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FINANCIAL INCLUSION
GLOBAL INITIATIVE

Guidance for the Implementation of Electronic Payment Acceptance Reforms

ELECTRONIC PAYMENT ACCEPTANCE PACKAGE

WORLD BANK GROUP

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Abbreviations and Acronyms

ACH	Automated clearing house
AML	Anti-money laundering
ATM	Automated teller machine
B2B	Business-to-business
B2G	Business-to-government
B2P	Business-to-person
CDD	Customer due diligence
CFT	Combating the Financing of Terrorism
CPMI	Committee on Payments and Market Infrastructure
EFT	Electronic funds transfer
EPA	Electronic payments acceptance
FCP	Financial consumer protection
FICP	Financial Inclusion and Consumer Protection Survey
FIGI	Financial Inclusion Global Initiative
FMCG	Fast moving consumer goods
FPS	Fast payment system
ICT	Information and Communication Technology
IF	Interchange Fee
IFC	International Finance Corporation
ITU	International Telecommunication Union
MDD	Merchant due diligence
MDR	Merchant discount rate
MSME	Micro, small and medium enterprises
MSMR	Micro, small and medium retailers
NFC	Near-field communication
NFIS	National Financial Inclusion Strategy
P2B	Person-to-business
POS	Point-of-sale
PSP	Payment service provider
PSO	Payment system operator
QR	Quick response
RBA	Risk-based approach
RTGS	Real-time gross settlement system
SDD	Simplified Due Diligence
STK	SIM toolkit
USSD	Unstructured supplementary service data
VAT	Value-Added Tax
WBG	World Bank Group
WEF	World Economic Forum

1. Introduction

The World Bank has been leading the Electronic Payment Acceptance (EPA) Working Group, as part of its work on the Financial Inclusion Global Initiative (FIGI).[1] The objective of this Working Group is to foster effective practices for enabling and encouraging acceptance and use of electronic payments, particularly among unserved and underserved segments.

As part of its work on the EPA Working Group, the World Bank has developed a package of guidance notes and technical notes (hereafter, "EPA Package") that is intended to guide national authorities and electronic payment ecosystem stakeholders in the design and implementation of reforms and development of policies and other solutions to increase EPA. The EPA Package is premised on the concept that efforts to expand access to transaction accounts need to be accompanied by efforts to expand acceptance of non-cash payments to achieve the goals of access to and frequent usage of transaction accounts as described in the *Payment Aspects of Financial Inclusion (PAFI) report*.[2] Hence, the underlying objective of the World Bank's work on EPA, and the EPA Package, is to further financial inclusion by increasing the frequency of usage of transaction accounts, specifically for ordinary, day-to-day transactions at small merchants.

The EPA Package comprises five components: (1) Guidance for the Implementation of EPA Reforms ("EPA Reform Guidance"), (2) Assessment Guide, (3) Incentives for Electronic Payment Acceptance ("Incentives Report"), (4) Innovations in Electronic Payment Acceptance ("Innovations Report"), and (5) Regulatory Aspects of Intermediaries in Electronic Payment Acceptance ("Intermediaries Report").

This report provides an overview of the EPA Package, how its constituent elements interact with each other, and how it can be used. Further, it catalogues in one place a wide range of EPA incentives, programs, and policies that are discussed in various EPA Package components. In doing so, the Reform Guidance is intended to assist EPA stakeholders both in conducting an EPA assessment and in evaluating reforms that are geared toward enhancing EPA.

The document is organized as follows—section 2 introduces the key elements of the EPA Package, including its scope of focus, target audience, guiding principles, and core components. Section 2 also lays out the benefits of electronic payment acceptance, as well as the state of electronic payments globally. Sections 3-6 provide an overview of the individual EPA Package components beyond this Reference Guide. These include the overarching Guidance for the Implementation of EPA Reforms, the EPA Self-Assessment Guide, three technical notes—the EPA Incentives, Innovations, and Intermediaries reports—and, finally, the EPA country assessments. Section 7 discusses how to map the outcomes of an EPA assessment into a roadmap for implementation. It also presents examples of these actions implemented around the world.

2. Electronic Payment Acceptance Package

2.1 SCOPE OF FOCUS & TARGET AUDIENCE

The primary focus of the EPA Package is to promote an enabling environment for retail payment systems that will facilitate growth of electronic payment acceptance among micro, small and medium retailers (MSMRs). Four elements of this scope of focus require elaboration. First, retail payments are payments in which "at least one of the parties to the transaction, either the payer or the payee, is not a financial institution."[3] Second, electronic payments are those conducted using an electronic payment instrument, of which there are three broad categories: (1) electronic funds transfer (EFT)-based instruments, (2) payment card-based instruments, and (3) electronic money (e-money)-based instruments.[4] Third, MSMRs are generally classified as micro, small and medium enterprises (MSMEs) that sell goods and services to consumers. Finally, facilitating the growth of EPA among MSMRs depends on a set of drivers beyond the enabling environment, such as incentives and innovative business models, which promote the uptake of electronic payments for merchant payments.[5] These drivers are addressed in the EPA Package as well as the enabling environment.

Micro, Small and Medium Enterprises (MSMEs), of which MSMRs are a subset, are most often classified by number of employees. Employee thresholds differ across countries, but the most common thresholds are: micro enterprises (1-9 employees); small enterprises (10-49 employees); and medium enterprises (50-250 employees).[6] Though imperfect, employee-based thresholds are the most consistently reported metrics for defining MSMEs. Alternative classifications include turnover- and asset-based thresholds, but these data are not as readily available on a cross-country basis. For the retail sector, these size-based definitions were modified to be narrower in the 2016 World Bank Group Sizing Study after discussions with experts. In this regard, micro retailers employ between 1–5 persons, small retailers employ between 6-25 persons, and medium retailers employ between 26-100 persons.[7]

The EPA Package's focus on MSMRs is based on improving financial inclusion. The EPA Package focuses primarily on MSMRs because they have a harder time accessing financial services, including the ability to accept electronic payments, than large retailers. Despite the emphasis on MSMRs, many EPA Package elements are applicable to large retailers as well.

The Package's focus on expanding EPA is meant to address imbalances in the two-sided market for retail payments. The evolution of electronic payments goes back several decades to when the first credit cards were

introduced. In the early stages of its evolution, the electronic payment landscape was dominated by mostly issuer-centric business models that prioritized the issuance of cards over their acceptance by merchants and businesses. Over time, as the usage of cards spread to different parts of the world, the growth of EPA did not keep pace with the number of cards in the market and was often costly, especially for merchants in emerging markets and the MSMR segment. In many countries, electronic payments failed to reach scale and penetrate the underserved segments. Over the last two decades, the focus has shifted to addressing this imbalance through new technologies, business models and approaches that prioritize acceptance development and improve the uptake of electronic payments.

In terms of payment flows, the central focus of the EPA Package is on person-to-business payments.[8] Retail payments involving MSMRs include person-to-business (P2B) payments, business-to-person (B2P) payments, business-to-business (B2B) payments, business-to-government (B2G) payments, and government-to-business (G2B) payments. The EPA Package is developed primarily for the expansion of P2B electronic payment acceptance. However, wherever relevant, it also addresses the other types of MSMR retail payments within the context of improving the overall electronic payment ecosystem, including expanding market scale and reducing cash cultures, as well as digitizing merchants' cash outflows, which has the potential to create a virtuous cycle of electronic payments within merchants' business models.

The EPA Package is intended to apply to a variety of traditional and emerging acceptance channels. The Package addresses key issues involving the development of acceptance channels most used for P2B merchant payments in emerging markets and developing economies (EMDEs), both for in-person payments at the point of (economic) interaction and remote payments. For in-person payments, such channels include point-of-sale (POS) terminals, mobile POS (mPOS), mobile-to-mobile acceptance via unstructured supplementary service data (USSD) and SIM toolkits (STK), and quick response (QR) code payments, among others. For remote payments, such channels include various forms of online, mobile, or social commerce payments.

The EPA Package's target audience includes national authorities and other electronic payment ecosystem stakeholders who are involved in the evaluation, design, and implementation of solutions to promote EPA uptake in the MSMR segment. An assumption of the EPA Package is that stakeholders have a sound prior understanding of the retail payment market they intend to evaluate. The five EPA Package components are intended to help stakeholders better understand the dynamics of electronic (retail) payment ecosystems and good practices emerging from various markets in adopting new technologies, business models and approaches, and incentives to grow EPA. The EPA Package components are:

1. Guidance for the Implementation of Electronic Payment Acceptance Reforms ("EPA Reform Guidance") (the current report)
2. Assessment Guide
3. Incentives for Electronic Payment Acceptance ("Incentives Report")
4. Innovations in Electronic Payment Acceptance ("Innovations Report")
5. Regulatory Aspects of Intermediaries in Electronic Payment Acceptance ("Intermediaries Report")

2.2 BENEFITS OF ELECTRONIC PAYMENTS

A fundamental assumption underlying the EPA Package is that widespread use of electronic payments is beneficial for a variety of economic stakeholders, including merchants, consumers, suppliers, payment service providers (PSPs), payment system operators (PSOs), and national authorities. Table 1 outlines the main benefits for these stakeholders. Most of the benefits are proportional to the scale of electronic payments. That is, as electronic payment acceptance and usage increase, greater benefits accrue to these economic stakeholders.

In addition to the micro-level benefits highlighted in Table 1, macroeconomies stand to gain from widespread use of electronic payments. In particular, electronic payments have been linked to increased economic growth, particularly through increased consumption.[9] For example, Zandi et al. (2016) find that electronic payments contributed USD 296 billion in real GDP to seventy countries under investigation between 2011-2015, corresponding to an increase in global GDP and consumption of 0.1 percent and 0.4 percent, respectively. Further, electronic payments can increase the efficiency of investment, government spending, and trade. As introduced in Table 1, electronic payments also reduce economic informality, support transparency, and facilitate more accurate reporting of economic activity. These improvements can, in turn, help economies attract international investment and boost governments' income and creditworthiness. As discussed in Box 1, electronic payments have also been crucial in helping to maintain economic activity during the COVID-19 pandemic.

TABLE 1. The Benefits of Electronic Payments for Key Economic Stakeholders

Stakeholder	Main benefits
Merchants	Increased revenue
	Efficiency gains (e.g., time saving, inventory management)
	Lower cash handling cost
	Increased safety
	Automation of and real-time access to revenue and expense history
	Better ability to sell remotely
	Access to value-added services (e.g., credit, productivity solutions, client relationship management, revenue generating services) Data analytics
Consumers	Access to other financial services (e.g., savings, credit, insurance)
	Increased safety, security, and confidentiality
	Better ability to purchase remotely
	Better financial management
Suppliers	Reduce cost and risk of collections
	Better order management
	Data analytics
	More efficient administration of promotions, loyalty rewards, incentives
Providers and Operators	Revenue gains through new users and increased usage
	Cross-selling opportunities for other products and services
	Reduced cost of cash
National Authorities	Reduced economic informality
	Increased transparency
	Increased tax revenue
	Better collection and disbursement of payments, including social transfers Enhancements in economic and financial gains

BOX 1

ELECTRONIC PAYMENTS AND THE COVID-19 PANDEMIC

The COVID-19 pandemic has generated tremendous interest in electronic payments for a variety of reasons. First, due to the potential health benefit of reducing contact in the payment process, merchants appear more willing to accept, and consumers appear more willing to use, electronic payment methods, especially those that do not, in principle, require physical intervention, such as contactless payments. Second, electronic payments are often, though not always, used to settle e-commerce transactions, and COVID-19 has driven more retail commerce online. Third, in some cases, cash access points, such as retail agents, branches, and ATMs, are operating in a reduced capacity due to the pandemic, which curtails consumers' ability to obtain cash. Finally, governments have been able to disburse pandemic relief payments to businesses and individuals more efficiently via electronic channels than through paper-based methods. As such, where infrastructure and financial access permits, governments have encouraged the use of electronic methods for payment receipt. Thus, in addition to their general benefits, electronic payments have been critical in facilitating overall commerce during the pandemic.

2.3 ELECTRONIC PAYMENTS LANDSCAPE

Despite the clear benefits of electronic payments, acceptance and usage have historically been sluggish in certain economies and merchant segments. The Sizing Study estimates the share of payments made electronically to and by MSMRs.[10] The study estimates that, as of 2015, only 37 percent of P2B payments at MSMRs globally were made electronically, and the figure varies across regions (Figure 1). Data from World Bank Global Findex Database show that although digital payment usage increased across all regions and income groups between 2014 and 2017 (Figure 2), it was still quite low in many economies as of 2017. Globally, only about 45 percent of adults made at least one digital payment in 2017. Thus, there is considerable scope for expanding electronic payments in both developing and developed economies.

2.4 GUIDING PRINCIPLES

Seven overriding principles form the basis for the EPA Package and have guided the general approach to its development. These principles are listed and discussed further below.

1. **Increase financial inclusion.** The main objective of the EPA Package is to increase financial inclusion. The FIGI EPA Working Group was established to ensure that transaction accounts are used, rather than staying dormant, via building an ecosystem which facilitates electronic payments in small, day-to-day transactions for all. In doing so, the EPA Package aims to focus on the financial inclusion of small merchants, their acceptance and usage of electronic payments, and usage of transaction accounts by consumers for retail purchases.

