Trade in the Digital Era

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Digitalisation and foreign trade
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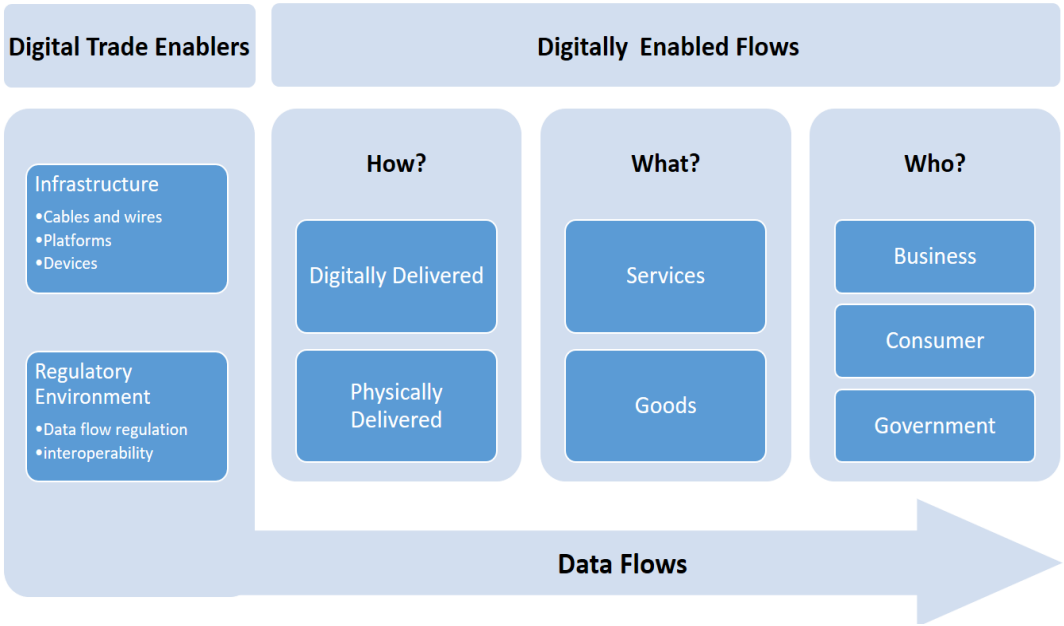
BETTER POLICIES FOR BETTER LIVES

A new era of globalisation

Type	Characteristics	Driver	Trade policy issues
First unbundling	- Separation of production and consumption across international borders. - Trade in **final goods**	- Reductions in transportation costs.	- Market Access
Second unbundling	- Unpacking of factories across international borders - Trade in **intermediate goods**	- Reductions in transport and coordination costs.	- Trade-investment-service-knowledge nexus. - Trade facilitation, domestic, behind-the-border NTMs.
Third unbundling	- Unpacking of production, logistics and consumption: age of hyperconnectivity. - Trade in **services, parcels and 'smart' products**	- Reductions in transport, coordination and mainly costs of sharing information. - Digitisation	- Data flows. - Digital connectivity, - interoperability

WHAT IS DIGITAL TRADE AND WHAT ISSUES DOES IT RAISE FOR POLICY AND MEASUREMENT?

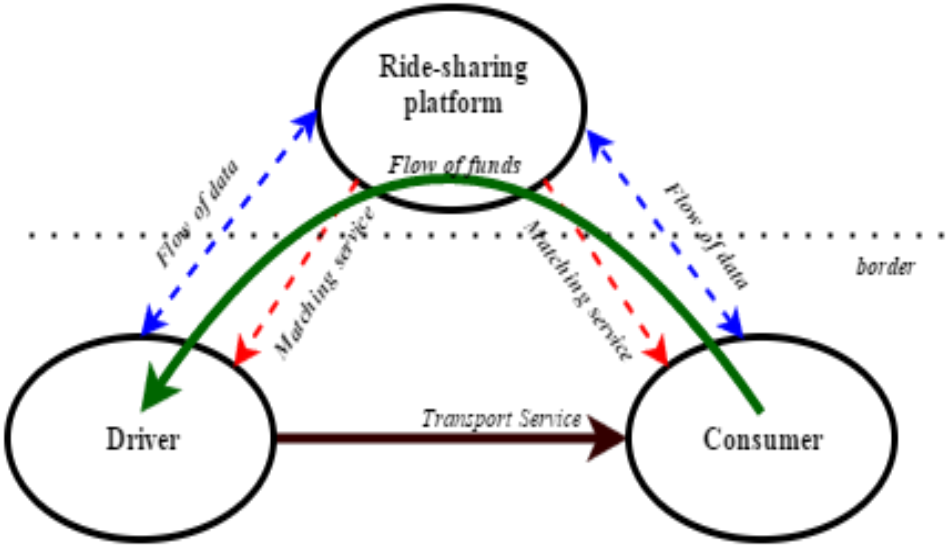
Useful to identify different elements of digital trade



Data at the core of digital trade:

- Means of production
- Asset that can be traded
- Means through which services are traded
- Means through which production and GVCs are organised
- Enabler for implementation of trade facilitation

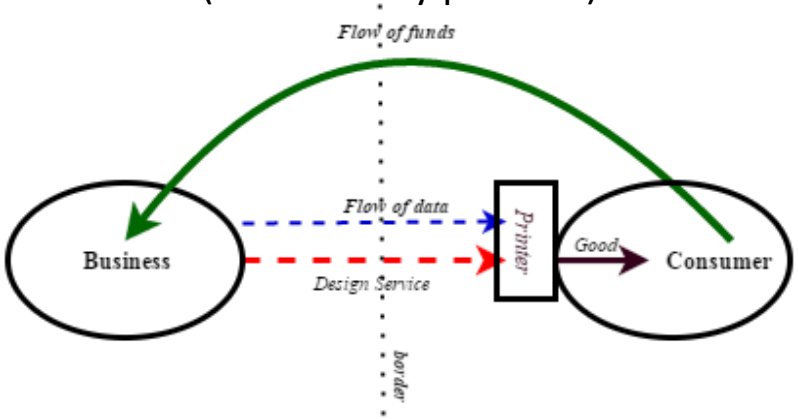
And to unpack transactions to identify emerging **trade policy** challenges



- More (visible) transactions
- Movement of data underpins all transactions
- Type of service provided across border might be unclear

