

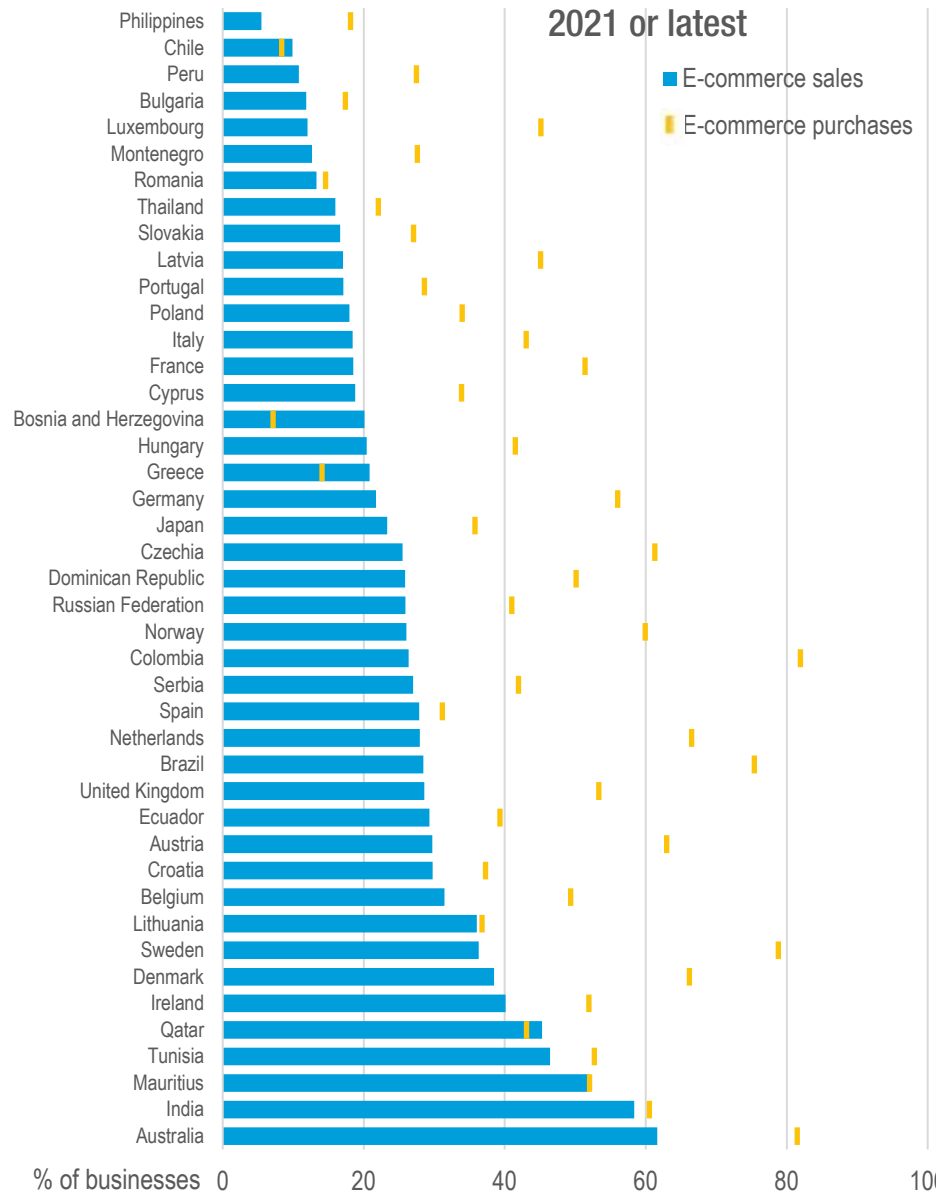
# Measuring the value of e-commerce

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# Core indicators on e-commerce

## Businesses using e-commerce



Online shoppers, 2020/21  
(% of Internet users)

## Individuals shopping online



Source: <https://unctad.org/news/covid-19-boost-e-commerce-sustained-2021-new-unctad-figures-show>

UNCTAD based on Eurostat Digital Economy and Society Statistics database, OECD ICT Access and Usage by Households and Individuals database, ITU World Telecommunication/ICT Indicators database, Argentina CACE, Australia Post, China Network Information Center, DANE Colombia, IMDA Singapore.

