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# Business e-commerce sales and the role of online platforms

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# Summary

This technical note presents the latest statistics on the value of e-commerce sales by businesses. It benefits from a notable increase in availability brought about by the release, by Eurostat, of figures for many EU and partner countries.

In 2021, approaching US\$ 25 trillion of e-commerce sales were generated by businesses across 43 developed and developing economies accounting for around three quarters of worldwide GDP. This represents a 15 per cent increase over pre-pandemic (2019) levels and sales are *estimated* to have risen a further 10 per cent - to almost \$27 trillion - in 2022.

The share of business turnover generated through e-commerce varies widely in the economies analysed, from less than one per cent to as much as 30 per cent. In almost all cases, the majority of e-commerce sales by businesses are made to other businesses or organizations. In most, the share of business-to-consumer sales is less than a quarter.

While developing economies generate around 40 per cent of global GDP, their share in business e-commerce sales is considerably lower.

The bulk of e-commerce sales across these 43 developed and developing economies, which also account for around three quarters of exports globally, occur between buyers and sellers resident in the same economic territory. It is estimated that digitally ordered exports (i.e. international e-commerce sales) from these economies were worth around \$2.5 trillion in 2021. This equates to around 13 per cent of total exports of goods and services. However, as there is limited data on digitally ordered trade, this estimate is relatively uncertain.

Statistics on online retail sales, a subset of business-to-consumer e-commerce, share the same pattern of rapid growth that was boosted during the pandemic. This growth moderated somewhat in 2023 as pandemic restrictions and disruptions abated. China, the United Kingdom, and the Republic of Korea stand out for having markedly higher online retail sales than other economies, at around 25 to 30 per cent of all retail sales. The United States follows at around 15 per cent while the bulk of economies fall in a range of roughly 5-10 per cent.

Digital intermediary platforms (DIPs) are key players in the e-commerce landscape. The value of transactions through 37 major DIPs increased by over 55 per cent during the pandemic.

The Task Group on Measuring E-commerce Value (TG-eCOM), convened by UN Trade and Development, brings together various countries covered in this report, as well as international organizations, to develop internationally agreed guidelines and recommendations that can serve as a basis for capacity building and technical assistance to improve the availability and comparability of statistics on e-commerce.



# 1.

## E-commerce is an increasingly important sales channel for businesses

Selling over the Internet is increasingly important for doing business. Today, many enterprises are “born digital”, selling online only, while others mix increasing online sales with taking orders by other means, notably over the phone or in person. For successful online sellers, key benefits include the ability to reach new customers domestically and abroad, in a way that is relatively low cost and convenient for both buyers and sellers. Online only businesses can also avoid the costs of operating customer-facing sales premises.

E-commerce is defined as “the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders” (OECD, 2009).<sup>1</sup>

Furthermore, “the goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online” (OECD, 2009). While e-commerce ordering is often accompanied by online payment, this is not a defining feature of it; orders placed online but paid for on delivery, on collection, or at any other time, by card, cash, or any other means all count as e-commerce transactions.

Any good or service can be ordered via e-commerce, and so e-commerce is not a “sector” in its own right, but cuts across all industries and products.

Additionally, “an e-commerce transaction can be between enterprises, households, individuals, Governments, and other public or private organizations” (OECD, 2009). Nevertheless, both “Measuring the value of e-commerce” (UNCTAD, 2023) and the Handbook on Measuring Digital Trade (IMF, OECD, UNCTAD, and WTO, 2023) emphasize the central role of businesses in the e-commerce landscape. They also highlight the limited availability of statistics as a key barrier to understanding the true extent of the economic role of e-commerce and digitally ordered trade in facilitating the placing and receiving of orders between businesses and their customers.

E-commerce is defined as “the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders”.

<sup>1</sup> As well as sales over the Internet, this includes orders placed over private networks, such as those used to manage supply chains in certain industries. It excludes orders placed by phone, fax, or manually typed emails because although these may be made over the Internet, they are not via methods specifically designed for the placing and receiving of orders.







\$ 26

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# 2.

## Newly available statistics on business e-commerce sales

In response to the above call for action, Eurostat conducted an exercise in which European Union member states and partner countries reporting results from the community survey on ICT usage and e-commerce in enterprises were asked for permission to publish estimates of the value of e-commerce sales by businesses. These have been transmitted to Eurostat for at least seven years, for the purpose of calculating EU aggregates.

As a result, more statistics on the value of business e-commerce sales are now available.<sup>2</sup> This includes 19 of 27 EU member states (including a limited number which previously published statistics themselves, as highlighted in UNCTAD (2023)), and a further five partner countries (including the United Kingdom up to reporting year 2019). This creates a significant improvement in the availability of e-commerce statistics especially for developed economies.

These newly available statistics can be combined with estimates covering a further eight EU27 countries, as detailed in Box 1, and presented alongside statistics reported by other developed and developing economies, including the United States and China. The result is a measure of business e-commerce sales covering 43 economies which generate around 76 per cent<sup>3</sup> of global GDP and 73 per cent<sup>4</sup> of exports worldwide.

**Almost \$25 trillion of e-commerce sales were generated by businesses across 43 developed and developing economies in 2021 (Figure 1). This represents a 15 per cent increase over pre-pandemic (2019) levels. E-commerce sales are estimated to have risen by a further 10 per cent - to \$27 trillion - in 2022.**

E-commerce sales are estimated to have risen by a further 10 per cent - **to \$27 trillion** - in 2022

<sup>2</sup> Available at [https://ec.europa.eu/eurostat/databrowser/view/isoc\\_ec\\_evalsm/default/table?lang=en&category=isoc.isoc\\_e.isoc\\_ec](https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_evalsm/default/table?lang=en&category=isoc.isoc_e.isoc_ec)

<sup>3</sup> Based on <https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPTotal>

<sup>4</sup> Based on <https://unctadstat.unctad.org/datacentre/dataviewer/US.GoodsAndServicesBpm6>

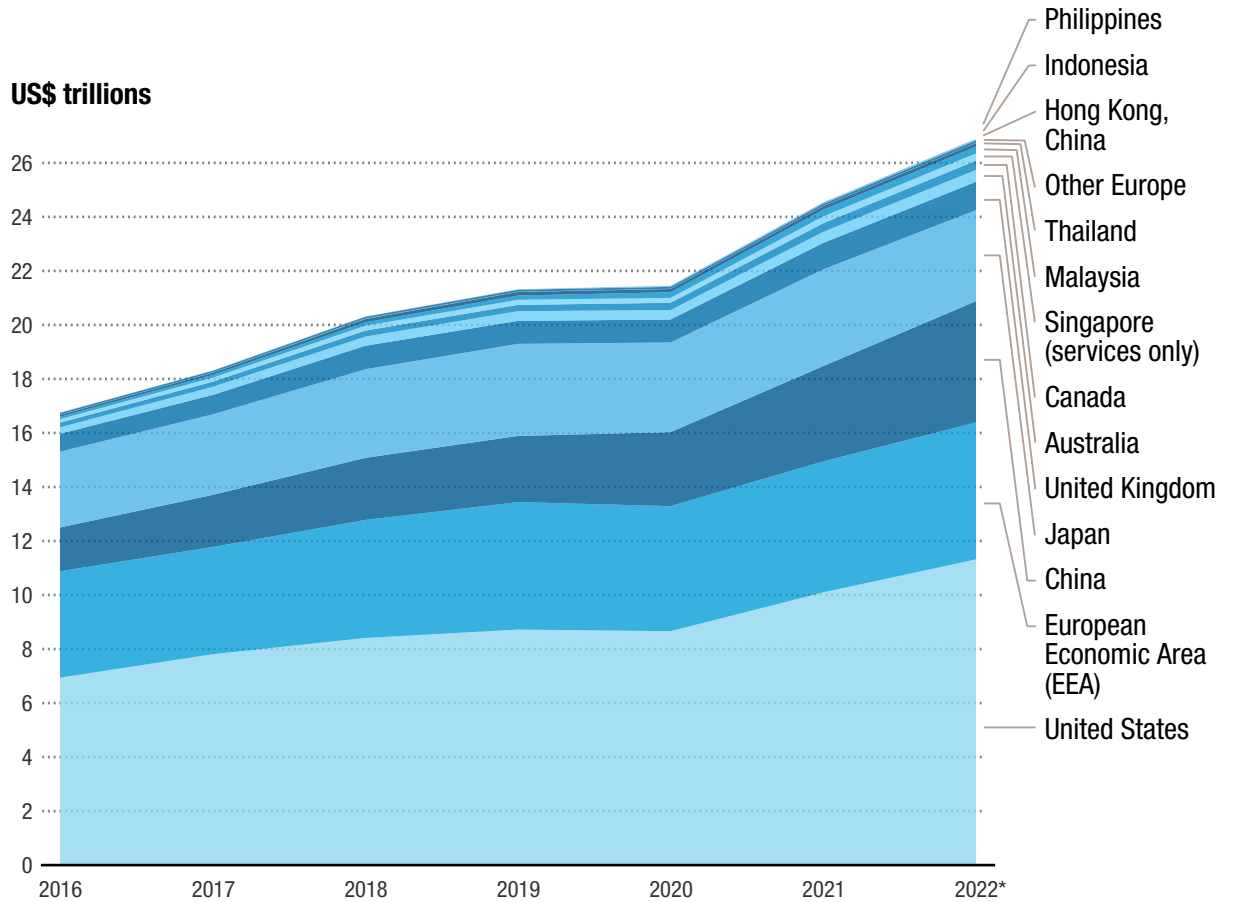






**Figure 1**  
**E-commerce sales by businesses, 2016–2022**

Businesses in 43 developed and developing economies generating around three quarters of global GDP



Source: UNCTAD based on Eurostat digital economy and society database, Eurostat Structural Business Statistics database, and national statistical agencies (see Annex A).

Note: Other Europe: Bosnia and Herzegovina, Serbia.

European Economic Area (EEA) consists of the EU27 states plus Norway and Iceland (Lichtenstein is excluded due to missing data). Within the EEA figure, the monetary value of e-commerce sales by businesses is not available directly for Belgium, Bulgaria, Cyprus, Italy, Ireland, Latvia, Romania, and Sweden. It has therefore been derived by applying the published shares of e-commerce transactions in total turnover from the survey of ICT usage and e-commerce in enterprises to the turnover of businesses of the relevant size (10+ persons employed) and in the relevant industries from the Structural Business Statistics.

\* From 2016-2021, extrapolated figures account for between one and six per cent of the overall total. With turnover-based estimates (rather than directly reported values) for eight EEA countries, between 7 and 12 per cent of the overall total is estimated. In 2022, extrapolated figures for nine economies, plus turnover-based estimates for seven EEA countries and an estimate for e-commerce sales by U.S. manufacturers, account for one third of the overall total. For this reason, the 2022 figure should be regarded as indicative. For more information on the compilation, comparability, and robustness of these figures see Box 1.







## Box 1 Compiling business e-commerce sales

Figure 1 aggregates statistics on the value of business e-commerce sales, as published by National Statistical Offices or other competent government agencies along with estimates by UN Trade and Development where necessary. This yields the value of e-commerce sales across economies representing around 76 per cent of global GDP and 73 per cent of global trade in goods and services shown in Figure 2.

However, there are uncertainties around these figures.

Firstly, all statistics have a degree of uncertainty around them, reflecting sampling and non-sampling errors.<sup>5</sup> Additionally, the industries and firm sizes covered vary across economies, as does the inclusion of taxes, discounts, and returns (UNCTAD, 2023).

Secondly, because monetary values of business' e-commerce sales are not available directly for Belgium, Bulgaria, Cyprus, Italy, Ireland, Latvia, Romania and Sweden, UN Trade and Development have estimated these by applying the published national shares of e-commerce sales in business turnover from the business ICT surveys<sup>6</sup> to businesses turnover, available from the Structural Business Statistics<sup>7</sup> database. The measure of total business turnover used for this derivation was aligned as far as possible given the available data, with the firm size (10+ persons employed) and industries<sup>8</sup> covered by business ICT surveys in Europe. These estimates constitute around 20-30 per cent of the EEA total and 5-6 per cent of the overall total.

Estimates were made in the same way for the other EU and partner economies with the same information available. On average, the business e-commerce sales figures directly reported by these countries are around 3 per cent lower than the derived estimates. However, there is considerable variation in this disparity between countries (including in direction) and the actual business e-commerce sales in the eight countries being estimated this way may well be significantly higher or lower than the estimates derived. This has been accounted for by ordering the observed disparities (calculated by dividing each reported e-commerce sales figure by the corresponding estimated figure) by size. The values at the 20th and 80th percentiles, respectively indicating a 12 per cent overestimate and a 4 per cent underestimate, are then used to compute a range of uncertainty around the estimates for the eight countries mentioned above.

Additionally, the value of U.S. manufacturers' e-commerce sales in 2022, is not yet available (while it is for services, retail sales, and wholesale sales). Manufacturers comprise around 40 per cent of business e-commerce sales in the U.S. The central estimate therefore relies on applying the 2021 share of e-commerce in manufacturers' sales (69.6 per cent) to total "sales, value of shipments, or revenue" as presented in the 2022 manufacturing summary statistics (see Annex A for sources).

<sup>5</sup> See for instance <https://www.ons.gov.uk/methodology/methodologytopicsandstatisticalconcepts/uncertaintyandhowwemeasureit>

<sup>6</sup> Available at [https://ec.europa.eu/eurostat/databrowser/view/isoc\\_ec\\_evals/default/table?lang=en&category=isoc.isoc\\_e.isoc\\_ec](https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_evals/default/table?lang=en&category=isoc.isoc_e.isoc_ec)

<sup>7</sup> [https://ec.europa.eu/eurostat/databrowser/view/sbs\\_sc\\_sca\\_r2\\_custom\\_9876920/default](https://ec.europa.eu/eurostat/databrowser/view/sbs_sc_sca_r2_custom_9876920/default) and [https://ec.europa.eu/eurostat/databrowser/view/SBS\\_SC\\_OVV/default](https://ec.europa.eu/eurostat/databrowser/view/SBS_SC_OVV/default)

<sup>8</sup> All activities except Agriculture, forestry, and fishing; Mining and quarrying; Financial and insurance activities; Public administration, defence, education, human health, and support service activities; Arts, entertainment and recreation; Activities of membership organisations; Repair of personal and household goods (repair of computers and communication equipment is included); other personal service activities (e.g. hairdressing, laundry, funeral services).



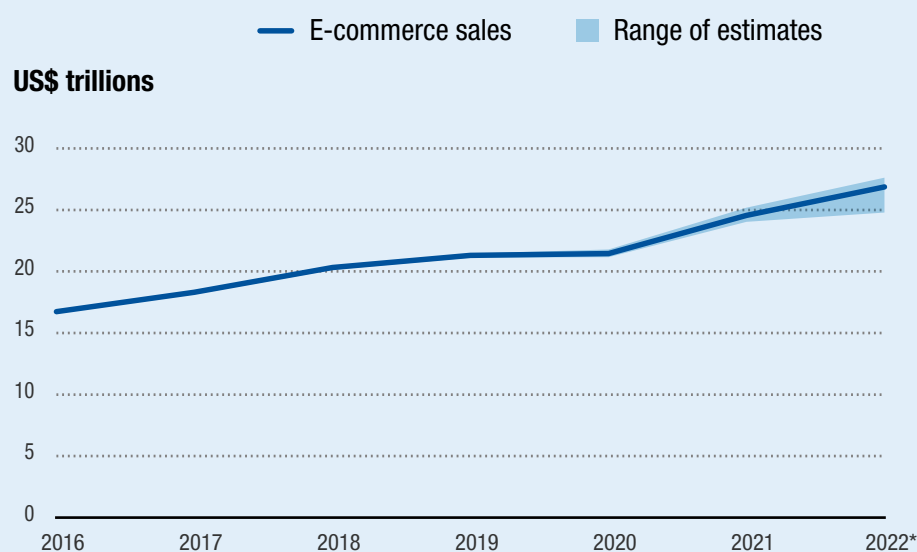
Most importantly, in each period, there are missing observations for between five and nine economies. Where possible, these are estimated by linear interpolation between two available periods. In other cases, the available observations are extrapolated forwards or backwards in time based on the growth rates observed across countries. The central estimate shown in Figure 2, which matches the overall total in Figure 1, assumes that these missing values follow the median trend across all economies with observations available. The lower and upper bounds of the range of estimates respectively reflect the trends at the 20th and 80th percentiles when the observed growth rates are ordered from lowest to highest. They also account for uncertainty in the turnover-based estimates for the 8 EEA economies, as set out above.

From 2016 to 2021, between one and six per cent of the central estimate is based on extrapolated figures. In 2022, extrapolated estimates for nine countries account for 11 per cent of the total. With the estimates for eight EU countries and for U.S. manufacturers, estimates comprise one third of the central estimate in 2022. The 2022 figure should therefore be regarded as indicative.



**Figure 2**  
**E-commerce sales by businesses across 43 economies, 2016–2022**

Businesses in 43 developed and developing economies generating around three quarters of global GDP



Source: UNCTAD based on Eurostat digital economy and society database, Eurostat Structural Business Statistics database, and national statistical agencies (see Annex A).

Note: Developed economies covered (c80% of total in 2021-22): Australia, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, United Kingdom, United States. Developing economies covered (c20% of overall total in 2021-22): China, Hong Kong China, Indonesia, Malaysia, Philippines, Singapore (services only), Thailand.

\* From 2016-2021, extrapolated figures account for between one and six per cent of the overall total. With turnover-based estimates (rather than directly reported values) for eight EEA countries, between 7 and 12 per cent of the overall total is estimated. In 2022, extrapolated figures for nine economies, plus turnover-based estimates for seven EEA countries and an estimate for e-commerce sales by U.S. manufacturers, account for one third of the overall total. For this reason, the 2022 figure should be regarded as indicative. For more information on the compilation, comparability, and robustness of these figures see Box 1.



# 3.

## Developing economies have room to grow e-commerce

There is limited availability of statistics on e-commerce sales by businesses, especially among developing economies.

Of the 43 economies with figures available, 36 are classified as developed economies. These represent 90 per cent of developed economies' GDP, with the Russian Federation and Republic of Korea being by far the largest of the 18 developed economies for which data are missing.

Of the 157 economies classified as developing economies<sup>9</sup>, seven – China, Hong Kong - China, Indonesia, Malaysia, Singapore<sup>10</sup>, Thailand, and the Philippines – are known to have published statistics on the value of e-commerce sales by businesses. These seven account for just over half of the GDP of all developing economies.

Figure 3 compares business e-commerce sales across developed and developing economies. As well as presenting the observed totals, it also gives an indication of the potential extent of under representation which may be present in these figures due to un-covered economies. This is derived by “grossing up” the observed e-commerce sales figure according to the share of the economies it represents in the total GDP for developed or developing economies, so that the result notionally also represents un-covered economies.<sup>11</sup>

However, for the outcome to be a robust overall estimate for each economy group, e-commerce sales would need to have a similar ratio to GDP in the missing economies as in those that are covered. This is a strong assumption and is particularly unlikely to hold for the developing economies. The seven developing economies represented are relatively highly digitalised, all in Asia, and all classified as middle- or high-income developing economies<sup>12</sup> so are unlikely to be good representatives of all 157 developing economies. The grossed-up figures should therefore not be interpreted as a robust measure of the total e-commerce sales by businesses as they are potentially a substantial over-estimate.

**Although the absolute magnitude of the disparity is uncertain, useful comparisons can still be made. It is clear that e-commerce sales by businesses in developed economies far exceed those of businesses in developing economies. Furthermore, while developing economies generate around 40 per cent of global GDP, their share in business e-commerce sales is considerably lower. At most, developing economies might account for around 25 per cent of business e-commerce sales - and they likely comprise much less, potentially only around 15 per cent. This suggests significant remaining growth potential for e-commerce in developing countries.**

It is clear that e-commerce sales by businesses in developed economies far exceed those of businesses in developing economies.

