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A three-billion-person challenge

Decision time for financial-sector leaders

BY RUTH GOODWIN-GROEN

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Executive summary

Financial-sector policymakers and financial service providers are facing both a real challenge and unique opportunity to drive economic inclusion for about three billion people and spur growth toward the Sustainable Development Goals (SDGs).

The good news from the World Bank's *Global Findex Database 2025* is that 79 percent of adults globally and 75 percent in low- and middle-income economies (LMIEs) now have a financial account of some kind. Mobile phones are even more ubiquitous, with 86 percent of adults globally and 84 percent in LMIEs having one, which in most contexts can be used to access financial services. This means about four out of every five people have the potential to save safely and borrow prudently to meet their financial needs and the potential to pay and be paid digitally. This is good news for the individuals, their families, and for these economies because, as the IMF has found, financial inclusion serves as a catalyst for both economic participation and inclusive growth.

However, the majority of adults in LMIEs that have a financial account do not yet fully engage with the formal financial sector. Only 40 percent of adults in LMIEs (on average) saved formally and only 24 percent of adults in LMIEs (on average) borrowed from a formal financial service provider in the last year and even they do not necessarily have the type of credit they need.[1] There are, therefore, about three billion people who could actively engage in the formal financial sector, and they present both a challenge for financial sector leaders and an opportunity for accelerating inclusive growth.

The main reasons adults in LMIEs do not use formal digital financial services are affordability, lack of trust in service providers, and lack of products to meet their needs. Rapid advances in digital public infrastructure (DPI) and artificial intelligence (AI) have the potential to directly tackle these challenges. Together they can reduce costs, increase trust, and tailor products for individuals, thereby improving lives and driving growth:

- DPI has been endorsed by the Group of Twenty since India's presidency in 2023.[2] Ninety-seven countries now have DPI-like digital payments; sixty-four countries have digital IDs, and 103 have data exchange—together reducing costs and increasing trust.[3]
- AI, by cheaply analyzing massive data sets, is turbocharging cost reduction and product tailoring, which translates into greater affordability and access for people on lower incomes.[4]

Yet, there are potentially problematic aspects to these exciting innovations. DPI has the potential for loss of data privacy (if privacy by design is not embedded), for rent extraction (if not an open-source platform), and for government surveillance (if DPI safeguards are not central).[5] AI has the potential to turbocharge fraud, scams, and identity theft and compromise trust.[6]

Therefore, government financial-sector regulators and policymakers have **urgent and important decisions to make about how to enact and enforce responsible guardrails** in the financial ecosystem. These guardrails are essential so new customers have affordable, appropriate products, can trust their money and data are safe, and have effective recourse mechanisms if problems occur. National coordination at the highest level is essential, regional approaches including policy harmonization can be cost-effective, and urgency is imperative. Financial-service leaders also have key decisions to make about how to design affordable and responsible financial products that build trust, enable resilience, and foster financial well-being and economic growth. There is now a unique opportunity for financial-sector leaders to unleash economic potential for three billion people and accelerate inclusive growth.

Introduction

This is a report for global financial-sector leaders. That includes public and private-sector financial leaders. Leaders at banks and fintechs; government regulators, national and regional policymakers for the financial sector and digital economy; as well as global standard setters; and multilateral financial-sector leaders.

This is a report about the three billion adults who are doing their jobs, running small businesses, sending their kids to school, and working for a better future.

It is about three billion adults who are economically active, typically living in middle- and low-income economies. They have, or soon will have, some kind of financial account and are saving and borrowing from family, friends, or nonformal sources such as money lenders, to pay for healthcare or housing, or invest for the future. They are the global majority.[7]

Now, because of rapid changes in financial technologies, there are both unique opportunities and challenges for financial service providers of all kinds to serve them profitably and grow economies. It is a singular moment that comes once in a lifetime.

This is a report that challenges financial-sector leaders to act so that these three billion people can increase their productivity, expand their small businesses, create jobs, innovate, raise their incomes, and grow national and regional economies. It challenges them to build a fair, functional financial system for the majority and create wealth for their countries.

This report outlines the latest research and priorities for public- and private-sector leaders to ensure their people can use a range of financial services to prepare for a better future. It describes a unique opportunity for three billion adults to have a more resilient future for themselves, their families and communities.

A new client is taught how to use mobile phone banking at South Africa's Standard Bank. REUTERS/Mike Hutchings.

Real progress in individual access to finance in 2025: Good news for people and economies

Four out of every five people globally have a financial account: This increase in financial inclusion will drive inclusive growth and accelerate progress toward the United Nations Sustainable Development Goals—it is great news.

Seventy-nine percent of adults globally and 75 percent in low- and middle-income economies (LMIEs) now have a financial account of some kind according to the World Bank's *Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy*.[8] In 2011, only 51 percent of adults had a financial account. This remarkable increase "is a success story for development," wrote the authors of the World Bank report, because a financial account provides the gateway to a range of financial services to increase incomes and manage risk.[9] This success is clearly illustrated with a focus on digital payments. This World Bank database first displayed collected data on digital payments in LMIEs in 2014. From 2014 to 2024, adults in LMIEs using digital payments increased from 34 percent to 62 percent.[10] There was a surge in digital payments during the COVID-19 pandemic, but the increase in their use has been maintained and continues. This ten-year trajectory is the key trend behind the good news. In other words, right now, three out of five adults in low- and middle-income economies are using digital payments.

The International Monetary Fund is clear on why this is good news:[11]

> Financial inclusion serves as a catalyst not only for economic growth but crucially for inclusive growth. . . . Financial inclusion fuels economic expansion by enhancing savings and investments, smoothing consumption patterns, and reducing the vulnerability of households and firms. Reliable and affordable financial services, such as savings, credit, and insurance, empower society, particularly the underserved or excluded, to invest in their futures, manage consumption efficiently, and handle financial risks more effectively.

The United Nations has also explained how access to finance plays a pivotal role in supporting the achievement of the Sustainable Development Goals. Digital financial inclusion can spur and quicken progress toward the SDGs, and create long-lasting social and economic impact for millions of people worldwide.[12] Financial inclusion aids in reducing poverty (SDG 1) and inequality (SDG 10) by providing access to financial services for the poor and vulnerable, enhancing their ability to manage economic shocks. By facilitating access to credit for individuals and small and medium-sized enterprises (SMEs), it supports decent work and economic growth (SDG 8), while encouraging entrepreneurship and job creation. Financial inclusion also promotes gender equality (SDG 5) by empowering women with financial services and control over resources. It enables families to invest in health (SDG 3) and education (SDG 4), improving well-being and educational outcomes. Additionally, it underpins industry and innovation (SDG 9): "Access to financial services, particularly credit, allows existing firms to expand their services due to a greater investment in inventory, labor, and other means of production. An increase in the number of MSMEs allows economies to create job opportunities for business owners and their employees," referring to micro, small, and medium enterprises.[13]

It is important to note that the gender gap in ownership of financial accounts has dropped significantly from 10 percent in 2014 to 5 percent in 2024. Seventy-three percent of women in low- and middle-income economies have accounts, up from 50 percent in 2014.[14] This matters: "Gender gaps indicate that productive human resources are under-developed, under-employed, and/or misallocated, with adverse effects on productivity and growth," according to the IMF's *Interim Guidance Note in Mainstreaming Gender*.[15] In other words, gender equality is "macrocritical."[16] The IMF goes on to explain that narrower gender gaps in opportunities such as education, health, and financial inclusion lead to better development, employment, and matches of skills with jobs. Reducing gender gaps can also improve the overall resilience of the economy to shocks and enhance prospective balance of payments stability by increasing competitiveness and the variety of goods countries produce and export. Specifically, the IMF notes that "greater inclusion of women as users, providers, and regulators of financial services has been associated with greater stability in the banking system."[17]

It is mobile phones which have helped the leapfrog effect in access to and use of financial services noted in the *Global Findex Database 2021* and the significant increases evident in Findex 2024 data.[18] Now, 86 percent of adults globally and 84 percent in LMIEs have a mobile phone, either a feature phone or a smartphone.[19] This technology, when deployed with the right governance and partnerships, can bridge gaps that once seemed insurmountable. Smartphones, in particular, facilitate access to a suite of financial services and are the primary means by which people in low- and middle-income economies access the internet.[20]

So, with this good news on financial account ownership in LMIEs, what is the summary status of the four basic financial services: payments, savings, credit, and insurance? The World Bank's financial inclusion think tank, CGAP, provides this summary: "We have made progress on payments and are starting to make progress on savings, but we need to build on this and develop higher-value financial services like credit, insurance, and pensions that are all equally vital tools for individuals and communities to build resilience, seize economic opportunities, and find employment..... Specifically, CGAP's Impact Path-

finder shows that the provision of credit enables women to earn more, save more, own more assets, and have greater influence over household dynamics, increasing their economic empowerment and entrepreneurship. Credit enables small business owners to grow their venture and create jobs."[21]

