

## Technical Paper 1.1B

# BigFintechs and their impacts on macroeconomic policies

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The findings of the Dialogue on Global Digital Finance Governance are packaged into three thematic areas:

### Theme 1

#### **BigFintechs and their impacts on sustainable development**

- Technical Paper 1.1 BigFintechs and their impacts on sustainable development
- Technical Paper 1.1B BigFintechs and their impacts on macroeconomic policies
- Technical Paper 1.2 Digital currencies and CBDC impacts on least developed countries

### Theme 2

#### **Corporate governance innovations**

- Technical Paper 2.1 BigFintechs and the UN SDGs: the role of corporate governance innovations

### Theme 3

#### **BigFintechs and international governance, policymaking and the SDGs**

- Technical Paper 3.1 Policymakers, BigFintechs and the United Nations Sustainable Development Goals
- Technical Paper 3.2 BigFintechs and international governance, policymaking and the UN Sustainable Development Goals: the SDGs in the international governance of finance
- Technical Paper 3.3 A principles-based approach to the governance of BigFintechs

## Executive Summary

This paper follows directly from Technical Paper 1.1, “BigFintechs and their Impact on Sustainable Development”, which examines the positive and negative impacts of BigFintech (BFT) activities across the full spectrum of the Sustainable Development Goals (SDGs), particularly with regard to Least Developed Countries (LDCs). This paper serves as an extension of the analysis, specifically on the findings with regard to SDG 16 (peace, justice and strong institutions) to focus on the macroeconomic impact of BFT actors and activities on LDCs. To accomplish the extended analysis, we first address the limitations in bridging BFT activity, SDG indicators and LDC macroeconomic policy impacts. We draw upon the outline of the complex and opaque supply chains, expanding service offerings across multiple business verticals and the complex ecosystem models that amplify BFT impacts for LDCs as outlined in Technical Paper 1.1. We discuss the key barriers in advancing the analysis including the limitations of the frameworks, tools, indicators and data, to measure the macroeconomic impacts particularly within the LDC context. Our findings demonstrate that the current narrative ‘digital economy’ sees digital growth, maturity and market penetration in LDCs largely as positive developments. However, it fails to address the potential for adverse impacts on LDCs specifically owing to BFTs’ complex models and business activities. We then outline the regulatory challenges related to BFT across multiple factors including the cross-border nature of BFT ecosystems and activities, the narrow scope of those digital services, the limitations of foreign exchange rules and taxation classification.

The Dialogue on Global Digital Finance Governance was established by the UN Secretary General's Task Force on Digital Financing of the SDGs. During its investigations, the Task Force recognized that digitalization is not only reshaping the world of finance; it is also driving the emergence of a new generation of global, dominant digital finance platforms (BigFintechs) with increasing cross-border spillover effects on many areas of sustainable development across the world, particularly in developing economies.

The potential impacts of these platforms are both positive and negative, and one of the main challenges in addressing them is that existing policy approaches to BigFintechs have mostly focused on narrow, although important, financial stability, consumer protection and market integrity issues, and some aspects of data, Internet and competition regulation, but have remained largely disconnected from the broader SDG/ESG debate. Another issue is that the governing arrangements of such platforms have seldom involved developing economies, where their impacts are often strongest, and the potential for transformation is greatest.

The Dialogue was established to explore the nexus of BigFintechs and sustainable development. Its goal is to catalyse governance innovations that take greater account of the SDG impacts of BigFintechs and are more inclusive of the voices of developing nations. To this end, the Dialogue has produced a series of Technical Papers that bring new, complementary perspectives on these issues. The papers have been drafted by commanding experts in the field and have been peer-reviewed by leading institutions and academics.

[The following paper is Technical Paper 1.1B under Theme 1.](#)

[The Dialogue on Global Digital Finance Governance is hosted by the Swiss and Kenyan Governments and stewarded jointly by the United Nations Development Programme \(UNDP\) and United Nations Capital Development Fund \(UNCDF\).](#)

To advance the discussion, we leverage the OECD's tiered definition of the digital economy and build out the analysis from the data and findings extrapolated from the tools and methodologies developed in Technical Paper 1.1. We set out the positive impacts of BFTs on reducing inequalities, access to capital, increased employment and entrepreneurship and GDP growth, as well as more complex negative implications including potential tax avoidance, crowding out of local businesses and SMEs, evolving ecosystems of interdependence with single points of failure, the potential for draining liquidity from local financial systems and for currency substitution. We discuss the regulatory capacity to address these macroeconomic impacts as well as the new potential points of failure being introduced. The paper then addresses the limitations of current governance parameters and structures that are struggling to keep up with the power, size and complex business model evolution of BFTs generally. The paper points to a widening gap in terms of primary or targeted regulatory focus for LDCs, which are not generally within the scope or mandate of regulators and legislators in more developed markets where most BFTs are headquartered.

A summary of the potential macroeconomic impacts and regulatory challenges is followed by a series of conclusions indicating that rather than expanding their current value proposition of financial inclusion, employment and economic growth, BFTs can actually bypass or exploit segments of communities in LDCs with negative environmental, social and economic impacts. We further extrapolate the potential negative impact of BFTs on financial or currency stability that could bypass engagement with national taxation and regulation, through shadow banking particularly given the fragmented regulatory space. Finally, we offer key recommendations to consider with regard to alternative incentives and tools for BFTs to address and report on activities and impacts in LDCs, as well as innovative regulatory approaches for more effective measurement, analysis and remediation of risks and impacts of BFTs on LDCs.

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## Introduction

The increasing digitization of payments and digital access to non-bank financial services, together with the increasing use of general technological advances to deliver access and services to financial products, are key drivers in a global transformation in banking and finance. These trends are fast changing the financial sector, impacting billions of lives around the world and leaving their footprint across global economies. Some of these impacts are the direct result of BigFintech (BFT) activities in financial services. This paper seeks to analyse the macroeconomic impact of BFT actors, as defined in the foundational paper “BigFintechs, A New Paradigm,” with a specific focus on least developed countries (LDCs). It builds on the findings outlined in the Technical Paper 1.1, “BigFintechs and their Impact on Sustainable Development” (hereinafter “Technical Paper 1.1”), which uncovered key positive and negative impacts of BFT activities across a range of economic, environmental and social Sustainable Development Goals (SDGs).

This paper builds out the analysis from the data and findings extrapolated from the tools and methodologies developed in Paper 1.1. We focus on impacts specifically with regard to SDG 16 (peace, justice and strong institutions), which is essential to fostering the macroeconomic indicators of currency stability as well as “investor confidence, strengthening public finances, efficient and well-targeted public spending, infrastructure investments, debt sustainability, financial markets access, financial stability”. This paper therefore highlights the meeting point between enhanced economic participation and the potential for unintended macroeconomic side effects thereof, when services are provided through new, innovative and complex business models that fall outside the scope of traditional financial regulatory parameters.

This paper begins with a critical analysis of the current discourse of the ‘digital economy’, which largely sees digital growth, maturity and market penetration as positive developments in LDCs but which rarely addresses the potential negative impacts arising from the complex business models and activities of BFTs.

We address the limitations of indicators, tools and data in advancing measurement of the macroeconomic impacts given the seamless—and often closed-loop—nature of BFT ecosystems and activities. The paper examines the regulatory challenges in addressing the negative environmental, social and economic impacts of BFTs, pointing to a widening gap in terms of primary or targeted regulatory focus for LDCs. It argues for a broader lens through which the macroeconomic impacts of BFTs on LDCs can be analysed. This paper intends to serve the purpose of redesigning the lens through which the macroeconomic impacts of BFTs on LDCs can be analysed, and provides baseline definitions of

commonly used terms in the BFT and SDG context, to enable fit-for-purpose use that accurately takes the numerous—and often still developing—externalities into consideration. Finally, the paper concludes with key recommendations, incentives and innovative approaches for both BFTs and regulators to consider.

## Limitations and challenges of the current ‘digital economy’ narrative

Some of the most potent indicators available in macroeconomic analysis, such as GDP or Consumer Price Index, are globally defined indicators that are applied uniformly across markets. However, this is true primarily for traditional markets, where delivering goods and services incurs costs in a measurable way associated with a physical location, and focuses chiefly on more developed, more urbanized markets. With the growth of the digital economy at both speed and proportion, these indicators are more difficult to apply, as distribution of a service at scale over a digital platform tends towards zero marginal cost while profits are built on non-traditional business models, such as data monetization, rather than through direct profit from sale of goods to consumers.

The difficulty in applying indicators is augmented by the lack of a clear definition of the digital economy. International organizations adopt different parameters or indicators in defining the digital economy and its associated components. In 2011, the Organisation for Economic Co-operation and Development (OECD) first defined ‘e-commerce transactions’, which laid down the foundation of today’s digital economy discourses. The definition narrowly included any transaction—“the sale or purchase of goods or services, conducted over computer networks by methods specially designed for the purpose of receiving or placing of order... To be included are orders made over the web, extranet or electronic data interchange... [But] to be excluded are orders made by telephone calls, fax or manually typed e-mail”<sup>1</sup>

For a long time, the principal indicator for measuring the digital economy was use of the web and related information and communication technologies (ICT) only.<sup>2</sup> With the expansion of Fintech, the use of Big Data and artificial intelligence (AI), and varieties of services using web-based platforms, the landscape of the digital economy has broadened and essentially includes any digital service and/or digital transaction conducted by a digital sector. The Asian Development

1 ‘OECD Guide to Measuring the Information Society’, OECD, August 2011, <[www.oecd.org/sti/ieconomy/oecdguidetomeasuringtheinformationsociety2011.htm](http://www.oecd.org/sti/ieconomy/oecdguidetomeasuringtheinformationsociety2011.htm)>.

