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## Digital platforms and value creation in developing countries: Implications for national and international policies

Note by the UNCTAD secretariat<sup>1</sup>

### *Summary*

This note examines the dynamics of value creation in the digital economy, notably with regard to digital data and digital platforms, and the implications for countries at different levels of readiness. It discusses the opportunities and challenges in value creation for developing countries when dealing with global digital platforms. The note outlines various national policies that can help developing countries create and capture more value. The role of international policymaking and cooperation in promoting a more inclusive digital economy is also explored. The note concludes with the set of guiding questions established by member States.

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<sup>1</sup> Mention of any firm or licenced process does not imply the endorsement of the United Nations.



## Introduction

1. At its sixty-eighth executive session in 2019, the Trade and Development Board approved the focus of the fourth session of the Intergovernmental Group of Experts on E-commerce and the Digital Economy, namely, digital platforms and value creation in developing countries: Implications for national and international policies.<sup>2</sup>
2. Most of the debate on digitalization and development to date has concentrated on the extent to which countries have affordable access to various technologies and whether they are being used. This note aims to go a step further and discuss the scope for value creation, as well as value capture, and its policy implications. It considers how developing countries may be affected by data-driven economic activities and business models, notably digital platforms, and how their roles as producers and innovators can be facilitated.
3. Digitalization is transforming value chains and opening up new channels for value addition and structural transformation. In virtually every value chain, the ability to collect, store, analyse and transform data brings added power and competitive advantages. Although the pace of digital transformation varies, all countries are affected. This has significant implications for the achievement of the 2030 Agenda for Sustainable Development, presenting opportunities as well as challenges for developing countries.
4. A particular feature of the digital economy is the dominance of global digital platforms, their control of data and their capacity to create and capture the ensuing value. This tends to accentuate concentration and consolidation rather than reduce inequalities between and within countries.
5. It is therefore essential to consider how developing countries may be affected by this (r)evolution in terms of the creation and capture of value and what should be done to improve the status quo. To secure a digital future for the many, rather than the few, domestic and international policies should go beyond enlisting more developing country users and consumers online; they should also enable the building of domestic capabilities to create and capture value.
6. Against this background, chapter I examines the dynamics of value creation in the digital economy by focusing on its main drivers, namely, digital data and digital platforms; chapter II presents the implications of value creation for countries at varying levels of readiness; chapter III discusses opportunities and challenges with regard to value creation in developing countries when dealing with global digital platforms; chapter IV outlines various national policies that can help developing countries create and capture more value; chapter V explores the role of international policymaking and cooperation in promoting a more inclusive digital economy; and chapter VI concludes with a set of guiding questions.<sup>3</sup>

## I. Value creation in the digital economy

7. Two emerging and related forces are increasingly driving value creation in the digital economy, namely, with regard to digital data and digital platforms.
8. The first driver is the ability to collect, use and analyse massive amounts of machine-readable information (digital data). Global Internet protocol traffic, a proxy for data flows, grew from about 100 gigabytes per day in 1992 to more than 46,000 gigabytes per second in 2017; by 2022, global Internet protocol traffic is projected to reach 150,700 gigabytes per second.<sup>4</sup>

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<sup>2</sup> TD/B/EX(68)/4.

<sup>3</sup> This note draws heavily on UNCTAD, 2019, *Digital Economy Report 2019: Value Creation and Capture – Implications for Developing Countries* (United Nations publication, Geneva). It also builds on discussions held at previous sessions of the Intergovernmental Group of Experts.

<sup>4</sup> For sources of data in this note, see UNCTAD, 2019, unless otherwise noted.

9. An entirely new data value chain has evolved, comprising firms that support data collection, the production of insights from data and data storage, analysis and modelling. Value creation arises once data are transformed into digital intelligence and monetized through commercial use. Data have become a new economic resource for creating and capturing value. Control over data is strategically important to be able to transform data into digital intelligence. This translates into added power and competitive advantages. Digital data are the core of all fast-emerging digital technologies, such as data analytics, artificial intelligence, blockchain, the Internet of things, cloud computing and all Internet-based services.

10. The second driver is platformization. In the past decade, a plethora of digital platforms have emerged worldwide that use data-driven business models and disrupt existing industries. The power of platforms is reflected in the fact that seven of the world's top eight companies by market capitalization use platform-based business models. Digital platforms provide the mechanisms to bring together a set of parties to interact online. Platform-centred businesses have a major advantage in the data-driven economy. As both intermediaries and infrastructures, they are positioned to record and extract all data related to the online actions of and interactions among users of platforms.

