

# Achieving the Sustainable Development Goals

## The Role of Financial Inclusion

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“ *Achieving financial inclusion is  
not an end in itself.  
It's the means to an end.*

—Queen Máxima of the Netherlands/UNSGSA



**UNSGSA**  
UNITED NATIONS SECRETARY GENERAL'S  
SPECIAL ADVOCATE FOR INCLUSIVE FINANCE FOR DEVELOPMENT



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## Message from the UNSGSA



In my role as the UN Secretary General's Special Advocate for Inclusive Finance for Development, I have participated, along with my partners, in many of the global discussions that have led to the Sustainable Development Goals (SDGs). Throughout this member state driven process, governments and development practitioners have painstakingly worked to set priorities and articulate a vision for where we all want to see the world by 2030. There is no doubt that we have the means to achieve this vision by making some important policy and implementation choices. Investing in financial inclusion is certainly one of them.

The evidence presented in this paper is powerful: it gathers in one convenient place the increasingly clear link between financial inclusion and development. It identifies where financial inclusion may have a direct impact on outcomes such as health, education, and gender equality. It also lays out the evidence for the channels in which financial inclusion has an indirect role in achieving broader goals such as inequality, growth, and peace. Furthermore, this paper shows us that we can do more to continue to build the evidence base where it is not yet available.

Viewed from the angle of the SDGs, this paper reinforces that financial inclusion is about human development and empowerment. Financial inclusion gives people the means to improve their own lives. It can be clearly observed in the choices that women have as a result of having access to a bank account: they invest in businesses and use proceeds from their businesses to invest in their households. It becomes apparent in the choices that families make for their children's education when they can save or receive remittances from family members living abroad. And, it is obvious in the choices that farmers make in the types of crops they produce and the resulting increase in crop production when farmers are given appropriate financial products, like commitment savings products and weather-based index insurance.

But financial inclusion carries benefits even beyond the improvement in individual lives. By moving away from cash and using digital payments to distribute government wages and cash transfers such as pensions, governments can cut costs and reduce leakage. Digitizing social transfers and government wages has the potential to introduce millions of adults in emerging economies into the financial system. This has many positive ripple effects on the broader financial system.

I am deeply impressed by the progress the global community has made in recent years to advance financial inclusion. But with 2 billion people still excluded from the formal financial system, I remain humbled by the work ahead of us. We must keep in mind that financial inclusion is not an end in and of itself but an important enabler of development progress and a powerful tool to reach our main goal: achieving the SDGs. Research such as the work presented in this paper helps us to understand the challenges ahead while shining light on the best path forward. I offer much gratitude to the organizations involved in the paper, and I also call on researchers and the global community to continue to build the knowledge base related to the development impact of financial inclusion so that we can adapt our policy recommendations.

Finally, I would like to thank the member organizations of my Reference Group that have laid the groundwork for this paper, including CGAP, the World Bank, the Bill & Melinda Gates Foundation, and UNCDF. And special thanks goes to the authors of the paper, Leora Klapper, Mayada El-Zoghbi, and Jake Hess.

**Her Majesty Queen Máxima of the Netherlands**

*United Nations Secretary-General's Special Advocate for Inclusive Finance for Development*

# I. Introduction

On 25 September 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, along with a new set of development goals that are collectively called the Sustainable Development Goals (SDGs). The Agenda is a culmination of many years of negotiation and was endorsed by all 193 member-nations of the General Assembly, both developed and developing—and applies to all countries. UN Secretary General Ban Ki-Moon noted that “the new agenda is a promise by leaders to all people everywhere. It is an agenda for people, to end poverty in all of its forms—an agenda for the planet, our common home.”

The SDGs comprise an ambitious 17 goals (see Figure 1). While the SDGs do not explicitly target financial inclusion, greater access to financial services is a key enabler for many of them. By reviewing the research on the link between financial inclusion and development, this working paper shows where and how financial services can help achieve the SDGs. It concludes by outlining opportunities for businesses and governments to expand financial inclusion in emerging countries by digitizing cash payments of wages and transfers.

