Identifying and Verifying Customers: When are KYC Requirements Likely to Become Constraints on Financial Inclusion?

Alan Gelb and Diego Castrillon

Abstract

Onerous KYC documentation requirements are widely recognized as a potential constraint to full financial inclusion. However, it is sometimes difficult to judge the extent to which this constraint is a serious or binding one, relative to the many other factors that can limit access to finance or demand for financial services. The paper considers this question, distinguishing between different types of documentation and different financial market segments according to their KYC requirements. Using data from several sources it then looks at cross-country patterns which provide some suggestive evidence on the conditions under which particular requirements are more or less likely to pose serious constraints. It concludes with policy suggestions, including on the use of technology to help ease the burden of documentary requirements while still maintaining financial integrity.

Keywords: documentation, identification, financial inclusion, KYC

JEL: G210, G230, G280, L510, O160, O310, O500

Center for Global Development
www.cgdev.org

Working Paper 522
December 2019

Identifying and Verifying Customers:
When are KYC Requirements Likely to Become Constraints on Financial Inclusion?

Alan Gelb
Center for Global Development

Diego Castrillon
Center for Global Development

We gratefully acknowledge very helpful comments from Mike Pisa, Liliana Rojas-Suarez, Albert van der Linden, Masiiwa Rusare and an anonymous referee. We also thank the GSMA for permission to use graphics from their studies.

The Center for Global Development is grateful for contributions from the Bill & Melinda Gates Foundation in support of this work.

Alan Gelb and Diego Castrillon, 2019. "Identifying and Verifying Customers: When are KYC Requirements Likely to Become Constraints on Financial Inclusion?" CGD Working Paper 522. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/identifying-and-verifying-customers-when-are-kyc-requirements-likely-become-constraints

Center for Global Development
2055 L Street NW
Washington, DC 20036

202.416.4000
(f) 202.416.4050

www.cgdev.org

Contents

1. Introduction

Onerous KYC documentation requirements are widely recognized as a potential constraint to full financial inclusion. The latest Findex survey reports that, globally, some 20 percent of adults without a bank account report lack of necessary documentation as a factor. Which specific documentary requirements pose a serious problem in a particular setting and whether they constitute **THE** binding constraint on financial inclusion -- out of many potential constraints -- is more difficult to assess. This paper considers how to approach this question with cross-country analysis and what this offers to inform specific country contexts. It also proposes measures to use new technology to ease documentary requirements, consistent with maintaining controls to ensure financial integrity.

As for any goods or services market, the observed quantity of products (in this case, financial services) is determined by the intersection of demand and supply schedules. People will have high demand for financial accounts if they are seen to offer useful services. Interoperability, for example, boosts the value of the payment services offered by accounts, since clients can transact across different payments service providers. The supply of financial services will be affected by a wide range of regulatory and infrastructural factors, as well as the tax regime. A constraint can operate on the demand side of the market – shifting the demand curve inwards so that less is wanted at the same service price -- or on the supply side – shifting the supply curve backwards as less service is offered -- or on both.

Demanding documentation and verification requirements imposed by regulators boost a bank's costs of onboarding clients and maintaining accounts. They can represent a supply-side constraint, shifting the curve backwards, especially for small customers. Higher costs mean higher charges to customers, less investment in reaching out to new customers and fewer accounts. The effects will be larger if there is no ready way for potential customers to provide the necessary documentation; in such cases, banks in some countries, such as Nigeria, have been forced to develop and maintain their own ID systems, a more costly proposition than relying on a pre-existing government ID. Costs will also be higher if the financial service providers are required to also verify credentials without having the infrastructure needed to do so easily. However, requirements to provide costly or difficult-to-obtain documentation can also act directly on the demand side, discouraging potential customers from applying for accounts. The constraints are therefore potentially on both sides of the market.

Section 2 first considers the landscape from the documentation side. Common requirements can include basic evidence of identity, or ID – either a card or a number – as well as a range of other documentation, such as proof of address or occupation, that provide additional information on the individual. We term these attributes ID+. From the constraints perspective, ID and ID+ can be look different depending, for example, on the coverage and capabilities of the ID system and the degree of formalization of the economy. Another important consideration is the infrastructure available to verify documents. This can differ a great deal between countries. Some have electronic mechanisms to verify ID cards, or individuals using biometrics; have no such facilities; Especially for rural or poorly connected areas, verification requirements could therefore pose a serious supply side constraint.

The section then considers financial access in terms of three financial market segments. The first consists of regular commercial banks and similar accounts which are subject to "full" KYC requirements. The second involves the simplified or restricted accounts which some countries have introduced in response to concerns that excessive documentation requirements constitute a barrier to financial inclusion. These countries operate "tiered KYC", with less demanding requirements for small accounts limited by balance and transaction size. The third segment is mobile money issued by non-bank providers (such as Mobile Network Operators or MNOs), under a different, and usually and less demanding, KYC regime for both SIMs and mobile money relative to commercial bank accounts. This 2 x 3 framework[1] can be used, together with country characteristics, to help provide a perspective on the likely impact of KYC requirements on financial inclusion. Of course, not all three market segments need be present in every country.

Section 3 then looks at some cross-country patterns using a number of indicators. The objective is to better understand the prevalence of certain practices, such as requiring ID+ for bank accounts, including in some countries with high degrees of informality, and also the relationship between measures of ID prevalence and financial inclusion. This does not definitively reveal cases of binding constraints but is at least suggestive in flagging cases for more detailed assessment.

Section 4 concludes, with suggestions for using technology more effectively to ease the potential KYC constraint on financial inclusion.

Before proceeding further, it is essential to flag the difference between the ***de jure*** requirements of regulators and the ***de facto*** behavior of financial service providers. It is usual to think of constraints as reflecting public policies that can be changed by legislation or regulation. But some apparent constraints can reflect behaviors of market participants that may derive from their *interpretation* of regulatory intent or may reflect completely different considerations. In the present context, this applies to the practices of banking institutions that may require more documentation to open accounts than the minimum prescribed by national regulators.[2]

How to interpret such a gap, if observed, in terms of binding constraints? If the reason seems to be a pattern of regulatory communications or behavior that encourages severe risk aversion on the part of financial institutions, the implication is clear; this is a **de facto** regulatory constraint that would need to be lifted by changing the actions and

[1] The 2x3 framework brings together the two types of documentary requirements and the three potential financial market segments.

[2] De Koker and Symington (2011) survey banks in South Africa to understand why many choose to follow conservative compliance behavior. The reasons include regulatory uncertainty, corporate culture, inexperienced compliance officers, and concern over possible liability arising from fraudulent accounts or transactions. They also note that customer due diligence processes are not only designed to serve AML/CFT purposes but to gather data to help serve customer needs and to target marketing efforts. Institutions may gather information that will assist with credit-scoring even if the service does not immediately include a credit product.

communications strategy of the regulators. But there could also be other reasons for the excessive requirements. For example, the banks might be using documentary requirements to screen out low-income customers that they prefer not to service, perhaps because they do not fit their desired customer profile or because of other factors that raise the costs of dealing with them and make opening accounts for such customers unprofitable.

2. Documentation Requirements and Market Segments

2.1 ID and ID+

Documentary requirements for KYC purposes can usefully be divided into two groups. The first comprises basic identifying information or "ID", usually in the form of a National ID card or similar credential. The second group, which we can term "ID+", includes a potentially wide range of supplementary evidence, such as proof of address, proof of employment or income, proof of nationality, or evidence of other attributes. According to World Bank (2009), the most commonly required document is an identity (ID) card,[3] yet commercial banks (and similar financial institutions) often ask for several further documents.

Considering first ID, the requirement to provide it can be onerous, especially for the poorest and most deprived groups of people who are least likely to be registered. But in many countries, this problem will apply to relatively few people. As estimated by the World Bank Identification for Development Dataset (ID4D Global Dataset),[4] some 1 billion people are likely to lack identification, either birth certificates or, for adults, a national ID or voter registration card. Half of these will be children under the age of 16 whose births have not been registered, and many of the remaining ones will be concentrated in a relatively few countries.

Another important consideration is the infrastructure available to verify ID cards and other documents. This can differ a great deal between countries. Several countries, including Peru and Kenya, for example, have well-developed electronic mechanisms to verify ID cards (and in Peru also the capability to authenticate individuals biometrically against the registry's database), while India's biometric Aadhaar system is able to provide full e-KYC, with essential customer details sourced directly from the central registry rather than provided as paper documents. In some cases, verification is provided free as a public service (Kenya); in others (Peru, Pakistan), banks are required to pay for verification services. Charges vary but are commonly in the range of US$0.25 for a card verification and considerably higher for a biometric customer verification (ID4D, 2019).[5] However, many countries have no such

[3] The definition of identity card varies by country. To see the full list of IDs included in the Findex survey by country, visit the Global Findex web page

[4] See https://id4d.worldbank.org/global-dataset

[5] For a summary of verification requirements, capacity and charges in a number of countries see ID4D (2019).

facilities for easy verification, which is likely to be more difficult and costly in the absence of an electronic infrastructure.