11. The growth of digital platforms is directly linked to their capacity to collect and analyse digital data, but their interests and behaviour depend greatly on how they monetize such data to generate revenue. Data can be monetized by selling targeted online advertising, operating electronic commerce (e-commerce) platforms, transforming traditional goods into rentable services or renting out cloud services. Individual data components are of little or no value; value emerges once data are compiled into large volumes and processed to provide insights and enable data-driven decisions by Governments, businesses, organizations and individuals. It is therefore their capacity to aggregate, process, transmit, store, analyse and make sense of data that allows digital platforms to generate value.

12. A few global firms the United States of America as well as from China account for 90 per cent of the market capitalization value of the world's 70 largest digital platforms. The share of Europe is 4 per cent and the share of Africa and Latin America together is 1 per cent. Seven super platforms, namely, Microsoft, followed by Apple, Amazon.com, Alphabet (the parent company of Google), Facebook, Tencent Holdings and Alibaba, account for two thirds of the total market value.

13. Digital disruptions have led to the creation of significant wealth in record time, but this is highly concentrated among a small number of countries, companies and individuals. The main policy objective is therefore not only value creation but also value capture or distribution, so that the potential of the digital economy may be harnessed for all.

## **II. Implications for countries at varying levels of readiness**

14. The transformative power of data with regard to economic and social interactions means that Governments, businesses and people need to adapt in order to seize emerging opportunities and to deal with pitfalls and risks. The ability of countries and various stakeholders to master digital transformations varies considerably and depends on their levels of development and digital readiness. Developed countries are in many ways better prepared to respond to the challenges associated with the growing role of digital platforms than countries that have limited resources and capacities. Limited readiness may relate not only to issues of connectivity and skills or to technological, financial or logistical aspects, but also to the development of local content and to weak regulatory and institutional frameworks. There is a risk that digital disruptions will favour mainly those that are already well prepared to create and capture value in the digital era, rather than contributing to more inclusive development.

15. At present, the world is characterized by a yawning gap between underconnected and hyperdigitalized countries. For example, only one out of five people in the least developed countries use the Internet, compared with four out of five people in developed countries. Thus, although the situation is improving, affordable and reliable digital connectivity is still of concern in many developing countries.

16. In addition, many small business owners in developing countries, particularly in the least developed countries, lack the necessary capabilities, skills and awareness to take full advantage of the digital economy. Even if they have access to mobile telephones or the Internet, they may not know how to leverage such tools to advance their business operations.

17. In other areas, such as capabilities in harnessing digital data and frontier technologies, the gap is considerably wider. For example, Africa and Latin America together account for less than 5 per cent of the world's colocation data centres. Moreover, wide variations in e-commerce readiness between and within countries enhance the risk that benefits from e-commerce will be unequally distributed.<sup>5</sup>

18. The economic geography of the digital economy does not display a traditional North–South divide, but is consistently being led by one developed country and one developing country, namely, the United States and China. For example, in addition to their dominance in the global digital platforms landscape as noted above, the United States and China account for 75 per cent of all patents related to blockchain technologies, 50 per cent of global spending on the Internet of things and more than 75 per cent of the world's market for public cloud computing. In many digital technological developments, therefore, the rest of the world, particularly Africa and Latin America, is considerably far behind the United States and China.

19. The current trends in technological and market concentration have implications for the ability of both developing and developed countries to participate in the technological learning processes needed to catch up and thrive in the digital economy. Countries with limited capabilities to turn digital data into digital intelligence and business opportunities are at a clear disadvantage when it comes to value creation. Increased use of artificial intelligence and data analytics is likely to further widen the technology gap between those that have and those that lack the capabilities to take advantage of such technologies.

20. Cutting-edge digital technologies are not prevalent in developing countries. Countries need to continue to develop technological capabilities, yet many developing countries aim to initially focus on leveraging all-important data as a local resource for digital value creation and capture. However, such data are of little or no use without the appropriate digital technologies and skills needed to transform them into digital intelligence and economic opportunities. Building sufficiently strong domestic digital industries and capabilities is essential in order for a country to be able to engage effectively with and create value in the digital economy. Countries with well-developed software industries are better equipped to implement tailored solutions and generate learning opportunities, in addition to improving productivity and operational efficiency.

21. In many developing countries, digital entrepreneurs have limited ability to develop the underlying digital technologies domestically and face various barriers, particularly when seeking to scale up their activities. The main bottlenecks to the development of a digital entrepreneurial and innovation ecosystem include the small size and scope of markets, inadequate entrepreneurial knowledge and skills, lack of a highly skilled and affordable workforce and limited access to finance.

22. Local firms in developing countries can benefit from being able to use the digital services offered by global platforms. In some cases, local knowledge, for example of search habits, traffic conditions or cultural nuances, may also give an advantage to locally rooted digital platforms, enabling them to offer services tailored to local demand. Rapid scaling up has been observed in some developing country platforms, for example by firms such as Ola Cabs in India, Gojek in Indonesia and Careem in Pakistan, Turkey and the Middle East and North Africa, which have all been able to compete with established transportation services even with relatively minimal assets.