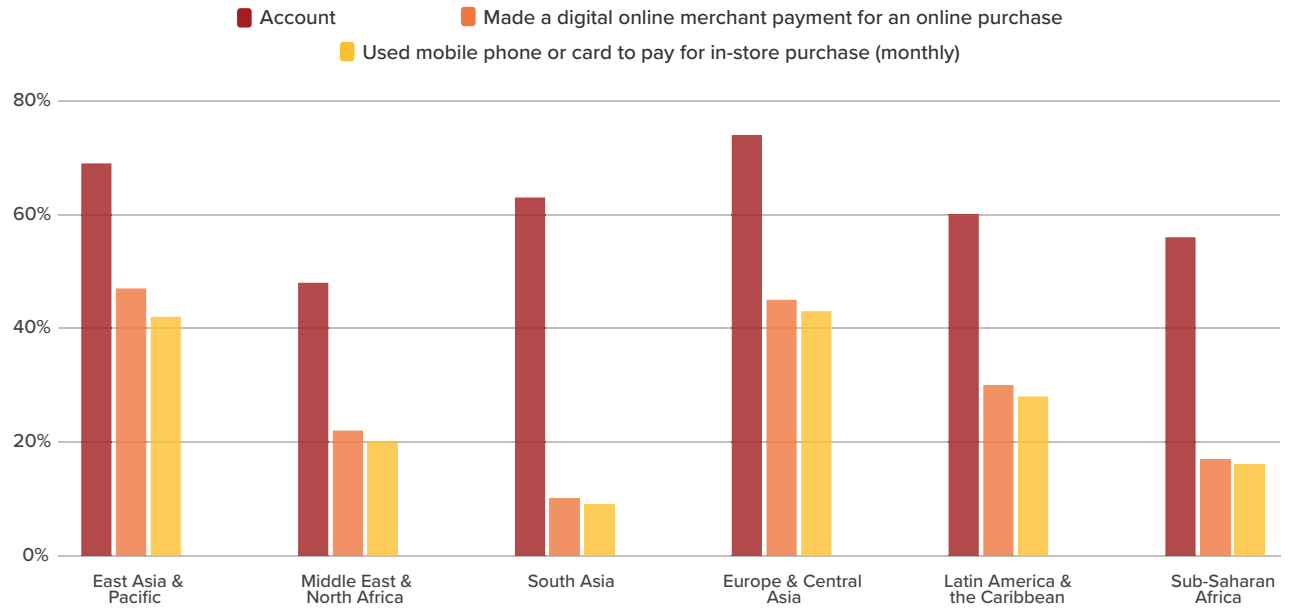
Payments

As reported above, from 2014 to 2024, more adults in LMIEs are using digital payments, increasing from 34 percent to 62 percent. The types of payments received by individuals include domestic transfers, international remittances, government social protection payments and, of course, wages. There is variation across and within regions, between men and women, and between people in urban and rural areas, but the upward trend of using digital payments is inexorable. Payments by individuals to merchants are particularly interesting because they are an indication of participation in the digital economy: overall, 42 percent of all adults in LMIEs paid merchants digitally in the last year, which, amazingly, is up from 35 percent in 2021.[22] In other words, approximately two billion people in those economies are now making merchant payments and engaging in the digital economy.[23] Figure 1 below shows the regional differences in account holders and merchant payments. Alipay in China is the world's largest mobile payment platform, with approximately 660 million monthly active users, 80 million merchants accepting its payments, and 45 percent of adults in China using it every day.[24] The government of Brazil's PIX instant payment system, launched in 2020, is another global leader. As of early 2025, over 182 million individuals, representing about 87 percent of the adult population, were using PIX's free or very low cost services to make purchases, pay for utilities, and buy inventory.[25] Nineteen million businesses used PIX including 89 percent of micro and small businesses.[26] The other global leader is India's UPI instant payments, which serves 30 percent of the nation's 1.4 billion population (see the DPI section below).[27]

Savings

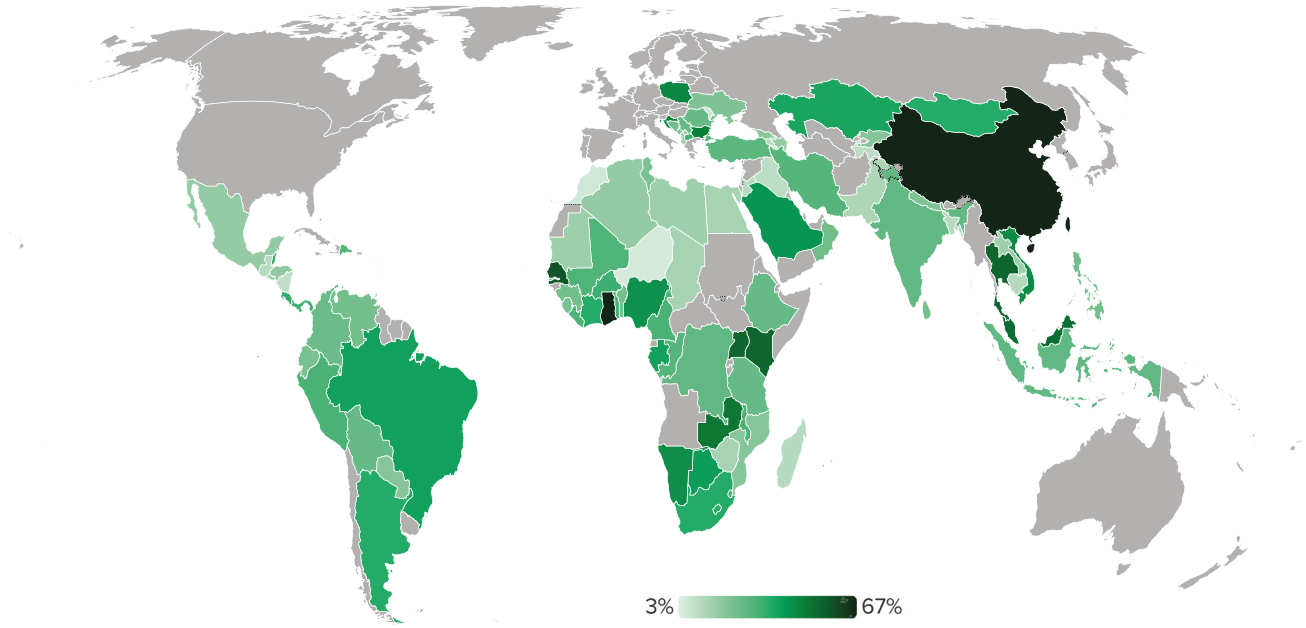
When it comes to savings, the upward trajectory is also remarkable. Fifty-five percent of all adults in low- and middle-income economies globally save money in some form), with 40 percent saving money formally,[28] up from 17 percent in 2011. Amazingly, the rate of formal saving has more than doubled since 2011 with much of that increase occurring between 2021 and 2024, "likely driven by changes in macroeconomic conditions, which heavily influence saving behaviors."[29] There is also considerable regional, income, and gender variation, all carefully explained in *The Global Findex Database* report, but all rates are rising. Figure 2 below shows a very wide range in national savings rates in LMIEs which indicates a real opportunity for increasing savings rates. Regarding the frequency of saving, about half of the savers (47 percent, specifically) saved monthly; adults who saved formally using a mobile money account in sub-Saharan Africa often made more frequent savings deposits than adults who saved only in a bank or similar financial institution account.[30] In addition, banks with mobile apps, such as the Daviplata mobile app for Davivienda Bank in Colombia, make saving much easier.[31] Notably, 36 percent of wage earners leave money in an account, which is a form of saving.[32]

Figure 1: Regional differences in financial account ownership, digital online merchant payments and mobile phone payments in-store (% of adults, age 15+, regional average (2024))



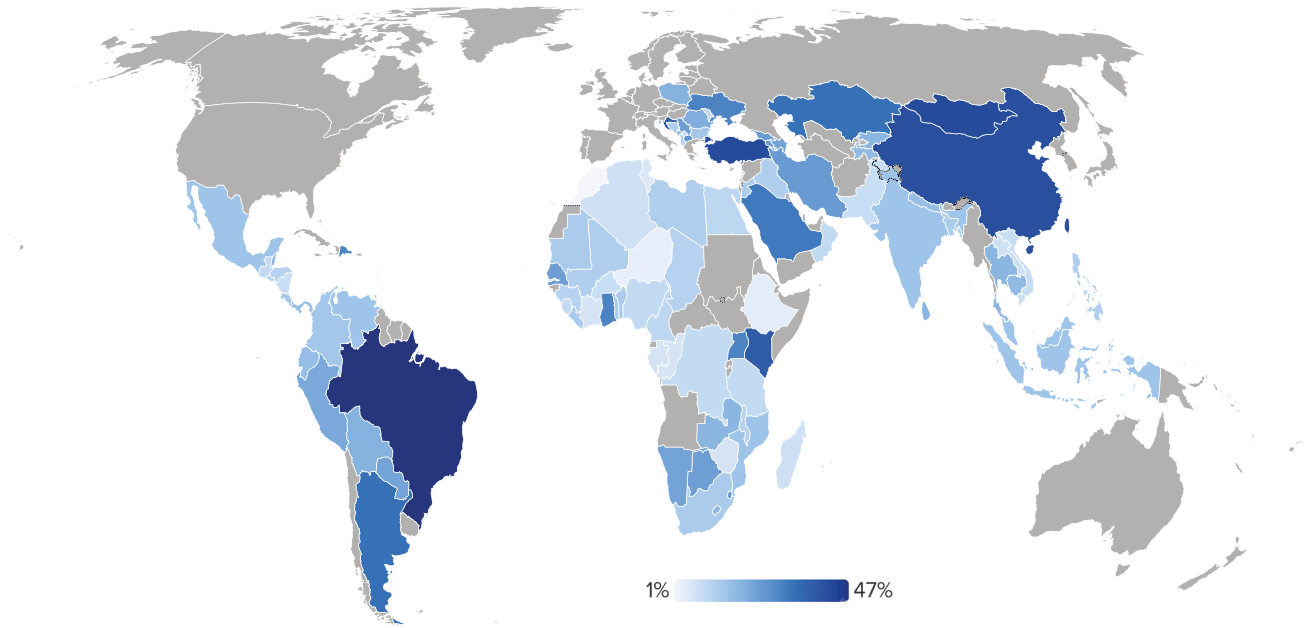
Source: World Bank Global Findex Database, 2025, https://www.worldbank.org/en/publication/globalfindex/download-data • Note: Account refers to the percentage of respondents who report having an account (by themselves or together with someone else) at a bank or similar financial institution or report personally using a mobile money service in the past year. Data for individuals who used a mobile phone or card to pay for an in-store purchase is monthly, as available data is broken down by time-bound intervals. Atlantic Council GeoEconomics Center calculations..