2 ‘Working Paper: Defining and Measuring the Digital Economy’, Bureau of Economic Analysis, March 2018, <[www.bea.gov/sites/default/files/papers/defining-and-measuring-the-digital-economy.pdf](http://www.bea.gov/sites/default/files/papers/defining-and-measuring-the-digital-economy.pdf)>.

Bank (ADB) defines the “digital economy” according to the nature of “digital transactions”<sup>3</sup>—“which involves anything powered by digital technologies”:<sup>4</sup> While the core of the digital economy is ICT-producing sectors, its broader dimension includes the platform economy (such as Facebook and Google), services rendered by using digital technologies (such as e-commerce, automation, and AI and the sharing and gig economies).<sup>5</sup> Nonetheless, there are no universally accepted standard definitions of these new economy models or the services associated with them. Therefore, “[t]he lack of a generally agreed definition of the ‘digital economy’ or ‘digital sector’ and the lack of industry and product classification for Internet platforms and associated services are hurdles to measuring the digital economy”:<sup>6</sup>

BFTs operate in the digital economy, offering financial and other services over digital platforms to deliver digital or financial goods and services.<sup>7</sup> As these platforms are often web-based, they can spread out in different locations without requiring a physical location, which significantly reduces their delivery costs. The lack of a clear definition and measurement framework of the ‘digital economy’ means that the impact of BFTs on macroeconomic outcomes becomes less readily delineated and apparent in a classical analysis. In a concerted effort to address these challenges, several United Nations bodies and other international organizations have advanced definitions of the digital economy and developed early frameworks and tools to employ in analysis of this new market for macroeconomic impacts. After several precursor reports and consultations with several international organizations,<sup>8</sup> a coordinated and widely accepted definition of the digital economy was published by the OECD in its 2020 report for the G20:

*The Digital Economy incorporates all economic activity reliant on, or significantly enhanced by the use of digital inputs, including digital technologies, digital infrastructure, digital services and data. It refers to all producers and consumers, including*

3 According to the report, a transaction is deemed to be digital if (i) the transaction is digital ordered, enabled or delivered; (ii) the transacted products are goods, services or data; and (iii) the transaction involves partners or actors, such as consumers, businesses or government.

4 ‘Asian Economic Integration Report 2021: Making Digital Platforms Work for Asia and the Pacific’, Asian Development Bank, February 2021, <[www.adb.org/publications/asian-economic-integration-report-2021](http://www.adb.org/publications/asian-economic-integration-report-2021)>.

5 Sharing economy could have a broad definition to include the supply of work for small jobs in open labour platforms as well as crowdfunding in financial platforms, or a narrow definition of underused assets such as accommodation and rides. The gig economy is pertinent to labour participation and income generation through ‘gigs’.

6 See for example, ‘Measuring the Digital Economy’, IMF, April 2018, <[www.imf.org/en/Publications/Policy-Papers/Issues/2018/04/03/022818-measuring-the-digital-economy](http://www.imf.org/en/Publications/Policy-Papers/Issues/2018/04/03/022818-measuring-the-digital-economy)>.

7 For example, Amazon is a digital-based platform and offering which sells digital products and financial services in addition to physical goods—and therefore has a physical infrastructure—but the financial services are totally digital.

8 These organizations included Organisation for Economic Co-operation and Development (OECD), the International Telecommunication Union (ITU), the United Nations Conference on Trade and Development (UNCTAD), the European Union (EU), the World Bank Group (WBG), the International Monetary Fund (IMF) and the International Labour Organization (ILO).

*government, that are utilising these digital inputs in their economic activities.*<sup>9</sup>

The report also includes a tiered framework intended to “assist with accurate measurement and comparability of the digital economy”, which it notes should also incorporate digitalized interactions as one of the indicators of economic activities.<sup>10</sup> A key focus of these indicators is to look across the verticals of infrastructure, empowering society, innovation and technology adoption, as well as employment and growth.<sup>11</sup>

As helpful as these definitions and frameworks are, the definition still falls short of encapsulating a universal standard as these metrics and indicators are contextually skewed towards G20 and OECD countries,<sup>12</sup> and do not represent the economies in the rest of the world. Furthermore, the reports, frameworks and metrics rely on data points that are unlikely to be readily available in LDC economies, such as Internet usage by individuals,<sup>13</sup> household income or informal lending. Data—such as those available from GSMA<sup>14</sup>—for LDC countries, tend to be focused on physical assets and infrastructure, which do not provide a complete picture or expose economic impacts such as in the monetary and fiscal space, or export and trade.

It is therefore important to understand the limitations of these frameworks and tools in an LDC context, while continuing to advocate for inclusive and alternative data-based monitoring tools so that LDC and other economies disenfranchised by official definitions and current measures do not fall by the wayside.

The OECD ‘Roadmap’ recognizes that “The Core measure of the Digital Economy only includes economic activity from producers of ICT goods and digital services”. It offers a more robust definition for a “consistent and consensual framework to guide policymaking providing a logical standard by which to compare indicators”:<sup>15</sup> The OECD definition includes five tiers of measures:

- **Core:** includes economic activity from producers of ICT goods and digital services.

9 See ‘A Roadmap Toward a Common Framework for Measuring the Digital Economy’, OECD, 2020, <[www.oecd.org/sti/roadmap-toward-a-common-framework-for-measuring-the-digital-economy.pdf](http://www.oecd.org/sti/roadmap-toward-a-common-framework-for-measuring-the-digital-economy.pdf)>.

10 Ibid.

11 Ibid.

12 The OECD ‘A Roadmap Toward a Common Framework for Measuring the Digital Economy’ exceptionally included the non- countries of Brazil, China, Colombia, Costa Rica, India, Indonesia, South Africa and Russia.

13 While ITU generates statistics used by the World Bank Findex and others for countries globally, statistics such as Per centage of Individuals using the Internet are ITU estimates for nearly all LDCs, in most cases for a decade or more. In the cases where statistics have subsequently been collected from Zambia’s Central Statistical Office, the figure fell from 27.85% (2017 ITU estimate) to 14.30% (2018 actual value) and in Tanzania from 20% (2015 estimate) to 13.50% (2016 actual). See ‘ITU Statistics: Per centage of Individuals using the Internet 2000-2020’, ITU, 2021, <[www.itu.int/en/ITU-D/Statistics/Documents/statistics/2020/MobileCellularSubscriptions\\_2000-2019.xlsx](http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2020/MobileCellularSubscriptions_2000-2019.xlsx)>.

14 GSM Association, <[www.gsma.com/](http://www.gsma.com/)>.

15 Supra note 16.



- **Narrow:** includes the core sector as well as economic activity derived from firms that are reliant on digital inputs.
- **Broad:** includes the first two measures as well as economic activity from firms significantly enhanced by the use of digital inputs.
- **Final:** extends “further than the Digital Economy and incorporates digitalized interactions and activities not included in the GDP production boundary” (ex. Use of free digital platforms) recognizing this activity as important for effective digital policy by government.
- **Additional:** covers “all economic activity that is digitally ordered and/or digitally delivered.”<sup>16</sup>

The ‘additional’ measure is flagged as “an alternative perspective of the digital economy, delineated based on the nature of transactions. Rather than splitting the economy based on firms’ output or production methods, this measure focuses on ordering or delivery methods, regardless of the final product or how it is produced.”<sup>17</sup> While the report upholds that the final tier is “not explicitly considered part of the Digital Economy per se,” it recognizes that the activity is important for effective digital policy by the government.

This tiered definition marks a significant extension of the discourse around defining the digital economy and potential impacts including with regard to delineating which data sources could be used when benchmarking progress. Along with other digital interactions and economic activity—including access to digital financial services—the latter two tiers of measures include results from interactions such as accessing and purchasing goods and services. The inclusion of these interactions is notable as they have not previously been categorized as ICT goods nor digital services and moreover, have not been addressed in previous definitions of the digital economy.

Another important qualitative factor to consider is that in official metrics and indicators, digital growth, maturity and market penetration are uniformly considered a positive development. BFTs like Alphabet, Mastercard and Facebook are rolling out technology in developing economies aimed at increasing access to smartphones, the Internet and digital services through partnerships with local actors<sup>18</sup>—bringing benefits to many. While

there are largely positive externalities associated with high levels of digital use and digitalized economies, it is important to note that LDC countries, vulnerable to macroeconomic and financial volatility, can be adversely affected by unrestrained growth in this area because of the influx of foreign service offerings that fall outside more limited regulatory mandate and domestic fiscal policies.<sup>19</sup> For instance, with regard to taxation, BFTs operating across borders give rise to several regulatory challenges that stem from mismatches and ambiguities in regulatory and taxation classification, lack of definitions of ‘platforms’ or ‘permanent establishment’ when interface is in use, outdated foreign exchange rules and the narrow scope of digital services when imported.<sup>20</sup>

As outlined in Technical Note 1.1, the digital economy is a fast-evolving landscape including complex and opaque supply chains, a succession of multiple business models within a single organization and a lack of fit to traditional models of measurement. BFTs are further expanding their service offerings and strengthening their ecosystem models, amplifying impacts across business verticals. The manner in which products and services are offered by BFTs is rapidly changing, such as embedding and clustering more services while locking in value chain providers through these services. Coupled with the challenge of how to measure growth, this means the scope of activities and impacts of BFTs are difficult to identify and measure within traditional indicator boundaries.<sup>21</sup>

Similarly, the gig economy, which is powered by digital platforms, fails to conform to traditional measures of employment and productivity, leading to data collection challenges that make it harder to quantify and therefore measure. These challenges are exacerbated by the rapid rise of ad hoc participation in the labour force through gig economy platforms and the scope of existing regulations proving unable to address this phenomenon.<sup>22</sup> In addition, economies in which most business activity is informal<sup>23</sup> are challenging to evaluate from a macroeconomic perspective, as GDP measures struggle to effectively capture economic activity in

16 Ibid.

17 Supra note 16.

18 For example, Alphabet’s sponsorship of KaiOS smart featurephones, see: Russell J, Lunden I, ‘Google invests \$22M in feature phone operating system KaiOS’, TechCrunch, 2018, <<https://techcrunch.com/2018/06/27/google-kaios/>>; Mastercard Farmer Network, see: PYMNTS staff ‘Mastercard Launches Digital Sales Platform For Farmers’, 2019, <[www.pymnts.com/mastercard/2019/mastercard-launches-digital-sales-platform-for-farmers/](http://www.pymnts.com/mastercard/2019/mastercard-launches-digital-sales-platform-for-farmers/)>; Facebook expanding WiFi in developing countries: Sun L, ‘Facebook Will Bring Expanded Internet Access to Africa in \$1 Billion Project’, Motley Fool, 2020, <[www.fool.com/investing/2020/05/22/facebook-expanded-internet-access-africa-1-billion.aspx](http://www.fool.com/investing/2020/05/22/facebook-expanded-internet-access-africa-1-billion.aspx)>.

