Article

UK trade and investment development plans update: achievements and forward look: October 2022

An update on our transformation of UK trade and investment statistics, highlighting recent successes and ongoing and future development plans.

Contact:
Melanie Gore
Economic.Statistics.
Transformation.Support@ons.
gov.uk
+44 1633 456636

Release date:
28 October 2022

Next release:
To be announced

Table of contents

1 . Overview

This update covers the improvements made to our UK trade and investment statistics since the publication of the [UK trade development plan 2020](#) and [Developing foreign direct investment statistics: 2021](#), along with our future development plans.

These improvements put user needs at the heart of development, combining broader coverage with more granular detail, and unlocking greater insights into the UK economy. As demand for our data has increased following events such as the UK's referendum on EU membership in June 2016 and the coronavirus (COVID-19) pandemic, it has never been more important to continually develop our trade data and statistics.

This update reflects our current ambition and is in line with current estimates of delivery timeframes, resource availability and the priorities of both the Office for National Statistics (ONS) and our users. As such, plans should be considered indicative, and are sensitive to changes.

2 . Context

Following the UK's Brexit referendum in 2016, and in response to user demand, the Office for National Statistics (ONS) started an ambitious project to transform UK trade and investment statistics. This work was supported by funding from the Department for International Trade (DIT).

Trade statistics

Our [UK trade development plan: 2017](#) prioritised quality assurance process improvements, new trade in goods and trade in services systems, and an International Trade in Services (ITIS) survey sample increase.

Our [UK trade statistics transformation: achievements and forward look, October 2018 article](#) covered achievements and planned developments for 2019, including:

- continued investment in new systems and processes

- the introduction of more granular trade in goods data by country and commodity

- the introduction of interactive maps

- analysis of UK trade asymmetries

- publication of UK trade in services by partner country ([experimental estimates](#) published October 2018)

Our [UK trade development plan: 2020 article](#) covered planned developments, and achievements, including:

- updating the analysis of UK trade asymmetries ([Asymmetries in trade data article](#) published February 2020)

- exploring Modes of Supply within ITIS ([experimental estimates](#) published July 2019)

- continuing our work to understand exports and imports of services at the subnational level ([2017 export data](#) published September 2019 and [import data](#) published April 2020)

- making several improvements to UK trade data as part of the annual release of [UK National Accounts, The Blue Book: 2019](#)

Foreign direct investment statistics

Our foreign direct investment (FDI) statistics represent cross-border investments, both inward and outward, made by residents and businesses from one country into another with the aim of establishing a lasting interest in the country receiving investment. FDI statistics are valuable measures of cross-border activity between the UK and the rest of the world.

There has also been a notable increase in user demand for FDI statistics since the UK Brexit referendum in 2016, with users requiring high-quality statistics that are timelier and more granular.

In response to a National Statistics quality review in 2016, a number of methodological improvements were made to FDI statistics in 2017.

A compliance check undertaken by the Office for Statistics Regulation (OSR) in 2018 and a report by the House of Commons Select Committee on International Trade (PDF, 1,181 KB) in 2019 presented further recommendations for FDI statistics; a further OSR compliance check was undertaken in April 2021.

The ONS responded to the OSR in November 2021. The collaborative approach adopted between DIT and ONS to improve user engagement and the quality of these statistics satisfied the recommendations, prompting an OSR response in November 2021.

3 . Progress since 2020

Trade statistics

For UK trade statistics since June 2020, we have consolidated the improvements listed in our previous development plan.

The work to provide estimates of subnational exports and imports of trade in services has developed into a regular annual experimental release, with the addition of estimates of subnational trade in goods, a statistical bulletin and a data explorer. These are now reported on an International Territorial Level (ITL) basis instead of by Nomenclature of Territorial Units for Statistics (NUTS) classification, in line with latest best practice. These estimates recently underwent a compliance check by the Office for Statistics Regulation (OSR). Our development was commended, and we were given recommendations for further development.

These subnational datasets were accompanied by an experimental dataset on subnational local sites and employee counts linked to companies carrying out International Trade in Services (ITIS). This resulted from a successful collaboration with the Department for International Trade (DIT). We aim to release this annually.

Our plans to increase coverage of the ITIS survey have progressed, with an increase in the number of businesses sampled in the 2021 annual survey. These will be evident in this year's ITIS results, which will be published via the UK Trade monthly bulletins and gross domestic product (GDP) quarterly releases in the final quarter of 2022. We now capture international trading businesses with fewer than 10 employees via the annual survey, as noted in our International trade in services, overview of methods changes: 2020 article. Data from microbusinesses are not yet included in official trade in services statistics, but the impact of this change on balanced GDP estimates is expected to be published in autumn 2023.

Our UK trade in goods by business characteristics dataset and UK services trade by business characteristics dataset have been developed over the past few years from an initial minimal viable product (MVP) to the more recent level of granularity. Key improvements include the introduction of counts that represent reporting units (traders), reviewing and revising the levels of disclosure to maximise the quantity of values published, and bringing datasets in line with data accessibility rules.