<sup>9</sup> See <https://unctadstat.unctad.org/EN/Classifications.html>

<sup>10</sup> for services only, though these comprise over 70 per cent of GDP (<https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?locations=SG>)

<sup>11</sup> For example, in 2021 these seven developing economies accounted for 55 per cent of developing economies' GDP and their businesses made e-commerce sales of US\$ 4 trillion. The latter figure is “grossed up” by computing  $\$4\text{trn} / 55\%$  yielding a figure of almost US\$ 8 trillion. However, this is not a robust estimate of the value of e-commerce sales across all developing economies for the reasons outlined.

<sup>12</sup> <https://unctadstat.unctad.org/EN/Classifications.html>

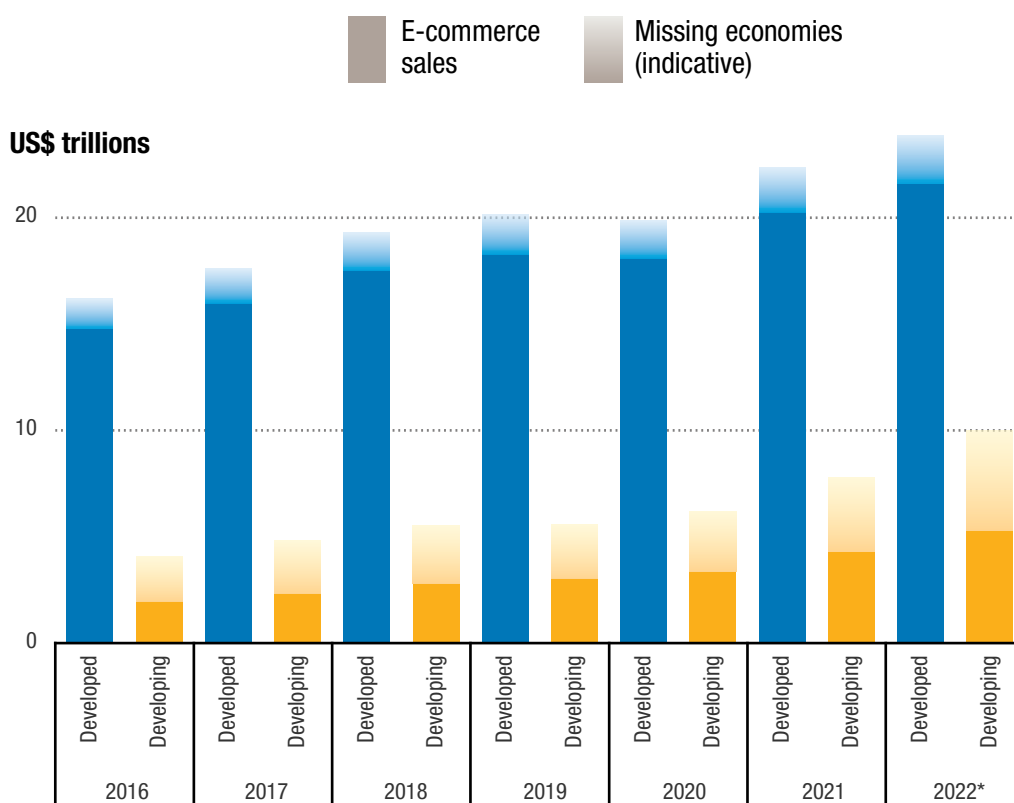




**Figure 3**

**E-commerce sales by businesses, developed and developing economies, 2016–2022**

Businesses across 36 developed economies representing around 90 per cent of developed economy GDP and 7 developing economies representing around 50 per cent of developing economy GDP



*Source:* UNCTAD based on Eurostat digital economy and society database, Eurostat Structural Business Statistics database, national statistical agencies (see Annex A), and UNCTAD Gross Domestic Product Database (<https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPTotal>)

*Note:* Missing economies (indicative) estimated based on the share of missing economies in the total GDP of developed or developing economies. This provides an indication of the potential scale of under-representation in the available e-commerce value figures and should not be regarded as yielding a robust estimate of total e-commerce sales for all developed or developing economies.

Developed economies covered (c80% of total in 2021-22): Australia, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, United Kingdom, United States. Developing economies covered (c20% of overall total in 2021-22): China, Hong Kong China, Indonesia, Malaysia, Philippines, Singapore (services only), Thailand.

\* From 2016-2021, extrapolated figures account for between one and six per cent of the overall total. With turnover-based estimates (rather than directly reported values) for eight EEA countries, between 7 and 12 per cent of the overall total is estimated. In 2022, extrapolated figures for nine economies, plus turnover-based estimates for seven EEA countries and an estimate for e-commerce sales by U.S. manufacturers, account for one third of the overall total. For this reason, the 2022 figure should be regarded as indicative. For more information on the compilation, comparability, and robustness of these figures see Box 1.





# 4.

## The economic scale of business e-commerce sales varies

To gain a perspective on their economic scale, it may be useful to compare the value of business e-commerce sales to GDP. It is critical that this is not misinterpreted as a contribution to GDP. The latter is a measure of value added and is therefore not directly compatible with statistics that sum all business e-commerce sales, including those made to other businesses for use as inputs.

In the economies covered, business e-commerce sales range from being equivalent to just one per cent to as much as 70-80 per cent of GDP (Figure 4).

Although the average ratio for developing economies, at 0.29, is only slightly lower than developed economies' 0.31, both groups display considerable variation from the highest to the lowest ratio.

Splitting Figure 4 by development status, business e-commerce sales are generally lower relative to GDP in developing economies than in developed economies (Figure 5). This suggests that business e-commerce sales are contributing relatively less to the economy in developing economies.

A less widely available, but more meaningful gauge of economic scale expresses e-commerce sales as a proportion of businesses' total turnover from sales. This also varies widely across countries, from as low as 0.8 to over 30 per cent (Figure 6). The few developing economies with these statistics available fall at the lower end of the scale. It is likely that e-commerce also contributes a relatively lower share of business' turnover in other developing economies, many of which lag those shown in terms of digitalization (IMF, OECD, UNCTAD, WTO, World Bank, 2023).

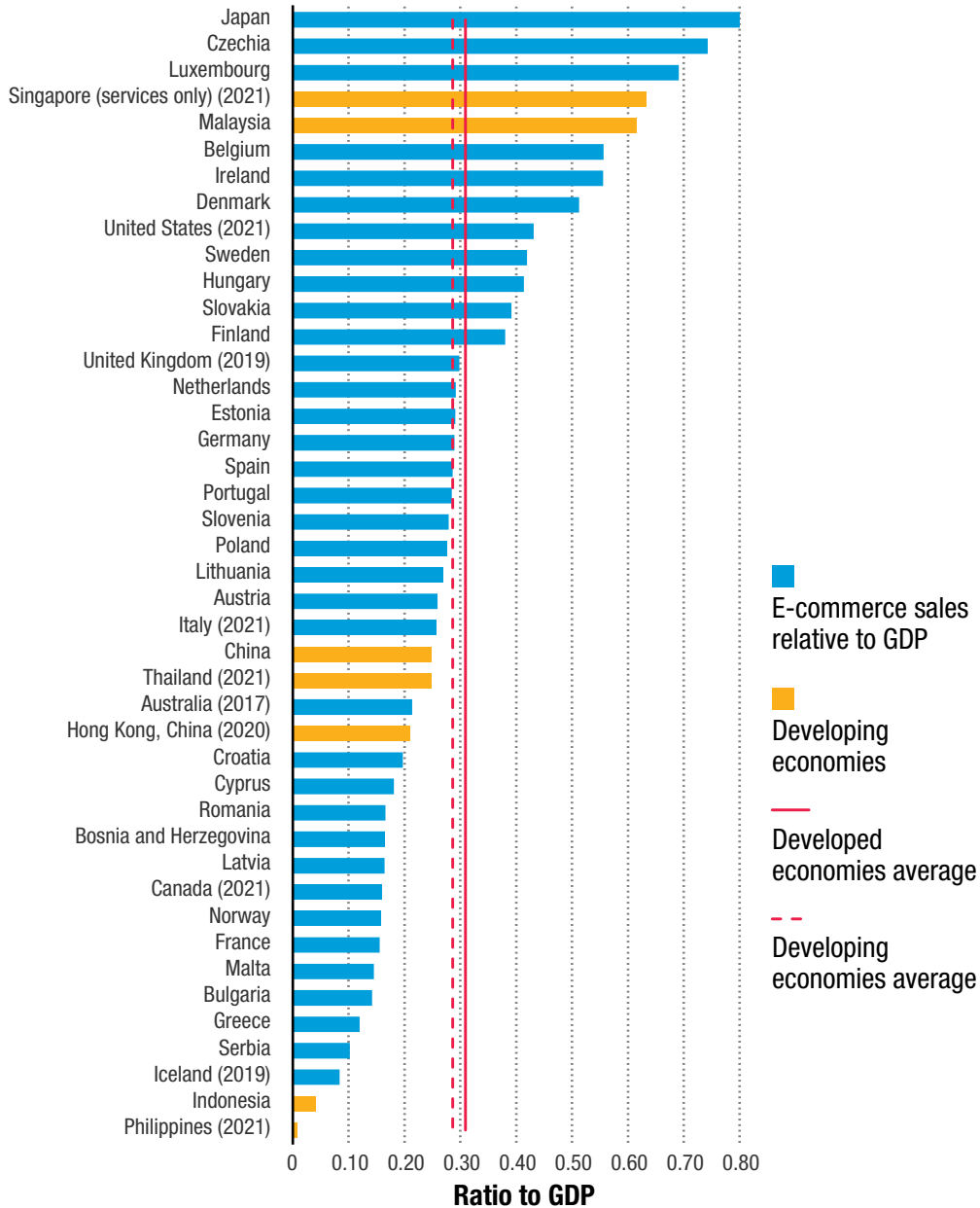
It is critical that **this is not misinterpreted as a contribution to GDP**





**Figure 4**

**E-commerce sales by businesses as a ratio to GDP, 2022 or latest**



Source: UNCTAD based on Eurostat digital economy and society database, Eurostat Structural Business Statistics database, national statistical agencies (see Annex A), and UNCTAD Gross Domestic Product Database (<https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPTotal>)

Note: Industries and firm sizes covered vary across economies, as does inclusion/exclusion of taxes, discounts, and returns; see Figure 8 and Annex 3 in “Measuring the value of e-commerce” (UNCTAD, 2023).

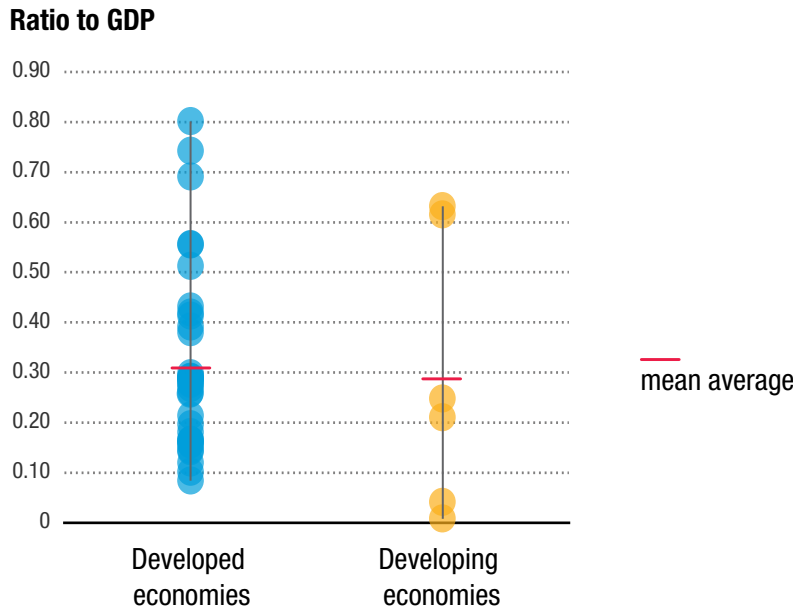
For Belgium, Bulgaria, Cyprus, Italy, Ireland, Latvia, Romania, and Sweden the monetary value of e-commerce sales by businesses is not available directly. It has therefore been derived by applying the published shares of e-commerce transactions in total turnover from the survey of ICT usage and e-commerce in enterprises to the turnover of businesses of the relevant size (10+ persons employed) and in the relevant industries from the Structural Business Statistics. For more information on the compilation, comparability, and robustness of these figures see Box 1.





**Figure 5**

**E-commerce sales by businesses as a ratio to GDP, 2022 or latest, by development status**



Source: UNCTAD based on Eurostat digital economy and society database, Eurostat Structural Business Statistics database, national statistical agencies (see Annex A) and UNCTAD Gross Domestic Product Database (<https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPTotal>).

Note: for the countries and years represented, see Figure 4.

**This illustrates the potential problem of using GDP as a benchmark when considering the economic scale of e-commerce, and especially as a means for “grossing up” the available statistics and estimates to make them notionally representative of all economies (including those which are missing). There can be a considerable difference between the share of e-commerce in business turnover and its ratio to GDP (Figure 7), though the extent of this difference will depend on the features of each economy.**

In particular, two of the developing countries represented see a vast difference between these two metrics. In Singapore, the value of business e-commerce is equivalent to as much as 63 per cent of GDP (all the more impressive as the e-commerce data for Singapore cover services only) but makes up only 8 per cent of services sector turnover. In Hong Kong, China these figures are 21 and 7 per cent respectively.

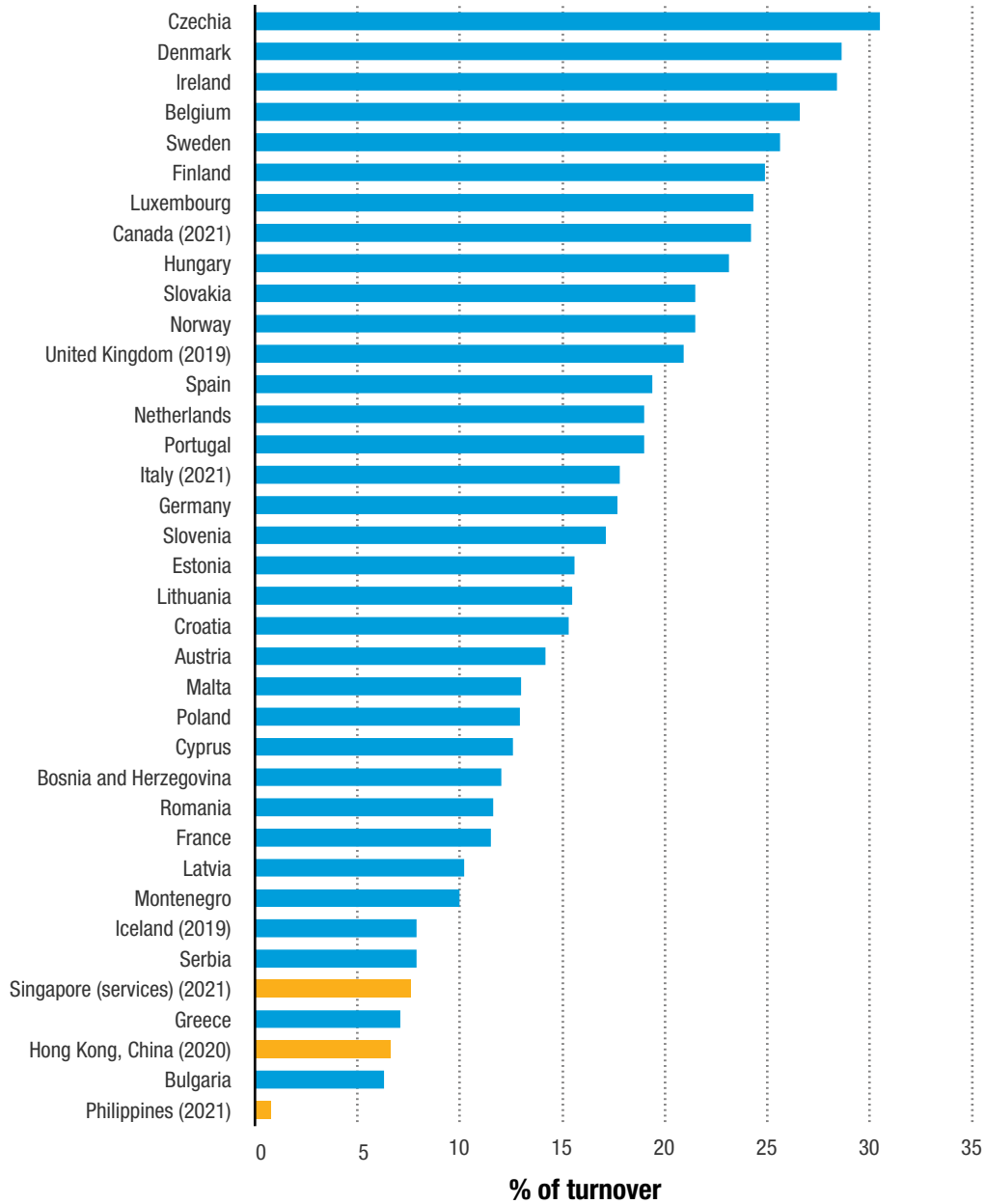
There can be a considerable difference between the share of e-commerce in business turnover and its ratio to GDP





**Figure 6**

**E-commerce sales by businesses as a percentage of turnover, 2022 or latest**



Source: UNCTAD based on Eurostat digital economy and society database, national statistical agencies (see Annex A).

Note: Singapore: share of service sector operating revenue. Hong Kong, China: share of business receipts. Philippines: Share of total revenue.

Industries and firm sizes covered vary across economies, as does inclusion/exclusion of taxes, discounts, and returns; see Figure 8 and Annex 3 in "Measuring the value of e-commerce" (UNCTAD, 2023).

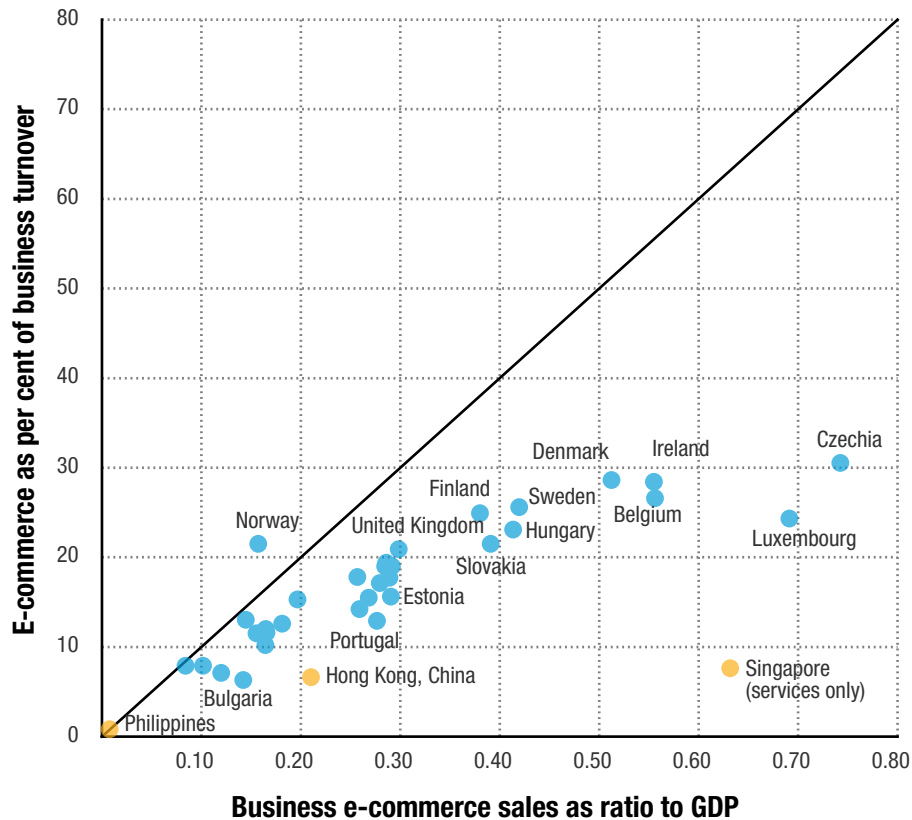






**Figure 7**

**E-commerce sales by businesses as a percentage of turnover (y-axis) and as a ratio to GDP (x-axis), 2022 or latest**



Source: UNCTAD based on Eurostat digital economy and society database, Eurostat Structural Business Statistics database, national statistical agencies (see Annex A) and UNCTAD Gross Domestic Product Database (<https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPTotal>)

Note: For the countries and years represented see Figure 6.

