HARNESSING THE DIGITALIZATION OF FINANCE FOR THE SUSTAINABLE DEVELOPMENT GOALS

June 2019

United Nations Secretary-General's Task Force on Digital Financing of the Sustainable Development Goals

THE UNITED NATIONS SECRETARY-GENERAL'S
TASK FORCE ON DIGITAL FINANCING
OF THE SUSTAINABLE DEVELOPMENT GOALS

With support from Accenture Development Partnerships

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Executive summary

In 2018, the United Nations Secretary-General established a Task Force on Digital Financing of the Sustainable Development Goals (SDGs).[1] One role of the Task Force is to highlight opportunities, challenges and means to advance the convergence of digital technology, the financial ecosystem and the SDGs. This paper builds upon research as well as discussion with Task Force members to analyse the following three questions:

1. How will digitalization reshape financial markets and monetary systems?
2. How is the digitalization of finance (DoF) affecting how the SDGs are financed today?
3. What are the biggest opportunities, barriers and risks as well as the potential impacts associated with DoF for the SDGs?

While other research has attempted to answer a subset of these questions, there is a limited understanding of how the digitalization of the financial sector will comprehensively impact (positively or negatively) the flow of money across the SDGs. This knowledge gap not only elevates the importance of the Task Force's undertaking, but it also underscores the need to consider the findings below as a starting point to an iterative—and ongoing—dialogue.

Primary conclusions

1. There is a fundamental shift happening in financial markets

- Incumbents are restructuring their 'technological backbone' while leveraging data and analytics to become more efficient and offer 'hyper-relevant' products.[2]
- Disruptors are fragmenting the finance industry through 'digital first' business models, accompanied by a proliferation of platform-based non-financial business models enabled by DoF.
- Digitalization of money and lending is beginning to challenge the current understanding of monetary systems, as countries move more aggressively toward cashless systems, with cryptocurrency looming as a potential, yet unproven, source of disruption.

[1] See https://www.digitalfinancingtaskforce.org/

[2] Hyper-relevance is dynamic, constantly changing and always in action. It relates to the personalization of services, delivered in a one-to-one relationship during the buying process or in response to a change in circumstances of the customer, that the customer identifies or that is identified through data. It is often episodic and time-lagged. Hyper-relevance, however, is like today's digital consumers: it is 'always on.'

2. Disruption is already evident in SDG financing, with room to scale

- Digitalization is already changing how the SDGs are financed, far beyond financial inclusion. However, the pace of disruption is highly uneven across digital solutions, sectors and geographies.
- Digital business models traditionally associated with broadening access to financial products (e.g., payments, credit and insurance) have attracted the most money and attention, experienced the most innovation and led to new business models in the real economy.
- Private investors, often through capital markets, are creating innovative financing instruments in data-heavy sectors (e.g., climate action and clean energy).

3. DoF presents new opportunities but is notwithout risks

- While digitalization alone cannot bridge the financing gap, significant opportunities exist to mobilize new financing, reallocate limited resources to areas of greater impact and improve the efficiency of financing distribution.
- Digitalization is poised to disrupt some sectors immediately, while others require enabling policies or infrastructure before DoF can reach its potential.
- Significant barriers and threats remain, ranging from a lack of enabling infrastructure and policies to threats in the areas of data privacy, cyber-security, illicit financial flows, data-driven discrimination and a deepening digital divide.

Section 1

How will digitalization reshape financial markets and monetary systems?

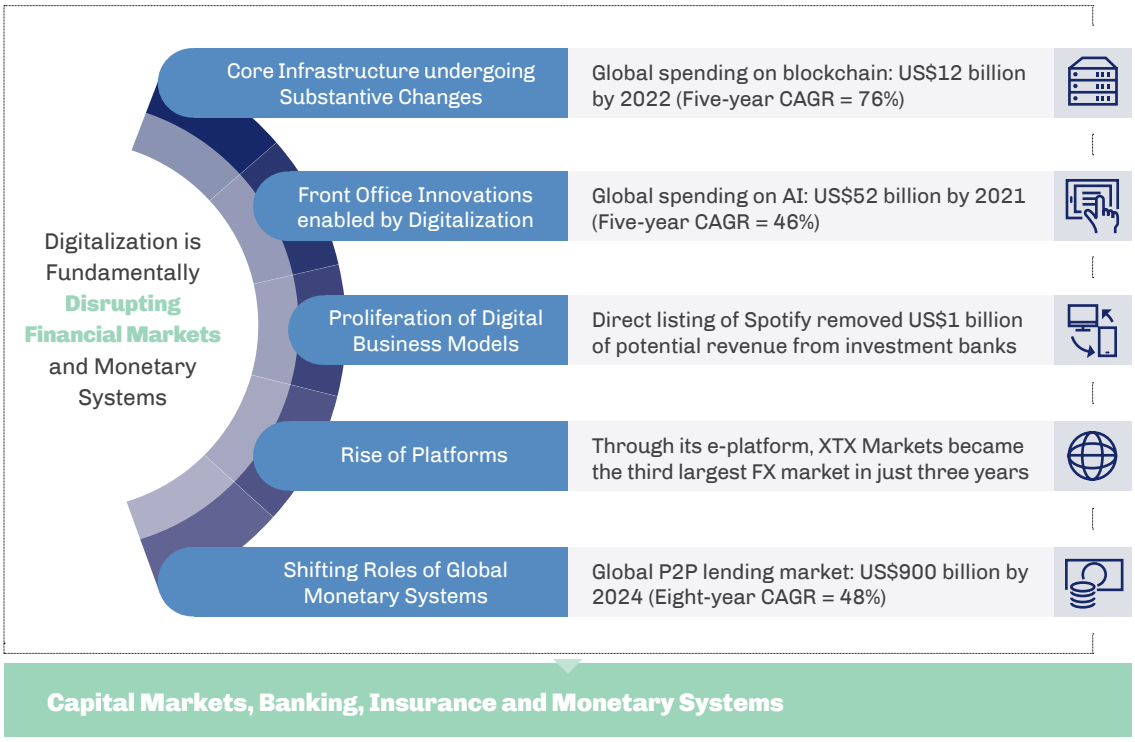
Financial services are already experiencing high levels of disruption, a trend that is only set to accelerate over the coming decade. Based upon its annual effort to assess vulnerability across sectors (called the 'Disruptability Index'), Accenture sees the banking, capital market and insurance industries as being among the top five most vulnerable to future disruption.[3] While top-line figures seem to indicate strong and stable growth for the finance industry, firms are struggling to achieve sustained profitability while battling the rapid growth of new entrants to the market.

Shifts in the weighting of major market indexes indicate that the relevance of financial services to the market is being threatened by the technology sector. Technology firms now comprise 20 percent of the weighting of the S&P 500 (up from 16 percent in 2007), while that associated with financial firms has dropped to 13 percent.[4] Technology firms are directly competing with financial service firms, offering payment, credit, savings and even wealth advisory products and services directly on their platforms. In addition, start-ups are taking advantage of reduced entry barriers, enabled by digitalization, and rapidly entering the market. In fact, global financing of fintechs reached US$111.8 billion in 2018, which represented a 120-percent increase from US$50.8 billion in 2017.[5]

All of these developments suggest that financial markets are poised to enter a period of high volatility, where tech-enabled disruptors (both large and small) will exploit structural weaknesses, redefine business roles, and monetize and unlock new sources of value (see figure I).