Notes: see source.

Source: UNCTAD core indicators on ICT usage in business.  
Note: businesses with 10+ persons employed.  
Most common reporting years: sales 2020; purchases 2018.

# Why move beyond the core indicators?

- E-commerce is about transactions (i.e. money)
- The core indicators only show the **prevalence** of e-commerce among businesses and households, not the **economic value** associated with it
- Measuring the value of e-commerce is a prerequisite for understanding its contribution to **GDP, employment, trade and development**, as well as for **evidence-based policymaking**
- Member **requests for support**
- Few countries have estimates on e-commerce value

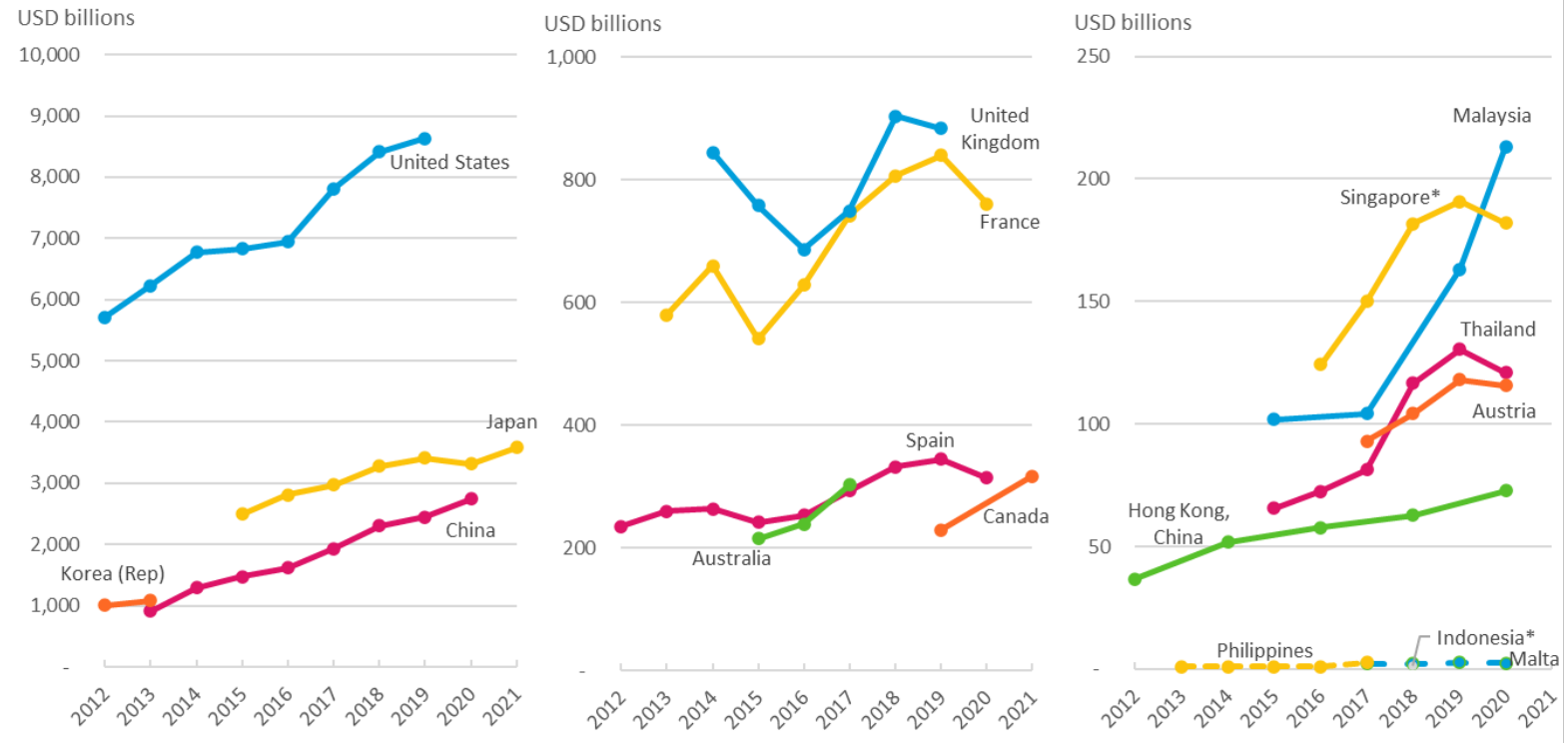
# Moving beyond the core indicators

- First step towards **developing guidelines and technical support** on measuring the value of e-commerce
- Focus on:
  - Transactions involving **businesses** – biggest piece of the puzzle
  - Value of **sales** – measured more often than purchases
  - “**Official estimates**” – those from National Statistical Organisations (or similar)
- Approach
  1. Collect *official* estimates of **business e-commerce sales**
  2. Examine:
    - a) **Definitions**
    - b) **Measurement approach**
    - c) **Breakdowns**
    - d) **Sources (business surveys)**
  3. Identify next steps

# 1. Business e-commerce sales

USD billions, current prices, 2012-2021

- Various National Statistics organisations have published estimates of the value of business e-commerce sales
- However, such estimates are not available for most economies
- We welcome any additional “official estimates” to include in the analysis
- Comparability is likely to be affected by methodological differences



Source: UNCTAD (2022), “Measuring the value of e-commerce” ([https://unctad.org/system/files/information-document/Progress\\_in\\_measuring\\_e-commerce\\_and\\_digital\\_economy\\_work\\_by\\_relevant\\_organizations.pdf](https://unctad.org/system/files/information-document/Progress_in_measuring_e-commerce_and_digital_economy_work_by_relevant_organizations.pdf)), based on national sources.

