

13TH IMF STATISTICAL FORUM



MEASURING
CROSS-BORDER ECONOMIC
and **FINANCIAL LINKAGES**
in a Dynamic World

#StatsForum



Deriving Experimental Estimates of Digital Trade

NOVEMBER 19, 2025

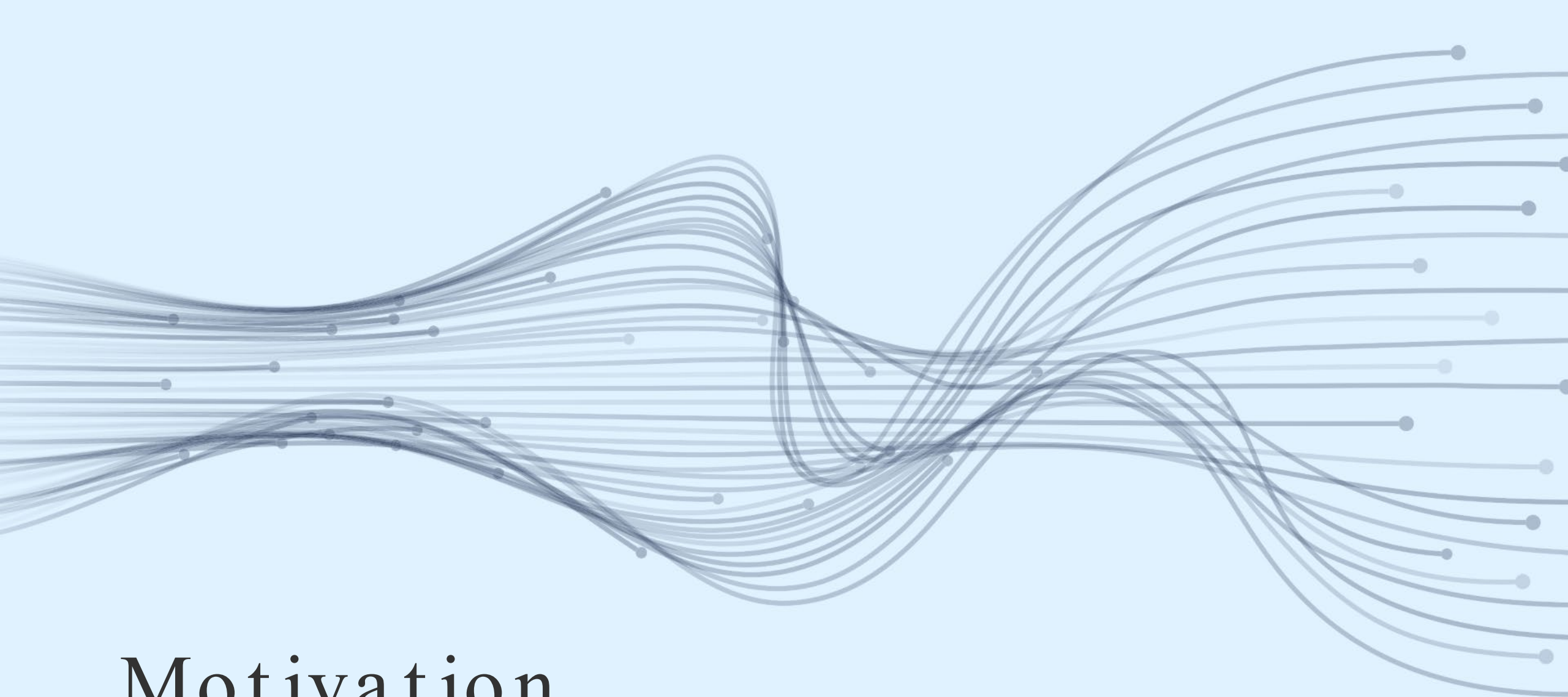
Annabelle Mourougane
OECD

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» Outline

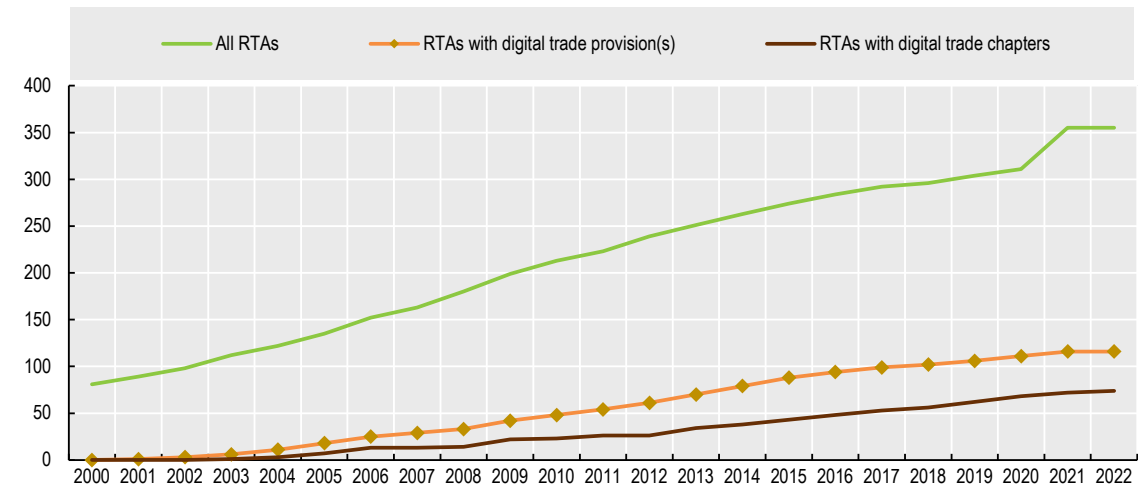
1. Motivation
2. Approach
3. Estimates
4. Conclusion



Motivation

» Digital trade estimates can inform economic policy

- **Trade policy:** Negotiate trade agreements at the bilateral and multilateral level
- **Competition policy:** Getting information to assess the role and behaviour of large digital firms.
- **Tax policy:** Adapt tax framework to new business models.