Our annual release of UK National Accounts, The Blue Book: 2020 and UK National Accounts, The Blue Book: 2021 included several improvements to UK trade data. In 2020, improvements included:

- the introduction of new data sources for road and air freight transport, with updated tonnage information included for rail freight

- the UK Travel "pseudo estimates" (used to compensate for the lack of surveying over the land border between Northern Ireland and the Republic of Ireland) have been recalculated, using data from the Northern Ireland Statistics and Research Agency's (NISRA's) Northern Ireland Passenger Survey (NIPS) and Continuous Household Survey (CHS) as well as the Central Statistics Office's (CSO's) Household Travel Survey (HTS)

- revising trade in services through the annual reconciliation of the three approaches to GDP (income, output and expenditure), enabling a single estimate of GDP to be determined through the production of supply and use tables

In 2021, we replaced outdated estimates of sea freight data with Vessels Value data and UK Chamber of Shipping data. Other changes affecting trade include improved estimates on transactions of second-hand ships, and new methods of approximating the export adjustment for ship repairs. The changes also include an improved methodology for calculating disbursements in the UK by foreign operators.

In 2022, we implemented a new method to capture the extent that the rising wholesale prices of gas are affecting the value of natural gas imports by calculating a Unit Value Index (UVI). This produces a series that solely captures the price changes that are relevant to gas imports data. While having no impact on our headline current price trade figures, this improvement will affect the total trade balance on a chain volume measure (CVM) basis, which directly feeds through to the expenditure measure of GDP.

We also introduced a methodological improvement in our GDP quarterly national accounts that improves estimates of trade in services travel data derived from the International Passenger Survey (IPS). As previously announced, the IPS methodology was revised to better account for certain international traveller types. This change in methodology revises estimates of both travel services imports and exports from Quarter 1 (Jan to Mar) 2009 onwards.

For more details, please see our Methodological improvements to UK trade and GDP, September 2022 article.

Our estimates of education exports, specifically those relating to education-related travel, also have benefitted from the IPS methodological improvements. Education exports statistics are also the subject of a review of available data sources and international best practice, to explore additional methodological improvements in the compilation of education services exports statistics. Our Education services exports, UK article, which will be published later in 2022, will outline findings from this.

Our development work on digital trade is centred around the Organisation for Economic Co-operation and Development (OECD) Handbook on Measuring Digital Trade, which provides a template for producing digital trade statistics. Digital trade is expanding, and while it provides opportunities for the global economy, there are many challenges in the production of digital trade statistics. This can be because of data gaps, the distinction between digitally ordered and/or digitally delivered goods and services, digital intermediary platforms (DIPs), and fees charged by foreign-owned DIPs on transactions.

We published our Developing UK Digital Trade estimates article in May 2022, detailing our research into Digital Intermediary Platforms (DIPs) and a further Digital trade, UK: 2020 article containing estimates of addendum items from the OECD template was published in September 2022. In addition, as part of the transformation of our data collection in this area, the Office for National Statistics (ONS) has redeveloped the E-Commerce Survey, which has been rebranded as the Digital Economy Survey. The Digital Economy Survey includes questions to measure several additional dimensions of the digital economy: digital orders, digitally delivered products and digital intermediary platforms. Data collected from these new questions will feed into future research and could potentially be used to populate the digital trade template at an aggregate level.

We continue our analysis of asymmetries in trade in services statistics. Our current focus is on understanding and explaining the largest UK import asymmetries with trading partners. To achieve this goal, we continue to follow the approach discussed in Section 5 of our Asymmetries in trade data – diving deeper into UK bilateral trade data article. In addition to bilateral engagement, the ONS proposed, through the Working Party in Trade in Goods and Services (WPTGS), the creation of an OECD informal experts' group on trade asymmetries, where multi-lateral collaboration on asymmetries is taking place.

We aim to share our findings with users once we complete our deep dive approach.

Foreign direct investment statistics

From March 2021, we launched enhanced quarterly and annual foreign direct investment (FDI) surveys. These included new questions to collect more granular data relating to FDI by type of investment, disinvestment and subnational FDI.

We have reviewed the guidance following respondent feedback, and incorporated improvements from March 2022.

Our [Foreign direct investment, overview of new survey questions, UK: March 2022 article](#) contained an overview of the new survey questions, analysis of the responses and some experimental data.

A review of the quarterly sample design, to investigate any potential improvement to revisions between the annual and quarterly estimates, showed that further optimisation of the quarterly sample was unlikely to have any significant impact. Instead, increased data cleaning and response-chasing capability has been introduced, with the aim of reducing respondent error and the reliance on non-response methodology (imputation).

We have introduced a commercial data source to enhance the coverage of businesses in scope for FDI, to include minority ownership enterprises, enterprises engaged in round-tripping, ultimate investing economy and SPE (Special Purpose Entity) identification. We have gained additional information that has allowed us to identify businesses previously unavailable through the Inter Departmental Business Register (IDBR). We are continuing to provide more granular information, for example, combining various data sources to produce [subnational breakdowns](#).