Turning to ID+, the first question must be: why are such documents required? While they have become commonplace in the context of AML/CFT regulations to prevent money-laundering and the financing of terrorism, there is no formal assertion of the need for proofs of address, employment, or other ID+ in the pronouncements of the Financial Action Task Force (FATF), the global body responsible for regulatory standards in the area. The answer seems to lie in history: such assorted documentary evidence was used to validate claims of identity through "triangulation" across several documents, especially before the advent of rigorous and robust national ID card systems, often based on biometrics.

Ferreira et al. (2018) explain that in response to the issue of money laundering, The US Banking Secrecy Act of 1970 required financial institutions to ascertain the identity of customers by obtaining the name, date of birth and physical address of the prospective client. At the time, proof of address was a useful way to prove identity, because in the absence of electronic databases, customer profiles were stored via tin-stamp address-o-graph systems. As such, it was a relatively robust, unique identifier because the address was literally cast in metal. Also, in the absence of interoperable digital databases, it was the only way of cross verifying an identity because people's addresses were kept across multiple, independent institutions. People without multiple independent relationships were not considered valuable enough to have a bank account.

Especially in countries with high levels of informality, potential clients often cannot provide such documentation. Ferreira et al. (2018) analyze survey data for Nigeria, Tanzania and Uganda. Considering an ID only, this was held by 47, 74 and 69 percent of respondents in respective countries but when including both ID and proof of address, the numbers fell to only 39, 11 and 12 percent. As they note, with the advent of technology (especially the personal printer) and the expansion of formal financial services into new frontiers, the value of proof of address as a unique identifier has decreased significantly. It is possible to edit or change paper documents, create fake documents or use the valid documents of another person and assume their identity. In contrast, cards issued by ID systems normally embody a range of security features and are increasingly backed up by biometric identification and authentication.

Moreover, in an age of increased labor mobility, people do not necessarily stay in the same place for extended periods. Thus, a document that supposedly proves where someone lives is merely one of many identifiers, and a relatively weak one; apart from habit and false perception of its robustness, there is no clear reason why proof of address is being relied on as an identifier. This is not to say that such information might not be useful for commercial purposes – a good address may tell a good deal about the likely income of a new customer and some ID+ is probably needed for lending. But there is a difference between asking customers to provide an address for certain services and requiring specified standard documents, such as utility bills, to "prove" it to open an account.

2.2 Market Segments: Bank Accounts, Restricted Accounts and Mobile Money

Recognizing the possible impact of KYC requirements in driving many people towards informal financial markets, FATF (2012) encouraged countries to adopt a risk-based, or tiered, KYC approach to ensuring the integrity of financial institutions. According to this approach, requirements should be simplified for customers and for accounts considered to pose little risk. With regular bank accounts the first segment of the financial market, simplified or restricted accounts thus constitute a second segment from a KYC perspective. The third segment is provided by mobile money, issued under KYC requirements that may differ from those for regular bank accounts.

Tiered KYC: A Work in Progress. Tiered KYC has generally been taken to apply to smaller-value accounts, limited in terms of maximum balances, transfers and services. But there have not been explicit prescriptions on how small such accounts need to be, how the risk-based assessments are to be done and exactly what requirements should be for such low-risk accounts. Judgment on these issues is left to country regulators. Each country has had to interpret FATF guidance in the light of its own circumstances. As an example, in 2011 Mexico approved a four-tiered regime for opening deposit accounts at credit institutions. As levels advanced, transaction limits increased, and simplification processes were reduced. **Table 1** summarizes the features of Mexican bank accounts as of 2011 (Global Partnership for Financial Inclusion, 2011).

However, within countries, banks and other financial institutions have ultimate accountability for knowing their customers. This three-stage assignment of accountability to the lowest level (from FATF to country regulators to financial institutions) -- means that there can be considerable room for uncertainty and that providers will not necessarily act on suggestions to minimize requirements for fear of a regulatory backlash. And, taking Mexico as an example, it is notable that an address is required even for the second lowest tier of basic accounts.

Table 1. Features of Banking Accounts in Mexico (2011)

(Transactional limit in parenthesis)

	Level 1 (280 USD)	**Level 2[6] (1,114 USD)**	**Level 3 (3,715)**	**Traditional Bank Account**
Customer file	No ID needed	Basic customer information[7]	Complete customer information	Complete customer information
Customer documentation	Not applicable	No need to keep a hard copy		Required to keep hard copy
Face to face process	No	No (bank could decide for a face procedure)	Yes	Yes
Point of access	Bank branch/banking agent/Internet/ Mobile phone/Third-party call center		Bank branch/banking agent	Bank branch

Source: Global Partnership for Financial Inclusion

Progress in applying risk-based KYC was reported by FATF (2017), which reviewed country practices based on risk assessments in more than 20 countries. Among the findings it noted that there was often limited dialogue between the financial intelligence unit and the governmental department that specializes on promotion of financial inclusion. In many countries, the AML/CFT regulatory framework still did not recognize the risk-based approach or offer the possibility of simplified KYC. It found that, in general, the country regulators were reluctant to develop innovative simplified KYC measures out of concern that an AML/CFT country assessment would not condone their risk-based approach. The report also noted that similar concerns often applied to the banks, especially when there was not adequate guidance from the country regulatory authorities. Compliance officers from financial institutions remained risk averse even after the national risk assessment had been carried out. The report also confirmed that – from the perspective of the FATF – stringent KYC requirements were still among the most important impediments to financial inclusion in some countries. This alone, warrants taking seriously the proposition that they could be a serious, and perhaps even a binding, constraint.

Examples of such requirements noted by the FATF report included to verify the address, document the purpose of a transaction, or provide a Tax ID number or a secondary ID document regardless of the amount and risk level of the transactions. Especially for low income customers, the report noted that requirement for the "proof of address" could be more challenging than the proof of identity. Finally, the report noted that KYC practices for

[6] There is a one-time traditional period to verify customers' identifications (18 months). In this period, the transactional limit is 560 USD.

[7] Name, date, and place of birth, gender and address.

financial inclusion products in traditional financial institutions and mobile network operators (MNOs) were often different, either due to inconsistent provisions that affected the two types of institutions, or to delay in the implementation of AML/CFT supervision arrangements for MNOs, and that this created an uneven playing field. According to this picture, the risk-based approach to KYC is still a work in progress. Successive tiers of risk-aversion between the three levels – the FATF, the national regulators and the financial institutions themselves – appears to be slowing the application of measures to facilitate financial inclusion.

This is not the case in all countries. As previously noted, India has revised its banking law to ease restrictions on the opening of small accounts and lower the cost of KYC through using the Aadhaar ID system as the sole and adequate credential and permitting e-KYC as a way to eliminate the costs of verifying documents.[8] One Ministry of Finance official estimated that moving from paper-based KYC to e-KYC in India reduced the average cost of verifying customers from roughly $15 to $.0.50, and that Indian banks that had made the shift had lessened the time spent on verifying customers from more than five days to seconds.[9] Some 340 million accounts have been opened, boosting India's 2017 rate of financial inclusion to 80 percent and substantially closing the gender gap in inclusion.[10] But, even though many other countries have taken steps to upgrade their identity management systems, FATF (2017) notes that most have not taken advantage of this to relax other documentary requirements.[11]

Further, the FATF study notes that regulation and practice can be different. Even if regulators have approved tiered KYC arrangements there is no guarantee that banks will follow suit, especially to attract small customers who they see as offering little prospects of profitable business.[12] This raises the question of whether regulators should encourage MNOs and other non-bank entities to create another channel for financial inclusion that is more attuned to the economics of serving low-income clients.

Mobile Money: A Powerful Segment in Few Countries. Mobile money has played a major role in financial inclusion in some countries (in the sense of enrolling customers who

[8] Under e-KYC a customer applying to open an account gives permission for the bank to secure her data directly from the central registry rather than from the customer. This populates the required forms automatically, saving time, document management and verification costs.
[9] See Pisa and Woodsome (2019).
[10] The estimate of pre e-KYC customer verification cost is comparable to the $10 cost for the Philippines, offered by an official at a conference in Mexico in October 2019. Like India before Aadhaar, the Philippines does not have a centralized ID system.
[11] More countries have initiated national ID programs since 2000 than ever had them before. Most use digital technology, including biometrics (Gelb and Metz (2018)).
[12] As an example of traditional bank attitudes to acquiring poor customers see CGAP (2011) for Colombia. The banks were reluctant to open accounts for this group to deliver government transfers. They did not see them as their target clientele, or as a viable market for profit-making services. Similar attitudes of established financial institutions to poor customers has been documented for Mexico, including discriminatory practices based on perceived ethnicity (Martínez Gutiérrez, 2018).

do not have bank accounts) but the number of such countries is limited. Most of the leading cases, in the sense of additionality rather than the number of accounts, are in Africa (see **Box 1**).

