trade
policy brief

OECD
BETTER POLICIES FOR BETTER LIVES

Understanding and Measuring Digital Trade

October 2018

What is digital trade?

While there is no single definition of digital trade, there is a growing consensus that it encompasses digitally enabled transactions in trade in goods and services which can be either digitally or physically delivered (OECD,2017). This covers business to business transactions taking place within GVCs, transactions involving consumers or businesses purchasing from each other through online platforms or the digital delivery of services (Figure 1).

Digital trade therefore involves both physically delivered and digitally delivered trade: digitally enabled purchases of e.g., software, e-books, data or database services; or digitally enabled but physically delivered goods and services (such as a purchase of a good on an on-line marketplace or the booking of a hotel through a matching service). Data flows, supported by hard and soft infrastructure, ranging from cables and wires to data flow regulations (digital trade enablers), support the trade transactions of the 21st century.

How do we measure it?

Obtaining precise and reliable estimates of digital trade is difficult (Table 1). A first issue relates to identifying the *digital element* of transactions. Even if trade statistics are able to accurately record trade in goods and services in the digital era, these do not currently differentiate according to whether they have been digitally enabled or not and hence it is difficult to get a sense of the magnitude of digital trade flows.

Figure 1. A typology for digital trade

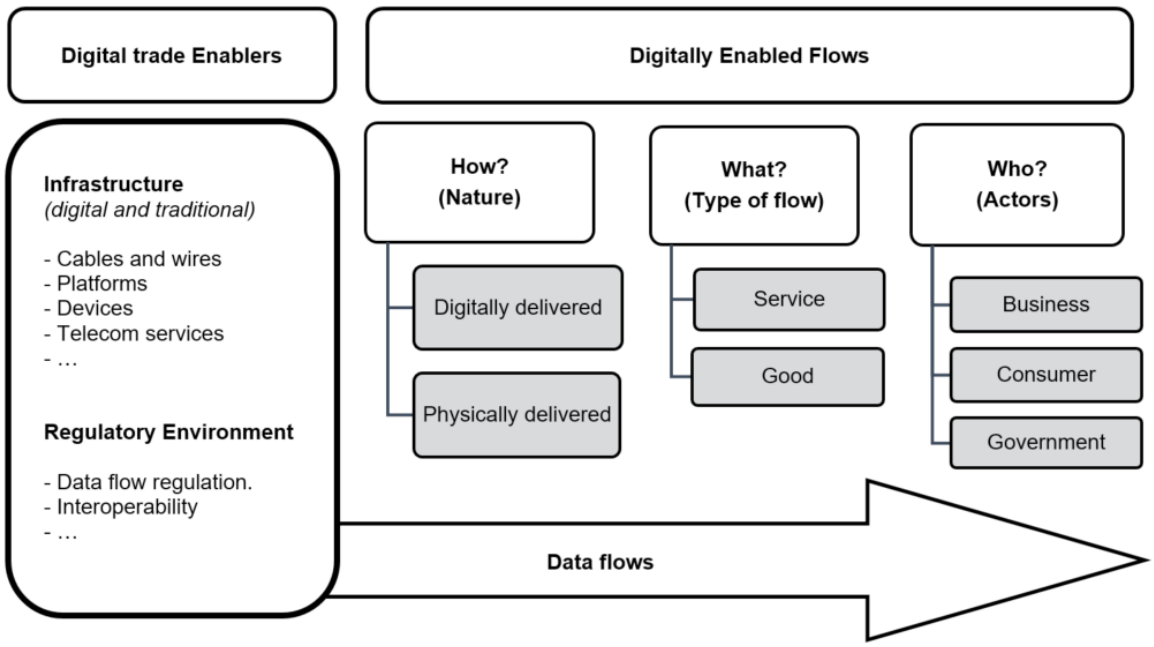

Table 1. Measurement challenges

Measurement Issue	Description	Example	Impact
Underestimation	De minimis provisions imply that small value transactions might not be recorded.	Cross border conventional e-commerce transactions of goods or services	Trade statistics may be underestimated (goods and services)
Classification (of activity)	The digital trade flow can be classified across different sectors.	Is the intermediation of ride-sharing a transport service or an intermediation service?	No impact on recorded trade statistics but allocation differs by product and activity
Classification (of mode of supply)	The underlying service may be provided by a foreign affiliate	Multinationals have scope to record digitally enabled trade as either cross-border trade or primary income flows.	All flows are in theory captured either as trade or as primary income but 'distortions' may occur to GDP depending on how the flows are recorded.
Location of service provider	The provider of the services may be located in any territory	Fiscal optimisation may determine headquarters of firms and in turn the provision of services.	Trade statistics will, in theory, record these flows but interpretation difficulties may occur as profits are shifted.
Non-monetary	No monetary transactions resulting	Social networking sites where the underlying information flows support other economic activities s	All revenues arising from the provision of advertising services or sales based on data will, in theory, be captured in the statistical system; however, challenges arise concerning the implicit consumer surpluses that may be gained
Identification (of digitally enabled transaction)	Information on the use of digital services to enable trade transactions	SMEs using digital intermediaries to export	Expenses of firms on digital services will be captured, either as a domestic or international transaction, including on own-account (if the case), but the scope of accounting frameworks are not set up to identify sales enabled through use of digital tools.

