are published quarterly, on the same day as Quarterly National Accounts Statistical Bulletin. For more details on related releases, the UK National Statistics Publication Hub 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, as set out in the Code of Practice for Official Statistics, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time.

Quarterly figures are published three months after the end of the reference period. At this time they are also disseminated to Eurostat. The timeliness of data collected varies between surveys. Generally data become available eight weeks after the end of a quarter, allowing a four week turn around time.

Annual estimates are published in the Pink Book, usually in July or October. This is the point at which more comprehensive annual survey returns are incorporated into the accounts, with quarterly series revised to reflect these changes. Normally, when figures are being prepared for the Pink Book, estimates for the past four complete years are reassessed in the annual cycle. An ONS Revisions Task Force decides whether revisions should be introduced. Any methodological changes are subject to a National Accounts standard process of quality assurance.

How the output is created
The BoP is one of the UK’s key economic statistical series. It measures the economic transactions between economic entities resident in the UK and the rest of the world. The BoP consists of the following elements:

- the current account records trade in goods and services, income earned and current transfers
- the financial account comprises transactions associated with changes of ownership of the UK’s foreign financial assets and liabilities
- the capital account comprises both capital transfers and the acquisition and disposal of non-produced, non-financial assets
- the International Investment Position (IIP) is a balance sheet recording the UK’s stock (or level) of foreign financial assets and liabilities at a particular date; and
- a geographical breakdown of the current account is available quarterly and a geographical breakdown of the IIP is provided on an annual basis

The BoP information is derived from the following ONS surveys:

- International Trade in Services (ITIS)
- Foreign Direct Investment (FDI)
- Security Dealers
- Insurance Companies
- Pension Funds
- Unit and Investment Trusts
- Financial Assets and Liabilities (FALS)
- Ownership of UK Quoted Shares Survey
- International Passenger Survey (IPS)
BoP information is also derived from external sources:

HMRC
- Intrastat - European Union trade in goods
- Extrastat - Extra European Union trade in goods

Bank of England (BoE)
- PL - UK banks’ profit and loss
- DQ - Financial derivative positions of banks at market value
- BT - Balance sheet
- QX - Supplementary balance sheet
- CC - Country analysis of UK external claims
- CL - Country analysis of UK external liabilities
- BG - Geographical breakdown of interest payments
- HI - Country Analysis: Levels of inward foreign direct investment
- HO - Country Analysis: Levels of outward foreign direct investment

The BoP accounts are concerned not only with payments made but also any economic transactions during a period that give rise to a payment in an earlier or later period. For example, goods may change ownership in one period, though payment may be made in an earlier period (pre-payment) or in a later period (trade credit). They also include transactions for which there may never be a payment, for example, goods shipped under foreign aid or goods shipped between related enterprises. There is also more than one ‘balance’; the BoP is a system of accounts in which many balances can be derived, such as the balance of goods and services, the current account balance, and capital and financial account balance.

Conceptually, an economic transaction has two sides: something of economic value is provided and something of equal value is received. The BoP reflects this in a double-entry recording system of credits and debits. When an economic value is provided, a credit entry is made and when the corresponding economic value is received, a debit entry is made. For example, when an exporter sells (provides) goods to a non-resident, the exporter may receive cash (a financial asset) or another type of financial asset (for example, a trade credit claim) in return. The export is represented by a credit entry in the current account and the financial asset acquired is represented by an offset debit entry in the financial account. Similar entries are made when an importer buys a car (debit) and pays for it (credit). So a credit entry represents a change in rest of world ownership of any sort of UK asset (real or financial) while a debit entry represents a change in UK ownership of rest of world assets.

ONS produces a comprehensive set of National Accounts in which BoP is integrated. The main components are:
- Quarterly and annual GDP estimates
- Quarterly and annual sector and financial accounts
- The National balance sheet

Seasonal adjustment

The headline UK BoP current account and capital account figures published are seasonally adjusted, although non-seasonally adjusted estimates are available. Financial account and IIP figures are not seasonally adjusted. Seasonal adjustment is the process of removing the variations associated with the time of year, or the arrangement of the calendar, from a time series.

Validation and quality assurance

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

There is no simple way of measuring the accuracy of BoP statistics - that is the extent to which they measure the underlying ‘true’ value for a particular period.