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<sup>5</sup> UNCTAD, 2019, UNCTAD B2C[business to consumer] e-commerce index 2019, Technical notes on ICT[information and communications technology] for development, No. 14, available at <https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2586> (accessed 14 February 2020).

23. However, in most developing countries, there are significant barriers to such scaling up. Local and regional platforms have difficulties in scaling up and competing with global players. Moreover, as global digital competitors already occupy the most scalable digital product categories, servicing local markets digitally in developing countries often requires setting up blended digital-analog processes that are less physical asset-light than the strategies used by digital platforms in more advanced economies. Due to weaknesses in local ecosystems, the low technological capacity of customers and employees and/or issues with physical logistics, digital platforms in many developing countries need to employ a range of business model innovations to be viable. This involves the intricate and cumbersome offline development of capacity, supply chain processes and logistics infrastructure. Such platforms face a significant challenge, as they may have to seek higher margins in an environment in which the willingness and, most importantly, capacity to pay is relatively low. In effect, this makes user base scaling difficult.

24. A consistent finding with regard to digital platforms originating in developing countries is that most are transaction platforms rather than innovation or integrated platforms. Transaction platforms create a virtual environment to facilitate direct interactions and transactions between users, while innovation platforms create environments for code and content producers to develop applications and software. Innovation platforms may be more relevant in the relationship between the digital economy and development because they create ecosystems for combinatorial innovation and digital infrastructure products. Moreover, entrepreneurs and innovators in developing countries may lack the necessary access and skills to leverage such critical digital building blocks.

25. There is a risk that limited regulatory and enforcement capacity may expose consumers and businesses in developing countries to fraud, cybercrime and privacy abuse, as smart devices proliferate with little planning or oversight. Individual countries, including developed countries, lack the legal and economic power to deal with global digital companies. In developing countries that have competition authorities, such authorities tend to be relatively new and small, with limited resources to handle competition cases in an increasingly concentrated global economy.

26. The fair taxation of global digital platforms is a concern for countries at any level of development, yet may be even more relevant in developing countries, particularly the least developed countries, due to their greater need for domestic resource mobilization for development, as well as the weaker capacity of their tax administrations to collect taxes. They also have less bargaining power against the major digital platforms. Moreover, most developing countries do not physically host digital platforms, although they often contribute significantly to user-generated value as markets for digital platforms.

27. Labour market and social protection policies may be easier to implement in developed economies in which labour market institutions are more evolved. Developing countries generally also lack sufficient resources for social protection purposes.

28. Finally, many developing countries are at a further disadvantage due to the lack of reliable evidence and statistics in areas of direct relevance to the formulation and monitoring of policies for harnessing the benefits of digital transformation.

### **III. Value creation in developing countries when dealing with global digital platforms**

#### **A. Opportunities**

29. The expansion of digital data and platforms can create many new development opportunities. Digital data can be used for development purposes and in solving societal problems, including those related to achieving the Sustainable Development Goals. It can thereby help to improve economic and social outcomes and be a force for innovation and productivity growth. The infrastructure provided by platforms can enable more effective connections, transactions, exchanges of information and networking.

30. There may be significant benefits for local firms in developing countries that are able to take advantage of the digital services offered by global platforms. Digital platforms can reduce transaction costs compared with analog transactions, thereby creating opportunities, particularly for microenterprises and small and medium-sized enterprises, in domestic and foreign markets. E-commerce platforms may provide export opportunities, enabling such enterprises to reach beyond small domestic markets, lowering barriers to entrepreneurship, bringing in non-professionals and peers and providing new sources of finance for small-scale start-ups. Using existing payment and e-commerce platforms can enable microenterprises and small and medium-sized enterprises to boost sales, particularly if they cater to certain niche markets. Such enterprises could thus rely on global e-commerce platforms to access new buyers, but would not compete with the platforms. Through the use of data, firms can improve their processes and better meet the needs of consumers by offering on-demand goods and services and developing customized products. By reducing transaction and search costs, as well as frictions, digital platforms enable those offering assets or services to connect more easily with (potential) consumers. This not only results in new types of trade in digitally traded products, services and tasks, but has also enabled more traditional trade to move online and leverage different digital platforms to better match buyers and sellers and make products more visible. Potential benefits for developing country companies and consumers range from greater efficiencies to deeper specialization and divisions of labour, gains from variety and predictability for all players and lower costs and prices of inputs and final products. For individuals, digital platforms allow access to a greater variety and choice of goods and services at lower costs and also provide convenience, as well as customized or personalized products and services. Consumers may further benefit by receiving goods and services quicker by avoiding the use of intermediaries.