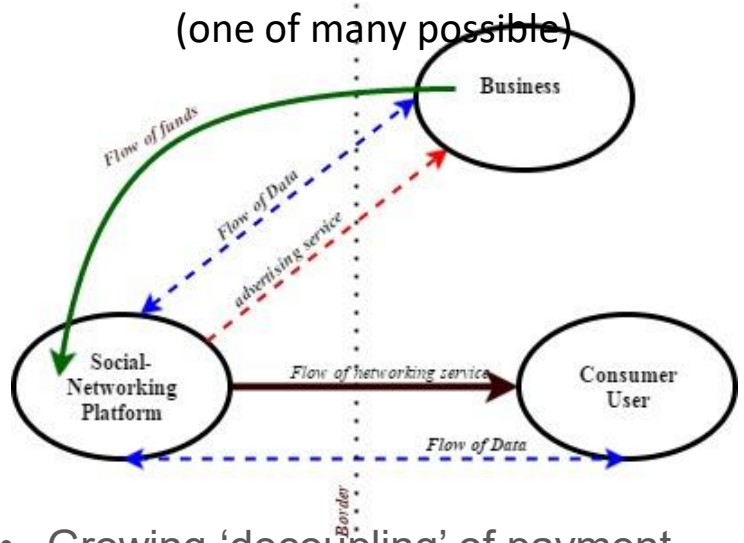
And to unpack transactions to identify emerging **trade policy** challenges

Hypothetical 3D printing transaction
(one of many possible)



- Is it a good? Is it a service?
- What border does it cross?

Hypothetical Social networking transaction
(one of many possible)



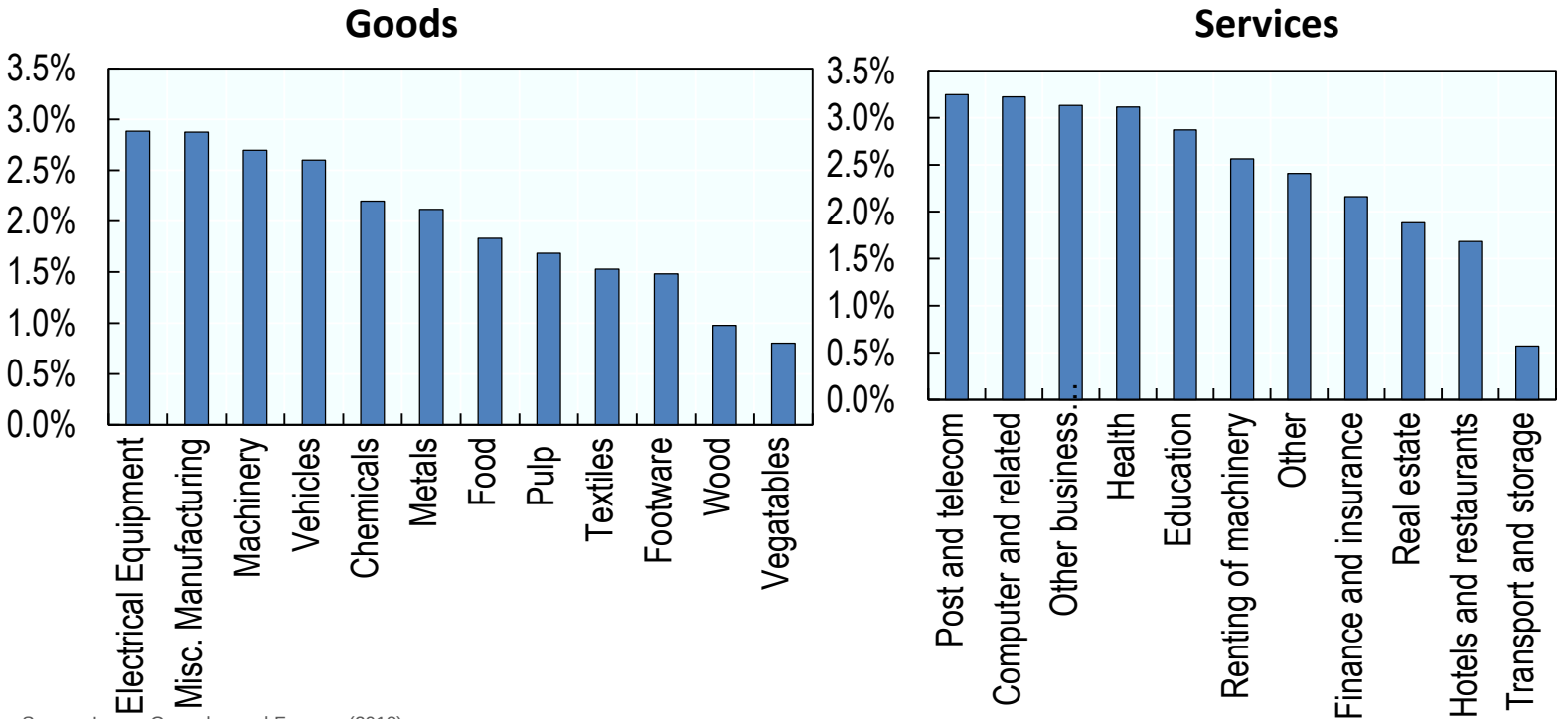
- Growing 'decoupling' of payment (multi-sided markets)

… And measurement issues

- Outstanding issues remain, for instance:
  - underestimation of small value transactions?; or
  - classification of economic activities – is Uber a transport service or an intermediation service?
  - Identifying what is and what is not digitally enabled…
- Process underway to measure digital trade (OECD-WTO led).
- Guiding principles: **alignment** with: *existing frameworks* (BPM6, SNA2008, MSITS 2010, IMTS), *existing data sources* (e.g. surveys on ecommerce, ICT-use, trade), and *ongoing work on the Digital Economy* (for macro-economic statistics)
- It will **be some time before robust statistics are available**, but these will be harmonised and cover a large range of countries.
- Ad interim, indicators of digital transformation (at micro level) available, but country coverage is limited.