FIGURE 1. Electronic P2B Payments at MSMRs (% of payment value)

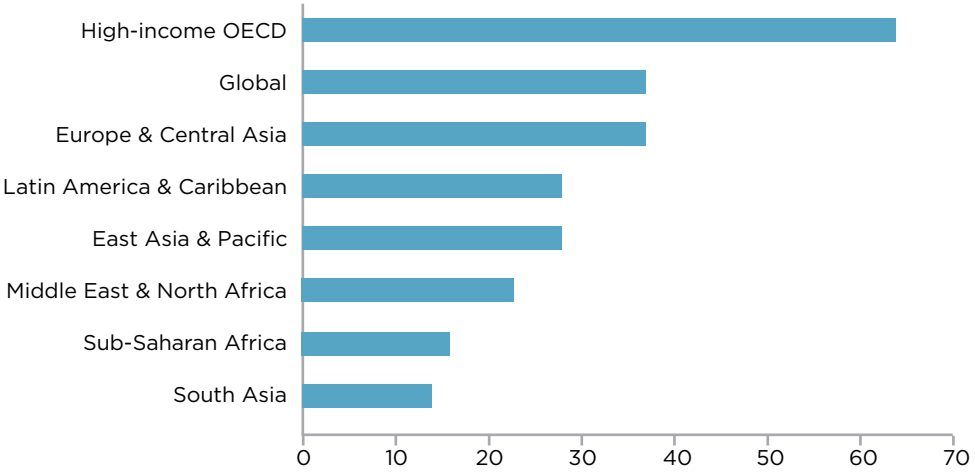
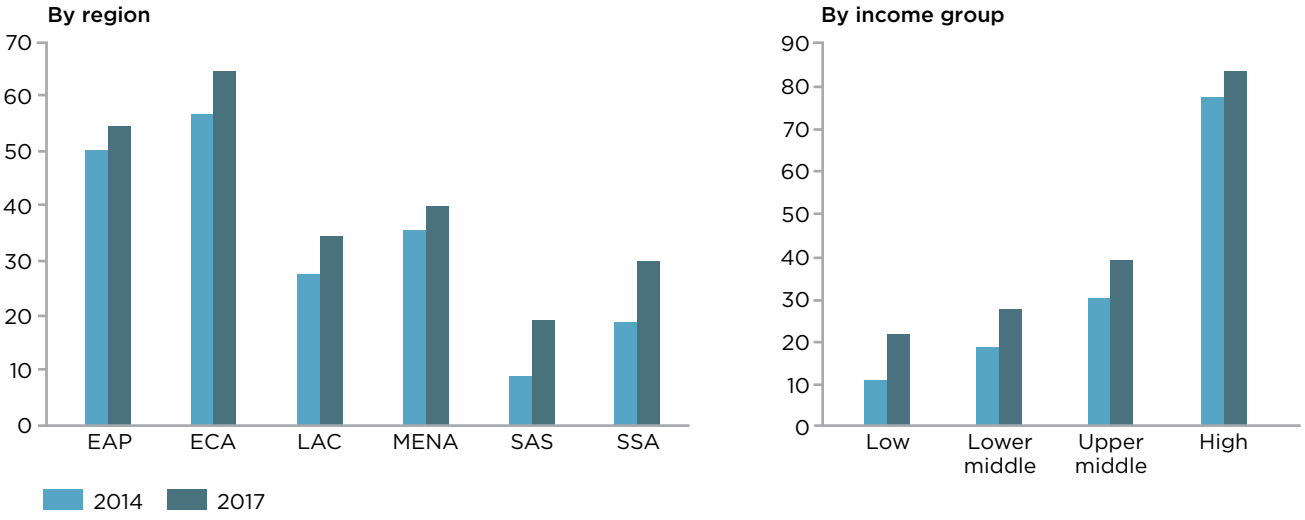


FIGURE 2. Made digital payment in the past year (% age 15+)



2. **Promote the overall use of electronic payments through an appropriate enabling environment.** Electronic payments are an important contributor to the digital economy and economic growth, and an enabler for governments to promote their financial inclusion policies. The overarching principle guiding the development of the EPA Package is to promote and increase the safe and efficient use of electronic payments and reduce payments by cash and cheque. The EPA Package aims to help countries implement policies and programs that support sound electronic payment market development. This includes creating an enabling environment that promotes access to and acceptance of electronic payments, increases the overall volume of such payments, and creates value for all participants in the electronic payment ecosystem. Consistent with FIGI's financial inclusion mandate, the EPA Package places an added emphasis on the ability of financially unserved and underserved merchant and consumer segments to participate in the electronic payments market. In economies where the informal sector is strong, authorities must demonstrate a strong political direction and clear strategy for promoting electronic payments, including by educating merchants and consumers about the costs of cash.

3. **Maintain a level playing field between various types of payment service providers and payment systems.** PSPs and PSOs conduct the essential functions in relation to the provision of electronic payments to their end users. As a result of innovations in digital financial services and improvements to enabling environments for retail payments, different types of PSPs, and PSOs are evolving. However, the core functions performed by them remain the same. PSPs, PSOs and payment systems performing similar functions should be subject to similar requirements and be treated equally under legal and regulatory frameworks. Legal and regulatory neutrality in this respect enables PSPs and PSOs to compete on an equal footing and supports market development.

4. **Maintain technology and product neutrality.** Facilitated by technological developments and new business models, electronic payments are evolving at an increasing pace, resulting in new modes of conducting payments. The EPA Package strives to treat various electronic payment methods in the same manner, focusing on the functionality of how end users' payment needs are satisfied, rather than the specific technology and/or product which enable a particular payment type. Such treatment maintains the principle of neutrality. Technology and product neutrality creates legal and regulatory certainty, which facilitates further market development.

5. **Be transparent and fair to all participants in the value chain regarding the economics of acceptance.** The costs of different payment services play an important role in choice and uptake. However, managing the economics of acceptance through market regulation should be a well thought out process to ensure that the price incentives to suppliers of payment services are not skewed in favor of one side of the market (e.g., issuing or acquiring) at the cost of another. Further, the costs for end users of payment services (e.g., consumers, merchants, businesses and governments) should be transparent and fair. In this context, PSPs should transparently present the prices to users for the payment services they provide, and the users should be able to determine and compare the costs of different payment services before making a decision to accept or use a payment service. Users should be informed on a regular basis of the fees and charges applied in a clear (and un-bundled) manner.

6. **Recognize and address the effects of two-sided markets (and externalities).** The payments market consists of two types of users, payers and payees, which use different types of payment services to make and receive payments. Payment services are a two-sided market, where actions or events on one side of the market will generate effects on the other side of the market, both positively and negatively. An increase in the uptake of acceptance of a particular payment instrument will make it more attractive for other users to possess the payment instrument and vice versa. Improving electronic payment acceptance will thus also affect how consumers ultimately choose to pay. However, if the acceptance of a payment instrument is not widespread, the usage of different payment instruments will be constrained whether or not consumers have access to such instruments. Policymakers should focus on the development of both sides of the ecosystem without disrupting the balance. The most successful public policies for developing the two-sided market focus on removing impediments to innovation by promoting new business models and approaches, promoting interoperability, providing a level playing field for PSPs, and investing in infrastructure for acceptance. Regulatory intervention, if it occurs, should be driven by specific policy objectives and should be evidence based.

7. **Maintain safety, and efficiency as guiding policy objectives.** The development of EPA should be based on considerations in relation to promoting safety, and efficiency overall. These important considerations are relevant for immediate EPA stakeholders—payment systems, PSPs, and users of payment services—and the wider ecosystem and society. Safety, and efficiency will help facilitate broad uptake of electronic payments and maintain public trust in the national payment system.

2.5 ELECTRONIC PAYMENT ACCEPTANCE PACKAGE COMPONENTS

The EPA Package comprises five components: (1) EPA Reform Guidance (this report), (2) Assessment Guide, (3) Incentives Report, (4) Innovations Report, and (5) Intermediaries Report Sections 3–7 discuss these four components beyond the Reform Guidance.

The EPA Package recommends three general phases in developing EPA reforms (Figure 3). The first phase involves conducting an assessment to understand which EPA barriers are most salient in a given country. The second phase is developing a reform roadmap. The roadmap includes recommendations for the selection of incentives, policies, and programs, high-level design considerations, stakeholder coordination, and potential roadblocks. The third phase is implementation, which involves the specific design of the selected reform measures, operationalization, and monitoring and evaluation. The EPA Package is geared toward assisting EPA stakeholders with the first two phases—assessment and the development of an EPA reform roadmap. While the EPA Package can help inform implementation, it does not provide guidance on specific design and cost considerations at intervention level, as these will depend heavily on local circumstances.

FIGURE 3. Electronic Payment Acceptance Reform Development Stages

Figure 4 captures the general relationships between the five Package components. It is envisioned that EPA stakeholders first consult the EPA Reform Guidance for a discussion of the wide range of programs and policies that can be pursued to enhance EPA, as well as a detailed overview of the Assessment Guide and Incentives, Innovations, and Intermediaries Reports. Second, stakeholders leverage the Assessment Guide to diagnose barriers to EPA in their local economy. Next, stakeholders can consult the Incentives, Innovations, and Intermediaries reports for more in-depth analysis of EPA-centric programs, policies, and innovations. The outcome of this process includes a country assessment and a country roadmap.

FIGURE 4. Electronic Payment Acceptance Package Component Relationships

3. Electronic Payment Assessment Guide

The EPA Assessment Guide helps stakeholders comprehensively assess EPA development and diagnose which barriers to EPA are most severe in a country.[11] To this end, it presents assessment tools and approaches for a range of retail payments ecosystem, market and economic, and legal and regulatory elements that affect development of EPA at the country level. In support of these assessment approaches, the Assessment Guide proposes indicators that stakeholders can use to measure EPA development in a local context. The Assessment Guide is designed to facilitate the first step in the EPA reform process—the assessment stage (Figure 3).

The Assessment Guide groups EPA landscape assessment elements into three thematic policy categories: (1) retail payments ecosystem, (2) economics of EPA, and (3) legal, regulatory and oversight. Each of these policy categories is broken down into a series of sub-categories, which are outlined in Table 2. Grouping assessment elements into policy categories and sub-categories is meant to help stakeholders assess related EPA policy areas.

TABLE 2. Electronic Payment Acceptance Policy Categories and Sub-Categories

EPA Policy Categories	EPA Policy Sub-Categories
Retail Payments Ecosystem	Financial access
	Market development
	Payment infrastructures
	Other financial and ICT infrastructures
	Education and perceptions
Economics of EPA	Acceptance benefits and costs
	Provider costs and risks
	Consumer behavior
Legal, Regulatory, and Oversight	Legal and regulatory (general)
	Legal and regulatory (financial)
	Payment system oversight

4. Incentives for Electronic Payment Acceptance

The Incentives Report takes a deep dive into country experiences with employing incentives to drive acceptance and usage of electronic payments.[12] Drawing on a wide range of country case studies and examples, the Report examines the effectiveness of different types of incentives and draws conclusions about the conditions under which they are likely to make an impact on electronic payment acceptance and usage. The Incentives Report provides more detail on many of the incentive programs highlighted in the Reform Guidance (this report). Key approaches covered in the Incentives Report include expanding access to transaction accounts, improving critical infrastructures, enabling competition among PSPs, providing fiscal incentives, implementing certain cash disincentives, and value-added services.

The Incentives Report also quantifies the relative importance of EPA incentives. The report leverages machine learning approaches that are well-suited for analyzing the complex process underlying EPA uptake to examine the effects of incentives in both country- and merchant-level data. Though many incentives are found to significantly affect EPA, the most consistent findings revolve around digitizing merchants' cash outflows (e.g., supplier payments and wages), the provision of merchant fiscal incentives, and the development of applications that represent fundamentally new approaches to conducting payments and that are tailored to local market conditions.[13]

5. Innovations in Electronic Payment Acceptance

The Innovations Report addresses important developments in EPA technologies, business models, and strategies that are helping to expand acceptance services to unserved and underserved merchant segments.[14] Specifically, the Innovations Report examines current industry practices in EPA, reviews the functioning and value proposition of new payment acceptance business models and processes, and evaluates leading technological innovations that are influencing the electronic payment acceptance ecosystem. The Innovations Report provides further details on many reforms discussed in the Reform Guidance (this report), as well as aspects related to the enabling policy environment, particularly those dealing with technology and business model innovations, and value-added services.

The Innovations Report covers key developments in various stages of electronic payment acceptance. The Report investigates innovations in merchant acquisition, merchant agreements, selecting acceptance mechanisms, merchant fee structures, merchant due diligence, merchant underwriting, switching and interoperability, authorization, and authentication, and clearing and settlement. Importantly, it examines innovations within the context of traditional and emerging retail payment ecosystems.

6. Regulatory Aspects of Intermediaries in Electronic Payment Acceptance

The Intermediaries Report examines electronic payment acceptance intermediaries, which play a crucial role in enabling acceptance for small merchants worldwide.[15] Acceptance intermediaries include payment facilitators, which are also known as payment (or merchant) aggregators, third-party processors, payment gateways, and bill payment aggregators. The Intermediaries Report provides a comprehensive approach to defining and categorizing electronic payment acceptance intermediaries. Additionally, it catalogues global regulatory approaches with respect to acceptance intermediaries.

The Intermediaries Report analyzes three non-mutually exclusive regulatory approaches with respect to acceptance intermediaries: (1) direct regulation, (2) regulating payment schemes and payment systems, and (3) regulating acquirers and their outsourcing activities. The first approach involves the licensing of and setting controls and limits on EPA intermediaries directly. In the second approach, regulators strive to ensure that scheme governing bodies or system operators manage all risks within the scheme, including risks presented by EPA intermediaries. The final approach involves issuing regulations related to acquirers' outsourcing activities, which may be general or specific to EPA intermediary relationships. These approaches are not mutually exclusive, and the Intermediaries report discusses cases where regulators have applied aspects of multiple approaches to address risks posed by EPA intermediaries.

7. Developing an EPA Roadmap

Mapping Assessment Outcomes to Reforms

This section maps EPA reforms to the EPA assessment elements covered in the Assessment Guide to enable the users of the EPA Package to develop a roadmap for improving EPA. In doing so, it also provides a high-level overview of how these EPA reforms work.[16] Most of the reforms have direct connections to the Incentives, Innovations, and Intermediaries Reports, and these connections are highlighted throughout. Because the three technical notes take a deep dive on incentive implementations, innovations, and regulatory approaches for intermediaries, they do not cover all options available to EPA stakeholders. This section complements the three technical notes by providing a high-level overview of a wide variety of EPA reform measures. In this way, it seeks to inform EPA stakeholders on a range of potential solutions for addressing EPA barriers and development considerations.