[3] Accenture, 'Disruption need not be an enigma,' 26 February 2018. Available from https://www.accenture.com/us-en/insight-leading-new-disruptability-index
[4] Siblis Research Ltd, 'S&P 500 Sector Weightings 1979–2019.' Available from http://siblisresearch.com/data/sp-500-sector-weightings/ (accessed June 2019).
[5] Pooja Singh, 'What the Future of Fintech Looks Like,' 29 May 2019. Available from https://www.entrepreneur.com/article/333891

Figure I
Disruption of financial markets and monetary systems caused by digitalization



Acronyms: AI, artificial intelligence; CAGR, compound annual growth rate; FX, foreign exchange; P2P, peer to peer

1. Core infrastructure of incumbents will undergo substantive changes

Many incumbents are burdened with legacy systems and structural complexities and are not well suited for the upcoming pace of digitalization. Antiquated back offices inhibit adaptation and evolution of incumbents; in capital markets alone, structural complexities account for US$150 billion in costs that could be reduced or eliminated.[6] However, few financial institutions choose to 'rip and replace' their technical architecture. Instead, many are expected to continue to slowly 'build and migrate' different components of their infrastructure in a measured move towards a more adaptable digital core infrastructure.

This new infrastructure will be underpinned by technological advancements, most demonstrably a greater reliance on a range of data, as well as artificial intelligence (AI) and distributed ledger technology (DLT). Organizations are already investing heavily in AI, with the goal of increasing operational efficiency and improving accuracy in core functions such as compliance, regulation and risk management. Global spending in this area is projected to grow to US$52.2 billion by 2021, with the financial market industry accounting for US$3.3 billion in 2018 alone.[7] DLT has a more uncertain path, as organizations across banking, insurance and

[6] Michael Spellacy, Markus Boehme and Julian Skan, Capital Markets Vision 2022: Relevance, Value and Growth in the Digital Era (n.p., Accenture, 2018).
[7] International Data Corporation, 'Worldwide Spending on Cognitive and Artificial Intelligence Systems Will Grow to $19.1 Billion in 2018, According to New IDC Spending Guide,' 22 March 2018. Available from https://www.idc.com/getdoc.jsp?containerId=prUS43662418

capital markets are still testing DLT-based prototypes for in-house functions. This uncertainty is evidenced by the relatively lower global spend on DLT, estimated at US$12.4 billion by 2022 (US$1.1 billion attributed to financial markets), although investment growth is accelerating.[8]

2. Digital technologies are also rapidly enabling and requiring innovations in the front office

Increased access to and use of data, machine learning and AI is allowing firms to be more customer centred. Banking and insurance firms will continue to use AI to shift from transaction-based models to relationship-based models. This shift will only be accentuated by the ability to offer targeted and on-demand products and services, such as robo-advisers in wealth management, coupled with machine learning and intelligent automation of knowledge-intensive research and analysis. Greater access to reliable data is increasing price transparency as well, shifting power dynamics towards consumers and giving investors greater confidence and improved visibility into potential risk-adjusted returns.

Capital markets will be especially disrupted, significantly affecting how financing flow decisions will be made. Advanced analytics is providing opportunities to investors to profit relative to their peers ('alpha generation'), as evidenced by machine-learning techniques, signal mining (i.e., combining and analysing disparate, unstructured data to predict market movements) and smart products (e.g., self-managing exchange-traded funds).

3. Digitalization of value chains is fragmenting financial services and giving rise to digital business models

Accelerated by the rise of fintechs, value chains are being redefined while new entrants exploit areas of weakness and inefficiency within financial services. Traditionally dominated by vertically integrated businesses, financial markets are being fragmented with digitally enabled start-ups that target sections of a value chain to deliver specialized capabilities and rich functionalities. The continued competition, driven by greater adoption of digital channels, has led to the bundling of multiple financial services or financial services with other non-financial services. This trend is readily evidenced by the rise of pay-as-you-go business models that provide financial products linked to assets, ranging from solar kits to usage-based auto insurance.

As certain areas of the financial services value chain have suffered from low profitability, new digital business models have driven the disintermediation of processes that once relied upon financial institutions to play a central role. For example, the direct listing of Spotify likely removed over US$100 million in potential revenue from investment banks and demonstrated the possibility of large-scale direct issuance, as evidenced by the decision by Slack to follow the lead of Spotify.[9]

[9] Maureen Farrell, 'Slack Plans to Follow Spotify on Unconventional IPO Route,' 11 January 2019. Available from https://www.wsj.com/articles/slack-planning-to-pursue-direct-listing-11547202723

[8] International Data Corporation, 'Worldwide Blockchain Spending Forecast to Reach $2.9 Billion in 2019, According to New IDC Spending Guide,' 4 March 2019. Available from https://www.idc.com/getdoc.jsp?containerId=prUS44898819

4. Digitalization is contributing to the rise of financial platforms

The rise of platforms—such as all-to-all exchanges in the capital market industry, platform banking and partnerships at scale in the insurance industry—is enabling the democratization of access to finance. Platform businesses facilitate the efficient exchange of value between producers and consumers. Digital technologies serve to accelerate the shift towards a platform economy in financial services, leveraging lessons learned across industries such as social media, transport, hotel and e-commerce. The core configuration of capital markets is shifting towards an exchange marketplace structure, as participants progress from capital-intensive models (e.g., pure over-the-counter networks with data asymmetry and limited transparency) to technology-intensive models (e.g., exchange marketplaces with greater price discovery and liquidity). Open banking initiatives show the promise of a marketplace that relies on a network of ecosystem partners accessed through APIs to deliver products and services, rather than bilateral relationships with financial service providers.

Insurance offers an excellent example of how financial service firms are generating new revenue sources by partnering with non-traditional players to utilize new and existing datasets, such as insurance products attached to connected cars and smart homes. Insurance firms are also leveraging a micro-service architecture that uses a suite of digital tools like APIs, containers[10] and clouds to break applications into simple, discrete services.

E-commerce and social platforms are becoming providers and marketplaces for financial services. Data-rich companies with tens to hundreds of millions of connected users and strong brands are acquiring and partnering with fintechs and traditional financial institutions to provide faster, simpler access to basic services. The offerings have grown well beyond payments, to become broad offerings of savings, credit, insurance and investment services.

5. Digitalization of money is calling into question traditional roles across global monetary systems

Further to the digital disruption of the channels through which financial transactions take place, the digitalization of money itself is gradually having an impact on global monetary systems and has the potential to disrupt the customary roles of central banks and traditional banks.

For central banks, going cashless allows for better data and analytics and can enable them to utilize more up-to-date information to make monetary policy decisions through economic leading indicators (though it is still nascent). New technologies, such as stable coins (a type of cryptocurrency backed by reserves of [usually stable] fiat currency), will make settlement of transactions and payments faster and more easily verifiable. Several central banks are now considering issuing central bank digital currencies, the introduction of which some monetary theorists suggest could provide more manoeuvrability and stability during times of recession by more directly setting interest rates.[11] A trackable central bank digital currency might help

[10] Containers represent a method to package an application so that it can be run, with its dependencies, and isolated from other processes, which allows it to be more easily moved across machines.

[11] Negative interest rates can encourage borrowing for investment and consumption during a recession. It is easier to apply negative rates in a cashless economy because it gives more power to central banks to set rates.

reduce money laundering as well—and/or could be used to target individuals or groups of citizens. At the same time, central banks' ability to manage volatility in capital flows and exchange rates in an age of fast-moving currency across borders may become more difficult.

Digitalization also challenges the centuries-old role of banks in intermediation and money supply. For financial institutions—especially banks—new technologies and new actors that facilitate disintermediation cause banks' supply of savings and demand for loans to be less reliable, making it more difficult to match liabilities and assets.[12] Aside from ensuring solvency, the reserve requirement placed on banks is a key tool in controlling the money supply. In other words, the fluidity of savings caused by digitalization can undermine the intended outcome of a central bank policy. The issuances of a central bank digital currency also put pressure on banks seeking deposits, since citizens (and non-citizens) may prefer to hold their wealth directly in the digital currency.

