Data Event Insights

The Office for the Internal Market held a Data Event on 19 September 2024 to bring together experts from across the UK and around the world to exchange information and ideas to support our understanding of intra-UK trade data and trading relationships between the four nations of the UK. The event built on the OIM data strategy roadmap, published in 2023 and updated in May 2024.

We hosted participants from a wide range of organisations and welcomed statisticians, data scientists, economists, policy and data experts from the four governments and business representatives. The event focussed on what data is currently available, who is producing it, and how we can effectively combine data from different sources to enrich our understanding of intra-UK economic relationships. We were also inspired by international examples of innovation and best practice in regional and national data collection and analysis. We collectively noted the challenges to synthesise the existing data sources, and challenges also around methodology and resourcing future data collection work.

This note summarises the main insights shared at the event, identifying themes of interest to the OIM in its role monitoring the UK's internal market. We are publishing it to let partners, participants and interested parties know how these insights are being taken forward. We are grateful for the contributions from all participants. The note is a summary of discussions had at the event and should not be taken to imply that the OIM or CMA agrees with these views.

Measuring subnational trade

In the OIM's annual reports (the most recent of which is the Annual Report 2023/24), which monitor the operation of and developments in the UK internal market (**UKIM**), a key indicator of how effectively the UKIM is operating is data on trade between the nations of the UK.

At the Data Event, speakers from the Fraser of Allander Institute, University of Strathclyde, and the Office for National Statistics shared work on measuring trade through survey data sub-nationally. This included 'A Framework for Interregional Trade Data Collection and Estimation', published in 2021, funded by the ONS working with the Economic Statistics Centre of Excellence (ESCoE). This work provided the blueprint for the ONS's methodological approach for producing statistics on interregional trade. The ONS's Interregional Trade Estimates for the years 2019 and 2020 were being prepared for publication. The tables will include imports and exports of goods and services by region and industry group, as well as including UK country to country imports and exports. Future funding for this dataset on an ongoing basis was not in place at the time of the event.

Interprovincial trade data in Canada was identified as an exemplar for reporting subnational trade data. A speaker from Statistics Canada described their Supply and Use Table Programme which produces flow grids for 450 different goods and services showing in which Canadian province a product is produced, and where it is traded to, including international imports and exports. The grid brings together data from a variety of sources, building a coherent set of information on production and use. The relationships presented in the grids allow users to reflect on current economic relationships, while providing a framework to form questions about supply chain issues, and links with international markets, ultimately giving insights into how the Canadian economy functions.

There was discussion at the event about the design of effective data gathering to assess intra-UK trade and its value for monitoring the UK internal market. Key points arising were:

- ❖ There was caution about investment in data-gathering products that looked good, but could only produce general findings, as opposed to products that were demonstrably useful for public statistics.
- ❖ There was support for the use of microdata to build up datasets. Although this approach could be time-consuming and costly, it was likely to generate outputs that were more representative and accurate real-time than surveys. This approach had been taken in Canada, Netherlands, Japan, and South Korea.
- ❖ The Business Insights and Conditions Survey (BICS) data provides good insights into changes in business practices. Although the main focus of the BICS is on business activities and performance, some internal market-specific questions have been included following joint work between ONS and OIM.
- ❖ Both macro and microeconomic data are valuable for understanding the internal market. Macro data helps to look at the bigger picture and can identify trends, although it should be used with caution due to the risks of confirmation bias (i.e. it can be misleading if used to 'seek' evidence to support an answer in line with a pre-existing view).
- ❖ It was suggested that there could sometimes be a tension between data on trade outcomes and understanding the performance of the internal market. For example, if a nation or region has a large increase in trade, it was suggested that this might be due to the internal market working better or could just indicate a sale of a domestic business to a different nation, and more goods then being traded across a border. Whilst there are many experts who want to understand UK trade better, their emphasis is not usually on whether there are unnecessary barriers between the UK nations. The view was expressed that trade data is too broadly specified to provide insight into the impacts of policy in the real world.
- ❖ There was a discussion on whether it is feasible to develop a single indicator to give a picture of intra-UK trade, and it was generally considered that this was unlikely. Differences between the nations in areas including certification, accountancy, regulation, and subsidy schemes all affect trade and may make it harder to evaluate the performance of the internal market from trade data alone. It was acknowledged that there are many difficulties around correctly apportioning trade figures to particular nations and regions, given there are core businesses who operate across the UK where figures are not regionally stratified. Payments and other data are subject to challenges such as the head office effect, where the location of the headquarters of a business is used to determine all trade flows into and out of the business, even in circumstances where there may be local supply chains for local/regional branches.
- ❖ Available trade data on services was seen as a particular weakness when compared to trade data on goods, particularly in the context of the relative importance of services to the nations. Some information on services was explored in the OIM's Annual Report 2023-2024.
- ❖ There was some discussion of challenges impacting the national trade surveys in the UK, such as low response rates, limited consistency between national methodologies and yearly revisions to previous estimates. Some participants suggested that the ONS's proposed four nation trade survey could improve the methodological consistency of the current national trade surveys, but this would likely not eliminate the necessity of revisions to yearly results following publication.

