



BUILDING INCLUSIVE DIGITAL PAYMENTS ECOSYSTEMS: Guidance Note for Governments



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A report by the Better Than Cash Alliance for the
G20 Global Partnership for Financial Inclusion

Prepared for the German G20 Presidency

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OBJECTIVE

This note provides policymakers and other government officials with an overview of the major practical issues to consider when planning the expansion of financial inclusion through the use of digital payments ecosystems. It briefly describes the potential of such ecosystems to advance financial inclusion. It then outlines how to address four key challenges when implementing the principles and policy recommendations of the G20, its implementing partners, and global financial system standard setters. It provides practical solutions that government officials can follow to help structure their approach when facing these common challenges. It is important to note that the payment systems, financial sector development, and financial inclusion issues touched on in this Guidance note can be complex and technical so the reference documents are essential guides when developing an inclusive digital payments ecosystem.

AUDIENCE

This note has been developed for officials who have an interest in, and responsibility for, the development of an inclusive financial sector, and in particular the use of payments systems to expand financial inclusion. Readers are strongly encouraged to use the referenced publications to deepen their insight on these issues.

Introduction

Digital financial services have been an important component of the G20's work in promoting financial inclusion and driving economic growth since 2009. The *G20 High-Level Principles for Digital Financial Inclusion*, published in 2016, outlines eight principles designed to inform national plans to leverage digital financial services. The aim of these principles is to sustainably increase financial inclusion while fostering inclusive growth, sustainable development and protecting users of digital payments.

This guidance note supports the implementation of these principles in the context of inclusive digital payments ecosystems, reflecting lessons drawn from policy development and implementation initiatives undertaken in several countries.

Progress in developing a digital payments ecosystem depends on all stakeholders working together so that private and public sector leaders can align on common interests. Because good practices for the development of digital payments systems are still emerging, this guidance note aims to support that process by identifying and describing the component parts of an inclusive digital payments ecosystem (IDPE) and ways to overcome key challenges to its implementation.¹

The four areas highlighted in this report reflect the most important issues that officials are likely to face in the implementation of inclusive digital payments ecosystems. These are based on the practical experience of the author and other policymakers in establishing such ecosystems in emerging economies.

This, by definition, cannot be comprehensive so, as needed, additional or more detailed guidance will be provided in future notes. Feedback is welcome.

For more information on the G20 High-Level Principles visit <http://www.gpfi.org/news/new-g20-high-level-principles-digital-financial-inclusion>

The 2017 GPFI report *Emerging Policy Approaches to Digital Financial Inclusion* describes numerous case studies of the use of digital payments systems in financial inclusion policy implementation. <http://www.gpfi.org/news/emerging-policy-approaches-advance-digital-financial-inclusion>

This Guidance note from the GPFI Markets and Payments Subgroup builds on the Stocktaking Report published in 2015 <http://www.gpfi.org/publications/innovative-digital-payment-mechanisms-supporting-financial-inclusion-stocktaking-report>

Inclusive Digital Payments Ecosystems in Context

To learn about McKinsey's Global Institute study: *Digital Finance for All: Powering Inclusive Growth in Emerging Economies* visit <http://www.mckinsey.com/global-themes/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies>

To learn about the G20 Joint Action Plan on SME Financing Implementation Framework visit: <http://www.gpfi.org/publications/g20-action-plan-sme-financing-implementation-framework>

The reports "Opportunities of Digitizing Payments" and "Digital Financial Solutions to Advance Women's Economic Participation" conclude that digital payments reduce costs, enable rapid scaling of financial inclusion efforts, and improve women's economic participation. To learn about other G20 work in the area of digital payments visit: <http://www.gpfi.org/publications>

- **Delivering financial services by digital means could benefit billions of people by spurring inclusive growth that adds \$3.7 trillion to the gross domestic product (GDP) of emerging economies within a decade.** A 2016 study by McKinsey Global Institute, *Digital Finance for All: Powering Inclusive Growth in Emerging Economies*, estimates that digital financial services have the potential to provide 1.6 billion people in emerging economies with access to a formal financial account and increase the GDP across emerging economies by 6 percent by 2025. This impact is possible because of the dramatic decrease in service cost using digital technologies (an 80 to 90 percent reduction in service cost), a reduction in the use of cash with a resulting reduction in cash-related costs, and an increase in information that can be used to offer services designed around observed client needs.
- **Digital financial services² are providing substantial opportunities to rapidly advance financial inclusion.** Digital solutions allow for the safe and cost-efficient design and provision of financial services and products, and hence for business models that can sustainably serve financially unserved and underserved households and Small and Medium Enterprises (SMEs).³
- **There is increasing evidence that the use of digital financial services has the potential to reduce the financial inclusion gender gap.** A 2014 study from the G20, *The Opportunities of Digitizing Payments*, attributes this impact to increased participation of women in the economy through greater control of finances and budgeting. The 2015 G20 study *Digital Financial Solutions to Advance Women's Economic Participation* provides more detail on how digital payments advance women's economic participation.
- **Payments are typically the entry point in the use of financial services by the previously excluded, for example through the receiving of remittances or social benefit transfers.** The initial use of financial services by formerly excluded groups is often through digital services. Digital payment systems have the potential to lead the unbanked to access other formal financial services, as evidenced in the *GPFI Markets and Payment Systems Subgroup Stocktaking Report*. Developing an inclusive digital payments ecosystem is therefore key to providing basic banking services to the financially excluded and as a stepping stone to provide access to other financial services.