Note: **The comparability of the series presented is limited.** For further notes see source.

# 2.a Definitions

- The data underlying the estimates are, in essence, collected by asking businesses:

*How much money did your business earn from e-commerce [in a given reporting period]?*

- Requires two definitions:
  - E-commerce
  - Money earned

# What is e-commerce?

Definition of e-commerce for measurement purposes (OECD, 2009):

***“An e-commerce transaction is 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.***

***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.***

***An e-commerce transaction can be between enterprises, households, individuals, Governments, and other public or private organisations”***

- Both goods and services can be ordered via e-commerce
- Includes orders via web pages, extranet, EDI (machine-readable/generated) messages, applications
- Excludes orders placed by telephone, fax or manually typed **email** (as these are not “specifically designed for receiving or placing orders”)

# What is e-commerce?

*“To take into account the different levels of technological development in countries, the Partnership [on measuring ICT for development] recommends collecting data only on orders received or placed over the **Internet, including by email** (the latter is excluded from the *OECD definition*)”*

- **Internet only**: the Internet is now the default network for most applications including orders between businesses (e.g., “EDI over Internet”)
  - unlikely to make a big difference in most cases
- **Orders via email** [and other manually typed messages]: significance likely to vary between countries and industries
  - Some countries explicitly address “social media sales”

Classification of selected economies by features of e-commerce definitions applied in business surveys

	Excludes orders via manually typed email	Includes orders via manually typed email
All “computer networks”	Austria China France Hong Kong, China Japan Korea (Rep.) Malta Philippines Singapore Spain United Kingdom	United States
Internet only	Canada Malaysia	Australia Indonesia Mexico Thailand

Source: UNCTAD based on national sources.