Financial inclusion means that formal financial services—such as deposit and savings accounts, payment services, loans, and insurance—are readily available to consumers and that they are actively and effectively using these services to meet their specific needs (CGAP 2011). A related but distinct concept is financial development. While financial inclusion is typically measured by gauging how many people own and use formal financial products, financial development is concerned with macro-level indicators, such as the size of the stock market and a country’s ratio of credit to gross domestic product (GDP). Many factors influence both a country’s level of financial inclusion and financial development, including income per capita, good governance, the quality of institutions, availability of information, and the regulatory environment (Allen et al. 2016; Rojas-Suarez 2010; Karlan et al. 2014; Park and Mercado 2015).

Figure 1: Sustainable Development Goals



Source: <https://sustainabledevelopment.un.org/sdgs>

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The very first SDG—ending extreme poverty—explicitly mentions the importance of access to financial services. When people are included in the financial system, they are better able to climb out of poverty by investing in business or education. In India, a government effort to open banks in rural areas helped cut rural poverty by 14 to 17 percentage points. Spending on school-related expenses increased by 20 percent in Nepali households that opened free banks accounts. Financial inclusion also prevents people from falling into poverty by softening the blow of unexpected expenses. When hit with the death of a breadwinner, a savings account can be all that stands between a family’s impoverishment and stability. Digital payment services also allow people to collect money from far-flung friends and relatives when faced with economic pressure.

Increasing account ownership among the world’s 2 billion unbanked adults—most of whom are poor women—would help the SDGs promote gender equality. In Kenya, women who had savings accounts invested 45 percent more in their businesses and were less likely to sell off assets when faced with a health emergency. Access to financial services also can result in higher spending on health and other necessities. One study in Kenya found that health expenditures increased by 66 percent when people were provided with a safe space to keep money.

Financial inclusion of farmers can lead to bigger investments in the planting season, resulting in higher yields—and hence progress toward SDG 2, which focuses on improving food security. When Malawian farmers had their earnings directly deposited into a new bank account, they spent 13 percent more money on equipment and increased the value of their crop output by 21 percent. Rainfall insurance, which kicks in when there is a drought or flood, also has been shown to embolden farmers to make riskier and more lucrative investments.

The links between financial inclusion and other SDGs are not as well established. SDG 9, which calls for business innovation, might be served by wider access to credit. Entrepreneurs often use microloans to increase investments in small businesses, but microcredit has not turned out to be the engine of innovation many once hoped it would be. Nor is there strong evidence that financial inclusion directly reduces inequality within and among countries (SDG 10) or leads to inclusive economic growth on the national level (SDG 8). Promoting peace and stability (SDG 16) is easier when people are economically successful, but it would be difficult to show that financial services can have a strong impact on their own. SDGs not covered at all include goals 11, 12, 13, 14, 15, and 17, where the role of financial services is not directly evident. Additional research would be needed to reveal links between these goals and the SDGs.

## II. Research Shows Access to Financial Services Can Help Achieve the SDG Goals

### A. *Eliminating extreme poverty (SDG 1)*

By providing poor people with services they need to make investments and manage unexpected expenses, financial inclusion facilitates the first SDG: eliminating extreme poverty. More than 700 million people live on or below \$1.90 a day, according to the World Bank. A lack of access to basic financial services makes it difficult for these people to take control of their economic lives. Worldwide, 67 percent of adults living in the richest 60 percent of households own some type of formal bank account, compared with 54 percent of adults living in the poorest 40 percent of households. And just 43 percent of adults in the poorest fifth of households have an account, according to the Global Findex database (Demirguc-Kunt et al. 2015). This income gap reflects well-documented market imperfections, including information asymmetry and lack of access to financial services—both of which can create so-called poverty traps that force people to remain poor (Banerjee and Newman 1994; Galor and Zeira 1993; Aghion and Bolton 1997; Beck et al. 2007).

Financial services such as savings can have direct and indirect impacts on poverty. For example, giving individuals access to savings instruments can increase a country’s net savings (Aportela 1999; Ashraf et al. 2010), which can lead to an increase in productive investment and consumption.

