T20 Policy Brief



Task Force 05
INCLUSIVE DIGITAL TRANSFORMATION

Measuring the Economic Contribution of Online Digital Platforms to Guide Regulatory Reform

Bernardo Díaz de Astarloa, Researcher at Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC), Argentina Luciana Portilho, Coordinator at Brazilian Network Information Center (NIC.br), Brazil

Paula Szenkman, Director at Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC), Argentina Agustina Lacunza, Analyst at Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC), Argentina

Leonardo Melo Lins, Researcher at Brazilian Network Information Center (NIC.br), Brazil

Ana Laura Martinez, Researcher at Brazilian Network Information Center (NIC.br), Brazil





Abstract

The emergence of online digital platforms has revolutionized trade in goods and services. Their widespread integration across industries has brought about significant changes in production and consumption patterns, reshaping the organization of value chains, business models, and the very nature of work. This has sparked both positive and normative discussions regarding industrial policy, competition, labor market dynamics, social protection, urban development, and taxation, among others. Yet, measurement challenges prevent an accurate assessment of the economic contribution of digital platforms. This complicates policy processes behind attempts to regulate them, since policymakers must often operate in the dark.

G20 countries must develop and promote a global framework for measuring digital platforms that serves to inform fair, transparent and evidence-based policy processes to regulate them. This brief proposes an action plan to be carried out in partnership and collaboration with international organizations and think tanks, aimed at agreeing on measurement guidelines, consolidating and disseminating information, promoting partnerships and collaborations between relevant stakeholders, and disseminating best measurement practices to guide regulatory reform.



Diagnosis and Context

The emergence of digital platforms has revolutionized the dynamics of commerce, as firms, consumers and workers have increasingly used them to buy, sell and deliver goods and services, including labor services. This trend accelerated during the COVID-19 pandemic crisis, as digital technology and e-commerce sustained economic activity. Their widespread integration across industries has brought about significant changes in production and consumption patterns, reshaping the organization of value chains, business models, and the very nature of work. This has sparked both positive and normative discussions regarding industrial policy, competition, labor market dynamics, social protection, urban development, and taxation, among others. In this context, it becomes imperative to assess, comprehend and evaluate their transformative effects.

However, digital platforms remain largely invisible in traditional statistics, which poses a challenge to policymaking. One of the primary hurdles in addressing this issue lies in the difficulty faced by public statistics in accurately capturing activities within this emerging sector given the multifaceted nature of digital platforms, which affects the production, distribution, and consumption of goods and services across various sectors. The lack of standardized criteria for defining the activities of platforms, coupled with vague definitions of geographic locations and sources of revenue, makes it difficult to establish a framework for accurately measuring their economic contribution. Imprecise

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¹ The OECD defines an online platform as "a digital service that facilitates interactions between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the Internet" (OECD, 2019).



measurement, in turn, prevents careful analysis and monitoring to support policy processes aimed at regulating the activity of digital platforms.

Efforts by international organizations have advanced the discussion regarding definitions and methodologies to measure the economic value transacted through digital channels (OECD, 2019; IMF, OECD, UN and WTO, 2023). The G20 has also recognized the importance of addressing measurement challenges associated with the digital economy. Starting with the Chinese presidency in 2016 and in subsequent presidencies, through various working groups and task forces, the G20 has emphasized the need to review statistical frameworks to adequately capture the digital economy and digital trade flows, underscoring the significance of measuring digital trade for effective policymaking and regulation (G20, 2018; OECD, 2020; IMF, OECD, UNCTAD and WTO, 2023).

Despite efforts to address these challenges, progress in measuring the digital sector has been slow. For example, in surveys about national accounts compilation practices regarding the digital economy conducted by the OECD and the IMF in 2016 and 2017, results showed slow progress in developing estimates of the digital sector and a low priority given to measuring it (IMF, 2018).

Measurement and methodological efforts have typically focused on the economic value of transactions on digital platforms. However, there are other significant dimensions to consider. Measuring the impact that platforms have on employment and the labor market is relevant, as it can guide the design of labor market regulation, as well as discussions related to social protection. Measuring the extent to which firms and consumers participate in digital platforms can also help guide the implementation of policies to foster or facilitate digital transformation processes. As platforms integrate more broadly into value chains, competition policy may need more precise definitions of their activities and the relevant markets in which they operate.