Figure 2: National LMIE rates of saving with formal financial-sector institutions (%, age 15+ (2024))



Source: World Bank Global Findex Database, 2025, https://www.worldbank.org/en/publication/globalfindex/download-data.

Figure 3: National LMIE rates of borrowing from formal financial-sector institutions (%, age 15+ (2024))



Source: World Bank Global Findex Database, 2025, https://www.worldbank.org/en/publication/globalfindex/download-data.

Credit

Borrowing from the formal financial sector has not increased as much. Among adults, 59 percent borrowed money either from the formal financial sector or from informal sources in 2024, 35 percent borrowed informally, and 24 percent borrowed formally (up from 15 percent in 2014).[33] The formal-sector borrowers got credit through a loan from a bank or similar financial institution, or by using a credit card or a mobile money account. The digital data trail on the mobile can be leveraged for credit scoring; financial service providers and mobile money operators can link loans to wallets and/or top-ups, send reminder SMS messages, and promote loan offerings to a huge population of customers.

The national, regional and gender variations in how people borrow are substantial. Figure 3 below illustrates clearly the wide national differences in formal borrowing. For example, in Kenya, the region's pioneer in mobile money, 32 percent of adults borrowed from their mobile money providers, including 25 percent of adults who borrowed *only* in this way.[34] However, there was a 16 percent gender gap in borrowing from mobile money providers in Kenya.[35] In "Argentina, Brazil, China, Türkiye, and Ukraine, ...credit cards dominated as the source of formal credit." In Turkey the gender gap for formal borrowing was the highest at 21 percent.[36]

Data on borrowing is not exhaustive because the survey could not ask about every borrowing option. It found 11 percent of adults borrowed for business expenses, 19 percent borrowed money to pay health or medical expenses, and 22 percent of adults have purchased groceries on credit.[37] Borrowing for education or housing could not be included in the survey, although those products are common in high-income countries. Findex said, however, that those who do borrow formally often do not have access to the types of loans which could help them grow their businesses.[38]

Insurance

Insurance coverage was difficult to assess in *The Global Findex Database* report because definitions and availability of insurance products vary widely among economies. To avoid confusion around variable definitions, the Global Findex survey simply asked whether respondents have made any payments to an insurance agent or company. The survey results showed an estimated 23 percent of adults across low- and middle-income economies make regular payments to insurance companies.[39] To add another perspective, the new host of the "Access to Insurance Initiative," CGAP, estimates there are four billion adults without insurance at a time when inclusive insurance contributes to resilience in the face of climate change.[40] However, the full responsibility for managing climate risks should not be placed on low-income women and men who did not contribute to climate change.

Despite the number of accounts, it is clear the benefits of financial inclusion are not being fully realized.

A global majority of economically active adults face significant barriers to using financial services

There is a clear challenge: 75 percent of adults in LMIEs have a financial account; 55 percent save in some form, with 40 percent saving formally; and 59 percent borrow in some form. Among borrowers, only 24 percent borrow from a formal financial service provider such as a registered co-op, bank, microfinance institution, or mobile money operator, for their microbusiness, home-improvement, school fees, emergencies, or other reasons.[41] In other words, less than half the adults in low- and middle-income economies save formally, and less than a quarter borrow formally.

It will be helpful to put these percentages in numbers of people. There are 4.84 billion adults in low- and middle-income economies in 2024. Of that 4.84 billion, approximately 1.7 billion have accounts but do not save formally (35 percent) and approximately 2.5 billion adults (51 percent) have accounts but do not borrow formally.[42] (The 35 percent is the 75 percent who have an account minus the 40 percent who already save formally. That 51 percent is from the 75 percent who have an account minus the 24 percent who already formally borrow). However, even the 24 percent who do borrow formally—more than one billion adults in LMIEs—do not necessarily have the type of credit they need.[43] Furthermore, Findex found that many who do not yet have financial accounts "have the foundations they would need to get a digitally enabled account. . . . This group could be the next beneficiaries of efforts toward financial inclusion, so long as providers take a holistic approach to helping less financially experienced owners of new accounts build their financial skills."[44] Therefore, a conservative estimate is that approximately three billion adults of the six billion adults globally have yet to use formal sector credit in any form. This is a real challenge.[45]

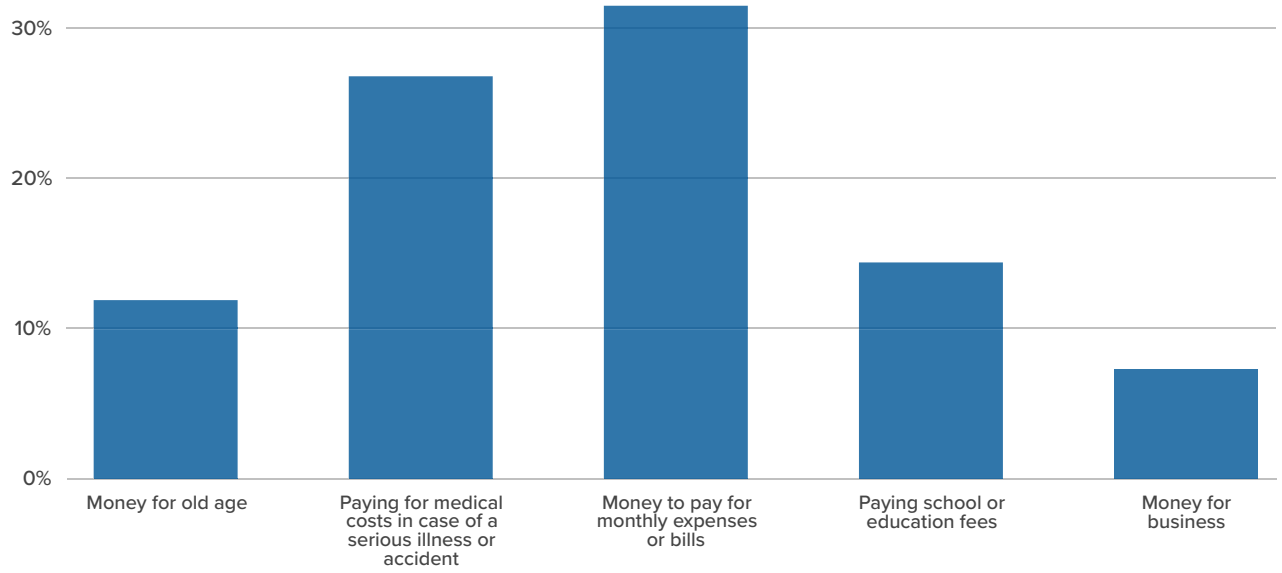
This means close to three billion people have the potential to borrow formally to improve their home, grow their business, or invest in education, but they are not doing so. These are people who have paid for a phone and/or a financial account. They are unlikely to be destitute. Collectively, they have trillions of dollars in economic power and earn money in both the formal and informal economy. They are navigating daily lives with irregular incomes, savings, and borrowing from friends, family, or informal lenders for their small businesses or home improvement projects and to pay bills or care for their grandmothers. The Findex report is clear that "although owning an account is a critical first step to participating in the greater financial system, to fully benefit from access to finance, account owners should be able to use their accounts."[46]

If close to three billion adults with accounts do not or cannot borrow formally, who are they?

The following attributes are simply illustrative of the challenges faced by those not using formal financial services. A range of sources are referenced and they do not all use the same data sets. So the numbers should be read as indicative only to give a big picture overview. In summary, more than likely, they are women, have difficulty easily accessing emergency money within thirty days, and are most worried about paying for monthly expenses, healthcare, or business expenses, though the family might receive an international remittance.

- **They are more likely to be women due to the gender gaps in account ownership and usage:** Digital payments accelerate women's use of other financial services, according to the Alliance for Financial Inclusion's research with its central bank members.[47] So, if there is a gender gap in account ownership and usage, women are either unable or unlikely to borrow formally. This was also found by the GSM Association (GSMA). When women have a mobile money account, according to the GSMA, they are almost as likely as men to use it within a thirty-day timeframe—but are less likely than men to use mobile money frequently. In the Philippines, 59 percent of women used mobile money in the last seven of thirty days, compared to 71 percent of men.[48] This was largely because women were less likely to be "very confident" in their use of mobile money and because they did not have services that benefited them.[49]
- **Many cannot access extra money in an emergency.** Forty-four percent of adults in low- and middle-income economies could not access extra money within 30 days without much difficulty.[50] If there was an emergency, they would have to sell productive assets, turn to a loan shark, or risk falling into poverty. We all face emergencies of some kind that require money: If our only option is to fall into the hands of a loan shark who can exact a terrible price, then the future is bleak.
- **Many individuals are most worried about paying for monthly expenses:** Thirty percent of adults are most worried about cashflow: meeting all their monthly expenses, as can be seen in Figure 4 below.[51] Juggling multiple sources of income from a microbusiness, market garden, and part-time job, and matching them with highly variable expenses would be a major worry for anyone, especially when the mismatch means not being able to pay for, say, electricity.