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Savings allow families to increase their capacity to absorb financial shocks, smooth consumption, accumulate assets, and invest in human capital such as health and education (Brune et al. 2015; Dupas and Robinson 2009; Karlan et al. 2014; Pande et al. 2012). Such investments help people climb out of poverty and ultimately can lead to higher growth. According to Barro (1991), initial human capital (measured by education) is a stronger predictor of economic growth than initial per capita GDP, largely because countries with higher educational attainment can better benefit from technological advances.

Digital financial payments products allow people to collect money from far-flung relatives and friends during times of crisis, reducing the likelihood that they will fall into poverty to begin with. A study of Kenya's flagship mobile money program, M-Pesa, showed that when faced with a financial shock users are more likely than nonusers to receive a remittance. M-Pesa users also receive more total remittances and money (Jack and Suri 2014). Digital payments have also improved the delivery of government anti-poverty programs by reducing opportunities for corruption and ensuring funds reach their intended recipients (see Box 1).

Lower poverty ratios also are linked to financial depth, which includes a robust stock market, and active lending to businesses by banks (Honohan 2004). Among banks, greater collection of cash or funds for deposit—or so-called deposit mobilization—as well as more loans can have a positive impact on poverty. Burgess and Pande (2005) find that state-led bank expansion in India's rural unbanked locations significantly reduced those in rural poverty by 14 to 17 percentage points.

A healthy financial system also can serve SDG 1 by curbing income inequality, which is highly correlated with poverty (Park and Mercado 2015; Beck et al. 2007). Beck et al. (2007) demonstrate this correlation in their research. Across a number of countries, they found that greater financial development was associated with the poorest quintile's income share growing more rapidly than a country's average GDP per capita. This disproportionate increase in income among the poorest fifth of the population reduces income inequality. The study also found that, as a result, financial development reduces absolute poverty and is associated with a drop in the percentage of the population living below \$1 (and \$2) per day threshold.

### Box 1: Digitizing government payments reduces leakages and improves social outcomes

There is growing evidence that digitizing payments—whether for health, education, or other social safety nets—has important benefits for individuals, in addition to improving efficiency for governments and aid agencies by reducing transaction costs and leakage.

- In Niger, researchers found that making social safety net payments via mobile phones—versus having people go and collect the payment in person—reduced overall travel and wait times by 75 percent. That results in people having more time to spend on more productive tasks. The authors calculated that, based on agricultural wages, the switch to digital payments resulted in time and cost savings for beneficiaries equivalent to enough money to feed a family of five for a day (Aker et al. 2014).
- In India, digitizing government transfers reduced bribe demands for receiving the payment by 47 percent, and increased payments received by beneficiaries by removing middlemen who skimmed off funds (Muralidharan et al. 2014).
- When Argentina moved payments for a large national social program from cash into bank accounts, demand for kickbacks virtually disappeared. When the payments were made in cash, 4 percent of recipients reported paying kickbacks to receive their cash payments; after the switch, that number dropped to just 0.03 percent (Duryea and Schargrotsky 2008).

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## B. Reducing hunger and promoting food security (SDG 2)

Farmers who have access to financial services often produce more bountiful harvests, leading to progress on the second SDG: reducing hunger and promoting food security. According to the UN Food and Agricultural Organization (FAO), about 795 million people globally are undernourished, with most living in rural areas neglected by the financial system. A lack of access to credit and insurance prevents farmers from making investments that could increase crop yields and strengthen food security (FAO 2015). However, the Global Findex database shows that only 10 percent of rural residents in developing countries use formal credit and only half have an account.