- Preventing a growing **digital divide**

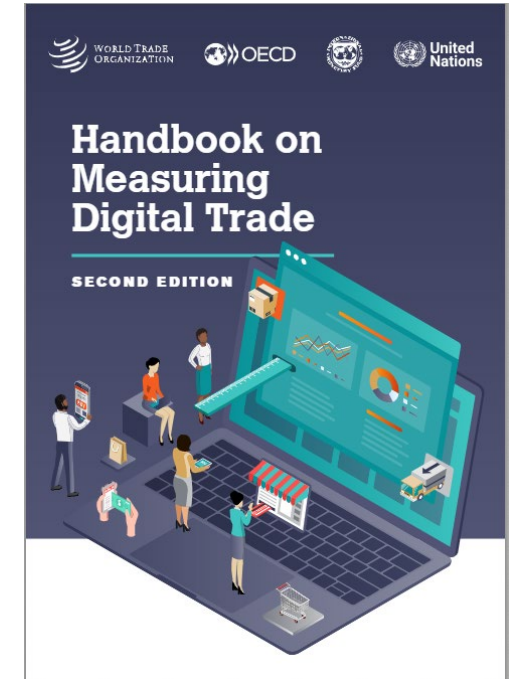


Source: López González, J., S. Sorescu and P. Kaynak (2023), Paris,

<https://doi.org/10.1787/11889f2a-en>.

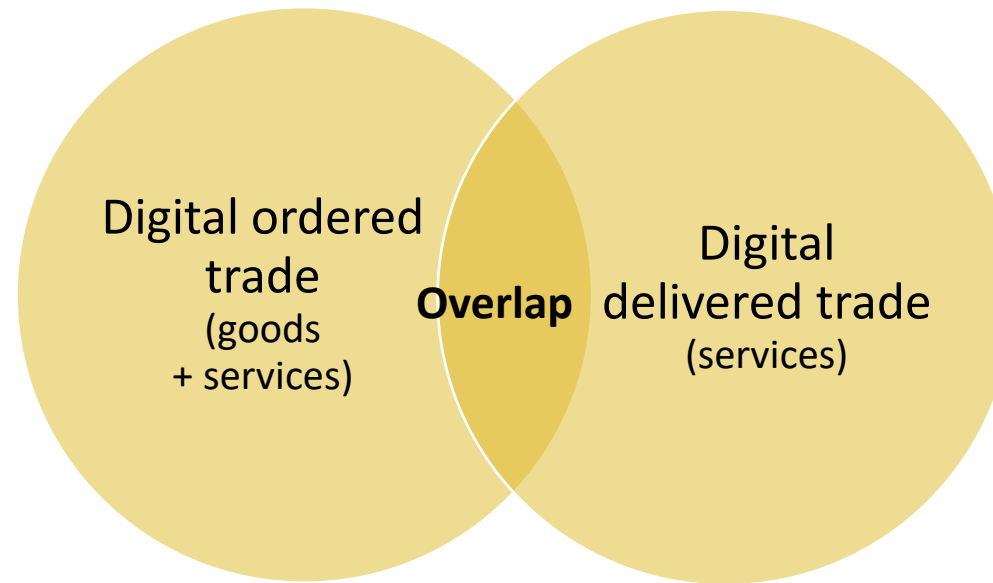
» A statistical framework

- The second version of **Handbook on measuring digital trade** jointly produced by the IMF, OECD, UN Trade and Development and WTO was endorsed by the Statistical Commission (February 2024).
- The Handbook defines digital trade as “all international trade that is digitally ordered and/or delivered”.
 - **Digitally ordered trade** is equivalent to international e-commerce using the OECD definition.
 - **Digitally delivered trade** : all trade that is delivered remotely over computer networks.