Industries and firm sizes covered vary across economies, as does inclusion/exclusion of taxes, discounts, and returns; see Figure 8 and Annex 3 in “Measuring the value of e-commerce” (UNCTAD, 2023).

For Belgium, Bulgaria, Cyprus, Italy, Ireland, Latvia, Romania, and Sweden the monetary value of e-commerce sales by businesses, used to calculate the ratio to GDP, is not available directly. It is therefore derived by applying the published shares of e-commerce transactions in total turnover from the survey of ICT usage and e-commerce in enterprises to the turnover of businesses of the relevant size (10+ persons employed) and in the relevant industries from the Structural Business Statistics.

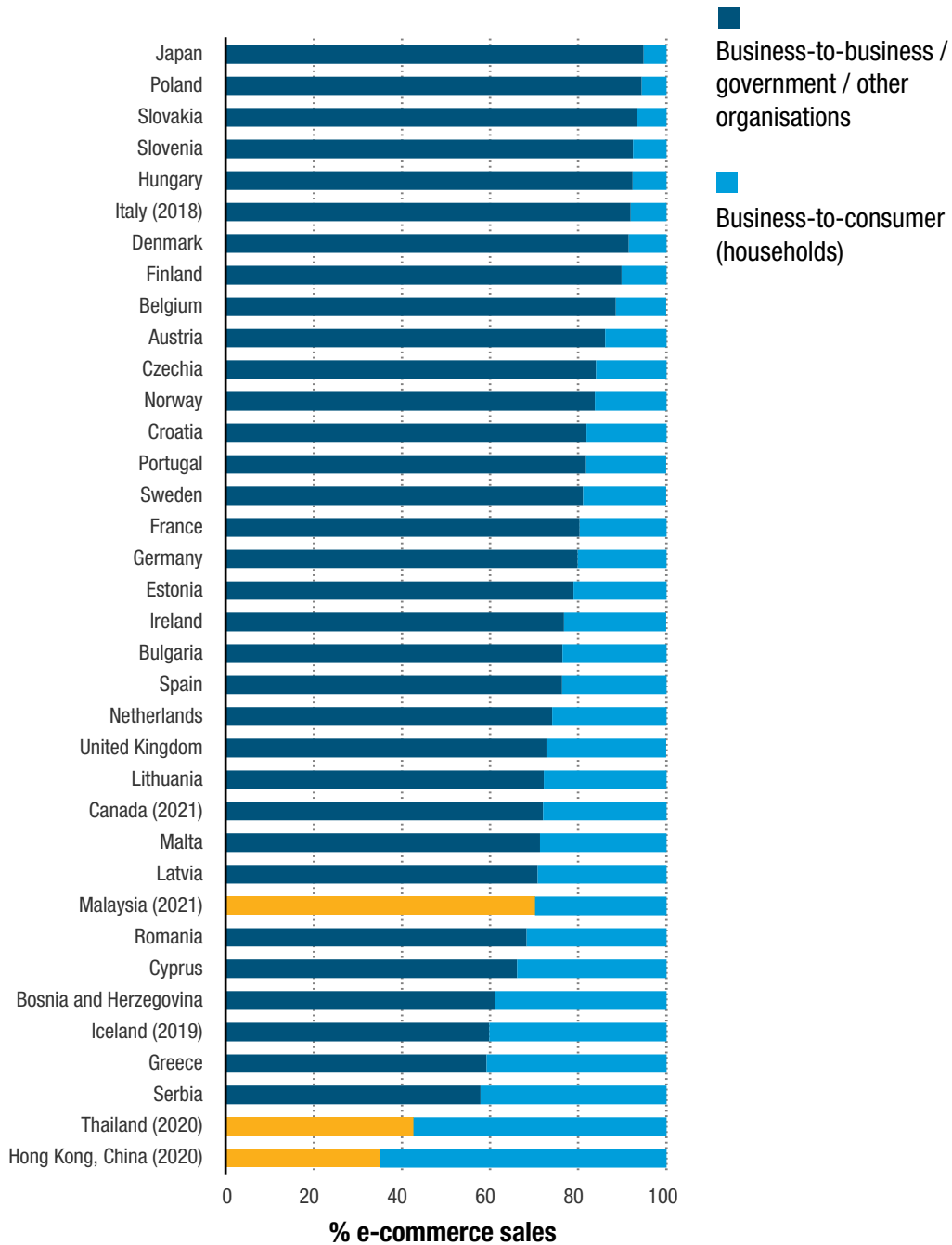
In Figure 7, it can be observed that business e-commerce sales generally equate to a much higher portion of GDP than of business turnover. This is principally because only the value added by each business, subtracting input costs, counts toward GDP. The output produced by non-businesses (i.e. households, government units, and non-profits) also figures in GDP.

As shown in Figure 8, only a portion of e-commerce sales are made directly to consumers (households). **The majority of e-commerce sales occur from**

**businesses to businesses and other types of organizations.** These relate to items ordered as inputs to the buyer’s own productive activities. It should therefore generally be expected that the contribution of e-commerce to GDP (i.e. “e-commerce value added”) would be much lower than the ratio of total e-commerce sales to GDP. However, the transition from e-commerce turnover to value added requires considerable additional information (or modelling).



**Figure 8**  
**E-commerce sales by customer, 2022 or latest**



Source: UNCTAD based on Eurostat digital economy and society database, national statistical agencies (see Annex A).

Note: There is some variation in precisely what transactions are covered in each economy by “business-to-business / government / other organisations”. Canada: respondents report sales to “other businesses or governments”. The remainder is assumed to be B2C. EU member states and partner countries (including the United Kingdom): business-to-business and government (including EDI-type sales, which are measured separately). Hong Kong, China: business-to-business, Government and non-business organisations. Japan: “business-to-business”. Malaysia, Thailand: business-to-business and government.

Industries and firm sizes covered vary across economies, as does inclusion/exclusion of taxes, discounts, and returns; see Figure 8 and Annex 3 in “Measuring the value of e-commerce” (UNCTAD, 2023).

# 5.

## Only a small minority of business e-commerce sales take place internationally

As set out in the Handbook on Measuring Digital Trade (IMF, OECD, UNCTAD, and WTO, 2023), digitally ordered trade is defined as “the international sale or purchase of a good or service, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders”. As such, digitally ordered trade is synonymous with international e-commerce.

The same factors underlying the rise of e-commerce are surely also driving digitally ordered trade. However, information on businesses’ e-commerce sales to customers abroad is not widely available (UNCTAD, 2023).

A breakdown between domestic and international e-commerce sales was included as an optional variable in EU27 and partner countries for the reporting years 2019 and 2021. However, this

breakdown was specified only for “web sales” (i.e. sales via websites or apps), rather than all e-commerce sales. As a result, the split between domestic and international sales does not cover sales via Electronic Data Interchange (EDI) – a system of machine-generated and -readable messages often used by businesses with complex supply chains, such as in automotive manufacturing. This is important because EDI orders comprise the majority of business e-commerce sales by revenue in all EU and partner countries.<sup>13</sup>

Nevertheless, drawing together the available information, as published on the websites of National Statistical Organizations, Figure 9 shows that the international share varies considerably across countries, reaching almost half in Belgium and Slovenia but is as low as around 10 per cent in Thailand, Bosnia and Herzegovina, and Malaysia. The average share is 23 per cent.

It is estimated that roughly **12 to 14 per cent** of these 43 economies’ total exports of goods and services **are digitally ordered.**

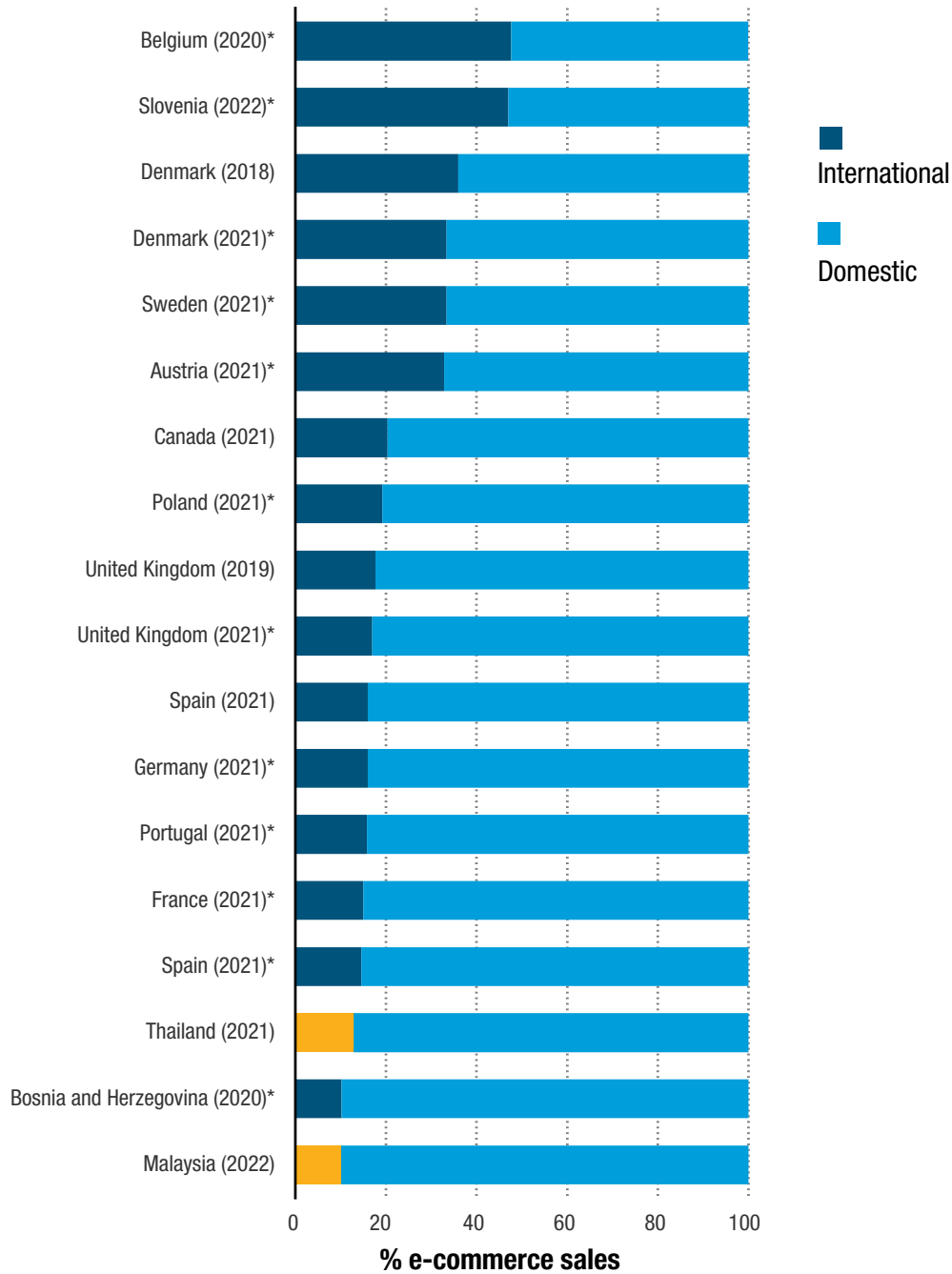
<sup>13</sup> [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce\\_statistics#E-sales\\_record\\_a\\_slight\\_increase\\_over\\_recent\\_years](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics#E-sales_record_a_slight_increase_over_recent_years)





**Figure 9**

**Domestic and international sales as a share of total e-commerce sales, 2022 or latest**



Source: UNCTAD based on Eurostat digital economy and society database, national statistical agencies (see Annex B).

Note: \* relates to “web sales” (i.e. sales via web sites or apps) and therefore excludes sales via EDI, which comprise the majority of e-commerce sales in these countries.

Industries and firm sizes covered vary across economies, as does inclusion/exclusion of taxes, discounts, and returns; see Figure 8 and Annex 3 in “Measuring the value of e-commerce” (UNCTAD, 2023).





The international shares presented in Figure 9, along with any available back-series for the period 2016-2022, can be used to gain insights on the potential scale of digitally ordered exports.

First, the available shares are used to calculate the value of digitally ordered exports from the countries and periods they relate to. The result is then expressed as a share of each country's total goods and services exports.<sup>14</sup>

Treating the results as indicative of the range in which the digitally ordered export shares of the other economies covered by the total business e-commerce sales presented in Figure 1 (and 2) are likely to fall, an estimate can be derived for total digitally ordered exports across the 43 economies in this analysis. Box 2 provides further details on the approach and assumptions used.

The resulting digitally ordered exports series is presented in Figure 10. **It suggests that, across 43 developed and developing economies that account for around three quarters of GDP and exports globally, digitally ordered exports may have been worth around \$2.5 trillion in 2021. This represents a marked increase from around \$2 trillion in 2016–17. Initial estimates indicate a further increase in 2022, to almost \$2.9 trillion.**

It is estimated that roughly 12 to 14 per cent of these 43 economies' total exports of goods and services are digitally ordered.

However, these estimates are highly uncertain as the international e-commerce share is not known for many countries, including two of the biggest e-commerce markets – the United States and China (see Box 2).

This section has analysed the available statistics on e-commerce sales by businesses as a whole. The following section looks at the latest trends in business-to-consumer e-commerce, and in particular online retail sales – for which timely statistics are available in many economies.

<sup>14</sup> According to the UNCTAD Exports and Imports of Goods and Services Database (<https://unctadstat.unctad.org/datacentre/dataviewer/US.GoodsAndServicesBpm6>)

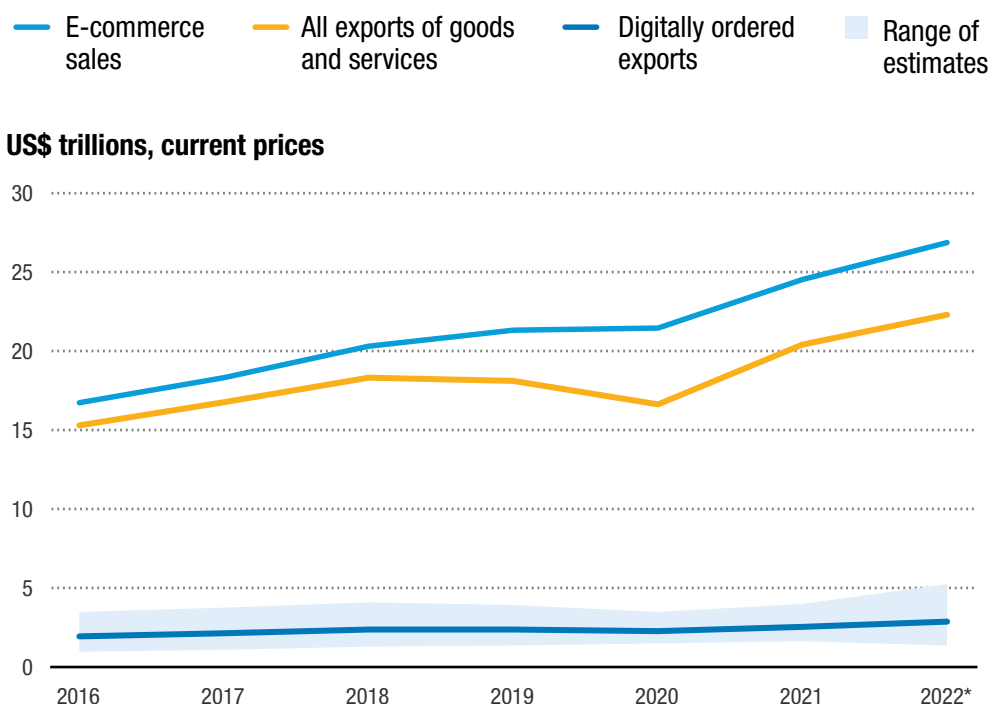




**Figure 10**

**E-commerce sales and estimated digitally ordered exports by businesses, 2016-2022**

Businesses in 43 developed and developing economies generating around three quarters of global GDP and exports



Source: UNCTAD based on Eurostat digital economy and society database, national statistical agencies (see Annex A, Annex B), and UNCTAD Goods and Services (BPM6) trade database (<https://unctadstat.unctad.org/datacentre/dataviewer/US.GoodsAndServicesBpm6>).

Note: Digitally ordered exports estimated using the information on international e-commerce sales, relative to total e-commerce, that is available for certain countries and periods. Estimation, based on the observed shares of digitally ordered exports in total exports, is used where such information is unavailable. For more information on the compilation and robustness of the digitally ordered exports estimates, see Box 2.

Developed economies covered (c80% of e-commerce total in 2021-22): *Australia, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, United Kingdom, United States*. Developing economies covered (c20% of overall total in 2021-22): *China, Hong Kong China, Indonesia, Malaysia, Philippines, Singapore (services only), Thailand*. The countries for which digitally ordered export figures, which underpin the estimation are available are shown in italics.

\* From 2016-2021, extrapolated figures account for between one and six per cent of the of the total e-commerce sales. With turnover-based estimates (rather than directly reported values) for eight EEA countries, between 7 and 12 per cent of the overall total is estimated. In 2022, extrapolated figures for nine economies, plus turnover-based estimates for seven EEA countries and an estimate for e-commerce sales by U.S. manufacturers, account for one third of the overall total. For this reason, the 2022 figure should be regarded as indicative. For more information on the compilation and robustness of the e-commerce sales figures see Box 1.





## Box 2

### Estimating digitally ordered exports

With only a few exceptions, the value of international e-commerce sales is not available directly. Instead, domestic and international sales are expressed as shares of the total value of e-commerce sales, as in Figure 9. For most of the countries in that figure, international shares are available for multiple periods between 2016 and 2022. All such observations are drawn upon in estimating digitally ordered exports by businesses across the 43 economies covered in this analysis.

In countries participating in the European Union community survey on ICT usage and e-commerce in business (with the exceptions of Spain, and the United Kingdom which participated up to 2019), the shares collected relate only to “web sales” (i.e. sales made through websites or apps) and therefore do not cover EDI type sales. The latter comprise the majority of e-commerce sales in these countries. Nevertheless, in the absence of complete information, it has been assumed that the international shares reported for web sales apply to the country’s total e-commerce sales, including EDI-type sales.

There is very limited information with which to assess the robustness of this assumption. Over the period 2016 to 2021, the international share for EDI-type sales by businesses in Spain was 20 per cent, more than for web sales, at 17 per cent. In Denmark, the international share of EDI-type sales was around 40 per cent in 2017 and 2018, while for web sales it was 25 per cent. By contrast, in the United Kingdom in 2019, 22 per cent of web sales were international, compared to only 14 per cent of EDI-type sales. This shows that the disparity can vary in both direction and size. Figure 9 shows these countries’ latest available web sales and total e-commerce shares for comparison. Overall, in the absence of further information, it appears reasonable to use the available information on international digitally ordered web sales as a proxy for digitally ordered sales.