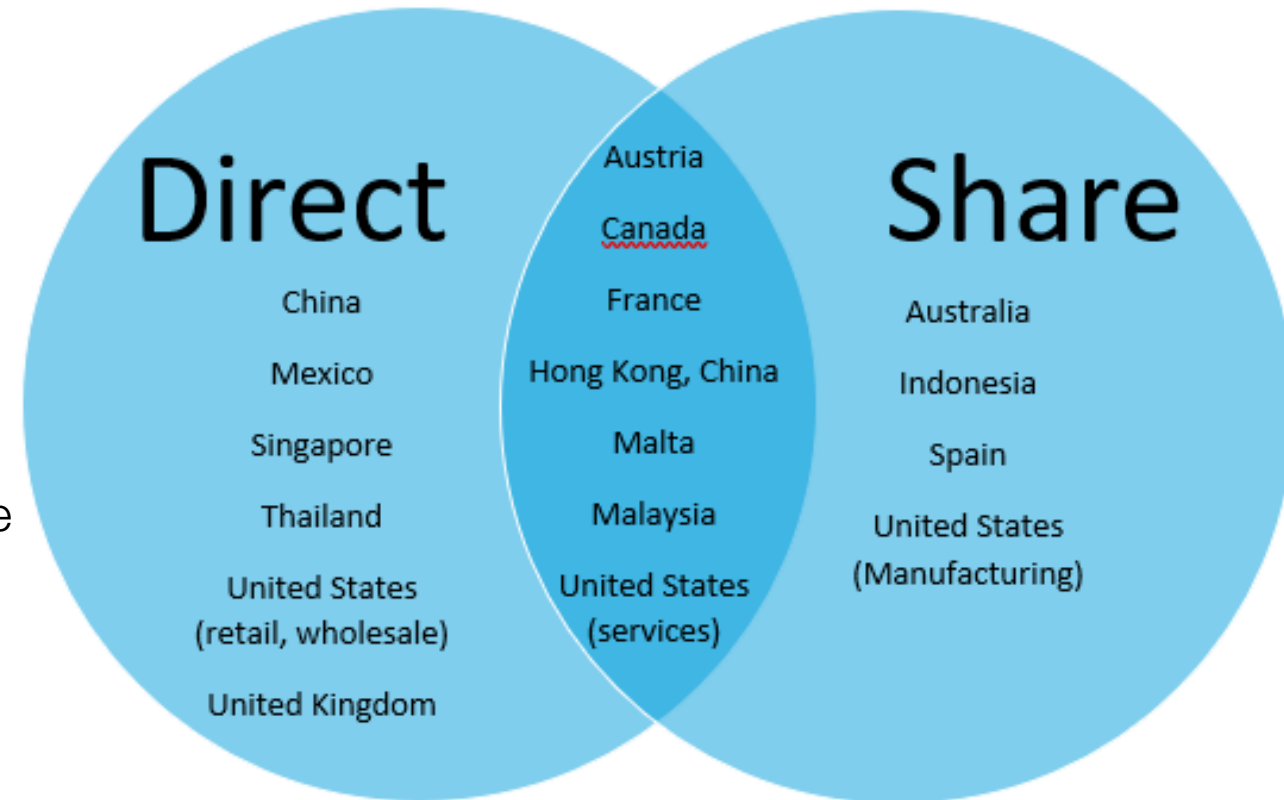


# Money earned

- Identify e-commerce transactions → add them up
  - *BUT should the amount include or exclude:*
    - sales taxes (e.g. VAT/GST up to 21% )?
    - discounts given (e.g. for early payment)?
    - Items returned?
- treatment varies
- material impact on comparisons