19 The changing dynamics of international tax rules in the context of digital economy was addressed by the OECD’s Action Plan on Base Erosion and Profit Shifting (BEPS). See <[www.oecd.org/tax/beps/beps-actions/](http://www.oecd.org/tax/beps/beps-actions/)>. However, digitalization could amplify the negative effects of the BEPS as the low-income and lower-middle-income economies are likely to incur significant losses in corporate tax revenues. See <[www.adb.org/sites/default/files/publication/674421/asian-economic-integration-report-2021.pdf](http://www.adb.org/sites/default/files/publication/674421/asian-economic-integration-report-2021.pdf)>.

20 ‘Asian Economic Integration Report 2021: Making Digital Platforms Work for Asia and the Pacific’, Asian Development Bank, February 2021, <[www.adb.org/publications/asian-economic-integration-report-2021](http://www.adb.org/publications/asian-economic-integration-report-2021)>.

21 Supra note 7.

22 See, for example, Duca JV, ‘Online Retailing, Self-Employment Disrupt Inflation’ Federal Reserve Bank of Dallas, April 2019, <[www.dallasfed.org/research/economics/2019/0416](http://www.dallasfed.org/research/economics/2019/0416)>.

23 See, for example, ‘The Least Developed Countries Report 2018: Overview’, United Nations Conference on Trade and Development (UNCTAD), 2018, <[https://unctad.org/system/files/official-document/ldcr2018overview\\_en.pdf](https://unctad.org/system/files/official-document/ldcr2018overview_en.pdf)>.

these economies<sup>24</sup> These challenges are illustrated by the fact that while it is possible to measure factors such as public debt, falling export earnings, official development assistance (ODA) and remittances, very few indicators particularly relevant to LDCs—such as for informal business activity including informal production, barter, informal lending and related informal employment—are captured in the ‘World Economic Situation and Prospects as of mid-2020’ report.<sup>25</sup>

## General macroeconomic considerations for SDGs and LDCs

Recognizing the challenges and the limitations in achieving a comprehensive bridging of BFT activity, SDG indicators and LDC macroeconomic policy impacts, we offer the following examination. It is based on data and findings extrapolated from the tools and methodologies developed and employed in Technical Note 1.1 including an ESG<sup>26</sup>-SDG lens, landscape analysis and case study examinations across the range of categories of BFTs. Pursuant to the aspiration outlined above for a robust analysis of macroeconomic policy implications, it is important to distinguish between considerations unique to the SDGs and LDCs, respectively, before uniting them under a BFT impact overlay for a holistic view.

## Macroeconomic considerations for SDGs

There is a complex relationship between social, environmental and economic factors impacting LDCs. LDC economies can be more susceptible to external shocks than more developed countries because of their heavy reliance on foreign investment and debt. This can in turn, increase pressure on LDCs to relax environmental or labour protection regulation to boost investment and job creation. However, as we present in this section, environmental degradation and inadequate protection of worker rights can lead to negative economic consequences for those countries.

While global income and wealth inequality have been rising, wealth inequality in LDCs was falling prior to onset of the COVID-19 crisis.<sup>27</sup> However, the pandemic is projected to reverse that trend to 2017 levels in sub Saharan Africa.<sup>28</sup> Other indicators such as access to

technology (i.e. the ‘Digital Divide’) are growing, with the risk of excluding geographies and demographics from the benefits of digitization and Fintech innovation, among other technical developments.<sup>29</sup> Productivity is stagnating or declining in LDCs, exacerbated by the economic fallout of COVID-19.<sup>30</sup> As the pandemic is also aggressively contracting the economies of developed countries, foreign direct investment (FDI) is drying up in LDCs,<sup>31</sup> and debt has been increasing steeply as global trade has contracted, reducing export incomes for LDCs.<sup>32</sup> The increase in debt and decrease in FDI, combined with a US\$2.5 trillion investment gap (estimated pre-COVID-19), is likely to drive down the abilities of LDCs to invest in infrastructure post-pandemic. To mitigate these adverse developments, digital solutions such as online marketplaces are highlighted as an opportunity to reverse this trend.<sup>33</sup>

China has been investing heavily in African, Asian, Eastern European and Western European economies through its ‘One Belt One Road’ (OBOR) initiative led by public and private enterprises, such as Alibaba/Ant Group.<sup>34</sup> The initiative covers two main projects: the ‘Silk Road Economic Belt’ connecting China’s land with Central Asia, Eastern Europe and Western Europe, and the ‘21st Century Maritime Silk Road’ that would link China’s coast with the Mediterranean, Africa, South-East Asia and Central Asia.<sup>35</sup> Although countries involved in the OBOR initiative are receiving massive investment boost through their local transmission projects, debt conditions have been out of step with Western lending. For example, in November 2020, Zambia became the first African nation to default on its debt since the pandemic began,<sup>36</sup> with Western creditors citing a lack of transparency over fair treatment vis-à-vis Chinese creditors.<sup>37</sup> While in the long term OBOR could promote regional connectivity and promote bilateral and multilateral trades among countries involved, the process has

hardest hit’, World Bank Blogs, 2020, <<https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest>>.

29 ‘Inequality in a Rapidly Changing World: World Social Report 2020’, United Nations Department of Economic and Social Affairs, 2019, <[www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/01/World-Social-Report-2020-FullReport.pdf](http://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/01/World-Social-Report-2020-FullReport.pdf)>.

30 ‘Digital Divide ‘a Matter of Life and Death’ amid COVID-19 Crisis, Secretary-General Warns Virtual Meeting, Stressing Universal Connectivity Key for Health, Development’, UNSG Statement, 2020, <[www.un.org/press/en/2020/ssgm20118.doc.htm](http://www.un.org/press/en/2020/ssgm20118.doc.htm)>.

31 Ibid.

32 Ibid.

33 Supra note 34.

34 See ‘Alibaba founder Jack Ma played important role in pushing China’s Belt and Road initiative: report’, Dawn, November 2018, <[www.dawn.com/news/1447968](http://www.dawn.com/news/1447968)>.

35 ‘China’s One Belt, One Road: Will It Reshape Global Trade’, McKinsey&Company, July 2016, <[www.mckinsey.com/featured-insights/china/chinas-one-belt-one-road-will-it-reshape-global-trade#](http://www.mckinsey.com/featured-insights/china/chinas-one-belt-one-road-will-it-reshape-global-trade#)>.

36 See ‘Zambia Declared in Default of Debt Repayment to Creditors’, africanews 2020, <[www.africanews.com/2020/11/18/zambia-declared-in-default-of-debt-repayment-to-creditors/](http://www.africanews.com/2020/11/18/zambia-declared-in-default-of-debt-repayment-to-creditors/)>.

37 Stubbington T, Fletcher L, ‘Zambia on brink of default after lenders reject debt relief request’, Financial Times, November 2020, <[www.ft.com/content/fc82cf3f-be77-4380-9e44-401ca3bf4ed5](http://www.ft.com/content/fc82cf3f-be77-4380-9e44-401ca3bf4ed5)>.

24 See, for example, Prasad MK, Castro A, ‘Is GDP an adequate measure of development?’, International Growth Centre, October 2018, <[www.theigc.org/blog/is-gdp-an-adequate-measure-of-development/](http://www.theigc.org/blog/is-gdp-an-adequate-measure-of-development/)>.

25 See ‘World Economic Situation and Prospects as of mid-2020’, United Nations, 2020, <[www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/WESP2020\\_MYU\\_Report.pdf](http://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/WESP2020_MYU_Report.pdf)>.

26 Environmental, Social, and Corporate Governance (ESG).

27 See, for example, ‘The Least Developed Countries Report 2020’, United Nations Conference on Trade and Development (UNCTAD), <[https://unctad.org/system/files/official-document/lcr2020\\_en.pdf](https://unctad.org/system/files/official-document/lcr2020_en.pdf)>.

28 Mahler DG, Lanker C, Castaneda Aguilar RA, Wu H, ‘The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region

largely drawn on Chinese state-owned banks to fund major infrastructure initiatives, leaving many African countries significantly indebted to these institutions. The structure of the loans has left these institutions vulnerable to defaults. With COVID-19, China may also be forced to reduce its investment and refinancing of debt as its own economy fails to grow as fast as predicted, impacting bilateral trade between China and Africa.<sup>38</sup>

In this context, BFTs could offer support to structural and macroeconomic challenges faced by LDCs through innovative services offerings such as online marketplaces—allowing for greater participation in the formal economy and the potential for better traceability and taxation of previously informal sector activity, without the need for massive scaling up of local infrastructure. Furthermore, BFTs that offer access to finance(ing) also employ novel risk assessment methods that often rely on non-financial data, allowing more micro, small and medium enterprises (MSMEs) to access credit and loan services. Although these are favourable on a market level, it would be prudent to assess capital flows out of LDC markets through BFT vehicles—mandating a need for a robust local tax collection system before capital is moved abroad.