Financial services can help farmers increase their production to meet the food needs of growing populations—in other words, greater food security. Research suggests that access to agricultural insurance can embolden farmers to make more and riskier investments, which can lead to increased earnings. A three-year study in Ghana found that farmers with rainfall-indexed insurance—in which insurance payouts are based on rainfall amounts—spent \$266 more on harvest expenditures compared with uninsured farmers. Insured farmers also earned \$285 more in revenue, while their post-harvest assets were \$531 higher (Karlan et al. 2014). In India, farmers with weather-based index insurance shifted toward more rain-sensitive crops that are riskier but also more profitable (Cole, Gine, and Vickery 2013). Index-based drought insurance products also showed positive effects in rural Kenya. Specifically, insured households are, on average, 36 percentage points less likely to anticipate drawing down assets, and 25 percentage points less likely to anticipate reducing meals upon receipt of a payout (Janzen and Carter 2013).

Savings accounts also help farmers make bigger investments. Malawian cash crop farmers using a commitment savings product—which did not allow withdrawals until a certain date—increased investment by 13 percent and boosted crop output by 21 percent (Brune et al. 2015). In addition, savings products allow farmers to manage expenses during the down season. Rural households often have to tap into savings to buy food, as they do not produce enough for their own consumption. Subsidized savings accounts were found to be associated with greater spending on food (Prina 2013). FAO (2015) asserts that financial services also can help farmers increase their income security, which can lead to better household nutrition.

Another financial product that supports food security is appropriate credit. Providing short-term credit to farmers in Zambia between harvests boosted output and revenue by roughly 10 percent, mostly because of increases in food consumption and labor hiring (Fink et al. 2014). One study in Mongolia found that group loans increased consumption of healthier food (Attanasio et al. 2011). Another study in Mali found that households that were offered loans increased their investments and expenditures on agricultural inputs (Beaman et al. 2014).

Digital financial products that do not require travel to a bank branch have special benefits for farmers who live in areas that are poorly served by traditional banks. Digital financial services make it easier to access insurance and other formal products (Kirk et al. 2011; Mbiti and Weil 2011; Manfre and Nordehn 2013). They also facilitate distribution of wages, social transfers, and subsidies to agricultural workers (Aker et al. 2014; Muralidharan et al. 2014). Risk management and digital payments tools create opportunities for smallholder farmers to more tightly connect to agricultural value chains. In Kenya, for example, more than half of all adults sell agricultural goods and 30 percent of these adults are paid for their goods via a mobile phone-based account, according to the Global Findex. Finally, digital financial services support agricultural extension services by improving information dissemination (Seetharam and Johnson 2015; Gilissen et al. 2015).

## C. Achieving good health and well-being (SDG 3)

Financial inclusion improves health by giving people the ability to manage medical expenses and rebound from a health crisis. Research suggests that out-of-pocket payments on health care in developing countries are a main reason why people remain in poverty (Priyanka et al. 2011; Krishna 2006). In the absence of an efficient public



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health care system, the burden of medical costs rests on poor people themselves (Pannarunothai and Mills 1997; Frenk and Knaul 2002). Health shocks not only drain their resources for paying for medical treatment, but they also result in income loss because of the patient's inability to work or the depletion of their assets to confront health costs.

Financial services like medical insurance can provide a formal channel for mitigating the risks of health emergencies. Women especially have a high demand for health insurance products to address the common health concerns associated with pregnancy and child birth, including greater susceptibility to infection. For example, emerging research in Jordan suggests that insurance can help women defray treatment costs and manage health-related shocks that would otherwise disrupt their economic activities and result in lost income (Women's World Banking 2012). Yet, to date, research on microhealth insurance is limited, but a study on the adoption of microhealth schemes found practically no evidence that it improved welfare, suggesting the need to rethink the design of the involved product offerings (Cole 2015). Furthermore, new products designed to leverage digital payments technology might help reduce medical expenses and increase transparency of health subsidies. For instance, ongoing research in Kenya tests the introduction of a "mobile health wallet" that operates on the M-Pesa mobile money platform and is restricted to conditional spending at select healthcare providers (PharmAccess 2014).

Savings also is an important tool for managing medical expenses, whether planned or unplanned. In a field experiment in Kenya, Dupas and Robinson (2013) found that providing people with a safe yet informal place to store money increased their health savings by 66 percent. They also observed that study participants highly valued earmarking funds for medical emergencies. Access to formal, interest-bearing accounts can further increase the value of these investments. A study in Nepal found that when hit with health shocks, households with savings accounts suffered smaller income drops than households without savings accounts (Prina 2013).