Figure 4: Most worrying financial issue globally (% of adults, age 15+ (2024))



Source: World Bank Global Findex Database, 2025, https://www.worldbank.org/en/publication/globalfindex.
Note: Regions surveyed include East Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Atlantic Council GeoEconomics Center calculations.

- **Many are especially worried about paying for their families' healthcare:** Twenty-six percent of adults are most worried about medical costs.[52] They are right to be worried: An estimated one billion people incurred catastrophic out-of-pocket health spending (meaning more than 10 percent of their household budget) in 2019, or almost 14 percent of the global population.[53]
- **Some are most worried about business expenses:** Nine percent of adults are particularly worried about business expenses.[54] This is totally logical as there is a financing gap of US$5.7 trillion for formal SMEs (equivalent to 19 percent of gross domestic product in emerging market and developing economies and LMIEs) and another US$2.1 trillion financing gap for informal enterprises for a total of nearly US$8 trillion.[55] When the finance gap for the subset of women-owned formal, micro, small, and medium enterprises (WMSMEs) is calculated, it totals US$1.5 trillion according to a 2019 World Bank paper, and it totals about US$2.4 trillion when informal WMSMEs are included. According to recent data from the World Bank's Enterprise Surveys, a significant percentage of all firms, including micro and small businesses across various sectors, identify access to finance as a major constraint.
- **Many receive international remittances:** International remittances to low- and middle-income countries (LMICs) reached an estimated US$685 billion in 2024. The true size of all international remittances to LMIEs, including flows through informal channels, is even larger.

The next question: Why do around three billion adults with financial accounts barely use them?

There are several ways to categorize the challenges faced by economically active people on low incomes in LMIEs when they want to use their accounts. The World Bank's G2PX program found that factors included:

- Availability of digital infrastructure.
- Availability of appropriate financial instruments.
- Availability of financial education and consumer protection.
- Weak trust in financial institutions.[56]

CGAP, meanwhile, found about sixty (!) kinds of consumer risks facing digital financial services (DFS) users around the world and have prepared a summary of consumer protection challenges.[57] Innovations for Poverty Action (IPA) summarizes the risks they identified for digital finance consumers as "hidden fees, fraud, over-indebtedness, and limited avenues for resolving problems that arise."[58] The Findex survey asked respondents to choose from six options for barriers to not having accounts, which is not exactly the same issue as not using accounts but is very informative about respondents' priorities:[59] The barriers chosen focused on affordability, value for money, and lack of trust in the institutions and this was consistent across regions as shown in Figure 5 below; it shows the primary importance of affordability and value for money. The top barriers GSMA found to further use of mobile internet (again this is not exactly the same issue as not using accounts, but is closely related)

were: safety and security concerns, affordability (data/handsets), and connectivity experience.[60]

These multiple data points on barriers have been distilled in four main reasons financial accounts are not used more:

- Connectivity and particularly mobile internet access.
- Affordability of financial services and transparency about fees.
- If affordable, do they meet the user's needs?
- Even if the above are met, fear of fraud and trust that the user's money is safe remain concerns.

Each of these reasons deserves a report of its own. In this report, only the high-level points are covered.

Connectivity

Connectivity was so important for *The Global Findex Database 2025* report that the World Bank undertook its own 2025 Digital Connectivity Tracker. It describes connectivity as "the foundation for opportunity."[61] The G20's Digital Economy Working Group in 2025 identified connectivity as its first priority for inclusive digital development.[62] CGAP found that mobile connectivity was a particularly significant obstacle to use of digital financial services.[63] For example, in Côte d'Ivoire, 30 percent of DFS users struggled with transactions due to poor networks, and in Burkina Faso, consumers identified it as a primary risk.[64] In India, 29 percent of adults without phones cite lack of coverage as a reason. Meanwhile, a GSMA report titled *State of Mobile Internet Connectivity 2024* lists poor connectivity experience as the third most commonly reported barrier to greater use of mobile internet: While 96 percent of the population has access to mobile broadband, customers reported "inconsistent coverage (e.g., connection drops) or no coverage to access the internet most of the time."[65] A focus on the three billion people who are without connectivity and are offline in emerging markets resulted in a standing-room only event during the UN General Assembly (UNGA) in September 2025.[66]

The World Bank recognizes "connectivity alone isn't enough" to create jobs; self-employed workers also need access to digital financial services to thrive. A bigger challenge, according to the 2024 GSMA report, is the *usage gap*.[67] The gap is 3.1 billion people—or, put another way, 39 percent of the global population living within mobile internet coverage do not use it.[68] The GSMA report also estimates that getting these people online would boost the global economy by approximately US$3.5 trillion during the 2023–2030 period, with 90 percent of this impact benefiting LMICs.[69]

Affordability of financial products with transparency around costs

About half of those with mobile phones named the biggest barrier to financial inclusion as not having enough money; in other words, affordability was the primary issue.[70] Research using mystery shoppers has "consistently documented hidden fees, inadequate disclosure of prices and taxes" and challenges arising from "exploitative pricing practices, poor product design, or a lack of transparency."[71]Research in Senegal by CGAP and in Nigeria by IPA in 2024 found 15 percent and 23 percent of users, respectively, encountered unexpected fees.[72]

Figure 5: Barriers to owning an account (% of adults without an account, age 15+, regional average (2024)

	Not enough money	Fees for financial services too high	Financial institutions too far away	Do not trust institutions	Lack of necessary documentation
East Asia and Pacific	61%	45%	39%	18%	31%
Europe and Central Asia	31%	17%	17%	19%	20%
Latin America and the Caribbean	32%	57%	46%	32%	30%
Middle East and North Africa	78%	24%	13%	20%	11%
South Asia	70%	36%	24%	15%	20%

Source: World Bank Global Findex Database, 2025 https://www.worldbank.org/en/publication/globalfindex/download-data., Leora Klapper et al., The Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy, World Bank Group, 2025, 111.

Note: Data was not available for Sub-Saharan Africa. This graph is inspired by Figure 2.2.3 in the World Bank Global Findex Report. Respondents could choose more than one reason. Respondents in Sub-Saharan Africa without accounts answered an alternative set of questions about the barriers they face to mobile money account ownership.

A shop owner in Buenos Aires, Argentina, uses the Mercado Pago app for transactions at her hair salon in 2020. REUTERS/Agustin Marcarian.

Affordability is an even bigger issue for women than men because their incomes are typically lower and they spend considerable time on unpaid care work.[73] IMF research found that "on average, women do two more hours of unpaid work per day than men," though there are large differences across countries.[74] This means women are likely to be extremely price sensitive: Affordability is essential for women. When discussing mobile-money progress in Ethiopia, the Safaricom CEO reflects this priority in saying, "It's mostly affordability" that drives uptake.[75] The telecommunications services provider understands that pricing is a major barrier to using financial services. When unexpected fees and/or hidden fees further increase the cost of digital financial services for low-income consumers, it indicates that the financial service provider or its agent is not being transparent about prices with their customers. The issue of affordability is very closely connected to lack of appropriate products as discussed below.

Transparency is such an important group of issues that Consumers International, a membership organization for consumer groups, launched a global campaign for transparent digital finance. The organization states that hidden fees make it difficult for consumers to compare services, and the lack of transparency in fees and charges is a significant factor causing a lack of trust in financial services.

Lack of trust

Price transparency is a significant challenge in the mobile money sector that undermines trust. Tracking pricing information from thirty-five DFS providers' websites across sixteen countries in 2023, Innovations for Poverty Action found providers often had no fees listed on their respective websites; others had multiple, inconsistent price lists on their sites, and still others did not disclose taxes on mobile money transactions, so the total fees were not transparent.[76] In addition, mobile money agents are often independent microbusinesses and may charge additional fees for transactions if there is no requirement for fees to be transparent. Even if the fees are technically public, agents can take advantage of users' lack of experience or inability to read the fee schedule (either on a personal mobile device or at an agent's location). The lack of transparency is one factor allowing fraudulent practices to prevail such as overcharging by mobile money agents, which reduces trust in financial services. The GSMA found a lack of trust in mobile money agents is a barrier for roughly a quarter of men and women in India, Indonesia, Philippines, and Nigeria.[77]

Notably, CGAP found that data misuse and cybercrime are further reducing consumers' trust. Their surveys show "high exposure to scams among digital finance users." For example, in Senegal in 2024, 43 percent of DFS users were victims of

scams—nearly half of all users.[78] Findex found that nearly one in five phone owners in low- and middle-income economies received a text or SMS message from someone they did not know asking for money in the context of a scam or online extortion.[79] In Latin America and the Caribbean and in sub-Saharan regions, it rose to 30 percent.[80]

Furthermore, CGAP found anecdotal evidence that women are more vulnerable to consumer risks, including overcharging and fraud, which can lead to women distrusting and disengaging from formal financial services. GSMA also found that lack of trust and safety were consistently top barriers for women's use of digital financial services. For example, in the Philippines it was a key barrier for 63 percent of women.[81]

At a UNGA 2025 convening, Bridgefort Dialogues' founder concluded that trust is the new infrastructure.[82] Trust deficits remain the biggest barrier to inclusion. People fear money will not be there when needed. Building trust requires systems that work reliably (e.g., cash-digital conversion, liability, quick access) and human-centered engagement (local ambassadors, culturally aware financial education).