- **Digital payments also contribute directly to poverty reduction efforts.** A 2016 study, *The Long-Run Poverty and Gender Impacts of Mobile Money*, provides evidence that the widespread use of mobile money services in Kenya lifted 194,000 households — or 2 percent of Kenyan households — out of poverty between 2008 and 2014. The impact was driven by changes in financial behavior, particularly increased levels of financial resilience and saving by mobile money users. Although the study was limited to the use of mobile money in Kenya, which has its own market dynamics, it provides some indication that widely adopted digital payments services may have a similar effect elsewhere.
- **Supporting universal access to and frequent use of transactional services is essential in the realization of the potential of an inclusive digital payments ecosystem to improve levels of financial inclusion.** The Committee on Payments and Market Infrastructures and the World Bank Group 2016 report *Payment Aspects of Financial Inclusion* (PAFI) provides seven guiding principles for improved access to and use of transaction accounts. The principles are augmented with several key actions to support universal access to, and frequent use of, transaction accounts. The goals of universal access and frequent use rest on four catalysts (product design, available access points, awareness and financial literacy, and leveraging large-volume payments), supported by three foundations (financial and Information and Communications Technology (ICT) infrastructure, legal and regulatory frameworks, and public and private sector commitment).
- **An inclusive digital payments ecosystem consists of several building blocks and an enabling environment.** The building blocks of such an ecosystem include:

 - digital payment service providers (banks and non-bank payment service providers, including mobile money operators);
 - a payment system that is part of the financial infrastructure;
 - a distribution system (or channels and access points, including agents and direct digital access);
 - an ICT and energy infrastructure; and
 - an effective user identification system.

The enabling environment consists of a legal and regulatory framework with the central bank typically playing a key role, combined with a framework that promotes user awareness, financial literacy, and consumer protection measures, all underpinned by a commitment from both the public and private sector to improve levels of financial inclusion. The development of inclusive digital payments ecosystem payments systems should directly support this improvement. The G20/OECD INFE report *Ensuring Financial Education and Consumer Protection for All in the Digital Age* emphasises that both financial consumer protection and financial education, alongside prudential regulation, are critical and complementary elements in ensuring an enabling framework for digital finance that appropriately safeguards consumers from digital risks and empowers them to make more informed financial decisions.

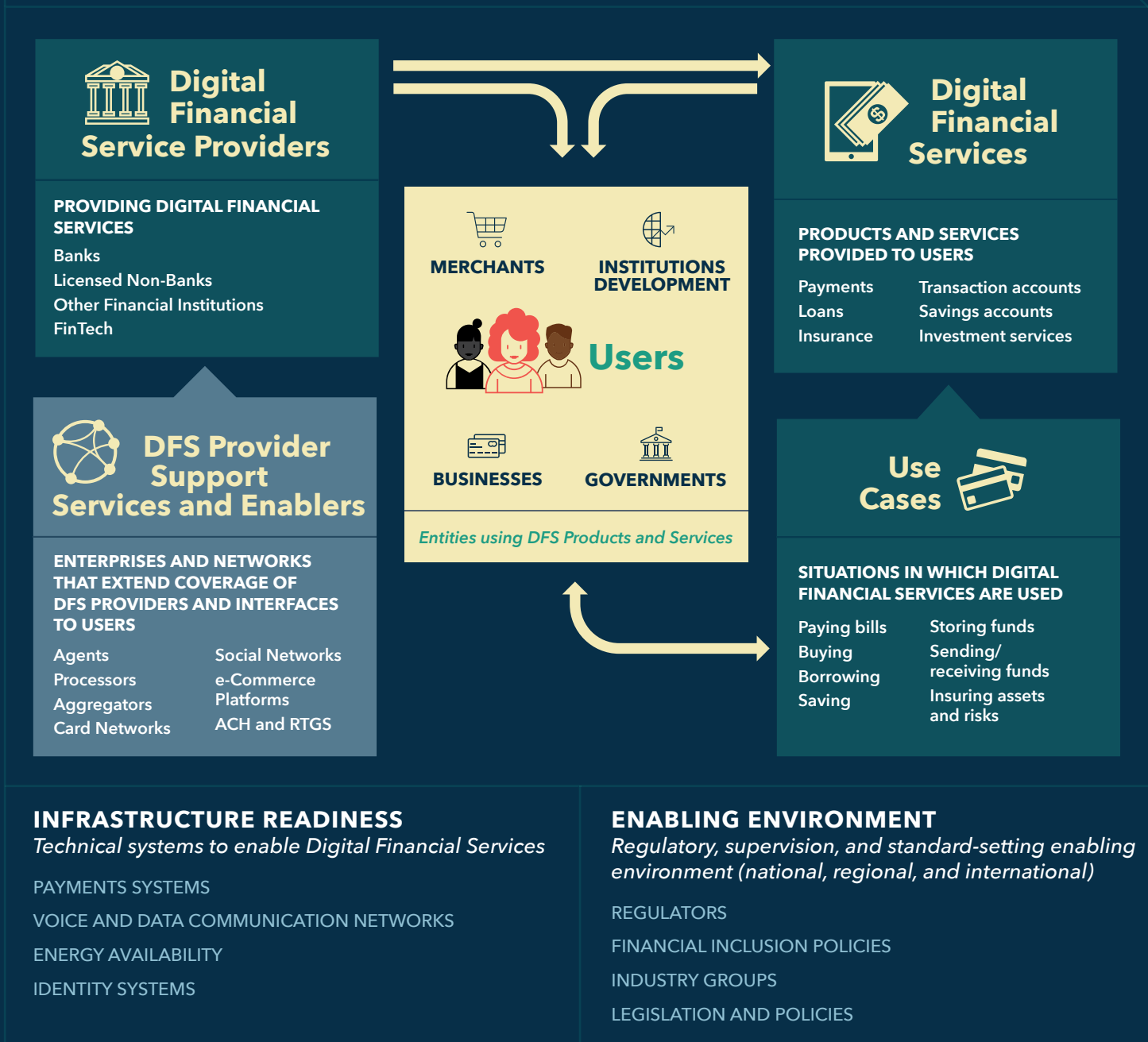
“The Long-Run Poverty and Gender Impacts of Mobile Money” provides evidence that the widespread use of mobile money services in Kenya lifted 194,000 households – or 2% of Kenyan households – out of poverty. It can be found at: <http://science.sciencemag.org/content/354/6317/1288.full>