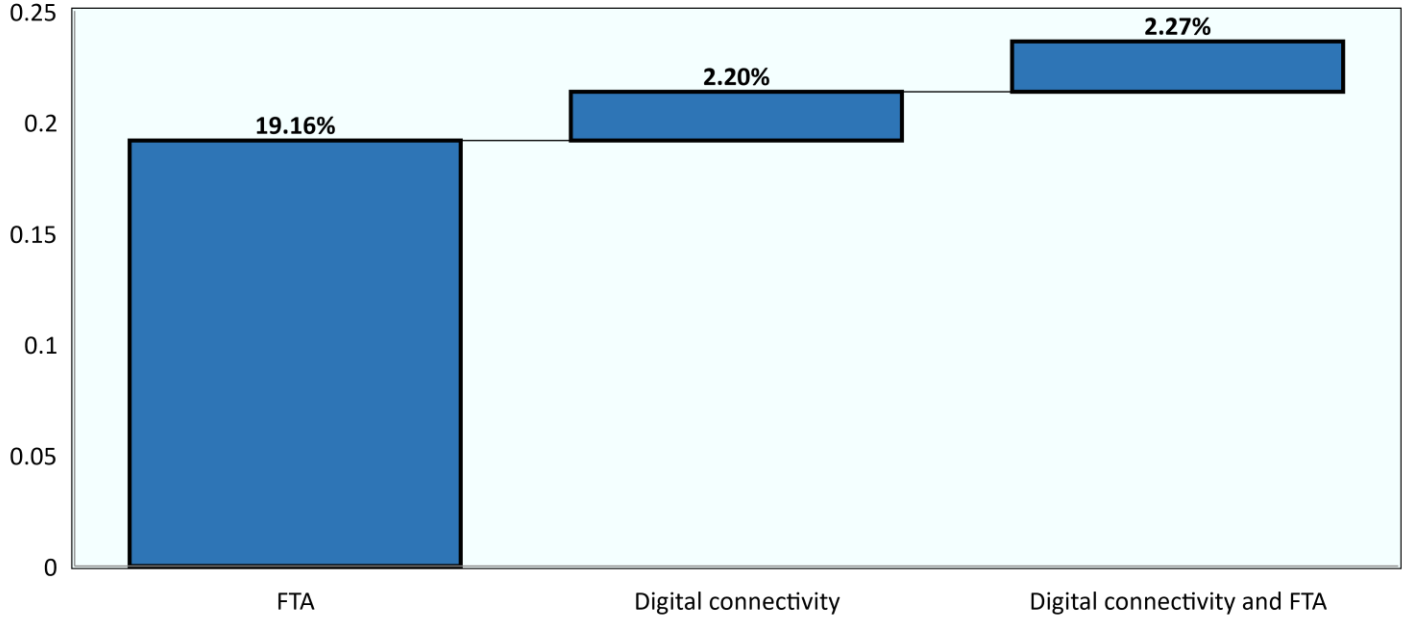
FIVE OBSERVATIONS FROM THE EMPIRICAL EVIDENCE

1. Digitalisation not just about ICT sectors: it means more trade in goods and services



Source: Lopez-Gonzalez and Ferencz (2018)

2. Digitalisation allows you to reap more benefits from trade agreements

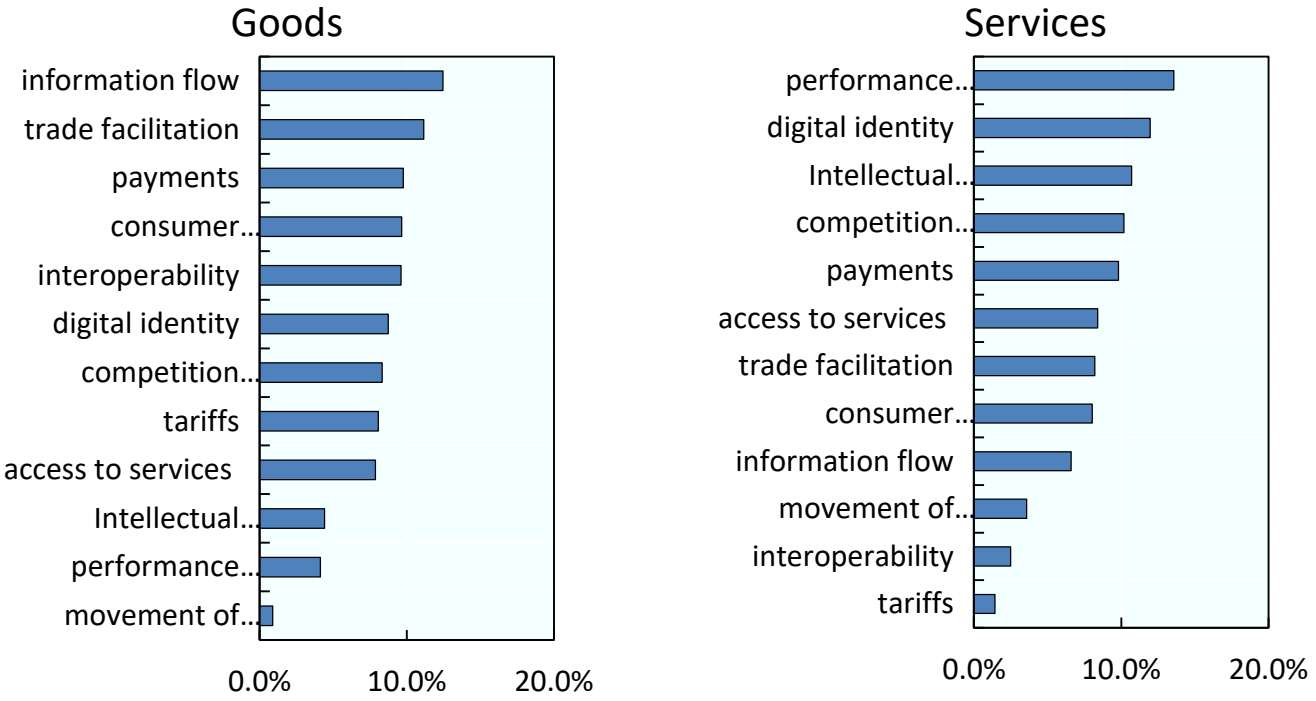


Source: Lopez-Gonzalez and Ferencz (2018)