Section 7 is structured as follows. Sub-section 7.1 discusses the reform framework underlying this Guidance. It also provides a reform taxonomy and maps reforms to the assessment elements contained in the Assessment Guide. Sub-sections 7.2-7.7 discuss six categories of reforms: (1) fiscal and financial incentives, (2) mandates and disincentives, (3) value-added services, (4) ecosystem development, (5) legal, regulatory, and oversight framework improvements, and (6) technology and business model innovations.

7.1 REFORM FRAMEWORK AND MAPPING

7.1.1 Reform Framework

Section 3 evaluates measures taken by the public and private sectors that are intended to enhance EPA uptake among MSMRs. Though the emphasis is on measures targeting EPA uptake among merchants, this section also examines solutions geared toward enhancing electronic payments usage among consumers and the provision of electronic payment services among PSPs. The market for electronic payments is two-sided. Providers work to bring merchants and consumers together into an electronic payment network, and merchant and consumer demand for electronic payments are interdependent. Therefore, consumers' usage and PSPs' market engagement influence merchants' EPA uptake patterns.

In line with this, a distinction between direct and indirect reform measures can be drawn. Direct measures are merchant-centric. Indirect measures work through other ecosystem stakeholders—for example, by incentivizing electronic payment usage among consumers or by clearing regulatory and ecosystem bottlenecks that affect EPA. Indirect reform measures may have implications for the broader digital economy beyond EPA, whereas direct measures focus primarily on EPA uptake among merchants.

With these nuances in mind, this section organizes reforms into six categories (Figure5). The first three categories are akin to traditional forms of economic incentives, in the sense that they are geared toward altering the behavior of merchants, consumers, or PSPs. These include fiscal and financial incentives (section 7.2), mandates and disincentives (section 7.3), and value-added services (section 7.4). Fiscal and financial incentives are driven by both the public and private sectors. Mandates and disincentives are driven exclusively by the public sector, and value-added services are driven by the private sector.

The next two categories constitute broader sets of measures that enable EPA by enhancing relevant infrastructures, policies, and technologies. These include ecosystem development (section 7.5) and legal, regulatory, and oversight framework improvements (section 7.6). Often, the public and private sectors work together to enhance the retail payment ecosystem, while the public sector is responsible for improving the legal, regulatory, and oversight framework.

Finally, technology and business model innovations (section 7.7) are a hybrid class of reform measures in two senses. First, they can both directly alter behavior and more indirectly enable EPA. Second, while the private sector is the primary driver of technology and business model innovations, the public sector has certainly played a role in many countries in enabling business model innovations and contributing to payment-related technology innovations.

7.1.2 Reform Taxonomy and Mapping

Table 3 provides a summary of the specific reforms discussed in this section.[17] The table identifies reform measures, groups them into the six categories introduced in section 7.1.1, and maps the reforms to the EPA policy sub-categories that form the organizational foundation of the Assessment Guide as discussed in Section 3. Sections 7.2–7.7 provide further granularity by mapping reforms to the specific assessment elements underlying the EPA policy sub-categories.

FIGURE 5. Electronic payment acceptance reforms: types, goals, and lead sectors

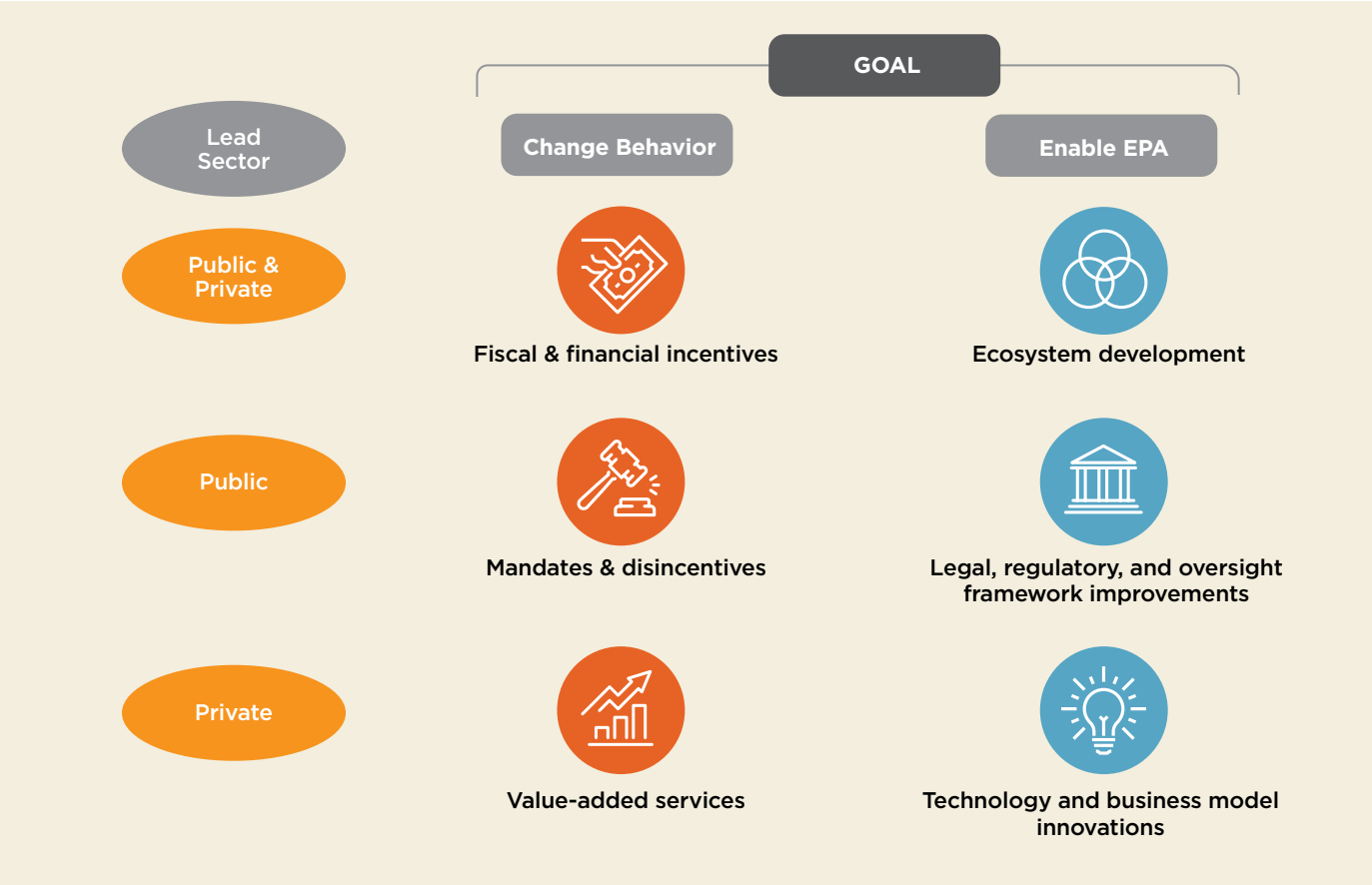


TABLE 3: Summary of electronic payment acceptance reform mapping

Reform category	Reform measure: / EPA policy sub-category:	Financial access	Market development	Payment infrastructures	Financial and ICT infrastructures	Education and perceptions	Acceptance benefits and costs	Provider costs and risks	Consumer behavior	Legal and regulatory (general)	Legal and regulatory (financial)	Payment system oversight
Fiscal & Financial Incentives	Early-stage cost subsidization	■					■					
	Merchant fiscal incentives						■					
	Consumer fiscal incentives		■			■			■			
	PSP fiscal incentives	■						■				
	Tax simplification						■			■		
	Acceptance lotteries		■			■						
	Usage lotteries		■			■			■			
	Loyalty rewards		■			■			■			
Mandates & Disincentives	Mandated acceptance of electronic payments		■			■						
	Mandated electronic disbursement of wages		■			■			■			
	Disincentives for cash payments		■			■			■			
Value-Added Services	Credit	■					■					
	Productivity solutions						■					
	Revenue generating services						■		■			
	Client relationship management						■		■			
Ecosystem Development	National financial inclusion or retail payments strategy	■										
	Government adoption of electronic payments		■			■			■			
	Improve availability, safety, and efficiency of payment infrastructures			■				■				
	Improve e-commerce readiness				■		■					
	Improve other financial and ICT infrastructures				■			■				
	National financial capability strategy and EPA-relevant financial capability programs					■						
	Stakeholder partnerships	■	■	■	■	■	■	■	■			
Legal, Regulatory, & Oversight Improvements	Improve neutrality and proportionality		■					■		■	■	
	Improve financial consumer protection					■					■	
	Implement risk-based approach to merchant due diligence	■						■			■	
	Regulate and license intermediaries							■			■	
	Improve payment system oversight											■
Technology & Business Model Innovations	Supply Chain Digitization						■				■	
	Innovations in acceptance tools	■					■		■		■	
	Innovations in acquisition models	■	■				■				■	
	Innovations in underwriting	■						■			■	
	Non-traditional partnerships		■					■			■	

7.2 FISCAL AND FINANCIAL INCENTIVES

Fiscal and financial incentives include early-stage EPA cost subsidization, fiscal incentives for merchants, consumers, and PSPs, tax simplification, lotteries rewarding acceptance or use of electronic payments, and loyalty rewards. The public and private sectors have been active in leading these incentives. Early-stage cost subsidization and tax simplification directly incentivize merchants, while fiscal incentives and lotteries have direct and indirect forms, as they can be geared toward merchants, consumers, or PSPs. Loyalty rewards are typically indirect incentives geared toward consumers.

Early-stage cost subsidization, merchant fiscal incentives, and tax simplification are primarily designed to improve electronic payment acceptance benefits and reduce costs. Lotteries, consumer fiscal incentives, and loyalty rewards are geared toward expanding electronic payment market scale, reducing the cash culture, and increasing the usage of digital payments. Finally, PSP fiscal incentives are meant to help expand financial access and mitigate providers' costs and risks.

7.2.1 Early-Stage Cost Subsidization

TARGET ASSESSMENT ELEMENTS
Relative costs of EPA and cash acceptance
Merchant financial access

Early-stage cost subsidization programs are direct incentives that improve the relative costs of EPA compared to cash acceptance. Subsidization of POS terminals, mobile payments acceptance technology, merchant fees, and mobile data or Internet costs help reduce periodic fees, communication costs, and, typically for a limited time, per transaction fees associated with EPA. These incentives can also improve merchant financial access, particularly with respect to acceptance channel access.

Governments and private sectors have led these subsidization incentives in various markets. Box 2 profiles government-led incentives in this area, which have included subsidization of POS terminals and merchant discount rates (MDR). Box 3 explores private sector-led cost subsidization approaches, which have included establishing

BOX 2

GOVERNMENT-LED EARLY-STAGE COST SUBSIDIZATION

Government-led early-stage cost subsidization often entails partial or full coverage of the cost of electronic payments acceptance technology. A common approach in this area has been for governments to offer a tax credit for a certain percentage of the cost of a POS terminal. More ambitiously, governments can provide such technology to certain merchant segments for free. Uruguay and Mexico have been active in early-stage subsidization.

In 2014, Uruguay issued a Financial Inclusion Law as the culmination of several government efforts to promote financial inclusion. Among other measures, the law included tax credits for POS terminal investments, thereby supplementing existing tax credits for POS terminal leases (EY 2017). Since then, Uruguay has consistently extended the subsidy horizon. POS terminals nearly doubled between 2014 and 2017, according to data published by the Central Bank of Uruguay (Licandro 2018). POS terminals increased most among small merchants and in merchant categories where cash is typically predominant, such as restaurants and supermarkets, thereby contributing to reducing the shadow economy (CPA Ferrere 2016).

In 2004, Mexico established FIMPE, a trust fund to expand electronic payments acceptance and usage. FIMPE, a public-private partnership, was funded through acquirer contributions, which were returned as fiscal exemptions. In addition to consumer lotteries, FIMPE supported free POS installation for merchants. According to FIMPE, the POS network increased 96.3 percent from 2003 to 2006. The Inter-American Development Bank also reported that, under FIMPE, 205,000 free POS terminals were installed for merchants who usually paid MXN 6,000–7,000 (USD 302–352). More recently, the Finance Ministry, through the program "Tablet para el Regimen de Incorporación Fiscal," offered a subsidized tablet equipped with mPOS and accounting software for microenterprises registering for tax purposes.

In rarer cases, governments subsidize merchant fees for a limited period of time. The Government of India (GoI), for example, pledged to subsidize MDR from 2018–2020 on all payments under INR 2,000 (USD 27) made via debit card, India's BHIM United Payments Interface, and India's Aadhaar-enabled Payment System (GoI 2017). The GoI accomplished this by reimbursing banks directly for waiving the MDR they would otherwise charge to merchants.

Acceptance Development Funds and sponsoring targeted interchange fee (IF) reductions for a period of time.

As EPA technology evolves, so too will early-stage cost subsidization incentives programs. For example, while traditional POS terminal subsidization is common in the cases highlighted in Boxes 2 and 3, many retail payment ecosystems are focusing on alternative acceptance mechanisms, such as mPOS, QR codes, and other mobile-based acceptance. Early-stage cost subsidization incentives can easily be tailored to the EPA mechanisms that are most suitable for or prevalent in a given economy. However, as discussed in section 7.7.2, the cost of some of these emerging EPA mechanisms can be quite low, especially if a merchant already owns a mobile device that can be used for acceptance, hence making the need for subsidization redundant.

7.2.2 Merchant Fiscal Incentives

TARGET ASSESSMENT ELEMENTS
Tax liability
Relative costs of EPA and cash acceptance

Merchant fiscal incentives are public sector-led direct incentives geared toward limiting merchants' tax liabilities from EPA uptake and improving the relative costs of EPA compared to cash acceptance. Typically, fiscal incentives are tax breaks linked to the volume of electronic sales merchants make (Govil 2016; Mastercard 2017). A common deployment mechanism involves a volume-based value-added tax (VAT) credit for sales made electronically. Variations on this include a tax rebate for the percent of sales made electronically and a VAT reduction for a percentage of all electronic transactions. Caps are prudent to minimize the potential cost of the tax breaks.