Overlap between digital ordered trade and digital delivered trade

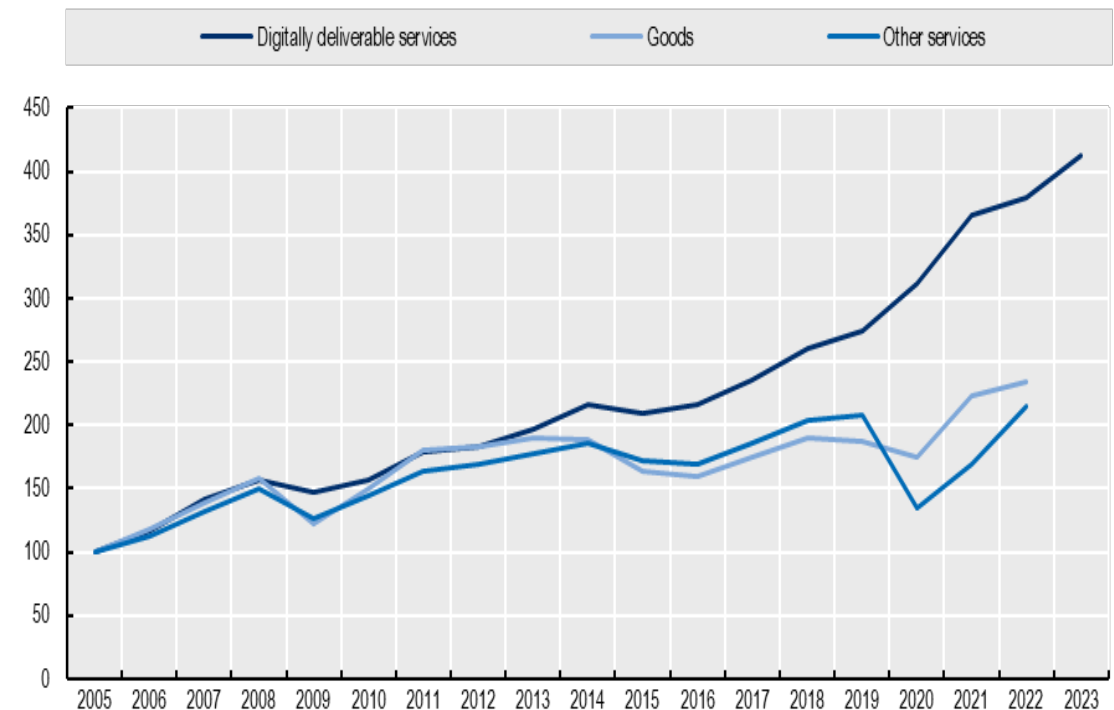


>> A complete picture of digital trade is missing

- **Ongoing efforts :**
 - Insights on digitally delivered trade from WTO, on digitally ordered and delivered trade by UN Trade and Development
 - OECD estimates on digitally ordered and delivered trade using TiVA data
- The aim of this work is to build on ongoing efforts to provide a **more unified vision of nature and value of digital trade.**

Digitally delivered services are the fastest growing segment of international trade

World, Index =100 in 2005



Source: Own calculations using COMTRADE, WTO digitally delivered services trade dataset and WTO TISMOS.

An abstract graphic consisting of numerous thin, light blue lines that flow and curve across the upper half of the slide. Small, semi-transparent blue dots are scattered along these lines, giving the impression of data points or particles moving through a field.

Approach

A stepwise approach

Digitally ordered trade

Using information on
cross-border e-commerce
sales in ICT surveys

Using information on
trade flows

Digital trade

Digital trade = trade in
digitally deliverable
services sectors + trade in
non deliverable sectors

