Digitalization and trade

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HOW IS DIGITALIZATION CHANGING TRADE AND INVESTMENT?
The digital revolution

Source: OECD
Robotization

Robot stock among top 10 using economies, 2000-2016

Fundamental changes in what and how we trade

- Rising number of small packages
- Changing business models
- New information industries (big data, quantum computing)
- Emerging technologies (Blockchain or 3D printing)
- Greater bundling of goods and services
Servicification: using, producing and selling services

Intermediate consumption

Services inputs

Manufacturing firms use a higher number of services inputs

Production

Services activities within manufacturing firms

There is more employment within manufacturing firms in support service functions such as R&D, design, logistics, marketing and sales

Output

Services sold bundled with goods

Servitization

Manufacturing firms increasingly sell services bundled with goods to increase value
From mass consumption to mass customization

1913
“Ford Model T” Era of Mass Production

1950s-1960s
Emergence of “Foundational” CPG Brands
(P&G, General Foods, Unilever come onto the scene)

1980s
Explosion of Brands and Product Variety

2009
Emergence of Mass Customization
(22% of 600 manufacturers say that customization is essential to growth)

Today
Mass Customization Becomes Mainstream
(25% to 30% of online shoppers are interested in trying customization options)
HOW IS DIGITALIZATION CHANGING THE GAINS FROM TRADE?
Digitization can increase the gains from trade

- Easier access to global markets
- Reduced trade costs
- Gains from technology-driven production
- More efficient integration in GVCs

- More inclusive trade – new opportunities for smaller players
- Closer proximity to clients and better customization of products and services

Trade and Agriculture Directorate | Organisation for Economic Co-operation and Development (OECD) | www.oecd.org/tad | tad.contact@oecd.org
SMEs are first to gain from removing barriers to cross-border services

Additional trade cost of regulatory restrictions for SMEs
Estimated additional tariff equivalent for SMEs compared to large firms of 400 million EUR or more

On cross-border exports
Specialised and standardised services

Changes in share of income to intangibles by production stage, 2005-2015
HOW IS DIGITALIZATION CHANGING BARRIERS TO TRADE?
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)
Approaches to cross-border data flows

- No Regulation
- Free-flow
- Flow conditional on safeguards
- Flow conditional on ad-hoc authorisation

Level of restrictiveness to movement of data
Approaches to cross-border data flows

- 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
Approaches to cross-border data flows

Free-flow

• 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
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...

• 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
Approaches to cross-border data flows

• Transfer also depends on public adequacy finding but
  • 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’.
Barriers to digitally-enabled services (Digital STRI)

- Infrastructure and connectivity
- Electronic transactions
- Payment systems
- Intellectual property rights
- Other barriers
Open services policies matter

Digital STRI for G20 countries (2018)

- Infrastructure
- Electronic transactions
- Payment systems
- Intellectual property rights
- Other
- All average
- STRI score 2014

Graph showing the digital services policies for G20 countries with a focus on China.
Regulatory environment: key trading partners

- Inefficient regulation on interconnection
- Discriminatory treatment of foreigners for the protection of copyrights
- Discriminatory access to payment methods
- Lack of protection of confidential information
- National contract rules deviate from international rules
- Lack of online tax registration and declaration
- Certain data must be stored locally
- Limitations on cross-border data flows: adequacy or equivalence
- Discriminatory treatment of foreigners for the protection of copyrights

Countries:
- Canada
- United States
- United Kingdom
- Germany
- Brazil
- China
Regulatory trends

Nature of changes 2014-2018

- Tightening: 79%
- Liberalisation: 21%

Number of changes

- 2015: 12
- 2016: 8
- 2017: 4
- 2018: 2

Tightening  Liberalisation
WHAT’S NEXT FOR RULES-BASED DIGITAL TRADE COOPERATION?
What’s next for…

• …e-commerce negotiations?
• …WTO customs duty moratorium?
• …cross-border data flows?
• …services?
• …trade and tax?
Digital market openness

• Need new approaches to realize the potential benefits of digital trade.

• **Think holistically:** The benefits of the digital transformation for trade are contingent on a combination of factors spanning goods, services and digital connectivity.

• **Think collectively:** Digital infrastructures are born global, but they raise key challenges in a world where regulatory differences between countries remain.

• **Apply basic principles:** Transparency; non-discrimination; avoiding unnecessary trade restrictiveness; interoperability; technological neutrality.
Contact us
We look forward to hearing from you!

Access all of the information on trade from the OECD at:

www.oecd.org/trade

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

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