As a first step, digitally ordered exports figures are collated, being derived where not directly available by applying the reported shares to the national e-commerce sales values underlying Figure 1. Linear interpolation is applied between these observations where relevant. The result is a set of 36 digitally ordered export figures relating to 15 developed and developing economies, and various periods between 2016 and 2022.

It is then necessary to identify an estimation strategy for economies and periods for which observations are not available. The most straightforward approach would be to apply the median observed share of international sales in e-commerce, which is 19 per cent, to the balance of e-commerce sales for which the international sales value is not already known. Doing so yields an annual average for e-commerce sales across the 43 economies covered of \$4 trillion per year over 2016-2022, equivalent to 22 per cent of goods and services exports over the period. However, this approach was found to result in digitally ordered export estimates that would equate to an implausibly high share of exports in some countries (up to 80 per cent). This is especially the case for those with large domestic markets (such as the United States and Japan), where the total value of e-commerce sales is high relative to total exports. For example, in the United States, total business e-commerce sales were worth \$10 trillion in 2021 (Figure 1), while total exports of goods and services amounted to \$2.6 trillion.<sup>15</sup>

<sup>15</sup> Based on UNCTAD Goods and Services (BPM6) trade database: <https://unctadstat.unctad.org/datacentre/dataviewer/US.GoodsAndServicesBpm6>



In an alternative approach, the observed digitally ordered export values (from the first step) are expressed as a share of each country's total exports of goods and services in each period (relying on the assumption that these are mutually compatible despite being from different sources). The export shares calculated for each country are then averaged over the period 2016-2022, so that the estimation is not distorted by certain countries having more observations than others. The median average share (13 per cent) of digitally ordered exports in total exports of goods and services is then taken. It is applied to the sum of exports of goods and services for the economies and periods where a figure for digitally ordered exports is not already available (which amounts to 70 per cent or more of the total annual exports by the 43 economies covered in this analysis). The result is then combined with the digitally ordered export figures calculated in the first step to give an estimate for the total digitally ordered exports across all the economies covered in this analysis.

The resulting "digitally ordered exports" series is presented in Figure 10.

It is very difficult to assess the robustness of these estimates. However, some partial evidence is available for two of the biggest economies concerned. Experimental estimates from the U.S. Bureau of Economic Analysis<sup>16</sup> show that for U.S. parent companies (businesses located in the U.S. that have an ownership stake in an affiliate abroad), 19 per cent of the goods and 25 per cent of the services they exported in 2019 were digitally ordered. As U.S. parents are estimated to have accounted for around half of all goods exports in that year<sup>17</sup>, and goods comprised around 65 per cent of total exports<sup>18</sup>, it would suggest that digitally ordered goods exported by U.S. parents made up around 6 per cent<sup>19</sup> of total exports of goods and services from the U.S. in 2019.

The share of digitally ordered services exported by U.S. parents in total exports is not known, likewise the values of digitally ordered goods or services exported by other businesses. If the digitally ordered export shares of goods and services estimated for U.S. parents were to be representative of all exports, digitally ordered exports could account for as much as 21 per cent<sup>20</sup> of all exports of goods and services from the United States. This is unlikely to be the case, however, as multinational enterprises might be expected to have high rates of digitalization compared to exporting businesses in general. Indeed, many of the most high-profile U.S. businesses implementing digital ordering, such as Amazon, Apple, Microsoft, and Netflix, have foreign affiliates and so would be among the group of U.S. parents. It is therefore plausible that the share of digitally ordered exports in total U.S. exports of goods and services could be in the region of the median share identified above.

<sup>16</sup> Bureau of Economic Analysis, "Measuring the Digital Economy in BEA's International Economic Accounts", presentation at OECD Working Party on International Trade in Goods and Services Statistics, October 11, 2023, available at <https://oe.cd/5sS> (requires account).

<sup>17</sup> <https://www2.census.gov/ces/wp/2022/CES-WP-22-39.pdf>

<sup>18</sup> Calculated based on the ownership-based framework <https://www.bea.gov/international/supplemental-statistics>

<sup>19</sup> 19% of 50% of 65%

<sup>20</sup> (19% of 65%) + (25% of 35%)



China Customs has measured the value of digitally ordered merchandise exports through the implementation of specific customs procedure codes identifying digitally ordered shipments, complemented with other sources such as surveys of online platforms. The results show that digitally ordered merchandise exports from China increased from US\$ 116 billion in 2019 to \$230 billion in 2022 (IMF, OECD, UNCTAD, and WTO, 2023). This equates to around 6.5 per cent of China's merchandise exports<sup>21</sup> and, with goods accounting for around 90 per cent of that country's exports, around 6 per cent of total exports of goods and services<sup>22</sup>. It therefore appears that the share of digitally ordered exports for China is somewhat less than the median share indicated above.

Importantly, in this approach, the median is not expected to deliver accurate estimates for individual economies but to provide a reasonable indication of the scale of digitally ordered exports for the group of economies as a whole.

Given the significant uncertainty around the series estimated, a plausible range of estimates, within which the true figure is likely to fall, is drawn by replacing the median average in the calculation with the shares at the 10th and 90th percentiles when the average observed shares are ordered from smallest to largest (6 per cent and 23 per cent respectively). This suggests that the true value of digitally ordered exports from these countries may have been somewhere between \$1.5 and \$4 trillion in 2021. It is considered highly likely that the true value of digitally ordered exports across these 43 economies falls within the indicated range of estimates.

<sup>21</sup> Based on UNCTAD merchandise trade database <https://unctadstat.unctad.org/datacentre/dataviewer/US.TradeMerchTotal>

<sup>22</sup> Based on UNCTAD Goods and Services (BPM6) trade database: <https://unctadstat.unctad.org/datacentre/dataviewer/US.GoodsAndServicesBpm6>









# 6.

## Business-to-consumer e-commerce is increasing

In almost all countries with information available, the majority of businesses' e-commerce sales by value are made to other businesses (as shown in Figure 8). Even so, business-to-consumer (B2C) sales are a central feature of the e-commerce landscape and of great interest to businesses and policymakers.

Among individuals, online shopping has increased considerably since 2010 in many economies (Figure 11). The COVID-19 pandemic accelerated the trend towards e-commerce as activities shifted from in-person to online in response to national lockdowns, social distancing and other containment measures aimed at curtailing the spread of the virus. For example, in Malaysia, the share of individuals shopping online doubled from 35 per cent in 2019 to 70 per cent in 2022. In the United Arab Emirates, it more than doubled, from 26 per cent to 67 per cent over the same period, and in Bahrain the share more than tripled, reaching 47 per cent in 2022. In Thailand, just one per cent of people shopped online in 2010; by 2019 this had reached 27 per cent - and the following year it surged to 44 per cent.

In some other countries, although the overall uptake of online shopping remains lower, striking increases have also been observed. In Côte d'Ivoire, the share of individuals shopping online increased from 10 per cent in 2019 to 22 per cent just two years later. In Jamaica this went from 9 per cent in 2017 to 14 per cent in 2021.

As more people shop online, and with online spending per shopper likely also increasing, it can be anticipated that online retail sales will be growing rapidly. Consisting of retailers' e-commerce sales of goods, online retail sales comprise an important subset of business-to-consumer e-commerce (the latter also includes consumer purchases of services and of goods from non-retail businesses).

Online retail sales statistics are increasingly widely available. Often these are published monthly and can therefore provide insights into the latest trends occurring in this key element of e-commerce. **Online retail sales rapidly increased over the decade to 2023 (Figure 12). In many economies, the pre-existing strong upward trend was further boosted after 2019, as a result of disruptions associated with the COVID-19 pandemic. Growth has generally moderated somewhat in the most recent periods though.**

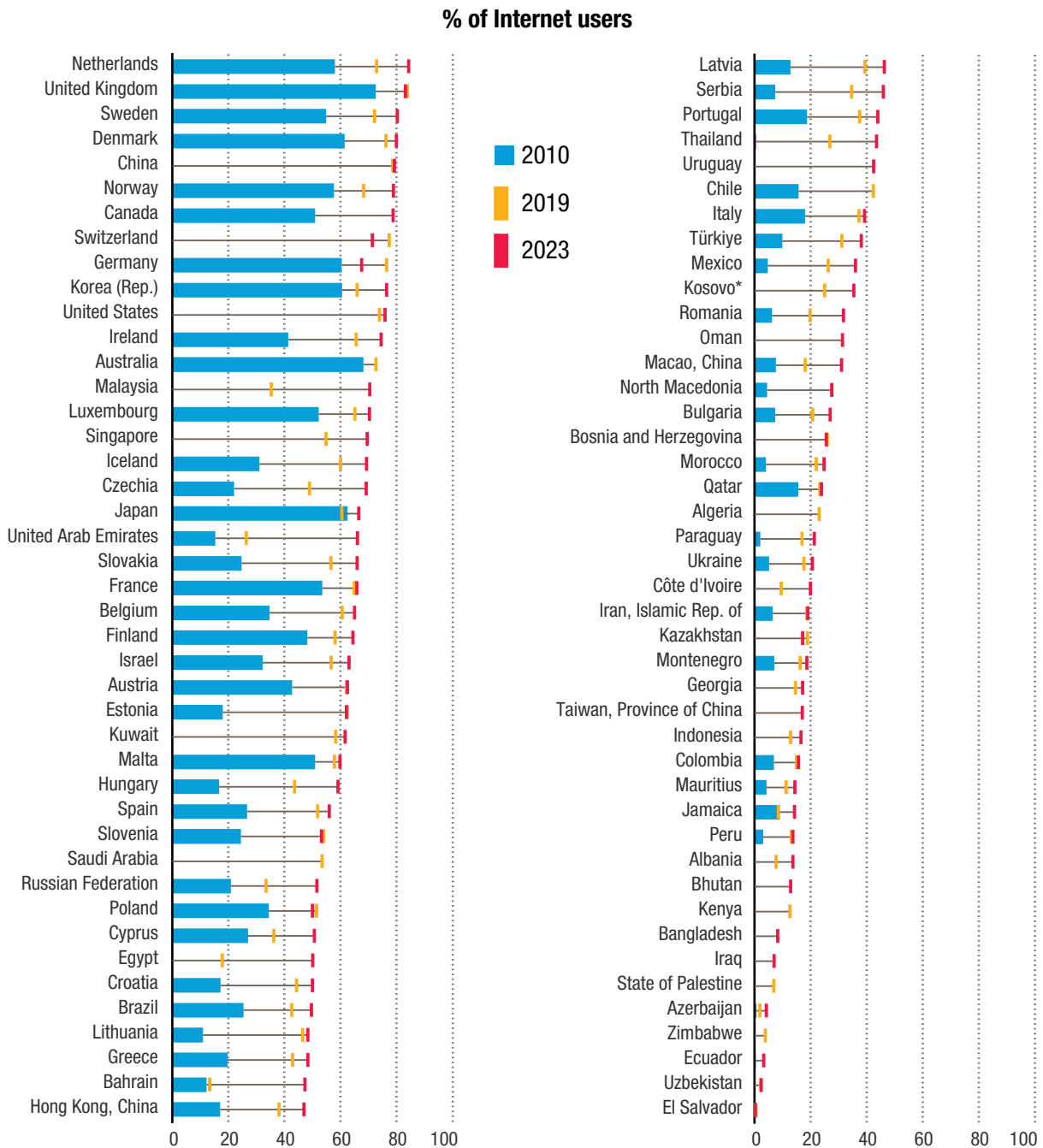
Some the trends illustrated have been impacted by price inflation; see Box 3.

Furthermore, the growth of online retail sales has, in most cases, been substantially greater than for retail sales as a whole (Figure 13). Online retail sales grew three times faster than overall retail sales between 2017 and 2023. On average among the economies shown, online retail sales grew by 21 per cent per year, compared to 7 per cent for total retail sales.

Online retail sales grew three times faster than overall retail sales between 2017 and 2023.



**Figure 11**  
 Percentage of Internet users shopping online, 2023 or latest



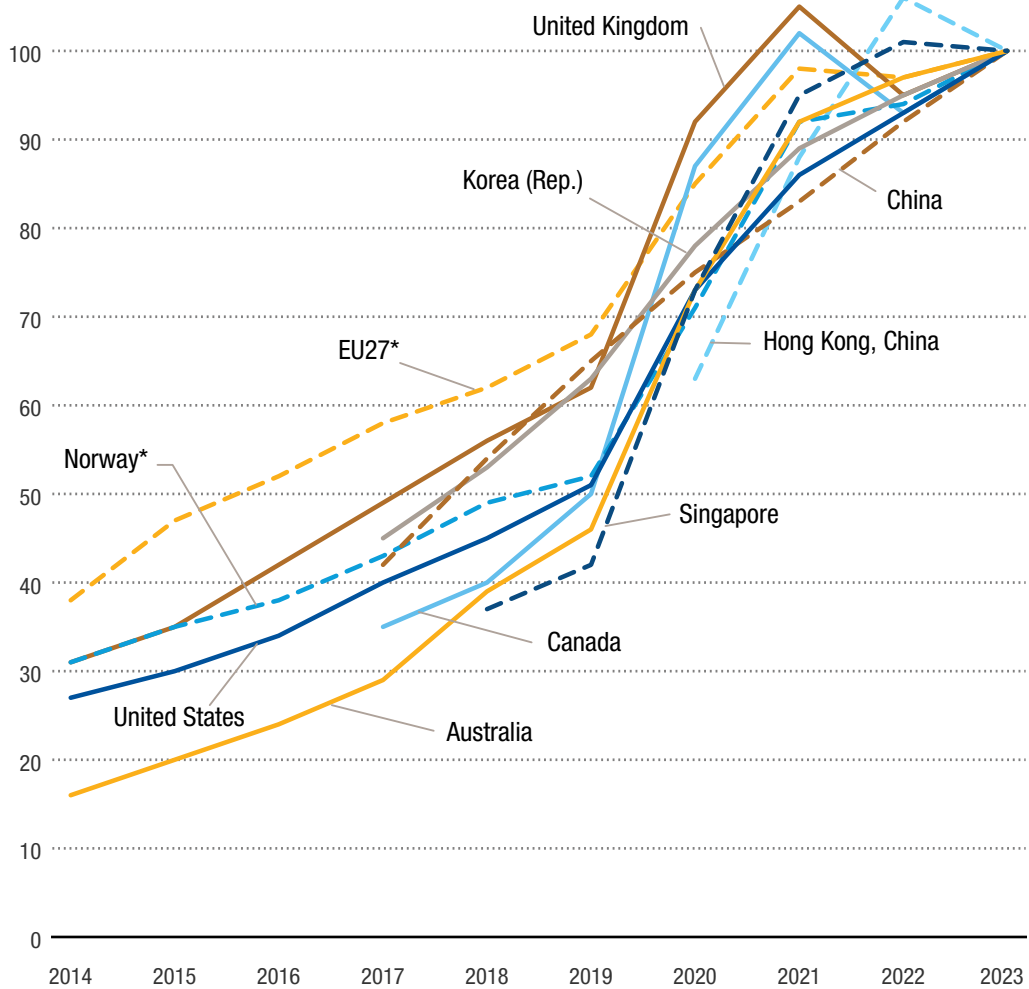
Source: UNCTAD based on (Eurostat, 2024), (OECD, 2024), (ITU, 2024).

Note: In general, the statistics reflect online shopping in the three months prior to survey though recall periods of up to 12 months apply for some economies. The age range of individuals covered can also vary. Albania, Bahrain, Belarus, Canada, China, Côte d'Ivoire, Egypt, Georgia, Indonesia, Iraq, Ireland, Kazakhstan, Korea (Rep.), Malaysia, Montenegro, Paraguay, Peru, Taiwan, Province of China, Uruguay: 2022. Bhutan, Brazil, Colombia, Iceland, Israel, Mexico, North Macedonia, United States: 2021. El Salvador, Japan, Kosovo, Oman, Qatar, Thailand, United Kingdom, Zimbabwe: 2020. Algeria, Kuwait, Saudi Arabia: 2018. Australia: 2011, 2017. Bahrain: 2011, 2022. Chile: 2009, 2017. Hong Kong, China: 2009, 2018, 2022. Iran (Islamic Rep.), Jamaica: 2017, 2021. Macao, China: 2018, 2021. Mauritius: 2018, 2020. Montenegro: 2012. Morocco: 2012, 2018, 2021. Russian federation: 2009, 2022. Serbia: 2009. Singapore: 2017, 2022. Ukraine: 2018, 2021. United Arab Emirates: 2012, 2022. Uzbekistan: 2018, 2022. Kosovo: under United Nations Security Council Resolution 1244/99.



**Figure 12**  
**Online retail sales indices, 2014-2023**

Retail sales in current prices



Source: UNCTAD based on Eurostat Turnover and volume of sales in wholesale and retail trade dataset ([https://ec.europa.eu/eurostat/databrowser/view/sts\\_trtu\\_a/default/table?lang=en&category=sts.sts\\_wrt.sts\\_wrt\\_ts](https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&category=sts.sts_wrt.sts_wrt_ts)), national statistical agencies (see Annex C).

Note:\* Refers to retail sales by units with main economic activity "Retail sale via mail order houses or via Internet" only. United Kingdom excluding Northern Ireland.



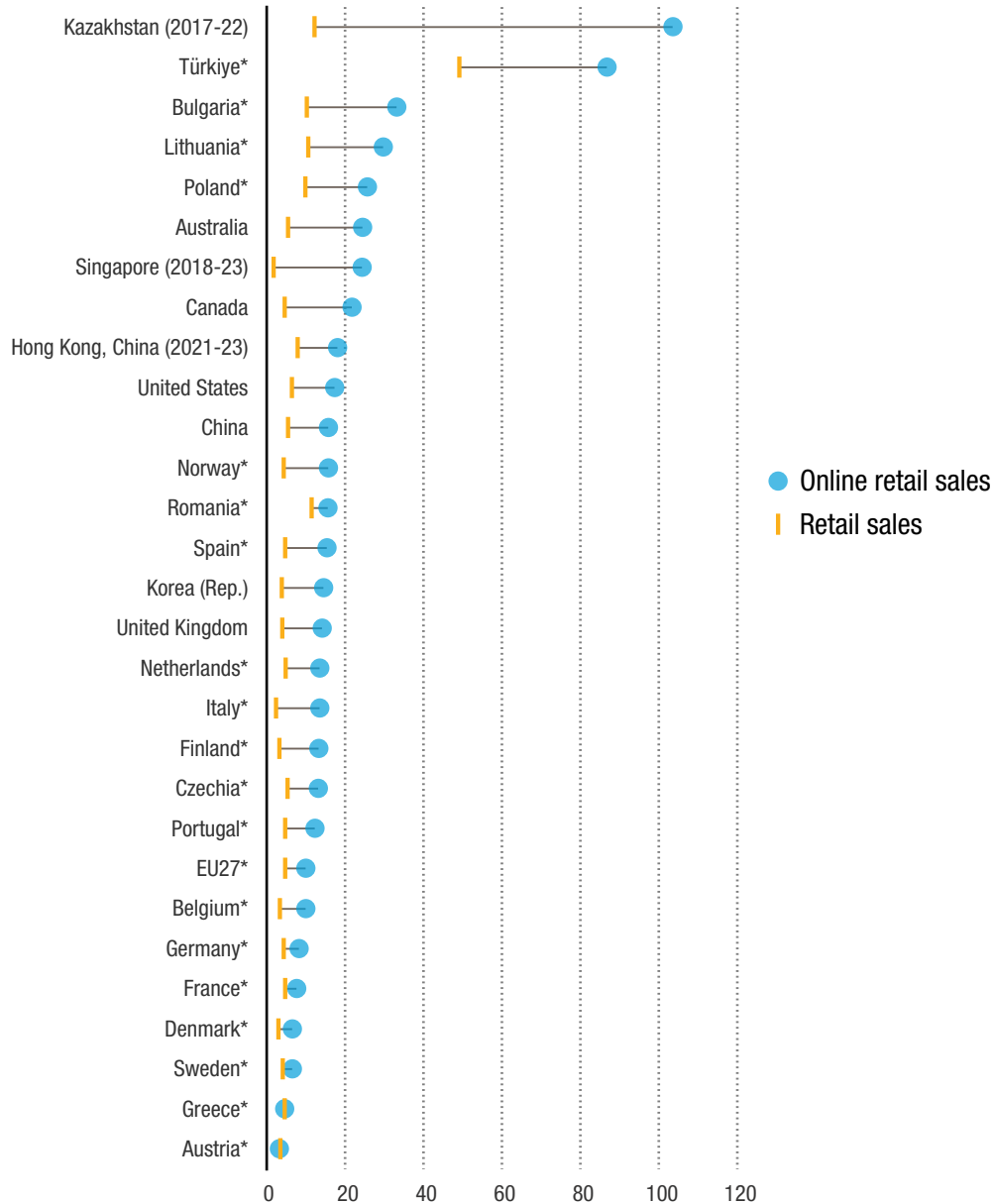


**Figure 13**

**Annual average growth rates of retail sales, 2017-2023**

Online and total retail sales

**Average annual change, %**



Source: UNCTAD based on Eurostat Turnover and volume of sales in wholesale and retail trade dataset ([https://ec.europa.eu/eurostat/databrowser/view/sts\\_trtu\\_a/default/table?lang=en&category=sts.sts\\_wrt.sts\\_wrt\\_ts](https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&category=sts.sts_wrt.sts_wrt_ts)), national statistical agencies (see Annex C).