In regards to lending, peer-to-peer (P2P) lenders have not yet significantly disrupted the financial system. Should P2P lending grow, its impact would be felt in the monetary system because traditional central bank tools would have less influence. P2P lenders are subject to neither the reserve requirement nor the discount rates that central banks use for monetary policy. In addition, they lie outside most deposit insurance schemes implemented to maintain confidence in the financial system.[13]

[12] Eswar Prasad, 'Central Banking in a Digital Age: Stock-Taking and Preliminary Thoughts' (Washington DC, The Brookings Institution, 2018).
[13] Peter Bofinger, 'Digitalisation of Money and the Future of Monetary Policy,' 12 June 2018. Available from https://voxeu.org/article/digitalisation-money-and-future-monetary-policy

Section 2

How is the digitalization of finance affecting how the Sustainable Development Goals are financed today?

DoF is already changing how the SDGs are financed. The maturity of technology adoption in financing is disparate—varying greatly across SDGs, geographies and financiers. However, all actors have the opportunity to become more engaged in SDG financing, thanks to the greater availability of information and digital means of financing.

Continued digitalization of SDG-related retail business models is helping to smooth consumption and consumer financing of goods and services. Multilaterals are experimenting in a few areas, particularly bond issuance, and governments have significant room to grow (see the tables below for more detail; specifically, table 1 provides guidance to read the analysis of DoF for the SDGs, which is provided in table 2).

Analysis provided by the authors is general in nature, due to the lack of data on individual SDG financing requirements, gaps and current methods/sources. The authors also considered the underlying SDG indicators, most of which are non-financial, to identify how financing could play a role in achieving them, if at all. Despite its imprecision, the analysis provides some initial insights into the potential impacts of DoF for the SDGs.

Table 1
Guidance to read the analysis on digitalization of finance for the Sustainable Development Goals

SDG	Current Sources of Funds	Relative Level of DoF Activity	Areas of Innovation				Illustrative Digital Solutions	Case Studies
	(In order of significance)	(Relatively graded across SDGs)	Cap Mkts.	Retail	Govt.	ODAs	(Non-exhaustive)	(Sample)
	• Almost 50 percent from 'private investment' of farmers • Government funds, donors and ODAs						• Mobile banking for access to agri-inputs • Predictive analytics for crop insurance • Digital platforms for e-marketplaces	*Kartu Keluarga Sejahtera* card: Using a mobile-linked digital card and e-portal for social payments and distribution by the Indonesian Government.
	(a)	(b)	(c)				(d)	(e)
(f)								

The following explanations are provided to aid in the understanding of the context and terminology used in the table:

(a) Current sources of funds

This section analyzes the financing of different SDGs that flows from three broad sources, as defined below:

- Government: All sources of domestic public finance (raised through public revenues and taxes).
- Official development assistance (ODA) providers/Donors: International assistance from public organizations (multilateral ODA from multilateral development banks [MDBs], international financial institutions [IFIs] etc., bilateral ODA, concessional and non-concessional loans and other official flows) as well as private foundations in the form of grants. While IFIs often function similarly to private investors, the authors chose to include them in this category.
- Private investors: Private capital invested directly into businesses and initiatives, or through capital market instruments.

(b) Relative level of DoF activity

- It represents the level and extent of DoF currently adopted for the SDGs, as interpreted through data and case studies.
- It is assessed in a relative fashion and presented as a comparative value relative to all the other SDGs (e.g., SDG 7 Affordable and Clean Energy and SDG 13 Climate Action have been pegged at the highest level of activity, while the remaining SDGs are accordingly graded in reference to SDG 7 and SDG 13).

(c) Areas of innovation

This section further breaks down the level of DoF for an SDG, depending upon the kind of activities being conducted. The grading of the four areas listed below is relative to each other:

- Capital markets (Cap Mkts): Innovation in private financing and/or capital markets, including private investors, asset managers, wealth managers and institutional investors.
- Retail finance (Retail): Innovation in the consumer-facing application of digital solutions (retail and digital financial services like consumer banking, insurance, credit, etc.).
- Government finance (Govt.): Innovation in monetary systems and in the disbursement of domestic public aid.
- ODAs, grants and IFIs (ODAs): Innovation in the way international development organizations and donors transfer their resources to recipients.

(d) Illustrative digital solutions

This section highlights the kind of digital solutions leveraged in the financing of an SDG, along with the application of the same.

(e) Case studies

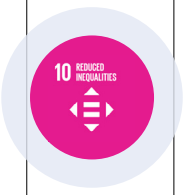
Over 90 case studies were compiled, which were representative (though non-exhaustive) of the innovations and covered various sources of funds and technologies leveraged.

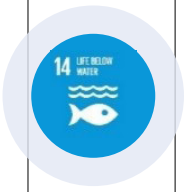
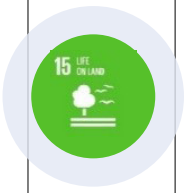
(f) Clarifications on analysis and methodology

- Consumer consumption is not included in the 'Current sources of funds' analysis, due to the complexity of estimating the total amount of consumption across SDGs.
- The inconsistency, unavailability and historical nature of data limit the extent to which any claim can be quantified, thus a claim acts only as a guide.

Table 2
Analysis of current sources of financing and digitalization of finance across the Sustainable Development Goals

SDG	Current Sources of Funds	Relative Level of DoF Activity	Areas of Innovation				Illustrative Digital Solutions	Case Studies
	(In order of significance)	(Relatively graded across SDGs)	Cap Mkts.	Retail	Govt.	ODAs	(Non-exhaustive)	(Sample)
	• Most through domestic social protection programmes and consumer spending • ODAs and grants for development agenda						• Digital wallets and platforms for access to/ payment of services • E-transfer of public aid and disbursement	Ending poverty is linked to many other SDGs and their sources of funds. The most clearly linked DoF application is through direct transfers and financial inclusion.
	• Almost 50 percent from 'private investment' of farmers • Government funds, donors and ODAs						• Mobile banking for access to agri-inputs • Predictive analytics for crop insurance • Digital platforms for e-marketplaces	*Kartu Keluarga Sejahtera* card: Using a mobile-linked digital card and e-portal for social payments and distribution by the Indonesian Government.
	• Domestic public finance, followed by ODAs and grants from foundations • Out-of-pocket expenditures by households						• Mobile money for P2P and G2P transfers as well as microinsurance • Digital credit for instant health loans as well as worker incentives	Fearless Health product by MicroEnsure: Offering telemedicine, mobile-linked microinsurance and on-demand loans in Kenya.
	• Major flows from government expenditures, followed by ODAs • Out-of-pocket expenditures by households						• Mobile money for fee payments and education loans • AI to incentivize student loan payments • Digital wallets for teacher salaries	Fenix International: Using customer repayment data from solar loans to approve education loans in Uganda.
	• Majorly driven by public finance to implement policies • ODAs and some private gender-lens investments						• Mobile technology for increased female access to financial services • Digital platforms for more secure selling, e-commerce and knowledge-sharing	Mastercard Mercy Corps programme: Linking an e-ID card to mobile savings account for financial inclusion in Nigeria.
	• Government funding, followed by ODAs (ODA loans, ODA grants and other official flows)						• Metering technology for innovative billing • Smart cards for beneficiaries' water access	Safe Water Network and CGAP: Coupling digital payments with prepaid metering technology for a pay-as-you-drink model in Ghana.