3. Digitalisation gives rise to new relationships between goods and services

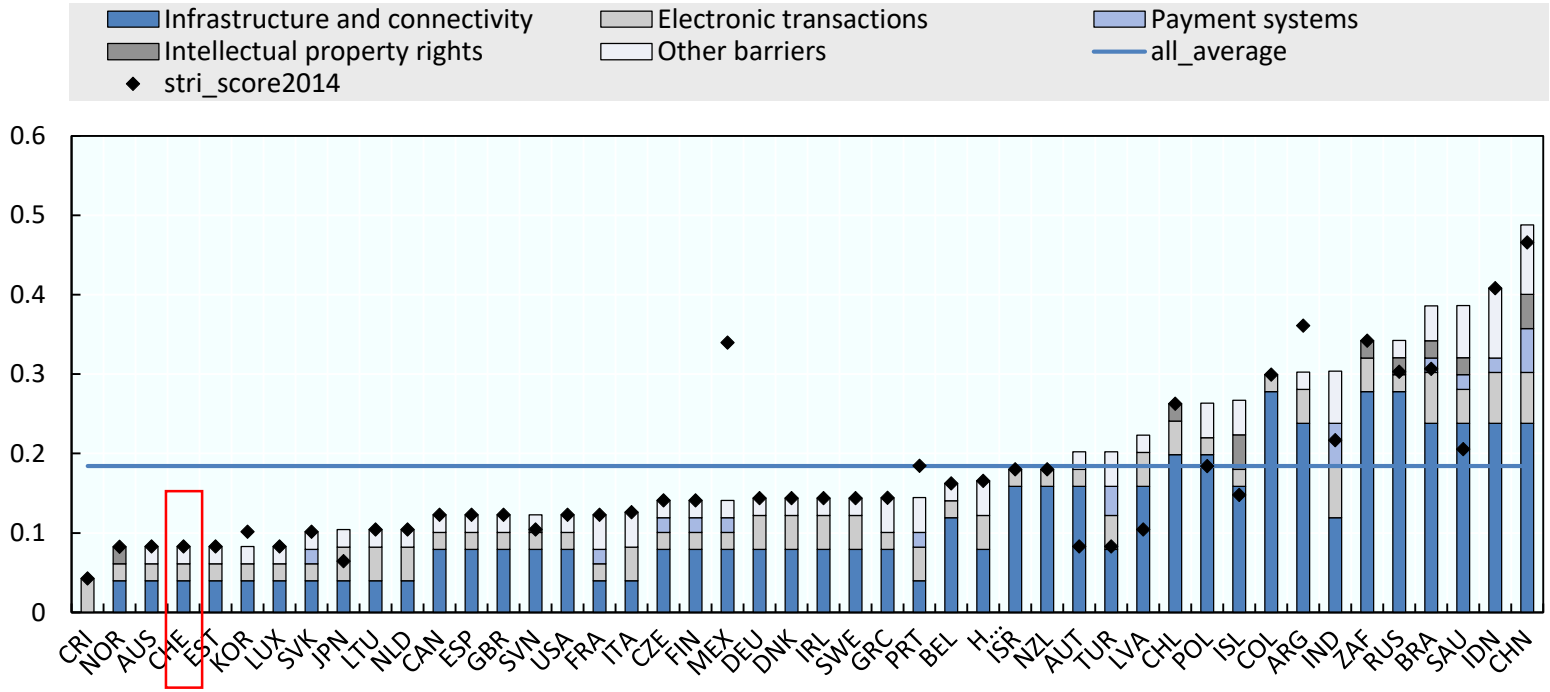
- We know that services are critical for goods trade (logistics etc).
- But new evidence points to the importance of goods for digitally delivered services (smart products)

4. Firms which sell goods now care about services barriers (and vice versa)



Source: Lopez-Gonzalez and Ferencz (2018) – Business questionnaire

5. Regulation that affects digital trade is tightening



Ferencz, J. (2019), "The OECD Digital Services Trade Restrictiveness Index", OECD Trade Policy Papers, No. 221, OECD Publishing, Paris. http://dx.doi.org/10.1787/16ed2d78-en

DATA IS THE LIFEBLOOD OF DIGITAL TRADE

What is data and how does it flow?

- The Internet, a ‘network of networks’ which is reliant on the ability to transfer data across networks.

- Data travels in ‘mysterious ways’:
  - Data travels in ‘packets’.
  - Ultimate origin and destination of data is often a technical issue (mirrors)
  - Sometimes, what seems to be a domestic transfer is an international one (and vice versa).

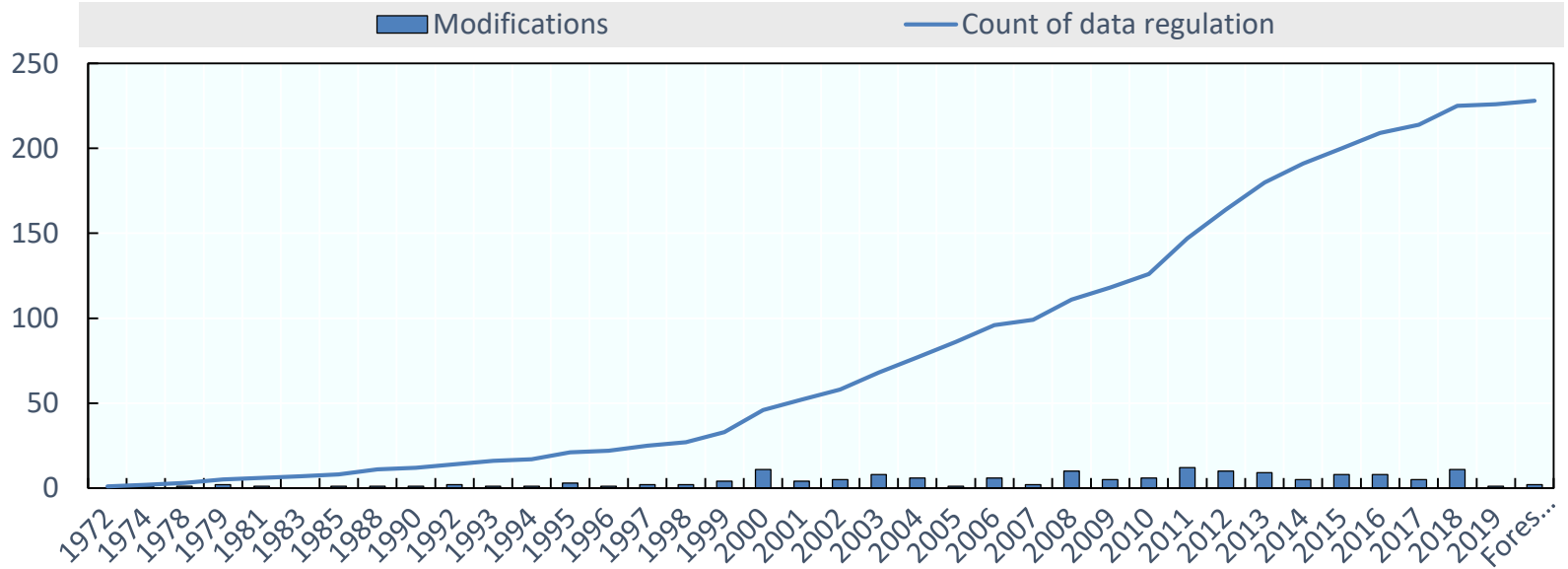
- Data also ‘lives in many places at once’. Cloud computing enables different bits of data or copies of the data to be stored in different countries simultaneously.