#### *D. Fostering quality education (SDG 4)*

Achieving quality education depends on people having the ability to invest in learning opportunities. Worldwide, about 57 million children of primary school age do not attend school. Since economic growth is closely linked with human capital, academic underperformance slows development. In a study of 20 countries, Burnett and Thomas (2013) found the economic cost of out-of-school children range from 1 percent of GDP to 10 percent of GDP, with the biggest losses faced by countries experiencing slow growth. Educational underperformance also contributes to economic inequality between rich and poor countries (O'Neill 1995).

Savings products help families plan for and manage education expenses. Prina (2013) reported a 20 percent increase in spending on education among households that opened free bank accounts in Nepal. In a separate study in Nepal, access to savings accounts was associated with improved education levels and higher professional aspirations among daughters of female account holders (Chiapa et al. 2015). Nudges that encourage good savings habits also have been effective. Studies conducted in Bolivia, Peru, and the Philippines found that savings increased by 16 percent when people received text messages reminding them to put away money (Karlan et al. 2014).

Research also shows that small, short-term loans, commitment products, and direct debit services can help households pay expenses such as tuition fees (Morduch 2007; Ashraf et al. 2003). When people send money to friends or relatives, digital payments products can provide influence over how the money is spent. In a field study of Filipino migrants in Rome, more than 27 percent of participants expressed interest in a product that allowed remittance senders to pay school fees directly back home. The same study showed that simply labelling remittances for education raised remittances by more than 15 percent (De Arcangelis et al. 2015). Researchers offered Salvadoran migrants in the United States a new remittance product that allowed them to send money for education expenses directly to students in El Salvador. The researchers also offered the migrants matching funds for the educational remittances. Participating students increased their educational spending, were more likely

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to go to private school, and were less likely to drop out and start working. These students also invested more of their own money in education: for each dollar they received in remittances, they spent almost \$4 of their own money (Ambler, Aycinena, and Yang 2015).

Well-functioning financial systems benefit school-age children in other ways as well. A cross-country analysis spanning 1960–1995 found that financial development is related to a reduction in child labor (Beck et al. 2007).

## E. Promoting gender equality (SDG 5)

Financial services help women assert their economic power, which is key to promoting gender equality. More than half of women worldwide are unemployed and not looking for work (World Bank 2015). Cuberes and Teignier (2015) estimate that gender gaps cause an income loss of about 15 percent in OECD countries, and almost 38 percent in the Middle East and North Africa. Women also are more likely than men to be self-employed in developing countries and thus are in greater need of access to formal financial services (Demirguc-Kunt, Klapper, and Singer 2013). Yet 42 percent of women worldwide—approximately 1.1 billion women—remain outside the formal financial system, according to the Global Findex database. Although account penetration increased by 13 percentage points among men and women between 2011 and 2014, the gender gap persists at 7 percentage points (Demirguc-Kunt et al. 2015). Among adults living in the poorest 40 percent of households in developing economies, the gender gap is 11 percentage points. Women also are less likely to report having borrowed from family and friends in the past year. Moreover, because of poor credit history or lack of collateral, women are more likely to be denied bank loans than men and often pay higher interest rates than men on formal bank loans (IFC 2011).

Financial inclusion of women can create gender equality by giving them greater control over their finances (Ashraf et al. 2010; Aker et al. 2014). Evidence from a range of countries shows that increasing the share of household income controlled by women—either through their own earnings or cash transfers—changes spending in ways that benefit women (World Bank 2012). In the absence of easy access to formal and informal loans, savings accounts can provide women with a safe and formal platform to build a credit history and store their earnings for future investments (Anderson and Baland 2002; Dupas and Robinson 2009; Karlan and Morduch 2010, Slama, 2014). When Kenyan market women were given access to a savings account with no opening fees, they increased private expenditures by 38 percent (Dupas and Robinson 2009). The financial footprint created by digital payments also allows for alternative methods of assessing the creditworthiness of women who do not have traditional credit assets or a financial transaction history.