» The OECD benchmark approach

Digitally ordered trade

Using information on cross-border e-commerce sales in ICT surveys

Using information on trade flows

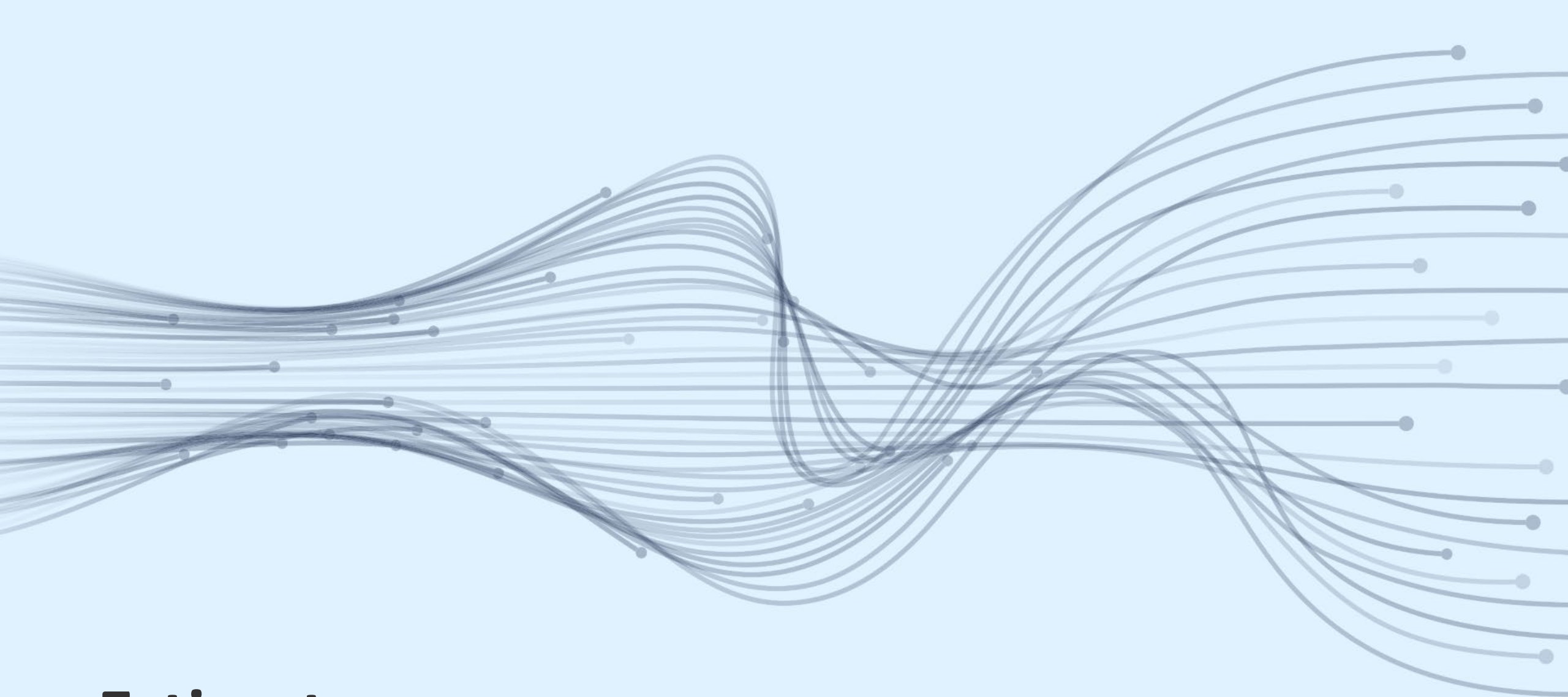
Digital trade

Digital trade = trade in digitally deliverable services sectors + trade in non deliverable sectors