One dimension of measuring accuracy is reliability. The reliability of an estimate depends on the extent to which it is revised. ONS has a comprehensive Revisions Policy ¹ for all its outputs.

All estimates, by definition, are subject to statistical ‘error’; due to the uncertainty inherent in any process or calculation that uses sampling, estimation or modelling. Most revisions in BoP statistics reflect either the adoption of new statistical techniques, or the incorporation of new information which allows the statistical error of previous estimates to be reduced. In general, BoP revisions are carried out as a result of annual surveys. These surveys are more comprehensive in terms of sample size than quarterly surveys, and the questions are more detailed. Target response rates are set for each ONS
The reliability of BoP estimates can be assessed using evidence from analyses of revisions to compare the closeness of early estimates to subsequent estimated values. BoP Revisions spreadsheets are published on the National Statistics website and show changes made to estimates over time - **BoP Revisions Triangles**. In addition, an analysis of BoP revisions is available in a **BoP Revisions Article**.

**Comparability and coherence**

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

Every effort is made to ensure that the series are comparable over time, and a time series is available back to 1946 for annual estimates (1955 for quarterly estimates). Where possible, changes to methodology are applied to the whole series to ensure this comparability is maintained. However, the ONS’s revisions policy may mean that this is not always possible.

International standards **BPM5**, **SNA93** and **ESA95**, are used in the production of the BoP. This means that figures published by the UK should be comparable with the accounts of other countries. UK attendance at working groups and committee meetings at the European Central Bank (ECB) and Eurostat help ensure that changes to UK accounts are made in line with the European Union member states. The ECB’s guide to the compilation of BoP within the EU is the **European Union BoP/International Investment Position (IIP) Statistical Methods Book (BoP Book)**. The BoP Book provides interested parties, users or compilers, with information relating to all EU countries on the contents and structure of BoP and IIP data and the collection methods used. The book also gives an overview of the compilation of the euro area aggregate figures by explaining the compilation procedures and underlying methodological concepts agreed by the EU Member States. The book was first published in 1998 and has been updated on an annual basis since then.

Concepts and definitions are consistent between BoP and the Rest of the World Accounts. The UK is unusual in that BoP and the Rest of the World Accounts are both compiled by ONS using common data sources. In some countries, including most other EU Member States, responsibility for the compilation of BoP Statistics lies with Central Banks and responsibility for the National and Sector Accounts lies with Government Statistical Offices. For the UK, this ensures a high degree of comparability between the BoP and Rest of the World Accounts, though the compilation systems are not always identical as they serve different purposes. For more information on the differences between BoP and the Rest of the World Accounts see the **BoP and the relationship to the National Accounts** section of supplementary information in the **Pink Book**.

An article on **BoP Asymmetries** was published in Economic Trends in March 2005. Asymmetries occur when one country’s estimates does not correspond to the same estimates for the same transaction reported by its partner country, e.g. a country reports exports of services to the UK that do not equal the value of services that the UK records as having imported from that country. The article covers periods up to the reference year 2002 and uses data supplied by Eurostat. Asymmetries continue to be a high priority issue in BoP. The ECB is tracking asymmetries between the UK and European Union (EU) countries. A bilateral approach is being adopted to assess in more detail the causes, and possible treatment, of asymmetries.

**Concepts and Definitions**

*Concepts and definitions describe the legislation governing the output and a description of the classifications used in the output.*

The ONS follows the international standards relating to BoP and IIP statistics. There are several reasons for this. Firstly, domestic and foreign analysts will be assured that the UK’s official BoP and IIP statistics comply with objective, coherent international standards that reflect current, global analytic needs. Secondly, the UK is a member of the international community and international users need comparable data for analysis between countries. Thirdly, the UK, as a member of the European Union, as well as organisations such as the IMF and OECD, needs to compile its various economic statistics in conformity with standards set by those organisations. Fourthly, the UK can compare and reconcile its estimates data with those of other countries. Statistics need to be as comparable as possible in order to carry out this validation.

To facilitate such consistency and to provide guidelines for its members, the IMF issued the Balance of Payments Manual. The first edition appeared in 1948 and the fifth edition in 1993. The conceptual
framework of the UK BoP corresponds to that underlying the fifth edition of the IMF Manual, referred to as BPM5\textsuperscript{4}. BPM5 was implemented in the UK’s BoP accounts and IIP statistics in September 1998.