Note:\* Refers to retail sales by units with main economic activity “Retail sale via mail order houses or via Internet” vs “Retail trade, except of motor vehicles and motorcycles”. United Kingdom excluding Northern Ireland.



As a result, online sales have risen as a share of overall retail sales (Figure 14). Nevertheless, this varies notably between economies. China, the United Kingdom, and the Republic of Korea stand out for having markedly higher online retail sales than other economies throughout the period shown, reaching around 25 to 30 per cent in the latest years. The United States follows at around 15 per cent while the bulk of economies fall in a range of roughly 5-10 per cent.

Overall, online retail sales statistics paint a picture of rapid growth that was boosted during the pandemic. Sales growth has been moderated somewhat in 2023 as pandemic restrictions and disruptions have subsided, reducing the imperative to shop online. Additionally, economic factors, such as increased inflation, may

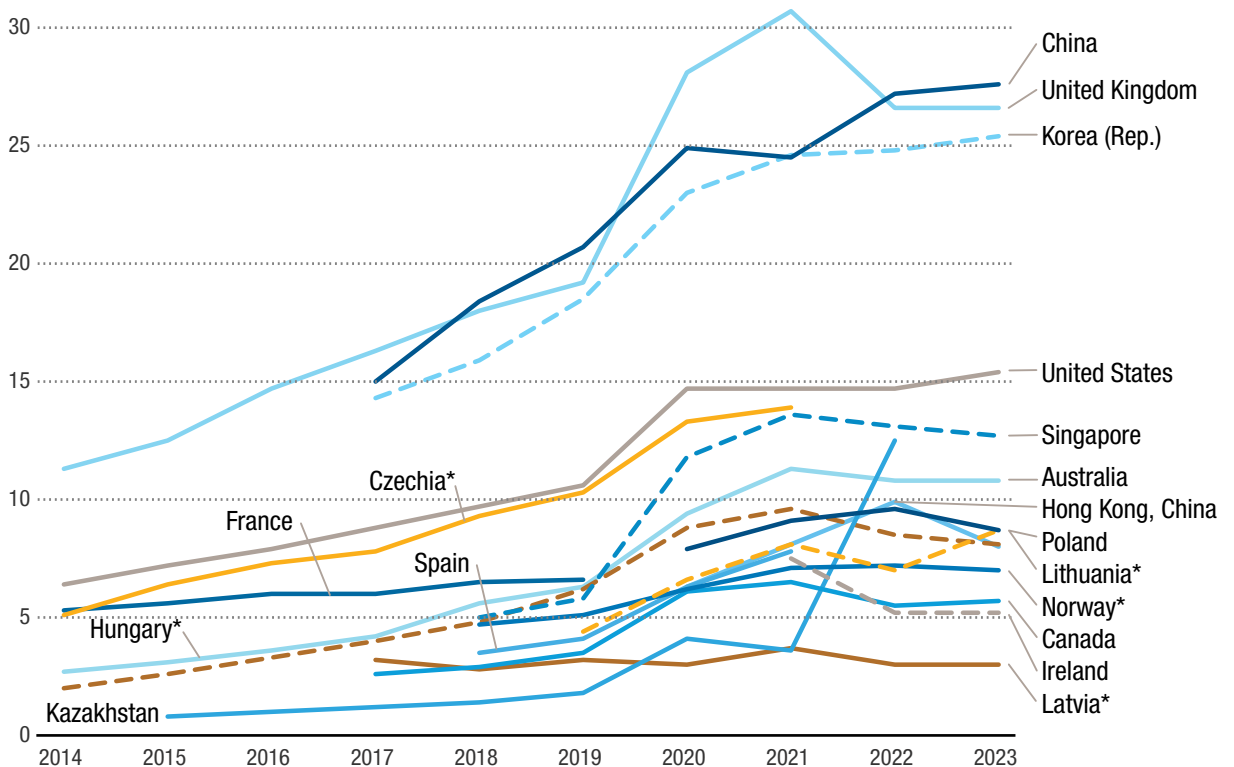
have affected consumption patterns – for example by leading to a greater share of household budgets being spent on retail products most usually purchased in-presence (such as automotive fuel, food and household essentials), moderating the upward trend in online retail sales.

However, the trends in retail sales will not necessarily translate directly to other elements of e-commerce, most notably business-to-business e-commerce sales. The path of online retail sales should, therefore, not be automatically assumed to presage the trends in overall e-commerce.

Online platforms have played a crucial role in facilitating business-to-consumer e-commerce, including retail sales. The following section examines the scale of transactions through such platforms.



**Figure 14**  
**Online share in total retail sales, 2014-2023**



Source: UNCTAD based on Eurostat Turnover and volume of sales in wholesale and retail trade dataset ([https://ec.europa.eu/eurostat/databrowser/view/sts\\_trtu\\_a/default/table?lang=en&category=sts.sts\\_wrt.sts\\_wrt\\_ts](https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&category=sts.sts_wrt.sts_wrt_ts)), national statistical agencies (see Annex C).

Note: \* Refers to retail sales by units with main economic activity “Retail sale via mail order houses or via Internet” only. Kazakhstan: “2022 formed taking into account marketplace”. United Kingdom excluding Northern Ireland.





### Box 3

#### Statistics on online retail sales

“Retail sales” generally refers to sales by businesses primarily focused on selling physical items to consumers. That said, not all sales by retailers will be to consumers as businesses and other organisations may also buy from retailers. Nevertheless, online retail sales are best understood as a sub-component of business-to-consumer e-commerce.

Data on retail sales are usually gathered through monthly surveys of turnover in retail businesses, though information from administrative sources, such as turnover values from administration of the Value Added Tax system, may also play a role. The subset of sales occurring online can be measured through the inclusion of specific questions for this purpose. Because surveys are targeted at resident businesses, the online sales figure will include sales by domestic retailers to residents abroad and exclude direct purchases by residents from retailers abroad.

Practices vary when it comes to the collection and publication of online retail sales information. In some cases, the monetary values of both overall retail sales and online retail sales are available. In others, online sales are expressed as a share of total retail sales. In yet others, only indices of the value of total and online retail sales are published. This determines which indicators can be presented for different economies. Where annual figures are not published it is necessary to sum or average the monthly or quarterly statistics. There is also variation in whether the statistics available include or exclude sales of items such as vehicles and automotive fuel.

For most of the economies shown, online retail sales figures cover all retailers. However, for some (indicated by a \* in the figures presented) only a partial measure is available – the sales turnover of units with the main economic activity “Retail sale via mail order houses or via Internet”. Classification in this industry is based on the unit’s main activity; it may therefore include retail sales revenues from secondary activities for which orders may not have been placed online. It would also include sales by businesses operating via mail order, though such sales are likely negligible in most economies. This measure will not cover online retail sales by units whose main activity is something else, such as retailers making most of their sales in-store, but which also make online sales. Nevertheless, these statistics can provide an indication of the trends likely to be occurring in online retail sales overall. Shares of online retail sales in total retail sales estimated based on these measures are likely to be underestimated though.

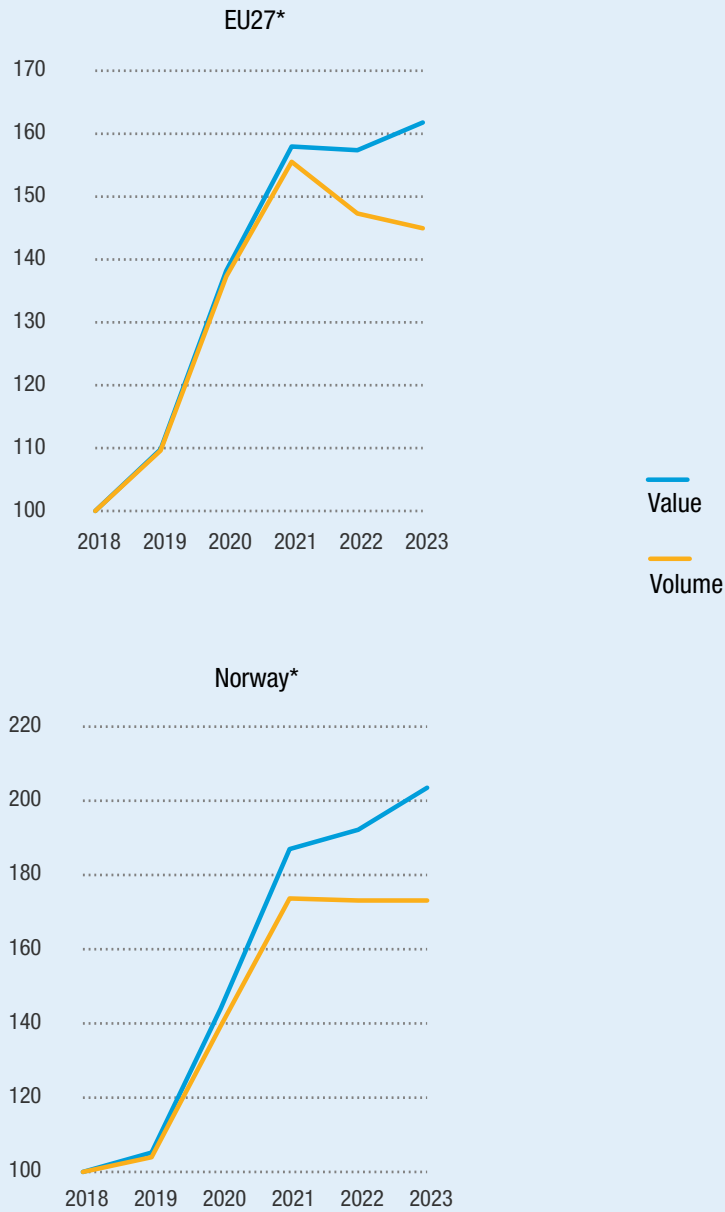
A final point to note, which also applies to all other measures in this paper, is that no adjustment has been made for changes in prices over time. Some countries produce indices of deflated (i.e. constant price) retail turnover. In the economies shown (Figure 15), price inflation was elevated from 2021 onward and the rising value of online retail sales was mainly driven by rising prices rather than quantities of products sold.







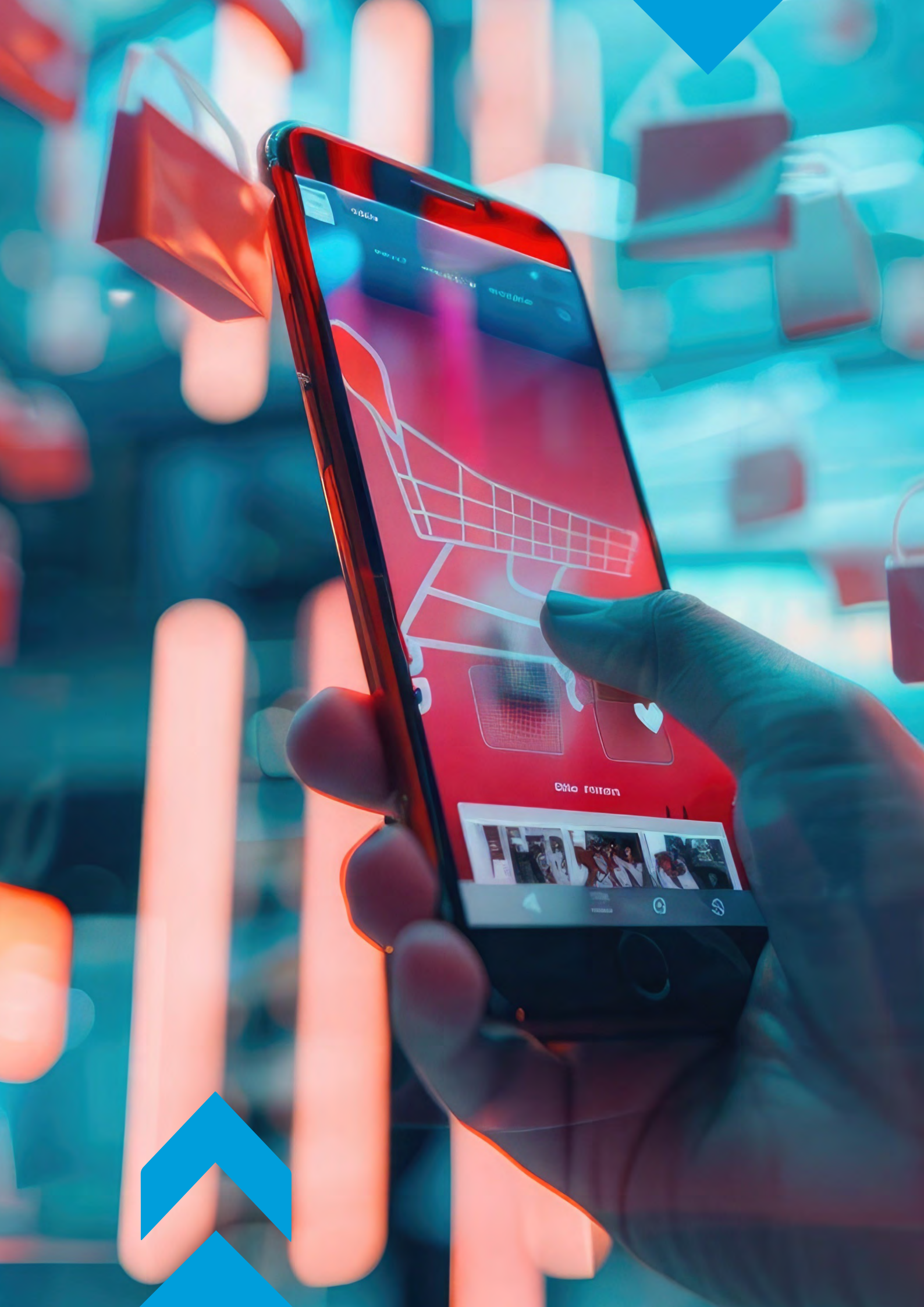
**Figure 15**  
**Value (current prices) and volume (constant prices) indices of online retail sales, 2018–2023**  
 2018=100



Source: UNCTAD based on Turnover and volume of sales in wholesale and retail trade dataset ([https://ec.europa.eu/eurostat/databrowser/view/sts\\_trtu\\_a/default/table?lang=en&category=sts.sts\\_wrt.sts\\_wrt\\_ts](https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&category=sts.sts_wrt.sts_wrt_ts)).

Note:\* Refers to retail sales by units with main economic activity “Retail sale via mail order houses or via Internet” only. United Kingdom excluding Northern Ireland.





# 7.

## Transactions through online platforms have sharply increased

Digital intermediary platforms (DIPs) have emerged as key players in the e-commerce landscape. They act as online marketplaces, facilitating e-commerce transactions between multiple buyers and sellers who communicate and transact through the platform.

In doing so, DIPs make it straightforward for buyers to access a wide range of products and prices offered by different suppliers, and they offer sellers relatively easy and cost-effective access to a large pool of potential customers. Some DIPs principally facilitate transactions on a local scale (such as between restaurants and customers in a given city) but many facilitate transactions between buyers and sellers nationwide and internationally.

Digital intermediation platforms do not themselves own the goods or have responsibility for delivering the services being intermediated (IMF, OECD, UNCTAD, and WTO, 2023). That said, the operators of online marketplaces facilitating sales of consumer goods commonly also make direct online retail sales through the same platform.

DIPs often offer ancillary services to facilitate the e-commerce transactions they enable, such as payment processing,

warehousing, logistics/delivery, analytics and financial services. Platforms can also facilitate the digital delivery of services by providing online interfaces for “face-to-face” consultations, online content libraries, or the delivery of documents.

**Figure 17 presents the value of sales of goods and services taking place through 37 online platforms, as published in their annual statements or other reports. The value of sales through these online platforms increased by 55 per cent during the pandemic, from around \$2.6 trillion in 2019 to \$4 trillion in 2021. However, the pace of growth appears to have subsided somewhat in 2022.**

Not all platforms make these figures available and so the result is only a partial picture of the platform landscape. Box 4 gives further information on the compilation of these figures.

Nevertheless, it is clear that a small number of these platforms are particularly dominant. Just six platforms report facilitating over \$100 billion of e-commerce sales per year. Together they account for 80 per cent of the total sales shown.