International e-commerce approach will cover

- 24 countries (scope to expand)
- From 2010 to 2023
- 7 sectors

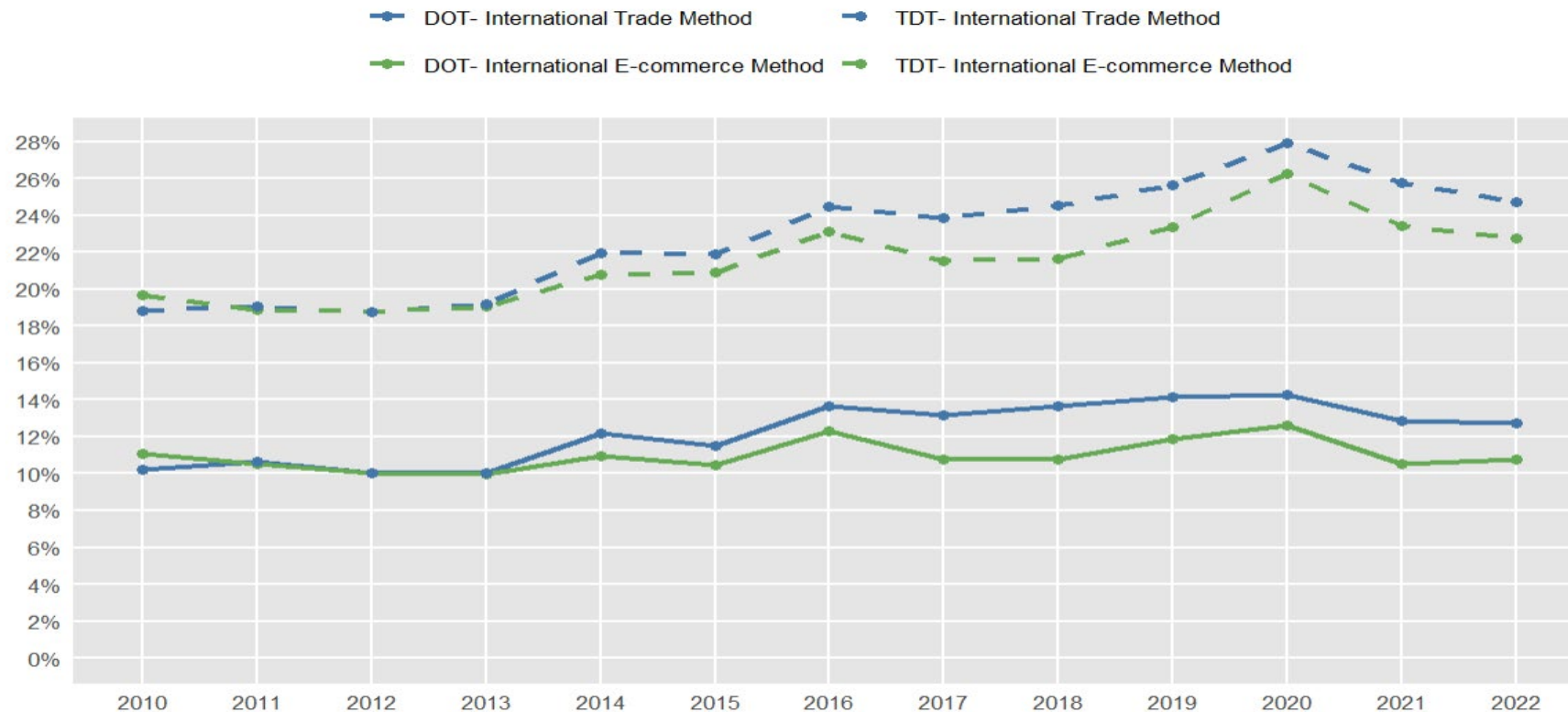
International trade approach used as a complement (29 countries over 2010-22)



Estimates

» The two approaches point to similar trends on average...

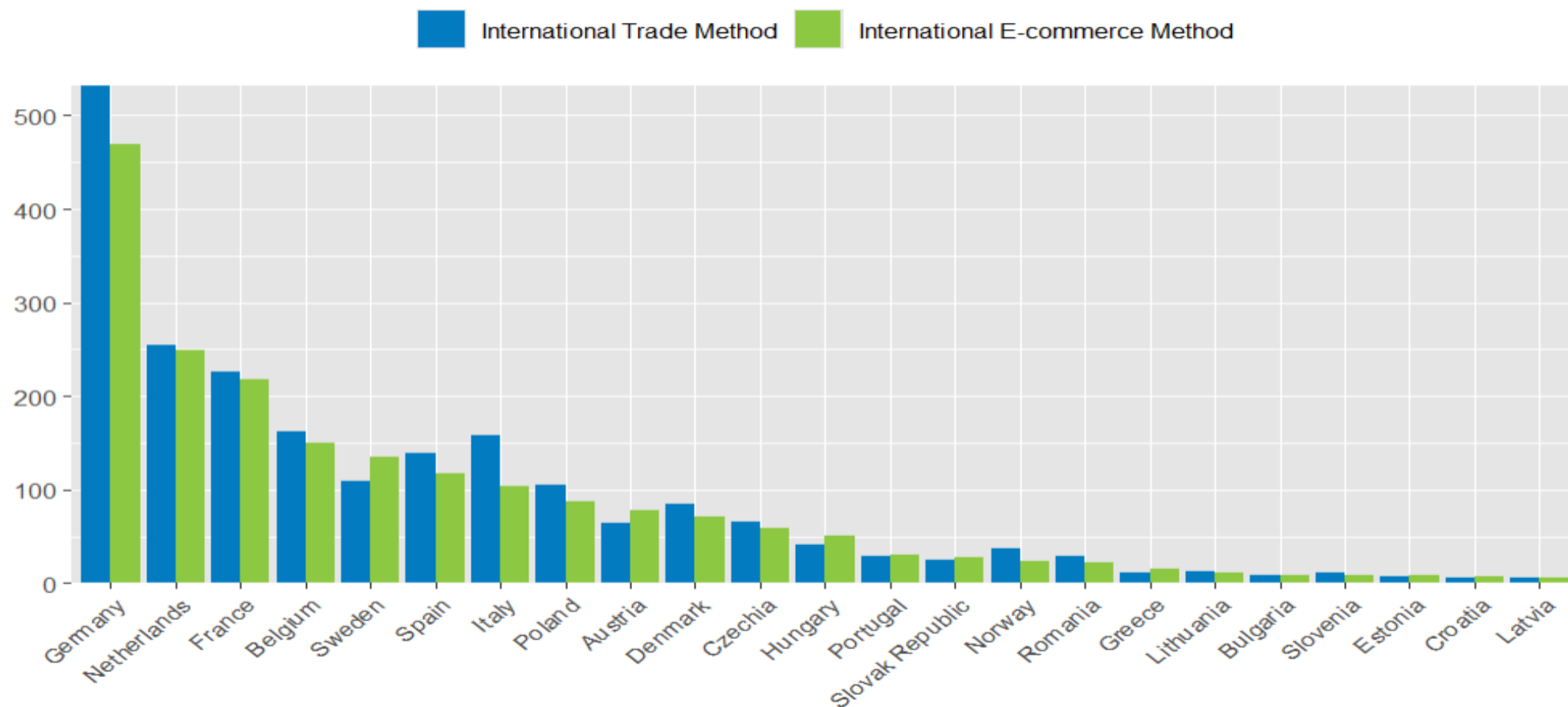
Digital ordered trade and digital trade as a percent of exports