## 2.b Measurement approach

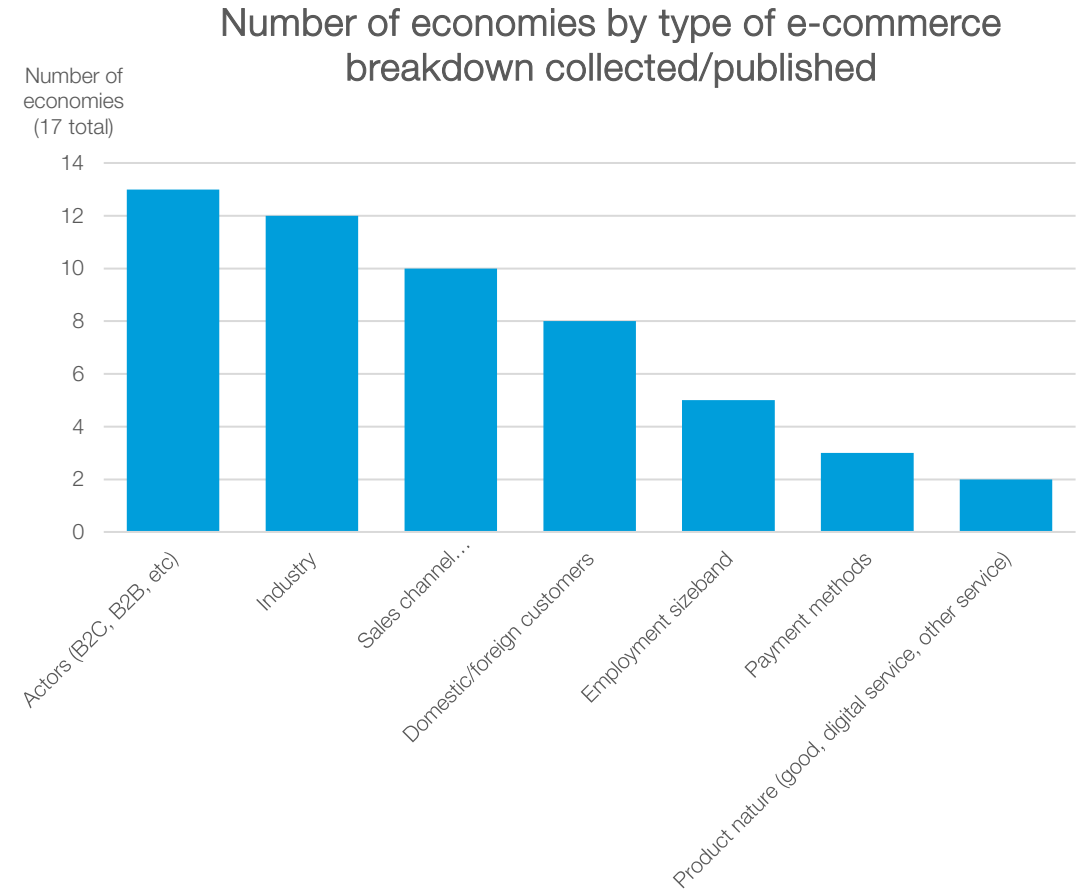
- Aim: find out the responding business' e-commerce sales revenue
- 2 approaches:
  - **Direct**
    - Ask for amount directly in \$€¥
  - **Share**
    - Ask for % of revenue from e-commerce
    - Apply that share to a measure of revenue in \$€¥ (from same or other source)
- Many surveys offer **both**, but most encourage direct reporting in \$€¥



Source: UNCTAD (2022), "Measuring the value of e-commerce"  
([https://unctad.org/system/files/information-document/Progress\\_in\\_measuring\\_e-commerce\\_and\\_digital\\_economy\\_work\\_by\\_relevant\\_organizations.pdf](https://unctad.org/system/files/information-document/Progress_in_measuring_e-commerce_and_digital_economy_work_by_relevant_organizations.pdf)). Based on national sources.

## 2.c Breakdowns for additional insights

- Top-down approach:
  1. collect total e-commerce
  2. break down to provide additional insights
- “standard” breakdowns reflecting firm characteristics (industry, employment size-band) not always available
- Others are e-commerce specific e.g. actors, sales channel
- Actors most common, but **considerable variation in implementation**
  - e.g. whether B2G separated, treatment of sales to non-profits