How do we value it?

- How bits and bytes translate into dollars and cents is difficult to establish:
  - Data is to be valued at use, not volume.
  - Its value can increase when merged or change in time.

- Data is not the new oil:
  - Although an essential input, it is not scarce
  - Data can be copied and shared at virtually no cost.

Data regulation is increasing



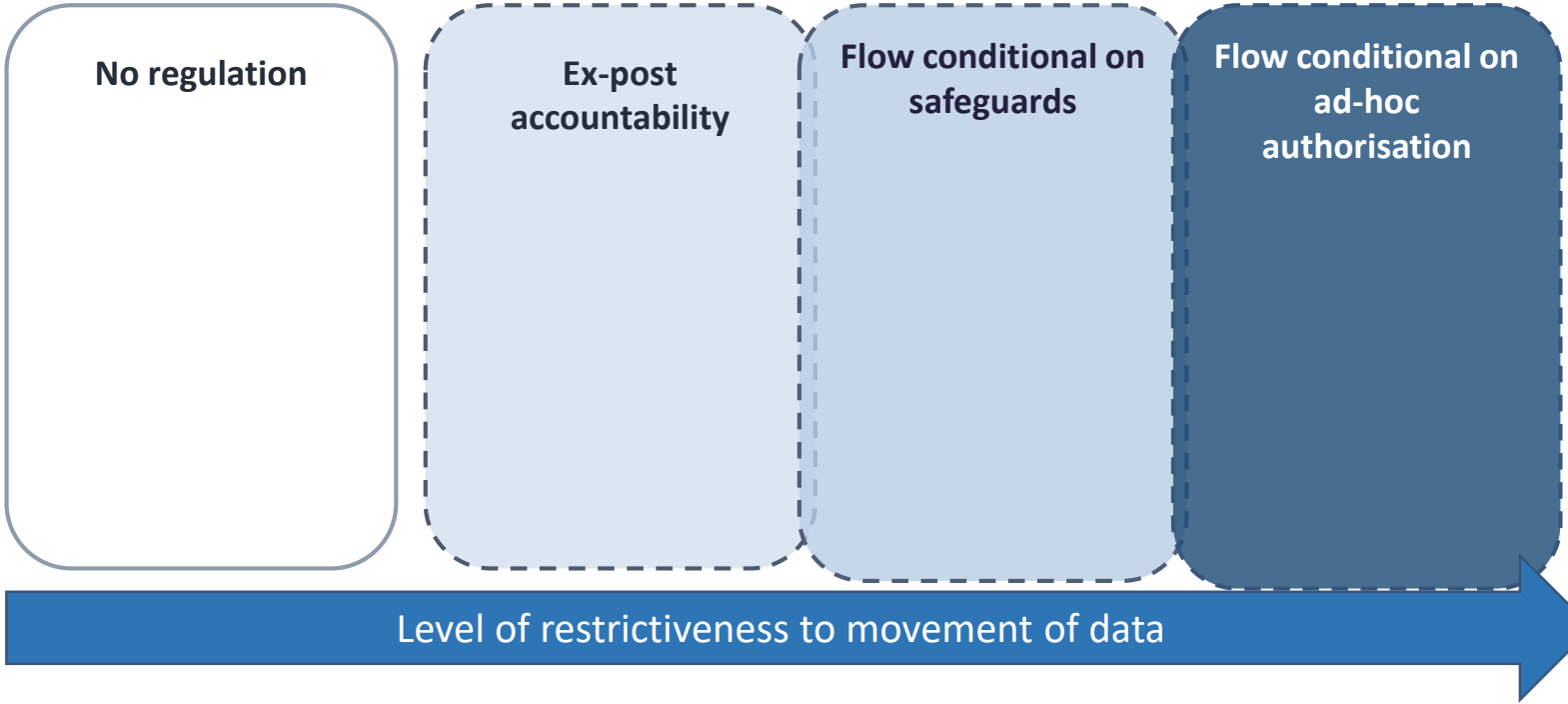
Note: Data protection regulations include different types of regulation relating to data transfers and local storage requirements. Numbers are affected by the way in which regulations are structured, as this varies by country; some countries may have a single regulation covering a wide range of measures; others will have several different regulations covering, for example, restrictions on data flows for different types of data, and local storage requirements.

Source: Casalini and Lopez-Gonzalez (2019)

Why regulate data?

- Data regulation can apply to different types of data or sectors, reflecting a number of objectives:
  - Much of the debate involves movement of *personal data* raising concerns about privacy.
  - Some aimed at meeting regulatory objectives (access for audit purposes) and involve sector-specific data.
  - Others relate to national security, protection of information deemed *sensitive*.
  - Others still aim to develop domestic capacity in digitally intensive sectors, a kind of digital industrial policy.
- To better understand emerging landscape, useful to provide an overview of different regulations that affect data.

4 broad approaches to cross-border data flows



Source: Casalini and Lopez-Gonzalez (2019)

4 broad approaches to cross-border data flows

No regulation

- Absence of regulation on data flows, including privacy regulation.
- While data may flow unimpeded, absence of provisions on cross-border transfers **may affect willingness of others to send data**.
- Many LDCs

Source: Casalini and Lopez-Gonzalez (2019)

4 broad approaches to cross-border data flows

Ex-post accountability

- Approaches do not prohibit cross-border transfer of data nor require specific conditions to be fulfilled ex-ante BUT
- Provide for **ex-post accountability** for the data exporter if the data sent abroad is misused.
- e.g. firms send data but if something goes wrong they are legally accountable

Source: Casalini and Lopez-Gonzalez (2019)

4 broad approaches to cross-border data flows

- Includes several sub-categories all relying on the notion of **adequacy or equivalence as ex-ante condition** for data transfer.