SDG	Current Sources of Funds	Relative Level of DoF Activity	Areas of Innovation				Illustrative Digital Solutions	Case Studies
	(In order of significance)	(Relatively graded across SDGs)	Cap Mkts.	Retail	Govt.	ODAs	(Non-exhaustive)	(Sample)
	• Greatest investment from the private sector (direct and through capital markets), followed by domestic public funds						• Data-backed monitoring of green securities • E-trading using mobile wallets for energy credits	Brooklyn Microgrid: Buying and selling power by owners using blockchain technology in the United States of America.
	• Driven by governments through transfers and ease-of-business policies • ODAs, including bilateral						• Big data analytics for lending and risk monitoring • AI and machine learning for recruitment and workplace matching	MYbank by Ant Financial: Internet-only bank using financial data from third-party payment service provider to provide credit in China.
	• Split across three major sources (private, public and ODAs/IFIs) • Nearly half from the private sector						• Cryptocurrency for initial coin offerings • Digital investment planning tools for cross-border investments	Payapps (formerly Progressclaim): Using a digital platform for payment settlements in the Australian construction industry.
	• Financing interlinked to that of the other SDGs that impact equal access to opportunities and services						• Digital wallets and platforms for equal access to services • E-transfers of public aid and disbursement	This SDG is linked to multiple SDGs, and it is difficult to analyse separately. Insofar as DoF contributes to more equitable access to finance and basic services and creates more equal access in general, it helps achieve greater equality.
	• Majorly driven by governments • Moderate private-sector investment • Minimal ODAs						• Online platforms for bond purchase and asset securitization • Smart cards for access to transit payments	Municipal governments: Using blockchain-based platforms to track assets, payments and administrative processes in land investments in Ghana and Honduras.
	• Domestic public finances (for solid waste) • Private sector (for food and industrial waste)						• Digital platforms for crowdsourcing of funds	Indian Railways and Paytm: Providing cashback (Rs 5) to passengers in their Paytm wallet for dropping a plastic bottle into the crushing machine.
	• Close to half through public finances (government and ODAs) • Significant private-sector contribution						• Blockchain-based investment platforms • Digital currency for climate action • Mobile payments for energy access	Green Assets Wallet: Using a blockchain platform to help accelerate the market for green investments.

SDG	Current Sources of Funds	Relative Level of DoF Activity	Areas of Innovation				Illustrative Digital Solutions	Case Studies
	(In order of significance)	(Relatively graded across SDGs)	Cap Mkts.	Retail	Govt.	ODAs	(Non-exhaustive)	(Sample)
	• Mostly through ODAs • Some by private companies						• Digital platforms for blue financing • Big data analytics as well as intelligent and interactive platforms	PACIFICO: Using regional funding platform to mobilize, manage and increase funds for sustainable management of the Tropical Eastern Pacific.
	• ODAs, mostly through bi-laterals • Government budgets						• E-trading of credits for biodiversity offsets	Using biodiversity offsets to compensate for biodiversity losses from infrastructure development projects in the European Union and Mexico.
	• Major flows through grants and ODAs • Public financing in conflict areas						• E-vouchers to replace cash transfers • Digital platforms for disbursement	Cash Learning Partnership and Electronic Cash Transfer Learning Action Network (ELAN): Using digital payments for cash transfers for humanitarian response.

Analysis of the current sources of funds, the relative level of DoF activity and the areas of innovation for each SDG led to five important insights:

1. Technology solutions are in different stages of development
2. Private investors are increasingly financing the SDGs through capital markets
3. Greatest proliferation of digital business models is in retail finance
4. Digitalization of domestic public financing is relatively immature
5. Multilaterals are looking to promote innovative financing mechanisms

1. Technology solutions are in different stages of development

The adoption of digital solutions is not universal; even the most widely adopted technologies are not ubiquitous across geographies or sectors.

Mobile money, mobile banking services, digital platforms and data analytics are the most consistently used solutions and are having an impact on financing of the majority of SDGs in some capacity, particularly in sectors where last mile outreach is critical (e.g., clean energy, food, health and education) and where individuals and households play a primary role. These technologies create greater efficiency and effectiveness of financing, enabling increased access to a range of services as well as alternative payment methods, building greater transparency in markets and allowing for more customer-centric offerings (see, for example, the case of disbursing aid digitally in box 1).

[SDGs areas most impacted: Health, Education, Gender, WASH, Clean Energy, Industry & Infrastructure, Climate Action]

Box 1 Case study: Digital ecosystem for disbursing public aid

The Indonesian Government is undertaking a pilot of a single instrument for social payments, the *Kartu Keluarga Sejahtera* or KKS card. This card enables the Government to shift its rice subsidies over to e-food vouchers. The Government is also building an e-portal, called e-Warung, which will allow citizens to connect their KKS cards with mobile wallets, as well as to purchase rice or other foodstuffs, according to individual need.

Source: *The World Bank, Towards a Comprehensive, Integrated, and Effective Social Assistance System in Indonesia* (Jakarta, 2017), pp. 1–17.

Emerging technologies are beginning to have an impact. DLT, AI and machine learning are being tested in various sectors to enable new financing instruments or to better inform financing decisions. Machine learning and AI are already being used for enhanced credit scoring and lending, resulting in a more accurate forecast of returns in capital markets through predictive analytics.[14] The promise of DLT, though not yet realized, is to increase transparency across the financing value chain, allowing for reductions of manual errors, costly intermediaries and leakages in the disbursement process.

[SDGs most impacted: Hunger, Gender, Energy, Peace, Industry & Infrastructure]

[14] Infiniti Research Limited, 'Top 10 Trends in Educational Technology for 2018,' 5 September 2018. Available from https://blog.technavio.com/blog/top-10-trends-in-educational-technology

2. Private investors are increasingly financing the SDGs through capital markets

The private sector is finding uses for digital tools and tech-enabled solutions to solve for limited incentive structures and lack of transparency in the system, particularly in sectors like agri-business, climate action, infrastructure and waste recycling (see, for example, the case of using a blockchain-based platform for green investment in box 2). These sectors have seen the most activity due to the relative maturity of financing in these markets and the availability of data to back investment decision-making and monitoring. This activity is primarily seen in the use of bond markets using environmental, social and governance (ESG) data, AI-enabled investment decisions and digital payment methods (including some cryptocurrency). Simultaneously, many functions are shifting to intelligent, intuitive and interactive platforms. All of these developments have led to a rise of new funds from the private sector, which now accounts for over 90 percent of renewable energy investment globally.[15]

[SDGs most impacted: Energy, Industry & Infrastructure, Sustainable Cities, Climate Action]

Box 2 Case study: Blockchain-based platform for green investment

The Green Assets Wallet technology will use a blockchain platform for secure investment "to deliver efficiency and transparency to the green debt market in support of scaling up the supply of, and investment in, credible green investment opportunities to scale up through cost-efficient and immutable verification of green impacts."

Source: *Stockholm Green Digital Finance, 'Green Assets Wallet,' accessed June 2019.*

Unsurprisingly, there have been limited private investments channelled through capital markets in sectors like health, food, education, and water, sanitation and hygiene. This situation can be attributed in part to the high upfront investment costs, the need for enabling infrastructure, the predominance of government financing for these services and the limited direct economic incentives. While social bonds are gaining traction, they generally underperform, with similar ESG-based instruments generating higher returns.[16]

[SDGs most impacted: Hunger, Education, Gender, Life below Water, Life above Land, Peace]

Private investment of green bonds increased significantly, from 10 percent in 2014 to almost 40 percent in 2018, surpassing that of IFIs and MDBs.