However, one question about trust has not been answered: Is this distrust about lack of transparency and fraud, or also about a lack of trust in the management of the economy? The macroeconomic context, including inflationary pressures and lack of stability, negatively affects trust in the whole economy—and attitudes about financial services reflect that anxiety.

Lack of appropriate products

A 2024 survey on financial health in India and Africa found abusive lending practices associated with digital credit may have contributed to chronic, high levels of indebtedness.[83] "While over-indebtedness was a consumer issue before the advent of digital credit," GSMA said, "it may have been worsened by harmful market practices such as excessive pricing, price shrouding, debt stress, abusive enforcement practices and 'push marketing' targeted at historically unbanked, vulnerable communities."[84] These findings echo IPA's research on digital credit in 2020, which found 33 percent of digital credit users had multiple active digital loans.[85] Is there a paradox, high demand for digital credit and consumer reports of the benefits of these products alongside market abuses and reports of deteriorating financial health?[86] Perhaps there is not a paradox, but rather, a lack of affordable, transparent digital products that meet consumer needs, adhere to consumer protection regulations, and do not result in over-indebtedness or abuse of customers' data.

Recent research examined the effects of randomly allocated digital credit to customers who had submitted a loan application: They had self-assessed their ability to pay back the loan, but did not meet the lenders' criteria. The result:

> We find that access to digital credit improves borrowers' financial well-being across various mobile-phone-based well-being measures, including monetary transactions and balances, mobility, and social networks as well as borrowers' self-reported income and employment. We further show that this positive impact is more pronounced when borrowers have limited access to credit, take loans for business purposes, and obtain more credit.[87]

Other researchers also recognize traditional underwriting approaches can be expanded through technology and digitizing borrower data, but they point to limitations in reaching the potential borrowers with the lowest incomes. One option is "predictive cash flow modeling" (PCM) to expand access to credit globally.[88] The potential advantage of PCM is that it creates economies of scale, making it cost-effective to underwrite borrowers who were previously too expensive to assess individually.

These are useful findings and indicate promising opportunities in digital financial product design which can appropriately serve the global majority.

Mobile money is clearly a profitable business, as shown in the mobile operators' annual report:[89] Mpesa contributed 42 percent to Safaricom's annual revenue in 2024, up from 32 percent in 2021. Axian's share of mobile money revenue rose from 14 percent in 2023 to just under 18 percent in 2024.[90] Across the industry, average revenue per user grew from US$2.86 in 2023 to US$3.51 in 2024.[91] Overall—with 2.1 billion registered mobile money accounts across the world, over half a billion active monthly accounts, and mobile money transactions reaching US$1.7 trillion globally in 2025—there is an opportunity to design appropriate and affordable as well as profitable products.[92]

The World Economic Forum published research in 2023 that found women entrepreneurs in emerging markets were a trillion-dollar opportunity.[93] There is a middle class that is growing by the hundreds of millions every year, consumer demand is growing across all segments, and women-led businesses have firsthand insights on how to serve the changing needs of these consumers. A recent World Bank meta study on causal impacts of interventions to increase women's access to capital, found that when credit products are designed to overcome flexibility needs and collateral constraints, there are positive impacts for existing profitable women's businesses; the use of alternative data for credit scoring and the development of novel credit products facilitated by these data sources is the next opportunity.[94]

There is much more which could be written on appropriate, affordable financial products for this market, but the bottom line is that there is demand and profitability is possible, so financial service providers are able to serve this market.

With these four serious challenges it is hardly surprising that the approximately three billion people with financial accounts do not use them for formal borrowing or saving. Yet we know they need these financial services. So, what is being done to change the equation? Two innovations are becoming game changers: Digital public infrastructure (DPI) has the potential to address connectivity, affordability, and trust issues. And AI has the potential to address product design and affordability issues.

DPI and AI have the potential to overcome these barriers

Digital public infrastructure

According to the G20's Global Digital Public Infrastructure Repository, the World Bank, and other thought leaders,[95] foundational DPI includes:

1. **Digital identification:** The ability for people and businesses to securely verify their identity, as well as complementary trust services such as electronic signatures and verifiable credentials.
2. **Digital payments:** Easy and instant/real-time transfer of money between people, businesses, and governments.
3. **Consent-based digital data sharing:** Seamless flow of personal data with consent, wherever applicable, across public and private sectors, with safeguards for personal data protection as per applicable data governance frameworks.

This common language or taxonomy for regulators, policymakers, and industry actors is essential to facilitate "interoperability and regulatory understanding, and provide a foundation for scalable, inclusive digital ecosystems."[96]

The 2025 G20 presidency recognizes that "Digital Public Infrastructure has emerged as one of the most powerful enablers of transformation. It allows citizens to access essential services securely and efficiently, helps governments deliver more effectively, and creates the conditions for innovation and trust."[97] In addition to global financial-sector standard setters and multilateral development banks, there are several leading groups on DPI working with the G20 and with emerging economies to accelerate adoption: The UN Development Programme (UNDP), the Digital Impact Alliance, Co-Develop (a nonprofit fund), and the Center for Digital Public Infrastructure each bring their own value to the debate on cutting edge issues as well as implementation. (For example, Co-Develop, the Center for Digital Public Infrastructure, and UN Women prepared and presented good-practice examples on how DPI can work for women at the DPI Summit in November 2025 under the G20 presidency.[98]) This section will simply highlight the main ways that DPI can currently accelerate financial services for the three billion. For more information, please visit their respective websites.

Digital identification

The importance of digital identification for sustainable development was well recognized ten years ago. By 2019, digital ID was calculated as having the potential to "unlock economic value equivalent to 3 to 13 percent of GDP in 2030."[99] *Principles on Identification for Sustainable Development*,[100] which scores of organizations have endorsed, offers good practices for inclusion, design, and governance of digital ID practices.

The two main reasons a digital ID can accelerate access to financial services for those with some kind of existing financial account are: increasing affordability and the reduction of fraud. It means the financial service provider can then be sure who is the one actual person behind the account. This means that Electronic Know Your Customer (e-KYC) or Customer Due Diligence (CDD) for anti-money laundering and combating the financing of terrorism compliance is possible immediately. India is recognized as a leader for its biometric digital ID for all citizens, called Aadhar. It is estimated that banks that use e-KYC can lower their cost of compliance from US$15 to US$0.07 per loan.[101] This is a radical cost reduction for any financial service provider and makes it possible for them to serve millions more customers. This cost reduction has been a game changer for financial inclusion in India. Similarly, a digital ID reduces the incidence of identity fraud because there can only be one person with that digital identity.

Rapid uptake by governments of an open-source option (which is cheaper) for digital ID, such as the modular, open-source identification platform, or MOSIP, has enabled millions of citizens of low- and middle-income economies like the Philippines[102] and Ethiopia to have a recognized identity.

Digital payments

The value of digital payments and digital infrastructure was also well recognized over ten years ago. In 2016, digital finance was estimated to have the potential to "increase the GDPs of all emerging economies by 6 percent, or a total of $3.7 trillion, by 2025."[103] Now "a causal link between digital payments and economic outcomes" is well recognized.[104] In the case of Brazil's payment system PIX, it "cost only USD 4 million to develop, generated a cost savings of USD 5.7 billion in 2021 alone and is expected to help generate 2 percent of Brazil's GDP by 2026."[105] *The State of Inclusive Instant Payments Systems in Africa* report, published in 2025, finds that inclusivity—meaning the instant payment system is made widely accessible to all end users and payment service providers (PSPs) in a market—can "drive scale and lead to reductions in explicit and implicit costs, as well as deeper financial services usage through savings, credit, and insurance."[106] Furthermore, digitizing payments speeds up the progress on most of the SDGs, including women's financial equality. The *UN Principles for Responsible Digital Payments* publication identifies nine principles to serve and protect customers.[107]

The two main reasons digital payments are a gateway to address the pain points of the low-income customers identified above and accelerate access to financial services for those with a financial account are: affordability and tailored products. Regarding affordability, the DPI payment account can offer immediate "zero transaction costs for end-users."[108] India's UPI and Brazil's PIX, which are both real-time interoperable payment systems, have publicly adopted this fast, zero-cost approach. Regarding tailored products, fintechs can use an account holder's digital payment history to offer credit based on the mobile phone data of the individual or MSME.

This is a game changer for individuals and microbusinesses who otherwise would not have access to credit.[109] In addition, the US$685 billion in 2024 in international remittances can be saved safely, which is particularly important for women, who make up 55 percent of remittance recipients globally.[110]

There also is an open-source and often cheaper option for digital payments for countries that do not want to design their own system or be "locked-in" to a private-sector option: Mojaloop.[111] It has been taken up by countries like Rwanda and Tanzania.

