



5.



This Handbook includes this separate chapter on digital intermediation platforms (DIPs) because of their importance in facilitating digital trade, the scope they offer for targeted measurement, and their particular compilation challenges. This chapter describes the accounting principles for recording transactions facilitated by DIPs and provides examples of existing initiatives, surveys and big data sources used to measure DIP transactions.



Chapter defines digital intermediation platforms (DIPs) as:

“Online interfaces that facilitate, for a fee, the direct interaction between multiple buyers and multiple sellers, without the platform taking economic ownership of the goods or rendering the services that are being sold (intermediated).”

DIPs have been key drivers in the digital transformation. They have facilitated access for many producers, in particular micro, small and medium-sized enterprises (MSMEs), to the global marketplace. They have given buyers numerous benefits, including access to a wider variety of products and the ability to compare prices more easily. DIPs have also enabled new activities and business models such as peer-to-peer transactions and sharing of resources between households. Although transactions intermediated by DIPs are, in principle, included in conventional trade statistics and are covered by the concepts of digitally ordered and/or digitally delivered trade, DIPs are separately highlighted both in the conceptual framework (see Chapter , Figure .) and in the reporting template for digital trade (see Chapter , Table .) because of their significant role in the economy, the policy interest surrounding them and the specific compilation challenges they pose.

Examples of DIPs include:

- marketplace platforms that bring together buyers and sellers to trade goods and services, e.g., platforms facilitating short-term accommodation;
- platforms facilitating ride hailing, similar to taxi services;
- platforms facilitating sharing of household assets, such as car-sharing; and
- platforms that intermediate electronic content (without taking economic ownership of the intellectual property products they distribute), such as app stores.

All institutional sectors in the economy can use DIPs for transactions in goods and services. Non-financial corporations and the household sector in particular use DIPs both as buyers and as sellers.

As the interface hosted by the DIP is specifically designed for placing orders, this Handbook assumes that all transactions (i.e., both goods and services) undertaken via a DIP are digitally ordered. In some

Standard Industrial Classification of All Economic Activities (TT ISIC) is coordinating the fourth revision of the ISIC (ISIC Rev.). The definition of non-financial intermediation activities put forward by TT-ISIC is in

The accounting principles for recording transactions related to DIPs and digital intermediation services stem from the defining characteristics of DIPs and of the intermediation service they provide. By definition, DIPs do not take ownership of the goods nor render the services being intermediated. Their facilitating or “match-making” role is assimilated to that of an arranger, as defined in BPM (paragraph . . .): “one unit (an agent) arranges for a transaction to be carried out between two other units in return for a fee from one or both parties to the transaction” (IMF, . . .).

In this case, as outlined in BPM (paragraphs . . .

5.1:

Let us suppose, considering Figure 5.1, that the buyer pays 100 for a good, of which 12 is a fee paid to the DIP. Suppose further that the DIP charges a fee of 8 to the seller for the intermediation services it provides. Let us also suppose for simplicity that the buyer, the seller and the DIP are all resident in different economies, that the transaction facilitated by the DIP is a trade in goods transaction, and the payment is routed through the DIP (although in practice payment by cash on delivery is common in some economies and industries).

1. The buyer makes a payment of 100 to the DIP. Of this, the DIP itemizes that the buyer's payment for the intermediation services provided is 12. The buyer country will record 12 as imports of digital intermediation services and the remainder, 88, as imports of goods.
2. For using the DIP, the seller still becomes liable for a fee of 8. This is itemized by the DIP in the

RECORDS OF THE ABOVE TRANSACTIONS IN THE BUYER'S COUNTRY
TEMPLATE FOR DIGITAL TRADE

Different country

Regardless of whether the fee is explicit or implicit, the main transaction (for the intermediated product) between the buyer and the seller should reflect:

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supplier of digital intermediation services may apply promotional terms giving rise to a partial or total waiving or rebate of fees paid by the buyer and/or seller for a given transaction. This does not change the fact that a digital intermediation service was provided, as a fee would otherwise have been paid. However, such promotions may affect the value of trade in digital intermediation services measured in practice (for example, where the DIP offers discounts, this may imply a negative fee paid by customers, in the

A stocktaking survey conducted in 2017 by the Organisation for Economic Co-operation and Development (OECD) and International Monetary Fund (IMF) (OECD, 2018) found that few compilers are able to identify the amount of trade facilitated by DIPs (either domestic or foreign-owned), and fewer still are able to identify payments to non-resident DIPs (see Figure 1.10). DIPs resident in a given economy should be in the statistical business register of that economy, but they are often included under various industry headings, and formal identification remains difficult.