Source: Monica Filkova, Camille Frandon-Martinez and Amanda Giorgi, 'Green bonds: The state of the market 2018' (n.p., Climate Bonds Initiative, 2019).

[15] Stockholm Green Digital Finance, 'Green Assets Wallet.' Available from https://stockholmgreenfin.tech/gaw (accessed June 2019).

[16] Giulia Rado, 'Market Blog #19: 18 Jan 2019: USD167.3bn total 2018 GB issuance - USD11bn GBs in Dec '18 alone: 1st GB from Icelandic city: 1st sovereign blue bond,' 18 January 2019. Available from https://www.climatebonds.net/2019/01/market-blog-19-18-jan-2019-usd1673bn-total-2018-gb-issuance-usd11bn-gbs-dec-18-alone-1st-gb

3. Greatest proliferation of digital business models is in retail finance

The most widely documented impact of DoF on the SDGs is tied to digital business models associated with consumer-facing financial products and services. There has been a continuous rise in business models that use innovative payment methods as well as digitally enabled financial tools to enable wider access to commodities and services. They have been delivered through a range of solutions, such as e-vouchers, mobile money and smart cards. These technologies are also making it easier for consumers to access financial services (including savings, credit and insurance products), and firms are increasingly using data and analytics to offer customized insurance and credit instruments (see, for example, the case of an off-grid solar company helping customers pay for school through education loans in box 3).

[SDGs most impacted: Hunger, Health, Education, WASH, Energy]

Box 3 Case study: Off-grid solar company helping customers pay for school

Fenix International, a Uganda-based solar energy provider, developed "a financial product that could help relieve the pain of financing education, and the solution they devised is called the ReadyPay School Fees Loan." Using customer repayment data from solar loans, Fenix pre-approves certain customers for term-length education loans.

Source: Daniel Waldron and Chris Emmott, 'Off-Grid Solar Company Helping Customers Pay School Fees,' 1 August 2018.

Although many successful models have been developed, the primary challenge has been to replicate them or achieve scale, partially due to a lack of digital infrastructure or an unwelcoming policy environment in certain sectors areas. While low-income countries are benefitting from a surge of such business platforms, their impact to date has been limited. For example, while East Africa is seeing more domestic and international financing to expand access to financial services, Middle Africa and West Africa do not yet appear to have the stable ecosystem or digital enablers to encourage such innovation.

4. Digitalization of domestic public financing is relatively immature

Governments have been looking to leverage innovations in DoF in two ways. First, they aim to improve domestic resource mobilization through digital tax collection and improved use of data and analytics in order to better identify potential tax avoidance. Second, governments want to improve the efficiency and impact of domestic funding through digital channels, such as e-vouchers or government-to-peer (G2P) digital transfer platforms to disburse subsidies and aid more effectively. However, digitalization in this space has not been widely adopted, particularly in developing economies (see a few examples from around the world in box 4), and it still has a significant opportunity to scale.

[SDGs most impacted: Hunger, Decent Work & Economic Growth]

Box 4 Examples of digital administration around the world

- Australia plans to further digitalize its tax administration through extensive use of analytics.
- Brazil introduced tax withholdings and captured other financial information through digital means.
- Colombia plans to add e-invoicing and e-accounting requirements.
- Hungary is introducing live invoice reporting requirements.
- Malaysia plans to use analytics for e-audits on payroll tax.

Source: Text extracted from the figure on page 6 of Ernst & Young LLP, 'Tax technology and transformation' (Kolkata, 2017).

5. Multilaterals are looking to promote innovative financing mechanisms

Around the world, international development organizations are experimenting with technologies at various stages of maturity to maximize the impact of their financial contributions to the SDGs (see, for example, the case of an online tool for investment planning of cross-border projects in box 5). To start, they are increasingly using digital currencies and e-vouchers instead of cash transfers or commodity-based aid in the humanitarian space. Through similar mechanisms, some multilaterals are experimenting with G2P and P2P transfers to reduce illicit financing and leakage. Some specific SDGs, such as those involved with peace, healthcare, education, and life below water and on land, have attracted donor funding with platforms or digitally enabled investment vehicles. While these efforts are still nascent, various multilaterals are encouraging or investing directly in the development of blockchain technology to fundamentally restructure payment value chains in sectors like agriculture or experimenting with DLT to coordinate multi-stakeholder investments or disintermediate potential sources of corruption.

[SDGs most impacted: Hunger, Health, Education, Biodiversity, Peace]

Box 5 Case study: Online tool for investment planning of cross-border projects

The InfraCompass tool by the Global Infrastructure Hub measures the ability of governments to plan, coordinate and select infrastructure projects for investment, and it helps them to identify areas of infrastructure planning and delivery where they can improve.

Source: Global Infrastructure Hub, 'InfraCompass: A G20 Initiative,' accessed June 2019

Section 3

What are the biggest opportunities as well as the potential impacts associated with the digitalization of finance for the Sustainable Development Goals?

While digitalization alone will not bridge financing gaps, significant opportunities exist to mobilize new financing, reallocate limited resources to areas of greater impact and improve the efficiency of financing distribution. While hard to quantify, there are advancements in the ability of digitalization to create an enabling environment for further innovation and have a sizable, yet indirect, impact on financing for the SDGs.

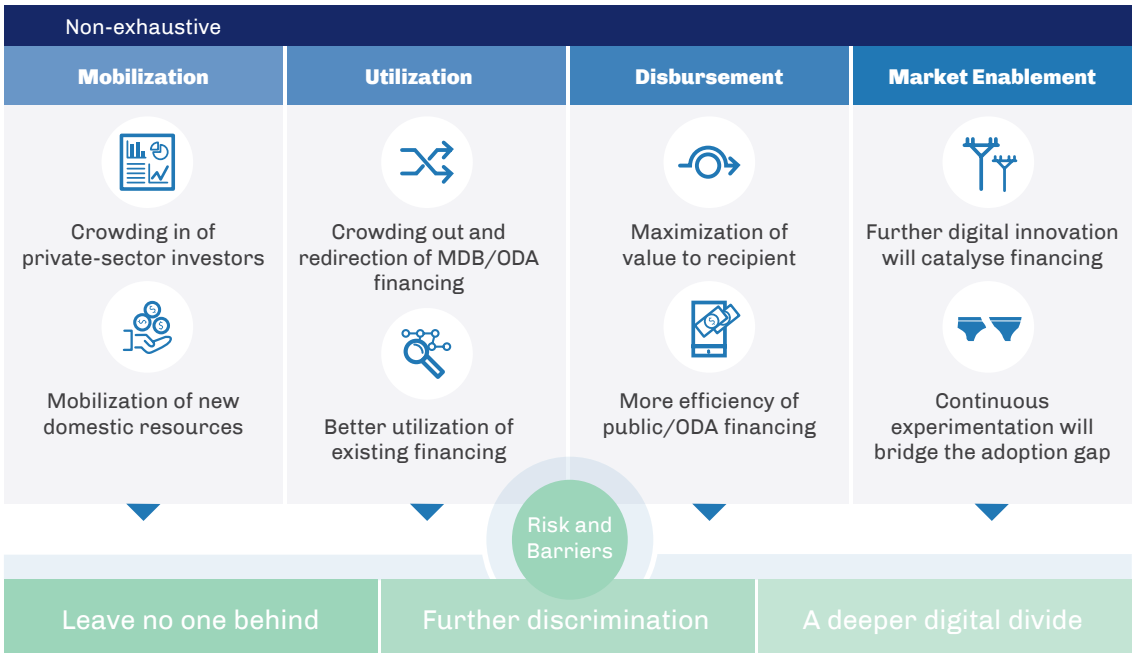
Various sectors seem poised for immediate disruption while others will require enabling policies or infrastructure before DoF can reach its potential. The authors studied and analysed these opportunities and trends to identify where the most potential lies. Specifically, they looked at the potential impacts of DoF at three levels (see also figure II):

Mobilization: Unlocking new funds by attracting new sources (e.g., private investors) or increasing the volume of existing sources (e.g., greater domestic resource mobilization).