While some BFTs such as Facebook and M-Pesa have been aggressively acquiring customers in LDCs, on the whole, current BFT penetration in LDCs is limited.<sup>39</sup> Participation in the economy through BFTs is also limited to individuals with the required technology, literacy and data skills. As such there is a significant risk that the penetration patterns of BFTs could increase inequality for digitally excluded groups, if they do not purposefully design products and take other measures to support the needs of these groups. Greater access and lower barriers to entry for financial services also brings risks such as growing indebtedness, so BFTs need to be accountable for improving financial literacy as they provide that access, to mitigate this potential impact.

There are three descriptive categories of BFT impacts on SDGs aligned with the BFT activity areas and range: 1) direct financial service offerings; 2) integrated services, operations, infrastructure and processes; and 3) business model, value chain and overall ecosystem (vertical and horizontal integration) including cumulative and systemic impacts. Using the impact methodology and toolkit developed in “Technical Note 1.1”, it was possible to collect several data points from the BFT

and macroeconomic landscape to provide the following extrapolations.

## Macroeconomic impacts related to BFTs’ direct financial service offerings

- BFTs, including their financial services, micropayments and remote payment facilitation services, can positively impact SMEs, employment and economic growth and improvements to industry, innovation and infrastructure.
- Access to BFTs’ financial services, platforms, e-markets, etc., can therefore have a positive impact on addressing poverty and reducing inequalities based on gender and other minorities or segments of LDC populations, where these service offerings are designed in an inclusive way, through access to formal financial services that provide transfer and transaction capabilities.<sup>40</sup> These services need to be accompanied by education and governed to ensure access to the most vulnerable.
- Access to capital: individual or SME loans, including in partnership with local or national banks, enable financial inclusion and economic growth. Where lending is from non-bank financial institutions or BFT platforms, the potential risks of overindebtedness leading to eventual financial exclusion must also be mitigated through education and regulation.
- GDP growth: digital finance could bolster emerging economies’ overall economic growth, where implemented, and increase their GDP by as much as 6 per cent by 2025.<sup>41</sup>

## Macroeconomic impacts related to BFTs’ integrated services, operations, infrastructure and processes

- Potential for increased employment, productivity and GDP by increasing the ability for individual workers and businesses to be employed, albeit without any employee protection, health care or pensions. In addition, the requirement to provide their own equipment and premises (e.g. car and computer), etc., which may result in disproportionate benefit through higher participation to those with greater capital resources, and lower uptake of services than through formal employment.

38 See ‘China may scale back investment in Africa, says new report’, the africa report, November 2020, <[www.theafricareport.com/51202/china-may-scale-back-investment-in-africa-says-new-report/](http://www.theafricareport.com/51202/china-may-scale-back-investment-in-africa-says-new-report/)>.

39 In some LDCs, Facebook subscriptions by per centage significantly exceed global averages; see comparison of Internet users vs. Facebook subscriptions, bearing in mind that the Internet user data are sourced from ITU, and may overstate actual numbers, as previously discussed in note 18; ‘Internet Users Statistics for Africa’, Internet World Stats 2021, <[www.internetworldstats.com/stats1.htm](http://www.internetworldstats.com/stats1.htm)>.

40 See ‘Inclusive FinTech’, Alliance for Financial Inclusion, <[www.afi-global.org/thematic-areas/inclusive-fintech/](http://www.afi-global.org/thematic-areas/inclusive-fintech/)>.

41 Manyika J, Lund S, Singer M, White O, Berry B, ‘How digital finance could boost growth in emerging economies’, McKinsey & Company, September 2016, <[www.mckinsey.com/featured-insights/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies](http://www.mckinsey.com/featured-insights/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies)>.





## Impacts related to business model, value chain and overall ecosystem (vertical and horizontal integration) including cumulative and systemic impacts

- Potential for increased FDI as BFTs with physical or logistical arms establish local operations hubs, with positive impact on employment but which could result in the depression of wages where governance is weak, leading to increased inequality.<sup>42</sup> Further, significant investments could also reduce trade bargaining power of LDCs, which could result in unpredictable trade flows<sup>43</sup> and inflation.
- BFTs' likelihood of avoiding taxation through regulatory arbitrage could undermine LDCs' fiscal positions or space.<sup>44</sup> This should be mitigated by governance and regulation such as laid out in the G20/OECD BEPS Initiative.<sup>45</sup>
- Risk of 'crowding out' of established businesses, either through increasing market saturation from alternative suppliers abroad or through encouraging the establishment of new businesses that are not matched by market demand, leading to an inability to achieve growth and ultimately to increased defaults/bankruptcies.
- BFT business models—and the gig economy in particular—are creating ecosystems of interdependence with single points of failure in LDC context.<sup>46</sup> These points of failure are now being tested by COVID-19, although other factors, such as conflict or natural disasters, can also break them. The business model of some BFTs involves flooding markets with low-cost services to drive out competition, then subsequently raising prices ('Blitzscaling').<sup>47</sup> As a result of a sharp decline in demand for ad hoc mobility, defaults on auto and other loans, which were often underwritten by local banks, are negatively impacting some LDC economies, banking sectors and national banks (SDGs 8 and 16). This in turn has the potential impact of draining liquidity from the local financial system in favour of BFT investors.<sup>48</sup>

- BFTs advance organizational structures which leverage existing tax legislation (or lack thereof)<sup>49</sup> to their advantage not only at the expense of competition but also with a direct impact on the funding of government and infrastructure by way of regulatory arbitrage. By shifting taxation and increasing the burden on national social safety nets, because of the lack of employee protection, BFTs are reducing the ability of governments to implement fiscal policy that benefits long-term stability. This results in reduced spending on infrastructure and public services, eroding the services while demand and reliance on them is increasing.
- Low levels of fiscal stimulus and pressure from buyers to reduce costs under inadequate regulatory supervision, which on the one hand allows for unethical sourcing in value chains and on the other, reduces producers' ability to make long-term or sustainable choices, also leads to unsustainable agriculture and production practices such as monoculture,<sup>50</sup> which degrade the environment, further reducing crop productivity and sustainability of farming communities. The macroeconomic impact of soil degradation leading to reduced productivity and migration is a reduction in GDP<sup>51</sup> and increased burden on shrinking social safety nets.
- The growing internationalization of BFTs' business models is opening additional markets for entrepreneurs in LDCs as well as governments' opportunities to tax them through improved digital records. However, digital platforms greatly decrease market access barriers for foreign and potentially more developed service offerings that represent a competition risk to SME entrepreneurs in LDC economies.
- Although the introduction of digital substitute currencies and global stablecoins (GSCs) could have potential benefits in reducing trade barriers and stabilize savings for people and MSMEs in LDCs, this could also restrict

42 While FDI generally results in economic growth, institutional strength of countries is an important factor, and weaker institutional quality can result in FDI having negative impacts. See Miao M et al., 'The Impacts of Chinese FDI and China–Africa Trade on Economic Growth of African Countries: The Role of Institutional Quality', *Economies* 2020, 8(3), 53, <[www.mdpi.com/2227-7099/8/3/53](http://www.mdpi.com/2227-7099/8/3/53)>.

43 Predictability is crucial for countries' development efforts to thrive.

44 Supra note 26.

45 See 'BEPS Actions', OECD, <[www.oecd.org/tax/beps/beps-actions/](http://www.oecd.org/tax/beps/beps-actions/)>.

46 For instance, the interconnectedness of payments technologies such as digital wallet, e-money, could lead to concentration and single point of failure. See 'FinTech Regulations Key Challenges posed by FinTech to the Regulators', PricewaterhouseCoopers, February 2018, <[www.pwc.in/assets/pdfs/consulting/financial-services/fintech/point-of-view/financial-regulatory-technology-insights-newsletters-vinyamak/pwcs-financial-regulatory-technology-insights-february-2018.pdf](http://www.pwc.in/assets/pdfs/consulting/financial-services/fintech/point-of-view/financial-regulatory-technology-insights-newsletters-vinyamak/pwcs-financial-regulatory-technology-insights-february-2018.pdf)>.

47 The business model of some BFTs involves flooding markets with low-cost services to drive out competition; Sullivan T, 'Blitzscaling', *Harvard Business Review*, April 2016, <<https://hbr.org/2016/04/blitzscaling>>.

48 For example, Uber drivers in Kenya have been defaulting on loans as Covid reduced demand and following price drops by Uber; Murrey V, 'Banks to Auction Uber, Commercial Vehicles Over Defaulted Loans' *Kahawa Tungu*, July 2020, <[www.kahawatungu.com/banks-auction-uber-commercial-vehicles-defaulted-loans/](http://www.kahawatungu.com/banks-auction-uber-commercial-vehicles-defaulted-loans/)>.

49 See, for example, Mullins P, 'International Taxation and Developing Countries', CDP, 2020, <[www.cgdev.org/sites/default/files/Gupta-Mullins-International-Taxation.pdf](http://www.cgdev.org/sites/default/files/Gupta-Mullins-International-Taxation.pdf)>.

50 Studies demonstrate the importance of effective governance to control unsustainable agricultural practices, see Soendergaard N, 'Modern Monoculture and Periphery Processes: a World Systems Analysis of the Brazilian soy expansion from 2000-2012', *Rev Econ Sociol Rural* 56(1), Brasília Jan./Mar. 2018, <[www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0103-20032018000100069](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-20032018000100069)>.