Nevertheless, countries responding to the survey reported that manual identification of the largest DIPs, based on the name of the business, could be used to facilitate compilation of statistics on goods and services traded via DIPs and on digital intermediation services.

1.2 COMPILING INFORMATION FROM DIPs

IDENTIFYING DIPs

Initial efforts to detect DIPs (in the absence of an established definition) were largely based on manual identification. Mainly focused on peer-to-peer online platforms, and without targeting the international trade dimension, early work has provided useful lessons for subsequent measurement efforts.

For instance, a 2017 EU study identified nearly 100 peer-to-peer digital intermediation platforms active in

Europe, of which 70 per cent had over 100,000 unique website/app visitors per day. The UK Office for National Statistics (ONS) followed a similar approach in its early work to identify and measure the sharing economy (see Box 1.1).

BUSINESS SURVEYS

Business surveys can be used to measure the prevalence of DIPs in the economy, to collect data on the fees received by the DIPs from residents and from non-residents as well as to gather information on the transacted products.

Among business surveys, international trade in services (ITS) surveys are arguably best placed to collect information on exports (and indeed imports, see Section 1.3) of digital intermediation services. Survey instructions should clearly explain that trade-related services cover digital intermediation services, and ideally those should be separately identified. This approach has been applied, for instance, by the US Bureau of Economic Analysis (BEA), in its Benchmark Survey of Selected Services and Intellectual Property Transactions with Foreign Persons, which specifically targets international trade in services. More recently, the B5 (Annex B)-41.9 of the 2009 System of National Accounts (SNA) (see Box 1.2) provides a framework for measuring the B5 (Annex B)-41.9 of the 2009 System of National Accounts (SNA) (see Box 1.2).

5.3:

The ONS Digital Economy Survey 2021 includes the following questions targeted specifically at

ITS surveys may, however, not be well suited to collect information on the transacted products. Although, in theory, it may be possible to add questions on the value of exports and imports of goods and services that are facilitated by DIPs into the ITS survey, other types of business surveys may be better placed for this purpose. Information on the value of domestic and international trade in goods or services being intermediated is important for compiling items . .a and . .a of the reporting template on digital trade (see Table [interme311.89.961651E.S09398UR](#)

intermediation services are recorded under trade-related services.

Further information is required, however, to arrive at meaningful results that measure the impact of DIPs on trade in goods and services. In addition to fees paid by enterprises to DIPs for digital intermediation services, it is necessary to provide data on total trade in goods and total trade in services that are facilitated by DIPs. This information provides users with items . . .a, . . .a and . . .a from the reporting template on digital trade from Chapter (Table . . .) and as shown in Table . . .

Chapter in this Handbook discusses annual enterprise ICT usage surveys as an instrument to gather information on digital trade from enterprises. Because enterprise ICT usage surveys are used to compile statistics on many aspects of the digital economy and on how it affects business, they tend to be modular in layout, with some core modules always present and others less frequent, so as to adapt to new topics and changes in the digital economy. ICT surveys also allow for more detail on digital topics than what may be possible in an international trade

values, percentages or a combination of both) could be collected on an enterprise ICT usage survey:

- Sale of goods via DIPs
Of which exports
- Sale of services via DIPs
Of which exports
- Purchase of goods via DIPs
Of which imports
- Purchase of services via DIPs
Of which imports
- Fees paid to DIPs
Of which imports

It is not uncommon for mainstream business surveys or enterprise surveys to request extra information on turnover and on purchases (such as how much of the turnover is exported). Another approach that could be explored is to ask questions in mainstream business surveys on how much was sold or purchased via DIPs. Although the detail may not match what can be

5.6:

The ONS Digital Economy Survey 2021 used the following questions to ask enterprises to state if they have used DIPs to sell their goods and services:

During 2021, did your business pay a digital intermediary platform to sell your goods and services?