The value of sales through these online platforms **increased by 55 per cent during the pandemic**, from around \$2.6 trillion in 2019 to \$4 trillion in 2021

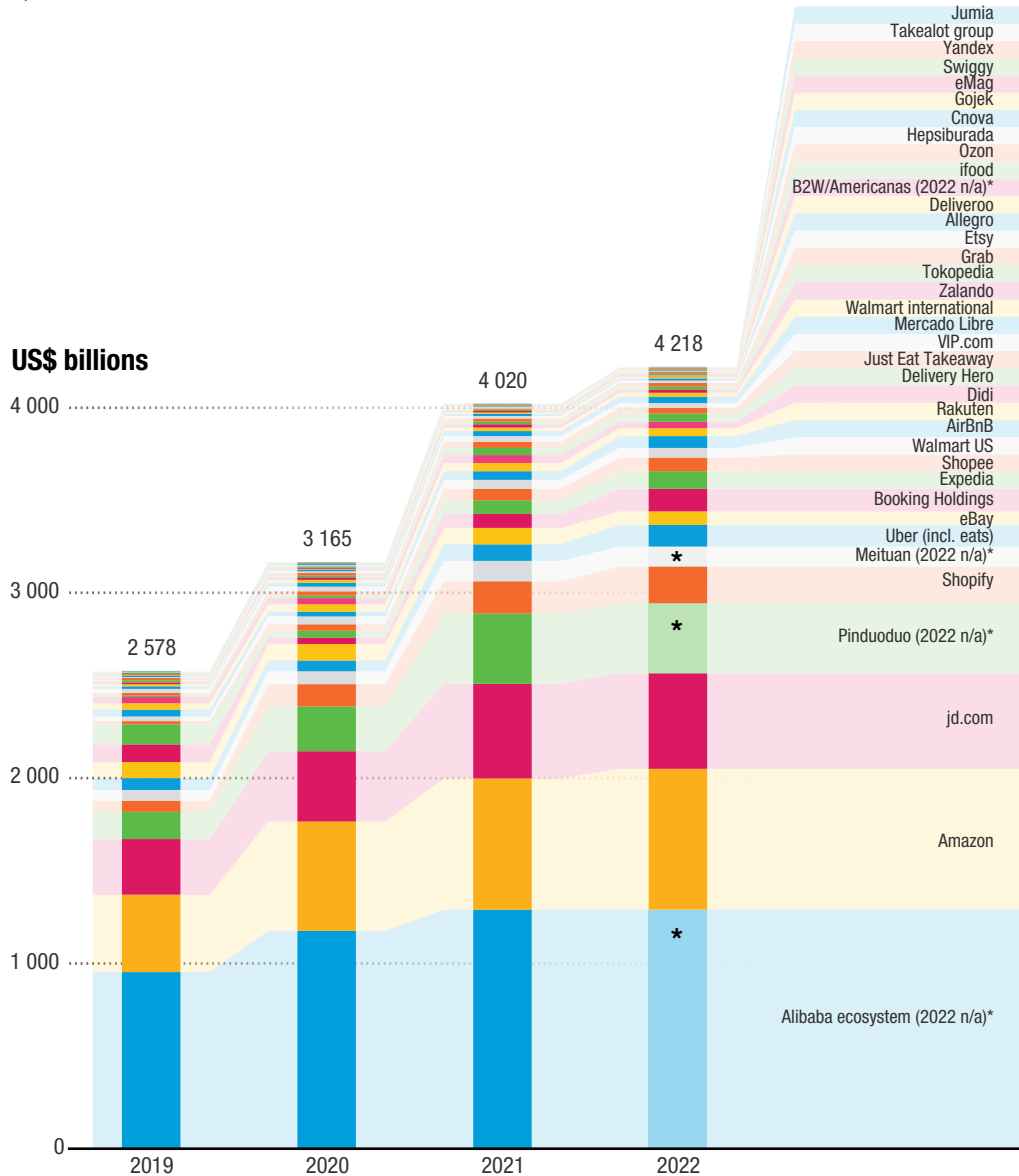




**Figure 16**

**Transactions through digital intermediation platforms, 2019–2022**

Gross Merchandise Value of goods / Gross Transaction Value of services reported by DIP operators



Source: UNCTAD based on published reports by platform operators (see Annex D).

Notes: Values as reported in company annual reports or official filings. Reporting periods vary. \* for Alibaba, Pinduoduo, Meituan, and B2B/Americanas figures for 2022 are unavailable. Their 2021 figures are used when calculating the total; the true total for 2022 could be higher or lower. Hepsiburada and Yandex are unavailable for 2019.

Values were sought for over 40 additional platforms; for most figures were unavailable, though a small number were excluded due to having transaction values far below \$1 billion.

Alibaba ecosystem includes platforms such as Alibaba.com, AliExpress, Daraz, Freshippo, Kaola, Lazada, Taobao, Tmall, Trendyol. Walmart International includes Flipkart and Myntra.

Gross Merchandise Value gives a total monetary value for the goods and services sold through an online platform. For platforms specializing in services the similar measure “Gross Transaction Value” (GTV) may be reported instead. Companies vary in what they include or exclude from the value they report; for example, some include certain taxes or charges, or tips paid through the platform while others may not. Some platforms include GMV for ancillary products, such as financial services. Some platforms combine both retail and marketplace elements; the retail element may account for the majority of the GMV shown.





#### Box 4

### Compiling online platform transactions

Gross Merchandise Value (GMV) gives a total monetary value for the goods and/or services sold through an online platform. This is different from the platform's income, which reflects only the fees or commissions earned on the sales it facilitates. For platforms specializing in services the similar measure "Gross Transaction Value" (GTV) may be used.

GMV/GTV figures are collected from company annual reports or official regulatory filings (such as those made to the U.S Securities Exchange Commission). Not all platforms make these figures available; over 40 additional platforms were investigated but could not be included for this reason. Furthermore, figures may not be available in every year; in particular, GMV could not be found for three of the major Chinese platform operators in 2022.

There are variations in exactly what the figures reported by different platforms cover. For example, some include certain taxes or charges, or tips paid through the platform while others do not. Some platforms include GMV for ancillary products, such as financial services. Some platforms combine both retail and marketplace elements and do not report GMV for these separately. In some cases, some in-store sales may be included. This affects the ability to make robust direct comparisons between platforms. Nevertheless, the figures compiled give a good indication of the overall trends arising.

For more information see Annex D.









# 8.

## Conclusions

**This note has presented the latest statistics on the value of e-commerce sales by businesses. It benefits from a significant increase in availability brought about by the release, by Eurostat, of figures for many EU and partner countries.**

Overall, it confirms that e-commerce sales were growing strongly up to 2019 and were boosted further as a result of the pandemic. Digital intermediary platforms played an important role in facilitating these sales, seeing transactions increase by 55 per cent between 2019 and 2021. However, the latest online retail sales figures suggest that the pace of growth in e-commerce sales may have moderated as the disruption of the pandemic passed.

The statistics presented point toward several areas where further measurement effort is needed. Firstly, business e-commerce sales figures are available for only 43 economies that together account for around three quarters of GDP and exports worldwide. In particular, only seven of these are developing economies, and none of them is a least developed country. There is a strong need to improve the availability of statistics on e-commerce value across developing countries.

As a first step towards that, the Task Group on Measuring E-commerce Value (TG - eCOM), convened by UNCTAD, brings together countries covered in this report, as well as international organizations, to develop internationally agreed guidelines and recommendations that can serve as a basis for capacity building and technical assistance (see Box 5).

Additionally, even among the economies with e-commerce value statistics, there is severely limited information on the split of e-commerce sales between domestic and international customers. The latter comprises digitally ordered exports, a component of digital trade as set out in the IMF, OECD, UNCTAD, and WTO Handbook on Measuring Digital Trade (2023). These organizations are working together to promote the measurement of digital trade through regional training workshops and other forms of technical assistance.





## Box 5

### UNCTAD Task Group on Measuring E-commerce Value (TG-eCOM)

UN Trade and Development's 2023 report "Measuring the value of e-commerce" found that the vast majority of countries do not publish statistics on the value of e-commerce sales by businesses. Furthermore, the developed and developing economies that do so apply a variety of definitions and measurement approaches. Business ICT surveys and other business surveys were found to be the most common sources used to measure the value of business e-commerce sales.

Internationally discussed and agreed guidelines are crucial for broadening the measurement of e-commerce value and ensuring the resulting statistics are sufficiently robust and comparable. They will also provide a foundation for addressing the increasing number of country requests that UNCTAD is receiving for technical assistance on measuring the value of e-commerce and digitally ordered trade.

As a response, at the third session of the Working Group on Measuring E-commerce and the Digital Economy (WG-ECDE) in 2022, and with approval by its parent Intergovernmental Group of Experts (IGE) in 2023, UNCTAD's 195 member states resolved to establish a Task Group on measuring e-commerce value to act as a forum for detailed technical discussions on measuring e-commerce value and work to develop statistical guidelines.

The group's central objective is to develop internationally agreed guidelines on measuring the value of e-commerce transactions involving businesses (both sales and purchases) and thereby to support the development of internationally comparable statistics on e-commerce value (and the related concept of digitally ordered trade). These guidelines will serve as the basis for technical assistance and capacity building in this area.

To that end, the TG-eCOM is focused on:

- Clarifying the policy needs related to the measurement of e-commerce value.
- Detailed discussion on the strengths and limitations of existing approaches to measuring the value of e-commerce.
- Considering all relevant aspects – including recommended breakdowns (e.g. according to firm characteristics, transaction characteristics, products, etc.)
- Ensuring that circumstances specific to developing countries, notably the important role played by email, messaging apps and social media platforms in facilitating online ordering, are adequately considered, and accounted for in the measurement guidelines (including in relation to the definition of e-commerce and its operationalisation).
- Discussion of associated capacity building efforts.

The Task Group first met in November 2023 and benefits from the participation of around 25 national representatives with hands-on experience of measuring e-commerce, as well as from relevant International Organizations including Eurostat, the OECD, and the WTO. The Task Group reports to the WG-ECDE.



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## Annex A.

# Sources for e-commerce sales values and associated figures

Economy	Source	Link
<b>Austria, Bosnia and Herzegovina, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain, United Kingdom</b>	“Monetary value of e-commerce sales by size class of enterprise”	<a href="https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_evalsm/default/table?lang=en&amp;category=isoc.isoc_e.isoc_ec">https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_evalsm/default/table?lang=en&amp;category=isoc.isoc_e.isoc_ec</a>
<b>Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, United Kingdom</b>	Enterprises’ total turnover from e-commerce sales Enterprises’ turnover from EDI-type sales Enterprises’ turnover from web sales - B2C Enterprises’ turnover from web sales - B2B and B2G (published by Eurostat as a percentage of turnover) in “Value of e-commerce sales by size class of enterprise”	<a href="https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_evals/default/table?lang=en&amp;category=isoc.isoc_e.isoc_ec">https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_evals/default/table?lang=en&amp;category=isoc.isoc_e.isoc_ec</a>
	Up to 2020: Turnover or gross premiums written - million euro in “Annual enterprise statistics by size class for special aggregates of activities (NACE Rev. 2)”	<a href="https://ec.europa.eu/eurostat/databrowser/view/sbs_sc_sca_r2__custom_9876920/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/sbs_sc_sca_r2__custom_9876920/default/table?lang=en</a>
	2021 onward: Net turnover - million euro in “Enterprise statistics by size class and NACE Rev.2 activity (from 2021 onwards)”	<a href="https://ec.europa.eu/eurostat/databrowser/view/SBS_SC_OVW/default/table?lang=en">https://ec.europa.eu/eurostat/databrowser/view/SBS_SC_OVW/default/table?lang=en</a>
	<b>Australia</b>	“Summary of IT Use and Innovation in Australian Business”
<b>Canada</b>	“Digital technology and Internet use, 2021”	<a href="https://www150.statcan.gc.ca/n1/daily-quotidien/220913/dq220913b-eng.htm">https://www150.statcan.gc.ca/n1/daily-quotidien/220913/dq220913b-eng.htm</a>
<b>China</b>	“E-commerce sales by industry”	Available from <a href="https://data.stats.gov.cn/english/easyquery.htm?cn=C01">https://data.stats.gov.cn/english/easyquery.htm?cn=C01</a> . Select: Indicators > Transport, postal, and telecommunication services > Informatization and e-commerce of enterprises > Sales of enterprises through e-commerce by industrial sector



Economy	Source	Link
<b>Hong Kong, China</b>	“Report on the Survey on Information Technology Usage and Penetration in the Business Sector”	<a href="https://www.censtatd.gov.hk/en/EIndexbySubject.html?scode=590&amp;pcode=B1110005">https://www.censtatd.gov.hk/en/EIndexbySubject.html?scode=590&amp;pcode=B1110005</a>
<b>Indonesia</b>	“Statistik E-Commerce”	2022 provided by BPS Indonesia based on: <a href="https://www.bps.go.id/id/publication/2022/12/19/d215899e13b89e516caa7a44/statistik-e-commerce-2022.html">https://www.bps.go.id/id/publication/2022/12/19/d215899e13b89e516caa7a44/statistik-e-commerce-2022.html</a> 2018: <a href="https://www.bps.go.id/id/publication/2019/12/18/fd1e96b05342e479a83917c6/statistik-e-commerce-2019.html">https://www.bps.go.id/id/publication/2019/12/18/fd1e96b05342e479a83917c6/statistik-e-commerce-2019.html</a>
<b>Japan</b>	“Results of FY20XX E-Commerce Market Survey Compiled”	2022: <a href="https://www.meti.go.jp/english/press/2023/0831_004.html">https://www.meti.go.jp/english/press/2023/0831_004.html</a> 2021: <a href="https://www.meti.go.jp/english/press/2022/0812_002.html">https://www.meti.go.jp/english/press/2022/0812_002.html</a> 2020: <a href="https://www.meti.go.jp/english/press/2021/0730_002.html">https://www.meti.go.jp/english/press/2021/0730_002.html</a> 2018-19: <a href="https://www.meti.go.jp/english/press/2020/0722_005.html">https://www.meti.go.jp/english/press/2020/0722_005.html</a>
<b>Malaysia</b>	“Usage of ICT and e-commerce by establishment 2022” “Income of E-Commerce Transactions Surged 30.0 per cent in The First Quarter 2021”. “A total of 47,556 establishments conducted e-Commerce transactions were recorded in 2015 constituted of 5.2 per cent from overall establishments of 920,624”.	<a href="https://www.dosm.gov.my/uploads/release-content/file_20230706112118.png">https://www.dosm.gov.my/uploads/release-content/file_20230706112118.png</a> . <a href="https://www.dosm.gov.my/portal-main/release-content/income-of-e-commerce-transactions-surged-30.0-per-cent-in-the-first-quarter-2021">https://www.dosm.gov.my/portal-main/release-content/income-of-e-commerce-transactions-surged-30.0-per-cent-in-the-first-quarter-2021</a> . <a href="https://www.dosm.gov.my/portal-main/release-content/a-total-of-47556-establishments-conducted-e-commerce-transactions-were-recorded-in-2015-constituted-of-5.2-per-cent-from-overall-establishments-of-920624">https://www.dosm.gov.my/portal-main/release-content/a-total-of-47556-establishments-conducted-e-commerce-transactions-were-recorded-in-2015-constituted-of-5.2-per-cent-from-overall-establishments-of-920624</a> .
<b>Philippines</b>	“Annual Survey of Philippine Business and Industry”	See “Table 1” in the following: 2020, 2021: <a href="https://www.psa.gov.ph/content/2021-annual-survey-philippine-business-and-industry-aspbi-economywide-final-results">https://www.psa.gov.ph/content/2021-annual-survey-philippine-business-and-industry-aspbi-economywide-final-results</a> . 2016, 2017: <a href="https://www.psa.gov.ph/content/2017-annual-survey-philippine-business-and-industry-aspbi-economy-wide-all-establishments">https://www.psa.gov.ph/content/2017-annual-survey-philippine-business-and-industry-aspbi-economy-wide-all-establishments</a>
<b>Singapore</b>	“E-commerce revenue of the services sector” “Operating revenue of the services sector”	<a href="https://tablebuilder.singstat.gov.sg/table/TS/M602031">https://tablebuilder.singstat.gov.sg/table/TS/M602031</a> . <a href="https://tablebuilder.singstat.gov.sg/table/TS/M601481">https://tablebuilder.singstat.gov.sg/table/TS/M601481</a> .
<b>Thailand</b>	“Value of e-Commerce survey in Thailand”	2021 edition, in Thai (covers years 2017-2021): <a href="https://www.etda.or.th/th/Useful-Resource/publications/ValueThailand2021.aspx">https://www.etda.or.th/th/Useful-Resource/publications/ValueThailand2021.aspx</a> . 2019 edition, in English (covers years 2016-2019): <a href="https://www.etda.or.th/th/Useful-Resource/publications/Value-of-e-Commerce-Survey-in-Thailand-2019_EN.aspx">https://www.etda.or.th/th/Useful-Resource/publications/Value-of-e-Commerce-Survey-in-Thailand-2019_EN.aspx</a> .



Economy	Source	Link
<b>United States</b>	Manufacturing: "Annual Survey of Manufactures: E-Commerce Statistics for the U.S.: 2018 – 2021" "Manufacturing: Summary Statistics for the US: 2022" (total manufacturing shipments) Services: "Table 9. Estimated Revenue from Electronic Sources for Employer Firms: 2015 Through 2022" Retail trade: "Annual Retail Trade Survey Supplemental E-commerce Tables" Wholesale trade: "Table 2. Estimated E-Commerce Sales of U.S. Merchant Wholesalers: 1998 through 2022"	<a href="https://data.census.gov/table/ASMAREA2017.AM1831ECOMM?q=am1831&amp;n=N0000.00">https://data.census.gov/table/ASMAREA2017.AM1831ECOMM?q=am1831&amp;n=N0000.00</a> . <a href="https://data.census.gov/table/ECNBASIC2022.EC2231BASIC?q=EC2231BASIC">https://data.census.gov/table/ECNBASIC2022.EC2231BASIC?q=EC2231BASIC</a> . <a href="https://www.census.gov/data/tables/2022/econ/services/sas-naics.html">https://www.census.gov/data/tables/2022/econ/services/sas-naics.html</a> . <a href="https://www.census.gov/data/tables/2022/econ/arts/supplemental-e-commerce.html">https://www.census.gov/data/tables/2022/econ/arts/supplemental-e-commerce.html</a> . <a href="https://www.census.gov/data/tables/2022/econ/awts/annual-reports.html">https://www.census.gov/data/tables/2022/econ/awts/annual-reports.html</a> .