Consent-based digital data sharing

The importance of the flow of digital data as the "new oil" hit the headlines in 2017.[112] The boost to economies from broad adoption of consent-based data ecosystems varies, with the highest potential impact by 2030 found to be "as much as 4 to 5 percent of GDP in India," according to a 2021 report by McKinsey Global Institute.[113] Emerging economies stand to benefit more than advanced ones because they tend to have lower levels of financial inclusion and less financial depth. The *Principles for Digital Development* include: "Establish people-first data practices," which states that "people can understand and control how their data is being used; obtaining explicit and informed consent from people before collecting, using, or sharing their data; and investing in people's capacity to navigate the tools, redressal systems, and data practices."[114]

Open-data ecosystems facilitate frictionless interactions between financial institutions and individuals as well as micro, small, and medium-size businesses.[115] Many advocates of financial inclusion recognize that the development of open finance ecosystems with open data, and nonfinancial data sources included, could be a truly transformational enabler to unleash the power of data to increase financial inclusion.[116] Consent-based digital data has the potential to both address three of the pain points identified above and accelerate access to financial services for those with a financial account: affordability, tailored products, and the reduction of fraud. The Indian Centre for Digital Public Infrastructure finds that the use of open data can result in small ticket loans becoming easily available to women, for example, at the "tip of her fingers."[117] However, the Digital Impact Alliance cautions that "effectively unlocking data is no easy feat. It requires a well-designed, implemented and governed digital ecosystem that creates the enabling environment, and essential safeguards, to access—and share—data."[118] Others warn the risks are real and accelerating,[119] particularly for vulnerable populations. The Think 20 (i.e., think tanks and research organizations of G20 countries, aka T20) in 2025 concluded that scaling digital public infrastructure was essential for growth, but also recognized an urgent need to manage the trade-offs between open data ecosystems and community network infrastructure.[120] Members advocated for clear limits on state access to citizens' data to safeguard participation and accountability.[121] This is because when DPI is set up in countries with weak democratic safeguards, there is a risk of state overreach, mass surveillance, and reduced civic freedoms. However, because of its great potential and despite the risks, open finance is being quickly adopted in emerging markets.[122]

Brazil is a notable success story for open finance as it has enabled individuals to securely access and share their financial data with institutions of their choice.[123] Brazil's open finance ecosystem reported over twenty-seven million customers,[124] with over forty-three million accounts linked through open finance. This data-driven approach enables financial institutions to design more tailored products and services, leveraging customer payment information from PIX and other sources to better address the diverse needs of users. For example, Mercado Pago received six million data consents from users, which boosted open finance offerings in 2024. "Two-thirds of people who share data via Open Finance improved their credit offers." As a result, Mercado Pago provided credit to more than twenty-two million users in 2024 which was a 47 percent annual increase in transactions.[125]

Probably the best-known example of an open-source data exchange platform is X-Road, which was first deployed in 2001 in Estonia and was a great success. However, there are other open-source digital public goods for data sharing, and the Digital Public Goods Alliance recognizes open data for AI systems as digital public goods.[126]

A note on the "public" aspect of DPI

No infrastructure is neutral, values are embedded where a road is paved or electricity is connected, and DPI is no exception. In each case, the public interest is determined by the values embedded in it. The authors of a University College London article argue that assessing DPI values against the five principles for the common good will make them explicit and assist in public value maximization.[127] Those principles are purpose and directionality; cocreation and participation; collective learning and knowledge sharing; access for all and reward sharing; and transparency and accountability.

Together, the three components of DPI have the potential to address all four challenges experienced by the global majority and maximize the public good—if the values are explicit and the risks are carefully managed.

Evidence shows that "jurisdictions with all three core components tend to report better outcomes across DFS indicators. . . . Digital payment usage rises from 45 percent to 83 percent."[128] The G20 has developed the first iteration of a DPI Roadmap Playbook for 2025,[129] building on the DPI foundations laid by India when hosting the G20 in 2023. The rapid adoption of DPI can be clearly seen in the success of 50 in 5, a country-led advocacy campaign, and in this DPI map with one hundred digital payment systems, 103 data-exchange systems, and 60 digital IDs, as of April 2025.

As well as rapidly setting up the elements of DPI to reap the potential benefits, it is necessary to manage potential risks from the combination of the three elements, which have until recently been managed independently. DPI has the potential

for loss of data privacy, loss of data sovereignty, and government surveillance. The Universal DPI Safeguards Framework, endorsed by public- and private-sector leaders, aims to "minimize risks across all layers of digital transformation."[130] It recommends good practices on implementing safeguards by public and private actors, and lessons are shared through the safeguards initiative. At events around the 2025 UN General Assembly, DPI safeguards were a major issue. The president of the G20 has adopted the Universal DPI Safeguards Framework in its Roadmap for the Digital Transformation of Government. The framework binds the government to embed safeguards across lifecycle stages, involve civil society in design, strengthen state capacity for redress, and foster innovation towards the SDGs. Embedding safeguards for all parties is vital but particularly for low-income customers who have fewer resources to combat potential scams or hacks of their identity, finance, or data.

Finally, it is important to repeat that there are significant potential returns to the whole economy for investing in each element of DPI as explained above. UNDP has documented that the DPI elements together accelerate achieving the SDGs. Furthermore, an analysis by the Digital Public Goods Alliance quantifying the benefits of the bold investments in DPI showed it accelerated GDP growth.

Stablecoins: A summary of the positives and negatives for the three billion

The IMF in its October 2025 Financial Stability Report noted that "stablecoins are growing rapidly and playing a larger role in financial intermediation, led by stablecoins pegged to the US dollar."[131] Estimates of transaction volumes are at around US$9 trillion globally in the last twelve months, showing 80 percent growth from July 2024 to July 2025.[132] Projections for issuance volumes by 2030 range from $1.9 trillion to $4 trillion.[133] Tether (USDT) and Circle (USDC) own over 90 percent of the market and 97 percent of the total market is linked to the US dollar.[134] It is estimated that 99 percent of stablecoin use was licit overall, but it is difficult to verify the data.[135] USDC is viewed as more transparent and compliant with regulations. The demand for stablecoins[136] comes from the need for more affordable cross-border payment services for businesses and peer to peer remittances. Fintechs, like Paystack (owned by US Silicon Valley company Stripe), which serves multi-country businesses, appreciate stablecoins' fast and inexpensive attributes for cross-border payments and the convenience of programmable money (i.e., like code) without the volatility of other cryptoassets. Companies like Kredete launched Africa's first stablecoin-backed credit card for the African diaspora who want to transfer money and have access to credit. Western Union, one of the largest companies in peer-to-peer remittances in emerging markets, is now piloting the use of stablecoins to deliver "faster, more transparent, and lower-cost transfers without compromising compliance or customer trust."[137]

The positives: The Bank of International Settlements (BIS), in its annual economic report in June 2025, acknowledged the use of stablecoins as a useful cross-border payment instrument for residents in emerging market economies lacking access to the dollar. The IMF's external research publication acknowledged that stablecoins are much cheaper and faster than bank transfers for cross-border payments and are moving down market for personal remittances.

The negatives: The BIS 2025 annual report stated clearly that stablecoins "fall short of requirements to be the mainstay of the monetary system when set against the three key tests of singleness, elasticity and integrity."[138] For example, there is some complexity around 1:1 redemption.[139] Without regulation, the BIS concluded, stablecoins "pose a risk to financial stability and monetary sovereignty."[140] In the *Financial Times*, Gillian Tett put that sovereignty risk more bluntly, US stablecoins could be the next chapter in "American financial imperialism."[141] The IMF has recently outlined the three main financial stability risks associated with the continued growth of stablecoins: "(1) weaker economies may face currency substitution and reduced effectiveness of policy tools, (2) bond market structure could change with potential implications on credit disintermediation, and (3) investor runs out of stablecoins may generate forced selling of reserve assets."[142] The Financial Stability Board (FSB), which coordinates the work of national financial authorities and international standard-setting bodies, in its October 2025 review of the implementation of its crypto-assets recommendations found that "cross-border cooperation and coordination is fragmented, inconsistent, and insufficient to address the global nature of crypto-asset markets."[143] The FSB emphasized that "fragmented responsibilities among domestic authorities, divergent definitions of crypto-assets, and legal barriers . . . may delay coordinated responses to potential systemic risks."[144]

In response, the IMF, the G20, the FSB, and other standard-setting bodies are working on a "comprehensive and globally coordinated regulatory approach."[145] The BIS is working on options such as harnessing tokenization to improve cross-border payments in the banking system and make them seamless, more efficient, cost-effective and well regulated. There are also proposals for compliance by design to be built into the blockchains of stablecoins, which could improve their supervision. In addition, CGAP has started exploring how stablecoins can drive financial inclusion.[146] If the rapid growth of stablecoins is part of a global "stablecoin race" then governments seeking to expand financial inclusion will need to respond rapidly.

This rapid rise of stablecoins is increasing the urgency for governments to roll out their DPI and its related regulation to achieve national and regional objectives. At the same time governments will also need to raise public awareness about the benefits and risks of digital financial assets like stablecoins and enact and enforce consumer protections.

Artificial intelligence

A comprehensive data-driven snapshot of the global AI landscape released by the World Bank in November 2025 provides a useful economy-level view of progress and the four foundational investments needed for countries to benefit from AI.[147] Therefore, this report will briefly outline the AI opportunities for banks and fintechs to provide financial services to the three billion global majority, after first identifying some of the very real risks of AI for this majority—particularly generative AI (GenAI)—which need to be mitigated.