The Committee on Payments and Market Infrastructures and the World Bank Group report *Payment Aspects of Financial Inclusion* (PAFI) explores the use of payments in financial inclusion in detail. To learn about PAFI visit: <http://www.worldbank.org/en/topic/paymentssystemremittances/brief/pafi-task-force-and-report>

The FATF report “Virtual Currencies” highlights the key definitions of terms such as mobile money. It can be found at: <http://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf>.

THE INCLUSIVE DIGITAL PAYMENTS ECOSYSTEM

Enabling financial inclusion and building the digital economy through availability, affordability, convenience, and quality



The DFS ecosystem consists of **users** (consumers, businesses, government agencies and nonprofit groups) who have needs for digital and interoperable financial products and services; the **providers** (banks, other licensed financial institutions, and non-banks) who supply those products and services through digital means; the financial, technical, and other **infrastructures** that make them possible; and the governmental **policies, laws, and regulations** which enable them to be delivered in an accessible, affordable, and safe manner.

- **Actors in an inclusive digital payments ecosystem are more diverse than in a conventional payments system.** Digital financial services providers consist of entities providing digital payment services to users: banks, remittance service providers, payment aggregators, non-bank payment service providers, electronic or mobile money issuers, postal authorities providing financial services, credit unions, and microfinance institutions, among others. The distribution system may consist of individual agents, retailers, pure electronic access (mobile and internet), and payment kiosks, among others. The financial infrastructure consists of payment clearing and settlement systems, which enable the processing of various types of payments. In this environment, one organization may play multiple roles, e.g., a mobile network operator may provide both ICT infrastructure and an agent network, while banks may provide both payment services and payment infrastructure.

When building an inclusive digital payments infrastructure, it is important to take all elements of the ecosystem into account and to identify and involve all relevant actors. The optimal deployment of an inclusive digital payments ecosystem requires that all actors support the ecosystem in a coordinated manner, thus ensuring that all potential users, particularly the unserved and underserved, have practical access to the payment.

- **The role played by government and state agencies is crucial in the establishment and beneficial use of an inclusive digital payments ecosystem.** Governments should take the lead in ensuring the establishment of such an ecosystem and that it is used to improve levels of financial inclusion. Involvement as the coordinator (see below the section on Managing Multiple and Diverse Stakeholders) is a key step, but optimal use by all branches of government of electronic payment systems are crucial to establishing trust and driving transaction volumes within a newly established inclusive digital payments ecosystem. This use should be aimed at both the making of payments to individuals and businesses (government-to-person and government-to-business payments) as well as to receiving payments (person-to-government and business-to-government payments). This will directly assist in making sure an inclusive digital payments ecosystem is seen as a viable payment alternative by people who are excluded from and underserved by formal financial services, while having the additional benefit of improving government efficiencies.

The ITU *Digital Financial Services Ecosystem* report attempts to describe the players and their roles within the Ecosystem. For more information visit: https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/09_2016/FINAL%20ENDORSED%20ITU%20DFS%20Introduction%20Ecosystem%2028%20April%202016_formatted%20AM.pdf

Four key challenges in building inclusive digital payments ecosystems and approaches to addressing those challenges

These are the most important challenges government officials are likely to face as they take the lead in driving the establishment of an inclusive digital payments ecosystem in their country. Action needs to be started on all four simultaneously as progress on one supports efforts in the others.

1. Managing Multiple and Diverse Stakeholders

PAFI Guiding Principle 1 addresses the need for coordination and cooperation, calling for a “commitment from public and private sector organisations to broaden financial inclusion [that] is explicit, strong, and sustained over time.”

Developing, establishing, and overseeing an inclusive digital payments ecosystem involves engagement with a more diverse and larger group of actors than the typical payments oversight role. It is important that this diversity is recognized and managed. This is needed in two domains: a) stakeholder management and b) infrastructure management. Governments should provide active leadership and direction in these two domains, in addition to central banks and any other regulatory authority fulfilling the regulatory, supervisory, and oversight responsibilities.

The work of the G20 over several years has highlighted the importance of actively coordinating all actors in advancing financial inclusion. With the increased importance of digital financial services, this coordinating role was highlighted in the G20 *High-Level Principles for Digital Financial Inclusion* under Principle 1: Promote a Digital Approach to Financial Inclusion. Guiding Principle 1 in the PAFI report also addresses the need for coordination and cooperation, calling for a “commitment from public and private sector organisations to broaden financial inclusion [that] is explicit, strong, and sustained over time.”