Digital financial services also support women-owned businesses by reducing the risks of theft and lowering administrative and disbursement costs. Use of digital channels such as mobile phones can improve access to markets and information, such as data on prices, inputs, and competitors (Malhotra et al. 2012). These services might also give women greater opportunities to work remotely from their homes or communities and open opportunities for women to replace their unpaid work hours with paid work. Many women hesitate to register their businesses when this requires long, expensive trips to a government office. Digitizing registration procedures and payments of license fees could encourage business formalization and help reduce the gender gap in business ownership.

Financial inclusion of women supports many development objectives beyond SDG 5. Female-controlled finances are more likely spent on necessities, such as food and water, as well as child welfare, including school fees and health care (Duflo 2012). Considering these benefits, it is perhaps not surprising that women are more willing than their partners to sacrifice some household income to receive cash transfers (Almas et al. 2015). Field experiments also show that insurance has helped female farmers increase yields, and better manage food insecurity and shocks (Delavallade et al. 2015; Manfre and Nordehn 2013). FAO (2011) estimates that women could increase farm yields by 20 percent to 30 percent if they had the same access to financial and other productive resources as men.

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### III. Access To Infrastructure: Water and Sanitation (SDG 6) and Energy (SDG 7)

Two of the SDGs focus on access to essential infrastructure and resources—water and sanitation, and energy. Both of these goals are likely to have significant impact on people’s quality of life. There are many reasons to believe that innovations in digital financial services are likely to accelerate access to these resources, although the literature does not yet document this impact.

More than 1 billion people lack access to clean water, according to the World Bank. Inadequate access to clean water and sanitation facilities can cause severe health problems (Duflo et al. 2012). Girls often drop out of school after puberty because of lack of access to enclosed toilets, and many children die from waterborne diseases. In households that lack running water, women often are forced to collect water from an outside source. This diverts time from market-oriented work and reduces women’s contribution to household income (Ilahi and Grimard 2000).

About 1.3 billion people lack access to electricity, including two-thirds of the entire population of sub-Saharan Africa, reports the International Energy Agency. Without access to modern energy, people are forced to rely on dangerous and inefficient energy sources, such as wood and charcoal, to meet their cooking and heating needs. Availability of energy can improve working conditions and provide greater access to education and health services, thereby increasing productivity and quality of life.

The prohibitive costs of extending infrastructure to informal settlements and rural communities deters much-needed investment (UN Human Settlements Program 2011). But some companies are leveraging pay-as-you-go (PAYGO) technology to increase access to water and other essential services among the poor (Kumar and Tellez-Merchan 2013). More broadly, digital services lower transaction costs and enable a range of payments that would otherwise be expensive to make. These services allow users to make payments from home and save time on travelling to an office and waiting in line to pay a teller in cash. At the same time, they also should make it easier for companies to collect small payments.

More than 30 countries have PAYGO models that provide off-grid energy service in exchange for ongoing payments. Angaza Design (Kenya, Tanzania) and divi Power (Namibia, Kenya, Ghana, Somaliland, Peru) are two companies that have developed portable solar lights that off-grid consumers can pay off over 3–12 months through a combination of point-of-sale financing, mobile payments, and PAYGO pricing (Winiecki and Kumar 2014). Some other models transfer ownership of assets to users after a limited payment period. These models reduce the cost and size of loans for financing energy services payments among users (Alstone et al. 2015). M-KOPA in Kenya and Angaza Design in Tanzania are examples of solar equipment sellers that are successfully using the PAYGO model in Africa (Parada and Bull 2014).

### IV. Achieving Broader Economic and Social Goals

#### A. *Promoting shared economic growth (SDG 8)*

When poor people are excluded from the formal financial system, the foundations of shared economic growth are weak. Over the past two decades, incomes have increased significantly for the majority of the world’s population (Milanovic 2012). Despite this, income inequality between rich and poor in advanced economies remains at its highest level in decades. And while the picture is more mixed in developing economies, sizable gaps persist in access to education, health care, and finance. This underscores the need for broad-based growth. Today, poverty is highly concentrated, with 70 percent of the world’s extreme poor living in just 10 countries: Bangladesh, China,

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the Democratic Republic of Congo, Ethiopia, India, Indonesia, Madagascar, Nigeria, Pakistan, and Tanzania (IMF and World Bank 2015).