- and options available in the absence of adequacy (e.g.):
  - Binding corporate rules,
  - Contractual clauses,
  - Consent…

Flow conditional on safeguards

- But differences on how adequacy is determined

A. Private sector evaluation
or
B. Public sector determination

- Can include specific requirements on how data must be protected

Source: Casalini and Lopez-Gonzalez (2019)

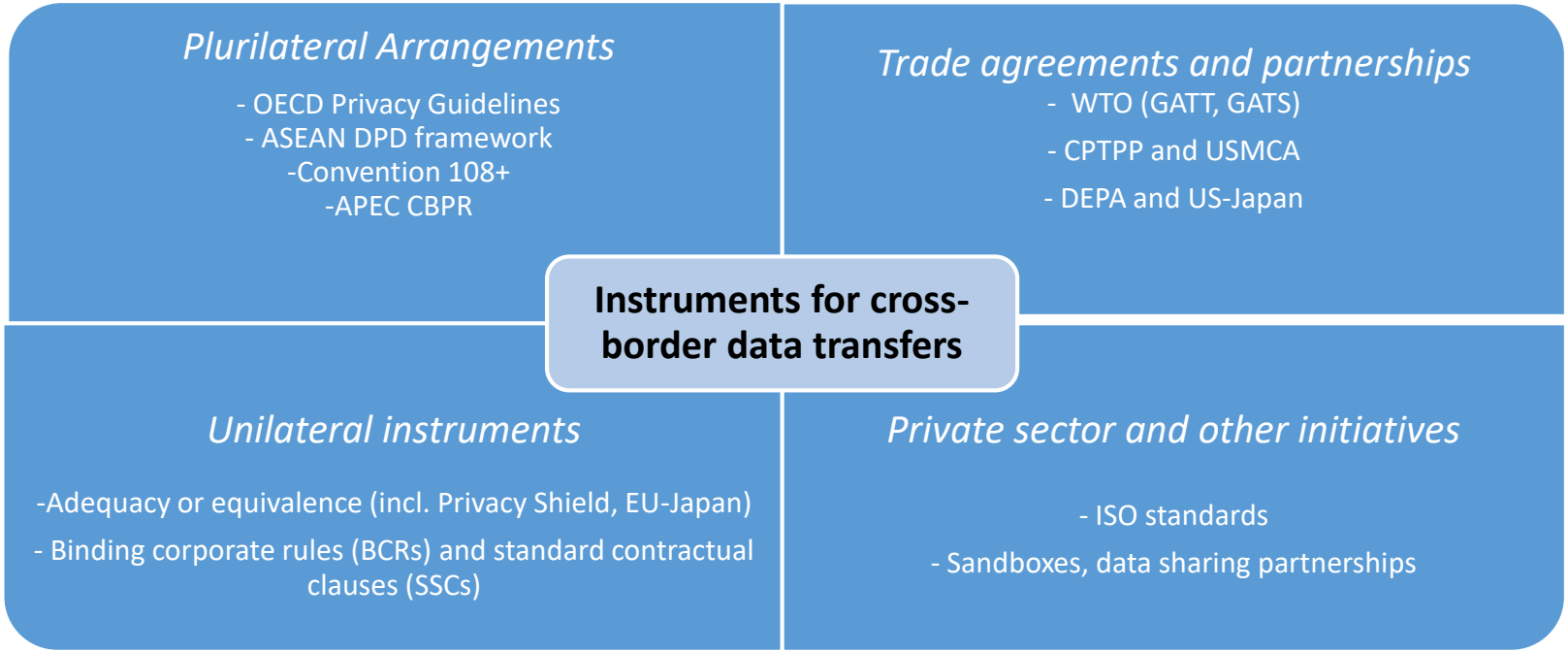
4 broad approaches to cross-border data flows

- Transfer also depends on public adequacy finding <u>but</u>
  - if not, authorisation subject to ad-hoc approval by relevant public authority.
- Most restrictive approaches do not foresee provisions for adequacy. All transfers are **subject to review by relevant authority.**
- Often involves very specific types of data such as ‘health data’ but also ‘important data’.

Flow conditional on ad-hoc authorisation

Source: Casalini and Lopez-Gonzalez (2019)

Some instruments that address international data flows



SHEDDING NEW LIGHT ON THE MORATORIUM DEBATE

Context

- Since 1998, WTO members have regularly extended a Moratorium on imposing customs duties on electronic transmissions.
- However, with growing digital trade, discussions on whether or not to extend the Moratorium have intensified with some WTO members questioning its revenue implications.
- As a result, new estimates of the revenue implications have emerged. But these range widely: from USD 280 million to USD 8.2 billion.
- Differences in estimates have exacerbated issues and further polarised the debate.

What is the Moratorium and what does it apply to?

- No official WTO agreement on definition of an electronic transmission. However, in trade context, understood to:
  - Cover digitally delivered trade and not other forms of digital trade like physically delivered trade that is digitally ordered.

- Moratorium also understood to apply to customs duties and not other types of taxes.

- However, still discussions on other issues, e.g.:
  - How *digital products* should be treated.
  - Whether digital deliveries are 'like' physical goods?
  - If, absent the moratorium, duties would apply to the content or to the 'carrier'?

Current evidence on the economic impact of the Moratorium is mixed

- Two waves, early 2000's and now. Most focus on revenue implications.
- WTO (2016): Revenue collected from digitised products has fallen from USD 1.2 billion to USD 823 million (USD 400 million loss)
- Study came under heavy criticism from UNCTAD (Banga, 2019) arguing that it did not take into account products that had already been digitised:
  - Banga (2019) expanded the list of digitisable products (30 to 49 HS 6 digit) and created a counterfactual projection to identify products already digitised.
  - Estimates reductions in government revenue between USD 2.7 and USD 8 billion (depending on what type of tariff is used in the analysis) for developing countries.
  - But there are methodological concerns with: use of bound tariffs; assumption that all that can be digitised will be; and no price effects (revenue impact = trade value affected * tariff)
- ECIPE (2019), picks up on some of these methodological issues and uses CGE model to highlight impact of applying tariffs on digitally delivered services:
  - They identifying GDP losses of USD 6.5 to 10.5 billion
  - Assuming no substitutability between domestic and foreign services.