51 See von Braun J, et al., 'The Economics of Land Degradation', ZEF Working Paper Series, Center for Development Research, University of Bonn, 2013, <[www.econstor.eu/bitstream/10419/88314/1/773398570.pdf](http://www.econstor.eu/bitstream/10419/88314/1/773398570.pdf)>.

regulators' abilities to control consumers' choices of currency for savings and stores of value; leading to a potential for currency substitution<sup>52</sup> and consequent impact on money supply and reduced control over monetary policy.<sup>53</sup>

- Integrated payment platforms are becoming so systemically important that they can impact LDC economies and financial stability. Social media integration with stablecoins, and new digital currencies, with potential to lead to increasing currency substitution, could impact financial infrastructure with implications for LDCs' monetary policies and global financial stability. This is outlined in Technical Note 1.2.

The analysis indicates that BFTs, including tech giants becoming BFTs, have the potential to increase employment and the development of MSMEs, as well as to provide the poorest in disproportionately excluded areas such as rural or slum communities, access to the formal economy, new markets and monetization opportunities. However, the potential economic growth offered by BFTs to date focuses on their most profitable activities, which can have a mixed to negative impact on individuals such as exclusion of aged, marginalized and vulnerable populations and could be offset by the risk to national social safety nets,<sup>54</sup> environmental impacts, eroding worker protection, lack of accountability for supply chains and minimal contribution via taxation or infrastructure build. There are new points of failure being introduced along with macroeconomic implications including the global financial safety net that provides confidence that countries' unexpected liquidity needs, for example as a result of overindebtedness leading to widespread defaults, can be met. What net effect BFTs will ultimately have will largely depend on governance innovation combined with new economic policies that ensure that positive impacts prevail.

## Indirect macroeconomic implications and influences of BFTs

In addition to the direct macroeconomic implications, indirect effects of long-term poverty such as increased conflict,<sup>55</sup> where youth with limited opportunities in their home location are more likely to be attracted to joining armed groups, and soil degradation caused by a lack of funding for adequate crop care,<sup>56</sup> can prevent commercial and financial growth, even with the availability of digital finance and associated Fintech products. BFTs with extractive business models, such as those that profit from opaque supply chains facilitating monoculture, poor labour conditions or overleveraging of microbusinesses, can perpetuate or amplify these indirect impacts if they do not make a strategic decision to address them through less extractive approaches. The authors' direct practical experiences with partners and customers indicate that financial services providers tend not to support rural, bottom of the pyramid or financially excluded populations because of the lack of viable commercial business cases or inaccessibility because of conflict, leaving them in a poverty trap.<sup>57</sup>

Governments can also present both opportunities and challenges for BFTs and thereby influence the macroeconomic impacts that they have on a country. For example, Kenya has been broadly supportive of M-Pesa, allowing it the regulatory space to grow rapidly and diversify its product offering under a special licence. The same was true for Ant Financial/Ant Group, until its recent IPO was halted by the People's Bank of China (PBOC), China Securities Regulatory Commission (CSRC) and the China Banking and Insurance Regulatory Commission (CBIRC)<sup>58</sup> over concerns about consumer protection and lack of regulatory control.

52 Digital Money Across Borders: Macro-Financial Implications', IMF Staff, September 2020, <[www.imf.org/en/News/Articles/2020/10/30/sp103020-new-forms-of-digital-money](http://www.imf.org/en/News/Articles/2020/10/30/sp103020-new-forms-of-digital-money)>.

53 Generally.

54 Neate R, 'Big tech accused of avoiding \$2.8bn in tax to poorest countries', The Guardian, October 2020, <[www.theguardian.com/business/2020/oct/26/big-tech-accused-of-avoiding-28bn-in-tax-to-poorest-countries#:~:text=Big%20US%20technology%20companies%20are,anti%20poverty%20charity%20ActionAid%20International](http://www.theguardian.com/business/2020/oct/26/big-tech-accused-of-avoiding-28bn-in-tax-to-poorest-countries#:~:text=Big%20US%20technology%20companies%20are,anti%20poverty%20charity%20ActionAid%20International)>.

55 See 'Poverty and conflict', GSDRC, October 2016, <[https://gsdrc.org/professional-dev/poverty-and-conflict/#:~:text=Poverty%20and%20conflict%20are%20widely,conflict%20relapse%20\(Goodhand%202001\)](https://gsdrc.org/professional-dev/poverty-and-conflict/#:~:text=Poverty%20and%20conflict%20are%20widely,conflict%20relapse%20(Goodhand%202001))>.

56 See Kirui OK, 'Impact of land degradation on household poverty: evidence from a panel data simultaneous equation model', AgEconSearch, 2016, <<https://ageconsearch.umn.edu/record/246396/files/136.%20Land%20degradation%20and%20poverty.pdf>>.

57 See also, for example, 'Generating Private Investment In Fragile and Conflict-Affected Areas', International Finance Corporation, 2019, <[www.ifc.org/wps/wcm/connect/07cb32dd-d775-4577-9d5f-d254cc52b61a/201902-IFC-FCS-Study.pdf?MOD=AJPERES&CVID=mzeJewf](http://www.ifc.org/wps/wcm/connect/07cb32dd-d775-4577-9d5f-d254cc52b61a/201902-IFC-FCS-Study.pdf?MOD=AJPERES&CVID=mzeJewf)>.

58 See Zhu J, Leng C, 'China tells Ant to expect scrutiny of credit business ahead of record listing: sources', Reuters, November 2020, <[www.reuters.com/article/ant-group-ipo-china-regulator/china-tells-ant-to-expect-scrutiny-of-credit-business-ahead-of-record-listing-sources-idUSL8N2HP0RL](http://www.reuters.com/article/ant-group-ipo-china-regulator/china-tells-ant-to-expect-scrutiny-of-credit-business-ahead-of-record-listing-sources-idUSL8N2HP0RL)>.

Increased government unease is also reflected in the amplified scrutiny of the US Securities and Exchange Commission (SEC) and associated bodies on US-based BFTs such as Facebook, Amazon and Google.<sup>59</sup>

*With Amazon, regulators are concerned that the e-commerce giant improperly gleans data from third-party sellers in an attempt to give its own products and services an advantage. In looking at Facebook, government officials have probed complaints it has gobbled up its digital rivals, leaving few viable competitors in social networking. And watchdogs have probed Google's search, advertising and smartphone businesses to determine whether they've stifled competition, following in the footsteps of European regulators who have already penalized the company.*<sup>60</sup>

The focus of the US government's scrutiny ranges from third-party content and consumer data to antitrust issues, within a mandate of protecting US citizens, entrepreneurs, businesses and investors, maintaining fair and orderly functioning of the securities markets, and facilitating capital formation. However, BFTs' power, size and business models have implications for the global economy and LDCs in particular.

While US regulators may be interested in forcing changes in US headquartered technology giants—where the BFTs are at least creating high-value jobs and paying some taxes—their interest does not extend to protecting rights for foreign governments, workers and environments. Therefore, LDC regulators will be forced either to accept these businesses as they are, or to restrict access to their services, as India has done with Facebook's Free Basics.<sup>61</sup>

With new products, services, innovation and acquisitions, the BFTs (particularly Amazon, Facebook, Apple, Microsoft and Alphabet) are increasingly cementing their digital imprint and expanding their influence on the global economy.<sup>62</sup> This influence has three key layers: “[First], Big Tech companies can reach massive scale very quickly in new lines of business because their digital ecosystems already have millions of active users. Second, they have a powerful capacity to enter, create and control any

adjacent markets both directly and through partnerships.<sup>63</sup> Third, they have access to large amounts of data and are unmatched in their ability to analyze it.”<sup>64</sup> These innovative features of BFTs' business models create a challenge for regulators as the current scope of governance and regulatory structure, limited by geography and direct impact of financial services to consumers, does not cover the full range of BFTs' reach and impact. This influence is not overtly addressed by the 2020–2021 US hearings, but it follows that decisions emerging from US regulators will have a secondary impact on the macroeconomic effects of BFTs on LDCs. These decisions may leave a widening gap in terms of primary or targeted regulatory focus for LDCs as these international or regional knock-on effects are not generally within the scope or mandate of regulators and legislators in more developed markets.

## Macroeconomic policy, BFTs and SDGs

Macroeconomic policy coherence has been recognized as an essential core strategy in implementing SDGs.<sup>65</sup> However, the focus of strategy has been largely on how monetary, fiscal and structural reforms can lead to economic growth, specifically aligning macroeconomic policies with the dual goals of job creation and poverty reduction, and directly contributing to the 2030 SDG Agenda (the 17 SDGs and 169 targets focusing on people, planet, peace, prosperity and partnership).

There are three thematic bottlenecks in examining the macroeconomic impact of BFTs particularly on sustainable development of LDCs.

**ESG as drivers of the SDGs:** the social and environmental elements of the SDGs have traditionally been considered as externalities or by-products of the global economic engine.<sup>66</sup> Although climate change risks and consideration are increasingly incorporated in macroeconomic policy, only a few LDCs “have identified specific policy tools to integrate SDGs within a ‘beyond GDP paradigm’ – in particular using the tools of accountability like gender budgeting, the climate responsive budgeting and the strategies for financial inclusion”,<sup>67</sup> let alone the tools to examine the impact of the private sector on SDGs. UNDP's recently issued

59 See 'Facebook and Twitter CEOs face Senate questions on election measures', CBS News, November 2020, <[www.cbsnews.com/news/facebook-twitter-ceos-testify-zuckerberg-dorsey-senate-hearing-watch-live-stream-today-2020-11-17/](http://www.cbsnews.com/news/facebook-twitter-ceos-testify-zuckerberg-dorsey-senate-hearing-watch-live-stream-today-2020-11-17/)>; see also 'Google and censorship', C-Span, July 2019, <[www.c-span.org/video/?462661-1/senate-judiciary-hearing-google-censorship](http://www.c-span.org/video/?462661-1/senate-judiciary-hearing-google-censorship)> and Shepardson D, Heavey S, 'Amazon, Apple, others to testify before U.S. Senate on data privacy September 26', Reuters, September 2018, <[www.reuters.com/article/us-usa-tech-congress-idUSKCN1LS25P](http://www.reuters.com/article/us-usa-tech-congress-idUSKCN1LS25P)>.