*Exchange rates:* <https://unctadstat.unctad.org/datacentre/dataviewer/US.ExchangeRateCrosstab>





## Annex B. Sources for international e-commerce

Economy	Source	Link
<b>Austria</b>	Revenue from enterprises' sales via websites, apps or online marketplaces [...] by geographic location of the customers	2021 (Table A.20): <a href="https://www.statistik.at/fileadmin/pages/285/IKTEinsatzInUnternehmen2022EN.ods">https://www.statistik.at/fileadmin/pages/285/IKTEinsatzInUnternehmen2022EN.ods</a> 2020 (Table A.18): <a href="https://www.statistik.at/fileadmin/pages/285/IKTEinsatzInUnternehmen2021EN.ods">https://www.statistik.at/fileadmin/pages/285/IKTEinsatzInUnternehmen2021EN.ods</a>
<b>Belgium</b>	Sales via a website or apps - from customers located in other EU countries / rest of the world	<a href="https://statbel.fgov.be/en/themes/enterprises/ict-and-e-commerce-enterprises#figures">https://statbel.fgov.be/en/themes/enterprises/ict-and-e-commerce-enterprises#figures</a> (2022 table)
<b>Bosnia and Herzegovina</b>	"Of the total turnover realized through web sales of goods or services for 2020 refers to customers in Bosnia and Herzegovina (89.8%), EU countries (8.3%), other countries (1.9%)"	<a href="https://bhas.gov.ba/data/Publikacije/Bilteni/2022/IKT_00_2021_TB_1_BS.pdf">https://bhas.gov.ba/data/Publikacije/Bilteni/2022/IKT_00_2021_TB_1_BS.pdf</a>
<b>Canada</b>	As Annex A	
<b>Denmark</b>	"Enterprises percentage of turnover due to e-commerce (10+ employees) by enterprise size, activity (NACE REV2) and topics".	<a href="https://www.statbank.dk/ITAV13">https://www.statbank.dk/ITAV13</a>
<b>France</b>	"Les TIC et le-commerce électronique dans les entreprises"	2021: <a href="https://www.insee.fr/fr/statistiques/7641775?sommaire=7641794">https://www.insee.fr/fr/statistiques/7641775?sommaire=7641794</a> 2020: <a href="https://www.insee.fr/fr/statistiques/6327317?sommaire=6327324">https://www.insee.fr/fr/statistiques/6327317?sommaire=6327324</a>
<b>Germany</b>	"Turnover f. sales via website or app, own country"	<a href="https://www-genesis.destatis.de/genesis/online?operation=previous&amp;levelindex=3&amp;levelid=1711653269036&amp;levelid=1711653247438&amp;step=2#abreadcrumb">https://www-genesis.destatis.de/genesis/online?operation=previous&amp;levelindex=3&amp;levelid=1711653269036&amp;levelid=1711653247438&amp;step=2#abreadcrumb</a>
<b>Malaysia</b>	As Annex A	
<b>Poland</b>	"Use of information and communication technologies in public administration units, enterprises and households"	<a href="https://stat.gov.pl/obszary-tematyczne/nauka-i-technika-spoleczenstwo-informacyjne/spoleczenstwo-informacyjne/wykorzystanie-technologie-informacyjno-komunikacyjnych-w-jednostkach-administracji-publicznej-przedsiębiorstwach-i-gospodarstwach-domowych-w-2022-roku,3,21.html">https://stat.gov.pl/obszary-tematyczne/nauka-i-technika-spoleczenstwo-informacyjne/spoleczenstwo-informacyjne/wykorzystanie-technologie-informacyjno-komunikacyjnych-w-jednostkach-administracji-publicznej-przedsiębiorstwach-i-gospodarstwach-domowych-w-2022-roku,3,21.html</a>
<b>Portugal</b>	"Information and knowledge society Business survey", "Quadro 3 – Volume de negócios do comércio eletrónico"	<a href="https://www.ine.pt/xportal/xmain?xpid=INE&amp;xpgid=ine_destaques&amp;DESTAQUESdest_boui=594927232&amp;DESTAQUESmodo=2">https://www.ine.pt/xportal/xmain?xpid=INE&amp;xpgid=ine_destaques&amp;DESTAQUESdest_boui=594927232&amp;DESTAQUESmodo=2</a>



<b>Economy</b>	<b>Source</b>	<b>Link</b>
<b>Slovenia</b>	“Value (million EUR) by type of e-commerce sales in the previous year and size class, Slovenia, annually”	<a href="https://pxweb.stat.si/SiStatData/pxweb/en/Data/Data/2965419S.px/">https://pxweb.stat.si/SiStatData/pxweb/en/Data/Data/2965419S.px/</a> .
<b>Spain</b>	“Information and knowledge society Business survey”	<a href="https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&amp;cid=1254736176743&amp;menu=resultados&amp;idp=1254735576692">https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&amp;cid=1254736176743&amp;menu=resultados&amp;idp=1254735576692</a> .
<b>Sweden</b>	“Enterprises with turnover from e-commerce, percent by geographical area, study domain and year”	<a href="https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__NV__NV0116__NV0116E/OmsatEHandel/">https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__NV__NV0116__NV0116E/OmsatEHandel/</a> .
<b>Thailand</b>	As Annex A	
<b>United Kingdom</b>	2021: “Digital Economy Survey” 2019: “E-commerce and ICT activity”	2021: <a href="https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/datasets/digitaleconomysurvey">https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/datasets/digitaleconomysurvey</a> . 2019: <a href="https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/datasets/ictactivityofukbusinessese-commerceandictactivity">https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/datasets/ictactivityofukbusinessese-commerceandictactivity</a> .

Exchange rates: <https://unctadstat.unctad.org/datacentre/dataviewer/US.ExchangeRateCrosstab>  
<https://unctadstat.unctad.org/datacentre/dataviewer/shared-report/c4002f00-d2fe-4ba2-944a-70b20851df95>



## Annex C.

# Sources for online retail sales

Economy	Source	Link
<b>Australia</b>	"Experimental series - online retail turnover Australia by type of activity (A117725605F)" and "Retail turnover, by industry group (A3348582J)", in "Retail trade Australia"	<a href="https://www.abs.gov.au/statistics/industry/retail-and-wholesale-trade">https://www.abs.gov.au/statistics/industry/retail-and-wholesale-trade</a> .
<b>Canada</b>	"Retail e-commerce sales" and "Total retail sales" in "Monthly retail trade sales by province and territory"	<a href="https://doi.org/10.25318/2010005601-eng">https://doi.org/10.25318/2010005601-eng</a> .
<b>China</b>	"National online retail sales of physical goods" and "Total retail sales of consumer goods"	<a href="https://dzswgf.mofcom.gov.cn/ecps/sjcx.html">https://dzswgf.mofcom.gov.cn/ecps/sjcx.html</a> (in Chinese). <a href="https://data.stats.gov.cn/english/tablequery.htm?code=AC05">https://data.stats.gov.cn/english/tablequery.htm?code=AC05</a>
<b>Czechia</b>	"Sales of goods and services and sales of goods for resale" for the sectors "Retail sale via mail order houses or via Internet (CZ-NACE 47.91)" and "Retail trade, except of motor vehicles and motorcycles (CZ-NACE 47)" in "Retail trade, except of motor vehicles and motorcycles (CZ-NACE 47)".	<a href="https://www.czso.cz/csu/czso/2-malavfucr_b">https://www.czso.cz/csu/czso/2-malavfucr_b</a>
<b>EU27 (and all economies marked * in Figure 13)</b>	Eurostat table "Turnover and volume of sales in wholesale and retail trade - annual data" <ul style="list-style-type: none"> <li>• Retail trade, except of motor vehicles and motorcycles</li> <li>• Retail sale via mail order houses or via Internet</li> </ul>	<a href="https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&amp;category=sts_sts_wrt.sts_wrt_ts">https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&amp;category=sts_sts_wrt.sts_wrt_ts</a>
<b>France</b>	"Part de la vente à distance dans l'ensemble des ventes [%]" in "Évolution du chiffre d'affaires des deux formes de ventes du commerce de détail et part des ventes en ligne dans l'ensemble des ventes"	<a href="https://www.insee.fr/fr/statistiques/6667027?soommaire=6667157&amp;q=ventes+au+d%C3%A9tail+en+ligne">https://www.insee.fr/fr/statistiques/6667027?soommaire=6667157&amp;q=ventes+au+d%C3%A9tail+en+ligne</a> .
<b>Hong Kong, China</b>	"Table 620-67031: Value of Online Retail Sales by Selected Type of Retail Outlet" "Table 620-67001: Total Retail Sales"	<a href="https://www.censtatd.gov.hk/en/web_table.html?id=620-67031#">https://www.censtatd.gov.hk/en/web_table.html?id=620-67031#</a> . <a href="https://www.censtatd.gov.hk/en/web_table.html?id=620-67001#">https://www.censtatd.gov.hk/en/web_table.html?id=620-67001#</a> .
<b>Hungary</b>	"Retail sales by type of shop [Million HUF]" for "Mail order and internet" and "Total retail sales" (excl. vehicles and parts)	<a href="https://www.ksh.hu/stadat_files/bel/en/bel0006.html">https://www.ksh.hu/stadat_files/bel/en/bel0006.html</a> .
<b>Ireland</b>	"Table 6 Percentage of Total Retail Sales Turnover generated by Online Sales"	<a href="https://www.cso.ie/en/statistics/retailandservices/retailsalesindex/">https://www.cso.ie/en/statistics/retailandservices/retailsalesindex/</a> .
<b>Kazakhstan</b>	"The share of electronic commerce in the total volume of retail trade of the Republic of Kazakhstan" in "E-commerce in the Republic of Kazakhstan (2022)" ["Data for 2022 formed taking into account marketplace"]	<a href="https://stat.gov.kz/en/industries/economy/local-market/publications/48894/?sphrase_id=348922">https://stat.gov.kz/en/industries/economy/local-market/publications/48894/?sphrase_id=348922</a> .



Economy	Source	Link
Korea (Rep.)	<p>“Transaction value of Online shopping mall by commodity groups/operation type” [Sales of goods (incl. vehicles) calculated by subtracting the following services categories from the total: “Travel arrangement and transportation services”, “Culture and leisure services”, “E-coupon services”, “Food services”, “Miscellaneous services”].</p> <p>“Retail sales by product group” [For 2017-2019, value of total retail sales derived by applying the trend given by the published index of retail sales to the earliest available monetary retail sales value (January 2020). The resulting estimated annual retail sales figures are used to calculate the online share in total retail sales.]</p>	<p><a href="https://kosis.kr/statHtml/statHtml.do?orgId=101&amp;tblId=DT_1K41012&amp;conn_path=l2&amp;language=en">https://kosis.kr/statHtml/statHtml.do?orgId=101&amp;tblId=DT_1K41012&amp;conn_path=l2&amp;language=en</a>.  <a href="https://kosis.kr/statHtml/statHtml.do?orgId=101&amp;tblId=DT_1KE10051&amp;conn_path=l2&amp;language=en">https://kosis.kr/statHtml/statHtml.do?orgId=101&amp;tblId=DT_1KE10051&amp;conn_path=l2&amp;language=en</a>.  <a href="https://kosis.kr/statHtml/statHtml.do?orgId=101&amp;tblId=DT_1K41002&amp;conn_path=l2&amp;language=en">https://kosis.kr/statHtml/statHtml.do?orgId=101&amp;tblId=DT_1K41002&amp;conn_path=l2&amp;language=en</a>.</p>
Latvia	<p>“Total turnover of retail trade enterprises by main kind of activity (NACE Rev. 2), at current prices (thousand euro) – Economic activity (NACE Rev. 2) and Time period”:</p> <ul style="list-style-type: none"> <li>• G47 Retail trade, except of motor vehicles and motorcycles</li> <li>• G4791 Retail sale via mail order houses or via Internet</li> </ul>	<p><a href="https://data.stat.gov.lv/pxweb/en/OSP_PUB/START__TIR__TI__TIT/TIT030m/">https://data.stat.gov.lv/pxweb/en/OSP_PUB/START__TIR__TI__TIT/TIT030m/</a></p>
Lithuania	<p>“Turnover of retail trade, motor vehicles, catering enterprises (VAT excluded) at current prices”:</p> <ul style="list-style-type: none"> <li>• Retail trade, except of motor vehicles and motorcycles</li> <li>• Retail sale via mail order houses or via Internet</li> </ul>	<p><a href="https://osp.stat.gov.lt/en/statistiniu-rodikliu-analize?hash=6a3000cc-7e81-4d21-a916-7ff5cb580013#/">https://osp.stat.gov.lt/en/statistiniu-rodikliu-analize?hash=6a3000cc-7e81-4d21-a916-7ff5cb580013#/.</a></p>
Norway	<p>Figure 12, 13, 15. Eurostat table “Turnover and volume of sales in wholesale and retail trade - annual data”</p> <ul style="list-style-type: none"> <li>• Retail trade, except of motor vehicles and motorcycles</li> <li>• Retail sale via mail order houses or via Internet</li> </ul> <p>Figure 14. “07312: Turnover statistics except wholesale on a fee or contract basis (NOK million), by industry (SIC2007), termin and contents”:</p> <ul style="list-style-type: none"> <li>• 47 Retail trade, except of motor vehicles and motorcycles</li> <li>• 47.91 Retail sale via mail order houses or via Internet</li> </ul>	<p><a href="https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&amp;category=sts.sts_wrt.sts_wrt_ts">https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&amp;category=sts.sts_wrt.sts_wrt_ts</a>  <a href="https://www.ssb.no/en/statbank/table/07312/tableViewLayout1/">https://www.ssb.no/en/statbank/table/07312/tableViewLayout1/</a></p>
Poland	<p>“Share of sales via Internet in retail sales (current prices)”</p>	<p><a href="https://stat.gov.pl/en/topics/prices-trade/trade/retail-sales-index-february-2024,11,102.html">https://stat.gov.pl/en/topics/prices-trade/trade/retail-sales-index-february-2024,11,102.html</a>.</p>
Singapore	<p>“Online Retail Sales Proportion (Out Of The Respective Industry’s Total Sales)”</p> <p>“Retail Sales Value (Based On 2017=100 Index) – Estimated”</p>	<p><a href="https://tablebuilder.singstat.gov.sg/table/TS/M601861">https://tablebuilder.singstat.gov.sg/table/TS/M601861</a>.  <a href="https://tablebuilder.singstat.gov.sg/table/TS/M601741">https://tablebuilder.singstat.gov.sg/table/TS/M601741</a>.</p>
Spain	<p>“Retail trade except motor vehicles and motorcycles (47 division CNAE2009): breakdown of turnover by sales system and main activity”</p>	<p><a href="https://www.ine.es/jaxiT3/Datos.htm?tpx=59427">https://www.ine.es/jaxiT3/Datos.htm?tpx=59427</a></p>



Economy	Source	Link
<b>Türkiye</b>	Eurostat table "Turnover and volume of sales in wholesale and retail trade - annual data" Retail trade, except of motor vehicles and motorcycles Retail sale via mail order houses or via Internet	<a href="https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&amp;category=sts.sts_wrt.sts_wrt_ts">https://ec.europa.eu/eurostat/databrowser/view/sts_trtu_a/default/table?lang=en&amp;category=sts.sts_wrt.sts_wrt_ts</a>
<b>United Kingdom*</b>	"Internet sales as a percentage of total retail sales (ratio) (%)" "Total Retail Sales in £thousands, Great Britain" *Great Britain (i.e. UK excluding Northern Ireland) only	<a href="https://www.ons.gov.uk/businessindustryandtrade/retailindustry/datasets/poundsdatatotalretailsales">https://www.ons.gov.uk/businessindustryandtrade/retailindustry/datasets/poundsdatatotalretailsales</a> . <a href="https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi">https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi</a> .
<b>United States</b>	"Estimated Quarterly U.S. Retail Sales (Not Adjusted): Total and E-commerce"	<a href="https://www.census.gov/retail/ecommerce.html">https://www.census.gov/retail/ecommerce.html</a>

*Exchange rates:* <https://unctadstat.unctad.org/datacentre/dataviewer/US.ExchangeRateCrosstab>



# Annex D. Sources for online platform transactions

Company	Value definition	Source	Notes
<b>AirBnB</b>	Gross booking value (GBV). "GBV represents the dollar value of bookings on our platform in a period and is inclusive of Host earnings, service fees, cleaning fees, and taxes, net of cancellations and alterations that occurred during that period".	Quarterly shareholder letters available at: <a href="https://investors.airbnb.com/financials/default.aspx#quarterly">https://investors.airbnb.com/financials/default.aspx#quarterly</a>	
<b>Alibaba Ecosystem</b>	Alibaba ecosystem GMV. Includes GMV generated from Alibaba's China consumer-facing businesses (China commerce, Local consumer services and Digital media and entertainment segments) and international commerce during the twelve months ended March 31. "GMV" are to the value of confirmed orders of products and services on our marketplaces, regardless of how, or whether, the buyer and seller settle the transaction; GMV in reference to our total GMV transacted in the Alibaba Ecosystem includes GMV transacted through our platforms by consumers with accounts on our platforms; our calculation of GMV includes shipping charges paid by buyers to sellers; as a prudential matter aimed at eliminating any influence on our GMV of potentially fraudulent transactions, we exclude from our calculation of GMV transactions in certain product categories over certain amounts and transactions by buyers in certain product categories over a certain amount per day."	Annual reports available at: <a href="https://www.alibabagroup.com/en-US/ir-financial-reports-financial-results">https://www.alibabagroup.com/en-US/ir-financial-reports-financial-results</a>	Figures represent the 12 month period ending March 31 the following year. E.g. the 2021 figure represents April 1 2021-March 31 2022.
<b>Allegro</b>	"GMV" means gross merchandise value, which represents the total gross value of goods and tickets sold on the following platforms (including value added taxes): Allegro.pl, AllegroKainie.pl and eBilet.pl; Mall.cz, Mall.hu, Mall.sk, Mall.hr, Mimovrste.com, CZC.cz; allegro.cz.	Annual reports, available at: <a href="https://about.allegro.eu/financial-results">https://about.allegro.eu/financial-results</a>	





Company	Value definition	Source	Notes
<b>Amazon</b>	<p>Amazon does not publish GMV but its Sustainability Report includes the indicator “grams of CO2 equivalent emitted per \$ of gross merchandise sales”. As the total tonnage of CO2e emissions is also presented in the report, Gross Merchandise Sales (GMS) can be derived. GMS is the total dollar value of customer orders, including shipping fees, digital media, and other non-retail sales, made through the Amazon platform. This metric represents the total value of products and services sold on Amazon’s marketplace by both Amazon itself and third-party sellers using the platform.</p>	<p><a href="https://sustainability.aboutamazon.com/2022-sustainability-report.pdf">https://sustainability.aboutamazon.com/2022-sustainability-report.pdf</a></p>	
<b>B2W / Americanas</b>	<p>“GROSS MERCHANDISE VOLUME (GMV) Term used in online retail to indicate consolidated sales and services revenue, added to the volume of sales made on B2W Digital’s marketplace platforms.”</p>	<p><a href="https://api.mziq.com/mzfilemanager/v2/d/347dba24-05d2-479e-a775-2ea8677c50f2/a6895d2b-dab4-5273-15d9-402285c796b0?origin=1">https://api.mziq.com/mzfilemanager/v2/d/347dba24-05d2-479e-a775-2ea8677c50f2/a6895d2b-dab4-5273-15d9-402285c796b0?origin=1</a>  <a href="https://api.mziq.com/mzfilemanager/v2/d/347dba24-05d2-479e-a775-2ea8677c50f2/6938d3ab-0d6d-4f48-424c-ae270173852c?origin=1">https://api.mziq.com/mzfilemanager/v2/d/347dba24-05d2-479e-a775-2ea8677c50f2/6938d3ab-0d6d-4f48-424c-ae270173852c?origin=1</a></p>	<p>In July 2021, Lojas Americanas SA and B2W Digital SA merged into a single company, called Americanas SA.                  “By 2021, e-commerce already accounted for 76% of our total GMV, through a hybrid model that combines the best of 1P and marketplace, offering a wide assortment to customers”.</p>
<b>Booking Holdings</b>	<p>Gross bookings. “Our financial results are driven by certain operating metrics that encompass the booking and other business activity generated by our travel and travel related services. Specifically, reservations of room nights, rental car days, and airline tickets capture the volume of units booked through our online travel companies’ (“OTC”) brands by our travel reservation services customers. Gross bookings is an operating and statistical metric that captures the total dollar value, generally inclusive of taxes and fees, of all travel services booked through our OTC brands by our customers, net of cancellations. Our non-OTC brands (KAYAK and OpenTable) have different business metrics from those of our OTC brands, so search queries through KAYAK and restaurant reservations through OpenTable do not contribute to our gross bookings.”</p>	<p>Annual reports, available at: <a href="https://ir.bookingholdings.com/financials/annual-reports/default.aspx">https://ir.bookingholdings.com/financials/annual-reports/default.aspx</a></p>	