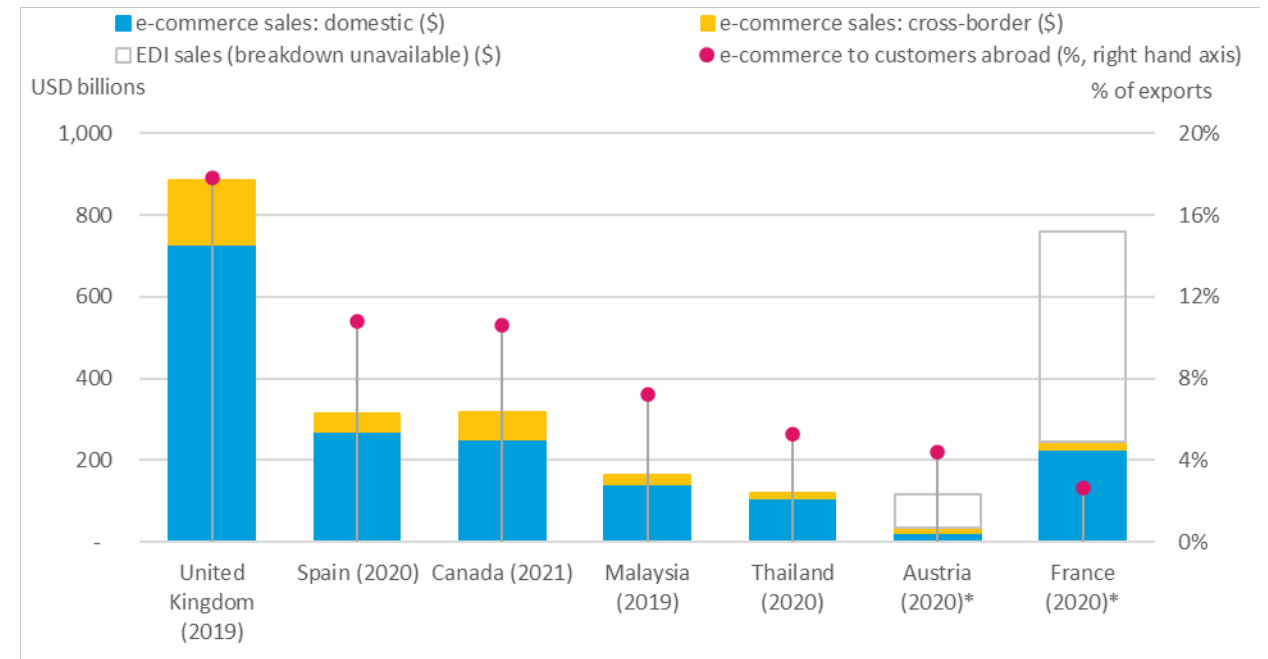


Source: UNCTAD (2022), “Measuring the value of e-commerce” ([https://unctad.org/system/files/information-document/Progress\\_in\\_measuring\\_e-commerce\\_and\\_digital\\_economy\\_work\\_by\\_relevant\\_organizations.pdf](https://unctad.org/system/files/information-document/Progress_in_measuring_e-commerce_and_digital_economy_work_by_relevant_organizations.pdf)). based on national sources.  
Notes: Sales channel refers to e.g. own or 3<sup>rd</sup> party website, apps, EDI. For further notes see source.

# Domestic/cross-border split is especially important

Business e-commerce sales, domestic and cross-border

- Evidence is needed on the role of e-commerce in trade and development
- Digitally ordered trade = international e-commerce → split is **needed to measure digital trade**
- Currently, few countries have this



Source: UNCTAD (2022), "Measuring the value of e-commerce" ([https://unctad.org/system/files/information-document/Progress\\_in\\_measuring\\_e-commerce\\_and\\_digital\\_economy\\_work\\_by\\_relevant\\_organizations.pdf](https://unctad.org/system/files/information-document/Progress_in_measuring_e-commerce_and_digital_economy_work_by_relevant_organizations.pdf)), based on national sources.

Note: \* France and Austria: domestic/cross-border breakdown available for "web sales" only (i.e., excluding EDI sales).