Value in bringing new evidence to this debate

- Variance in empirical results reflects that calculating the economic impact of the Moratorium is difficult. It requires making assumptions about:
  - What has been digitised and what will be digitised in the future; and
  - What the scope of the Moratorium is i.e. what tariffs could be charged on which products absent the Moratorium.

- With no easy answer as to what the counterfactual to the Moratorium should be, there is value in taking a step back to:
  1. Put current estimates into perspective.
  2. Deepen the debate about the impact of tariffs; and
  3. Broaden the debate so as to take into account the benefits of electronic transmissions (given rather narrow focus on revenue implications).

Putting existing estimates into perspective

- Existing estimates show that:
  - At 0.08% - 0.23% of overall government revenue (on aggregate for developing countries), the highest estimated potential foregone revenue is, in relative terms, likely to be low.
  - Foregone revenue estimates are highest in countries with the lowest reliance on customs revenue for their overall government budget.
  - At 1.2% of total trade, the highest estimated share of “digitised products” in total trade is also low.
  - A careful assessment of 3D printing technology suggests that this share is likely to remain relatively low in the coming years.

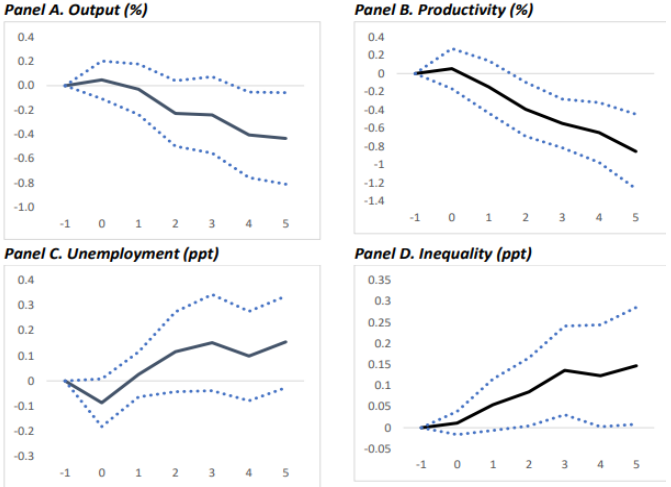
- And we should also remember that:
  - Not all trade that can be digitised will be digitised i.e. in USA e-books represent 20% of total book sales.
  - Electronic transmissions support trade in hardware: More e-transmissions means more demand for phones, speakers, headphones etc… (this could mean more tariff revenue).

There are also a number of issues that have not been readily explored in the literature and which deserve further consideration

- The burden of tariffs falls mainly on domestic consumers who face higher prices rather than on foreign firms.

- Tariffs can be an unstable source of revenue and alternatives exist in the form of non-discriminatory forms of taxation such as value-added or goods and services taxes.

- Tariffs can also have adverse macroeconomic effects (IMF, 2019).



There are considerable benefits to being able to transmit products electronically

- Being able to transmit products digitally is tantamount to a reduction in transport costs which can be as high as 20-30% of overall trade costs.
  - Since transport costs tend to be highest for developing countries, electronic transmissions have the potential to help level the playing field in this area.

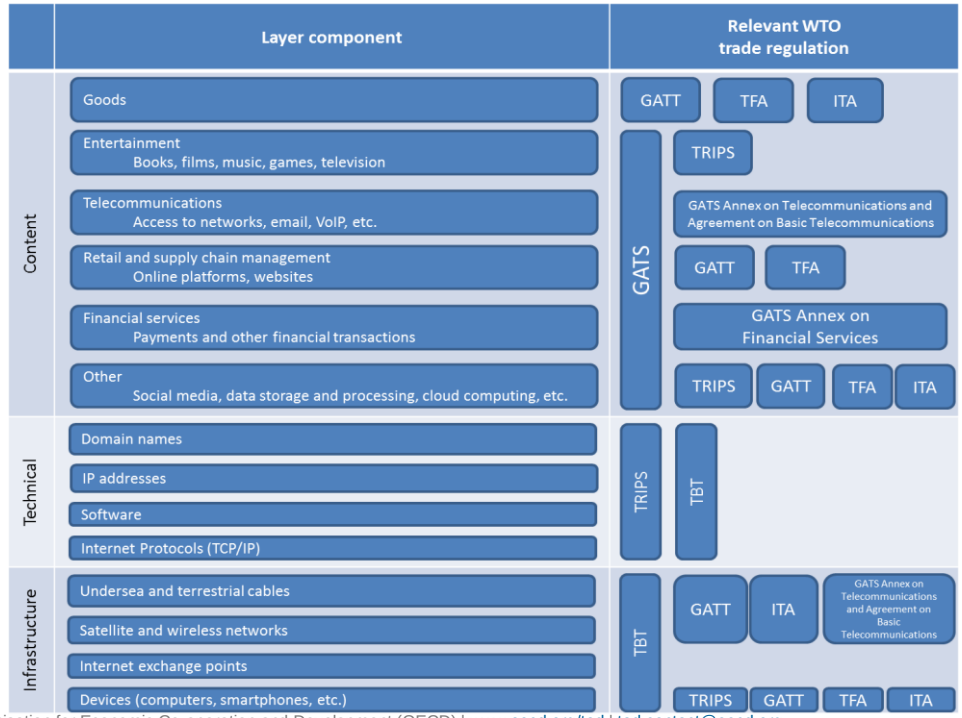
- Tariff revenue reductions would be offset by increases in consumer welfare (Partial equilibrium analysis on the 49 products in Banga, 2019):
  - Consumer welfare increases by USD 940 million, outweighing costs associated with revenue loss by USD 73 million (additional gains to arise from reductions in transport costs)

- The use of foreign business services, which can increasingly be digitally delivered, is found to increase export competitiveness (more in lower middle income and lower income countries).