Recent measurement efforts to estimate the economic contribution of platforms have explored alternative schemes to access or generate data. These include studies in Latin America by CIPPEC (Argentina), Instituto Peruano de Economía (Peru), and FEDESARROLLO (Colombia), which partnered with delivery and mobility platform companies to use administrative data and implement surveys targeting workers and retailers selling through these platforms. Work by the EU to design and implement surveys to measure characteristics of platform workers is also noteworthy. Academic work done in collaboration with platform companies based on access to detailed administrative data has allowed precise measurement of relevant issues, such as gender gaps (e.g., Cook et al. 2021).

In view of this, it is essential to take stock and provide guidance regarding the measurement of digitally ordered, digitally delivered and digitally intermediated trade occurring through digital online platforms. The consolidation of statistical methodologies and the production and widespread use of reliable data can enable evidence-based public policies, facilitating the implementation of effective strategies to promote sustainable development.

This document presents a proposal for actions that G20 countries can implement to adopt guidelines and methodology for measuring the economic impact of digital online platforms, with the hope that they can serve to inform the design of regulatory frameworks.



Recommendations

G20 countries can develop and promote a global framework for measuring digital platforms that serves to inform fair, transparent and evidence-based policy processes to regulate them, while maintaining privacy and the protection of personal data. To this end, we propose an action plan to be carried out in partnership and collaboration with international organizations and think tanks, organized in four steps. First, agree on guidelines on how to measure the activity of online platforms, continuing past efforts by the G20 to advance digital economy measurement guidance. Second, consolidate and disseminate existing information that could allow for a comprehensive understanding of online platforms and serve as a starting point for countries with limited or scant information. Third, promote partnerships and collaborations between online platforms, international organizations, think tanks, and national statistical institutes to identify new data sources, improve current measurement initiatives, make data accessible for measurement, and broaden the knowledge base regarding which data could better reflect the participation of online platforms in the economy. Fourth, leverage networks to share and disseminate best practices in measurement and its application to guide regulatory reform.

In the implementation of the action plan, parties involved should adhere to applicable frameworks for privacy and personal data protection, as well as intellectual property rights, and aim at achieving a balance between improving effectiveness and minimizing risks related to data security, discrimination, and unwarranted surveillance (CGI.br, 2022).



1) Guidelines for measuring online platforms

- G20 countries could develop a coordinated framework based on commonly accepted principles to establish standardized guidelines and criteria for defining and measuring the activities of online digital platforms. The framework should include definitions, metrics and assessment tools, and should be based on or adapted from past efforts by the G20, international organizations and development partners, such as the Going Digital Project (OECD, 2019), the Roadmap Toward a Common Framework for Measuring the Digital Economy (OECD, 2020) and the Handbook for Measuring Digital Trade (IMF, OECD, UN and WTO, 2023). Specifically, we recommend the following actions:
- Record transactions facilitated by online platforms, distinguishing between digitally ordered trade, digitally delivered trade, and intermediation services. Surveys about information and communication technology (ICT), industrial activity, and trade in services should be enhanced and adapted to collect information on the value of transactions ordered or delivered through online platforms, delineating domestic and international transactions. Surveys of information technology services (ITS) should be conducted to collect information on intermediation services used by businesses, including exports and imports. Surveys should also include questions on the value of goods and services purchased via digital intermediation platforms (DIP)². Ideally, surveys should

² Digital intermediation platforms (DIP) are defined as "businesses that operate online interfaces that facilitate, for a fee, the direct interaction between multiple buyers and multiple sellers, without the platform taking economic ownership of the goods or services



gather information on sales and purchases broken down by goods, digitally delivered services, and other services, as well as intermediation fees paid.