BOX 3

PRIVATE SECTOR-LED EARLY-STAGE COST SUBSIDIZATION

The private sector leads early-stage cost subsidization through Acceptance Development Funds and targeted IF reductions. Industry stakeholders argue that these market-based efforts can be particularly effective in aligning stakeholder interests.

Acceptance Development Funds are typically established and funded by issuers, who reserve a share of IF in a given market for fund development, though the funds are generally managed by third-parties (Govil 2016). As discussed in the Incentives Report, though the private sector most often initiates these funds, governments have taken the lead in certain cases, as in India. Acceptance Development Funds contribute to a wide range of ecosystem development initiatives, including market education and payments acceptance innovation, but their most consistent contribution has been in POS subsidization.

Issuers and their payment service partners have established Acceptance Development Funds in Indonesia, Poland, and Malaysia to support early-stage EPA cost subsidization, particularly outside of major cities (Govil 2016). The Acceptance Development Funds in Indonesia and Poland have helped expand POS terminals by 88,000 and 200,000, respectively. Similarly, Malaysia's Market Development Fund has been established to support the Central Bank of Malaysia's goal of 800,000 installed POS terminals by 2020. While all three programs target POS expansion, Indonesia's Acceptance Development Fund supports a range of ecosystem development measures, such as acceptance channel innovations and education initiatives. The Incentives Report provides more detail on how Acceptance Development Funds have been set up, funded, and operated.

In some cases, issuers also pursue limited time targeted IF reductions, which drive down MDR. Targeted IF reduction initiatives generally focus on sluggish converters to EPA, such as quick service restaurants and bill payments, among other segments. Their application often requires merchants to meet performance metrics, and they are designed to be removed as electronic payments scale increases.

South Korea offers a prominent example of merchant fiscal incentives. Beginning in the mid-1990s, the government allowed merchants to claim VAT credits that have ranged between 0.5-2 percent of payment card-based sales (Sung, Awasthi, and Lee 2017; Jeon 2013). The credit peaked at 2 percent between 2000-2003 and was accompanied by a gross ceiling beginning in 1999.

As discussed in section 7.2.5, micro and small merchants fall under simplified tax regimes in many countries. Relatedly, many countries have VAT registration turnover thresholds. While the typical merchant fiscal incentives discussed above could potentially be adapted to these circumstances, they are generally less applicable for merchants falling under simplified regimes or VAT exemptions.

7.2.3 Consumer Fiscal Incentives

TARGET ASSESSMENT ELEMENTS
Market scale
Cash culture
Consumer behavior

Consumer fiscal incentives are geared toward expanding electronic payments market scale, breaking strong cash cultures, and enhancing the usage of digital payments among consumers. Incentivizing electronic payments usage among consumers may encourage MSMRs to meet usage demand with EPA adoption. In this sense, they are indirect incentives that work through the electronic payment market's two-sided properties (Rochet and Tirole 2004; Rysman 2009; Bounie, Francois and Van Hove 2016; Visa 2021). Consumer fiscal incentives are led by the public sector and are typically deployed through VAT and income tax breaks for purchases made electronically.

A number of Latin American countries have implemented point-of-sale VAT reductions for purchases made electronically (Govil 2016). This has been particularly successful in Uruguay, which implemented a transparent, expeditious VAT reduction program (Govil 2016). South Korea's Tax Incentives for Electronically Traceable Payments (TIETP) program is a well-known example of the income tax deduction mechanism. The TIETP program allows individuals to claim an income tax deduction for electronic payments that eclipse a certain threshold of their income but are below a maximum amount stipulated by the program, the levels of which have been revised over the years (Sung, Awasthi, and Lee 2017).

7.2.4 Payment Service Provider Fiscal Incentives

TARGET ASSESSMENT ELEMENTS
Merchant financial access
Consumer financial access
Provider costs and risks

Fiscal incentives for PSPs are government-led indirect incentives that can help to expand merchant and consumer financial access and reduce providers' costs and risks. PSPs face a variety of costs and risks in serving merchants and consumers, including those associated with merchant acquisition and servicing, subsidization of hardware and fees, customer loss and fraud, and incentives and innovation. National authorities can incentivize PSPs to provide accounts to unserved and underserved merchants and consumers through tax incentives and subsidies. These measures are primarily relevant for incentivizing PSPs to serve remote and hard-to-reach merchants and consumers. Physical and technological infrastructure impediments can make it costly for PSPs to properly onboard rural merchants and provide ongoing training and servicing. Along with fiscal incentives, the cost of serving rural merchants can be mitigated through non-traditional partnerships, which are addressed in section 7.7.4.

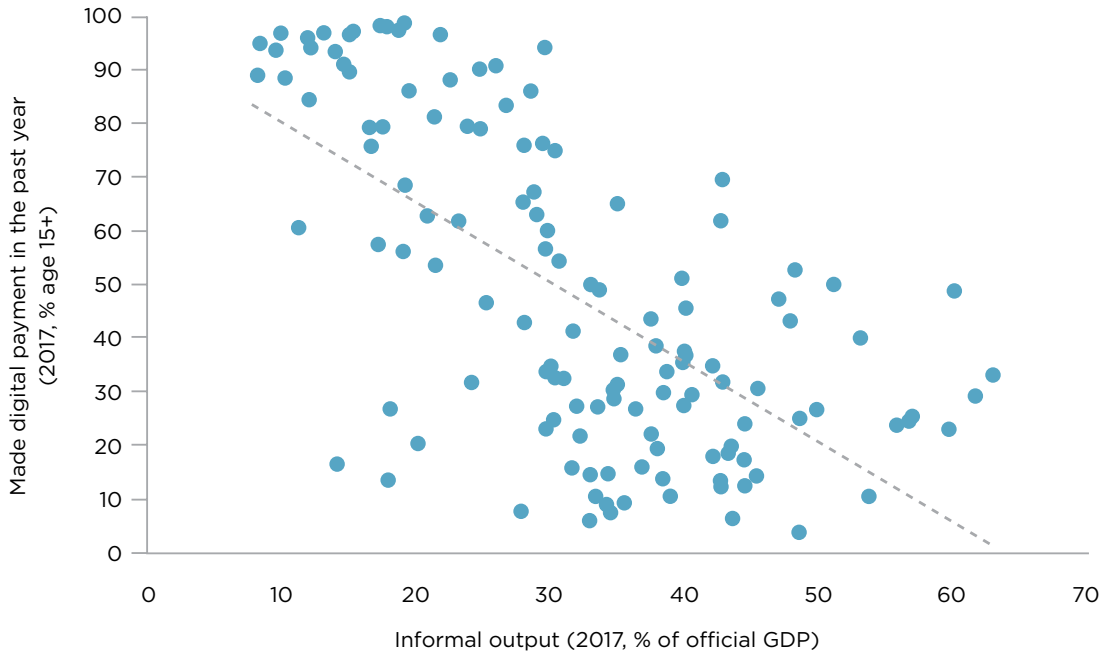
7.2.5 Tax Simplification

TARGET ASSESSMENT ELEMENTS
Tax liability
Legal and regulatory (general)

If tax compliance is a deterrent to EPA, authorities can incentivize EPA uptake through tax simplification, including simplified tax regimes for MSMEs in general, and MSMRs in particular.

Tax simplification can contribute to reducing the number of hours it takes for MSMEs to file taxes. The compliance burden is much higher for developing economies than for high-income economies. Along with tax incentives, tax code simplification is a good way to encourage merchant formalization by reducing the advantages of remaining informal. Tax evasion is thought to be a major driver of economic informality (Ohnsorge and Yu 2021). Improving the tradeoffs of formality could lessen reluctance to adopt electronic payment methods. As shown in Figure 6, there is a strong negative association between economic informality and digital payments.

FIGURE 6. Economic informality and digital payments



Sources: World Bank Global Findex Database; Elgin et al. (2021).

Over the last ten years, several countries have made some improvements in tax compliance burdens. For example, Mauritania, Vietnam, Morocco, Kenya, Sri Lanka, and Ukraine have all reduced their tax compliance burdens by over 50 percent since 2011.

Simplified tax standards could be linked directly to electronic payments. In India, firms with turnover exceeding INR 1 crore (USD 137,000) generally must undergo a tax audit by a certified accountant. However, enterprises whose transactions are at least 95 percent digital and whose turnover is less than INR 5 crore (USD 683,000) are exempt from the audit requirement. In its budget proposal for the fiscal year 2021-2022, the Government of India has proposed to increase the threshold to INR 10 crore (USD 1.4M) to incentivize EPA (GoI 2021).

In general, tax simplification efforts should strive to enhance the consistency and predictability of tax codes and limit the discretion of tax authorities to adjust requirements. The WBG's Handbook for Tax Simplification (WBG 2009) provides EPA stakeholders a good starting point for reducing tax compliance burdens. Selected tax simplification considerations from the Handbook are listed below:

- Improving the tax identification registration process
- Increasing tax filing options
- Increasing tax payment options
- Improving the accessibility and speed of tax appeals
- Minimizing differences between tax accounting and financial accounting
- Maintaining a single or as few tax codes as possible
- Regularly measuring tax compliance burdens
- Establishing a simplified MSME tax regime

Establishing a simplified MSME tax regime is particularly relevant for MSMRs. Simplified MSME tax regimes generally feature lower taxes and simpler filing procedures for MSMEs. Common approaches include fixed tax regimes, especially for micro enterprises, and simplified turnover-based—as opposed to net income-based—taxes for small enterprises (Coolidge and Yilmaz 2016; Engelschalk and Loeprick 2015). Often, enterprises are expected to graduate from the fixed regime to the turnover-based regime as they grow.

Though popular in many countries, simplified regimes are often subject to abuse and hard to monitor, and they disincentivize growth (Coolidge and Yilmaz 2016; Engelschalk and Loeprick 2015). A simplified MSME tax system has potential to be a powerful EPA incen-

tive, but it should be met with clear standards, strong enforcement mechanisms, and education and training, especially for small enterprises moving beyond the fixed component.

7.2.6 Lotteries

TARGET ASSESSMENT ELEMENTS
Market scale
Cash culture
Consumer behavior

Lotteries rewarding acceptance or use of electronic payments are a relatively cost-effective method for breaking the psychological barrier of EPA among merchants or electronic payment usage among consumers. In this sense, they can help expand market scale, reduce cash cultures, and increase usage among consumers. Lotteries have been led by the public and private sectors and can work directly, when they are geared toward acceptance, or indirectly, when they are geared toward usage. If deployed effectively, governments and PSPs can experience a high return on lottery program investments.

Lotteries typically involve entering consumers into national or regional lotteries when they make purchases electronically and drawing winners at regular intervals (e.g., monthly, quarterly). Winning odds can be linked to frequency of usage. Lotteries can also be employed to increase electronic purchases in targeted industries or among specific consumer segments. Though lotteries rewarding usage are more common than those rewarding acceptance, the latter have been deployed in various economies. Acceptance lotteries can either be linked to merchants, specifically, or take the form of a dual-reward program, in which both the winning purchaser and the purchase location are rewarded.

For example, from 8 January 2020 to 5 March 2020, Safaricom ran a merchant and consumer lottery promotion for usage of Lipa Na M-Pesa, the mobile money provider's merchant acceptance product, in eight regions in Kenya. Merchants and consumers were awarded 1 point for every KES 100 (USD 1) transaction collected and made, respectively. The points were entered into regular lotteries. Five tuk tuks (motorized rickshaws) per region were awarded to merchants on a bi-weekly basis. One cantor (nine-ton truck) was awarded to a merchant as the grand prize. All merchants were also rewarded with 25 percent cash back on all Lipa Na M-Pesa purchases throughout the promotion period. Consumers were entered into lotteries for random cash back rewards every minute, three-bedroom houses on a weekly basis, and one tractor per region as a grand prize.[18,19]

7.2.7 Loyalty Rewards

TARGET ASSESSMENT ELEMENTS
Market scale
Cash culture
Consumer behavior

There is ample evidence that loyalty rewards programs offered by PSPs on electronic payments can increase usage among consumers (Agarwal, Chakravorti, and Lunn 2010; Carbo-Valverde and Linares-Zegarra 2011; Ching and Hayashi 2010). In doing so, loyalty rewards can indirectly incentivize EPA among merchants. Loyalty rewards are most often, but not exclusively, associated with credit card usage. Credit cards often have higher fees that enable issuers to reward usage more generously. As discussed in the Incentives Report, though loyalty rewards have been successful in supporting electronic payment market development in certain economies, they also entail potential pitfalls, including over-indebtedness, when associated solely with credit cards. Prudent credit card usage requires adequate income. Lower cost payment options are more practical for many low-income segments globally.

Though less common than credit card rewards, certain debit card products have loyalty rewards programs.[20] Where feasible, PSPs could consider extending loyalty rewards to lower cost payment instruments, such as debit cards and mobile money accounts. Although they are not viable over long periods in many cases, limited time loyalty reward promotions for non-credit card payment instruments are a potentially low-cost method of broadly incentivizing usage. Loyalty rewards promotions can also be extended to merchants, as has been done for Lipa Na M-Pesa customers.

Loyalty rewards have traditionally been the remit of the private sector, but the public sector has run electronic payment reward promotions in certain cases. Box 4 profiles one such program in Japan, which applied to a wide variety of electronic payment methods.

BOX 4

JAPAN'S "CASHLESS" PROGRAM (OCTOBER 2019–JUNE 2020)

From October 2019–June 2020, the Japanese Ministry of Economy, Trade and Industry (METI)'s Cashless Promotion Council ran the "Cashless" promotion, a points-based rebate program for cashless payments made at participating retailers. Though the motivations for the program were multifaceted, two primary goals stood out. First, the government wanted to stimulate consumption to offset the effects of a sales tax increase. Second, the program fit within METI's broader goal of increasing electronic payments, including a specific target of reaching 40 percent cashless payments by 2025 (METI 2018). Though Japan is clearly one of the most economically and technologically advanced countries in the world, its cash culture remains very strong.