A full explanation for this picture is a topic somewhat outside our ambit. One important determinant appears to be whether non-bank financial service providers (FSPs), such as MNOs, are authorized to open mobile money accounts for customers in their own right, with the fiduciary requirement that a counterpart to customers' balances be held in a trust account with a bank, along the lines of the M-Pesa model developed in Kenya.[13] In many cases "deposit-taking" activities are restricted to commercial banks; there may still be active competition to provide mobile payments services using various customer interfaces and providers but there is no additionality in terms of financial inclusion. Naturally, banks have generally been reluctant to see the emergence of a new class of competitors, so have typically lobbied against autonomous mobile money accounts.

The relationship between the banks and their regulators is, therefore, a key issue. One way of explaining this relationship is by the phenomenon of regulatory capture. Suarez (2016), proposes that the more closely banks are regulated, the more likely it is that they will form close relationships with the regulators due to constant interaction, and that this regulatory capture leads the regulators to identify with the interests of the banks. This may or may not undermine the quality and rigor of regulation, but in any event it is less likely that the regulators will permit MNOs or other entities to open mobile money accounts without these being, at the same time, subject to the full range of regulation as bank accounts. To operate on their own account, MNOs would then have to register as banks, something that they will be loath to do because of the higher regulatory costs that they would incur. These would make their business model unviable, as it involves making huge numbers of small transactions across a very large customer base.

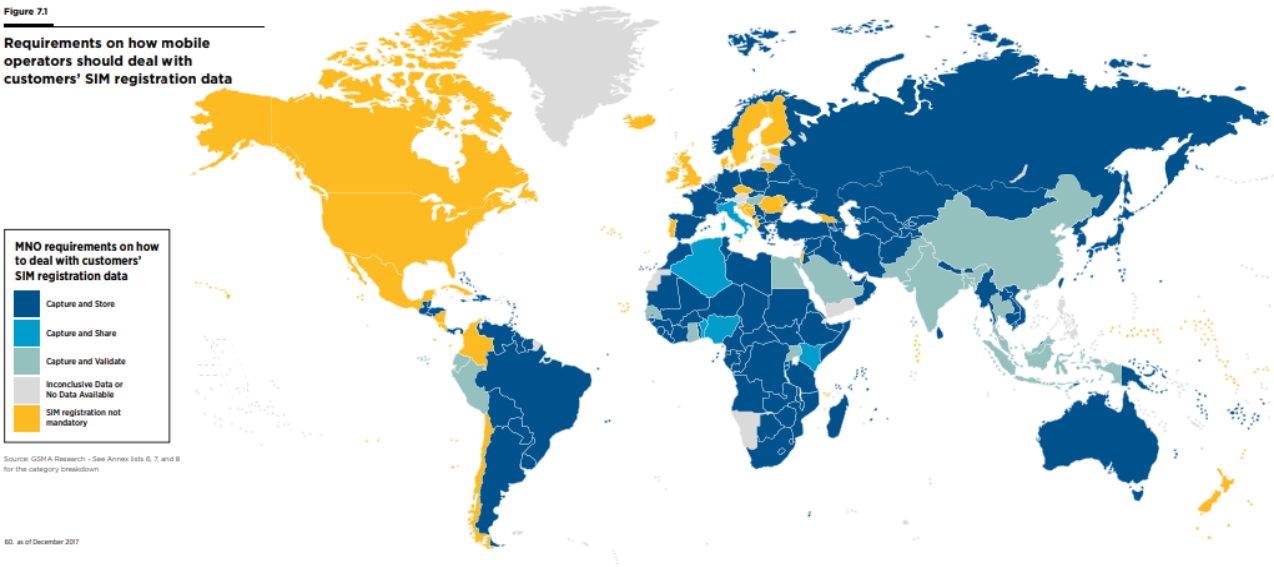
In support of this hypothesis, Suarez (2016) compares Mexico and Kenya. When telecommunication firms asked the Mexican regulatory agencies for permission to offer mobile banking services, they were opposed by a banking industry dominated by foreign banks and highly regulated due to international debt crisis and privatization processes (Haber & Mussachio, 2013). Mobile money customers therefore were required to hold bank accounts, robbing the potential mobile money industry of its dynamism. In contrast, she argues that the relationship between Kenyan banks and regulators was not similarly close. That this enabled the Central Bank to take a permissive, learning, approach towards mobile money which expanded rapidly (see also N'dungu (2019)). Even though the banks opposed M-Pesa they were not able to interfere with its launch.

[13] In some countries, mobile money is issued by other non-bank providers; bKash in Bangladesh, for example, is a subsidiary of BRAC bank.

Further insights into the dynamic between banks and regulators in Ghana and Tanzania is provided by CGAP (2018); in both cases mobile money exploded only when non-banks were permitted to issue it.

The mobile money segment represents a second possible avenue for increasing financial inclusion outside the "regular" KYC requirements because KYC requirements for SIMs and mobile money accounts are, in general, less demanding than those for full bank accounts. SIM registration, as GSMA (2018) notes, is required by more than 140 countries and the details differ across jurisdictions. While registration policies require MNOs to capture customer information and recognized identification credentials, only a few of them (11%) enable MNOs to validate identification (whether paper-based or biometric) against the ID registry (**Figure 1**). For the rest, MNOs are required to copy or keep a record of credentials (85%) or to share the information with government agencies on demand (4%). Even these modest requirements could discourage registration by forcing agents to obtain camera-enabled phones, or in areas of low connectivity.

Figure 1. SIM Registrations Requirements



Source: GSMA (2018)

Nevertheless, KYC requirements are only one among multiple factors, including other regulation, market structure and digital infrastructure, that determine whether a country has a dynamic mobile money segment.[14] This suggests that, while they cannot be overlooked as a possible influence on the dynamism of the segment, a search for binding constraints to the spread of mobile money would need to consider several other critical factors, including the

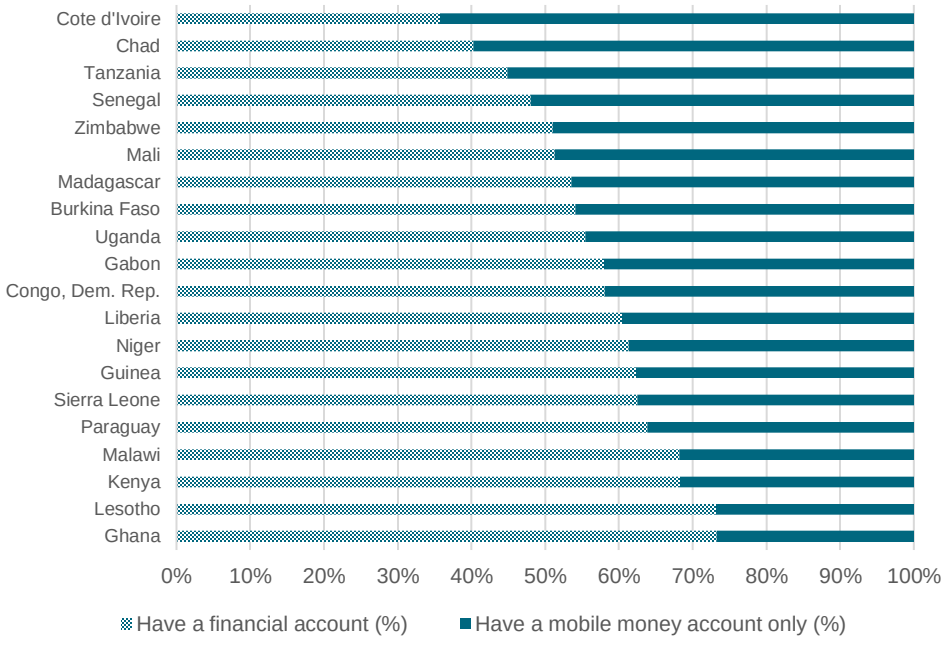
[14] There may be additional dimensions, such as differential access to the national payments switch, that discriminate against mobile money providers. There are also questions of market structure and coverage – whether non-bank providers will find it profitable to incur the substantial investments needed to roll out their systems in countries where the banking system already has a fairly wide presence.

basic question of whether non-banks are permitted to offer payments services and have access to financial infrastructure, such as the national payments switch, that help them to deliver value to customers.

Box 1. Mobile money's contributions to financial inclusion

The figure shows the top 20 countries by proportion of overall financial inclusion which is due exclusively to mobile money accounts (that is, users who do not also have a bank account). As of 2017, the mobile money story is dominated by Africa—the only non-African country to make it into the top 20 is Paraguay. Mobile money is even more dominant in Somalia, both relative to its banking system and in terms of absolute coverage.

Proportion of financial inclusion attributable to mobile money



Measured as (any account coverage – financial account coverage) / any account coverage)

Source Findex 2017.

3. A Look at the Data

The latest Global Findex Survey 2017 provides a useful picture of the barriers to financial inclusion as perceived by those who do not have a bank account. The first three columns of **Table 2** show constraints to inclusion relating to the pricing, location and documentation requirements of the banks. These can perhaps be considered as supply-side barriers, although, as discussed above, documentary requirements can also be seen as a direct constraint to demand. The last three columns show factors that can be more reasonably interpreted as relating to demand.