31. In general, participation in online platforms may be more useful for smaller firms that compete in specific, well-defined market segments, such as trading in a niche tourism market and in value added food products, as well as in regional and emerging market value chains. Such segments and markets may seem relatively small, yet these kinds of online platforms can help producers reach more clients and achieve economies of scale and income generation. In some cases, the need for local knowledge might give an advantage to locally rooted platforms, enabling them to offer better services to local users. In other cases, some platforms are considered “globally local”. For example, the network effects of Facebook are broadly global and those of Uber are largely specific to each city in which it operates. This means that globally local platforms have to recreate network effects each time they move into a new area and may therefore face more local competition than platforms that can provide all of their services without a local presence. Global digital platforms, if accessible, may be useful by providing the infrastructure on which innovation and digital enterprises can be developed, thereby serving as building blocks for local entrepreneurship and enabling creativity to be exploited.

32. With regard to competitiveness, analog challenges can be beneficial to local or regional digital platform providers in developing countries. For example, in a range of vertical markets, regional platforms are already competing with global incumbents, particularly in e-commerce (such as Flipkart with Amazon.com), travel and accommodation (Jumia Travel with Airbnb or Hotels.com), multimedia entertainment (IrokoTV with Netflix or YouTube) and ride-sharing (Little Cab with Uber). In these segments, the fact that the digital ecosystems in cities in developing countries are not on a par with the conditions on which global platforms rely can open up somewhat protected market niches for local and regional platforms. The main growth option for start-ups in developing countries is to either enter a new product category (digital innovation) or seek niche markets that global platforms are unable or unwilling to serve (differentiation). Developing country digital platforms have the best chance to compete in digital product categories that depend on incomplete and fragmented analog infrastructures, in which they may provide a value proposition, albeit at a higher operating cost, that would not otherwise be available to local customers.

33. The increase in digital platform work may facilitate the flexibility of work and increase job opportunities, particularly in developing countries. Policymakers and practitioners in some developing countries are promoting the growth of information and

communications technology-enabled services and impact outsourcing in order to provide jobs and learning opportunities, as a potential first step to participation in the digital economy.

## **B. Challenges**

34. The opportunities discussed above are not a given, nor are the gains widely shared. For development purposes, global e-commerce platforms should be leveraged in developing countries not only for buying and importing foreign products, but also for supporting domestic production and exports. Statistical data to permit an analysis of developments in this regard are not available, yet there are concerns that the use of global e-commerce platforms in developing countries will mainly result in greater imports.

35. For developing countries to benefit fully from the digital services offered by global platforms, entrepreneurs need to have easy access to such services as both buyers and sellers. Access to many platforms remains uneven. A common factor in limited access is the lack of cross-border payment solutions. Global e-commerce platforms provide integrated payment solutions, yet in many developing countries, companies are unable to use them if they lack the requisite account with a foreign bank or subsidiary. Similar asymmetries have also been observed, for example, in global marketplaces in sub-Saharan Africa with regard to selling mobile applications. In Africa, the largest advertising platforms do not accept advertisements in languages other than Arabic, English, French and Portuguese, limiting the potential to monetize new services.

36. Moreover, there are increasing concerns about related risks, such as with regard to the increasing concentration and market power of global digital platforms, unfair business practices and the potential for rent-seeking. A major challenge concerns market concentration dynamics. Some global digital platforms have achieved strong market positions in certain areas, for example, Google, which has an almost 90 per cent share of the Internet search market; Facebook, which has a two-thirds share of the global social media market and is the leading social media platform in more than 90 per cent of the world's economies; and Amazon.com, which has an almost 40 per cent share of the global online retail market and a similar share in the global cloud infrastructure services market, through Amazon Web Services. In China, We Chat (owned by Tencent Holdings) has more than 1 billion active users and, together with the payment solution Alipay (owned by Alibaba), has captured nearly the entire market in China for mobile payments. Alibaba is estimated to have close to a 60 per cent share of the e-commerce market in China.

37. The rapid rise to dominance of such digital leaders is partly the result of network effects; the ability of the platforms to extract, control and analyse data; and the high switching costs presented to users. It is also partly the result of steps taken by the platforms to consolidate market power, including by acquiring potential competitors, expanding into complementary products or services, investing strategically in research and development, lobbying in domestic and international policymaking circles and partnering strategically with multinational enterprises in traditional sectors. A related concern from a long-term development perspective is the risk that, once successful digital platforms in many developing countries reach a certain scale, they may become attractive targets for acquisition by global players. For example, Lazada (South-East Asia) has been acquired by Alibaba; Souq (West Asia), by Amazon.com; Flipkart (India), by Walmart; and 99 (Brazil), by Didi Chuxing.