<u>Developments</u>

- The ONS published [2019 and 2020 Interregional Trade Statistics](#) on 13 January 2025, with 2021 and 2022 to follow.
- The OIM and CMA's Microeconomics Unit have contributed a response to the UK Statistics Authority to inform the agenda for the UK Statistics Assembly (22 January 2025). The Assembly's aim is to discuss priorities, user needs and gaps. There will be breakout sessions on local and regional data, and on coherent approaches to data collection across the four nations. Trade data could form part of these conversations.
- This year's OIM annual report will be published in March 2025, setting out the latest data available from government statistical sources, which may include the ONS Interregional Trade Statistics, referred to above.

Alternatives to surveys

The OIM has found that identifying appropriate established data sets as proxies for the trade of goods and services has presented some challenges and has explored alternative sources of data available including data sets drawn from administrative or transactional data. These have been set out in the OIM's [data strategy roadmap](#), which was updated in [May 2024](#). This has included ONS development of an experimental dataset from payment systems data to provide insight on UK supply chains[, Industry-to-industry payment flows, UK - Office for National Statistics](#). The work focussed on using Bacs and Faster Payment System data to develop classifications for all accounts. Outputs so far provide [sector analysis](#) but the goal is to create a monthly industry/region-industry/region-payment matrix.

A speaker from the [RESET Project](#) of the University of Michigan, University of Maryland, and US Census Bureau, described their proposal for economic statistics by aggregating economic transactions data which are already available from businesses, households, and governments, in addition to using survey data. For example, a consumer price index could be built from sales and price data derived from item-level transactions. Doing so would provide more accurate measures of inflations by accounting for consumers' substitution across goods and for quality change related to new and exciting goods.

There was discussion at the event about using alternative data for measuring the flow of goods and services across the UK. Key points were:

- ❖ The pandemic had prompted a number of companies to publish more data than previously: including Google, which released a quantity of mobility data. That momentum has since lessened, and analysts can sometimes struggle to gain access to data held by businesses.
- ❖ It was agreed that supply chain data must be gathered from multiple sources, such as HMRC, VAT returns, businesses (when accessible), and surveys. There is an increasing challenge with low response rates to surveys. There have been some attempts to conduct case studies using data from surveys, but they were not successful.
- ❖ Other potential data sources were also discussed including data from supermarkets and online sales platforms. These businesses are using data collected from consumer transactions to track, for example, purchases and trends, and this information could potentially show trends at a regional level. The CMA has, since the event took place, published [results](#) from work with the ONS looking at the use of consumer card spending

data to improve geographical retail market estimates. Supply chain data may also be potentially recorded on on-pack QR codes/barcodes, particularly where traceability is deemed important to consumers, such as for Marine Conservation (MCS accredited) or fresh meat products. Whether these data are centrally collated is unclear.

❖ There was discussion at the event on how useful the gravity model and others could be in describing how goods and services flowed within the economy, with a variety of views expressed. One view was that whilst there was not yet an established agreed model which captures all the regions and nations of the UK in a consistent way, models were still helpful for trying to work with imperfect data from different sources. In contrast, another view was that models were problematic, with inaccurate assumptions often used, such as assuming that there was no cross trading of identical products.

❖ On balance it was felt that models needed to be used with caution, and it must be possible to understand how they work and the elements that have been used to create them. However, when used with awareness of what the end results were for, models could be useful for telling a story of why we see what we see in the data.

❖ There was a discussion of the difficulties in using customs data, including challenges in identifying and capturing accurate detail on goods origin locations, and the "headquarters effect" that arises where customs declarations capture the location of business office headquarters, rather than the true trade journey of a good between UK regions. It was posited that combining freight and customs data might help disentangle the recording of business office locations from wider goods movements during trade.

❖ There was also a discussion on how to make best use of GB-NI customs data held by HMRC and the UK Government's Trader Support Service (TSS). Some participants noted that a potentially significant effect arising from the implementation of the Windsor Framework has been to increase the availability of GB-NI data, which could provide additional insight on the internal market. It was suggested that the establishment of new implementation bodies for the Windsor Framework, such as Intertrade UK, would create further demand for better data on GB-NI trade.