Source: OECD (2025), Deriving experimental estimates of digital trade.

» ... and in most countries

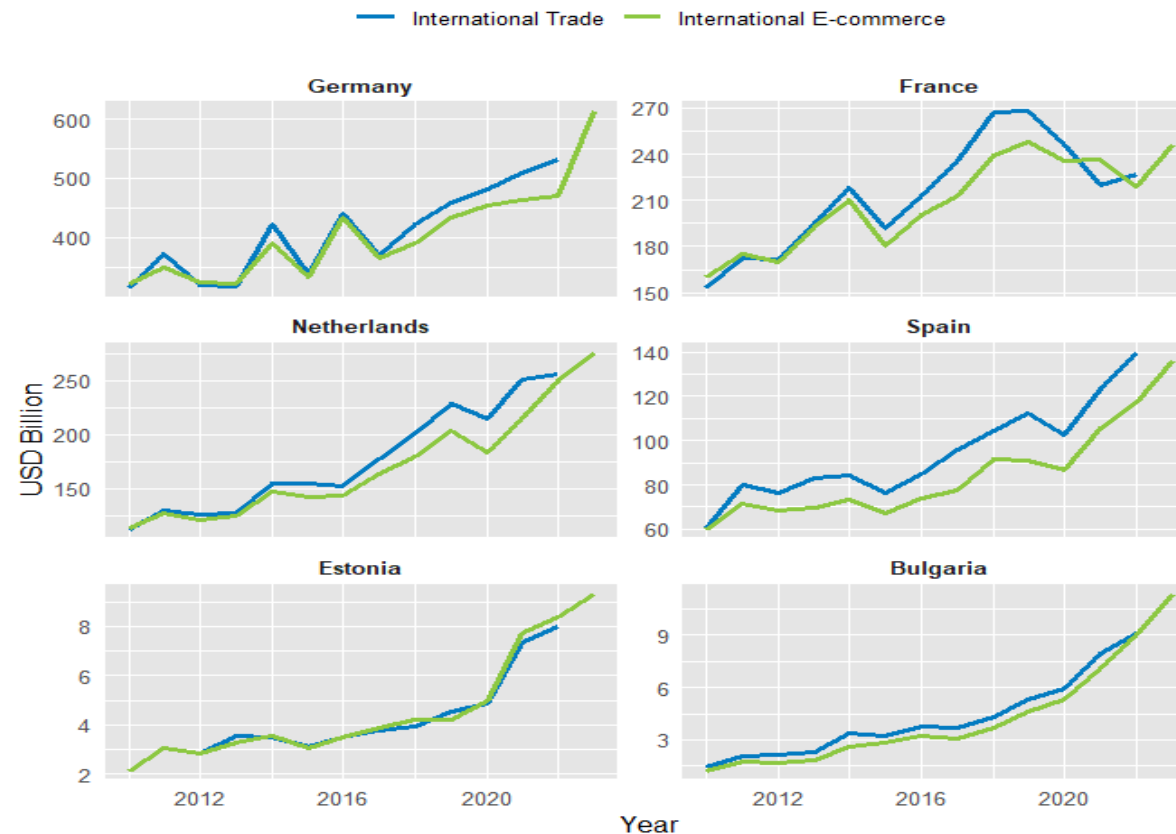
Digital Trade, USD billion, 2022



Source: OECD (2025), Deriving experimental estimates of digital trade.