60 See Romm T, 'Amazon, Facebook and Google turn to deep network of political allies to battle back antitrust probes', The Washington Post, June 2020, <[www.washingtonpost.com/technology/2020/06/10/amazon-facebook-google-political-allies-antitrust/](http://www.washingtonpost.com/technology/2020/06/10/amazon-facebook-google-political-allies-antitrust/)>.

61 See Solon O, 'It's digital colonialism': how Facebook's free internet service has failed its users', The Guardian, July 2017, <[www.theguardian.com/technology/2017/jul/27/facebook-free-basics-developing-markets](http://www.theguardian.com/technology/2017/jul/27/facebook-free-basics-developing-markets)>.

62 See Clement J, 'Google, Amazon, Facebook, Apple, and Microsoft (GAFAM) - statistics & facts', Statista, February 2021, <[www.statista.com/topics/4213/google-apple-facebook-amazon-and-microsoft-gafam/](http://www.statista.com/topics/4213/google-apple-facebook-amazon-and-microsoft-gafam/)>.

63 See, for example, Hamilton A, 'Apple acquires payments firm Mobeewave in \$100m deal', Fintech Futures, August 2020, <[www.fintechfutures.com/2020/08/apple-acquires-payments-firm-mobeewave-in-100m-deal/](http://www.fintechfutures.com/2020/08/apple-acquires-payments-firm-mobeewave-in-100m-deal/)>.

64 See Álvarez C, 'From fintech to Big Tech: In search of the new digital regulation', BBVA, June 2020, <[www.bbva.com/en/from-fintech-to-big-tech-in-search-of-the-new-digital-regulation/](http://www.bbva.com/en/from-fintech-to-big-tech-in-search-of-the-new-digital-regulation/)>.

65 See 'Macroeconomic Policy Coherence for SDG 2030: Evidence from Asia Pacific', NIPFP, January 2020, <[www.nipfp.org.in/media/mediabrary/2020/01/WP\\_292\\_2020.pdf](http://www.nipfp.org.in/media/mediabrary/2020/01/WP_292_2020.pdf)>.

66 See 'Transformations to Achieve the Sustainable Development Goals', International Institute for Applied Systems Analysis, July 2018, <[https://iiasa.ac.at/web/home/research/twi/TWI2050\\_Report\\_web-small-071018.pdf](https://iiasa.ac.at/web/home/research/twi/TWI2050_Report_web-small-071018.pdf)>.

67 See 'Macroeconomic Policy Coherence for SDG 2030: Evidence from Asia Pacific', NIPFP, January 2020, <[www.nipfp.org.in/media/mediabrary/2020/01/WP\\_292\\_2020.pdf](http://www.nipfp.org.in/media/mediabrary/2020/01/WP_292_2020.pdf)>.



Development Finance Assessment (DFA) and the Addis Ababa Agenda will help to shift the focus towards the SDGs; however, these do not yet address the gap in private sector impact assessment.<sup>68</sup>

**The role of financial inclusion** (banking the unbanked and underbanked): access to finance is considered as a means of enabling economic and financial growth and stability, and the role of Fintech and Fintech institutions has been framed as a means of advancing inclusion and growth. While financial inclusion relates to eight of the 17 SDGs, access to financial services is not a development goal in itself, and does not have its own specific indicators, as both market development and sufficiently affordable financing for financial institutions are also key to creating opportunities for commercial growth.<sup>69</sup> This has been exacerbated by the COVID-19 crisis, which is shrinking economies and local markets, forcing debt-bound businesses into default.

**Monetary and fiscal policy as macroeconomic drivers:** the role of BFTs has been examined largely as a subset of Fintech as contributors to financial inclusion but not in terms of the broader impacts on SDGs and the implications of developing countries' abilities to drive and implement macroeconomic policies. BFTs have not been examined as a driver in a shrinking fiscal space or in terms of increasing the social burden for LDCs, through reduced contribution to national taxation. The embedded nature of BFTs' supply chains in LDCs, both owned and third-party, also lowers policymakers' opportunities to regulate economic growth through tariffs. Their potential role in increasing currency substitution could have a positive impact on individuals and businesses, but at the expense of governments' ability to implement effective monetary policy.

Consequently, there is little means to examine the macroeconomic impacts, whether positive or negative, of BFTs on SDGs particularly for LDCs.

*Broadly, policymakers have articulated a plethora of legislative climate, regulatory mechanisms and economic environment measures to implement SDGs at national and subnational levels. However, the most significant, and often overlooked, are about the macro policy tools that they have to complement these broad approaches... (the approaches required)...to regulate activity, mobilize revenue, promote gender equality and environmental management, provide cash transfers to vulnerable groups and provide employment.<sup>70</sup>*

As such, it is not feasible to understand the potential positive impacts as well as "risks of spillovers in an increasingly interconnected world,"<sup>71</sup> without considering BFTs and their implications for LDC governments to create a sound macroeconomic environment for robust and sustainable growth.

## The intersection of BFTs, SDGs and macroeconomic policy

BFTs' intended impacts for developing countries generally focus on the enabling capacity of the digital economy<sup>72</sup> and specifically on financial inclusion which is directly linked in literature to an assumed narrative of positive impact across eight of the 17 SDGs including:

*...SDG 1, on eradicating poverty; SDG 2 on ending hunger, achieving food security and promoting sustainable agriculture; SDG 3 on profiting health and well-being; SDG 5 on achieving gender equality and economic empowerment of women; SDG 8 on promoting economic growth and jobs; SDG 9 on supporting industry, innovation, and infrastructure; and SDG 10 on reducing inequality. Additionally, on SDG 17 on strengthening the means of implementation there is an implicit role for greater financial inclusion through greater savings mobilization for investment and consumption that can spur growth.<sup>73</sup>*

Although the impacts of increased financial inclusion and participation yield innumerable benefits to underserved markets, it is also important to guard against overuse of the term or to employ the financial inclusion moniker to deflect from other, more debatable business practices. Examples of this are exploitative business practices in vulnerable groups (a so-called captive audience) that suffer from low levels of both financial and digital literacy. BFTs' activities have generally been considered as aiding LDCs in terms of increasing financial inclusion (including across the above noted SDGs) and in achieving higher economic growth (translated into GDP and increases in employment rates), thereby creating a conducive economic environment to bring about overall financial stability. Our analysis finds that the intended BFT impacts intersect across a wider scope of SDGs and moreover can be both positive and negative (albeit still challenging to measure) including impacts on climate change (SDG 13) and strong institutions (SDG 16).

68 See 'Global Outlook on Financing for Sustainable Development 2019: Time to Face the Challenge', OECD, November 2018, <[www.oecd-ilibrary.org/sites/9789264307995-12-en/index.html?itemId=/content/component/9789264307995-12-en](http://www.oecd-ilibrary.org/sites/9789264307995-12-en/index.html?itemId=/content/component/9789264307995-12-en)>.

69 See 'Financial inclusion', The World Bank, October 2018, <[www.worldbank.org/en/topic/financialinclusion/overview](http://www.worldbank.org/en/topic/financialinclusion/overview)>.

70 See 'Macroeconomic Policy Coherence for SDG 2030: Evidence from Asia Pacific', NIPFP, January 2020, <[www.nipfp.org.in/media/medialibrary/2020/01/WP\\_292\\_2020.pdf](http://www.nipfp.org.in/media/medialibrary/2020/01/WP_292_2020.pdf)>.

71 See 'IMF and the Sustainable Development Goals', International Monetary Fund, February 2021, <[www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/46/Sustainable-Development-Goals](http://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/46/Sustainable-Development-Goals)>.

72 The narrative is premised on the notion that digital finance and Fintech have an enabling capacity with risks largely related to data governance, consumer protection and operational risk. See 'BigTech Firms in Finance in Emerging Market and Developing Economies', Financial Stability Board, 2020, <[www.fsb.org/wp-content/uploads/P121020-1.pdf](http://www.fsb.org/wp-content/uploads/P121020-1.pdf)>.

73 See 'Financial Inclusion and the SDGs', UNCDF, 2021, <[www.uncdf.org/financial-inclusion-and-the-sdgs](http://www.uncdf.org/financial-inclusion-and-the-sdgs)>.



Furthermore, our analysis indicates that BFTs' impacts could also have the opposite, if unintended, effect on financial inclusion, employment, economic growth, and financial or currency stability. Their use of disruptive technology, innovative business models, and ability to integrate financial services across the rapidly expanding market could displace jobs, increase the digital divide, reduce governments' abilities to collect taxes and enable the violation of labour rights or result in environmental degradation.