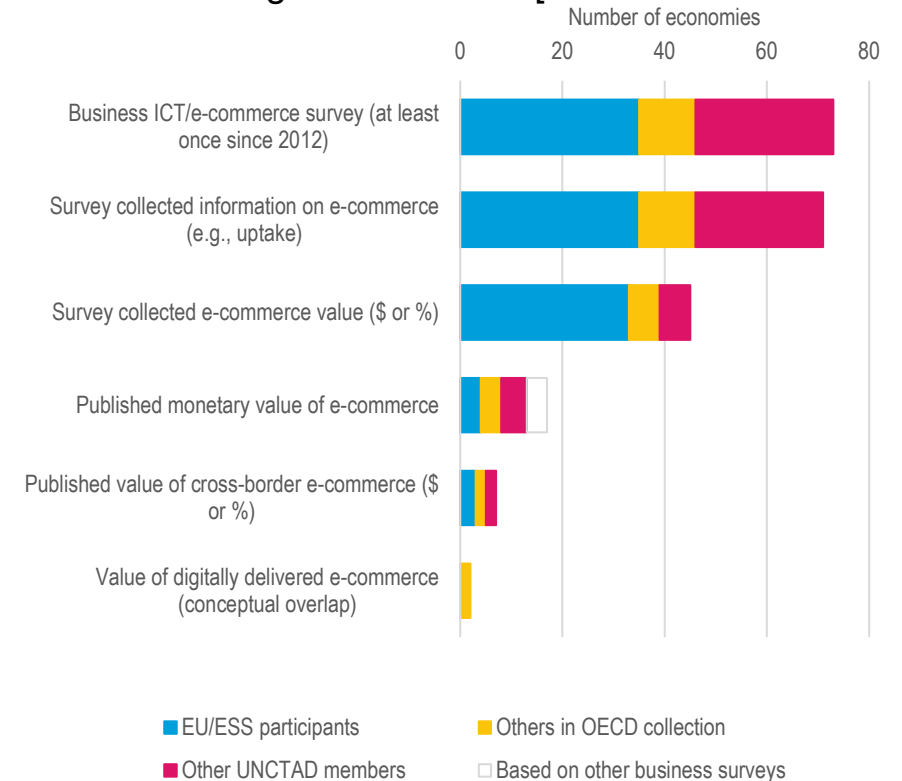
# 2.d Sources

- E-commerce **modules in business ICT surveys** and **stand-alone e-commerce surveys** are most common sources
  - About **80 countries** have conducted these surveys
  - Most have **collected information on e-commerce value** (\$€¥ or %)
  - **But only small minority** have published e-commerce **value estimates**
- Other sources include **general business and sectoral surveys**
- Surveys **vary in terms of methods**
  - Target population (industries, firm sizes, \$€¥ thresholds)
  - Sample design
  - Survey mode (in-person, phone, online, etc.)
  - Follow-up and treatment of non-response
  - etc.

These differences may impact comparability across economies



Measuring the value of business e-commerce sales using surveys of business ICT usage/e-commerce [and other business surveys]



Source: UNCTAD (2022), "Measuring the value of e-commerce" ([https://unctad.org/system/files/information-document/Progress\\_in\\_measuring\\_e-commerce\\_and\\_digital\\_economy\\_work\\_by\\_relevant\\_organizations.pdf](https://unctad.org/system/files/information-document/Progress_in_measuring_e-commerce_and_digital_economy_work_by_relevant_organizations.pdf)), based on national sources, Eurostat Digital Economy and Society Indicators Database, OECD ICT Access and Usage by Businesses database, UNCTAD core indicators on ICT use in business database.

Notes: see source.

# Summary

- E-commerce is increasingly important in facilitating economic activity → need for **measures of e-commerce value**
- Such measures are a prerequisite for understanding its contribution to **GDP, employment, trade and development**, as well as for **evidence-based policymaking**
- UNCTAD has received **requests** for support with measuring the value of e-commerce “in accordance with international standard practice”
- *However*, while there are international definitions of e-commerce and standard practices for business ICT surveys, **currently there are no statistical guidelines** on measuring the value of e-commerce
- This analysis is a first step towards **developing internationally agreed guidelines and technical support** on measuring the value of e-commerce

# 3. Next steps

The Working Group is invited to comment on the proposal that:

1. UNCTAD should **continue** working towards developing statistical guidelines on measuring the value of e-commerce (including cross-border e-commerce)
2. A **task group** of interested Working Group participants should be established to **guide, oversee, and contribute to** the development of the necessary measurement standards and guidelines