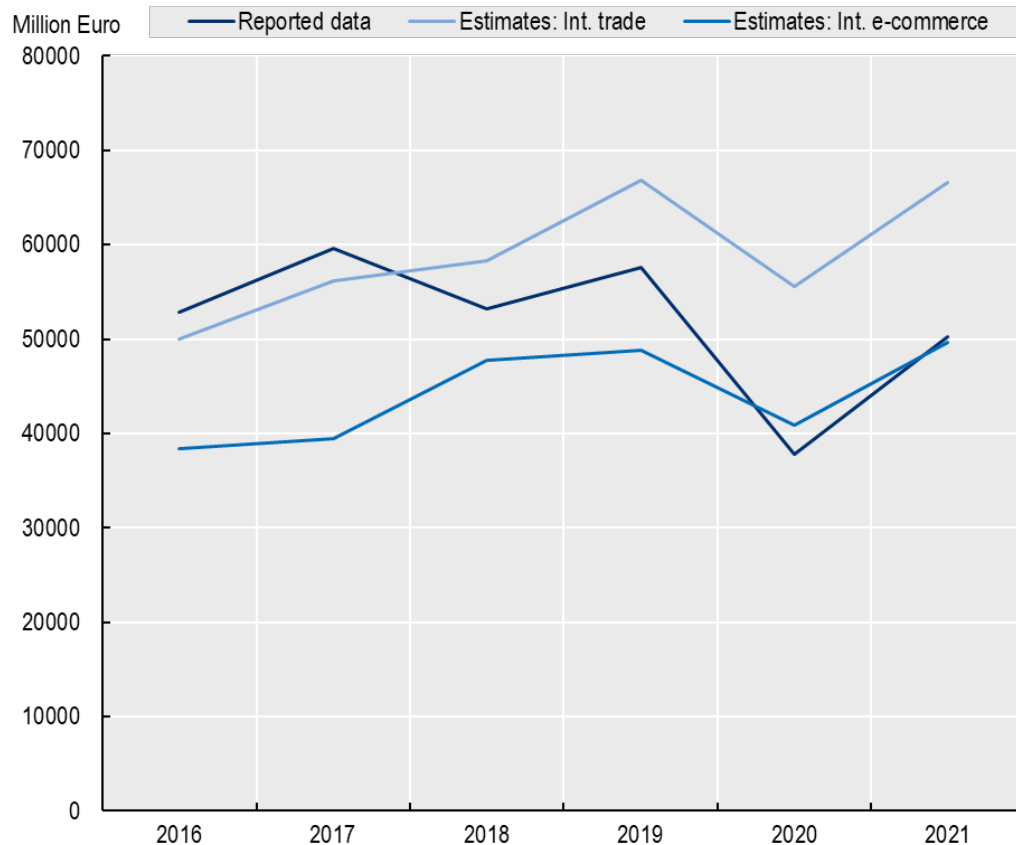
» Digital trade has been growing in most countries

Digital Trade, USD billion



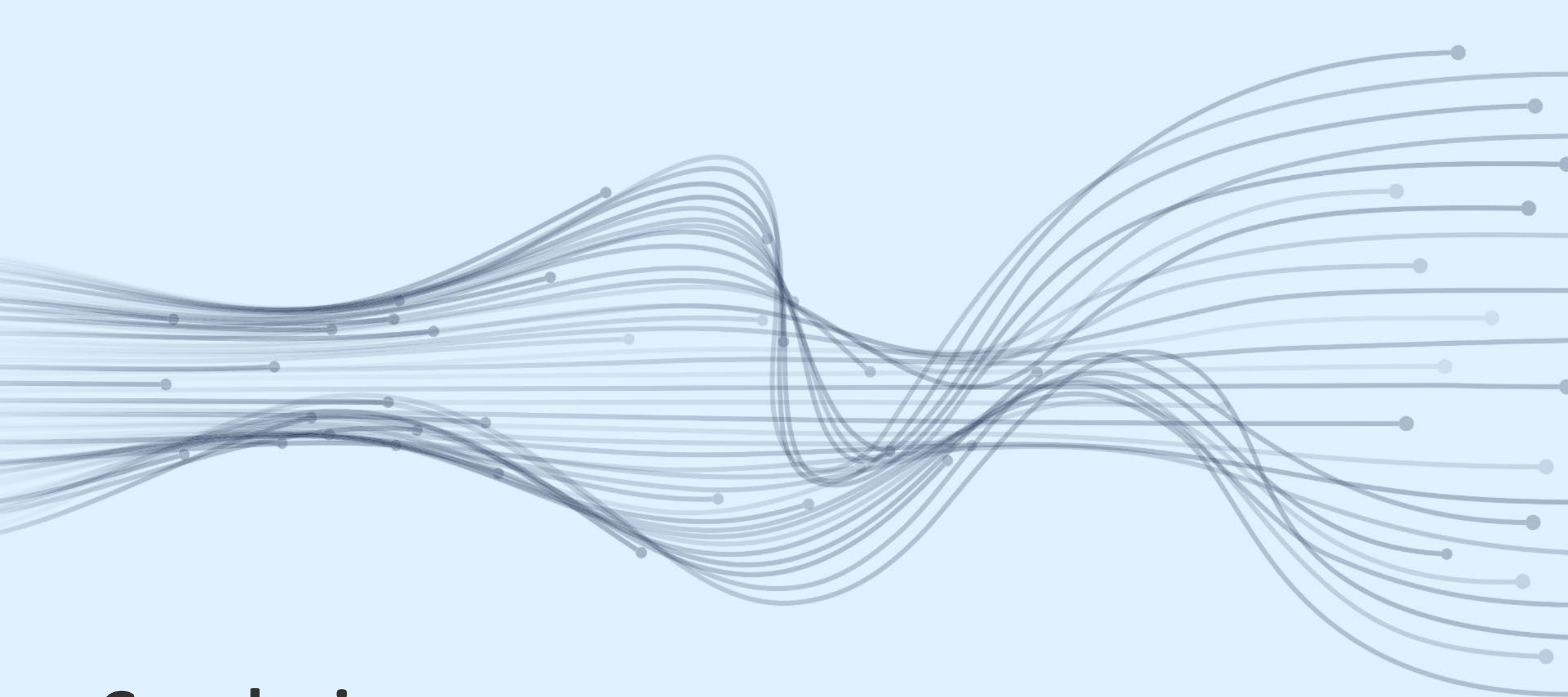
Source: OECD (2025), Deriving experimental estimates of digital trade.