During 2021, how much did your business pay to a digital intermediary platform to sell your goods and services?

Source: United Kingdom ONS. See <https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/2021digitaleconomysurveysurveyquestions#digital-intermediary-platform>.

in services survey or other mainstream business surveys. For these reasons, enterprise ICT usage surveys could be considered to be a vehicle to collect information on the sale and purchase of goods and services that are facilitated by DIPs, on the part of these sales and purchases that is international, and on the value of fees paid to DIPs for digital intermediation services.

The United Kingdom ONS Digital Economy Survey (see Box . . .) asks enterprises to state the amounts paid in fees to DIPs to sell their goods and services. The question could be extended to ask about the total goods and services sold and what percentage is exported, as well as what payments were made to non-resident DIPs.

To fully reflect the impact of DIPs on the economy and on international trade, the following information (in

collected via an ICT usage survey, mainstream business surveys tend to have good coverage, and may provide information from other questions that can be linked to arrive at meaningful results on the imports and exports of goods and services intermediated by DIPs.

HOUSEHOLD SURVEYS

Even though some of the information in a DIP intermediated transaction may be difficult to collect or may not be known by households, some countries have successfully used household surveys to compile statistics on purchases of goods and services intermediated by DIPs. One popular approach, as seen in the examples in this chapter, is to focus on well-known DIPs.

In building up a household survey-based approach to estimating trade facilitated by DIPs and digital

statistical business register. This technique is used to enrich the business register, and particular key words and expressions can be used to identify potential DIPs. Using this approach, the Netherlands developed a landmark publication on the digital economy (Oostrom et al., 2018).

A more recent example of a web scraping or big data approach is from Statistics Indonesia (see Box 5.8). As with the Netherlands example, these tools were used to gather information for several purposes, including measuring e-commerce, DIPs, price statistics and tourism statistics.

While web scraping can provide opportunities to enrich of cial statistics at a relatively low cost, compilers should be aware of the challenges (notably legal) that using these data can entail.

PAYMENT CARD DATA

A number of countries have considered or explored the use of credit card data to measure imports of digital intermediation services. This was mentioned in the OECD-IMF Stocktaking Survey (OECD, 2019) by Belgium, Estonia, Finland, France, Israel, Latvia and Mexico.

Chapter 5 discusses the use of payment card data to measure digitally ordered trade. Care is however needed if using credit card information to fully unpack a transaction that is intermediated by a DIP. If credit card information were to indicate, for example, that a payment was made to a non-resident DIP, further information or assumptions would be needed to separate the intermediation fee from the good or service that was intermediated. Furthermore, the intermediated good or service may or may not be imported and may or may not already be collected from other sources.

5.8:



The INE conducts the Residents Travel Survey¹⁴ to measure the number of trips made by residents in Spain to a destination within the country (domestic tourism) or abroad (outbound tourism) every month. The main characteristics of these trips are also studied, i.e., length, expenditure, purpose, accommodation, types of transport, etc.

Different forms of accommodation are considered, including those provided on a commercial basis as a paid service (rented accommodation), and those provided on a non-commercial basis (non-rented accommodation), such as accommodation provided without charge by friends or relatives or on the visitor's own account. Linked to the type of accommodation, information is also collected on how the booking was made, including a specific category for digital platforms when the chosen accommodation is a rented holiday home or a room in a private dwelling, as shown in the questions presented below.

1. ¿Cómo se alojó?
 - (1) Hoteles or (2) Similar establishments
 - (3) Rented dwelling or (4) Rented room in private home
 - (5) Rural tourism accommodation or (6) hostels
 - (7) Camping or (8) cruise
 - (9) Other rented accommodation
 - (10-14) Non-rented accommodation (Q2 not applicable)
2. ¿Cómo se reservó?
 - (1) Directly with the service provider through its web or app
 - (2) Directly with the service provider in person, by mail or by phone
 - (3) Via a travel agency or tour operator (or real estate if Q1 was 3 or 4) through its web or app
 - (4) Via a travel agency or tour operator (or real estate if Q1 was 3 or 4), in person, by mail or by phone
 - (5) Through a specialized webpage (e.g., AirBnb, Homeaway, Booking.com, Homelidays, Niumba, Rentalia, Housetrip, Wimdu, Interhome, Friendly Rentals, etc.) only if Q1 was = s3 or 4
 - (6) Face-to-face
 - (7) Don't know