Note: While a number of these measurement challenges also arise in the offline world (e.g., service trade statistics do not yet distinguish flows by mode of supply), they are also, or particularly, relevant for digital trade. For example, underestimation of trade may be increasing as shipments ordered online include more small parcels.

In addition, digitalisation has raised concerns that current trade flows may be underestimated in two areas in particular:

- **Trade in parcels ordered through online platforms.** While we have a sense that the number of parcels crossing borders is rising, the tools that have typically been used to capture these flows, which generally assumed small scale activity, may no longer be sufficient, especially as much of this trade takes place below de minimis thresholds which means it is often not recorded or taxed.
- **Intra-firm flows of data, underpinning knowledge, and the provision of knowledge-based services.** Digitalisation has provided firms with considerable scope to exchange information and knowledge across borders but without a corresponding monetary flow, and often no imputation is made. In addition, whilst present accounting rules include transactions related to the use of data, including database services, under international trade, transactions related to purchases of data per se, are in theory excluded, and are instead included under primary income flows or the capital account. The explosion in the use of data has reopened discussions on the conceptual treatment of data, but irrespective of the outcome of these discussions, it is clear that statistics on the value of data flows are needed to better understand how digital trade works.

Moreover, and partly related to the difficulties associated with the measurement of knowledge based services, the channels used to provide digitally enabled services are increasingly blurring the line between the various modes of supply, meaning that international trade occurs if the provider is located abroad but not if an affiliate in the host economy is present, raising questions in turn about measures of GDP; more significant challenges are presented when the location of the service provider is also determined by fiscal optimisation strategies.

The growing importance attached to understanding digital trade has provided momentum for improving measurement. The OECD-WTO Task Force on International Trade Statistics has set up a expert group of around 20 emerging and developed economies and other international organisations, to develop guidance in this area through a Handbook on Digital Trade, which will be submitted for discussion at the 2019 UN Statistical Commission. In addition the OECD has created an Advisory Group to develop a satellite account of the digital economy for the purposes of broad macro-economic statistics. In addition to the changes to EBOPS for *digitally delivered* services, for *digitally enabled* trade, UNCTAD, the Universal Postal Union, OECD and the WTO have set up a Technical Group to measure cross-border e-commerce transactions.[1] There are other relevant ongoing efforts that can be built upon, such as on cross-border e-commerce[2] and in respect of ICT enabled services.[3]

Endnotes

[1] And a parallel train of work is being led by the OECD and IMF in response to a G20 request on measurement of the digital economy within macroeconomic statistics.

[2] UNCTAD (2016). In Search of Cross-Border E-commerce Trade Data. UNCTAD Technical Notes on ICT for Development No 6. UNCTAD (2015). International Trade in ICT Services and ICT-enabled Services: Proposed Indicators from the Partnership on Measuring ICT for Development. UNCTAD Technical Notes on ICT for Development No 3.

[3] In March 2016, the UN Statistical Commission endorsed a definition of ICT-enabled services developed by UNCTAD in collaboration with other international organizations that will help derive data on the value of services actually delivered electronically across borders.