Utilization: Making the available pool of funds more accessible and better targeted in order to amplify impacts, including redirecting existing funds.

Disbursement: Making the process to transfer resources, both in the context of aid and grants but also execution of investments, more efficient and transparent.

Figure II
Windows of opportunity from the digitalization of finance for the Sustainable Development Goals



1. DoF will mobilize hundreds of billions of dollars towards the SDGs

The authors estimate that DoF will mobilize well over US$250 billion of private financing in two ways. The most immediate impact will be through the continuous growth of private-sector financing of sustainability initiatives in sectors that have experienced exponential growth in the last few years, particularly climate action and affordable energy in which financial institutions and corporations are now investing heavily.

The Global Impact Investing Network estimates that the impact investing market is over US$500 billion, more than doubling in the last five years.[17] These investors will be looking at data-intensive sectors to help inform their investment decisions and provide inspiration for innovating with financing vehicles. Various SDGs (e.g., clean water and sanitation, sustainable cities and responsible consumption) could be attractive targets.

Whether it is the data collected from IoT devices or smart city grids, the rise of tech-enabled mobility as a service, or the emergence of smart waste-management systems, there is exponential growth in the availability of non-financial performance data. As seen with green bonds, the availability and reliability of both financial and non-financial performance data can lead to the creation of an asset class, which in turn can lead to more structuring opportunities.

[17] Abhilash Mudaliar and Hannah Dithrich, 'Sizing the Impact Investing Market' (n.p., Global Impact Investing Network, April 2019).

Services that generate steady payment flows, such as water or mass transit, present an opportunity to bundle receivables in order to attract private capital as well. It is also expected that there will be a rise in direct performance-based financing vehicles for major initiatives, particularly those tying bond yield on ESG performance of the underlying asset (see, for example, the case of Thames Water, a major British supplier, in box 6).

Box 6 Case study: Interest rate linked to environmental, social and governance metrics

Thames Water signed an innovative £1.4 billion five-year revolving credit facility, with the interest rate linked to annual performance against ESG metrics. Outperforming the ESG benchmark will result in a lower interest rate, with any financial gains boosting the Thames Water charitable fund. In 2017/18, the fund donated £103,395 to 21 charities and community groups across London and the Thames Valley, relating to water and the environment.

Source: Thames Water Utilities Limited, 'Thames Water ties interest rate on new £1.4 billion revolving credit facility to sustainability performance,' 4 December 2018.

Finally, but more difficult to quantify, through greater utilization of digital tax collection mechanisms, it is anticipated that governments around the world will be able to significantly improve their resource mobilization, providing an influx of new funds to distribute and use towards achieving their own social and economic development priorities.

2. DoF will allow for the reallocation of hundreds of billions of dollars of government and ODA/MDB financing

Current MDB and IFI portfolios stand at over US$600 billion.[18] A spillover effect of the influx of private financing is that government, MDB, IFI and impact-oriented investors will need to look to other SDG-related investments, providing an opportunity for these institutions to re-evaluate their allocation of funds. For example, catalysed by the use of predictive analytics, the green bond market has quadrupled in size since 2015 to over US$160 billion; whereas MDB and IFI financing used to comprise nearly 40 percent of the total market size, it now accounts for less than 20 percent.[19, 20]

Private sources provide the bulk of renewable energy investment globally—over 90 percent in 2016. Conventional debt and equity are the most prominent financing instruments.

Source: IRENA and CPI, 'Global Landscape of Renewable Energy Finance' (Abu Dhabi, International Renewable Energy Agency, 2018).

[18] Calculation was based on websites of MDBs and IFIs, excluding European Investment Bank investments in Europe that do not have a social or environmental mandate.
[19] Rado, 'Market Blog #19.'
[20] IRENA and CPI, 'Global Landscape of Renewable Energy Finance' (Abu Dhabi, International Renewable Energy Agency, 2018).

This reallocation can prove critical to the overall financing agenda. In this study, 10 of the 16 SDGs analysed by the authors rely heavily on government funding or ODA. Furthermore, six SDGs have less than US$50 billion of well-documented and tracked financing. By redirecting even a portion of the hundreds of billions of dollars that these institutions invest in energy and climate, governments and the international aid community could have a transformative impact on SDGs focused on basic needs (i.e., poverty, hunger, education and health).[21, 22]

In 2016, domestic public resources controlled by developing countries (estimated by non-grant government revenue) totalled US$6.4 trillion, almost 20 times the US$0.3 trillion of official international financing flowing to these countries.

Source: World Bank, 'Record High Remittances Sent Globally in 2018,' 8 April 2019.

Investment in infrastructure (approximately US$207 billion) is split among all three financing sources, with private sources financing 45 percent of investments, public sources 25 percent, and multilateral and bilateral sources 30 percent.

Source: World Bank, 'Private Participation in Infrastructure (PPI): 2017 Annual Report' (Washington DC, 2018); and, Accenture analysis.

Beyond the crowding-out of non-private sources of financing, digitalization will allow for more targeted and strategic decisions and improved utilization of existing resources. These effects will likely be most evident in government welfare and other social safety net programmes, where digitalization will lead to greater access to data and data analytics in order to better inform decision-makers on the communities with the greatest need and the most effective delivery method (see, for example, the case of big data providing early warning of food insecurity in box 7). Such impacts will also be seen in the humanitarian sector, where international aid organizations will be better able to identify the conditions of expected recipients; in fact, early experiments in blockchain-enabled digital identity and digital payments have begun to shed light on this opportunity.

[21] Development Initiatives, 'Investments to end poverty 2018: Meeting the financing challenge to leave no one behind.' Available from http://devinit.org/post/investments-to-end-poverty-2018/ (accessed June 2019).

[22] Cara Santos Pianesi, 'Private Investment in Infrastructure in Developing Countries Showed Signs of Recovery in 2017,' 17 April 2018. Available from https://www.worldbank.org/en/news/press-release/2018/04/17/private-investment-in-infrastructure-in-developing-countries-showed-signs-of-recovery-in-2017

Box 7 Case study: Using big data as an early warning for food insecurity

The UN Capital Development Fund and Dalberg Data insights partnered with MTN Uganda to use mobile money and airtime usage data to identify early signs of food security. With call data and payment records, they developed an application that allows Hunger Fighters Uganda to use this information as a proxy for food insecurity based upon a study that showed a strong correlation between airtime top-up and poverty. Combining it with other data, Hunger Fighters can more quickly identify regions with signs of food insecurity.

Source: UNCDF, 'Using mobile phone data for food security,' 10 July 2018.

3. DoF will allow for more effective and efficient distribution of financing

Whether it be newly mobilized resources or existing resources, digitalization and disintermediation will maximize the value that ultimately reaches the intended recipient (investee, consumer or aid beneficiary), which will have a knock-on effect on the consumption of basic services and/or economic growth. Such effects will be driven not only through the well-known efficiency and transparency gains from the digitalization of payments and fund transfers but also through the reduction of intermediaries and the often costly disbursement infrastructure. It is important to highlight here that governments, non-profits and even financial intermediaries themselves can benefit, either by profiting from innovations in business models such as P2P transfer networks and direct giving platforms or by eliminating the need for costly 'trusted third parties' through DLT.

