trade
policy brief

OECD
BETTER POLICIES FOR BETTER LIVES

Trade in the Digital Era

October 2018

Digitalisation has reduced the cost of engaging in international trade, connected a greater number of businesses and consumers globally, helped diffuse ideas and technologies, and facilitated the coordination of global value chains (GVCs). But even though it has never been easier to engage in trade, the complexity of international trade transactions has increased dramatically, posing new challenges for firms, individuals and governments. In this fast evolving environment, challenges go beyond managing digital disruption, and involve ensuring that the opportunities and benefits from digital trade can be realised and shared more inclusively.

What is digital trade?

Digital trade is not in and of itself new. Digitally enabled transactions, be they in relation to goods or services, have been part of the landscape for many years and often raise the same, or similar, issues as non-digital transactions. This is because digital trade is not just about digitally delivered services, but also about more traditional – including supply-chain – trade in goods and services enabled through growing digital connectivity. What is new about digital trade is the scale of the transactions and the emergence of new (and disruptive) players transforming production processes and industries, including many that were previously little affected by globalisation.

Although there is no single, recognised and accepted definition of digital trade, there is a growing consensus that it encompasses digitally enabled transactions in trade in goods and services, that can be digitally or physically delivered (Lopez-Gonzalez and Jouanjean, 2017). That is, while all forms of digital trade are enabled by digital technologies, not all digital trade is digitally delivered. For instance, digital trade also involves digitally enabled but physically delivered trade in goods and services such as the purchase of a book through an on-line marketplace or booking a stay in an apartment through a matching application. Each of these different types of trade and transactions can raise different questions for trade and investment policy, as well as for measurement.

How has digitalisation changed trade?

Digitalisation has changed both the "how" and "what" of international trade. Changes in the "how" of trade are reflected in the emergence of new data-driven business models which alter how goods and services are produced and traded. Changes in the "what" of trade relate to the emergence of new goods and services and bundled goods and services. In the digital age, trade in smaller, often lower value goods (parcels ordered online) and digitally delivered services (such as internet banking) is growing and new types of bundled goods and services, or services embedded in or delivered through goods, are emerging (Miroudot and Cadestin, 2017).

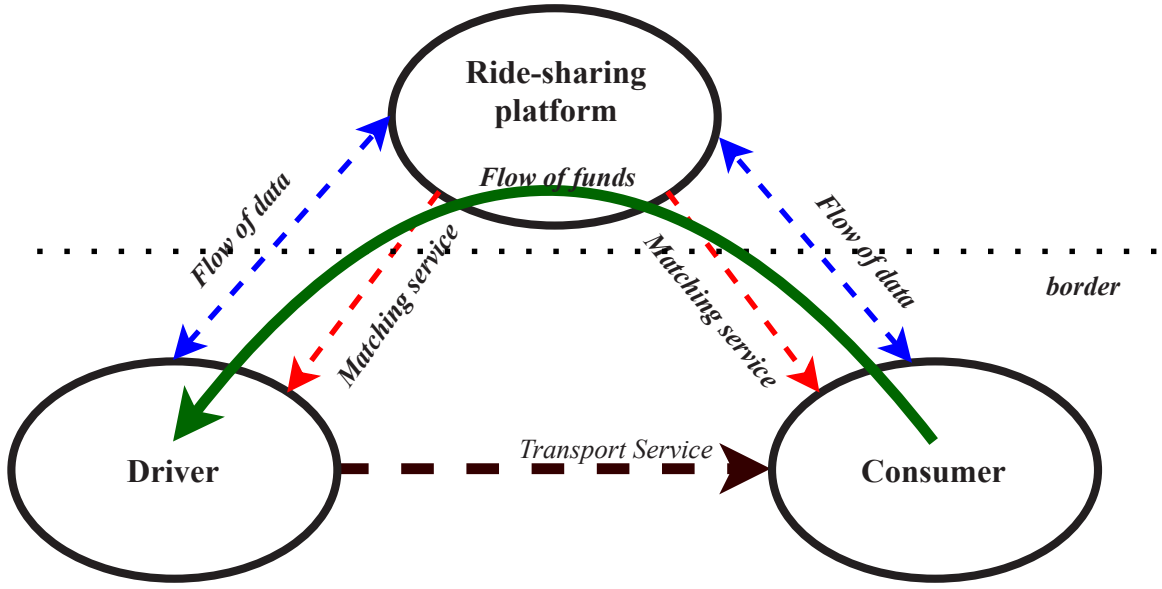
Consider the example of a ride-hailing service delivered through a mobile application (Figure 1). In the offline world, a customer would hail a taxi and pay for the ride in cash. In the digital world, the customer need no longer wait until she sees a taxi nor carry cash in hand; the application delivers a matching service, manages payment and provides insurance cover.

Although in both online and offline cases the nature of the service provided by the driver is the same, getting the customer from point A to point B, digitalisation has changed the "what" of trade by making a new and previously considered non-tradable service, ride-hailing, tradable. It has also changed the "how" of trade. First, by allowing the transaction to take place through digital means, via data and information flows between the driver, the rider and the platform. And, second, by bundling different transactions together to help deliver the transport service (e.g. the joint provisions of payment and insurance services delivered digitally, with a transport service delivered physically).

What issues does digital trade raise for policy?

The challenges that digitalisation raises for policy can also be illustrated using the ride-hailing example. For instance, since the digital platform owns no cars, should its activities be classified as a transport service or a business service? When looking at what crosses the border, the transaction between the consumer and the mobile application can be considered an intermediation service, implying that it is subject to GATS commitments in business services. But arguably, the transaction is linked to the delivery of a transport service and thus might be subject to GATS commitments in this sector. The mode of delivery might also change: the ride-hailing platform could arguably switch from Mode 1 (cross-border sale) to Mode 3 (local presence) by locating servers domestically. This matters because commitments can differ by sector or mode of delivery.