38. The lack of digital innovation platforms in many developing countries has significant development-related implications. One possible outcome is that the dominance of global innovation platforms will further fortify technological innovation pathways that may be poorly aligned with market needs in developing countries. Global innovation platforms are likely to remain at the technological frontiers that offer the greatest relevance and payoffs on a global scale. They are unlikely to also be interested in the creation of simpler, cheaper and more robust innovations suitable for manufacturing plants that have not yet upgraded to smart manufacturing. This may accentuate the risk that many developing countries may fall further behind in the digital economy. Moreover,

opportunities for local digital innovation platforms to emerge in developing countries may also occur less often over time as the markets and innovative powers of global platforms are reinforced. Countries lagging behind in the digital economy may lose the ability to develop indigenous innovation ecosystems if the critical mass of developer capacity is increasingly concentrated in technology designed primarily for the needs of other geographical areas.

39. The nature and extent of platformization will also have different impacts on microenterprises and small and medium-sized enterprises in developing countries. Slow progress towards more sophisticated uses of digital technologies may reflect a lack of skills, motivation, resources and appropriate systems. For example, in the tourism industries in some developing economies, skills gaps limit the extent to which small hotels are able to technically link into global systems, even if they have good connectivity. In agriculture, the use of online platforms may be feasible only if firms can obtain complementary support in the form of capacity-building, training or other technical assistance that can enable them to obtain finance or meet quality standards.

40. Another relevant and contentious issue is that of cross-border data flows, which are a concern for both Governments and digital platforms, for different reasons, with diverging views and conflicting interests. Since data generated by the citizens, businesses and organizations in a country are a major economic resource in the digital economy, which can be harnessed to create economic value, issues arise concerning data “sovereignty” related to the control of, access to and rights over data at the international level and the appropriation of the value that may be generated from refining data. Under the current regime, it is the platform that collects data from users that controls and can monetize such data. As a result, global digital platforms have an advantage in terms of capturing data-related value. The only option for a country wishing to exercise control over the data generated in its territory may therefore be to restrict cross-border data flows. Many countries are hesitant to relinquish control over data without being clear on what they can obtain in return. With data becoming an increasingly valuable resource in the digital economy, countries are less willing to allow foreign firms to extract data without restraint. In addition, with the global concentration of platforms, the free flow of data typically means a one-way flow. Other reasons cited for considering the use of barriers to cross-border data flows include perceived risks to national security, surveillance by other countries, the risk of hacking and the need for easy access to data for law enforcement purposes.

41. From a geographical perspective, most countries in the emerging global data value chain are positioned as data suppliers and only a handful of platforms and countries that receive most of the data can turn them into value added data products that, in turn, can be monetized. In the global data value chain, as well as some specific related value chains, such as of advertising platforms and cloud infrastructure providers, developing countries may remain in subordinate positions, with value and data centralized in a few existing global platforms. This may result in the emergence of a new kind of international dependency, with developing countries at risk of becoming mere providers of raw data to global digital platforms, based mainly in the United States and China, while having to pay such platforms for the digital intelligence produced from their data.

42. A critical way for most countries to capture value in the digital economy is through taxation. A major challenge to development posed by digital platforms is their capacity to use tax optimization practices to avoid paying a fair share of taxes. Digital platforms rely heavily on intangible assets, which are difficult to value and measure. Since such intangibles are easy to move around the world, they provide opportunities for aggressive tax planning. Another problem is the lack of clarity on where value is produced. A significant proportion of the value generated in the digital economy stems from users through the data they produce. All of these factors allow global platforms to move profits from high tax rate jurisdictions to low tax rate jurisdictions, thereby reducing their effective rate. For example, two thirds of the profits of Alphabet and Facebook in 2017 were generated outside the United States, yet only about 10 per cent of the tax expenditures of these companies went abroad.

43. The trend towards greater platformization is accompanied by transformations in the labour market and the emergence of new forms of employment. In particular, a growing number of people are platform workers on a demand basis, as self-employed individual

contractors or independent workers. In many cases, while a platform owner retains the same level of control over the conditions of work as any other employer, it is the individual worker who bears the negative impact of this working relationship, losing out on most of the benefits associated with being an employee. Often, this means that compensation for crowd-based work is lower than minimum wage levels and workers must manage unpredictable income streams and they must work without the standard labour protections of an employment relationship. Classifications of these kinds of jobs in the digital economy have become a contentious issue, with potential implications for labour rights.

44. Beyond purely economic aspects, there are increasing concerns about issues related to privacy and security, democracy and ethics, as well as risks with regard to mass surveillance and digital colonialism.

#### **IV. The role of national policies in creating and capturing more value**

45. Positive outcomes from digitalization are far from automatic. It has the potential to support development, yet any value realized is unlikely to be equitably distributed. The net impact will depend on the level of development and readiness of countries and their stakeholders as noted above, as well as on the policies adopted at national, regional and international levels.