Access to financial institutions and products allows people to gain higher returns on capital. This leads to increases in their income and consequently affects economic growth. According to King and Levine (1993), effective financial systems can mobilize savings to finance productive economic ventures and improve the probability of successful innovations. The reverse also is true: Financial exclusion can deepen income inequality, slow economic growth, and create poverty traps (Greenwood and Jovanovic 1990; Banerjee and Newman 1994; World Bank 2014).

Financial development, including well-functioning stock markets, are good predictors of macroeconomic growth (Levine and Zervos 1996; Levine 1997; Levine 2004). Burgess and Pande (2005) provided evidence that rural branch expansion in India was significantly associated with economic growth. Similarly, Townsend and Ueda (2003) showed that an increase in financial services among all levels of society boosted economic growth in Thailand between 1976 and 1990. A recent study by Andrianaivo and Kpodar (2011) suggests that financial inclusion through the use of mobile phone and information and communication technology (ICT) tools also is associated with economic growth, because these channels improve access to financial services in areas where traditional financial services are unavailable. In Mexico, income increased by 7 percent in areas where bank branches were rapidly opened in more than 800 retail stores. No such increase occurred in areas with a pre-existing branch, or no branch at all (Bruhn and Love 2014).

## **B. *Promoting innovation and sustainable industrialization (SDG 9)***

Promoting innovation and sustainable industrialization requires easy access to credit and other financial services that facilitate investment. IFC estimates there are more than 360 million to 440 million formal and informal micro, medium, and small enterprises (MSMEs) worldwide. According to the World Bank Enterprise Surveys, many of these firms cite limited access to financial services as one of their main constraints to growth.

Access to financial services, particularly credit, is likely to allow more businesses to be started and allow existing firms to expand their services by enabling 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.

While many randomized trials on microcredit have found that credit has limited or no impact on client welfare, the evidence that credit enhances business start-ups and expansion is more robust.

- A study in India showed that, when offered credit, new businesses are more likely to be created and that these firms are more likely to spend on business durables. Increased access to credit enables the wealthiest 5 percent to 10 percent of entrepreneurs to increase profits substantially (Banerjee et al. 2015).
- A randomized study in Mongolia showed that the availability of credit allowed more women to expand their business and invest in small-scale enterprises. It also was linked to an 8.5 percent higher probability of entrepreneurship in treatment villages (Attanasio 2014).
- A randomized study in Bosnia and Herzegovina found an increase in self-employment (6 percent), inventory, and business ownership as a result of access to credit (Meghir 2014).
- Studies in the Philippines and Mexico show that access to microcredit increased the ability of microentrepreneurs to cope with risk (Karlan and Zinman 2010b; Angelucci et al. 2015).
- A randomized study of female enterprise owners in Sri Lanka found that business training alone has no impact on business profits, but the combination of training and a cash payment—aimed to simulate credit—leads to large and significant improvements in business profitability, although this impact dissipates in the second year (de Mel et al. 2014).

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## C. *Toward equitable and peaceful societies (SDG 10 and SDG 16)*

People with access to financial services are better positioned to succeed economically and build a decent life, ultimately making it easier to reduce inequality (SDG 10) and promote peace (SDG 16). Wide swaths of the developing world are wracked by instability. Furthermore, inequality is rampant; in developed and developing countries alike, the poorest half of the population often controls less than 10 percent of the overall wealth. According to the Credit Suisse Research Institute (2014), 48 percent of the world's \$263 trillion in net household wealth (i.e., after subtracting debts) is in the hands of the richest 1 percent of its citizens.