Countries should consider the following actions:

- **A joint forum to explore whether an inclusive digital payments ecosystem initiative is the most practical way to ensure a coordinated and cooperative effort, with the responsible public authorities directly involved.** The *G20 High-Level Principles of Digital Financial Inclusion*, in Principle 1, supports such an approach as it calls for “coordinated... national strategies and action plans.” The PAFI report, in paragraph 76, also refers to a “national payment council... that serves as a forum for multi-stakeholder consultations.” All actors in the digital payments ecosystem should be included in such a forum, but some classes of actors (e.g., banks, payment service providers, and MNOs) could elect to have representative bodies instead of sending participants from each company. The institutional design of the forum should be such that dominant market positions are not exploited and that the focus is clearly on driving inclusion and avoiding sub-optimal outcomes at the systemic level. The inclusion of the central bank and any other regulatory authority in this forum is crucial to ensure properly mandated oversight of the ecosystem. The 2015 AFI paper *National Financial Inclusion Strategies: Current State of Practice* highlights this further and provides several examples of how countries have structured such a forum. The *GPII Emerging Policy Approaches to Digital Financial Inclusion*, in section 2.1, gives further examples of how countries approached the issue of establishing inclusive digital payments as part of a coordinated national financial inclusion strategy . A description of a possible mandate and the key actors to involve in a joint forum is included as a note at the end of this paper.
- **All principal actors should be identified as early as possible.** To ensure that all such stakeholders are identified, the end-to-end process of the payment capability under consideration must be determined, considering possible different business models that may be employed. All identified stakeholders should be involved in jointly determining the detailed objectives of the payments capability, areas of responsibility, and the allocation of resources to ensure the digital capability is successfully established. The “principal” actors who will take responsibility for particular aspects of service provision can thus be identified.
- **In terms of infrastructure, a similar approach to identifying stakeholders should be followed.** The *G20 High-Level Principles for Digital Financial Inclusion* and the PAFI report recognize the importance of infrastructure. *The High-Level Principles*, under Principle 4, calls for the expansion of “the digital financial services ecosystem — including financial and information and communications technology infrastructure — for the safe, reliable, and low-cost provision of digital financial services to all relevant geographical areas, especially underserved rural areas.” The PAFI report’s Guiding Principle 3 states that “robust, safe, efficient, and widely reachable financial and ICT infrastructures are effective for the provision of transaction account services, and support the provision of broader financial services.”

The PAFI report identifies seven categories of infrastructure: data-sharing platforms, identification infrastructures, automated clearing houses, interbank payment card processing platforms, and large-value interbank gross settlement systems, all supported by ICT infrastructure and a reliable electrical grid. It is important that all these categories are considered and that participation in the joint forum referred to above addresses them.

Principle 1 of the G20 High-Level Principles of Digital Financial Inclusion supports such a joint forum approach calling for “coordinated ... national strategies and action plans” <http://www.gpfi.org/news/new-g20-high-level-principles-digital-financial-inclusion>

The PAFI report recognizes the importance of infrastructure in Guiding Principle 3, “Robust, safe, efficient and widely reachable financial and ICT infrastructures are effective for the provision of transaction account services and also support the provision of broader financial services.”

The issue of interoperability is treated in the GPF 2016 White Paper *Global Standard Setting Bodies and Financial Inclusion: The Evolving Landscape*.

The use of incentives to drive digital inclusion is recommended in the G20 High-Level Principles on Digital Financial Inclusion

- **Cooperation between government departments and relevant regulatory authorities that have responsibility in critical infrastructure areas is vital (e.g., departments of communications, ICT, or energy).** In relation to infrastructure, there will likely be actors who are not directly involved in supporting the financial service industry, yet whose involvement is critical, such as electricity providers. In these instances, the crucial financial infrastructure components of an ecosystem should typically be handled in the financial sector domain, with the involvement of the financial sector regulator. The outcome of deliberations on infrastructure should ideally be a joint action plan to ensure that all identified infrastructural components are addressed. To ensure an efficient use of resources, existing infrastructure components should be used as much as possible. Program oversight and coordination of the various efforts required to build and deploy an inclusive digital payments ecosystem rests with the coordinating government agency. It is crucial that this oversight is maintained and carried through to ensure monitoring and evaluation of the ecosystem. It is therefore important that government departments and agencies responsible for the various infrastructure areas are included in the joint forum, so that infrastructure providers can be appropriately involved in the establishment of the ecosystem.
- **Interoperability is a key issue in the infrastructure supporting an inclusive digital payments ecosystem and should enable users to make electronic payment transactions with any other user in a convenient, affordable, fast, seamless, and secure way.** While competition and innovation should always be encouraged, the ability of users to access payment services from different providers and for agents to offer services from these providers are significant elements in ensuring user access and enabling the network effect of a shared platform.

Achieving an interoperable digital payments system is as much about making sure that a workable agreement is reached by participants on the operational model of an interoperable service offering as it is about ensuring that interoperability is technologically achievable. It is also crucial that access to such a system is not restricted, either inadvertently or through the model that is implemented. For example, the rules and fees governing access to payment clearing and settlement infrastructure may effectively prohibit some innovative and responsible service providers from participation. Recognizing the complexity of functional interoperability, the issue is addressed in the GPF 2016 white paper *Global Standard Setting Bodies and Financial Inclusion*. It is also extensively addressed in the International Telecommunication Union (ITU) report on digital financial services and interoperability, *The Regulator's Perspective on the Right Timing for Inducing Interoperability: Findings of a Survey among Focus Group Members*. The Better Than Cash Alliance *Guidelines for Responsible Digital Payment Systems* also highlights the importance of interoperability for client access.