A process of reviewing the existing international standards started early in the new millennium with the specific objective of harmonising, to the maximum extent possible, the statistical concepts, definitions, statistical units, classifications and terminology. The United Nations Statistics Commission and the IMF Board of Directors have recently completed the comprehensive and parallel updating of the National Accounts (SNA2008) and Balance of Payments Manual (BPM6), in order to ensure their consistency and achieve greater harmonisation. The UK will be publishing statistics in accordance with SNA2008 and BPM6 in 2014.

Other information

Output quality trade-offs

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

BoP statistics are subject to a trade-off between timeliness and accuracy. This trade-off affects all statistics but is particularly relevant to short-term economic statistics. Macro economic statistics are required as timely as possible in order to allow the monitoring of economic behaviour as close to the event as possible, and for timely policy making.

Timeliness is clearly defined, however, for BoP data there is no clear measurement of accuracy; ‘true values’ are unknown as the statistics are based on a wide variety of different data sources. For BoP statistics the closeness of a given early estimate to the final estimate seems to be the most acceptable indicator of accuracy. BoP estimates are released quarterly with the timeliest estimates, however, in order to improve the accuracy of BoP statistics, revisions are made to the estimate when new and improved data sources become available.

A more in-depth description of the revision process can be found in the Validation and quality assurance section of this paper.

Assessment of user needs and perceptions

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

The Business Indicators and Balance of Payments Division of ONS developed a user engagement strategy, outlining the divisional strategic goals in relation to engaging with their users and meeting their needs. The strategy has been developed in line with the 2009 Code of Practice for Official Statistics. The strategy is available to download at BiBOP user engagement strategy\textsuperscript{6}.

Subsequent to the publication of the strategy, in October 2010, a BoP user engagement survey was completed to investigate:

- who are the users of the statistical product
- what were the statistics used for, including the decisions they informed
- users’ perceptions of the quality of the statistics, statistical presentation, and statistical commentary
- users’ perceptions of the statistical service in relation to this particular statistical product

There were 22 respondents to the survey. It must be noted that respondents to the survey were self-selecting so results are not representative, but do provide a useful insight into the use of the statistics and perceptions of users.

Full results of the user engagement strategy can be downloaded at BOP user engagement survey results\textsuperscript{7}.

In summary the BoP user engagement survey revealed that:

- both the public and private sector use BoP statistics, mainly analysts and researchers
- estimates are used by the BoE and HM Treasury to inform decisions on monetary and fiscal policy
- the Department for Business, Innovation and Skills (BIS) also uses BoP estimates to identify international trade partners
- international users include Eurostat and the IMF. Eurostat use UK figures to compile aggregate EU accounts and the IMF collate data as a means of ensuring financial stability and sustainability
- users were mainly interested in the estimates of the current account and IIP
- most of the respondents used the bulletin for ‘research’, ‘general background information’ and ‘modelling’
- the majority of users were mainly satisfied or very satisfied with BoP statistics
the users generally felt that the statistical presentation and commentary for the Balance of Payments estimates to be good or very good
all respondents to the survey felt that the statistical service provided for the BoP estimates was 'good' or 'very good'.

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.

BoP Statistical Bulletins\footnote{17} are published online on the National Statistics website and can be downloaded for free. ONS policy allows a list of agreed officials to have access to the estimates 24 hours before publication.

The UK BoP Pink Book\footnote{2} is available to download for free from the ONS website. The Pink Book includes descriptions of the data sources and methodology, as well as commentary on the trends shown in the figures, for all the standard BoP components. Time Series Data\footnote{18} are also available to download free from the ONS website.

General enquiries about BoP series, compilation methods, quality information or difficulties in finding latest figures can be emailed to the BoP enquiry point bop@ons.gov.uk.

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 Excel. 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. 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)\footnote{19}
- Copyright and reuse of published data\footnote{20}
- Pre-release access (including conditions of access)\footnote{21}
- Access to unpublished data\footnote{22}
- Access to microdata via the Virtual Microdata Laboratory\footnote{23}
- Accessibility\footnote{24}

In addition to this Quality and Methodology Information, Basic Quality Information relevant to each release is available in the background notes of the relevant Statistical Bulletin.

References

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