The Cashless program involved a 5 percent rebate for making cashless purchases at MSMRs and a 2 percent rebate for cashless purchases at large retailers. Though electronic payments at certain retailers, particularly convenience stores, were eligible for immediate rebate at the point of sale, Cashless was predominantly a post-transaction rebate program, wherein accumulated rewards were deduced from monthly balances associated with electronic payment instruments. Importantly, the program applied to a wide variety of electronic payment methods, including debit cards, credit cards, e-money/prepaid, and smartphone-based payments, including QR code payments.

Surveys were conducted at various points during the program to monitor its impact (Cashless Promotion Council 2020). Overall, 44.4 percent of survey respondents indicated that they either started using or increased their use of cashless payments as a result of the program. Even during the initial survey, which concluded in November 2019 before the outbreak of the COVID-19 pandemic, 42.4 percent of respondents indicated that the program drove new or greater usage of electronic payments. Further, 86 percent of respondents indicated that they will continue to use electronic payments after the program's conclusion (Japan Times 2020). Regarding merchants, the percent of businesses accepting cashless payments increased by 10.6 percentage points, though EPA still remains fairly constrained among Japanese businesses. Overall, only 37.3 percent of survey respondents accept cashless payments.

7.3 MANDATES AND DISINCENTIVES

Mandates and disincentives are non-market measures taken by governments that are meant to directly increase EPA and electronic payments more broadly through intervention. These include: mandated acceptance of electronic payments; mandated disbursement of wages and salaries by electronic means; and disincentives for cash payments. Mandating EPA among merchant segments or for transaction types is meant to directly expand market scale and reduce cash cultures. Mandating electronic disbursement of wages or salaries or implementing disincentives for cash payments are meant to expand market scale, reduce cash cultures, and enhance the usage of digital payments among consumers. Though these latter two programs work primarily indirectly through consumers, they also have direct forms when tailored to MSMRs.

7.3.1 Mandated Acceptance of Electronic Payments

TARGET ASSESSMENT ELEMENTS
Market scale
Cash culture

Some national authorities have mandated EPA among merchants, segments of merchants, or for certain types of transactions. For example, South Korean authorities have required card acceptance among merchants with sales above a certain threshold, including fines for non-compliance, since the early 2000s (World Bank 2020c; Govil 2016). Alternatively, authorities have mandated EPA for transactions above a threshold value, as in Italy (Govil 2016). Other economies, including Kazakhstan (Sung, Awasthi, and Lee 2017) and Greece (European Payments Council 2017), have pursued broader EPA mandates.

Mandated acceptance of electronic payments will only enhance electronic payments if it is met with usage on the part of consumers. Thus, these mandates will work best in concert with programs and incentives geared toward improving the electronic payment ecosystem, particularly consumers' access to and usage of electronic payment instruments, or otherwise in economies where access is already sufficient.

7.3.2 Mandated Electronic Disbursement of Wages or Salaries

TARGET ASSESSMENT ELEMENTS
Market scale
Cash culture
Consumer behavior

Globally, a considerable number of wage earners still receive wages in cash. Global Findex data indicate that 31 percent of wage recipients worldwide received wages in cash only in 2017. In low and lower middle-income economies, more than 60 percent of wage recipients received wages in cash only in 2017. In a number of economies, including Uruguay (World Bank 2020c), Croatia (Rozkurt et al. 2017), and Turkey (Sung, Awasthi, and Lee 2017), authorities have mandated that employers disburse wages or salaries through electronic means, such as into wage earners' financial institution accounts, mobile money accounts, or other prepaid instruments.

As an EPA incentive, these mandates typically work indirectly through consumers. If wage earners receive payments from businesses electronically, it will be more inconvenient to obtain cash to make cash purchases (Rozkurt et al. 2017). To be sure, paying wages electronically does not mean consumers will refrain from withdrawing their earnings in cash. Indeed, as discussed further in section 7.5.2, consumers who receive wages and government payments electronically in otherwise strong cash environments often do withdraw their payments as cash. Nevertheless, electronic wage payments can help increase the usage of digital payments among consumers.

Mandating electronic disbursement of wages or salaries can also incentivize MSMRs directly, to the extent that MSMRs are included in the requirement. The mandate can reduce the centrality of cash in the merchant's business model. If merchants must pay employees electronically, they may be more inclined to accept electronic payments from consumers. Mandated disbursement of wages and salaries by electronic means could complement supply chain digitalization (see section 7.7.1), as the two incentives are geared toward creating a virtuous cycle of electronic payments within the merchant business model. The Incentives Report and the corresponding background paper (Allen et al., 2021) show that such mandates and digitalization of supplier payments improve EPA by MSMRs.

7.3.3 Disincentives for Cash Payments

TARGET ASSESSMENT ELEMENTS
Cash culture
Consumer behavior

Disincentives for cash payments are government-led programs meant to reduce cash cultures and enhance digital usage among consumers. In some cases, disincentives apply more generally to paper-based payments, including checks. Disincentives have been implemented through three broad approaches. First, various economies have implemented caps on cash transactions, whereby consumers cannot use cash for payments above certain monetary thresholds. Caps on cash transactions are quite common in the European Union, where Czech Republic, Denmark, France, Greece, Italy, the Netherlands, and Sweden, among others, have implemented these disincentives. Second, a similar method involves imposing taxes or caps on the amount of cash consumers can withdraw at one time or within a defined timeframe.

A third approach is to disincentivize cash payments by linking allowable business or personal income tax deductions to electronic payments. In Mexico, for example, tax law requires that certain business expenses be backed by electronic payment receipts to be deductible (World Bank 2020c). Similarly, a 2016 law in Greece links personal income tax deductions to the amount of expenses paid via electronic means (Stamatelou 2017). More recently, in 2019, Egypt mandated limits on certain types of transactions that can be made in cash via a law.

Some have made the case that cash disincentives are not effective on a standalone basis, can be difficult to enforce, and can unintentionally push money outside of the banking system (Govil 2016). Restrictions on cash payments also face political resistance. A 2018 European Commission study on potential European Union-wide cash payment restrictions concluded that the Commission would not pursue broad-based restrictions due, in part, to the political sensitivity of imposing caps on cash use (European Commission 2018).

7.4 VALUE-ADDED SERVICES

Value-added services are products and services offered to merchants by PSPs in connection with EPA services, which incentivize EPA uptake by increasing revenue gains from EPA adoption, expanding merchants' access to credit, improving the relative costs of EPA compared to cash acceptance, and enhancing the usage of digital payments among consumers. Key types of value-added services include credit, productivity solutions, revenue generating services, and client relationship management tools. As discussed in sections 7.4.1-7.4.4, value-added services are direct incentives typically offered by the private sector, but the public sector can play a role in creating an enabling environment for the responsible provision of these services. These incentives are closely linked to technology and business model innovations (section 7.7).

7.4.1 Credit

TARGET ASSESSMENT ELEMENTS
Merchant financial access *Revenue gains from EPA adoption*

Lack of access to external finance among MSMRs can deter EPA uptake, due to the need for daily cash revenue to fund working capital. The provision of merchant credit as a value-added service can be a powerful direct incentive for EPA adoption. In addition to reducing reliance on cash revenue for working capital purposes, credit can also help merchants expand their business and revenue streams. Merchant credit is primarily driven by the private sector. However, the public sector plays a role in creating a level playing field than enables a range of PSPs to offer credit to their merchant clients (see section 7.6.1). Box 5 further elucidates how merchant credit can incentivize EPA. Both the Incentives and Intermediaries Reports expand on the role of credit in encouraging EPA among MSMRs.

7.4.2 Productivity Solutions

TARGET ASSESSMENT ELEMENTS
Relative costs of EPA and cash acceptance *Revenue gains from EPA adoption*

Productivity solutions offered by PSPs can incentivize EPA uptake by helping merchants run their businesses more efficiently, thereby improving the relative costs of EPA compared to cash acceptance. To the extent that productivity solutions help merchants control ongoing costs and widen margins, they can foster loyalty to and enhanced usage of EPA. Common forms include order management, inventory management, and employee management solutions.

BOX 5

MERCHANT CREDIT AS AN EPA INCENTIVE

International Finance Corporation (IFC) estimates the finance gap for formal MSMEs in developing economies to be $4.8 trillion, or 18 percent of GDP; and the finance gap for informal MSMEs in developing economies to be $2.8 trillion, or 11 percent of GDP.[21] Among microenterprises alone, the IFC estimates that 41 percent are fully or partially constrained in terms of access to finance.[22] In addition to constraining MSMEs' ability to grow, innovate, and create jobs, lack of access to finance can be a deterrent to adopting EPA. In the absence of external financial sources to fund daily operations, many merchants rely on daily cash revenues to pay suppliers and employees.

The provision of merchant credit is an EPA incentive because it is often coupled with EPA solutions. Increasingly, EPA is an important component of innovative credit providers' ability to extend credit to merchants, since they use transactional and sales data accessed via EPA systems to inform alternative credit decisioning (ACD) and electronic payment settlement streams to offset risk (GPFI 2017; Mastercard 2017). The EPA data that innovative lenders access is real time and allows more informed credit decisioning than dated and error-prone credit reporting information and financial statements (GPFI 2017). Many microenterprises are not even covered by credit bureaus and do not maintain rich financial documentation.

The provision of merchant credit as an EPA incentive often works in concert with supply chain digitalization (see section 7.7.1). Merchant credit is at the heart of a variety of traditional financial institutions' and FinTech companies' merchant-centric product offerings. The Incentives Report discusses the case of Kenya's Kopo Kopo, for example. Other examples of companies that sit at the nexus of EPA, ACD, and supply chain digitalization include Square (USA), AMP Credit Technologies (Hong Kong, the Philippines, Singapore), and ftcash (India).[23]

Order management solutions can help merchants increase the diversity of their product offerings and potentially expand revenue. Perhaps more importantly, order management solutions can grant merchants access to a wider base of suppliers, thereby improving pricing and terms (Mastercard 2017). Thus, order management solutions are attractive because they can boost profitability both by enhancing revenue and reducing costs.

Inventory and employee management solutions are likely more attractive for larger merchants. The former can lead to significant cost savings for merchants who maintain large stocks of inventory. The latter can reduce administrative costs by facilitating timesheet maintenance, wage and salary payments, and tax withholdings (WEF and WBG 2016).

7.4.3 Revenue Generating Services

TARGET ASSESSMENT ELEMENTS
Revenue gains from EPA adoption *Consumer behavior*

Revenue generating services offered by PSPs can directly incentivize EPA uptake by helping merchants improve margins and increase customers' purchase sizes. PSPs typically bundle revenue generating services with EPA products and services. Specifically, PSPs equip merchants with the ability to offer services, such as bill payments, mobile top-ups, and ticket booking, among others (Mastercard 2017, WEF and WBG 2016). Similarly, PSPs often contract with MSMRs to serve as agents for their payment products. This is especially common for e-money products, for which retail agents often serve as a critical consumer access point. If revenue generating services complement merchants' business models and are appealing to their customer bases, these offerings can enhance the attractiveness of EPA.

7.4.4 Customer Relationship Management

TARGET ASSESSMENT ELEMENTS
Revenue gains from EPA adoption *Consumer behavior*

Customer relationship management (CRM) tools offered by PSPs can help merchants attract new customers and drive incremental sales among existing customers. Common forms of CRM include turnkey marketing, promotion and loyalty programs (Mastercard 2017, WEF and WBG 2016). E-payment-linked loyalty programs can be particularly effective in incentivizing customers and merchants to use electronic payments. Similar to revenue generating services, CRM tools can help increase the revenue gains from EPA adoption and boost customer ticket values.

7.5 ECOSYSTEM DEVELOPMENT

Enhancing the retail payments ecosystem incentivizes EPA by improving the efficiency and convenience of electronic payments. Sections 7.5.1-7.5.7 discuss key ecosystem development measures, which include: (1) implementing a national financial inclusion and/or retail payments strategy, (2) government adoption of electronic payments, (3) improving the availability, safety, and efficiency of payment infrastructures, (4) enhancing e-commerce readiness, (5) improving other financial and information and communication technology (ICT) infrastructures, (6) implementing a national financial capability strategy and EPA-relevant financial capability programs, and (7) stakeholder partnerships.

Ecosystem development typically works indirectly. Rather than specifically incentivizing EPA among merchants, ecosystem development initiatives target aspects of the digital economy that enable EPA. A benefit of ecosystem development is it can strengthen the broader digital economy. Both the public and private sectors play a role in these measures.

Importantly, many ecosystem development initiatives, such as implementing national strategies for financial inclusion and capability and improving financial and ICT infrastructures, are addressed extensively in publications and toolkits developed by international organizations and standard setters. The Annex to this report catalogues a range of existing resources EPA stakeholders can leverage in addressing these areas.

7.5.1 Implement a National Financial Inclusion or Retail Payments Strategy

TARGET ASSESSMENT ELEMENTS
Financial access

As discussed in section 7.2.4, merchants and consumers need access to accounts to accept and make electronic payments. Access to and usage of a transaction account is considered a first step towards financial inclusion (CPMI and World Bank, 2016). However, financial inclusion is a complex, multidimensional issue that includes a variety of ecosystem, infrastructure, and regulatory considerations. Developing a National Financial Inclusion Strategy (NFIS) is a good way to organize the range of country-specific imperatives inherent in advancing financial inclusion.

An NFIS "enables stakeholders to jointly define financial inclusion objectives, identify obstacles and opportunities relevant to the achievement of those objectives, and outline a prioritized set of actions to pursue in a coordinated manner" (WBG 2018: 1).

As a complement or potentially as an alternative to an NFIS, EPA stakeholders can look to develop a more specific national retail payments strategy as a means for advancing EPA-relevant financial inclusion. The World Bank and other international organizations have developed range of tools that can help EPA stakeholders develop and operationalize an NFIS or a national retail payments strategy or advance financial inclusion more generally. The Annex highlights a number of key resources in this respect.