- **Consideration should be given to using incentives, both to ensure that all actors participate in coordination efforts and to promote the use of the inclusive digital payments ecosystem.** Principles 1, 2, and 4 of the G20 *High-Level Principles on Digital Financial Inclusion* all recommend the use of incentives to drive digital inclusion. For example, these could take the form of financial incentives for merchants who accept payments and tax concessions for the use of ICT and payment infrastructure. This issue is also addressed in some detail by Recommendation 4 of the ITU's interoperability report, which states that "policymakers should promote initiatives and incentives that encourages merchants and other payment acceptors (e.g., billers, farmers, government entities) to accept electronic payments."

Similarly, the PAFI report's Guiding Principle 7 recommends that "Large-volume and recurrent payment streams, including remittances, are leveraged to advance financial inclusion objectives, namely by increasing the number of transaction accounts and stimulating the frequent usage of these accounts."

2. Balancing Innovation, Market Protection, and System Integrity

Digital financial services in general and digital payment services in particular are characterized by constantly evolving technological and service innovations. Such innovations are very important in driving down costs, extending access to more people, and improving service quality. However, the introduction of new technologies and business models invariably introduces new forms of risk that need to be mitigated to ensure adequate market protections and the integrity of the payments system. Principle 2 of the G20's *High-Level Principles* recognizes the vital importance of this balance. The World Bank collated insights and guidelines on market protection for digital financial services in the *Good Practices for Financial Consumer Protection*, dealing with financial services across different financial service providers. An updated version of this document will be made available in 2017.

Countries should consider the following actions:

- **To the extent possible, the legal framework governing service provision should be agnostic as to the payment's technology, or form, and should focus instead on the functions of the service being offered, including the risks, benefits, and costs to both users and the system as a whole.** A principle-based legal framework balances innovation and market integrity and should be the aim in the governance of digital payments systems. Where necessary, regulators should address the risks associated with specific technologies through regulation or guidance notes. This gives service providers some guidelines around what could be offered and a space within which innovations can take place, while allowing regulators to intervene to deal with new risks. This issue is explicitly addressed in the PAFI report's Guiding Principle 2, which states that "the legal and regulatory framework underpins financial inclusion by effectively addressing all relevant risks and by protecting consumers, while at the same time fostering innovation and competition."
- **If the approach mentioned in the previous section is not possible in the short term, a flexible approach that considers innovation should be followed, involving policymakers, regulators, and the payment service provider.** In such an approach the payment service provider would approach the policymaker and regulator with the concept under consideration. It can then be determined whether the proposed innovation supports agreed policy objectives, as well as any regulatory hurdles the innovation will face. This will allow policymakers and the regulator to assess whether the innovation could proceed, should be adjusted, or whether a change in the regulatory framework is required, prior to the service provider making the investment to bring the service to the market. If a payment innovation is managed in this manner, it opens the possibility of similar innovations being introduced to the market, increasing competition, and improving service accessibility. Cooperation often leads to joint problem solving and solutions that are beneficial to all

Principle 2 of the G20's High-Level Principles recognizes that the introduction of new technologies and business models invariably introduces new forms of risk that need to be mitigated to ensure adequate market protections and the integrity of the payments system.

PAFI Guiding Principle 2 states that "the legal and regulatory framework underpins financial inclusion by effectively addressing all relevant risks and by protecting consumers, while at the same time fostering innovation and competition."

The 2017 GPFI report *Emerging Policy Approaches to Digital Financial Inclusion* describes the use of regulatory sandboxes across various markets. <http://www.gpfi.org/news/emerging-policy-approaches-advance-digital-financial-inclusion>

participants. The joint forum of stakeholders (see the section under Multiple and Diverse Stakeholders) should play a key role in this collaboration, as all relevant actors should be part of the forum.

The use of regulatory sandboxes to test out innovations in a controlled and supervised manner is also pursued by a number of countries, including Australia, Indonesia, Malaysia, and the United Kingdom. Such an approach may allow innovative payment service providers some regulatory leeway to test out products in a limited market. Regulatory sandboxes must be used carefully to avoid market distortion.

3. Building Trust in Digital Payments

The Better Than Cash Alliance Responsible Digital Payments Guidelines identify eight good practices for engaging with clients who are sending or receiving digital payments and who have previously been financially excluded or underserved. <https://www.betterthancash.org/tools-research/case-studies/responsible-digital-payments-guidelines>

Financial services should always be provided in a responsible and transparent way to build people's trust in digital financial services. This is particularly important when the users of a service are underserved or previously unserved and therefore have limited experience of financial services. It is equally true for previously served individuals who opted for self-exclusion because of negative experiences with financial service provisioning. **In the case of inclusive digital payments ecosystems, many users may be first-time users of financial services with low levels of financial and technological capability**, or low levels of literacy and numeracy and a distrust in financial services. The PAFI report stresses the importance of the legal and regulatory framework effectively protecting customers in Guiding Principle 2, while the G20 *High-Level Principles* refers to both an enabling regulatory framework (Principle 3) and the need to protect customers through a comprehensive approach (Principle 5). These elements are key components in building up the trust of users. The major risk issues that regulators need to address for inclusive digital payments ecosystems are dealt with in the next section.

Stakeholders can use the Better Than Cash Alliance's Responsible Digital Payments Guidelines to structure user experiences.