The disruption experienced in markets can be quite significant, not least of which in the remittance market (a critical source of financing that has not been covered in detail in this paper). In many low-income countries, remittances represent a more significant source of funding than government or ODA. International remittances account for more than US$689 billion globally, US$550 billion of which are directed at middle- and low-income countries and primarily to lower-income households.[23] With the cost of remittances still averaging 7 to 8 percent, each two-percentage-point reduction in remittance cost represents a savings of US$11 billion to those households that need it most. Similarly, digitalization can improve the efficiency of more than US$150 billion in expenditures of philanthropic organizations,[24] US$40 billion of direct government transfers[25] and US$3 billion–US$5 billion in cash-based humanitarian aid.[26] According to the Center for Global Development, between 2 and 5 percent of ODA is lost to various forms of leakage and corruption; given the US$150 billion in ODA, every percentage point lost means US$1.5 billion taken away from needed government financing of SDGs.[27]

[23] Record High Remittances Sent Globally in 2018. World Bank. Available at : https://www.worldbank.org/en/news/press-release/2019/04/08/record-high-remittances-sent-globally-in-2018
[24] Ibid.
[25] Barbara Arese Lucini, Kenechi Okeleke and Daniele Tricarico, 'Analysis: Market size and opportunity in digitising payments in agricultural value chains' (n.p., GSMA Intelligence, November 2016).
[26] Gabrielle Smith and others, 'The State of the World's Cash Report: Cash Transfer Programming in Humanitarian Aid' (n.p., Cash Learning Partnership and Accenture Development Partnerships, February 2018).
[27] Charles Kenny, 'How Much Aid is Really Lost to Corruption?' 23 January 2017. Available from https://www.cgdev.org/blog/how-much-aid-really-lost-corruption

At the same time, digitalization can unlock new sources of directed support by individuals and organizations seeking to give directly to individuals or local organizations that provide emergency relief, health services, education services and other services (see, for example, the case of GoFundMe providing a vehicle for financing tuition costs in box 8). Today digital forms of giving surpass cash, even among Africans.28 In China alone, charitable giving is at US$23.4 billion, rising 17 percent from 2017 to 2018 largely due to the ease of online digital finance platforms.[29]

Box 8 Case study: Crowdsourcing site to raise money to finance tuition costs

GoFundMe is the top personal crowdfunding site, raising over US$250 million for different causes. "Education is a big category on GoFundMe as numerous students and parents crowdfund money to make tuition payments."

Source: Zach Miller, 'College Education Crowdfunding: Sites to Use to Help Raise Money to Finance Tuition Costs,' 2 February 2019.

4. Digitalization needs an enabling environment to thrive

In order for digitalization to achieve the potential impacts described above, there is a need for investment in basic digital infrastructure. In markets where digital infrastructure investments have occurred, digital financial services targeting excluded populations have quickly followed. These investments and the services they support are critical for creating a baseline of digital finance activity that can begin to have an impact further upstream (e.g., in capital markets), as recognized by the World Bank in its launch of the All Africa Digital Economy Moonshot.[30] The rise of digital business models in Africa is a telling case, as fintechs contributed US$150 billion to the continent's GDP.[31] Globally, nearly US$40 billion is spent yearly on financial inclusion, and a large portion of those funds is directed to building the enabling infrastructure to encourage digital financial services. While it is clear that investments in digital infrastructure can lead to attractive long-term payoffs, there must be more active investments in this infrastructure in order to realize the benefits and mitigate the risks of a deepening digital divide.

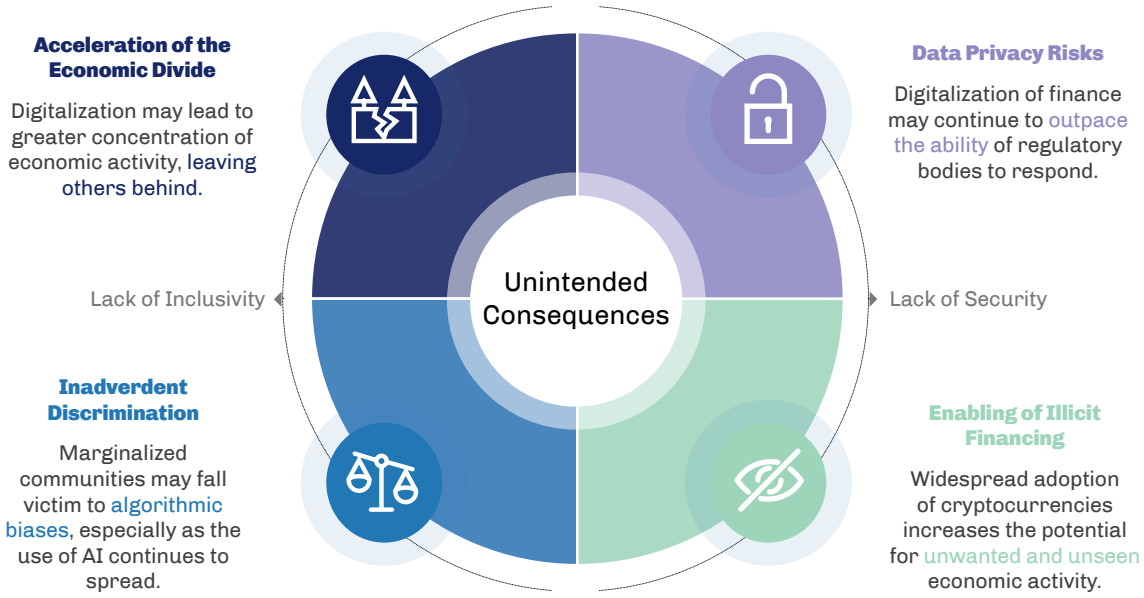
[29] Patti Chu and Olivia Yutong Wang, 'Philanthropy in China' (n.p., AVPN, November 2018). Licensed under the Attribution- NonCommercial-ShareAlike 4.0 International Licence.
[30] World Bank, 'Digital Economy for Africa,' presentation at World Bank Headquarters, Washington DC, 19 April 2018. Available from http://live.worldbank.org/digital-economy-africa
[31] According to Evans Osana. Financial Sector Deepening Africa. Available from https://www.bloomberg.com/news/articles/2018-09-07/fintech-seen-contributing-150-billion-to-africa-s-gdp-by-2022.

Section 4

What are the biggest barriers and risks associated with the digitalization of finance for the Sustainable Development Goals?

While DoF carries great promise and potential to contribute an additional US$500 billion to the financing of the SDGs according to our estimates, it is accompanied by significant barriers and risks that, if not managed closely, could significantly hinder or overshadow its positive contributions to the sustainability agenda. In particular, DoF has the potential to bring about unintended consequences by threatening the inclusivity and security of a well-functioning financial system. While the barriers and risks described below (see also figure III) are not exhaustive, they broadly represent the greatest challenges that the international community must address.

Figure III
Barriers and risks associated with the digitalization of finance



1. Digitalization will accelerate the economic divide, threatening the Leave No One Behind agenda

Digitalization is driving a greater concentration of activity in various sectors and geographies. While in some cases it has contributed to increased attention, de-risking and pooling of resources towards certain SDGs, it can present a danger moving forward. As various economies in East Africa and Southeast Asia have demonstrated, digital innovation and economic growth is exponential once baseline infrastructure is in place and creates a rush of capital across sectors to provide additional encouragement to proven, profitable models. However, as this shift continues, the stark digital and economic contrast between, for example, Middle Africa and East Africa, will only broaden.