7.5.2 Government Adoption of Electronic Payments

TARGET ASSESSMENT ELEMENTS
Market scale *Cash culture* *Consumer behavior*

In economies where the Assessment Guide reveals that inadequate electronic payment market scale, a strong cash culture, and limited usage of digital payments by consumers impede EPA, governments could consider adopting or expanding use of electronic payments as this can help expand the scale and build familiarity with electronic payment instruments. Table 4 outlines the types of government payments that could be digitalized.

Digitalizing government payments can propel economies toward the electronic payments tipping point, thereby indirectly incentivizing EPA uptake among MSMRs. Enhanced market scale also supports PSP viability. In addition to indirectly incentivizing EPA by increasing market scale and reducing the cash culture in a given economy, digitalizing these payments has positive operational effects, by easing government finance and accounting burdens. Digitalization of G2P payments is also important in the context of social assistance payments, which have gained prominence as part of COVID-19 pandemic relief efforts.[24]

Box 6 focuses specifically on the G2P digitalization opportunity. The World Bank launched the G2PX initiative in partnership with the Bill and Melinda Gates Foundation, which focuses on digitalizing G2P payments. EPA stakeholders can consult the G2PX initiative for further guidance on digitalizing G2P payments in local economies.[25]

TABLE 4. Selected government-related payments that are well-suited for digitalization

Payment type	Payment
Government-to-person (G2P)	Public sector payroll Pensions Cash transfers and social benefits
Person-to-government (P2G)	Taxes Utility payments Payments for services (e.g., transit, licenses, fees)
Government-to-business (G2B)	Procurement of goods and services Tax refunds Subsidies
Business-to-government (B2G)	Taxes Utility payments Payments for services (e.g., business registration, social security contributions)

BOX 6

THE G2P DIGITALIZATION OPPORTUNITY

Governments are the largest users of payment services (WBG and CPMI 2016). According to Global Findex data, the proportion of G2P payments made in cash came down between 2014 and 2017 (Figure B6). However, a sizeable share of G2P payment recipients still receive payments in cash only, particularly in lower income economies. There is, therefore, ample opportunity to digitalize G2P payments in economies that would likely benefit the most.

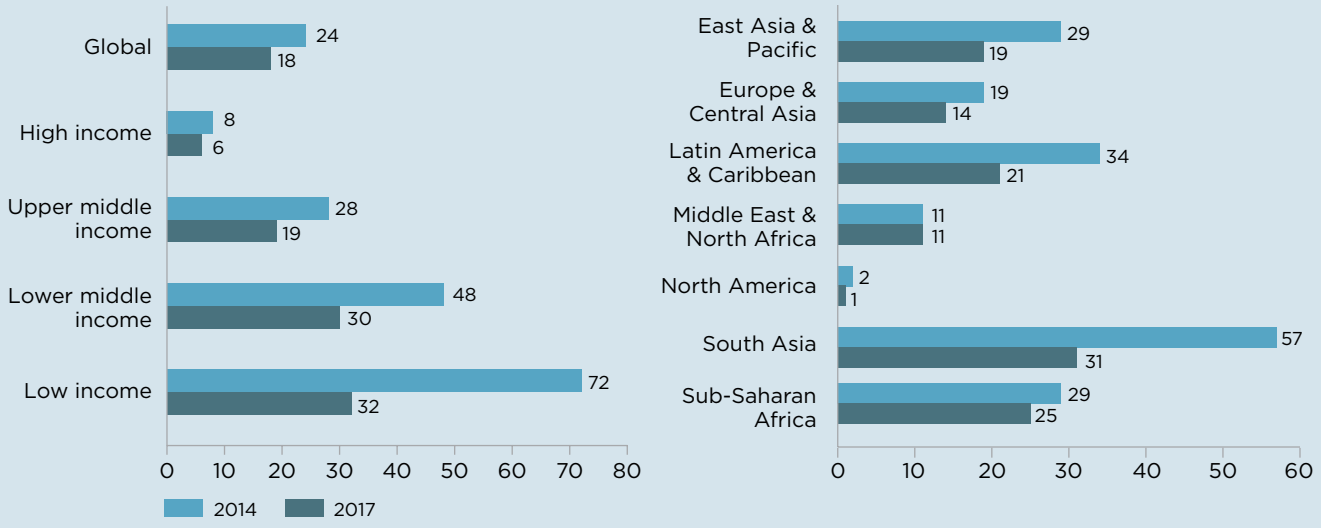
Governments pursue electronic G2P payments for distribution of social benefits, salaries, and pensions. Typically, salary and pension digitalization precede social benefit digitalization (WBG and CPMI 2016). Electronic G2P payments have the effect of both deepening the electronic payments market and bringing new consumers into to the market.

Social benefit distribution through electronic payment instruments has been a popular strategy to widen the e-payment base. In these cases, governments generally load social benefits onto a prepaid card or deposit funds into a deposit account. However, consumers often opt to withdraw the funds, rather than use the account to conduct electronic payments (CPMI and WBG 2016). For this reason, digitalizing social benefits is likely most effective as an indirect EPA incentive in economies that already maintain, or in concert with programs aimed to establish, adequate electronic payment instrument penetration and financial capability.

Policymakers can consider other factors that may inhibit G2P digitalization as an effective indirect EPA incentive. For example, if EPA infrastructure is limited, consumers will have few options for making electronic payments. In such cases, policymakers can consider electronic G2P implementation in concert with incentives designed to expand EPA access channel coverage among merchants.

In certain cases, low reliability and inadequate recourse mechanisms associated with electronic payment instruments provided as part of digital social benefit distribution have deterred consumers from using the instrument for payment purposes (CPMI and WBG 2016). Therefore, it is important to be cognizant of good product design in pursuing electronic G2P programs.

FIGURE B6. Received government payments: in cash only (% payment recipients, age 15+)



Source: World Bank Global Findex Database.

7.5.3 Improve the Availability, Safety, and Efficiency of Payment Infrastructures

TARGET ASSESSMENT ELEMENTS
Interoperability and standardization
Fast payments system
Automated clearing house
Real time gross settlement
Provider costs and risks

The availability, safety, and efficiency of payment infrastructures can indirectly incentivize EPA by improving merchant and consumer experiences with electronic payments. Moreover, safe and efficient payment infrastructures can ease PSPs' ability to serve merchants and consumers. As discussed in the Assessment Guide, the most important actions in this area involve improving interoperability arrangements and standardization. Fast payment systems (FPS) are also increasingly important in many economies. Therefore, it is critical to ensure that FPS risk management standards and dispute resolution mechanisms are in place.

Improving other underlying infrastructures can also indirectly incentivize EPA. Automated Clearing House (ACH) infrastructures contribute to the efficiency of EFT-based payments. EFT-based payments are becoming more popular for P2B payments and are important for digitalizing other aspects of merchants' business models, such as salary, utility, and rent payments. Digitalizing these operating expenses can incentivize merchants to accept electronic P2B payments. In addition, as the final settlement hub for net positions in switch and ACH infrastructures in many countries, a Real Time Gross Settlement System (RTGS) can contribute to the safe and efficient settlement of retail payments (CPMI and WBG 2016).[26]

The public and private sectors both have a role to play in improving the quality of payment infrastructures. Table 5 presents a checklist of actions and considerations for EPA stakeholders seeking to improve the availability, safety, and efficiency of payment infrastructures. While the actions captured in Table 5 should not be considered a complete list of steps, they represent some important foundational considerations for ensuring robustness in this area.

TABLE 5: Quality of payment infrastructures: foundational considerations

Infrastructure Element	Action/Consideration	[✔]
Interoperability and standardization	• There is at least one payment card switch operating in the country. • A wide range of transactions are supported by the payment card switch (ie, acceptance through POS, e-commerce, mobile money, bank account transfer). • A diversified set of participants have direct or indirect access to the payment card switch. • Settlement of net positions within the switch takes place through RTGS or central bank money if there is no RTGS. • Fraud prevention standards are in place for all payment instruments available in the country. • Market schemes exist for the payment instruments available in the country. • Regulations enforce interoperability standards for the acceptance channels available in the country. • POS terminals have good or full interoperability. • Mobile money has good or full interoperability. • An interoperability standard is in place for QR codes. • Interoperability arrangements are robust (i.e., minimal downtime, minimal transaction failures). • Entities operating interoperability arrangements periodically introduce innovations and promotions to advance electronic payments.	
Fast payment system[27]	• A Fast Payment System (FPS) is operational or in development • The FPS is available for P2B merchant payments. • The FPS supports the use of aliases. • An FPS oversight framework is in place. • FPS oversight criteria cover legal basis, governance, risk management, efficiency and effectiveness, and financial consumer protection, including dispute resolution and complaints handling.	
ACH	• An ACH for credit transfers and/or direct debits available. • Net balances are calculated and settled multiple times a day. • Final settlement takes place through RTGS or central bank money if there is no RTGS. • The ACH has a settlement risk management framework. • A diversified set of actors have direct or indirect access to ACH services.	
RTGS	• Most large-value payments are channeled through the RTGS. • Access to the RTGS is granted on the basis of objective criteria to ensure safe and sound operation of the system.	

7.5.4 Improve E-Commerce Readiness

TARGET ASSESSMENT ELEMENTS
E-commerce readiness *Revenue gains from EPA adoption*

Improving e-commerce readiness is an indirect EPA incentive, as e-commerce purchases are often, though certainly not always, paid for electronically. In many developing economies, cash-on-delivery is a popular method for settling e-commerce transactions. Nevertheless, investments in e-commerce infrastructure can advance EPA and help merchants reach remote customer segments.

Many programs that incentivize and enable EPA, also support e-ecommerce readiness. For example, financial access, payment infrastructures, and telecommunications infrastructure are vital for e-commerce ecosystems. Additionally, a neutral and proportional legal and regulatory framework that enables enable e-commerce acceptance intermediaries, especially e-commerce-focused aggregators/facilitators and e-commerce payment gateways, to serve MSMRs is important for reaching unserved merchant segments with e-commerce EPA services. The Intermediaries Report discusses acceptance intermediaries in more detail.

E-commerce readiness is a multi-dimensional issue area, and there are a range of other measures that national authorities, PSPs, and e-commerce companies can take to support its advancement, especially with respect to MSMRs. For example, a web-presence, either through a third-party marketplace or a dedicated website, is a pre-requisite for engaging in e-commerce, but MSMRs face asymmetric access to these resources. Thus, national authorities could consider providing fiscal incentives to online marketplaces and website developers to serve MSMRs. For its part, the private sector, including PSPs and e-commerce companies, could provide value-added services, such as credit, marketing and order fulfilment, to e-commerce merchants. Other important areas for e-commerce readiness include shipping infrastructure and information security. Both the public and private sectors could make investments in these areas to improve the e-commerce ecosystem.

The Annex highlights specific resources published by the World Bank and the UN Conference on Trade and Development that EPA stakeholders can consult for guidance on improving e-commerce readiness. Importantly, World Bank (2020a) outlines emerging good practices and regulatory implications for the intersection of e-commerce and digital financial services, with a particular emphasis on MSMEs. Box 7 provides a high-level overview of the emerging good practices highlighted in the World Bank e-commerce note.

BOX 7

EMERGING GOOD PRACTICES SURROUNDING E-COMMERCE

The World Bank note (World Bank 2020a), "Embedding Digital Finance in e-Commerce Platforms during the COVID-19 Pandemic," analyzes recent trends in e-commerce, with an emphasis on MSMEs' participation in e-commerce. Among other analytical elements, the note discusses a group of emerging good practices and regulatory implications in this area, which are summarized below. EPA stakeholders could consult the note for a more detailed review of good practices in the e-commerce space.

- **Payments:** E-commerce platforms should integrate with national payment systems and offer consumers a variety of electronic payment methods that are tailored to local markets. Though cash-on-delivery is a popular method of payment in many developing economies, electronic payments can improve the efficiency of settling e-commerce transactions.
- **Agents:** Retail agents have played an important role in advancing e-commerce in many countries by facilitating digital financial services. Governments could ensure that a clear and proportional regulatory framework exists with respect to retail agents. Additionally, governments could support agents' liquidity and financial viability during the economic stress caused by the pandemic.
- **Credit:** E-commerce platforms can play a critical role in extending credit to capital constrained MSMEs, either directly or in collaboration with a regulated financial institution. Governments could ensure that legal and regulatory frameworks establish predictable, neutral, and proportional standards in this area, so that e-commerce platforms have a pathway for responsibly facilitating credit extension to MSMEs.

continued

BOX 7, *continued*

- **Acceptance Intermediaries:** E-commerce-focused merchant facilitators/aggregators and payment gateways have played an important role in enabling acceptance among e-commerce merchants. However, regulatory frameworks addressing intermediaries are nascent. Regulators need to be aware of the scope and risks of intermediary activities and consider frameworks for ensuring their appropriate oversight.
- **Merchant Due Diligence:** Regulators could consider permitting simplified merchant due diligence measures for e-commerce platforms onboarding low-risk micro and small merchants.

7.5.5 Improve Other Relevant Financial and ICT Infrastructures

TARGET ASSESSMENT ELEMENTS
Telecommunications
Identification systems
Credit reporting systems
Provider costs and risks

The public and private sectors can enable more efficient and cost-effective EPA by improving a range of financial and ICT infrastructures. Good quality ICT infrastructure is necessary for the smooth functioning of EPA mechanisms, such as POS terminals and mobile acceptance technology, and critical payment functions, such as authorization, clearing, settlement, and receipt of funds. Strong identification coverage and infrastructures enable PSPs to more easily onboard merchant and consumer customers and ensure compliance with Customer Due Diligence (CDD) standards. Credit reporting systems are important for helping PSPs assess the credit and fraud risk of potential clients. The measures that relevant stakeholders can take to improve telecommunication, identification, and credit report infrastructures are documented extensively in the publications identified in the Annex.