These lay out eight guidelines for responsible client engagement:

1. **TREAT CLIENTS FAIRLY**
2. **KEEP CLIENTS' FUNDS SAFE**
3. **ENSURE PRODUCT TRANSPARENCY FOR CLIENTS**
4. **DESIGN FOR CLIENT NEEDS AND CLIENT CAPABILITY**
5. **SUPPORT CLIENT ACCESS AND USE THROUGH INTEROPERABILITY**
6. **THE DIGITAL PAYMENT SERVICE PROVIDER MUST TAKE RESPONSIBILITY FOR THE COMPLETE VALUE CHAIN**
7. **PROTECT CLIENT DATA**
8. **PROVIDE CLIENT RECOURSE**

Countries should consider the following actions:

- **Risk issues must be identified and addressed in a holistic manner.** The MasterCard Foundation and the IFC's Partnership for Financial Inclusion published *Digital Financial Services and Risk Management*, which details the most important risks to users and service providers and the importance of managing these risks. The following risks have been identified:

- | | |
|---------------------|--------------------------|
| 1. Strategic risk | 6. Political risk |
| 2. Regulatory risk | 7. Fraud risk |
| 3. Operational risk | 8. Agent management risk |
| 4. Technology risk | 9. Reputational risk |
| 5. Financial risk | 10. Partnership risk |

- **End-user risks should be minimized in the interests of all stakeholders.** Minimizing risk is critical to developing the trust of digital payments users and critical for service providers, who are dependent on wide uptake of the services to secure a return on their investment. This need is recognized in the PAFI report's Guiding Principle 2. The Consultative Group to Assist the Poor (CGAP) also published a note dealing with end-user risk, *Doing Digital Finance Right: The Case for Stronger Mitigation of Customer Risk*. The note identifies seven risk areas that should be addressed:

1. Inability to transact due to network/service downtime
2. Insufficient agent liquidity or float (also affecting the ability to transact)
3. User interfaces that are complex and not people-centric
4. Poor customer recourse
5. Non-transparent fees and other service terms
6. Fraud that targets customers
7. Inadequate data privacy and protection

These risks are primarily the responsibility of financial service providers. Trust in the payments system will be increased if these risks are adequately addressed and users are made aware of the steps that have been taken to mitigate these risks. The IFC's Partnership for Financial Inclusion's *Digital Financial Services and Risk Management* handbook provides guidelines to operationalize and manage risks for end-users and for service providers.

- **When developing inclusive digital payments ecosystems, trust issues should be identified and addressed explicitly through appropriate regulatory frameworks and oversight. Clients need access to a fair recourse system for dealing with complaints about digital payments.** This is especially necessary for complaints about innovative and unfamiliar products delivered via new channels and for clients who live remotely and may have little to no direct contact with providers. For inclusive digital payments ecosystems, some key trust issues to consider include: lack of user awareness, inappropriate market conduct by service providers, inadequate disclosure of fees and service conditions, products not meeting actual client needs, realized or perceived risks to client funds, and inadequate recourse mechanisms. Whenever possible, recourse mechanisms should use existing capabilities and structures, appropriately amended to include the concerns of an inclusive digital payments ecosystem. When a trusted organization such as a government department uses digital payments, it is particularly important to expand that trust to the digital service being used, which in turn gives impetus to the use of the inclusive digital payments ecosystem.

Guidelines 3 and 8 in the Better Than Cash Alliance *Responsible Digital Payments* discuss the topics of product transparency and client recourse.

<https://www.betterthan-cash.org/tools-research/case-studies/responsible-digital-payments-guidelines>

Additionally, user awareness programs tailored to improve consumers' understanding of what an inclusive digital payments ecosystem is and how it works is a crucial element for improving trust in digital payments systems.

- **It is paramount that a continual focus on ensuring the security of the system is instituted and maintained.** The loss of funds usually leads to an immediate and complete loss of trust in any financial service by those affected, and to a lesser extent, other users who become aware of the loss. Given the nature of the services in the system, inclusive digital payments ecosystems are susceptible to a loss of trust should there be any successful and irrecoverable cyberattack on the system. It is the responsibility of the payment service provider, under the guidance of the regulatory authorities, to protect against such loss.
- **Even when there is effective oversight, consideration should be given to developing and implementing a code of conduct for service providers.** This will reinforce to service providers the need to engage the market in a fair and transparent manner. The GSMA's *Code of Conduct for Mobile Money Providers* is an example. Such a code is typically developed by the industry (usually by a representative body of the service providers) with some guidance from the regulator(s). Implementation and monitoring is also typically performed by industry actors, with some monitoring by regulators as well.

It is important that the lower cost of providing digital services (as compared to more traditional services requiring significant fixed infrastructure) is not only for the benefit of the service providers, but that this reduction also results in more affordable prices for end users. The code of conduct should reflect and commit to this principle.

- **High-volume use of payment capabilities is required to ensure the maximum impact of an inclusive digital payments ecosystem.** The PAFI report's Guiding Principle 7 makes explicit reference to the need to leverage high-volume payment streams. High-volume use requires user trust in the system, otherwise adoption will be slowed and expected advantages will not materialize or will materialize slowly.
- The use of inclusive digital payments ecosystems for government payments, especially high-volume payments, is crucial in this context. This will result in rapid scaling up of volumes and, where not already done, will enable the digitization of such payments. **The use of transactional data by financial service providers should be encouraged and enabled to improve user experience.** This could be achieved through relevant policy directions and by engagement with financial service providers. The issues of data privacy and consumer protection should always guide how data are used. Two objectives are relevant in this regard:
 - Encourage providers to deliver payment service users with appropriate, user-driven products.
 - Use the electronic payment information of users, including small enterprises, to assist in the credit assessment of such users. Not only will this encourage greater use of the inclusive digital payments ecosystem, but will also provide users greater access to credit on an informed basis. This possible use of the data should take place in such a way that it results in responsible financing and protects against over indebtedness.