» Comparison with Spanish official statistics



Source: Author's estimates based on data from the [Spanish Statistical Office](#) (INE)

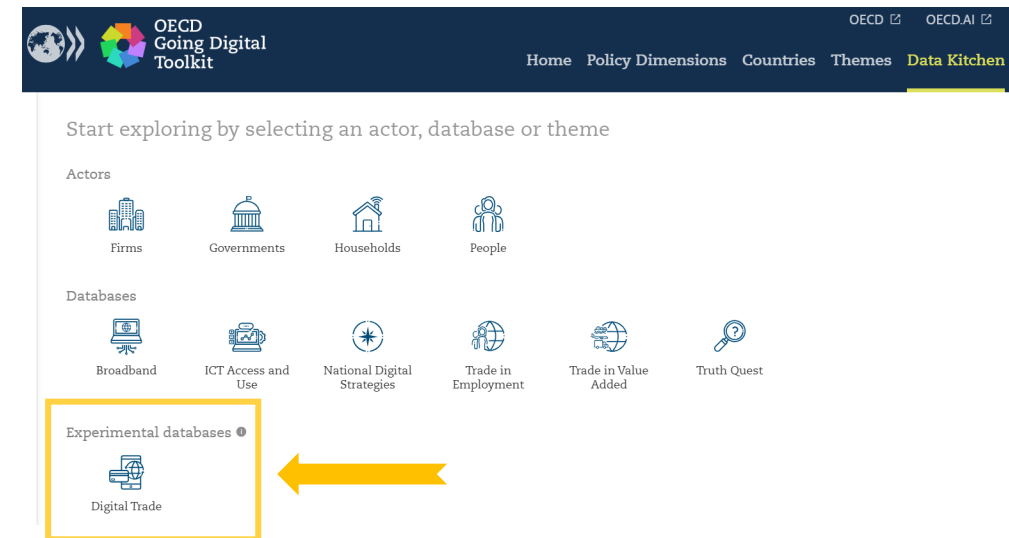
Averaging 2016-21, the international e-commerce approach underestimates the official estimates by 14%, while the international trade approach overestimates by 14%.



Conclusion

» Conclusion

- **Technical paper: Deriving experimental estimates of digital trade**
- **Compile a database of experimental digital trade estimates** (24 countries, 7 sectors, 2010-23) using the international e-commerce approach in the **OECD Data Kitchen**.
- To complement the international e-commerce approach, the international trade approach will be used (which requires fewer input variables). It encompasses 29 countries over 2010-22.
- **Recommendation to publish a standardised ‘digital trade module’ in ICT Access and Usage surveys** to strengthen data collection on domestic and international e-commerce sales.



Thank you





Measuring digitally ordered trade

International e-commerce approach



International share of e-commerce :

$$\alpha = \frac{\beta_{web} * web + \beta_{EDI} * EDI}{e_{COM}}$$

β_{web} following a sigmoid function
and β_{EDI} constant

ICT Access
and Usage
database
and SDBS

International trade approach



Share of digital ordering :

$$\tilde{\gamma} = \frac{e-commerce\ sales}{turnover} \sim \frac{DO\ exports}{exports}$$

SUT and
ICT
Usage
surveys