In every region, a substantial proportion of unbanked adults cite lack of documentation as a barrier, on average around 20 percent.[15] However, this number is likely to understate the overall impact: the question is not only whether potential customers have documents, it is also the cost and difficulty of acquiring them and, for the financial institutions, the costs associated with accepting, validating and recording them, as well as subsequent storage, management and updating.[16] This cost disincentive to opening new bank accounts, especially for poor customers, will be reflected in higher fees and charges and less favorable conditions of service. As shown in **Table 2**, costs emerge as a major barrier to inclusion, particularly in Latin America.[17]

Findex data therefore confirms the proposition that documentation requirements act as one out of several barriers. Extensive and costly ID+ requirements are likely to discourage financial institutions from reaching out to develop services and access points for low-income customers. In addition, they send a powerful signal to the banking system about the desirable characteristics of their client base. They are therefore likely to reinforce well-documented biases in this area, against poor people and possibly customers of particular ethnicities who historically have been among the more isolated and less well documented groups (CGAP, 2011) (Martínez Gutiérrez, 2018).

Table 2. Reasons for not having an Account

	percentage of people who do not have a financial account who say it is because…						
Region	too far away	too expensive	lack documentation	lack trust	lack of money	family member already has one	no need for financial services
East Asia and Pacific*	24%	20%	17%	9%	66%	32%	31%
Europe and Central Asia*	15%	32%	15%	31%	51%	34%	54%
Latin America and the Caribbean*	27%	53%	25%	31%	59%	32%	35%
Middle East and North Africa*	9%	20%	12%	12%	73%	12%	32%
South Asia	22%	25%	20%	18%	58%	35%	31%
Sub-Saharan Africa*	28%	30%	27%	16%	76%	12%	18%

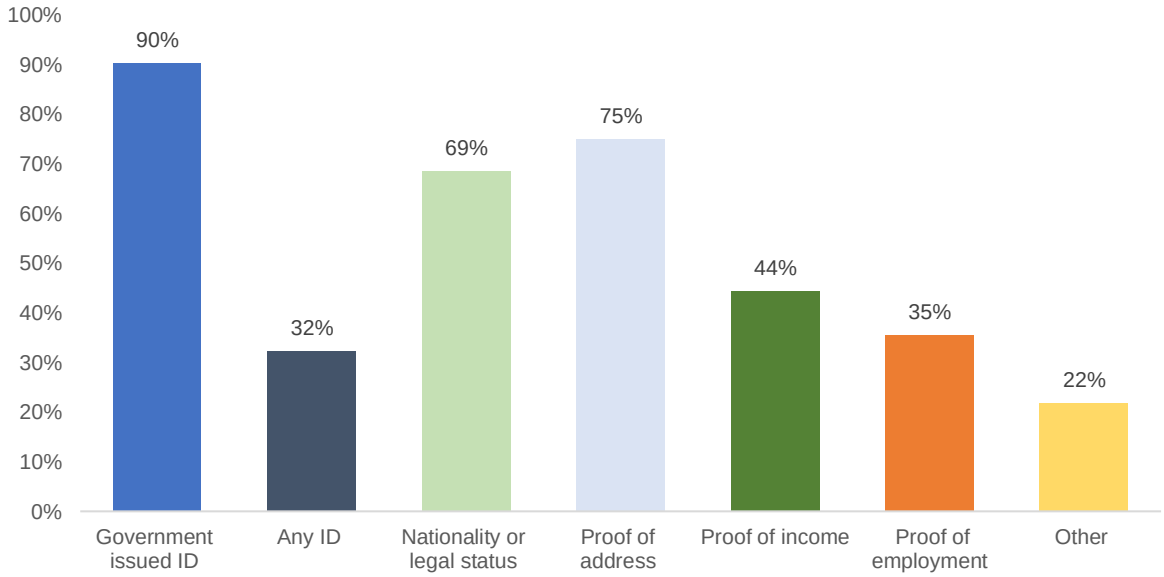
* (excluding high income)
Source: Findex Survey 2017

[15] The surprising degree of correlation between the percentages citing documentation and location constraints at regional level is not paralleled by the country-level observations.
[16] These costs can be high, see for example Elliehausen (1998), PWC (2003), Sathye (2008), Veris Consulting (2013), Financial Times (2015), KPMG (2015) (also cited in our previous CGD study of the risk-based approach: Gelb (2016)).
[17] In the 2017 FICP survey, out of 124 jurisdictions 58 percent indicated that there were no regulations limiting bank fees and charges.

For more detailed data on documentation requirements we turn to the Global Financial Inclusion and Consumer Protection survey (FICP) (2017). This provides the most comprehensive source of information on documentary requirements at country level for banking and similar institutions (**Figure 2**).[18] For commercial bank accounts, almost all of the 134 responding jurisdictions required a national ID with some requiring, or accepting, some other form of ID. In addition, 75 percent required proof of address, 69 percent proof of nationality and many others proof of income or employment**.** Overall, half of the jurisdictions reported some form of simplified customer due diligence, with fewer in the Middle East (22 percent) and Sub-Saharan Africa (41 percent) and more in South Asia (100 percent).

Figure 2. Documentation Requirements for Account Opening at Commercial Banks

(Percent of responding jurisdictions that require documentation type to open an account at a Commercial Bank)



Source: Global FICP Survey 2017

Overall, 82 of these countries also report in the 2017 Findex survey. Excluding high-income countries leaves 51 low and middle-income countries that are represented in both surveys. **Table 3** shows the distribution of the countries by region, and the type of documentary requirements for opening a standard deposit account. In 12 countries, commercial banks ask solely for some type of identification (ID)[19] while the rest (70) ask for various types of ID+ such as address or statements of income or employment. Excluding high income countries,

[18] These include commercial banks, financial cooperatives, and other deposit-taking institution (ODTI). The survey asked each country's regulators to submit one consolidated response.
[19]Armenia, Austria, Canada, China, Iran, Islamic Rep., Israel, Kuwait, Kyrgyz Republic, Lithuania, Norway, Peru, Slovak Republic. If we consider also the proof of nationality as part of ID+, the sample would reduce to 8 countries (excludes Kyrgyz Republic, Armenia, Peru and Israel).

the picture is similar; all but 5 of the 51 countries report that they require some type of ID+ to open an account. The following analysis will focus on these 51 countries.

Table 3. Countries in Findex Requiring ID+ Documentation

	All Countries		Non-High-Income Countries[20]	
	Do they require ID+ documentation?		Do they require ID+ documentation?	
Region	**No**	**Yes**	**No**	**Yes**
East Asia & Pacific	1	10	1	5
Europe & Central Asia	6	23	2	8
Latin America & Caribbean	1	15	1	12
Middle East & North Africa	3	6	1	5
North America	1	0	0	0
South Asia	0	5	0	5
Sub-Saharan Africa	0	11	0	11
Total	**12**	**70**	**5**	**46**

Source: Global FICP Survey and Findex

Turning to simplification or tiered KYC, out of the sample of 51 countries, almost half allow simplifications/exceptions (**Table 4**). Most of these are upper-middle income countries from Latin America and the Caribbean.

Table 4. Countries allowing simplifications/exceptions for KYC[21]

Region	Low-income countries	Lower-middle income countries	Upper-middle income countries	Total
East Asia & Pacific	0	2	1	**3**
Europe & Central Asia	0	2	4	**5**
Latin America & Caribbean	0	2	7	**9**
Middle East & North Africa	0	1	0	**1**
North America	0	0	0	**0**
South Asia	1	3	0	**5**
Sub-Saharan Africa	1	1	2	**4**
Total	**2**	**11**	**14**	**27**

Source: Global FICP Survey and Findex

While the most common way to simplify KYC requirements is to adopt some form of tiered KYC process where requirements and information are relaxed subject to limits on the

[20] This involves low, lower-middle, and upper-middle income countries according to The World Bank's group division

[21] If a country answered "Yes" to the question "Are there simplifications or exceptions to the documentation requirements for certain types of applicants (e.g. low income) or deposit account products (e.g. small-value, low-risk transactions or basic accounts)?" according to the Global FICP Survey.