BFTs such as mobile money services in Africa and digital payments in China have demonstrated that they can promote financial inclusion for unbanked and underbanked populations. However, Fintech transactions could be costly in comparison to cash depending on the service provider's "competitive pressures, agent commission models, dynamics with strategic partners..." which can drive up the pricing structures,<sup>74</sup> as well as taxation in countries that apply mobile money taxes, which are passed on to the consumer. Their lending, where backed by bank lending, can also add extra cost to bank credit services.<sup>75</sup> BFTs providing alternate credit scoring also create a data asymmetry with the banks, which are not able to access or evaluate core data, relying on the BFT's scoring. Proprietary lending, such as M-Pesa's short-term overdraft facility, can become extremely costly because of the higher credit risk of unbanked individuals and a lack of market competition.<sup>76</sup> In addition, although BFTs' use of technology can improve the quality of financial services in good times, it can also pose a higher risk to financial stability during bad times. This risk is especially relevant, where they operate as shadow banks in an unregulated space, exposing consumers to greater risk. It could also be used to exclude citizens from financial services and other products, as has been seen in China's social credit systems, where citizens have had access to services removed.<sup>77</sup>

Two key issues for technologically enabled financial inclusion are that first, rather than providing greater inclusion, there is a risk of further excluding traditionally excluded groups, such as women, who may lack financial, technical and functional literacy; and that second, access to financial services does not equate to market development, as demonstrated by the high number of Uber drivers defaulting on auto loans in Kenya,<sup>78</sup> and the crowding out effect observed as M-Pesa enabled more

entrepreneurs to start businesses.<sup>79</sup> Cumulatively, the effect of more defaults on lending increases risks and the cost of borrowing both to individuals and to lenders, resulting in a lack of liquidity and a restriction in credit. Higher prices charged by banks, bringing bank lending closer to, or even above the prices of non-bank lenders, would reduce the competitive advantage for the banks and drive borrowers to alternative lenders. This opens the possibility for Fintechs to supplant the formal banking sector, with limited options for effective interventions by central banks.

BFTs' growing ecosystems have a profound impact on reshaping the global payments system, because of their scale. For instance, this is the case with \$ Coin, a dollar denominated coin being accepted by Visa,<sup>80</sup> and the first \$-backed stablecoin planned by Diem, which will be offered via a wallet on Facebook's platform, among others.<sup>81</sup> It is one of the driving factors for central banks around the world—anticipating its adoption as a substitute currency and potential for dollarization of the financial system—to accelerate their development of central bank digital currencies (CBDCs), based on concerns about a flight to an e-dollar as a store of value and payment instrument.<sup>82</sup> It is important to note that while sovereign governments make plans and considerations towards digital currencies, both fiat and privately led, two BFT players with global market share, Visa and Mastercard, have both announced that they will be phasing in transactions conducted in, and transfer of, select cryptocurrencies in the future, heralding a new age in the acceptance of cryptocurrencies as mainstream payment methods. This presents another layer of macroeconomic impacts on LDCs as it drives these countries to reassess their monetary policies to accommodate the issuance of a new digital currency. While CBDCs are considered another means to promote financial inclusion in developing countries and LDCs, their impacts are largely unassessed, especially with regard to whether foreign CBDCs would have any impact on substituting their own currencies or the potential for creating a liquidity crisis.<sup>83</sup>

74 See 'How Do Mobile Money Fee Structures Impact the Poor?', CGAP, May 2017, <[www.cgap.org/blog/how-do-mobile-money-fee-structures-impact-poor](http://www.cgap.org/blog/how-do-mobile-money-fee-structures-impact-poor)>.

75 See Kimani E, 'Fin-tech in Kenya should not cause poverty in pursuit of financial inclusion', LSE, January 2020, <<https://blogs.lse.ac.uk/africaatlse/2020/01/20/fin-tech-kenya-poverty-financial-inclusion-gambling-mpesa/>>.

76 Ibid.

77 See Kobie N, 'The complicated truth about China's social credit system', Wired, June 2019, <[www.wired.co.uk/article/china-social-credit-system-explained](http://www.wired.co.uk/article/china-social-credit-system-explained)>.

78 See Sperber A, 'Uber made big promises in Kenya. Drivers say it's ruined their lives', NBC News, November 2020, <[www.nbcnews.com/news/world/uber-made-big-promises-kenya-drivers-say-it-s-ruined-n1247964](http://www.nbcnews.com/news/world/uber-made-big-promises-kenya-drivers-say-it-s-ruined-n1247964)>.

79 Bateman M, Duvendack M, Loubere N, 'The Curious Case of M-Pesa's Miraculous Poverty Reduction Powers', *Developing Economics*, June 2019, <<https://developingeconomics.org/2019/06/14/the-curious-case-of-m-pesa-miraculous-poverty-reduction-powers/>>.

80 See Dillet R, 'Visa supports transaction settlement with USDC stablecoin', *techcrunch*, March 2019, <<https://techcrunch.com/2021/03/29/visa-supports-transaction-settlement-with-usdc-stablecoin/>>.

81 See, for example, De N, 'Libra Rebrands to 'Diem' in Anticipation of 2021 Launch', *coindesk*, December 2020, <[www.coindesk.com/libra-diem-rebrand](http://www.coindesk.com/libra-diem-rebrand)>.

82 See, for example, Ye C, Desouza KC, 'The current landscape of central bank digital currencies', *Brookings*, December 2019, <[www.brookings.edu/blog/techtank/2019/12/13/the-current-landscape-of-central-bank-digital-currencies/](http://www.brookings.edu/blog/techtank/2019/12/13/the-current-landscape-of-central-bank-digital-currencies/)>.

83 For detailed analysis on macroeconomic impacts of digital currencies, including CBDC, see Technical Paper 1.2 'Digital currencies and CBDC impacts on least developed countries (LDCs)'.

## Macroeconomic impact of the unbanked majority

Given the scale of the unbanked community in LDCs, economic impacts at a community level can also impact fiscal space and positively or negatively influence key indicators such as the GINI coefficient or more classically, interest rates and GDP. Fintech companies (including BFTs) have the potential to support market-based interventions to increase both demand and supply, by going beyond provision of basic financial products like payments and lending, to include services such as blended financing for agricultural inputs (as M-Pesa has done in Kenya), or increasing transparency in supply chains and lenders' terms.<sup>84</sup> As identity verification is core to financial services, BFTs are increasingly providing identity verification services, either as a core service or extension of satisfying their own KYC needs, which can help financially excluded individuals join the formal economy.<sup>85</sup> They have the potential to open up investment corridors to communities such as agricultural cooperatives, and to improve efficiency in export production,<sup>86</sup> bringing much-needed foreign capital into LDCs. However, BFTs have not yet entered this space, and so the benefits derived from limited studies may not be achievable at scale.

Fintech companies (including BFTs) can also play an important role in enabling unbanked majority populations to participate in the formal economy.<sup>87</sup> However, many BFTs lack incentives to work with 'last mile' populations and domestic currencies because of their global business models and non-differentiated service offerings. Corporate social responsibility (CSR) reporting could provide incentives to service this economically significant demographic if BFTs are obliged to report on areas such as impact on the digital divide in LDCs, rather than choosing on which areas to report.

Distributed Ledger Technology (DLT), which includes blockchain, can increase transaction efficiency by enabling virtually zero cost micro-transactions, enabling both secure automated micropayments,<sup>88</sup> such as passing on a share

of revenue for data monetization<sup>89</sup> to customers, and transfer of other data. The formalization of individuals and groups engaged in the informal economy, together with DLT, can increase both efficiency and market access<sup>90</sup> adding to GDP, and potentially enabling micro-taxation with the same approach as micropayments, although controls to ensure taxation does not impact consumers would also be needed.<sup>91</sup> However, to be effective and to confer benefits on these communities, taxation and regulation needs to evolve to make mobile money transactions affordable for the most vulnerable. While technically possible to implement, BFTs have shown a tendency to instead deliver services causing both positive and negative impacts and outcomes, as demonstrated by the cases outlined above, rather than implementing innovative solutions that support greater long-term economic stability for LDCs or disadvantaged communities.<sup>92</sup> The risk is that this structural mendacity will perpetuate existing business models unless effectively regulated by supervisory bodies and public opinion.

Disadvantaged communities specifically in LDCs (particularly smallholder farmers, typically surviving on less than US\$2/day and rural communities that lack access to infrastructure, good-quality education and health care) typically have poor access to both mobile devices and signal as well as low levels of functional, numeric and technical literacy.<sup>93</sup> Depending on how they are designed, the technology requirements and digital literacy needed to use BFTs' products may therefore exclude these groups, missing a significant development opportunity, and increasing rather than decreasing the digital divide.<sup>94</sup> Alternative designs can address these challenges; however, BFTs may lack incentives to adapt designs to support the poorest customers. Furthermore, as bank-grade regulatory oversight is lacking on BFTs' activities, there are few or no controls on their compliance with consumer data protection. Absence of regulation about the consumer's right to own his/her data leads BFT to harvest, own and monetize data that would not be accessible to a regulated financial institution following rigorous data protection rules.<sup>95</sup> There is a significant

84 See, for example, 'Digital Financial Services For Agriculture Handbook', IFC, 2018, <[www.ifc.org/wps/wcm/connect/3d053636-c589-47ac-865d-731068f0736e/Digital+Financial+Services+for+Agriculture\\_IFC%2B-MCF\\_2018.pdf?MOD=AJPERES&CVID=moq-VoG](http://www.ifc.org/wps/wcm/connect/3d053636-c589-47ac-865d-731068f0736e/Digital+Financial+Services+for+Agriculture_IFC%2B-MCF_2018.pdf?MOD=AJPERES&CVID=moq-VoG)>.

85 See, for example, 'Mobile identity enabling the digital world', GSMA, 2020, <[www.gsma.com/idx/wp-content/uploads/2020/05/Mobile-Identity-enabling-the-digital-world-report-Final-1.pdf](http://www.gsma.com/idx/wp-content/uploads/2020/05/Mobile-Identity-enabling-the-digital-world-report-Final-1.pdf)>.

86 See, for example, 'Blockchain-enabled supply chain sustainability scheme hailed 'successful' by business giants', edie, September 2019, <[www.edie.net/news/8/Blockchain-enabled-supply-chain-sustainability-scheme-hailed-successful-by-business-giants/](http://www.edie.net/news/8/Blockchain-enabled-supply-chain-sustainability-scheme-hailed-successful-by-business-giants/)>.