Company	Value definition	Source	Notes
<b>Novo / Cdiscount</b>	"Gross merchandise volume (GMV) is defined as product sales + other revenues + marketplace business volumes + services GMV + taxes and is calculated based on approved and sent orders."	Annual reports, available at: <a href="https://www.novoa.com/investor-relations/annual-and-semiannual-reports/">https://www.novoa.com/investor-relations/annual-and-semiannual-reports/</a>	"Marketplace GMV, after reaching more than 50% of product GMV for the first time in the 2nd quarter of 2022, continues on its positive trend and now represents 54% of GMV in the 4th quarter (+9pts vs. last year) with a nearly stable GMV (2%) in a receding French e-commerce market."
<b>Deliveroo</b>	"Gross transaction value ('GTV') is the total value paid by consumers, excluding any discretionary tips. GTV comprises the total food basket (net of any discounts) and consumer fees, and is represented including VAT and other sales-related taxes. It is a widely used measure for understanding the total value spent by consumers on our marketplace."	Annual reports, available at: <a href="https://corporate.deliveroo.co.uk/investors/results-reports-presentations/">https://corporate.deliveroo.co.uk/investors/results-reports-presentations/</a>	
<b>Delivery Hero</b>	"Gross Merchandise Value (GMV) is the total value paid by customers (including VAT, delivery fees, service fees less other subsidies)."	Annual reports, available at: <a href="https://ir.deliveryhero.com/financial-reports-and-presentations/">https://ir.deliveryhero.com/financial-reports-and-presentations/</a>	
<b>Didi</b>	"GTV. The total dollar value, including any applicable taxes, tolls and fees, of completed Transactions without any adjustment for consumer incentives or for earnings and incentives paid to drivers for mobility services, merchant or delivery partners for food delivery services, or service partners for other initiatives."	Annual reports, available at: <a href="https://ir.didiglobal.com/overview/default.aspx">https://ir.didiglobal.com/overview/default.aspx</a>	Covers China mobility and international segments
<b>eBay</b>	"GMV consists of the total value of all paid transactions between users on our platforms during the applicable period inclusive of shipping fees and taxes."	<a href="https://ebay.q4cdn.com/610426115/files/doc_financials/2022/ar/2022-annual-report.pdf">https://ebay.q4cdn.com/610426115/files/doc_financials/2022/ar/2022-annual-report.pdf</a>	
<b>eMag</b>	"GMV represents the value of all successfully closed transactions between users on a platform. GMV provides a measure of the overall volume of transactions through a platform, both through first-party and third-party transactions."	GMV is given in the KPI datasheet available here: <a href="https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive">https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive</a>	Fiscal years ending 31 March of the following year
<b>Etsy</b>	"Gross merchandise sales ('GMS') is the dollar value of items sold in our marketplaces within the applicable period, excluding shipping fees and net of refunds associated with cancelled transactions."	<a href="https://investors.etsy.com/financials/annual-reports-and-proxy/default.aspx">https://investors.etsy.com/financials/annual-reports-and-proxy/default.aspx</a>	

Company	Value definition	Source	Notes
<b>Expedia</b>	<p>“Gross bookings generally represent the total retail value of transactions booked for agency and merchant transactions, recorded at the time of booking reflecting the total price due for travel by travellers, including taxes, fees and other charges, and are reduced for cancellations and refunds. Revenue margin is defined as revenue as a percentage of gross bookings.”</p>	<p><a href="https://www.expediagroup.com/investors/financial-information/annual-reports/default.aspx">https://www.expediagroup.com/investors/financial-information/annual-reports/default.aspx</a></p>	
<b>Goto e-commerce (Tokopedia)</b>	<p>“GTV or Gross Transaction Value, an operating measure representing the sum of (i) the value of on-demand services transactions; (ii) the value of e-commerce transactions for product and services; and (iii) the total payments volume processed through our financial technology services, excluding any inter-company transactions. Item iii not included in this calculation.”</p>	<p><a href="https://assets.tokopedia.net/assets/FINAL_2023.03.20_4Q22%20Earnings%20Presentation%20vSentB.pdf">https://assets.tokopedia.net/assets/FINAL_2023.03.20_4Q22%20Earnings%20Presentation%20vSentB.pdf</a>  <a href="https://assets.tokopedia.net/assets/goto/Annual%20Report%202021_Bilingual_compressed.pdf">https://assets.tokopedia.net/assets/goto/Annual%20Report%202021_Bilingual_compressed.pdf</a></p>	
<b>Goto on demand services (Gojek)</b>	<p>“refers to Gross Transaction Value, an operating measure representing (as relevant) (i) the sum of the value of the transactions from on-demand services; (j) the sum of the value of the product and services recorded on GoTo Group’s e-commerce marketplace platform; and/or (iii) the sum of the payments value processed through the financial technology services platform excluding transaction value between entities in GoTo Group that has been eliminated at the consolidation.”</p>	<p><a href="https://assets.tokopedia.net/assets/goto/Annual%20Report%202021_Bilingual_compressed.pdf">https://assets.tokopedia.net/assets/goto/Annual%20Report%202021_Bilingual_compressed.pdf</a></p>	
<b>Grab</b>	<p>“GMV representing the sum of the total dollar value of transactions from Grab’s products and services, including any applicable taxes, tips, tolls, surcharges and fees, over the period of measurement. GMV includes sales made through offline stores”. “Overall GMV” is comprised of “deliveries GMV”, “Mobility GMV”, “Financial services GMV” and “Enterprise and new initiatives GMV”.</p>	<p><a href="https://investors.grab.com/annual-reports-0">https://investors.grab.com/annual-reports-0</a></p>	



Company	Value definition	Source	Notes
<b>Hepsiburada</b>	<p>“GMV” as gross merchandise value which refers to the total value of orders/products sold through our platform over a given period of time (including value added tax (“VAT”) without deducting returns and cancellations), including cargo income (shipping fees related to the products sold through our platform) and excluding other service revenues and transaction fees charged to our merchants; “Marketplace GMV” as total value of orders/products sold through our Marketplace over a given period of time (including VAT without deducting returns and cancellations), including cargo income (shipping fees related to the products sold through our platform) and excluding other service revenues and transaction fees charged to our merchants.”</p>	<p><a href="https://investor.hepsiburada.com/en/financials/sec-filings">https://investor.hepsiburada.com/en/financials/sec-filings</a></p>	<p>“As of December 31, 2022, 2021 and 2020, our Marketplace GMV represented approximately 67%, 68% and 59% of our total GMV, respectively.”</p>
<b>ifood</b>	<p>“GMV represents the value of all successfully closed transactions between users on a platform. GMV provides a measure of the overall volume of transactions through a platform, both through first-party and third-party transactions.”</p>	<p>GMV is given in the KPI datasheet available here: <a href="https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive">https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive</a></p>	<p>Fiscal years ending 31 March of the following year</p>
<b>jd.com</b>	<p>“GMV” are to the total value of all orders for products and services placed in our online retail business and on our online marketplaces, regardless of whether the goods are sold or delivered or whether the goods are returned. GMV includes the value from orders placed on our mobile apps and websites as well as orders placed on third-party mobile apps and websites that are fulfilled by us or by our third-party merchants. The calculation of GMV includes shipping charges paid by buyers to sellers and for prudent consideration excludes certain transactions over certain amounts. We believe that GMV provides a measure of the overall volume of transactions that flow through our platform in a given period. Therefore, it should not be used as a financial metric or industry and peer comparisons.”</p>	<p><a href="https://ir.jd.com/static-files/9cc8985d-be5d-476b-81c5-5a0366f09d6c">https://ir.jd.com/static-files/9cc8985d-be5d-476b-81c5-5a0366f09d6c</a></p>	<p>“Our gross merchandise value, or GMV, increased by 5.6% in 2022 as compared to 2021.” Form 20-F.</p>
<b>Jumia</b>	<p>“GMV (Gross Merchandise Value) corresponds to the total value of orders for products and services, including shipping fees, value added tax, and before deductions of any discounts or vouchers, irrespective of cancellations or returns for the relevant period.”</p>	<p><a href="https://investor.jumia.com/financials-filings/default.aspx">https://investor.jumia.com/financials-filings/default.aspx</a></p>	

Company	Value definition	Source	Notes
<b>Just Eat Takeaway</b>	"Gross transaction value (GTV)"; "GMV" in 2019.	<a href="https://s3.eu-central-1.amazonaws.com/takeaway-corporatewebsite-dev/01-03-2023-Press-Release-Just-Eat-Takeaway.com-Full-Year-2022-Results.pdf">https://s3.eu-central-1.amazonaws.com/takeaway-corporatewebsite-dev/01-03-2023-Press-Release-Just-Eat-Takeaway.com-Full-Year-2022-Results.pdf</a> <a href="https://s3.eu-central-1.amazonaws.com/takeaway-corporatewebsite-dev/02-03-2022-Press-release-Just-Eat-Takeaway.com-FY-2021-Results.pdf">https://s3.eu-central-1.amazonaws.com/takeaway-corporatewebsite-dev/02-03-2022-Press-release-Just-Eat-Takeaway.com-FY-2021-Results.pdf</a>	Just Eat acquired Grubhub in 2021. Consolidated GTV is available from 2020. 2019 estimated by summing the reported values for Just Eat and Grubhub
<b>Meituan</b>	"Gross transaction volume of food delivery. "Gross Transaction Volume" or "GTV" the value of paid transactions of products and services on our platform by consumers, regardless of whether the consumers are subsequently refunded. This includes delivery charges and VAT, but excludes any payment-only transactions, such as QR code scan payments and point-of sale payments."	<a href="https://media-meituan.todayir.com/20220419164002405410215762_en.pdf">https://media-meituan.todayir.com/20220419164002405410215762_en.pdf</a>	
<b>Mercado Libre</b>	"GMV. Total U.S. dollar sum of all transactions completed through the Mercado Libre Marketplace, excluding Classifieds transactions."	<a href="https://dd7pmep5szm19.cloudfront.net/2831/0001099590-23-000007.htm">https://dd7pmep5szm19.cloudfront.net/2831/0001099590-23-000007.htm</a> <a href="https://dd7pmep5szm19.cloudfront.net/2831/0001562762-22-000049.htm">https://dd7pmep5szm19.cloudfront.net/2831/0001562762-22-000049.htm</a>	
<b>Ozon</b>	"GMV incl. services (gross merchandise value including revenue from services) as the total value of orders processed through our platform, as well as revenue from services to our buyers, sellers and other customers, such as delivery, advertising and other services. GMV incl. services is inclusive of value added taxes, net of discounts, returns and cancellations. GMV incl. services does not represent revenue earned by us. GMV incl. services does not include travel ticketing and hotel booking commissions, other related service revenues or value of the respective orders processed."	<a href="https://www.sec.gov/Archives/edgar/data/1822829/000119312523115002/d445088d20f.htm#tx445088_14">https://www.sec.gov/Archives/edgar/data/1822829/000119312523115002/d445088d20f.htm#tx445088_14</a>	



Company	Value definition	Source	Notes
<b>Pinduoduo</b>	<p>“GMV” are to the total value of all orders for products and services placed on our Pinduoduo mobile platform, regardless of whether the products and services are actually sold, delivered or returned. Buyers on our platform are not charged for shipping fees in addition to the listed price of merchandise. Hence, merchants may embed the shipping fees in the listed price. If embedded, then the shipping fees are included in our GMV. As a prudential matter aimed at eliminating any influence on our GMV of irregular transactions, we exclude from our calculation of GMV transactions in certain product categories over certain amounts and transactions by buyers in certain product categories over a certain amount per day.”</p>	<p><a href="https://investor.pddholdings.com/financial-information/annual-reports">https://investor.pddholdings.com/financial-information/annual-reports</a></p>	
<b>Rakuten</b>	<p>“Domestic (Japan) e-commerce GMS. Domestic e-commerce GMS (Excludes some tax-exempt businesses, includes consumption tax.) is the combined transaction amount for Rakuten Ichiba, Rakuten Travel (GTV on checkout basis), Rakuten Books, Books Network, Kobo (domestic), golf business, Rakuten Fashion, Rakuten Dream businesses, Rakuten Beauty, Rakuten 24, Car, Rakuma, Rakuten Rebates, Rakuten Seiyu Netsuper, and cross boarder trading ,etc.”</p>	<p><a href="https://global.rakuten.com/corp/investors/documents/annual.html">https://global.rakuten.com/corp/investors/documents/annual.html</a></p>	<p>Excludes “overseas e-commerce GMS”</p>
<b>Shopee</b>	<p>“Gross merchandise value or “GMV” refers to the value of orders of products and services on our Shopee marketplace. Our calculation of GMV for our e-commerce platform includes shipping and other charges.”</p>	<p><a href="https://cdn.sea.com/webmain/static/resource/seagroup/pressrelease/2022AR/6XNimuGkDrCopmdEwH15M/2023-04-06%20-%20Form%2020-F.pdf">https://cdn.sea.com/webmain/static/resource/seagroup/pressrelease/2022AR/6XNimuGkDrCopmdEwH15M/2023-04-06%20-%20Form%2020-F.pdf</a>; <a href="https://www.sea.com/investor/annualreports">https://www.sea.com/investor/annualreports</a></p>	<p>“GMV” refers to the value of orders of products and services on our Shopee marketplace. The value is calculated adding GMV of 4 quarters of the given year. Annual reports found only for 20, 21 and 22.</p>



Company	Value definition	Source	Notes
<p><b>Shopify</b></p>	<p>"Gross Merchandise Volume GMV is the total dollar value of orders facilitated through our platform including certain apps and channels for which a revenue-sharing arrangement is in place in the period, net of refunds, and inclusive of shipping and handling, duty and value-added taxes. GMV does not represent revenue earned by us. However, the volume of GMV facilitated through our platform is an indicator of the success of our merchants and the strength of our platform. Our merchant solutions revenues are also directionally correlated with the level of GMV facilitated through our platform. For the years ended December 31, 2022 and 2021, we facilitated GMV of \$197.2 billion and \$175.4 billion, respectively. In the year ended December 31, 2021, we experienced elevated GMV, most notably in the first two quarters of 2021, coming off the tailwinds of the shift to e-commerce accelerated by COVID-19 in 2020, along with additional drivers in the form of lockdowns and government stimulus, which has impacted the year-over-year growth in GMV. Going forward, we expect more normalized growth in GMV against a more measured macro environment relative to 2021 as a result of post-pandemic consumer spend shifting to services and in-person shopping, as well as inflationary pressures on our merchants and their buyers. However, we also expect that changed behaviours adopted by merchants and consumers in 2020 and 2021 driven by COVID-19 will continue to expand the prospects for entrepreneurship and digital commerce."</p>	<p><a href="https://s27.q4cdn.com/572064924/files/doc_financials/2022/ar/4cdd44db-ca94-4d2a-ae03-4dad70a72c58.pdf">https://s27.q4cdn.com/572064924/files/doc_financials/2022/ar/4cdd44db-ca94-4d2a-ae03-4dad70a72c58.pdf</a></p>	
<p><b>Swiggy</b></p>	<p>"GMV includes delivery fees."</p>	<p>2022 GMV given in: <a href="https://www.naspers.com/~/media/Files/N/Naspers-Corp-V2/investor/full-year-results-2023/naspers-integrated-annual-report-2023.pdf">https://www.naspers.com/~/media/Files/N/Naspers-Corp-V2/investor/full-year-results-2023/naspers-integrated-annual-report-2023.pdf</a>                      2021 GMV given in: <a href="https://www.naspersreport2022.com/images/uploads/2022/05/Naspers2022_Integrated_Annual_Report.pdf">https://www.naspersreport2022.com/images/uploads/2022/05/Naspers2022_Integrated_Annual_Report.pdf</a>                      2020, 2019 estimated using dollar GMV growth rates given the KPI spreadsheets: <a href="https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive">https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive</a></p>	<p>Fiscal years ending 31 March of the following year</p>



Company	Value definition	Source	Notes
<b>Takealot group</b>	<p>"GMV represents the value of all successfully closed transactions between users on a platform. GMV provides a measure of the overall volume of transactions through a platform, both through first-party and third-party transactions."</p>	<p>GMV is given in the KPI datasheet available here: <a href="https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive">https://www.naspers.com/investors/results-reports-events/results-reports-and-events-archive</a></p>	<p>Fiscal years ending 31 March of the following year</p>
<b>Uber (incl. eats)</b>	<p>"Gross Bookings. We define Gross Bookings as the total dollar value, including any applicable taxes, tolls, and fees, of Mobility rides; Delivery orders (in each case without any adjustment for consumer discounts and refunds); Driver and Merchant earnings; Driver incentives and Freight revenue. Gross Bookings do not include tips earned by Drivers. Gross Bookings are an indication of the scale of our current platform, which ultimately impacts revenue."</p>	<p><a href="https://investor.uber.com/financials/default.aspx">https://investor.uber.com/financials/default.aspx</a></p>	
<b>VIP.com</b>	<p>"GMV" refers to gross merchandise value, the total Renminbi value of all products and services sold through our online sales business, online marketplace platform, Shan Shan Outlets, and other offline stores during the relevant period, including our websites and mobile apps, third-party websites and mobile apps, Shan Shan Outlets (since we acquired it in July 2019), and other offline stores, which were fulfilled by either our company or our third-party merchants, regardless of whether or not the goods were delivered or returned. GMV includes shipping charges paid by buyers to sellers. For prudent considerations, we do not consider products or services to be sold if the relevant orders were placed and canceled pre-shipment and only included orders that left our or other third-party vendors' warehouses."</p>	<p><a href="https://ir.vip.com/financial-information/annual-reports">https://ir.vip.com/financial-information/annual-reports</a></p>	
<b>Walmart international (incl. FlipKart, Myntra)</b>	<p>"E-commerce sales. We define e-commerce sales as sales initiated by customers digitally and fulfilled by a number of methods including our dedicated e-commerce fulfillment centers and leveraging our stores, as well as certain other business offerings that are part of our flywheel strategy, such as our Walmart Connect advertising business."</p>	<p><a href="https://d18m0p25nwr6d.cloudfront.net/CIK-0000104169/cfe6ee99-8fe6-4333-80ac-829d9e7595fa.pdf">https://d18m0p25nwr6d.cloudfront.net/CIK-0000104169/cfe6ee99-8fe6-4333-80ac-829d9e7595fa.pdf</a>  <a href="https://d18m0p25nwr6d.cloudfront.net/CIK-0000104169/c68fb8be-2602-4f2a-aea0-261b4f04b970.pdf">https://d18m0p25nwr6d.cloudfront.net/CIK-0000104169/c68fb8be-2602-4f2a-aea0-261b4f04b970.pdf</a></p>	<p>Fiscal years ended Jan 31 the following year</p>
<b>Walmart US</b>			<p>Fiscal years ended Jan 31 the following year</p>



Company	Value definition	Source	Notes
<b>Yandex</b>	<p>"GMV (or gross merchandise value) of Mobility is defined as the total amount paid by customers for ride-hailing, car-sharing and scooters rent services booked through our platform, including VAT.</p> <p>2 GMV of E-commerce is defined as the value of all merchandise sold through our Yandex Market marketplace and Yandex Lavka as well as the value of products sold through Yandex Eats and Delivery Club grocery service (delivered and paid for), including VAT.</p> <p>3 GMV of other O2O (online-to-offline) services includes the total amount paid by customers and partner businesses for Yandex Delivery and Yandex Fuel services, the value of orders, delivered through the Yandex Eats and Delivery Club Food Delivery services, Lavka Israel, and several other smaller O2O experiments, including VAT."</p> <p>"Yandex Market is the core part of our E-commerce vertical, which also includes Yandex Lavka Russia, our hyperlocal convenience store delivery service, and the grocery delivery services of Yandex Eats and Delivery Club."</p>	<p><a href="https://www.sec.gov/Archives/edgar/data/1513845/000155837022005654/yndx-20211231x20f.htm">https://www.sec.gov/Archives/edgar/data/1513845/000155837022005654/yndx-20211231x20f.htm</a>  <a href="https://ir.yandex/sec-filings?year=2023&amp;type=annual">https://ir.yandex/sec-filings?year=2023&amp;type=annual</a></p>	
<b>Zalando</b>	<p>"1. GMV (Gross Merchandise Volume) is defined as the value of all merchandise sold to customers after cancellations and returns and including VAT, dynamically reported. It does not include B2B revenues (e.g. Partner Program commission, Zalando Marketing Services or Zalando Fulfillment Solutions) and other B2C revenues (e.g. service charges like express delivery fees); these are included in revenue only. GMV is recorded based on the time of the customer order"</p>	<p><a href="https://corporate.zalando.com/en/investor-relations/annual-report-2022">https://corporate.zalando.com/en/investor-relations/annual-report-2022</a></p>	

Exchange rates: <https://unctadstat.unctad.org/datacentre/dataviewer/US.ExchangeRateCrosstab>

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