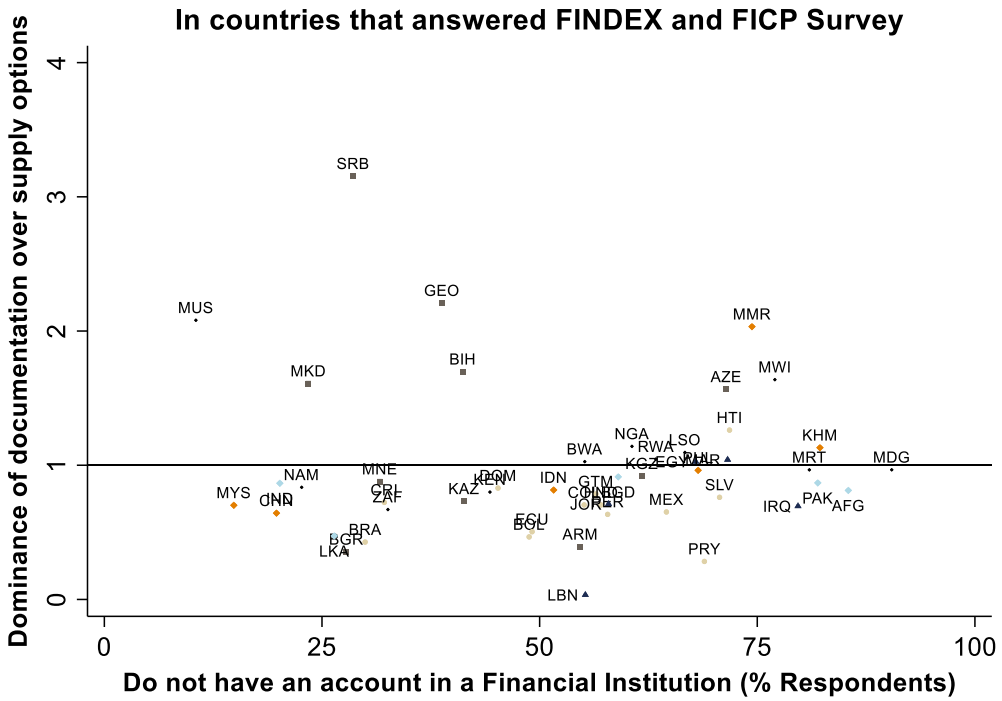
balances and transactions for each type of account (GSMA, 2019), this is not the only way to simplify KYC requirements. As noted by the Global FICP Survey, some commercial banks have moved towards non-face-to-face customer due diligence and enabling electronic banking via the Internet. Nevertheless, supervisors expect that banks should take into consideration the different risks posed by new technology and design identification procedures with due regard to such risks (Basel Committee on Banking Supervision, 2001). Another possibility not listed in the survey includes reliance on third parties to conduct customer due diligence.

3.1 Some Cross-Country Relationships

Documentation Dominance. How serious is the documentation constraint in Findex 2017 relative to the other two "supply-side" constraints of distance and cost? In **Figure 3**, "Documentation Dominance" is defined as (the percentage of excluded people citing documentation as a constraint) divided by (the average of those citing cost and distance to bank branches as constraints). A score of more than one therefore signifies that documentation may be a more serious constraint than the other two supply-side factors. Combining this with the level of bank inclusion offers a window into the question.

This analysis highlights Myanmar, Malawi and Cambodia among others, as a cluster of countries that might face an important documentation constraint (**Annex 1** shows 2014 and 2017 Findex data for some of the countries identified in the figure). While documentary requirements are seen as more problematic than other supply-side constraints in Mauritius, its high level of financial inclusion suggests that they are not a serious problem in its relatively formalized economy. Madagascar offers an interesting counterpoint – poor, dispersed and with very low levels of financial inclusion, documentation is not seen as more of an obstacle than the other two constraints. Indeed, requirements will be seen to be modest as shown in **Figure 4**.

Figure 3. Dominance of Documentation Constraint and Financial Inclusion

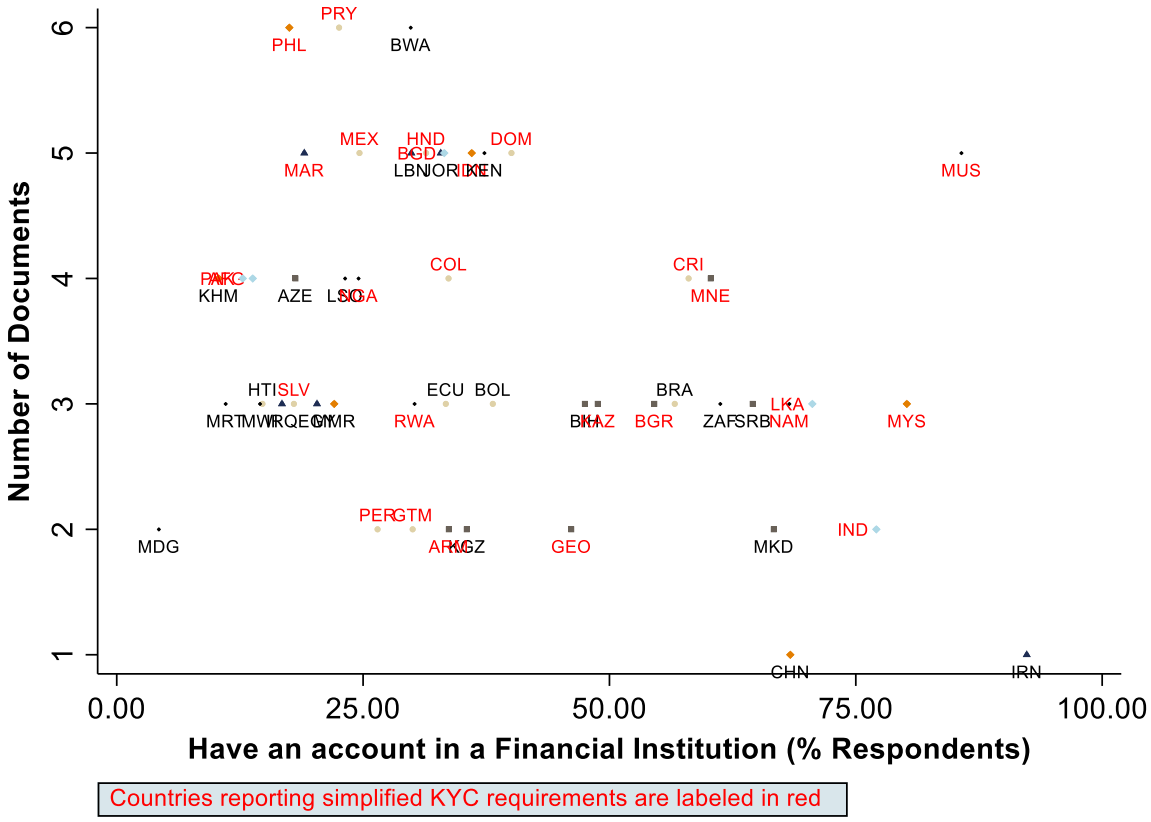


Source: Global FICP Survey and Findex

Number of Documents. We next consider the relationship between the number of different documents required at commercial banks and the level of account ownership in financial institutions (banks), as reported in the 2017 Findex survey. These numbers do not include mobile money accounts, where we have no comparable data on KYC requirements. **Figure 4** shows the scatter for the 51 countries with account ownership for people in the bottom 40 percent of the income distribution (**Annex 2** provides the same scatter for all Findex respondents). The first, striking, observation is how many countries with low levels of financial inclusion require multiple documents.[22] Even with inclusion rates below 40 percent, many countries require 4, 5 or more different documents. The negative correlation between the number of documents required and the level of inclusion (at -.30) provides at least some support to the proposition that countries with higher numbers of documentary requirements tend to have lower rates of bank financial inclusion.

[22] For this analysis, every documentation a bank requires has the same weight (is as important as the rest).

Figure 4. Documentation Required at Commercial Banks and Financial Inclusion in the Poorest 40% of the Population



Source: Global FICP Survey and Findex

Considering outliers, in some countries such as Mauritius or Malaysia, account ownership is high even though commercial banks ask for multiple documents. This confirms that high documentation requirements need not necessarily be a binding constraint. Both countries have well-documented populations and effective ID systems, with Malaysia's MYCAD incorporating numerous credentials in addition to being an ID. Documentary requirements might not be the most binding constraint in Madagascar either, where, as previously noted, low levels of account ownership could reflect multiple factors, including remoteness and extreme poverty. However, Paraguay, the Philippines and Botswana require more documents than the average and have low rates of bank account ownership. Documentary requirements in commercial banks might be a constraint in these cases.

We also distinguish countries reporting simplified KYC requirements for commercial banks, which are labeled in red. While there is not a very clear relationship, some of the countries at the low end of the financial inclusion measure do not appear to have adopted simplified KYC. Mauritius and Indonesia do offer simplified KYC; this is then possibly another factor facilitating inclusion.

3.2 Distinguishing between Requirements

Since the difficulty of obtaining each document will be country dependent, it is not obvious that every proof of ID or ID+ required by commercial banks will have the same impact across countries. If a document acts as a binding constraint for a certain jurisdiction, the severity of this constraint might reflect particular features that make it more difficult or costly for people to acquire it.

We therefore associate each requirement with a specific country characteristic, as summarized in **Table 5**. A requirement for government-issued ID is reasonably assessed against the coverage of the ID system. Proof of address, income or employment is reasonably judged against the criterion of informality. Not all the countries in the sample have the information for all the indicators, which further limits the number of countries.