46. Digitalization has given rise to fundamental challenges for policymakers in countries at all levels of development. These are mainly the result of digital divides, differences in readiness and the high concentration of market power. There is a need to find an alternative configuration of the digital economy that leads to more balanced outcomes and a fairer distribution of the gains from the use of data and digital intelligence. Governments have a critical role to play in shaping the digital economy by defining the rules of the game. Proactive policies can guide the digital economy in a positive direction and in a way that can support efforts to achieve the Sustainable Development Goals. This requires the adaptation of existing policies, laws and regulations and the adoption of new ones in other areas.

47. National policies play a vital role in preparing countries for value creation and capture in the digital era. However, as the impacts of digitalization are highly contextual, there is no one-size-fits-all approach. This chapter discusses several policy options at the national level, some of which are also addressed in chapter V, which deals with the role of policy responses at the regional and international levels.

##### **A. Bridging digital divides and improving readiness**

48. Ensuring affordable and reliable connectivity, which is essential for creating and capturing value in the digital economy, requires attention. It remains a major challenge in many of the least developed countries, particularly in rural and remote areas.

49. Microenterprises and small and medium-sized enterprises in developing economies, particularly in the least developed countries, need affordable access to appropriate information and communications technology infrastructure to be able to compete effectively in the digital economy. This includes mobile telephony, at a minimum, but increasingly also broadband connectivity, which should be extended also to rural areas at affordable rates of access. In addition, microenterprises and small and medium-sized enterprises need assistance to make more effective use of information and communications technology.

50. Countries are at different stages of preparedness to engage in and seize opportunities from digitalization and platformization. Efforts are required to build the capacities needed to help more people and businesses in developing countries to become developers, producers and exporters in the digital economy.

51. In order to be able to benefit from e-commerce, developing countries need to address a number of policy areas, notably, fostering the provision of affordable information and communications technology infrastructure and services, offering payment solutions, improving trade logistics and trade facilitation, creating appropriate legal and regulatory frameworks, promoting e-commerce skills development and facilitating access to finance. UNCTAD Rapid eTrade Readiness Assessments serve as a useful starting point for the least developed countries and other countries by identifying areas for improvement and policy interventions that could help alleviate bottlenecks.

## **B. Boosting digital entrepreneurship and harnessing local digital platforms**

52. It is crucial for developing countries to develop productive capacities for the digital economy. This involves not only creating digital platforms, but also facilitating digital entrepreneurship and the digitalization of existing firms.

53. Only a few countries have managed to foster a thriving platform ecosystem of the kind observed in China and the United States. Some developing countries have formulated specific policies aimed at enabling local platforms to grow. For example, Ethiopia prohibits foreign ride-sharing platforms from setting up operations and, in their absence, various alternative services, such as Ride, Zay Ride and Etta, have emerged that are tailored to local conditions such as slow Internet access speeds and a lack of smartphones and mobile payment systems. In Kenya, foreign ride-sharing platforms such as Uber face competition from locally based companies such as Little Cab. In other countries, strategic decisions by global digital platforms to not enter a certain market have created space for local companies, such as Jumia Group and Souq, to grow. Depending on the policy environment and market conditions, therefore, local digital platforms can be viable options in developing countries, but tend to face challenges when seeking to scale up activities.

54. It may be desirable to provide direct policy support to digital product markets in which regional development potential and expertise coincide, such as last-mile platforms for digital payments, microfinance and digital health. Governments may also seek to support the creation of regional innovation platforms and ecosystems. The challenge is to identify innovation paths with a long-term potential and work towards providing a shared, open and enabling digital infrastructure. This partly involves better integrating existing proprietary systems, for example by forcing mobile operators to open up and/or improve application programme interfaces within and across countries.

55. Boosting entrepreneurship in digital and digitally enabled sectors is key to local value creation. In most developing countries, market opportunities may particularly be found in local and/or regional digital goods and services markets. Policies can seek to incentivize different clusters within a region to develop complementary and deep technical knowledge bases. The greatest potential may lie in digital products that are difficult to replicate elsewhere, that are needed locally and that can be transported or duplicated in a certain location at a relatively low cost.

56. Governments may focus less on events such as hackathons and bootcamps or high-profile projects such as technology parks and more on fostering tacit entrepreneurial knowledge creation through mentorship programmes, vocational training, apprenticeships and internships. They may also consider ways of empowering women entrepreneurs in this area. Mentoring, networking and providing role models for women can help to overcome inherent gender biases or cultural norms that may limit women's ability to start or sustain projects in e-commerce and data-driven technology areas. In this regard, the UNCTAD eTrade for women initiative was launched with a view to empowering women digital entrepreneurs in developing countries.