- Extend measurement to transactions undertaken by individuals, including ecommerce-related questions in household and/or travel and time use surveys,
 ensuring that statistical protocols that maintain privacy and protect personal data
 are implemented. These sources of data could be especially useful to record
 transactions made through social networking platforms, some of which tend to be
 informal, especially in developing countries.
- Consider online platforms with several types and sources of revenue streams. Some platforms facilitate transactions but do not charge a specific fee for doing so. For some, the source of revenue is based on advertising. Others develop and maintain databases with information about their users, which become an asset and can be marketed, providing another source of income. Taking this broad view on online platforms can contribute to establishing criteria for classifying and measuring value creation in the economy.
- Collect information about the value and characteristics of labor services facilitated by specific online platforms, respecting privacy, personal data and property rights. The business models of some DIP are based on the participation of individuals that directly sell services to users, facilitated by the platform, or so-called "platform workers". The value added of their activities may be under- or misrepresented in traditional statistics. Moreover, the nature of work under these

that are being sold (intermediated)" (ISWGNA, 2021; IMF, OECD, UN and WTO, 2023). These should include platforms that intermediate tourism-related services, logistics and mobility services, entertainment and retail.



arrangements may be different from traditional labour relationships. Given the increasing occurrence of platform-mediated work and the discussions about regulating it, G20 countries must take an active role to measure and characterize it.

 Target online platforms directly. The G20 can play a role in assisting national and international statistical agencies to explore the feasibility of targeted surveys of online platforms, along with establishing data sharing arrangements.

2) Enhance data consolidation and dissemination

The G20 must harness the potential of "data for development", facilitating cooperation between developed and developing countries (UNCTAD, 2021). Member states should collectively advocate for the utilization of open data as a digital public good and explore mechanisms to aggregate it, maintaining privacy and security and protecting personal data. It is crucial to leverage new technologies to revitalize existing datasets and construct next-generation datasets. A recommendation is to develop interactive tools to access data in a simple and streamlined fashion for a non-specialist audience.

3) Promote partnerships and collaboration

Survey information may be insufficient or imprecise for some measurement objectives. Other sources of data should be considered, such as administrative data or card payment data. Accessing these data can entail establishing partnerships and collaboration between public and private entities, including customs authorities, postal and courier agencies, the Central Bank, tax authorities, payment gateways, and platform companies themselves. G20 countries should support national statistics compilers in these endeavors, including by designing legal frameworks for secure data sharing that



recognizes applicable frameworks for privacy, confidentiality and the protection of intellectual property rights and personal data. Parties could consider the need for a multisectoral collaboration to promote the regulation and responsible use of personal information (Internet & Jurisdiction Policy Network, 2021).

4) Establish a G20 network for sharing and disseminating best practices in measurement and regulation

International organizations need to collaborate in updating classification systems for digital activities and products, thus supporting improvements and formulating guidelines and recommendations for measuring digital transactions. This demands consensus on updated or enhanced definitions, classifications, and measurement techniques. In this context, the G20 should promote international cooperation and research on these matters.

Furthermore, the G20 must be prepared to address member countries' requests for technical assistance. These requests may include enhancing the coverage of digital platforms and services linked to them in the primary classification system and creating aggregate classifications encompassing the digital sector, digital products, and digital transactions (IMF, 2018).

National statistical offices require additional resources and improved access to data to improve compilation and processing. While international guidelines and recommendations are crucial, they are not sufficient. Resources, including fiscal and financial, and technical capacity, are essential to enhance compilation methods and disseminate additional indicators, thereby encouraging government agencies to share data . In this context, national and international organizations should facilitate access to Big Data through partnerships with global firms.



Scenario of Outcomes

Adopting the suggested recommendations would enable national statistical institutes, think tanks and scholars to accurately capture and characterize the economic contribution of online platforms and inform public policy processes to regulate them. The following examples illustrate how measurement could throw light on specific dimensions associated with the regulation of digital platforms:

- Accurate measurement of the economic value of goods and services ordered, delivered and intermediated by online platforms could help policymakers to quantify their actual contribution to tax collection, estimate the relevant base potentially subject to taxation, and identify opportunities to develop or optimize tax schemes without hampering their development.
- Distinguishing domestic from cross-border transactions made through online platforms can support better design of regional integration schemes, help prioritize trade facilitation efforts, and guide cross-border taxation.
- Detailed characterization of platform workers can contribute to the understanding of new forms of work and guide the design and adaptation of social protection frameworks and active labor market policies.
- Information about consumption habits in digital online platforms can guide the adaptation of consumer protection regulation, including for cross-border transactions.
- Information on the use of intermediation services by businesses and individuals can allow policymakers to assess the impact of platforms on productivity. For example, using administrative and survey data from major delivery and ridesharing DIP, Fernandez and Benavides (2020) analyzed the productivity impact



of platforms on retailers who use platforms to sell goods and services. Similar efforts have been made in Peru (Instituto Peruano de Economía, 2021) and Argentina (CIPPEC, forthcoming).