7.5.6 Implement a National Financial Capability Strategy and EPA-Relevant Financial Capability Programs

TARGET ASSESSMENT ELEMENTS
Financial capability
Cash culture

The World Bank discusses financial capability as the "knowledge, skills, attitudes, and confidence that lead people to make financial decisions that are appropriate to their circumstances" (WBG 2017: 219). Limited financial capability among merchants and consumers can impede their ability to evaluate the tradeoffs between cash and electronic payments and bolster cash-centric environments. Developing and implementing a National Financial Education Strategy (NFES) is a good way to ensure that a dedicated, multi-stakeholder structure exists to promote and coordinate the advancement of financial capability.

Importantly, EPA stakeholders can incentivize EPA by ensuring that financial capability programs include merchant-centric, EPA-relevant financial education and awareness initiatives. Financial capability programs could be face-to-face or leverage technology-driven, non-traditional channels. Where possible, these programs could incorporate learn-by-doing elements and repeat and reinforce key messages. Focus areas for such initiatives could include:

- Available electronic payment instruments and acceptance channels in local markets
- How to evaluate the relative costs of EPA and cash acceptance[28]
- How to measure revenue gains from EPA adoption
- Types of and relationships among entities involved in payment processing (e.g., acquirers, issuers, acceptance intermediaries, networks)
- E-commerce opportunities

7.5.7 Stakeholder partnerships

TARGET ASSESSMENT ELEMENTS
Financial access
Market development
Payment infrastructures
Financial and ICT infrastructures
Education and perceptions
Acceptance benefits and costs
Provider costs and risks
Consumer behavior

Stakeholder partnerships typically involve national authorities or PSPs working with non-profits, donors, or other private sector actors to target specific EPA reform areas. Stakeholder partnerships are unique among the ecosystem development measures in their flexibility and potential to address a wide variety of EPA reform issues.

An example in this area is the multi-stakeholder partnerships led by international card networks to build electronic payment ecosystems, such as Acceptance Development Funds (section 7.2.1). Further, they have helped national authorities and other EPA stakeholders advance emerging payment methods, including by informing the development of standards and regulations. For instance, international card networks partnered with the National Payments Corporation of India (NPCI) to develop and launch BharatQR (NPCI 2017). Finally, card networks sponsor EPA-focused charitable activities through dedicated centers and foundations.[29] These are just a few examples of EPA-oriented stakeholder partnerships that work to target specific EPA barriers and advance electronic payment ecosystems.

7.6 LEGAL, REGULATORY, AND OVERSIGHT FRAMEWORK IMPROVEMENTS

The public sector can enable EPA by taking measures to improve aspects of a country's legal, regulatory, and oversight framework that are relevant for retail payments and EPA. Sections 7.6.1–7.6.4 discuss key actions the public sector can take in this regard, including establishing a neutral and proportional legal and regulatory framework, implementing a comprehensive financial consumer protection framework, developing a risk-based approach to merchant due diligence, and improving payment system oversight.

7.6.1 Improve Neutrality and Proportionality

TARGET ASSESSMENT ELEMENTS
Legal and regulatory (general)
Legal and regulatory (financial)
Market structure
Provider costs and risks

National authorities can enable EPA by ensuring legal and regulatory frameworks are neutral and proportional with respect to the provision of payment services. Neutrality refers to whether a country's legal and regulatory framework confers an advantage on or is discriminatory toward certain providers. Proportionality refers to the degree of risk-based calibration in legal and regulatory standards. A neutral and proportional legal and regulatory framework enables competition and innovation among PSPs and, correspondingly, the provision of more and higher quality payment services for merchants and consumers. Table 6 outlines a basic checklist of actions national authorities could take to ensure legal and regulatory frameworks are neutral and proportional with

TABLE 6. Neutrality and proportionality: foundational considerations

Action/Consideration	[✔]
Laws and regulations applicable to payment services are risk-based, provider-neutral, instrument-neutral, and forward-looking.	
A variety of non-bank entities are permitted to offer payment services on the acceptance side of the market.	
A variety of non-bank entities are permitted to offer payment services on the issuance side of the market.	
Legal provisions cover fair and competitive practices in the provision of payment services.	
Legal provisions cover electronic money.	
Agent-based models are permitted.	
A transparent process exists for non-bank PSPs to obtain a credit license directly or indirectly through a subsidiary entity.	

respect to the provision of payment services. The list is not intended to be comprehensive but provides some foundational considerations in this area.

In general, national authorities could work to ensure laws and regulations are risk-based, provider-neutral, instrument-neutral, and forward looking. On a more specific level, improvements in neutrality and proportionality can target both the acceptance and issuance sides of the electronic payments market. On the acceptance side, authorities can ensure there are clear standards in place for eligibility to become a PSP. This typically means establishing a legal and regulatory framework that enables innovative, non-bank players, such as non-bank acquirers and acceptance intermediaries, to enter the EPA market and complement traditional bank acquirers. On the issuance side, authorities can enable non-bank institutions, such as supervised non-bank financial institutions and mobile network operators, to issue electronic money or offer other electronic payment instruments.

Other measures include ensuring legal provisions cover fair and competitive practices in the provision of payment services, as well as electronic money, and enabling agent-based models. Further, recognizing that PSPs' provision of value-added services, especially credit, can be a significant EPA incentive, authorities could ensure that a transparent process exists for non-bank PSPs to obtain a credit license directly or indirectly through a subsidiary.

7.6.2 Improve Financial Consumer Protection

TARGET ASSESSMENT ELEMENTS
Legal and regulatory (financial)
Cash culture

In economies with inadequate financial consumer protection (FCP) frameworks, policymakers can support EPA development by improving FCP practices. FCP improvements indirectly incentivize EPA by instilling greater confidence in consumers to utilize electronic payment methods at merchant establishments. Laws, regulations and supervisory frameworks that promote robust disclosure and transparency, fair treatment, data protection and privacy, and dispute resolution mechanisms can bring consumers into the electronic payment market and increase stickiness among existing e-payment users. The Annex highlights the resources policymakers could consult to comprehensively enhance FCP frameworks.

7.6.3 Implement a Risk-Based Approach to Merchant Due Diligence

TARGET ASSESSMENT ELEMENTS
Legal and regulatory (financial)
Financial access
Provider costs and risks

Complying with the CDD aspects of a country's Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) regime within the context of merchant onboarding and ongoing monitoring can impede PSPs' ability to acquire merchant customers. Implementing a proportional, risk-based approach (RBA) to merchant due diligence (MDD) can facilitate EPA by enabling PSPs to more easily serve a wider variety of merchants, especially those in hard-to-reach areas.

On the consumer side, many countries allow certain types of simplified due diligence (SDD). Examples include permitting acceptance of non-standard identification documents, non-face-to-face CDD, simplified transaction monitoring, and other similar measures for low-risk customers (e.g., low income) or products (e.g., small-value, low-risk transactions, basic accounts). An RBA for MDD could involve variations on common SDD measures for consumers.

The Innovations Report outlines principles for developing an RBA to MDD and proposes a model for simplified MDD. The model addresses simplified MDD in four areas: (i) identification and verification of merchants; (ii) identification and verification of beneficial owners; (ii) identification of who retains power and authority; and (iv) collecting of contract particulars. Section 5.2 of the Reform Guidance discusses the principles and model in more depth. EPA stakeholders can consult the Innovations Report for further guidance on implementing an RBA to MDD.

7.6.4 Improve Payment System Oversight

TARGET ASSESSMENT ELEMENTS
Legal and regulatory (financial)

A robust payment system oversight framework can improve trust among merchants and consumers in PSPs and instill more confidence in electronic payment services. A safe and sound payment system can also attract the participation of responsible PSPs. At a minimum, national authorities should ensure that central bank legal powers, organizational arrangements, the objectives of payment system oversight, the scope of payment system oversight, and cooperation with relevant authorities and stakeholders are robust. More broadly, national authorities could strive for a risk-based, proportional approach to payment system oversight. Table 7 provides a baseline set of considerations for a sound payment system oversight framework.

TABLE 7. Payment system oversight: baseline considerations

Oversight Element	Policymakers to ensure:	[✔]
Central bank legal powers	The Central bank has formal powers to perform payment oversight	
	Empowerment is explicit, granting it powers to operate, regulate, and oversee payment systems	
Organizational arrangements	The Central Bank's payment system oversight function has been established, and oversight is performed regularly	
	There is a specific unit or department within the Central Bank responsible for payment system oversight	
	The payment system oversight function is segregated from payment system operational tasks either through organizational means or via independent reporting lines	
Objectives of payment system oversight	The Central Bank has set down its objectives in carrying out the payment system oversight function in a regulatory or policy document	
	The regulatory or policy document is publicly available	
	The objectives address the safety and efficiency of	
	payment systems, market competitiveness, and	
	consumer protection	
Scope of payment system oversight	Payment system oversight is performed over retail payment systems, services, and instruments	
	Payment system oversight is performed over all relevant payment systems and services in the country even if the operator is a non-bank	
	Competent authorities are legally empowered to regulate and supervise on an ongoing basis entities operating payment card networks or switches	
	Competent authorities are legally empowered to regulate and supervise on an ongoing basis entities operating mobile money platforms	
Cooperation with relevant authorities	Cooperation with other relevant authorities is ensured through a formal mechanism, such as a memorandum of understanding, or is required by law	
	Cooperation involves regular meetings and exchange of opinions and views and, when relevant, information exchanges, prior notice of regulatory action, and joint inspection	
Cooperation with other stakeholders	A formal National Payments Council is in place	
Risk-based approach	Payment system oversight reflects a risk-based, proportional, and provider- and instrument-neutral approach.	

7.6.5 Regulating Intermediaries

TARGET ASSESSMENT ELEMENTS
Legal and regulatory (financial)

Acceptance intermediaries, which include payment facilitators—also known as payment (or merchant) aggregators, third-party processors, payment gateways, and bill payment aggregators, have played a crucial role in enabling EPA for small merchants worldwide. The Intermediaries Report provides the first comprehensive approach to defining and categorizing electronic payment acceptance intermediaries.[30] Though acceptance intermediaries bring great opportunities for EPA, their rapid expansion also carries risks for payment systems that regulators need to understand and mitigate.

To help national authorities better understand developments in this area, the Intermediaries report evaluates global regulatory approaches with respect to these entities and activities. Some motivations for regulating intermediaries include mitigating operational and financial risks presented by intermediaries, intermediaries' access to merchants' funds, especially in the case of payment facilitators, intermediaries' access to both merchants' and consumers' financial information, and financial integrity imperatives, among other reasons. The Intermediaries Report provides further guidance on the regulatory reforms in this area.

7.7 TECHNOLOGY AND BUSINESS MODEL INNOVATIONS

PSPs can directly and indirectly incentivize EPA by pursuing technology and business model innovations that help expand financial access, improve the economics of EPA, target aspects of merchants' business models, enhance the usage of digital payments among consumers, and ease their own costs and risks. Key areas of innovation include supply chain digitalization, innovations in acceptance tools, innovations in acquisition models, underwriting innovations, and other non-traditional partnerships. Though these incentives are primarily driven by the private sector, the public sector can play a role by creating an enabling environment for their implementation. Sections 7.7.1–7.7.5 provide an overview of how these technology and business model innovations can expand EPA. Section 5 provides an overview of the EPA "Innovations Report", a part of the EPA Package, which provides more in-depth coverage on these issues.

Importantly, as highlighted throughout the following sub-sections, the Innovations Report (World Bank 2021c) and Intermediaries Report (World Bank 2021d) provide a more in-depth treatment of these crucial technology and business model innovations. The former addresses key developments in various stages of electronic payment acceptance, including innovations in merchant acquisition, merchant agreements, acceptance tools, merchant fee structures, merchant due diligence, merchant underwriting, switching and interoperability, authorization and authentication, and clearing and settlement. It examines these innovations within the context of traditional and emerging retail payment ecosystems. The latter addresses developments in innovative acceptance intermediary models.

7.7.1 Supply Chain Digitalization

TARGET ASSESSMENT ELEMENTS
Acceptance benefits and costs

Daily cash revenues frequently fund MSMRs' supplier payments. This can occur for a variety of reasons, including lack of access to external sources of working capital finance, supplier requirements to pay in cash, and, of course, merchants' lack of EPA altogether. Digitalizing merchants' cash outflows to suppliers represents a significant opportunity to create a virtuous cycle of electronic payments within the merchant's business model. Merchants can use electronic payments received from consumers to pay suppliers electronically. The private sector is the primary driver of supply chain digitalization, but the public sector can play a role by raising awareness or incentivizing suppliers to adopt EPA mechanisms.

Tienda Pago, a FinTech company operating in Mexico and Peru, offers a compelling example of a supply chain digitalization model. Tienda Pago provides small merchants with short-term loans and connects them with Fast Moving Consumer Goods (FMCG) companies, such as Coca Cola and ABInBev, from whom the merchants can purchase inventories (Accion 2018). The purchases are made electronically, generally through a mobile interface. Such platform-based models are promising for digitalizing MSMR supply chain payments, which, as discussed in Box 8, represent a significant global opportunity.