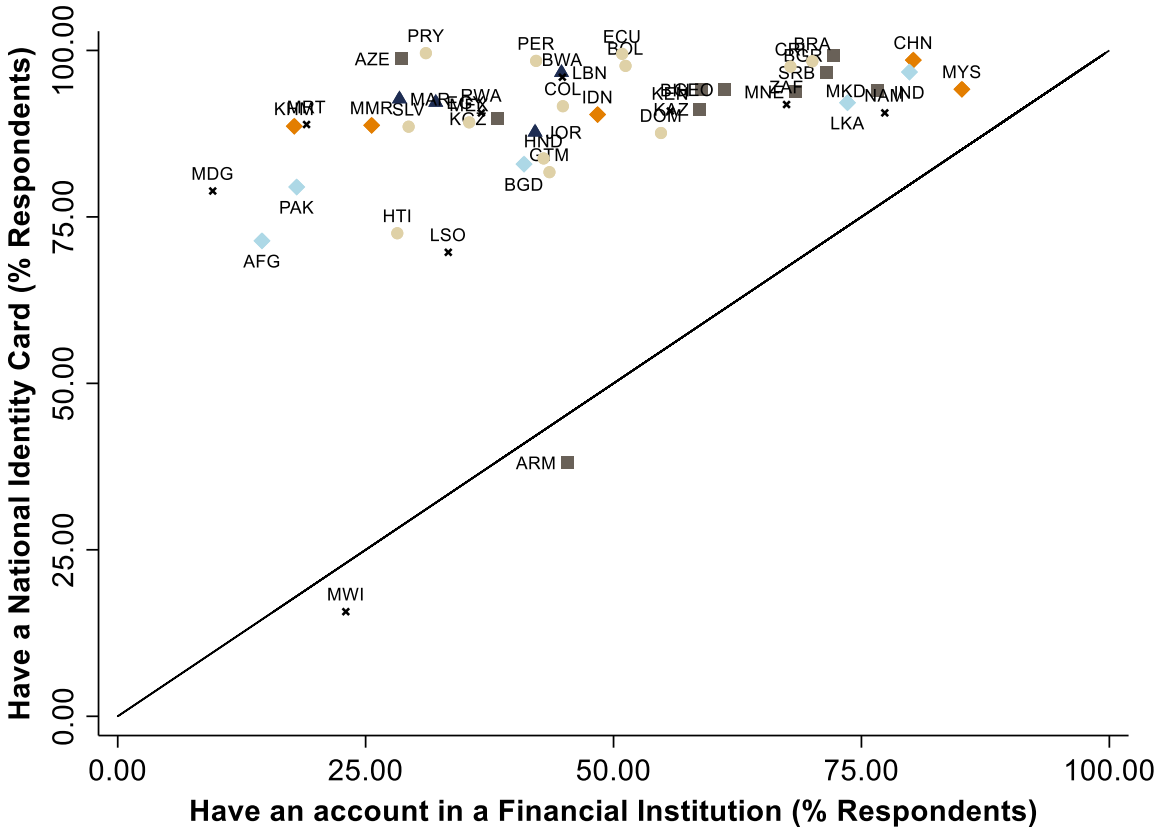
Table 5. Document required to open a deposit account and socioeconomic indicators

Documents	Possible Indicator
Government issued ID (A)	National Identity Card Ownership
Any ID (B)	
Nationality or legal status (C)	
Proof of address (D)	Employment outside the formal sector or Informality Rate
Proof of income (E)	
Proof of employment (F)	

Sources: Identity card ownership Findex 2017; Informality rate ILO

Identification Documents. **Figure 5** associates the proportion of respondents that have an account in a financial institution with the proportion of the population with national identity cards as reported by Findex 2017, for countries that report that an ID card is needed to open a deposit account. With the exception of two countries the rest of the sample have quite high ID coverage[23] so that the number of people who respond negatively to the question of whether they hold a national ID is generally far smaller than the number who do not have a bank account. Most countries are far above the 45-degree line, along which the percentages of those with an ID and account would be similar. This confirms that requiring an ID card might exclude certain groups but on its own is not likely to be the main or binding constraint for most people.

Figure 5. ID card ownership and financial inclusion in countries where an ID card is required



Source: Global FICP Survey and Findex

[23] Considering the two outliers, at the time of the survey Malawi had no National ID system but has since rolled one out; some 36 percent of those without a bank account cited lack of documentation as a barrier. In contrast, although Findex shows low National ID coverage in Armenia, only 8 percent of those without a bank account cite documentation as a barrier.

Proof of Address. Proof of address has been identified as perhaps even a more severe challenge than proof of income for poor people (FATF, 2017); it certainly is a more pervasive requirement. Proof of address is more likely to be a problem in countries that are highly informalized, where many people live "off the grid" and where there is a large migratory population. For three groups of countries, **Figure 6** shows the distribution (mean, interquartile range and range) of the percentages of respondents owning a bank account, overall and among the poorest 40 percent.

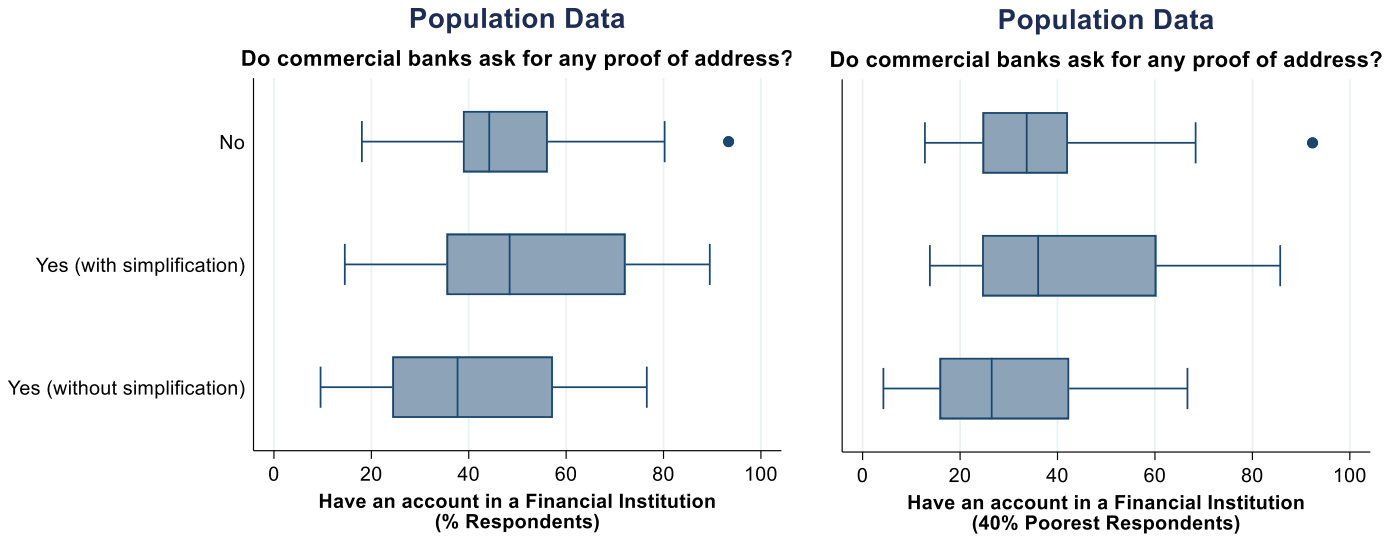
i. Proof of address is not required.
Examples within this group are Iran, China or Pakistan

ii. Proof of address is required but the country has provisions for simplified KYC.
Examples within this group are Afghanistan, Mauritius, Indonesia

iii. Proof of address is required and there is no simplified KYC.
Examples within this group are Botswana, Egypt, or Lesotho

While there is a wide spread, countries that require proof of physical address but do not offer any type of simplified KYC have lower rates of bank account ownership, on average, than countries in the other two groups. The picture is similar when only the poorest 40 percent of the population is considered. This provides some empirical support to the proposition that requiring proof of address can be a binding constraint in some situations

Figure 6. Proof of address and financial inclusion



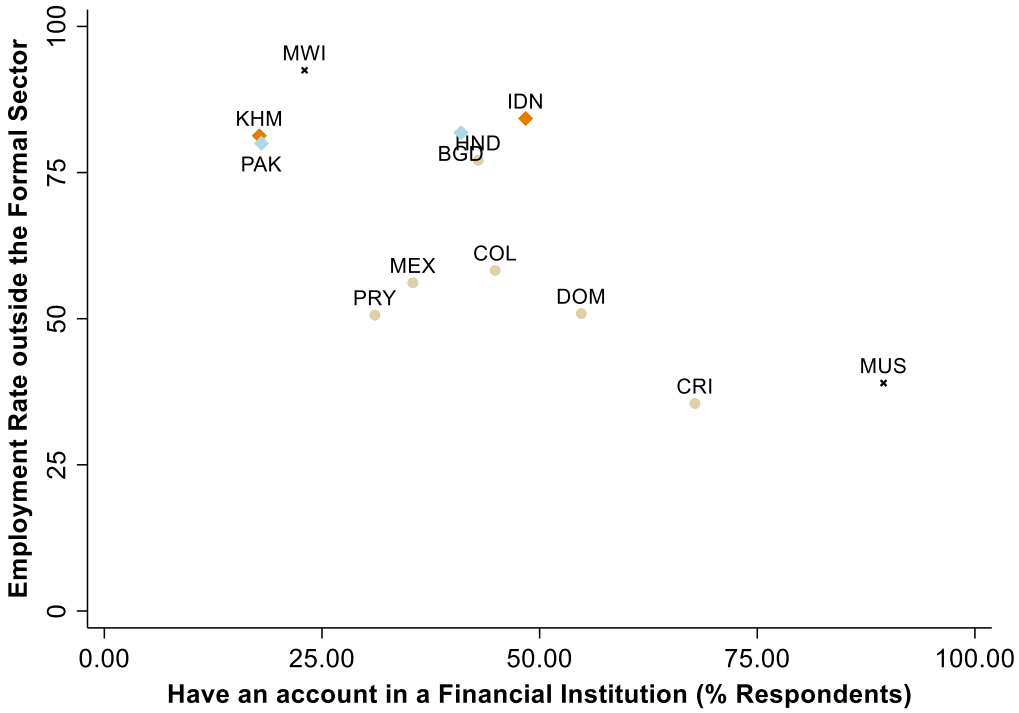
Source: Global FICP Survey and Findex

We do not know how many countries require proof of address for mobile money accounts, but some apparently do. According to AFI (2019), "the physical proof of address remains an entrenched KYC requirement for institutions when onboarding: the persistence of this requirement is particularly harmful when requested by financial institutions to open non-traditional digital accounts." However, many do not: as an example, the same report notes