At an economy level, the Carnegie Endowment has identified three ways "the global majority uniquely faces harm from AI": harms arising from the centralization of AI production in the Global North (resulting in deepening global inequality); harms due to a failure to account for AI's sociotechnical nature across diverse social contexts; and harms arising from practical and policy roadblocks preventing abstract principles from translating to global practice.[148] This builds on the work of the 2021 UNESCO recommendations on the ethics of AI.[149] However, leading thinkers in tech community, such as at MIT,[150] are more focused on the risks and dangers of the weaponization of AI. They recognize AI is revolutionizing cyber threats, making them more scalable, adaptive, and autonomous. Unfortunately, AI-enhanced phishing, deep-fake deception, and polymorphic malware are just the beginning. AI can now be used to automate entire attack sequences, executing with minimal human intervention, and dynamically adapting to exploit weaknesses in real time. Governments and financial service providers need to be aware of this new reality.

The January 2025 BIS report titled *Governance of AI Adoption in Central Banks* finds that:[151]

> The potential risks are wide-ranging and include those around data security and confidentiality, risks inherent to AI models (e.g., «hallucinations») and, importantly, reputational risks. The potential risk exposure for central banks can be significant, owing to the criticality and sensitivity of the data they handle as well as their central role in financial markets.

To address these risks, the BIS recommends a comprehensive risk-management strategy.

For financial inclusion, the risks include turbocharging fraud, scams, and identity theft,[152] the compromising of trust in government and business, together with the lack of transparency -the black box problem,[153] and inadequate redress mechanisms has potentially devastating consequences for those with low incomes. The Alliance for Innovative Regulation's white paper on GenAI provides more useful detail of these risks.[154]

In response to such risks, the World Bank's practical handbook for emerging market policymakers on AI, *Devising a Strategic Approach to AI*, seeks to overcome the AI North-South divide, and ensure AI is used for national goals. The World Economic Forum has also issued a 2025 handbook, *Advancing Responsible AI Innovation*, advising private-sector companies to coordinate with regulators to manage AI risks responsibly.[155] Both handbooks recognize that new forms of coordination are required. Leading thinkers in this area find that "incremental co-ordination won't solve systemic challenges, thus we need innovation in both the regulatory and legislative system to create, modernize and adapt institutional forms and mandates," as noted in a summary of a University of Cambridge workshop co-hosted by the Innovation Hub for Prosperity and the Cambridge Centre for Alternative Finance.[156] But there is good news: There are three main ways AI can accelerate serving the three billion.

Fraud prevention

Using AI for fraud prevention is one benefit of the double-edged sword of AI in financial services. In 2020, global research found that fraud detection was the most common use of AI in the financial industry and it continues to be used this way. AI can detect fraudulent documents, SIM swap identification, identity theft, synthetic IDs, anti-phishing measures, real-time user behavior analysis, and proactive warnings to users. This year, the Alliance for Innovative Regulation found that "keeping pace with the criminals" was an important benefit of AI.[157] AI-driven nudges could also help providers better train their employees and agents to protect consumers against fraud and other risks. This is good news for serving the three billion potential formal borrowers: Being able to prevent fraud in new markets allows for confident expansion.

AI-backed credit scoring and loan term design

Using AI to undertake credit scoring and to make loan decisions can significantly reducing costs for financial service providers in emerging markets. These are just a few of the many possible examples:

- Use of phone, photo, and other alternative data for credit scoring by AI models: AI-backed credit assessment using alternative phone payment data, photos of stock in store and/or an AI chatbot are used by companies like M-KOPA and Tala in Kenya, enabling loans for populations who previously could only borrow from family and friends.
- Bundling optional digital financial skills with loans has proved to be effective for MTN Fintech in partnership with Arifu and the Mastercard Center for Inclusive Growth, with the result that one million small businesses have benefited, increasing sales and income.
- Embedded finance for AI credit assessment: This is when financial services are integrated into nonfinancial platforms, marketplaces, and workflows. Embedded finance addresses challenges of limited collateral, lack of formal credit histories, and prohibitive costs of borrowing, by leveraging alternative data—such as transaction histories, sales performance, and supply chain activity on these platforms—to assess creditworthiness. E-commerce platforms like Alibaba (China), Hepsiburada (Turkey) and Mercado Libre (Latin America) use sales

A woman uses her phone to use MPESA for a mobile money transfer. Vodafone Group/Flickr.

and revenue data to offer tailored financing solutions to merchants, enabling them to grow their businesses without relying on traditional banks.

- Risk profile segmentation can also help prevent overindebtedness, but this is predicated on a well-regulated and supervised financial sector.

Finally, a note on agentic AI, which can perform tasks such as credit scoring and solve issues on its own. McKinsey in 2025 argues that agentic AI will be a major game changer in financial service providers (recognizing that it works best on an open finance framework).

Aggregating information for the customer to boost productivity

The G7 AI Hub for Sustainable Development is currently working on use cases for (small) AI to drive impact and increase trust in digital services. These use cases embed finance but are not primarily about finance. OpenAgrinet is an example of such a use case. It uses AI to "provide real-time data, predictive insights, and transparency across supply chains, in multiple languages." This approach ensures farmers, even in remote areas, can access vital information and resources, narrowing the digital divide, and enhancing efficiency. It embodies principles like: Designing to work at scale (not scaling up from a pilot); embracing diversity as the solution (not looking for cookie-cutter farms); distributing the ability to solve (not centralize); and doing no harm. On that point, it is worth noting that AI can also be used to analyze dark data to benefit individuals, but this also needs safeguards.

There are both challenges and opportunities to better serve the global majority using the incredible potential of AI to foster financial inclusion within a responsible digital finance ecosystem.

The exciting acceleration of implementation of the package of DPI, together with the use of AI, means that there is a unique opportunity to responsibly serve the three billion people who have accounts and could use appropriate, affordable, formal borrowing services—but are not yet doing so.[158] The following three policy recommendations address this pivotal moment for serving the three billion who are economically active and have financial accounts but are not yet able to realize the benefits of formal borrowing and other financial services—and thereby driving growth, jobs, and progress toward the SDGs.

Three urgent action recommendations so three billion adults can drive growth

Government financial-sector leaders have key decisions to make on how to move quickly to enact and enforce responsible practices in the financial ecosystem so customers can trust that both their money and data are safe, and if scams do happen, they have recourse mechanisms with power. National coordination at the highest level is essential; regional approaches, including policy harmonization, can be cost-effective; and urgency is imperative. Private financial-sector leaders have key decisions to make about how to design affordable and profitable financial products that build trust, enable resilience and financial well-being, and spur economic growth. Such interconnected actions will help leaders to grasp this unique challenge and opportunity to build a safer and more prosperous future for three billion people.

1. Bridge regulatory silos for DPI and AI governance to focus on inclusive growth

Urgent elevation of DPI and AI governance to the highest levels of government is needed to realize the significant potential return on investment as well as address the security and regulatory challenges. Only the highest levels of government can provide the leadership to bridge the regulatory and oversight silos of digital economy acceleration, national security maintenance, financial-sector regulation, data governance, regional autonomy, and private-sector engagement to drive growth and fulfill the SDGs. This cross-functional leadership should also extend to the regional and G20 level.

As World Bank President Ajay Banga said: "Private investment flows only where the right conditions exist and where there's a clear probability of return. And for that, two things are essential: a strong infrastructure foundation and a predictable regulatory environment. Without these, private capital stays on the sidelines."[159] So government leaders need to provide the infrastructure and predictable regulatory environment, and providers of financial services need to be ready to engage with these markets.

Great leadership has already been shown by India, Malaysia, Colombia, South Africa, and other national leaders. In India, the prime minister set up Digital India in 2015 under his office.[160] Ten years later, Aadhar (the digital ID for every citizen), UPI (Free Digital Payments for everyone), the Electronic Consent Framework, and the Data Empowerment and Protection Architecture have catalyzed India's digital economy.[161] India is sharing its experience through the G20, the Center for Digital Public Infrastructure, and many other avenues.[162] Malaysia's National Council for Digital Economy and Fourth Industrial Revolution (MED4IR), under the Office of the Prime Minister, is highlighted by the World Bank as an example of good practice, providing a one-government, cross-sector strategic vision for AI and DPI.[163] In Colombia, the president established a "situation room" during the COVID-19 pandemic to bring all relevant public and private actors together to urgently use its DPI to provide payments to three million people without incomes within a month![164] The Office of the President of South Africa convened a whole-of-government working group in September 2024, with the mandate to prepare a *Digital Transformation Roadmap* in six months, and it launched in May 2025.[165]

Beyond internal government coordination, wider national engagement is also imperative. The UN DPI Safeguards and the Alliance for Innovative Regulation strongly recommend that regulators, policymakers, and legislators engage in this dialogue with innovators, financial services providers, and consumer advocates.[166] Recent research undertaken by the Cambridge Centre for Alternative Finance finds private-sector partners are essential: "Successful implementations demonstrate that a well-coordinated approach, whether public-led or industry-driven, can influence financial inclusion and efficiency while maintaining regulatory safeguards."[167] National financial inclusion strategies, in particular, could offer lessons for building a responsible digital finance ecosystem where key stakeholders collaborate.[168]

However, experience shows more than genuine country leadership is needed for success: These platforms will fail unless there is sequenced action to sustain momentum,[169] delivering both near-term benefits and long-term transformation; and capital investment is structured in ways that unlock complementary public and private finance. It can be done, and a subset of this high-level collaboration is needed to focus on protecting customers and building trust. The T20 has called on G20 leaders to use their influence to create a multistakeholder agenda for digital public infrastructure design which could facilitate speed and transparency in its rollout.[170]

2. Update and enforce responsible regulations to protect new customers, with regional learning

Both enacting and enforcing updated responsible regulations across the financial ecosystem are priorities to help prevent customers from being scammed or subjected to surveillance or excluded at times of rapid innovation. Protecting consent-based digital data usage will be especially important as the use of AI increases and there will be new consumers of digital financial services who may potentially be more vulnerable. Customers need to be able to trust that their money and data are safe, and if scams do happen, they have recourse mechanisms with power.