Figure 1. Transactions involved in a ride-hailing service



Note: The figure is for illustrative purposes only, it does not purport to reflect how ride-sharing businesses are run.

While existing multilateral trade rules were negotiated when digital trade was in its infancy, these rules are technologically neutral and therefore continue to apply to digital trade transactions. However, there can be uncertainty about which rules apply to which transactions. Trade rules are predicated on identifying whether products are goods or services and the borders they cross. But, in the digital era, these distinctions are increasingly blurred. For example, a 3D printing transaction involves a design service crossing a border, but at the moment of consumption it is a good, so should GATT rules for goods apply or those negotiated for services under GATS? If the transaction is made from a server in the UK but the intellectual property belongs to a company in Germany, what is the origin of the product?

While progress updating or clarifying international trade rules in the multilateral trading system has been slow, global governance of digital trade has progressed under bilateral and regional trade agreements (RTAs). These are increasingly covering broader issues including the permanent prohibition of customs duties on electronic transmissions and non-discriminatory treatment in terms of domestic regulation, electronic authentication to data protection and paperless trade.

What issues does digital trade raise for measurement?

One key challenge for the measurement of digital trade is identifying the digital 'footprint' of transactions. For instance, even if the ride-hailing transaction above were to be recorded as cross-border trade in transport services, it remains difficult to identify within transport services trade those parts that are digitally enabled .

Another major measurement challenge concerns flows which do not result in a monetary transaction per se, but which may support one. For instance, in the case of social networks, there is no monetary transaction between a social network service provider and a user, and in terms of existing international standards, no trade. However, the information created from the use of social networks generates advertising revenues. These could be provided in the form of a cross-border service. In this case, while the advertising monetary flow would be captured in trade statistics, the information flows (and, from the persepective of the consumer, social media service) upon which it depends are not.

Similarly, because they are free, the international accounting system does not in general impute transactions related to the use of goods and services which exhibit the features of public goods (such as open-source or free software). This raises issues concerning the measurement of consumer surpluses, but also potentially policy issues related to anti-dumping and competition policies, if the freely available software is designed to gain market share with a view to the introduction of subsequent priced models.

What does all this mean for ensuring market openness?

Digitalisation is leading to more numerous and complex international trade transactions involving combinations of goods, services and data crossing borders, and requiring a more holistic approach to market openness. Engaging in digitally enabled trade in goods means paying attention to a range of supporting services, such as telecommunications, logistics or e-payments. Similarly, the ability to engage in trade in services, particularly

those that are digitally delivered, is also affected by market access in ICT goods (think of the mobile phone used for the ride-hailing application). Today, market openness needs to consider the measures affecting goods, services and digital connectivity more jointly (Lopez-Gonzalez and Ferencz, 2018)

What is more, in this new environment, the measures that affect trade are also changing. Old trade issues, such as de minimis provisions or trade facilitation, can have new trade consequences, when, for example, they affect trade in digitally ordered parcels. At the same time, new measures, such as those affecting the movement of data, raise new and often contentious issues for digital trade.

Where do cross-border data flows fit in this environment?

Trade and production are heavily dependent on moving, storing and using digital information (data), increasingly across borders. Data enables the coordination of international production processes through global value chains (GVCs), it helps small firms reach global markets, it can be an asset that can be traded, a conduit for delivering services and a key component for automation in trade facilitation – in the digital age, data is the lifeblood of international trade.

But its ubiquitous exchange has given rise to concerns by governments and citizens about some of the negative side effects of so much information being collected, transferred and used, often without the knowledge of data subjects. Concerns related to privacy and security, amongst others, have led to growing calls for deeper and more widespread regulation of the Internet and its underlying data flows. As a result, governments are updating data-related regulations and increasingly conditioning the transfer of data across borders or requiring that data be stored locally.

Restrictions on data flows related to privacy and security can have trade consequences, when, for instance, they affect the movement of data that is critical for the coordination of global value chains or for an SME to trade. While digital infrastructures such as the Internet were born global, and offer new opportunities for firms of all sizes, they also raise considerable challenges for policy in a world where borders and regulatory differences between countries remain.

As governments approach the question of how to regulate cross-border data flows, it will be increasingly important that the international and trade dimensions of data regulations are carefully examined, to ensure that objectives such as market openness, the protection of personal data and of intellectual property, are all comprehensively understood, considered, and balanced.

Way forward

Digital trade promises new opportunities, and brings new challenges for policy-making. With growing complexity of transactions and greater demand for just-in-time and 24/7 delivery of goods and services, trade needs to take place faster in order to deliver the benefits it promises. Understanding the drivers of this new paradigm for trade is key in getting the policy mix right and making digital trade more inclusive for all.

References

- Lopez-Gonzalez, J. and M. Jouanjean (2017), "Digital Trade: Developing a Framework for Analysis", OECD Trade Policy Papers, No. 205, OECD Publishing, Paris. http://dx.doi.org/10.1787/524c8c83-en
- Lopez-Gonzalez, J. and J. Ferencz (2018), "Digital Trade and Market Openness", OECD Trade Policy Papers, No. 217, OECD Publishing, Paris. http://dx.doi.org/10.1787/1bd89c9a-en
- Miroudot, S. and C. Cadestin (2017), "Services in Global Value Chains: Trade patterns and gains from specialisation", OECD Trade Policy Papers, No. 208, OECD Publishing, Paris. http://dx.doi.org/10.1787/06420077-en