Of the 25 least-connected countries in the world, 21 are in Africa, and only 22 percent of the population has access to the Internet.

Source: Ceyla Pazarbasioglu, Jose Luis Irigoyen and Atul Mehta, 'African leaders committed to building a digital economy,' 30 May 2018.

2. Increased use of AI, machine learning and predictive data analytics will result in discrimination

The increased use of data analytics for financing decision-making has already resulted in intentional and unintentional discrimination. There are early reports across sectors that use AI of programmer bias unintentionally influencing algorithm design. AI relies heavily on correlated data but does not determine causation; in other words, it may reinforce (and systematize) a bias by using correlated data. For example, algorithmic biases are already being observed in the reduced affordability of, or access to, financing for women or marginalized communities (see, for example, discrimination experienced by women in credit scoring in box 9). There are also legal and ethical questions as to which data are appropriate to consider in financing decisions (e.g., to whom a customer is related, which stores a customer frequents and what the customer chooses to buy).

Box 9 Case study: Discrimination against women in traditional credit scoring

Digital Credit Observatory, in partnership with La Nacional (a Dominican bank), studied "whether gender-differentiated credit scoring models (using non-traditional data) can increase women's access to formal credit."
"Among men and women with comparable creditworthiness, women face a bias in the amount [that] lenders are willing to provide, [the] higher interest rates [they are charged] and [the] legal frameworks that can make it more difficult for them to access credit. These factors restrict access to formal credit for some low-income women and prevent them from building credit histories."

Source: Sean Higgins, 'Gender-Differentiated Digital Credit Algorithms Using Machine Learning,' accessed June 2019.

Assuming that predictive data analytics becomes a powerful tool for decision-makers (e.g., insurance providers, credit evaluators and investors) by providing granular and individualized insights, much will depend on the intent behinds its use. If used for good, the proliferation of data can create highly relevant and needs-oriented products and services. However, there is a high likelihood that such analytics will reduce or eliminate services to high-risk individuals or communities and/or create a pricing structure such that it is unaffordable to certain pockets of the population and makes it impossible for them to improve their situation. This risk is most acute for insurance and credit products, and it is a general risk for those who are already excluded because they lack the data needed to qualify for services.

Finally, AI can be a 'black box' that makes it difficult for financing institutions and regulators to understand how the models develop their analyses, arrive at conclusions or recommend decisions.[32] As the 'off the shelf' AI market grows, buyers may not have the in-house ability to understand its outcomes or improve it to match their own policies and goals. AI requires iteration over time and careful auditing to maximize the desired results. For some perspective, false positives for suspicious transaction reporting, many of which use some form of early AI or machine learning, hover around 90 percent.[33] While machine learning will likely reduce that figure, it will require significant human support to do so—in other words, humans knowledgeable of how AI works. This conclusion suggests that the transference of AI and machine learning to markets without humans with that skills set may limit its benefit.

3. Enhanced data collection through digitalization poses significant data privacy risks

As seen in both developed and developing economies, digitalization is providing nearly unlimited access to data and information on individual consumers. In some cases, this information is provided without the knowledge of the individual; in others, the individual is willing to accept the trade-off in order to access what he or she considers an essential product or service. While strict data protection protocols, such as the General Data Protection Regulation, are being implemented, the pace of regulation is unlikely to keep up with the pace of data collection, especially in those contexts with limited institutional structure to enforce such regulations.

Technology and regulation will likely continue to lag behind the volume of data and the proliferation of IoT that collects the data, as every database and connected device creates a vulnerability. Aside from the concerns over individual data, there are also concerns for institutions of all types (e.g., the social platform Twitter and the Indian Government's digital identity platform Aadhaar both reported data breaches in 2018).

[32] Lael Brainard, Member of the Board of Governors of the Federal Reserve System, 'What Are We Learning about Artificial Intelligence in Financial Services?' presentation at Fintech and the New Financial Landscape, Philadelphia, 13 November 2018. Available from https://www.federalreserve.gov/newsevents/speech/files/brainard20181113a.pdf

[33] Stuart Breslow and others, 'The new frontier in anti-money laundering,' November 2017. Available from https://www.mckinsey.com/business-functions/risk/our-insights/the-new-frontier-in-anti-money-laundering

4. Digitally driven disintermediation may accelerate and encourage illicit financing

While this paper highlights some of the potential benefits of digital technologies that will advance disintermediation, the use of bitcoin or other cryptocurrencies for illicit or terrorist financing and money laundering is noted as a small but growing risk that urgently requires better oversight and regulation.[34] Aside from the use of cryptocurrencies for illegal activities, criminals are hacking the virtual currency exchanges themselves, with over US$1.5 billion stolen in the past two years, which calls into question their security for broader public use.[35]

[34] United States of America, Department of the Treasury, Office of Terrorism and Financial Intelligence, 2018 National Strategy for Combating Terrorist and Other Illicit Financing (Washington DC, 2018), p 27. Available from https://home.treasury.gov/system/files/136/nationalstrategyforcombatingterroristandotherillicitfinancing.pdf

[35] Thomas P. Ott, Associate Director of the Enforcement Division of the Financial Crimes Enforcement Network of the U.S. Department of the Treasury, Testimony before the House Committee on Financial Services, Washington DC, 20 June 2018. Available from https://www.fincen.gov/news/testimony/testimony-thomas-p-ott-associate-director-enforcement-division-house-committee

Conclusion

Financial markets and monetary systems are, and will continue to be, disrupted by digitalization—not only in the types and the levels of quality of products and investment instruments offered but also in the fundamental structure of the financial system. Some of these impacts are already being seen in how the SDGs are being financed, albeit unevenly across geographies, sectors and financing sources. However, as DoF continues, it will create new business models for individuals and households to access basic services, unlock new sources of financing for the SDGs, allow for a reallocation of existing financing and improve the effectiveness of existing financing flows.

However, as the word 'harnessing' in the title of this paper implies, it will not happen without a concerted effort to make use of digital financing opportunities. This effort starts with creating greater awareness and deepening the collective understanding of the complex relationship among finance, technology and SDGs. Given that the digital finance architecture as well as its systems, policies and regulations are in the early days of development, the international community must look to create the appropriate enabling environments globally, consider ethical and moral guidelines to prevent data misuse and abuse of these innovations, and promote international and cross-sector collaboration on financing priorities to ensure that no one is left behind.

ABOUT THE UN SECRETARY-GENERAL'S TASK FORCE ON DIGITAL FINANCING OF THE SUSTAINABLE DEVELOPMENT GOALS

The United Nations Secretary-General's Task Force on Digital Financing of the Sustainable Development Goals ("the Task Force") is a multi-sector, public-private consortium of global leaders convened by the United Nations Secretary-General in November 2018. The Task Force has been mandated to put forward a concrete, actionable set of recommendations for ways that the digital revolution which is transforming the world's financial ecosystem might be harnessed to advance the Sustainable Development Goals. Along with the deep expertise of its own membership, which includes CEOs of commercial banks, stock exchanges, tech entrepreneurs, finance ministers, central bank governors, and other leaders, the Task Force is aggressively crowd-sourcing the best ideas about the digitalization of finance through a global Call for Contributions, an ambitious research agenda, and a series of "think shop" convenings in cities around the world. The Task Force's interim report of findings will be presented during UN Week in September 2019; work concludes in early 2020.
DigitalFinancingTaskForce.org
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THE UNITED NATIONS SECRETARY-GENERAL'S
TASK FORCE ON DIGITAL FINANCING
OF THE SUSTAINABLE DEVELOPMENT GOALS

With support from Accenture Development Partnerships