BOX 8

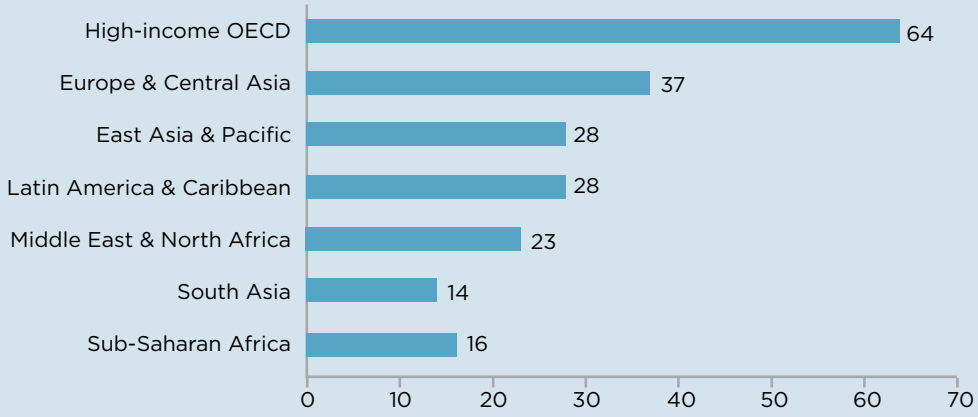
THE SUPPLY CHAIN DIGITALIZATION OPPORTUNITY

The World Economic Forum (WEF) and World Bank argue that merchants' supplier payments are particularly well-suited for digitalization for a few key reasons (WEF and WBG 2016). First, payments from merchants to suppliers are frequent and substantial. A 2016 World Bank study estimated the size of formal MSMR payments to immediate suppliers as USD 13.3 trillion (WBG 2016: 16). Yet the estimated share of these payments made electronically is quite low globally (Figure B7). Thus, there is significant untapped electronic payment potential in MSMRs' supply chains.

Second, there is a good business case for suppliers to prefer digital payments. Suppliers handle substantial volumes of payments. Significant cash payments translate to higher cash handling costs and insurance premiums. Finally, suppliers typically possess the technology and accounts necessary for receiving electronic payments. Therefore, suppliers are likely to welcome electronic payments, leaving only one potentially reluctant party. This stands in contrast to P2B payments, where both sides are more likely to be reluctant to adopt electronic payment methods.

Supply chain digitalization can occur at the supplier level, whereby individual suppliers take up EPA and allow, encourage, or require merchants to make payments electronically. However, merchants' suppliers often do not have the market power to influence a merchant's decision to pay electronically (WEF and WBG 2016). A promising alternative route to supply chain digitalization is through third-party platforms that sign up merchants and suppliers. These platforms can also use payment data to offer services to merchants that facilitate the supply chain, such as credit or deferred payment terms. Indeed, supply chain digitalization is closely related to the provision of credit as an EPA incentive.

FIGURE B7. Estimate of B2B Electronic Payment Value (% of total payments)



Source: World Bank Group (2016), pg. 18, Table 2

7.7.2 Innovations in Acceptance Tools

TARGET ASSESSMENT ELEMENTS
Merchant financial access *Relative costs of EPA and cash acceptance* *Consumer behavior*

PSPs can incentivize EPA by developing new acceptance tools that help expand merchant financial access, decrease the relative costs of EPA compared to cash acceptance, and facilitate the usage of digital payments among consumers. Both new and incumbent PSPs often invest significantly in innovation to expand acceptance services and improve existing customers' experiences. The Innovations Report provides a detailed account of how new products and services can expand EPA.[31] In particular, new acceptance tools and form factors, such as mPOS, mobile payment acceptance, QR code acceptance, electronic wallet applications, NFC acceptance, unified payment acceptance solutions, and audio QR, among others, can greatly facilitate EPA. EPA stakeholders could consult the report for examples of these innovations worldwide, as well as recommendations for enabling their effective deployment.

7.7.3 Innovations in Acquisition Models

TARGET ASSESSMENT ELEMENTS
Merchant financial access *Market structure* *Revenue gains from EPA adoption* *Relative costs of EPA and cash acceptance*

Innovative acquisition models, often facilitated by non-bank entities, are helping to expand EPA to previously unserved and underserved merchant segments. Three broad types of models are leading the way in this regard: acceptance intermediary models, mobile money acceptance models, and QR code acceptance models. These acquisition models are summarized briefly below.[32]

Non-bank acceptance intermediaries have been instrumental in expanding access to EPA services, especially among smaller merchants. Key intermediaries include payment facilitators, which are also known as payment (or merchant) aggregators, third-party processors, payment gateways for online transactions, and bill aggregators. EPA intermediaries can help overcome a number of significant barriers to EPA. Notably, they can improve merchant financial access and enhance competition in the market for electronic payments. Intermediaries can also help MSMRs' increase revenue gains from EPA adoption and improve the relative costs of EPA and cash acceptance. Among intermediaries, payment facilitators, such as Blue Label in Mexico and Fawry in Egypt, have been particularly important in expanding EPA to small merchants because they are able to process payments on behalf of MSMRs through their own merchant accounts, thereby absolving their clients of the need to open an account with a traditional acquirer.

A number of mobile money service providers also offer merchant-specific platforms that allow merchants to receive payments from customers and pay bills, suppliers, and employees. Examples include Lipa Na M-Pesa in Kenya and Econet's Ecocash Merchant in Zimbabwe. Typically, providers equip merchants with a special SIM card for this purpose. These models are beginning to have scheme-like arrangements similar to three-party schemes in the payment card market because the issuer and acquirer are generally one in the same—in this case, the mobile money service provider. While most mobile money service providers conduct in-house merchant acquiring through their own development teams, some have enlisted the help of third-party acquirers to achieve scale. An example is Safaricom's partnership with Kopo Kopo to expand M-Pesa acceptance.

QR codes are gaining popularity as a payment channel globally. Prominent examples of QR code payment systems include Alipay and WeChat Pay in China and BharatQR in India. QR code providers have also developed scheme- like arrangements that govern allowable QR code payment methods (e.g., merchant- or consumer-presented), QR code types (e.g., dynamic, static), and, crucially, technical specifications (Nautiyal et al. 2020). In many cases—for example, in China—QR code providers aggressively target the merchant acceptance market.

7.7.4 Innovations in Underwriting

TARGET ASSESSMENT ELEMENTS
Merchant financial access *Provider costs and risks*

Merchant underwriting has long been a barrier to EPA for MSMRs because they often lack credit histories. The dearth of underwriting data for MSMRs often leaves acceptance PSPs in a difficult position. However, innovations in merchant underwriting approaches are easing burdens in this area and helping to expand EPA to unserved MSMR segments. Key innovations in this respect include the use of alternate data sources and automated underwriting programs. The Innovations Report contains a more in-depth discussion of and recommendations with respect to underwriting innovations.[33] This reform area is closely linked to improvements in credit reporting systems (section 7.5.5).

7.7.5 Non-Traditional Partnerships

TARGET ASSESSMENT ELEMENTS
Market scale *Provider costs and risks*

PSPs can minimize their own costs and risks by forging partnerships with actors that have not traditionally been involved in the electronic payment value chain. These partnerships can be particularly effective in facilitating "last mile" sales, servicing, training, and onboarding. Non-traditional partners could include innovative, non-bank EPA intermediaries (see: 7.7.5). Alternatively, PSPs could partner with entities that are not involved in payments but have pre-existing relationships with merchants, such as microfinance institutions and FMCG companies (WEF and WBG 2016). Local PSPs can also reduce costs and risks by sharing certain resources that do not necessarily offer a competitive advantage, such as training, technology infrastructures, and complaints handling (Mastercard 2017).

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ANNEX

Ecosystem Development Resources

International organizations and standard setters have produced a variety of resources that can guide EPA stakeholders in improving various aspects of the electronic payment ecosystem. The table below catalogues selected resources in this regard, which are organized according to the relevant reform measure discussed in section 3.5 of the Reform Guidance.

Reform	Resource
Implement a National Financial Inclusion or Retail Payments Strategy	World Bank. National Financial Inclusion Strategies Resource Center.
	World Bank. 2018. Developing and Operationalizing a National Financial Inclusion Strategy: Toolkit. June.
	Committee on Payments and Market and World Bank. 2020. Payment Aspects of Financial Inclusion: Application Tools.
	Committee on Payments and Market and World Bank. 2016. Payment Aspects of Financial Inclusion.
	Global Partnership for Financial Inclusion. 2016. G20 High Level Principles for Digital Financial Inclusion.
	World Bank. 2012. Developing a Comprehensive National Retail Payments Strategy.
Improve e-commerce readiness	World Bank. 2021. Enabling e-commerce through digital financial services during the COVID-19 pandemic.
	UNCTAD. 2015. Information Economy Report: Unlocking the Potential of E-commerce for Developing Countries.
	UNCTAD eCommerce and Law Reform Programme.
	UNCTAD. 2019. UNCTAD B2C E-commerce Index. UNCTAD Technical Notes on ICT for Development.

Reform	Resource
Improve telecommunications infrastructure	International Telecommunication Union. 2020. Global ICT Regulatory Outlook 2020 - Pointing the way forward to collaborative regulation.
	World Economic Forum. 2016. Internet for All: A Framework for Accelerating Internet Access and Adoption. April.
	GSMA. 2014. Digital Inclusion.
	World Bank and International Telecommunication Union. 2011. Telecommunications Regulation Handbook: Tenth Anniversary Edition.
Improve identification infrastructure	World Bank. 2019. Identification for Development Practitioner's Guide.
	World Bank. 2018. Identification for Development Global Dataset.
	Principles on Identification for Sustainable Development: Toward the Digital Age. 2017.
Improve credit reporting systems	World Bank. 2011. General Principles for Credit Reporting.
	World Bank. 2013. Assessment Methodology for the General Principles for Credit Reporting.
	World Bank. 2014. Facilitating SME Financing Through Improved Credit Reporting.
	G20 Global Partnership for Financial Inclusion. 2017. Alternative Data Transforming SME Finance.
Implement a National Financial Capability Strategy and EPA-relevant financial capability programs	World Bank Group. 2017. Good Practices for Financial Consumer Protection. Annex C: Financial Capability.
	World Bank. 2021. Consumer Risks in Fintech.
	OECD International Network on Financial Education. 2014. Guidelines for Private and Not-for-Profit Stakeholders in Financial Education. November.
	OECD International Network on Financial Education. 2012. High-Level Principles on National Strategies for Financial Education. August.
	World Bank Group. 2013. Financial Capability Surveys Around the World: Why Financial Capability is Important and How Surveys Can Help. August.
	World Bank Group. 2014. Financial Education Programs and Strategies: Approaches and Available Resources. October.
	World Bank Group. 2018. Investigating the Financial Capabilities of SMEs: Lessons from a 24-Country Survey. June.
Improve financial consumer protection	World Bank. 2017. Good Practices for Financial Consumer Protection. Annex A: Retail Payment Services.
	OECD. 2011. G20 High-Level Principles on Financial Consumer Protection.
	G20/OECD. 2013. Update Report on the Work to Support the Implementation of the G20 High-level Principles on Financial Consumer Protection.
	G20/OECD. 2014. Effective Approaches to Support the Implementation of the Remaining G20/OECD High-Level Principles on Financial Consumer Protection.
	Committee on Payments and Market Infrastructure and World Bank Group. 2016. Payment Aspects of Financial Inclusion, section 3.1.2.4.
	World Bank. 2012. Developing a Comprehensive National Retail Payments Strategy, Guideline I.
	World Bank. 2021. Consumer Risks in Fintech.
	World Bank. 2018. Financial Consumer Protection and New Forms of Data Processing Beyond Credit Reporting.

Endnotes

1. The EPA Working Group is comprised of national authorities, international financial institutions, donors, standard setting bodies, and a range of private sector stakeholders.
2. CPMI and WBG (2016).
3. CPMI and WBG (2016). p. 16.
4. Ibid. EFT-based payments are account-to-account direct credit and direct debit transfers. Payment card-based instruments generally include credit, debit, and charge cards. E-money-based instruments include mobile money, online money, and prepaid cards.
5. Here, "incentives" cover disincentives as well as mandating the use of cash on specific use cases.
6. IFC. (2019).
7. Ibid. For the 2016 World Bank Group Sizing Study, see: WBG (2016), hereinafter "The Sizing Study".
8. In many publications related to payment systems, P2B payments are also referred to as person-to-merchant (P2M) payments or consumer-to-business (C2B) payments.
9. Zandi et al. (2016); Banka (2017).
10. WBG (2016).
11. World Bank (2022a).
12. World Bank (2022b).
13. The empirical approach is further detailed in Allen et al. (2022).
14. World Bank (2021c).
15. World Bank (2021d).
16. The content of this section is based on publications by policymakers and industry participants addressing EPA reform measures, inputs from experts on the FIGI EPA incentives workstream, and consultation with other relevant practitioners. For a review of existing literature, see: World Bank (2020c).
17. Table 3 builds on the original incentive taxonomy outlined in World Bank (2020c). The updates to that taxonomy that are captured in Table 3 reflect additional research and organizational inputs from the FIGI EPA working group.
18. Sources: Safaricom, Lipa Na M-Pesa Do More Merchant Promotion, https://www.safaricom.co.ke/faqs/faq/701; Safaricom, Lipa Na M-Pesa Do More Consumer Promotion, https://www.safaricom.co.ke/faqs/faq/699.
19. The Incentives Report (World Bank 2022b) discusses the design of additional lottery programs in selected countries.
20. See, for example, Discover Cashback Debit: https://www.discover.com/online-banking/checking/.
21. IFC, MSME Finance Gap Database, October 2018 update.
22. The IFC MSME Finance Gap Database defines microenterprises as those with less than 10 employees. Fully credit-constrained firms are defined as those that find it challenging to obtain credit. Partially credit-constrained firms are defined as those that have been somewhat successful in obtaining external financing.
23. These companies have been profiled extensively in other reports. See GPFI (2017); WBG and WEF (2016).
24. For details, see World Bank (2020d).
25. See: World Bank, G2PX Initiative, https://www.worldbank.org/en/programs/g2px.
26. In some limited cases (e.g., Mexico and Saudi Arabia), the RTGS plays a more direct role in retail payments.
27. Please refer to World Bank (2021d) for more on the FPS toolkit and relevant policy actions in this area.
28. The Assessment Guide (World Bank 2022a) outlines the range of costs that could be considered in evaluating the relative costs of EPA and cash acceptance.
29. For example, see the Visa Foundation, https://usa.visa.com/about-visa/philanthropy/visa-foundation.html, and the Mastercard Center for Inclusive Growth, https://www.mastercardcenter.org/.
30. World Bank (2022d).
31. World Bank (2022c).
32. For further details, please see World Bank (2022c) and World Bank (2022d).
33. World Bank (2022c).

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