



TECHNOLOGICAL CHANGE AND GLOBAL NETWORKS

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NEW FACE OF GLOBALIZATION



- Waves of globalization deeply affected by technologies
- Recent technological changes drastically reduced costs of information movement
- Countries are more and more linked through exchange of information
- Global value chains are shifting from goods to services and data



SERVICES IN GLOBAL VALUE CHAINS



Gross services trade	Services embedded in goods trade	Intangibles provided to foreign affiliates ¹	Free cross-border digital services ¹	Adjusted value of services trade in value added ²	Goods trade value-added terms ²
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¹ Higher-end estimate.

² In value-added terms. The value of services embedded in goods trade and the value of goods embedded in services trade have been removed.

NOTE: Services embedded in goods trade defined as services value added in goods trade. Estimate of intangibles provided to foreign affiliates based on company-level data on foreign affiliate economic profit and expenses, adjusted for the share of revenue associated with intangibles produced in the headquarters country. Estimate of free cross-border digital services based on the number of foreign users of global websites and the implied value of services (such as social media and messaging services).

SOURCE: Capital IQ, WTO, IMF, World Input-Output Database, Alexa Web Information Service, McKinsey Global Institute analysis

⁸ Some trade in intangible assets is captured in trade statistics through intellectual property charges. However, these flows are sometimes driven by decisions of multinationals on where to put ownership of these assets based on tax considerations. See Thomas Tørsløv, Ludvig Wier, and Gabriel Zucman, *The missing piece*, NBER working paper number 24701, June 2018, revised August 2018; and OECD/G20 Base Erosion and Profit Shifting (BEPS) Project, final report, OECD, May 2015.

⁹ Carol A. Corrado and Charles R. Hulten, *Internationalization of intangibles*, Measuring the Effects of Globalization, Washington, DC, February 28, 2013.

¹⁰ We remove the value of goods embedded in services trade and the value of services embedded in goods trade.

SERVICES IN GLOBAL VALUE CHAINS

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INTERNATIONAL NETWORKS

- Global chains become more and more knowledge-intensive
- Value creation shifts to upstream activities
 - R&D, design
- Goods production becomes more regionally concentrated
 - Value added of the production itself is declining
 - Goods and marketing are customized for local markets
- Distributed production as a growing model
- In international networks human capital becomes the key



RUSSIA IN GLOBAL NETWORK - SUCCESS STORIES

- Technological companies with Russian "roots"
 - often use distributed production mode

Software

- Parallels/Acronis
- IBS Group
 - IT consulting and outsourcing
- Playrix
 - Games developer

Fintech

- XTX Markets
 - third-largest liquidity provider in the global foreign exchange market
- Revolut
 - Unicorn in digital banking

The logo for Parallels, featuring two vertical red bars to the left of the word "Parallels" in a bold, black, sans-serif font.The logo for Acronis, consisting of the word "Acronis" in a blue, sans-serif font.The logo for IBS Group, with "IBS" in a large, bold, blue font and "GROUP" in a smaller, blue font below it.The logo for Playrix, featuring the word "playrix" in a green, lowercase, sans-serif font.The logo for XTX Markets, with "[XTX]" in a large, bold, black font and "MARKETS" in a smaller, black font below it.The logo for Revolut, featuring the word "Revolut" in a blue, stylized, rounded font with a white outline.