57. Securing value from the digital economy requires not only a stronger digital sector, but also broader efforts to enable enterprises in all sectors to take advantage of digital technologies. In many of the least developed countries this concerns, in particular, agriculture and tourism. Firms that invest in information and communications technology are generally more productive, competitive and profitable. However, many small business

owners in developing countries, particularly in the least developed countries, lack the capabilities, skills and awareness to leverage digital connectivity for business operations. One way to address this is to integrate information and communications technology skills development into general business management training curricula. Governments may also consider collaborating with the private sector to provide more training to microenterprises and small and medium-sized enterprises on how to leverage digital platforms.

### **C. Data-related policies**

58. To prevent increased dependence in the data-driven global economy, national development strategies should seek to promote digital upgrading (value addition) in data value chains and to enhance domestic capacities to “refine” data. This may require national policies to better seize opportunities and deal with the risks and challenges associated with the expansion of digital data. Key policy questions include how to assign ownership and control over data, how to build consumer trust and protect data privacy, how to regulate cross-border data flows and how to build relevant skills and capabilities for harnessing digital data for development.

59. Various proposals have been made to ensure a more equitable sharing of the economic gains from digital data. Some focus on remunerating individuals who share data with platforms through personal data markets or data trusts. Others focus on the use of collective data ownership and digital data funds as a basis for a new digital data commons. It is necessary to experiment with these and other options and assess their feasibility and the respective advantages and disadvantages.

60. Data privacy and data security require special attention. Various security arrangements are important, to protect against deliberate acts of data misuse. Laws and regulations are needed to counter the theft of personal data; set rules for which personal data can be collected, used, transferred or removed, and how; and ensure that data-driven business models generate gains for society as a whole. The general data protection regulation of the European Union, which became applicable in May 2018, is currently the most comprehensive approach to data protection, with global implications.

61. A balanced analysis of the implications of cross-border data flows needs to take into account the divergent interests of different countries and of various Governments, firms, agents and individuals. Since these interests do not always coincide, dilemmas and trade-offs emerge. Governments may decide to restrict the flow of data for reasons such as privacy and the protection of citizens, security and the need to foster national economic development and market competition. The final outcome depends on policy choices. Different countries apply different regimes, ranging from allowing the free flow of data to data localization practices.

### **D. Competition policies**

62. Given network effects and the tendency towards market concentration in the digital economy, competition policy needs to play an important role in the context of creating and capturing value. Existing frameworks need to be adapted to provide for competitive and contestable markets in the digital era. The current dominant approach in antitrust regulations is based on measuring harm to consumers in the form of higher prices. It should be broadened to consider, for example, consumer privacy, personal data protection, consumer choice, market structure, switching costs and lock-in effects.

63. There are different ways to make the enforcement of competition law more effective with regard to dominant digital players, for example by carefully defining the relevant market, assessing possible abuses of market power and updating the tools used in merger reviews. To the extent that services provided may be compared with utilities, regulation should in some cases be considered a tool for ensuring open and fair access for all

businesses. Whichever option is chosen, developing countries need to strengthen their capacities to enforce competition policies.<sup>6</sup>

## **E. Taxation policies**

64. Taxation is another key concern with regard to value capture in the digital economy. Countries are rethinking how taxation rights should be allocated to prevent the possibility of undertaxation of major digital platforms in the fast-evolving digital economy. There is a mismatch between where profits are currently taxed and where and how value is created. As developing countries are mainly markets for global digital platforms and their users contribute significantly to the generation of value and profits, authorities in these countries are exploring ways to tax the value created in their jurisdictions by such platforms.

65. In most parts of the world, policy efforts related to taxation in the digital economy have mostly focused on corporate taxation and on major digital platforms. In several countries in Africa, however, the main focus has been on the taxation of Internet and mobile money users. This kind of taxation may be attractive to Governments, yet it can be counterproductive if it results in a decline in economic activity by reducing the number of active Internet users.

## **F. Employment and labour market policies**

66. Digitalization can have significant impacts on employment and working conditions, and thereby on the quantity and quality of jobs. The rapid pace of digital transformation requires policymakers and individuals to react quickly to adapt to technology-induced changes in the labour market. As the nature of work changes and new jobs emerge while others disappear, individuals need to learn new skills over the course of their working lives. Policy actions need to be taken to manage technological transition periods in a manner that enables those losing jobs to adapt and adjust to the new conditions. A critical tool in the policy kit for creating and capturing value in the digital economy is the establishment of appropriate lifelong learning programmes for the labour force to be better prepared and more resilient and adaptable to changes. Special social protection measures and safety nets are also important in this context.