For the GSMA's *Code of Conduct for Mobile Money Providers* visit: <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/Code-of-Conduct-for-Mobile-Money-Providers-V2.pdf>

The Consultative Group to Assist the Poor (CGAP) published a Focus Note dealing with end-user risk: *Doing Digital Finance Right: The Case for Stronger Mitigation of Customer Risk*. Visit: <https://www.cgap.org/sites/default/files/Focus-Note-Doing-Digital-Finance-Right-Jun-2015.pdf>

4. Establishing an Appropriate Regulatory Environment

Regulators, in conjunction with policymakers, must ensure that the regulatory framework that is in place adequately addresses all risks and provides adequate protection to market participants. The GPFI white paper referred to above provides guidance as to which issues should be considered in developing regulatory frameworks, and it considers the opportunities for improved levels of financial inclusion as well as new and shifting risks. The G20 *High-level Principles for Digital Financial Inclusion* addresses the issue of an appropriate regulatory approach, particularly under Principle 3: Provide an Enabling and Proportionate Legal and Regulatory Framework for Digital Financial Inclusion. The work of the PAFI Task Force identified a focus on an appropriate legal and regulatory framework (Guiding Principle 2). The Committee on Payments and Market Infrastructures (CPMI, under the auspices of the Bank of International Settlements) actively supports the development of such a framework in a country context.

Countries should consider the following actions:

- **Incorporate the concept of proportionality in the regulatory framework.** This principle is widely supported by Standard Setting Bodies in the context of financial inclusion, but the country context plays a key role in defining reasonable proportionality. The GPFI report *Global Standard-Setting Bodies and Financial Inclusion: The Evolving Landscape* deals with the issue of proportionality in the context of the linkages between inclusion, stability, integrity, and market protection in the financial system.

It is important that the design and regulatory approach to inclusive digital payments ecosystems recognize and incorporate the accepted concept of a tiered approach to AML/CFT for lower-risk users of these systems.

- **Take into account both the benefits and the risks when considering regulatory approaches.** New approaches introduce new actors, which present new or shifting risks that need to be addressed by regulators, supervisors, and payments system overseers. Regulatory responses need to be framed in recognition of these risks, but should also include the risk of financial exclusion into account. This requires a careful balancing between the opportunities and the risks being introduced by an inclusive digital payments ecosystem. Regulatory responses should also include ongoing monitoring.

When planning the expansion of financial inclusion through the use of digital payments ecosystems, a regulatory impact analysis on all components of the relevant IT infrastructure should play a key role, since the infrastructure may be inadequate for implementing a safe and cost-efficient design. Regulatory impact analysis should therefore identify which actors will be affected most by this digital payment transformation and to what degree they will have the capacity to react to and implement the change.

Principle 3 of the G20 High-Level Principles of Digital Financial Inclusion calls for the provision of an enabling and proportionate legal and regulatory framework for digital financial inclusion, taking into account relevant G20 and international standard-setting body standards and guidance.

To learn about the GPFI work with Global Standard-Setting Bodies visit: <http://www.gpfi.org/publications/global-standard-setting-bodies-and-financial-inclusion-evolving-landscape>

- Established industry risk management approaches to operational, liquidity, reputational, business, and fraud risks are equally applicable to inclusive digital payments ecosystems, but **there are additional risks that should be addressed by regulators**. The PAFI report lists six such areas:
 - IT/security risks (mentioned above)
 - Reliability and business continuity
 - Business risk (such as business failure)
 - Contractual relationships and enforceability
 - The use of third parties as agents and the outsourcing of certain functions
 - Credit and liquidity risks to customers in their role as account holders
- **Where a national identification system is not in place, ensure coordination between regulators and other agencies holding some form of user identification data to lessen the burden on users to provide documented verification details.** Customer identification and verification are essential measures allowing financial service providers to offer services while combating money laundering and terrorist financing. The risk-based approach mandated by the Financial Action Task Force (FATF, the inter-governmental body developing and promoting policies to combat money laundering and terrorist financing), affords countries with flexibility when dealing with low-risk environments, a flexibility that should be fully utilized.
- **Recognize that there will be rapid developments in digital financial inclusion when developing financial consumer protection frameworks.** This requires an approach that explicitly recognizes that digital payment services evolve quickly and often involve little or no human-to-human interaction. Uptake can quickly reach a substantial number of people, and client communication and product disclosure should be consistent with the digital point of access being used by the users.
- Foster **close cooperation** among policymakers, financial sector regulatory bodies, and technical oversight bodies. See the recommendations listed under the section on Multiple and Diverse Stakeholders.
- **Recognize that the country context is unique and important, but that harmonisation of essential components is advantageous.** Although there are lessons to be learned from the regulatory approaches of other countries, these should always be adapted to the realities of the specific country. However, the harmonisation of essential components of the regulatory framework enables the establishment of secure and trusted payment methods for international transactions. Such harmonisation could result in more payment options and the development of interoperable payment systems across different regions.
- Ensure that there are **no barriers to accessing the inclusive digital payments ecosystem**, inadvertently excluding some people or segments of the population. It is important to ensure that the processes involved in the use of the inclusive digital payments ecosystem do not introduce new barriers. Given that women and people living in rural areas constitute the majority of people who are financially excluded or underserved, it is especially important to ensure that they can access digital financial services before a regulatory framework is finalized. In some countries people living in remote areas could also face access barriers and these should be eliminated through digital connectivity as far as possible.