that the Council for Financial Activities Control (CFAC) in Brazil does not explicitly require proof of address from MNO providers of financial services.

Proof of Income or Employment. Figure 7 relates the proportion of respondents owning a bank account to the proportion of the population working outside the formal sector[24] for countries where banks require proofs of income or employment. Several countries with very high rates of informality require proof of income or employment to open a bank account; this could then be a binding constraint in such countries. As expected, there is also a clear negative correlation (-0.7) between the variables.[25]

Figure 7. Informality and financial inclusion in countries requiring proof of income or employment



Source: Global FICP Survey, Findex and ILO

[24] Defined as the number of people in informal employment outside the formal sector divided by total employment. For more information visit: https://www.ilo.org/ilostat-files/Documents/description_IFL_EN.pdf

[25] There is also a negative correlation in countries not requiring proof of income and employment. A test of whether the effect is stronger in countries that do require proofs of income and employment finds the expected negative sign, but the coefficient is not significant, possibly due to the limited number of observations.

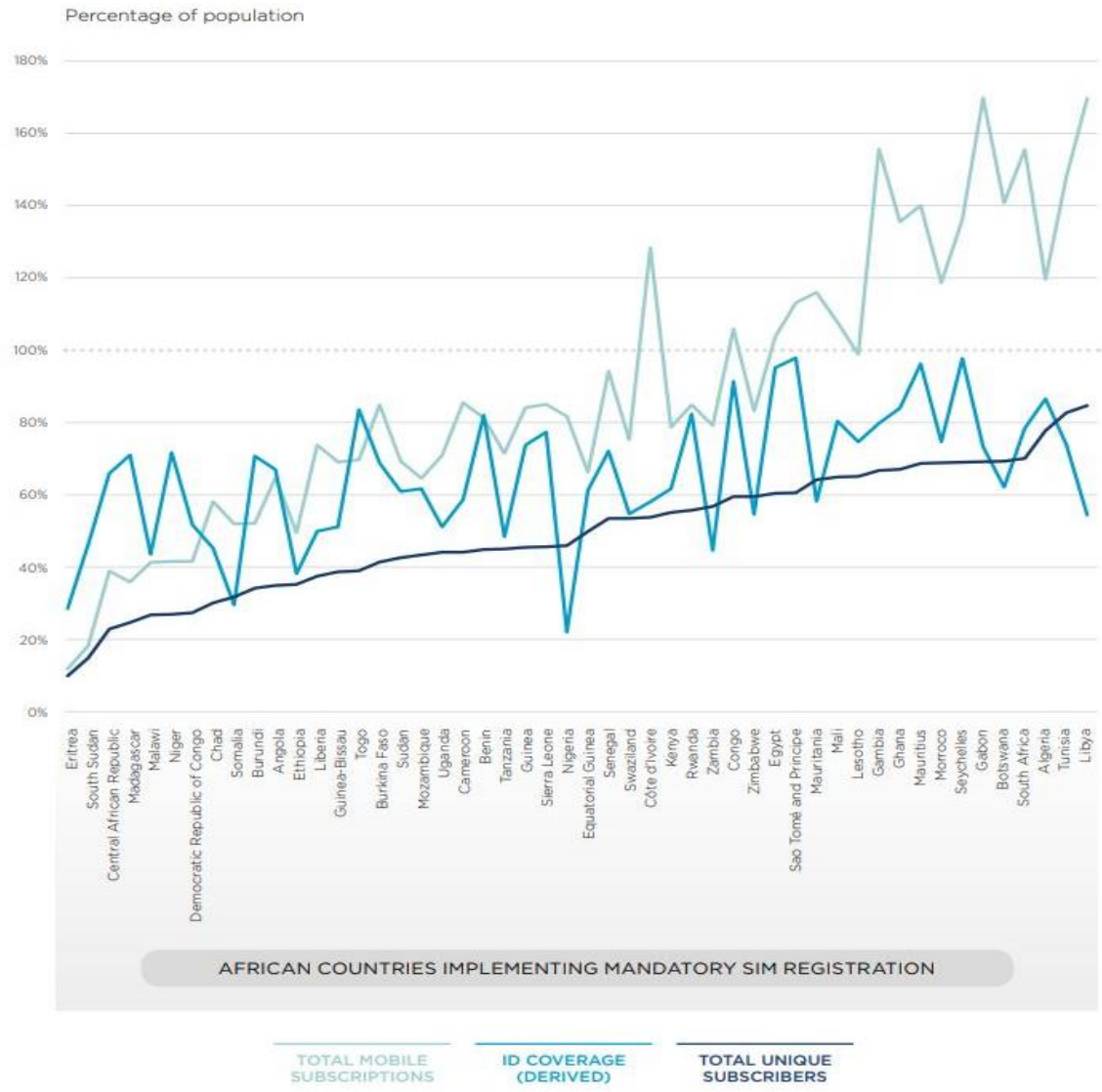
3.3 The Picture for Mobile Money[26]

The lack of a cross-country dataset on the documentary requirements for mobile money accounts limits our ability to carry out a similar analysis for this form of financial inclusion. However, we know that, in general, KYC requirements for SIMs and mobile money are less demanding than those for for full bank accounts. Further research would be needed to completely understand how mobile money and KYC requirements relate to each other.

One powerful relationship, shown by GSMA (2019), is that between mobile penetration (as measured by the estimated number of unique subscribers) and the coverage of the ID system across African countries (**Figure 8**). While there can be several factors behind this relationship, it does suggest that lack of ID could be a factor constraining mobile coverage in some cases. However, SIM coverage is generally higher than mobile money coverage, in most cases by a substantial margin. This suggests that other constraints may be relevant, including, as previously discussed, the basic question of whether non-banks are permitted to offer mobile money services.

[26] For this section, mobile subscription and mobile penetration are considered as different definitions. The latter represents the number of registered populations, while the former is the number of SIM cards (one person may carry more than one SIM card).

Figure 8. Identification coverage and mobile penetration across African countries where mobile SIM registration is mandatory



Source: GSMA (2019)

4. Conclusion and Policy Suggestions

This paper has tried to approach the problem of determining when documentation requirements might be a critical or a binding constraint to financial inclusion. It distinguishes two main categories of requirements: evidence of identity (termed ID) and evidence of a range of other attributes, such as address and employment (termed ID+). It also distinguishes three financial market segments: regular bank accounts; restricted bank accounts issued under less restrictive tiered KYC requirements, and mobile money. While the use of various indices and metrics cannot definitively determine how serious documentation requirements might be in a particular country, they can at least offer some suggestive guidance as well as a framework to help analysis of the question.

From the Findex Survey, the Global FICP Survey, and the findings of FATF (2017), it is clear that documentary KYC requirements can represent a quite serious constraint for many people. Requirements often go beyond an ID to include proofs of address, legal status, income or employment. Such ID+ may be a more serious problem than ID, depending on the country conditions. The likelihood that a typical person, or a typical poor person, will have such documentation will be country-dependent, but our analysis confirms that full documentation requirements may be serious constraints in many countries, especially those characterized by high rates of informality. Some countries with high levels of informality and low levels of financial inclusion require multiple documents to open a bank account. This is itself is of concern, and perhaps more striking than the modest correlations between high documentary requirements and low financial inclusion. Obtaining proofs of address or income may be especially difficult for people at the low end of the income spectrum. One example, suggested by several indicators, is the case of the Philippines **(Box 2).**

Bringing together the characteristics of countries and their regulatory requirements, as we have sought to do in this paper, therefore provides a first approach towards understanding when documentary requirements are likely to pose a binding constraint to financial inclusion for many people.