 Detailed information on the products transacted in digital platforms can help competition policy authorities to better determine the relevant markets in which platforms operate and ensure fair competition between them and other relevant businesses.

Implementing the proposed recommendations could face challenges. These include creating standardized metrics and definitions, ensuring that countries have the necessary technological capabilities and financial resources, coordinating among different stakeholders for cohesive implementation, balancing different priorities and interests, ensuring compliance with applicable frameworks for privacy, data protection and ethical data use, and continuously updating methodologies to capture new digital transactions and business models. Additional challenges may be linked to limitations to data flows.

Existing partnerships and collaborations can serve as examples of potential initiatives to produce and disseminate information about the economic contribution of digital platforms. In Brazil, the Ministry of Development, Industry, Commerce and Services (2024) developed a dashboard with data on online B2C transactions that occurred within Brazilian territory, offering information on internet sales volume, products traded, and the state in which the sale took place (Figure 1). These data are generated from electronic invoices contained in the database of the Public Digital Bookkeeping System and consolidated by the Federal Revenue Service. The United Nation's Economic Commission for Latin America and the Caribbean (UN-ECLAC), in collaboration with the International Trade Centre and the Amsterdam University of Applied Sciences, used



proprietary data on platforms' visitor traffic to develop the Latin America and the Caribbean Marketplace Explorer, which includes dashboards and infographics (Figure 2).



FIGURE 1. Brazil's national e-commerce observatory.



FIGURE 2. UN-ECLAC's Latin America and the Caribbean Marketplace Explorer



References

Cook, Cody, Rebecca Diamond, Jonathan V. Hall, John A. List and Paul Oyer (2021). "The Gender Earnings Gap in the Gig Economy: Evidence from over a Million Rideshare Drivers". *The Review of Economic Studies*, Vol. 88, Issue 5, p. 2210–2238. Cristina Fernandez and Juan Benavides (2020). *Las plataformas digitales, la productividad y el empleo en Colombia*. Fedesarrollo, Centro de Investigación Económica y Social. Bogotá, Colombia.

G20 (2018). G20 Digital Economy Ministerial Declaration. Salta, Argentina.

Instituto Peruano de Economía (2021). Impacto de las plataformas digitales en la economía peruana. Perú. Informe final.

International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN) and the World Trade Organization (WTO) (2023). *Handbook on Measuring Digital Trade*. Second edition.

International Monetary Fund (IMF) (2018). Measuring the Digital Economy.

Washington, DC: International Monetary Fund.

Brazilian Internet Steering Committee (CGI.br) (2022). Privacy and personal data protection 2021: perspectives of individuals, enterprises and public organizations in Brazil. Retrieved from: https://cetic.br/pt/publicacao/privacidade-e-protecao-de-dados-2021/

Ministry of Development, Industry, Commerce and Services of Brazil (2024). *National e-commerce dashboard*. Retrieved from

https://app.powerbi.com/view?r=eyJrIjoiNGI2ZmU3MWMtYWFIZS00N2Y5LWJkMjg
tNTVINDJhMGY3YjYzIiwidCI6IjNIYzkyOTY5LTVhNTEtNGYxOC04YWM5LWV
mOThmYmFmYTk3OCJ9&pageName=ReportSection71ab815009024883b133



Organisation for Economic Co-operation and Development (OECD) (2020). *A*Roadmap Toward a Common Framework for Measuring the Digital Economy. Report for the G20 Digital Economy Taskforce. Saudi Arabia, 2020. OECD Publishing.

Retrieved from https://www.itu.int/en/ITU-

D/Statistics/Documents/publications/OECDRoadmapDigitalEconomy2020.pdf

Organisation for Economic Co-operation and Development (OECD) (2019). *Going Digital: Shaping Policies, Improving Lives*. Paris: OECD Publishing. Retrieved from .org/10.1787/9789264312012-en.

T20 (2019). T20 Summit 2019 Communiqué. Tokyo, Japan.

United Nations Conference on Trade and Development. (2021). *Digital economy report* 2021: Cross-border data flows and development: For whom the data flow. Retrieved from https://unctad.org/webflyer/digital-economy-report-2021





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