Conclusions

Inclusive digital payments ecosystems hold major promise for the financially underserved market — particularly for people who lack any access to formal financial services — but require careful management. In particular, the following aspects require attention:

Explicit multiple stakeholder management.

This should entail joint agreements by all relevant stakeholders on the establishment, objectives, and oversight of an inclusive digital payments ecosystem, as well as the use of coordinating forums to ensure appropriate management of digital payment services. Constant measurement and evaluation is needed, including user feedback, on the performance of the ecosystem in terms of levels and types of use, whether user needs are being met, and on general accessibility. This evaluation should be used to ensure that adjustments are being made to improve the service offering. The *G20 High-level Principles for Digital Financial Inclusion* lays out this approach under Principle 8.

Enable innovation in the establishment of an inclusive digital payments ecosystem while ensuring consumer protection.

The multiple stakeholder management and measurement and evaluation mentioned should be used to facilitate and monitor innovation, and strike an appropriate balance between protecting users and other stakeholders.

Build trust in, and use of, digital payment services.

Use of the ecosystem should be increased through active measures to broaden product appeal and by a sustained advocacy campaign that increases awareness of available or developing payment services, and the advantages of those services. Transparency around the cost and service conditions of using the ecosystem's payment services is crucial in getting users to trust the system. Establishing effective risk management frameworks to deal with risks to both end-users and service providers is an essential step in establishing trust and promoting use.

Establish a proportionate regulatory framework that is appropriate to the market context.

There is no standard blueprint for regulation or oversight, which implies that every country will need to develop its own approach that takes into account both the current state of the market and how it wants to achieve a digital, financially inclusive economy.

The establishment of an inclusive digital payments ecosystem is a complex process and explicit and coordinated management is necessary to achieve the desired outcome of increased and beneficial use of the payment system. This requires an agreed-upon approach and active oversight during the ecosystem's development and operation. In crafting an approach to an inclusive digital payments ecosystem, the particular characteristics of the country (or region) should be taken into account. In this context, it is crucial that as policymakers take a leadership role all stakeholders are fully involved. Commitment from all parties is required to ensure progress. Government use of the payment services on offer is crucial to increase familiarity and demonstrate the benefits of payment services, and to demonstrate commitment to these payment services. All government entities involved in government-to-person, government-to-business, person-to-government, and business-to-government should fully use the payment ecosystem being established.

This note provides a practical solution that government officials can use to help structure their approach when facing common challenges. To gain a more thorough understanding of the complex issues and the available options it is again recommended that readers consult the growing body of literature now available. Building the foundations for inclusive economies is an exciting and important endeavour for all of our futures.

NOTE: THE STRUCTURE AND MANDATE OF THE ECOSYSTEM COORDINATING FORUM

The move to incorporate all major stakeholders within a single structure to drive the various aspects of financial inclusion forward in a coordinated manner has been successfully implemented in several countries. Mexico (National Council for Financial Inclusion), Brazil (The National Partnership for Financial Inclusion), and the United Kingdom (Financial Inclusion Commission) are examples of G20 countries following such an approach, while an increasing number of non-G20 countries, including Peru (Multisectoral Financial Inclusion Commission) and the Philippines (through Bangko Sentral ng Pilipinas) follow a similar approach. These platforms address the complete spectrum of financial inclusion matters, but an important subset of that work centers on inclusive payment systems as the stepping stone into the use of other financial services.

The country context will determine the composition and mandate of such a forum, but as a guideline the following stakeholders should be considered as participants in the forum:

- The financial sector policymaker.
- Financial sector regulators, specifically the central bank and the payments regulator. It is important that non-bank financial regulators are included.
- Policymakers and regulators in the ICT and energy sectors.
- Central authorities with responsibility for economic and social development.
- Representative bodies for financial service providers, including banks and non-bank payment service providers.
- Development partners, including international development agencies, donor organizations, and national civil organizations involved in social development.

The mandate of the platform should address the following:

- Financial inclusion policy, specifically as it relates to an inclusive digital payments ecosystem.
- The major areas in inclusive payments that should receive focus.
- The main initiatives to address these areas.
- The goals and expected outcomes of those initiatives.
- Who will bear responsibility for the establishment and operations of those initiatives.
- The regulatory oversight for those initiatives. This may involve more than one authority and the coordinating forum should be used to agree upon the areas of responsibility and the points of interaction between the authorities.
- An appropriate measurement and evaluation framework for the initiatives.

The country context will also determine who should be the convenor and secretariat of the platform. It is important that these positions are adequately resourced to carry through the mandate, which is typically a multi-year program.

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- 1 Some of the issues that will have to be considered in the establishment and provisioning of IDPE services are complex in nature. These issues are dealt with in this note but, where necessary, more detailed guidance will be provided in future notes.
- 2 Digital financial services cover financial products and services, including payments, savings, credit, insurance, securities, and financial planning, that are delivered to clients via digital or electronic technology. (*G20 High-Level Principles for Financial Inclusion*)
- 3 The 2015 *G20 Joint Action Plan on SME Financing* highlights the role played by digital financial services in improving access to financial services for SMEs.