87 See, for example, Mishra SP, 'FinTech Lending - Nurturing Sustainable Development', LinkedIn, August 2020, <[www.linkedin.com/pulse/fintech-lending-nurturing-sustainable-development-smita-p-mishra/](https://www.linkedin.com/pulse/fintech-lending-nurturing-sustainable-development-smita-p-mishra/)>.

88 See, for example, Khan N, Ahmed T, State R, 'Blockchain-based micropayment systems: economic impact', IDEAS'19, June 10–12, 2019, Athens, Greece, <[www.researchgate.net/publication/334584292\\_Blockchain-based\\_micropayment\\_systems\\_economic\\_impact](https://www.researchgate.net/publication/334584292_Blockchain-based_micropayment_systems_economic_impact)>.

89 See, for example, Ramachandran GS, Krishnamachari B 'A Reference Architecture for Blockchain-based Peer-to-Peer IoT Applications', arXiv.org, May 2019, <<https://arxiv.org/ftp/arxiv/papers/1905/1905.10643.pdf>>.

90 See, for example, Boly A, 'The Effects of Formalization on Small and Medium-Sized Enterprise Tax Payments: Panel Evidence from Viet Nam', Asian Development Review, 2020, <[www.adb.org/sites/default/files/publication/575101/adr-vol37no1-6-formalization-sme-tax-payments.pdf](http://www.adb.org/sites/default/files/publication/575101/adr-vol37no1-6-formalization-sme-tax-payments.pdf)>.

91 Part of the reason for the high cost of mobile money in some countries is providers passing taxation on to consumers.

92 Some blockchain platforms, such as Celo and Stellar, are aligned with supporting low-cost transactions for micropayments; however, these are yet to achieve the scale of BFTs and these low barrier blockchains are susceptible to price volatility (e.g. Celo has more than doubled in price in the recent crypt boom).

93 See 'Giving women farmers access to technology', Qrius, January 2021, <<https://qrius.com/giving-women-farmers-access-to-technology/>>.

94 See Van Nieuwkoop M, 'To feed the world, we must tackle the digital divide', Thomson Reuters Foundation News, December 2018, <<https://news.trust.org/item/20181221165816-loesb/>>.

95 See Solon O, 'It's digital colonialism': how Facebook's free internet service has failed its users', The Guardian, July 2017, <[www.theguardian.com/technology/2017/jul/27/facebook-free-basics-developing-markets](https://www.theguardian.com/technology/2017/jul/27/facebook-free-basics-developing-markets)>.

risk that, without sufficient incentives or enforceable regulation, BFTs could either bypass or significantly exploit these communities, or, conversely, provide a platform that bypasses engagement with national taxation and regulation, through shadow banking.

## Shadow banking

Unlike traditional big banks, BFTs' shadow banking encourages regulatory arbitrage as similar risks are regulated more tightly in the traditional lending sector, especially the post-banking crisis of 2008.<sup>96</sup> For instance, depending on the country, traditional banking sectors are generally required to comply with the Basel capital adequacy requirements and stress testing<sup>97</sup> to prove their resiliency during a time of financial stress.<sup>98</sup> Where BFTs are increasingly lending off their own books or acting as a financial intermediary at a systemically significant scale, this can give rise to system-wide risks. Regulators are responding by clamping down on BFT activity. Examples of this include the new regulations in China that led to the surprise halt of Ant Group's IPO by Beijing<sup>99</sup> and the US regulatory attempts to break up Facebook.<sup>100</sup> However, these responses are fragmented, aimed at individual BFTs by the regulatory regime where they are headquartered, and can invite criticism of underlying political agendas, especially where they overturn previous acceptance. As noted previously, regulators beyond the boundaries of BFT headquarters locations have limited power to influence business models, and 'home' regulators will be concerned with protection of their own economies. Thus, any measures taken by developed economy governments are likely to fail to take into account any risks to LDCs.

## Key extrapolations and conclusions

BFTs have the potential to positively impact LDCs' GDP through increasing access to financial services and employment. However, without incentives to contribute to national taxation, to support excluded demographics, or to maintain ethical value chains, their potential to negatively impact countries' fiscal space and budget for the provision of core services and infrastructure could be greater than any potential benefits they confer.

BFTs facilitate credit to individuals and SMEs, enabling growth, but at a cost of locking in SMEs<sup>101</sup> and crowding out 'bricks and mortar' SMEs in favour of online suppliers.<sup>102</sup> Business growth in LDCs does not guarantee growth in market demand, so it can lead to greater business and loan defaults without additional market interventions. Further, as COVID-19 results in contracted markets, increased borrowing is inducing a high level of defaults in micro-businesses.<sup>103</sup> Regulatory response is fragmented, reactive and targeted at individual BFTs, with the potential to create negative consumer perception of regulators and impact on consumers.

BFTs' unmonitored value chains could create significant environmental and social impacts resulting in decreased economic growth, especially in LDCs with low levels of worker and environmental protection at the end of the value chain, where foreign investment is likely to be more extractive.

BFTs could, with the right incentives, provide tools to add transparency and efficiency to local markets, potentially creating greater opportunities for FDI in LDCs, both in communities and infrastructure projects.

96 'BIS Quarterly Review', Bank of International Settlements (BIS), September 2018, <[www.bis.org/publ/qrpdf/r\\_qt1809.pdf?mod=article\\_inline](http://www.bis.org/publ/qrpdf/r_qt1809.pdf?mod=article_inline)>.

97 A BIS review revealed that most of the 100 non-Basel members surveyed had implemented Basel 1, 90% had some implementation of Basel 2 and 80% at least one Basel 3 capital control in place, developing countries tend to cherry pick controls, see: Hohl S, et al., 'The Basel framework in 100 jurisdictions: implementation status and proportionality practices', BIS, 2018, <[www.bis.org/fsi/publ/insights11.pdf](http://www.bis.org/fsi/publ/insights11.pdf)>.

98 Philppon T, 'The fintech opportunity', National Bureau of Economics, August 2016, <[www.nber.org/papers/w22476](http://www.nber.org/papers/w22476)>, cited in Chan S and Yang J, 'Do interest rate liberalization and fintech mix? Impact on shadow deposits in China', China & World Economy, 2020.

99 See 'Lessons from China's decision to halt Ant Group's giant IPO', Financial Times, <[www.ft.com/content/bf4ff599-419b-47f9-ae92-131702700b79](http://www.ft.com/content/bf4ff599-419b-47f9-ae92-131702700b79)>.

100 See In gram D, 'Federal Trade Commission calls for breakup of Facebook', NBC News, December 2020, <[www.nbcnews.com/tech/tech-news/u-s-government-calls-breakup-facebook-n1250588](http://www.nbcnews.com/tech/tech-news/u-s-government-calls-breakup-facebook-n1250588)>.

101 Sussman S, 'How Amazon uses lending to control small businesses', The American Prospect, February 2020, <<https://prospect.org/economy/how-amazon-uses-lending-to-control-small-businesses/>>.

102 Bundhun R, 'Why small traders in India fear the Amazon effect', The National News, January 2020, <[www.thenationalnews.com/business/economy/why-small-traders-in-india-fear-the-amazon-effect-1.965981](http://www.thenationalnews.com/business/economy/why-small-traders-in-india-fear-the-amazon-effect-1.965981)>.

103 Tyson J, 'Covid-19 and financial access: supporting low-income businesses and households in Africa', ODI, September 2020, <<https://odi.org/en/insights/covid-19-and-financial-access-supporting-low-income-businesses-and-households-in-africa/>>.



## Recommendations

- Creation of safeguards by regulators for vulnerable unbanked/underbanked populations, for example, by mandating financial inclusion, financial literacy and data protection metrics as part of licensing arrangements.
- Collaborating via existing communities such as the African Regional Economic Communities (RECs), African Union or others, to advance sustainability aligned regulatory practices for the governance of BFTs.
- Provision of conditions conducive to the use of Fintech for financial inclusion, and for competition from additional risk-assessed issuers of stablecoins to offset the monopolistic power of the BFTs in LDCs.
- Promote regulatory collaboration between financial services and telecom sectors regulators for elaboration of conditions related to BFTs' operations in the country for effective oversight and supervision.
- Considerations towards alternative incentives for BFTs (and, by extension, large multinationals) supplementary to consumer pressure or ESG reporting, such as mandatory reporting or penalties, to participate in creating sustainable infrastructure and community investment in LDCs in exchange for market access.
- Addressing opacity issues in value chains for BFTs by mandating reporting of labour and environmental indicators.
- Regulatory exchange to improve consistency between regulatory regimes, and to build or adopt collective standards, interoperable and open systems.
- Regulators to review financial services definition to encompass financial services offered by BFTs, acknowledging the expanding range of financial services offered and taking into account different levels of risk.
- Foster collaborative, forward-looking regulatory standards for international businesses and Fintech activities that encourage market entry to LDCs, incentivize reducing social inequalities and bolstering local economies, and penalize monopolistic behaviours and decrease tax avoidance practices such as base erosion and capital flight.
- Develop more robust data collection and measurement approaches to enable more effective measurement and analysis of economic impacts of emerging technology and BFTs on LDCs.



**The authors would like to express their gratitude to David Jensen (UNEP), Aditya Narain (IMF), Lisette Cipriano (ADB), Peter Rosenkranz (ADB), Drew Propson (WEF), Vijay Mauree (ITU), Ben Gregori (New America) and the team at UNCDF/UNDP (Pamela Eser, Aiaze Mitha, and Johannes Schultz-Lorentzen) for their insightful feedback and suggestions.**

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