The danger of neglecting inequality is that people, especially young people, excluded from the mainstream end up feeling disenfranchised, which can lead to disengagement and conflict. In their comparative study of western Europe and Latin America, Acemoglu and Robinson (2001) argued that inequality breeds political instability by fostering social unrest in nondemocratic countries and encouraging the rich to contest power in democratic countries. They conclude that democracy is more likely to be consolidated in places where inequality is low, while political instability is more likely in countries where inequality is high. An empirical study of 98 countries by Dutt and Mitra (2008) confirmed that inequality generates instability. This finding is echoed by Alesina and Perotti (1996), who sampled 71 countries from 1960 to 1985 and concluded that inequality leads to social discontent and therefore causes instability. Another danger of inequality is that it slows economic growth. According to a recent global study, a 1 percentage point increase in the income share of the richest 20 percent reduces GDP growth by 0.08 percentage points, while an equivalent increase in the income of the poorest 20 percent pushes GDP growth up by 0.38 percentage points (Dabla-Norris et al. 2015).

By providing a foundation for equitable growth and improving the lives of the poor, financial inclusion helps reduce inequality and the likelihood of social turmoil. Beck, Demirguc-Kunt, and Levine (2007) asserted that financial development causes the incomes of the poor to increase faster than average per capita GDP, reducing income inequality as a result.

Beyond helping to reduce the likelihood of inequality and instability, financial services also help people get assistance when crisis does ensue. Reviewing mobile phone-based communications in Rwanda over a four-year period, Blumenstock, Eagle, and Fafchamps (2016) found people make transfers to individuals affected by economic shocks. Mobile-phone-based transfers also are unique from other forms of risk-sharing because they are sent over large geographic distances and are mostly sent between people with a strong history of reciprocal exchange, helping to strengthen social networks. Jack and Suri (2014) also showed that mobile payments help people receive assistance from far-flung relatives when faced with a shock.

Aid agencies are starting to use digital financial services instead of cash to deliver money to disaster victims. In Lebanon, more than 1 million refugees use cards to collect aid, buy goods, or withdraw money from automated teller machines (Overseas Development Institute 2015). A recent pilot study on flood relief in Bangladesh compared the merits of cash and mobile money for providing aid. Researchers found that aid recipients perceived mobile money as more convenient and secure than cash. Women, who are often forced to wait in line for hours to collect relief payments in cash, were especially pleased with mobile money transfers. Relief workers also said mobile money transfers were easier to deliver and monitor than cash (May and Shams 2016).

## V. Conclusion

**Given the increasingly clear link between financial inclusion and development, governments should continue to push for greater access to and use of financial services.** Prioritizing financial services does not take away resources from other key priorities set through the SDGs. The studies discussed in this report build a strong case that financial inclusion helps create the conditions that ultimately bring many of the SDGs within reach. In fact, by moving away from cash and using digital payments to distribute social benefits and wages, governments can reduce costs and leakage, while at the same time advancing financial inclusion. In the developing world, about

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120 million unbanked adults receive government transfers in cash, according to the Global Findex. At the same time, more than 31 million unbanked adults in emerging countries are paid government wages in cash. Digitizing these payments could bring millions of adults into the financial system for the first time and strengthen the digital financial infrastructure in emerging economies. Developing world governments have already seen that digital transfers can drive progress in financial inclusion. About 9 percent of adults in Latin America and the Caribbean receive digital government transfers, and nearly six of 10 of these adults opened their first account specifically to collect those payments. The same is true of about a third of digital government transfer recipients in the emerging world overall.

There also are many opportunities for businesses to create new accounts by switching to digital payments, improving efficiency while putting in place the conditions for increasing financial inclusion. About 260 million unbanked adults in the developing world receive private sector wage payments in cash. Switching to digital payments could potentially save significant time and resources for businesses and workers alike. Agricultural payments present another chance to expand access to the formal financial system, as roughly 440 million unbanked adults in the developing world are paid in cash for farm goods.

The evidence base discussed in this paper helps to inform policy makers and donors in identifying opportunities for further investment. Continued investment in research can help to build out the evidence on new opportunities—such as digital payments—and its impact on households and broader economies.

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