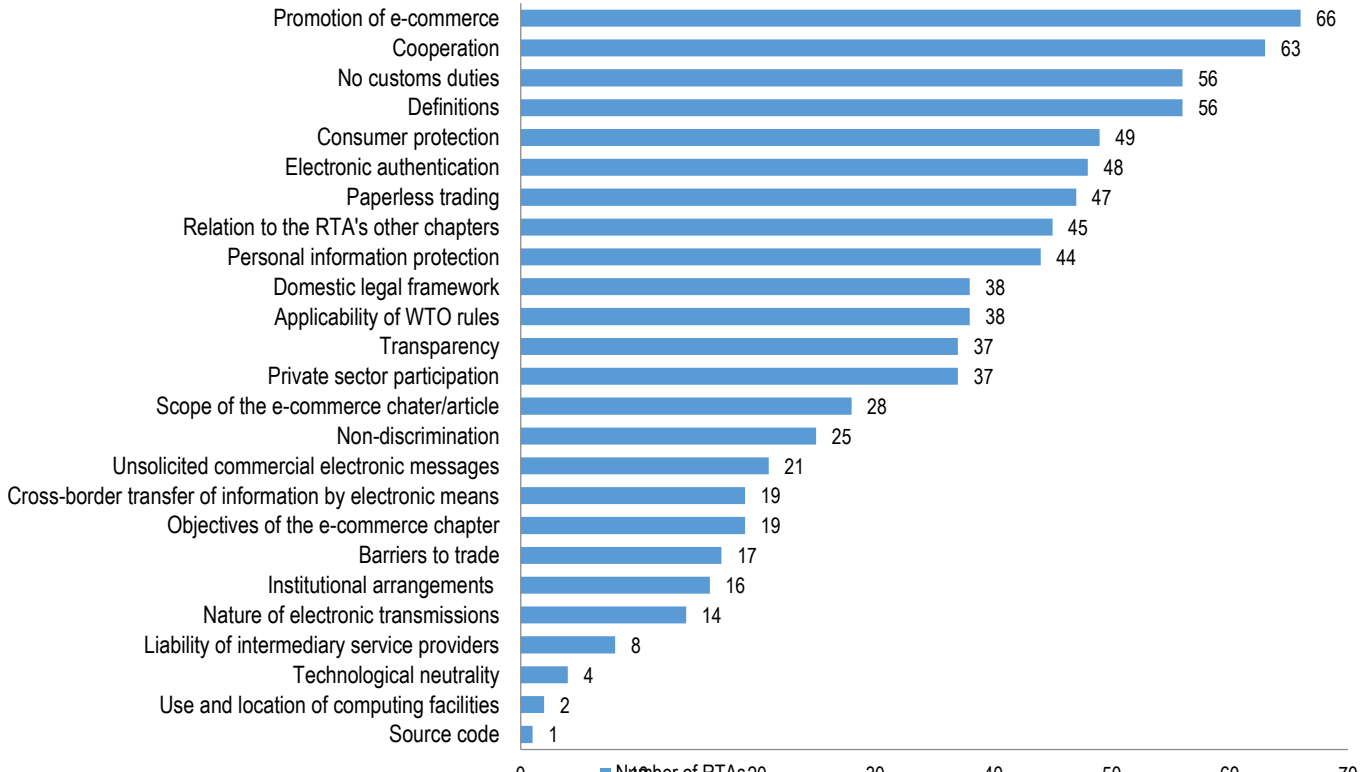
- Digital technologies such as webpages or digital delivery allow firms in developing countries, including SMEs, to become exporters, giving rise to new opportunities to grow.
  - Duties applied by other countries on electronic transmissions could affect the ability of domestic SMEs to export.

HOW MIGHT WE APPROACH MARKET OPENNESS IN THE DIGITAL ERA?

In terms of the rules, need to recall that existing rules cover important aspects of digital trade in goods and services…



… But new issues increasingly addressed in RTAs



Trade policy has become more complex

- Trade rules are predicated on identifying whether products are goods or services and the borders they cross.
- However, it is increasingly difficult to identify the specific rules that apply to specific transactions (growing uncertainty) → think of the 3D printing example.
- AND, the completion of a simple transaction (e.g. cross-border purchase of an e-book) rests on a series of factors which enable or support the transaction:
  - Liberalisation of related audio-visual service
  - Access to digital networks (ordering)
  - Ability to pay electronically (paying)
  - Barriers on physical device used to consume services (viewing)

So, what can we do to promote market openness?

- Need new approaches that help us ensure that the benefits from digital trade can be reaped.
- **Think holistically:** The benefits of the digital transformation for trade are contingent on a combination of factors spanning goods, services and digital connectivity. Increasingly we also need to bring in other policy areas (breaking the silos).
- **Think jointly:** Digital infrastructures are born global, but they raise key challenges in a world where regulatory differences between countries remain. We will need more international dialogue to narrow regulatory fragmentation.
- **Apply basic principles of good regulatory practice:** Transparency, non-discrimination; avoiding unnecessary trade restrictiveness; and promote interoperability.

The Going Digital Project

- Aims to give policy-makers tools they need to help economies and society prosper in an increasingly digital and data-driven world.
- Provides holistic approach to help realise the promise of digital transformation.

Contact us

We look forward to hearing from you!

Access all of the information from the Trade & Agriculture Directorate at:

www.oecd.org/tad

You can reach us via e-mail by sending your message to the following address:

tad.contact@oecd.org

We invite you to connect with us on Twitter by following:

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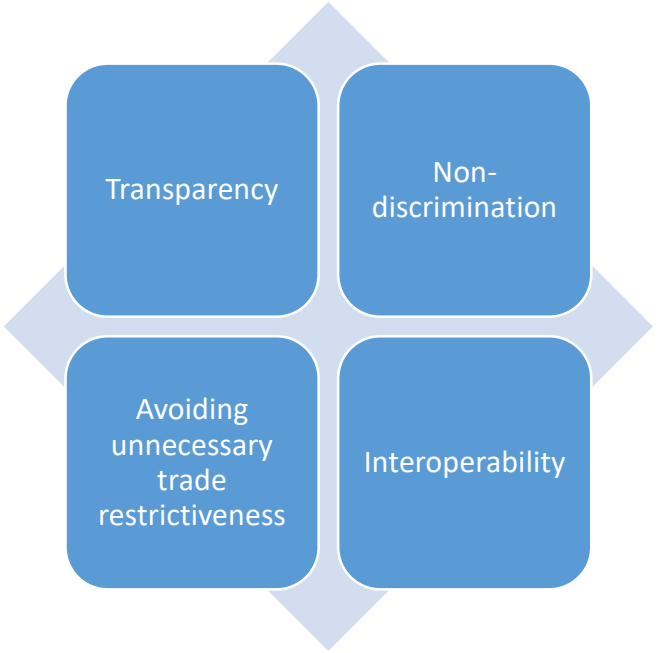
In facing new challenges, old principles of market openness can help



Source: Casalini et al (2018) Principles for Market Openness in the Digital Age