4 . Ongoing and future development plans

Future developments will build on the improvements so far, reflecting updated user needs and requirements. These can be broken down as:

- introducing new data sources

- improving processing systems

- ensuring we are using the most appropriate methods

- increasing the breadth and granularity of our data outputs

Introducing new data sources

Trade statistics

An important milestone for the improvements to trade in services statistics will be the addition of the transport sector to the International Trade in Services (ITIS) survey. Adding transport-specific questions to ITIS, where specific transport-related businesses are targeted, will ensure this sector gains broader coverage with a higher, more consistent response rate that will enhance existing services statistics. This work is ongoing, with publishable outputs expected around 2024 or 2025.

There are also plans for non-transport inclusions to the ITIS survey, which aim to:

- improve trade in services' cohesion with the Extended Balance of Payments Services (EBOPS) classification

- improve the application of economic ownership of goods moved between the UK and other countries by multinational companies

- improve the measurement of goods that are purchased outside the UK by a UK resident enterprise, to use in processing services that never enter the UK

- improve the measurement of goods purchased within the UK by non-UK resident enterprises, to use in processing services that never leave the UK

- capture additional data to improve the existing trade in goods data to align with balance of payments

The change to the gas imports deflator in 2022, discussed in the Progress since 2020 section, is the first part of a wider trade deflator development project. This project is exploring ways to improve the relevance and quality of trade deflators using administrative data sources. Further detail will be provided in our National accounts, deflator strategy: November 2022 article.

Improving processing systems

Trade statistics

Ensuring we are using the most appropriate and efficient systems to process our data is important for timely publications, data quality assurance and securing the capability to add future functionality. Because of this, we will upgrade our current ITIS processing platform to one that is more efficient, more transparent and better able to handle large datasets. Additionally, we plan to overhaul the platform for producing trade in services data for the same reasons.

For our trade in goods data, we are upgrading the processing platform to produce a consolidated cleaned and linked data pipeline. This new pipeline will reduce duplication of effort, improve the quality of matches to the Inter Departmental Business Register (IDBR) and improve the consistency of Office for National Statistics (ONS) outputs using this data.

Foreign direct investment statistics

For foreign direct investment (FDI), we have made substantial progress since 2019 in redeveloping our results processing and population and sampling systems to improve our processes and ensure they are easily adaptable. This work will continue during phase three of the project, running until March 2023.

The Outward Foreign Affiliates Statistics Survey (OFATS) discovery phase is complete and development will use modern technology to align with the strategic pipeline solutions already in place for FDI.

Methodology improvements

Trade statistics

In January 2022, HM Revenue and Customs (HMRC) implemented a data collection change affecting data on imports from the EU to Great Britain (GB). This followed a similar data collection change in January 2021 for data on exports of goods to the EU from Great Britain.

HMRC has investigated the scale of these transitions and our Impact of trade in goods data collection changes on UK trade statistics: 2020 to 2022 article provides more detail on the discontinuity found between the two compilation methods. We are considering possible options to account for this discontinuity.

Foreign direct investment statistics

For FDI, a new stratification variable, shareholders' funds, was introduced for the inward population for new businesses in 2021. Analysis showed a positive correlation to net book value (NBV), used for previously sampled businesses in the finance sector. We will conduct further analysis to potentially use this variable across other areas of the sample design. We published an [overview of methods changes](#) in February 2022.

Methodology colleagues completed a full review of the FDI imputation classes used to calculate imputation links. Their recommendation was to reduce the granularity in the imputation classes, resulting in an increased number of businesses and more robust estimates.

A methodological review of the FDI estimation and outliering methods produced a recommendation to remove distance from the trimmed mean for the identification of extreme values, replacing with threshold trimming.

These methodological changes have been built into systems and, following testing, will be implemented into the Balance of Payments (BOP).

New data outputs

Trade statistics

We are in the early stages of an ambitious plan to release interregional UK trade outputs, as part of our subnational trade data offerings. This work will begin with a research project exploring the use of novel administrative data sources and survey data to understand trade links between UK regions.

The experimental insights from this research will help inform the production of interregional trade estimates.

Foreign direct investment statistics

We will continue to develop how we identify resident special purpose entities in FDI for International Monetary Fund (IMF) data collection. We will also explore further insights to deepen our understanding of the role of FDI in the UK and other data-linking projects to generate new FDI-related statistics.

5 . User engagement

This update aims to give users a greater understanding of the achievements to date, and the upcoming development work, for UK trade and foreign direct investment (FDI) statistics. The work has been prioritised in line with the Office for National Statistics (ONS) Economic, Social and Environmental Group (ESEG) priorities and known user requirements.

We welcome feedback from users on this update or generally about the UK trade and FDI publications and outputs.

If you would like to comment, you can contact us by email or post.

Email addresses

trade@ons.gov.uk

fdi@ons.gov.uk

Postal address

Economic Statistics Transformation Support

Office for National Statistics Government Buildings Cardiff Road Newport NP10 8XG

6 . Cite this article

Office for National Statistics (ONS), released 28 October 2022, ONS website, article, UK trade and investment development plans update: achievements and forward look: October 2022