67. The increase in digital platform work may facilitate the flexibility of work and increase job opportunities, particularly in developing countries. However, there is also the risk of a race to the bottom with regard to labour conditions and standards, which needs to be addressed. A major issue in this regard is the classification of jobs, that is, whether a worker is considered an employee of the platform or an independent worker. This has significant implications for labour rights. There is considerable scope to revise terms of service to provide for better working conditions.

## **V. The role of international policymaking and cooperation in promoting a more inclusive digital economy**

68. As digitalization affects countries in different ways, depending on their level of development and digital readiness, individual Governments require policy space to regulate the digital economy in order to fulfil various legitimate public policy objectives. At the same time, several policy challenges may be more effectively addressed at the regional or international level, for example with regard to data protection and security, cross-border data flows, competition, taxation and trade. Concerted global efforts are therefore required to spread the gains of the rapidly expanding digital economy to the many people who currently obtain little benefit from it.

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<sup>6</sup> These issues are also being discussed at sessions of the Intergovernmental Group of Experts on Competition Law and Policy.

69. With regard to cross-border data flows, which are increasingly important in international trade and development, there have been attempts to internationalize policy regimes at the World Trade Organization and through trade agreements. The diversity of views in this area points to the need for more analysis and careful consideration of the different approaches suggested. In particular, flexibilities required to enable the achievement of legitimate public policy objectives should be further examined and discussed. Privileged access to data provides a competitive advantage, which gives rise to issues related to income distribution, market concentration and the absence of a level playing field for countries to participate in and benefit from digital data and platforms. Given the multifaceted nature of data, it is also important to consider the most suitable forum for pursuing such discussions in an inclusive manner.

70. It is important that data be allowed to flow easily in order to harness the benefits of the digital economy, yet it is equally important to ensure that the associated gains are shared in a fair manner by the countries and actors involved in the value creation process. Moreover, impact assessments need to go beyond economic growth and consider factors related to power relations, dependence, data privacy and value capture. This may necessitate exploring new, alternative approaches that take into account all relevant aspects. For example, to the extent that frameworks for local “ownership” and control of various kinds of important data can be developed, data could provide a significant bargaining chip to negotiate fair terms with global digital platforms seeking to work with local data and in domestic economies. Such frameworks could be employed to promote the development of digital industries, including through joint ventures with global corporations. This could be made a condition for mining local data.

71. In view of current trends, it is not a given that free flows of data and greater access to data alone will help address global inequalities. Governments in both developed and developing countries are increasingly recognizing that the collection and processing of the data of individuals cannot be left entirely to private corporations. In the emerging global digital economy, it will be important to ensure that developing countries have the necessary economic, legal and regulatory space to shape the digital economy in ways that serve the interests of their populations, including by helping them to create and capture value from digital data.

72. Another example is the international corporate taxation of global digital platforms. Under the auspices of the Organization for Economic Cooperation and Development, different options are being reviewed, with the goal of reaching consensus on a solution by end-2020. As the tax landscape evolves in the coming years, it is essential to ensure the wide and more inclusive participation of developing countries in international discussions on the taxation of the digital economy, for example by strengthening the United Nations Committee of Experts on International Cooperation in Tax Matters.

73. Moreover, appropriate competition policies should be put in place and enforced within regional or global frameworks. Efforts at the regional and global levels may be more effective in dealing with abusive practices and merger reviews and for ensuring that dominant platforms are open to local and regional companies under fair terms and conditions.

74. National efforts in developing countries for ensuring that digital transformation contributes to more inclusive outcomes need to be complemented by more international support. The development community needs to explore more comprehensive ways to support countries lagging behind in the digital economy. Development partners urgently need to integrate the digital dimension into their aid policies and strategies. Assistance should aim at reducing digital divides, strengthening the enabling environment for value creation, building capacities in the private and public sectors and enhancing trust by supporting the adoption and enforcement of relevant laws and regulations to promote value creation and capture in the data-driven digital economy.

75. Overall, finding adequate solutions requires greater international collaboration and policy dialogue, with the full involvement of developing countries. Any consensus will need to incorporate significant flexibilities to enable all countries to participate. It is also

important to underline that value creation and capture in the digital economy is a development issue that affects many areas, and trade is only one aspect.

## VI. Guiding questions

76. Against this background and as approved by the Trade and Development Board, discussions at the fourth session of the Intergovernmental Group of Experts on E-commerce and the Digital Economy should be based on the following guiding questions:

(a) How is value created in digital economy activities and what are the implications for countries at varying levels of digital readiness?

(b) What are the opportunities and challenges for value creation that developing countries face when dealing with global digital platforms?

(c) What role can national policies play to help countries create and capture more value, including bridging digital divides, boosting digital entrepreneurship and harnessing local digital platforms?

(d) What role can international policymaking and cooperation play to promote a more inclusive digital economy?

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