Results show that the role of digital platforms in booking vacation homes differs depending on whether the destination is within Spain or abroad. When travelling within the country, residents chose to book their holiday home through a digital platform in 49 per cent of cases in 2021. Even so, making the arrangements directly with the service provider of ine was still an important choice (26 per cent of trips). On the other hand, when booking vacation homes abroad, platforms were used in 77 per cent of trips.

TRANSACTIONS IN APPS

When it is not possible to establish who pays the

- 1 Non-financial intermediation activities will be defined in the upcoming fifth revision of the International Standard Industrial Classification of All Economic Activities (ISIC Rev.5) as “activities that facilitate transactions between buyers and sellers for the ordering and/or delivering of goods and services for a fee or commission, without supplying and taking ownership of the goods and services that are intermediated. These activities can be carried out on digital platforms or through non-digital channels. The fee or commission can be received directly from either the buyers or sellers, or revenues for intermediation activities can include other sources of income, such as third-party revenues from advertising” (UN, 2022).
- 2 An alternative considered was to group DIPs under a generic industry providing digital intermediation services. This was rejected on the grounds that digitalization cannot be used as a criterion to classify enterprises in an industry. DIPs will therefore be treated in ISIC in the same way as enterprises that provide similar intermediation services via other means.
- 3 Retail and wholesale businesses engaged in purchasing and reselling goods or services which receive most of their orders digitally.
- 4 <https://www.imf.org/-/media/Files/Data/Statistics/BPM6/CATT/c4-merchanting-and-factoryless-producers-clarifying-negative-exports-in-merchanting-and-merchanting.ashx> and https://unstats.un.org/unsd/nationalaccount/RAdocs/DZ9_GN_Digital_Intermediation_Platforms.pdf.
- 5 See Guidance Note C.4 “Merchandising and Factoryless Producers; Clarifying Negative Exports in Merchandising; and Merchandising of Services”: <https://www.imf.org/-/media/Files/Data/Statistics/BPM6/approved-guidance-notes/c4-merchanting-and-factoryless-producers-clarifying-negative-exports-in-merchanting-and-merchanting.ashx>.
- 6 This approach for treating implicit intermediation fees was advocated for by the OECD Advisory Group on Measuring GDP in a Digitalised Economy and has been endorsed in the OECD Handbook on Compiling Digital Supply and Use Tables (OECD, 2023). In the case of implicit fees, the consumer will pay for the goods or services being intermediated, while the seller/producer is assumed to pay for all the intermediation services (treated as intermediate consumption). The output of the producer will therefore be equivalent to the purchaser’s price (i.e., including the intermediation fees). This approach ensures a consistent valuation in a supply-use framework and is more feasible from a compilation point of view, since it is easier to collect information on the fees from the producer/seller than from consumers.
- 7 In the case of payment by cash on delivery direct to the seller, the amount received may include an amount for the intermediation fee which is ultimately transferred to the DIP.
- 8 Annex B provides a list of possible transactions undertaken by a DIP, and where and how these should be recorded in the digital trade reporting template (see Chapter 2, Table 2.2).
- 9 http://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=77704.
- 10 It should be noted with regard to the EU and ONS examples that the platforms may not be involved in international trade.
- 11 <https://www.bea.gov/sites/default/files/2018-04/be120.pdf>.
- 12 See <https://www.bea.gov/be-10-benchmark-survey-us-direct-investment-abroad>.
- 13 See <https://www.bea.gov/sites/default/files/2018-04/be120.pdf>.
- 14 See https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176990&menu=ulti-Datos&idp=1254735576863.
- 15 Web scraping is the use of software to extract data from a website.
- 16 For example, web scraping may be against the terms of service of some websites.
- 17 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Short-stay_accommodation_offered_via_online_collaborative_economy_platforms_-_monthly_data#:~:text=In%20total%2C%20450%20million%20nights,of%2057.4%20%25%20compared%20to%202021.