Developments

- On 13 January 2025, ONS improved their industry to industry payment flows experimental data, publishing an updated dataset to include data from 2017 to 2024.
- The OIM will continue to liaise with HMRC and ONS on NI-GB customs data.

Supply chain data

For OIM's work to explore specific regulations or sectors, it is crucial to understand how supply chains work. Supply chain data can be gathered from multiple sources, such as HMRC, VAT returns, businesses (when accessible), and surveys. Key points discussed:

❖ The accuracy and speed with which the food and drink sector can collect detailed supply chain information was highlighted in the handling of food scares. For example, during the horse meat crisis of 2013, through the use of DNA testing, the FSA and food industry were able to identify the source of illegal horse meat entering the food chain and pinpoint specific products affected. However, the case also highlighted the complex network of traders and subcontractors active in the supply chain, which made isolating cases difficult without sector wide DNA testing.

❖ Governments could work with industry to develop a more detailed understanding of critical supply chains as part of enhancing supply chain resilience in relation to global shocks. This may provide some additional sources of data that could be of use.

❖ The prevalence of lean manufacturing techniques and just-in-time supply in many sectors indicates that businesses are likely to hold accurate and up-to-date data on their supply chains. However, obtaining this information was probably dependent on detailed discussion and cooperation with industry and there were no quick routes to obtaining the data. Blockchain data could be useful for supply chain analysis given its potential to enhance transparency, security, and efficiency.

❖ In some EU countries, reporting of invoice data for governments' transactions is mostly mandatory and widely implemented. The value of in-house data within government could be promoted, a point recently made in the CMA's response to the Industrial Strategy green paper.

❖ Related to this, mandatory reporting on supply chains is already seen in many EU countries. In the UK, there is some public sector tracking of supply chains, with mandatory reporting leading to good figures.

Developments

• The CMA will be examining market power, market structure and resilience in supply chains as part of its programme of microeconomic analysis in support of the government's Industrial Strategy.

• The OIM will be publishing its report on Single Use Plastics, which will explore the effects of regulatory difference across different levels of the supply chain for these products.

• The OIM will explore options for tracking supply chains through data captured during public sector procurement, where relevant to sectors within the scope of its work.

Regional economic statistics

While the focus of the OIM is on trade between the four nations of the UK, there was also interest in discussing UK regional data:

❖ Some participants suggested that the availability of regional data could be of considerable interest to policymakers. But it was important to think about the geographies that were most functionally useful for economic analysis. Labour markets and sectoral business clusters were not typically constrained by regional boundaries. The functional area might, for example, be a city rather than a region. Regions tended to be administrative concepts, with boundaries that would normally be determined by non-economic considerations. Supply chain data could be used to show trends at a regional level.

❖ Views were expressed about the value of using UK supply use tables to capture the flows of international trade. There were challenges for classification: for example, in matching imports from one nation to exports from another nation, and with disentangling goods being supplied to a nation from those merely transiting a nation. In addition, the treatment of transit destinations or hubs may not be consistent. However,

this is an area of development with improved supply use tables expected to be published by ONS in 2024/25.

Barriers to the sourcing and analysis of data

In achieving improvement in monitoring of the flow of goods and services, the OIM is aware of some of the barriers to be overcome in developing consistent and robust data sets. Key points discussed:

❖ Businesses were known to hold a lot of data and the challenge for analysts remained establishing how to unlock this. Participants saw the most successful approach to be finding common ground with business stakeholders. Though all companies hold data, not all were advanced in terms of data engineering capability or understood the value of their data to the public sector. That was where analysts could add value, by demonstrating to businesses how to make best use of their data, for example to understand their customers, transactions, business volumes and to feed that into business strategy. Analysts also recognised that data has value, and businesses would consider their commercial interests, in discussions about sharing data. Companies might also be cautious about sharing because of competition or regulatory risks and these concerns had to be factored into discussions. There is not currently enough granular analysis to understand issues such as the drivers of non-tariff barriers to trade.

❖ Conversely, businesses might sometimes develop data products. There was a general feeling that, while such products could be useful, it was better to negotiate with companies to secure the data that was needed, rather than rely on data acquisition on a commercial basis. Participants noted on blockchain that, despite the benefits set out above, businesses may be reluctant to engage with it, not least due to its traceability.

❖ The particular circumstances of analysis within governments were discussed. A key issue was the disconnect between data timelines, the time taken to acquire, clean and present analysis of data, and political timelines, which often moved on a faster track. This disconnect could mean that the value of in-house data analysis was not sufficiently recognised.

Developments

The CMA is continuing work to bring analysts from across governments together to consider how best to collaborate on economic statistics.