Financial consumer protection is a long-standing part of a central bank's mandate. The World Bank Group's *Developing a Risk-Based Approach to Financial Consumer Protection Supervision* (published in 2022),[171] and the *G20/OECD 2022 High-Level Principles on Financial Consumer Protection*,[172] re-

flected the state of the practice, but they are fast becoming outdated. Speaking at the BIS in September 2025, an assistant governor of the Reserve Bank of Australia said central bankers are facing a "new era of strategic, technological and operational disruption that is cutting across the financial system and wider society in complex ways."[173] There is a real urgency to broaden the approach to responsible regulation to include, for example, data governance and other financial-sector risks, as well as resilience for the financial system. The financial industry is increasingly seeking guidance from regulators on the responsible use of AI.[174]

A responsible digital finance ecosystem approach with *all participants* contributing to protecting the new digital finance entrants ecosystem is now essential.[175] This includes new actors involved in the design and provision of financial services, as well as the many authorities and consumer representatives. On a hot-button issue like pricing, consumer advocates and digital lenders with rich datasets could join with regulators to model consumer outcomes for a range of scenarios and stress-test scenarios.[176]

Regional harmonization of regulation and enforcement may help speed up the work, particularly as global coordination is facing a particularly challenging time. Shared or harmonized regulatory standards are proving to be effective in promoting regional trade and trust, e.g., the European Union's General Data Protection Regulation (EU GDPR),[177] efforts of the Association of South East Asian Nations (ASEAN),[178] and the African Continental Free Trade Area (AfCFTA) agreement and ratifications.[179] Cambridge Centre for Alternative Finance research finds that a national approach can be enhanced when complemented by "stronger coordination through intergovernmental bodies, cross-border collaborations, and public-private partnerships."[180] The European Commission also has a regional AI Action Plan.[181] The African Union's AI strategy has already recommended "the establishment of an appropriate AI governance system and regulations at regional and national levels."[182] Leveraging collective action is one of the ways regulators can surface the highest priorities, solve problems, articulate clear goals for AI governance, and then develop more standardized approaches.[183] These regional approaches could provide a framework for regulatory protection for new financial-sector consumers to respond quickly to face the unique challenges of this moment.

Authorities will need to double down on effective enforcement mechanisms so that consumers have recourse as the market evolves. There are ways to reduce the cost of enforcement including using AI to improve regulator's ability to respond to consumer complaints.[184] For example, the Central Bank of the Philippines is using an AI chatbot named BOB to enhance financial consumer protection,[185] and the Reserve Bank of India Innovation Hub is using AI to track digital credit complaints on social media to assess risks.[186] The cost is worth it because the cost of inaction may be higher with the loss of trust in the financial system and the loss of economic growth. It was South Africa's deputy minister of communications and digital technologies, Mondli Gungubele, who challenged participants at an event during the eightieth session of the UN General Assembly (aka UNGA 80) on DPI safeguards to consider what the cost of doing nothing to protect consumers would be.[187]

3. Create national financial service providers codes of conduct to build consumer trust

Consumers' lack of trust, as discussed in this report, is recognized as one of the potentially challenging tradeoffs of DPI,[188] and is an issue when planning a national AI strategy. Consumers International says that regulation is not enough: To build trust, the focus needs to be on outcomes for consumers.[189] Therefore, in addition to points 1. and 2. above, it is recommended that financial service providers of all kinds in each national market agree to a kind of Hippocratic oath to "do no harm,"[190] which is the first principle of the UN DPI Safeguards. The next step is committing to ongoing research with consumers and taking action to address consumers' challenges, such as on access and pricing, so their products increase consumers' incomes and financial well-being.[191]

Several industry associations have codes of conduct that outline ethical principles and responsible finance standards for members, but they are typically around one type of institution rather than the overall sector. The Australian Banking Association has a strong national code of conduct that is "intended to complement the law and, in some areas, set higher standards than the law."[192] While valuable, these codes of conduct do not include *all* the new types of service providers in the current market, often do not address the use of AI, and are not often developed in partnership with consumer advocates.[193] An excellent example of sectoral action by financial service providers of all kinds in partnership with women entrepreneurs' advocates is the Women Entrepreneurs Finance Code.[194] The WE Finance Code is a national commitment by financial service providers of all kinds, both private and public, civil society, and the government, to increase lending to women entrepreneurs and track performance. It has already been launched in more than thirty countries in just eighteen months from the Dominican Republic and Uzbekistan to Rwanda and Fiji—and its use is expanding rapidly. So, a national action step by financial service providers with government and civil society is possible.

As most adults who are not borrowing are women, the WE Finance Code signatories are also committed to robust data gathering to track lending to women with the aim of using the data to increase financing. A similar approach is being taken in Indonesia: The Ministry of Women's Empowerment and Child Protection, together with Women's World Banking, initiated the Women's Digital Advocacy Hub,[195] a multistakeholder collaboration platform involving the government, all types of financial service providers, civil society organizations, and other development partners, to listen to women consumers and successfully advance women's financial inclusion.

Research has already demonstrated that it is good practice when marketing digital credit to have clear terms and conditions in the language and media that customers understand

(voice options in local languages are particularly accessible).[196] The marketing itself must include where to get help to solve problems. However, when investigating challenges for new entrants to understand digital credit pricing, researchers found that it took regulations requiring mobile money providers to post up-to-date pricing information, in a standardized format, among other things, to help consumers to access and assess prices.[197] Credit providers could do this before regulations come out. A step further would be to agree on pricing guardrails and on responsible collection practices.[198] For example, the Global Debt Collection with Dignity Initiative (GDCDI) recognizes that the regulation of debt collection practices has fallen short in many legal systems worldwide,[199] including those of advanced economies. Therefore, the initiative includes developing a model framework with consumers for regulating debt collection firms and practices, adaptable by national authorities around the world.

In each market, it is choices by key market actors to commit to the well-being of consumers that will facilitate the building of a safer and more prosperous future for three billion people.

Conclusion

Financial-sector leaders in government and the private sector have urgent decisions to make on how to best harness the technological innovations in DPI and AI, prevent their potential harms and so expand responsible financial services to benefit those who have financial accounts but barely use them. National coordination is essential and regional approaches, including policy harmonization, can be cost-effective, but it will require a sense of urgency to overcome the challenges. Leadership is needed to enact and enforce responsible protection for customers facing digital innovations. Business leaders pursuing these innovative approaches need to better understand and serve the significant new customer segment, as well as design clear, simple, and affordable financial products that enable resilience and financial well-being.

It is time for leaders of all kinds to take these three actions for the three billion global majority to improve their lives and drive growth.

About the author

Ruth Goodwin-Groen is a nonresident senior fellow with the Atlantic Council's GeoEconomics Center. Goodwin-Groen brings thirty years of strategic and technical leadership in financial-sector development and financial inclusion in emerging markets to her current consulting practice, Goodwin-Groen Consulting. Her focus is on responsible digital financial inclusion and equality in financial services for women.

Goodwin-Groen is best known as the founding managing director of the United Nations-hosted Better Than Cash Alliance, which created a global movement from cash to responsible digital payments to achieve the Sustainable Development Goals. Alliance members and partners include over 113 governments, 229 companies, and most of the UN—accounting for over 90 percent of global gross domestic product.

Goodwin-Groen has a PhD in financial-sector development from the University of Bath, an MBA with distinction from Harvard Business School, and a Bachelor of Science with Honors from the University of Western Australia.

Appendix: Roundtable participants (by meeting date)

April 25, 2025

Alisha Chhangani, Atlantic Council
Yasmin Fernandes, Women's World Banking
Andrew Gallucci, Circle
Nicole Goldin, United Nations University - Centre for Policy Research and Senior Fellow, Atlantic Council
Daniel Gorfine, Gattaca Horizons
Leora Klapper, World Bank
Alexia Latortue, Centre for Global Development
Rafal Libera, Transatlantic Future Leaders Forum
Alex Mills, CORE POWER
Harish Natarajan, World Bank
Heba Shams, Mastercard
Shivani Siroya, Tala
Sophie Sirtaine, CGAP
Admassu Tadesse, TDB Group
Mahesh Uttamchandi, World Bank
Paul Wong, Stellar Development Foundation

October 14, 2025

Aishah Ahmad, LMFI Group
Deon Woods Bell, Gates Foundation
Anir Chowdry, DX Global
Michael Ehst, World Bank
Nicole Goldin, United Nations University - Centre for Policy Research and Senior Fellow, Atlantic Council
Sanjay Jain, Gates Foundation
Victoria Johnson, Women's World Banking
Amadine Lobelle, Paystack
Njuguna Ndung'u, Chair Advisory Board, TDB Academy
Rodrigo Pereira Porto, World Bank
Lauren Pruneski, Tala
Sophie Sirtaine, CGAP

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