Any country assessment would need to also understand whether steps had been taken to mitigate the problem by enabling two additional market segments for financial services. One approach has been to permit restricted accounts with tiered, risk-based, KYC in line with the recommendations of FATF (2012), but this is still a work in progress. It seems that banks still tend to demand a range of documentation to open accounts, perhaps because of a risk-averse interpretation of regulation and perhaps for other reasons related to their business model.

A second option has been to license MNOs or other non-bank entities to offer mobile money accounts with less stringent KYC requirements than for bank accounts. Mobile phone ownership has grown rapidly in many countries together with the estimated number of unique SIM holders, mobile money has taken off in a big way in only a limited number of countries. The reasons probably go beyond documentation requirements, to include permission for MNOs or other non-banks to provide financial services to their customers without requiring them to become licensed as banks.

Box 2. The Philippines

Findex 2017 estimates financial inclusion in the Philippines at only 34%. Some 45% of adults who do not possess a bank account cite lack of documentation as a reason; with a Findex Documentation Dominance score of 0.96, documentation is about as much as much of a barrier as distance or cost. Commercial banks are required to ask for ID and for extensive ID+. The country does not yet have a widely held national ID, yet, according to the National Baseline Survey on Financial Inclusion (Bangko Sentral ng Pilipinas, 2015), some form of ID is required for some 94% of the transactions surveyed. ID+ includes up to six pieces of evidence (Figure 4), a formidable requirement in a country with considerable informality. Estimates from the Asian Development Bank indicate that KYC processes can cost between 5 to 10 USD per person (2018) and that verifying someone's credentials can take up to 2 to 4 weeks (2017).

Fortunately, policymakers are encouraging the implementation of a National ID Strategy (PhilSys). According to the same ADB study, benefits are substantial: "*comparing the cost and benefits, there are significant net benefits – with a net present value (NPV) of US$517 million – that should encourage financial institutions to adopt the digital national ID as a priority*". Stronger ID could also enable regulators to streamline ID+ requirements.

Looking to the future, there seem to be four approaches to ease the problem.

- **Reinforce risk-based KYC.** From our sample, around 50 percent of countries offer some form of simplification, and our analysis suggests that this might have a favorable impact on financial inclusion. However, it does not seem that, as now applied and interpreted, risk-based KYC is fully applied, an adverse result for FATF because of the greater risk of harmful transactions on the unregulated financial markets. As argued by Pisa and Woodsome (2019), FATF should require assessors to encourage the use of simplified due diligence measures unless there is good reason not to and should explicitly justify cases where risks are too high or regulatory capacity too low to do so. Perhaps each year FATF should offer a public commendation to country regulators who have applied risk-based KYC in an effective way. This would help to balance out the perception that stricter is always better, and also create a body of case practice. Building on studies like de Koker and Symington (2011), more research is also needed to understand actual bank behavior and the motivation behind it.

- **Draw on the evolving experience with mobile money to create recommended regulatory practices to unleash the power of competition at the base of the financial pyramid.** This could be an extension of the risk-based approach already endorsed by FATF. FATF could play a powerful role in encouraging regulators to take advantage of risk-based KYC by licensing non-banks to offer a range of services, subject, of course, to appropriate prudential requirements (trust accounts held with banks) and supervision.

Take advantage of new technology in two ways to further ease KYC documentary requirements while still maintaining AML/CFT controls:

- **To simplify KYC, shift from weak identifiers like proof of address to more robust ID-based identification in the many countries that are implementing such systems.** This follows the observation of FATF 2017 that many countries have not exploited the improvements in their ID systems, including through the use of digital biometrics, to ease up on other requirements. India offers an outstanding example with the use of Aadhaar to provide e-KYC; Peru offers another case of a country that does not require documentation beyond that provided by its ID system **(Box 3)**.

Box 3. Peru

According to the Registro Nacional de Identificación y Estado Civil (RENIEC) (2018), almost every Peruvian possesses an ID (99.2%); Findex estimates 98 percent do. Per the FICP Survey, commercial banks require a government issued ID to open an account but no ID+. Peru also has effective online means to verify the ID card with RENIEC and to authenticate biometrically, if required. For banks, these services have costs, but they are relatively modest.

Still, according to Findex, only 43% of Peruvian adults possess a bank account in a financial institution. While 29% of those without an account cited a documentation constraint, this was far below the percentage who cited cost (59 percent) and less than those who cited distance (31 percent) resulting in a Documentation Dominance score of only 0.63. Mobile money services are not yet highly used by the Peruvian population, but account openings "can be purely electronic, and IDs can be checked subsequently to the account being opened" (World Bank, 2014)

On face value, identification requirements are therefore not likely to be a binding constraint in Peru. A demand-side assessment by the Superintendence of Banking, Insurance and Private Pension Fund Administrators of Peru (SBS) (2017) finds that it is mentioned as a major constraint by only 4% of respondents, while the perspective of usage and/or awareness was cited by more than 30%. The question then arises of how to interpret the 29% estimate of Findex; this could reflect lack of awareness, or the practice of banks rather than regulatory requirements. Further research would be needed to resolve these differences.

- **Shift from customer documentation requirements to the analysis of transactional data.** With financial accounts linked to unique ID numbers, digital technology enables an integrated view of clients across all of their accounts, and real-time monitoring of all financial flows, including through the use of AI to spot suspicious patterns of activity. New digital technology offers the potential to combine biometrics with behavioral characteristics. This will provide much stronger

KYC than in a world where identification occurs intermittently. By using customer data, verification of identity can occur continuously.[27] Individual banks are already monitoring flows actively, using receipts and payments data to create a picture of their customers with a view to tailoring lending and other services to their needs. Regulators would of course need to ensure transparency and data protection in the process, as well as maintaining privacy and commercial confidentiality. Nevertheless, in the vast majority of cases it should be possible to flag patterns of suspicious transactions without violating the confidentiality of clients.

[27] Cooper, Rusare, van der Linden and Ferreira (2018)

References

Alliance for Financial Inclusion (AFI). (2019). KYC Innovations, Financial Inclusion and Integrity in Selected AFI Member Countries. Kuala Lumpur: AFI.

Asian Development Bank. (2017). Accelerating Financial Inclusion in South-East Asia with Digital Finance. Manila: Asian Development Bank.

Asian Development Bank. (2018). Financial Inclusion Framework Strengthening - Digital National Identification for Financial Inclusion: Final Report. Manila: Asian Development Bank.

Bangko Sentral ng Pilipinas. (2015). National Baseline Survey on Financial Inclusion. Manila: Bangko Sentral ng Pilipinas.

Basel Committee on Banking Supervision. (2001). Customer due diligence for banks. Basel: Bank for International Settlements.

CGAP. (2011). CGAP G2P Research Project: Colombia Country Report. Washington DC: CGAP.

Cooper, B., Rusare, M., van der Linden, A., and Ferreira, M. (2018). Biometrics and financial inclusion: A roadmap for implementing biometric identity systems in sub-Saharan Africa. CENFRI, Belville, South Africa. March. https://cenfri.org/wp-content/uploads/2018/03/Biometrics-and-financial-inclusion_Cenfri-FSDA_March-2018-2.pdf

De Koker, L. and Symington, J. (2011). Conservative compliance Behaviour: Drivers of conservative compliance responses in the South African financial services industry. Finmark Trust, August. https://cenfri.org/wp-content/uploads/2011/12/Conservative-compliance-behaviour_FinMark-Trust_August-2011.pdf

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution. Washington DC: World Bank.

Elliehausen, G. (1998). The cost of banking regulation: A review of the evidence. Federal Reserve Bulletin, 84(4): 252-253.

FATF. (2012). International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation: The FATF Recommendations. Paris: FATF.

FATF. (2013). Methodology for Assessing Compliance with the FATF Recommendations and the Effectiveness of AML/CFT System. Paris: FATF.

FATF. (2017). FATF Guidance: Anti-Money Laundering and Terrorist Financing Measures and Financial Inclusion, with a supplement on Customer Due Diligence. Paris: FATF.

Ferreira, M., van der Linden, A., & Cooper, B. (2018, December 4). Proof of Address must fall. Retrieved from CENFRI: https://cenfri.org/blog/proof-of-address-must-fall/

Financial Times. (2015, April 17). HSBC Wrestles with Soaring Costs of Compliance. Retrieved from Financial Times: www.ft.com/cms/s/0/0e3f0760-1bef-11e4-9666-

Gelb, A. (2016). Balancing Financial Integrity with Financial Inclusion: The Risk-Based Approach to "Know Your Customer" CGD Policy Paper 74. Washington DC: Center for Global Development.

Gelb, A., & Metz, A. (2018). Identification Revolution: Can Digital ID be Harnessed for Development? Washington DC: Center for Global Development.

Global Partnership for Financial Inclusion. (2011). Mexico's engagement with the standard setting bodies and the implications for financial inclusion. Bangkok: Alliance for Financial Inclusion (AFI).

GSMA. (2018). Access to Mobile Services and Proof-of-Identity: Global policy trends, dependencies and risks. London: GSM Association.

GSMA. (2019). Access to Mobile Services and Proof of Identity 2019: Assessing the impact on digital and financial inclusion. London: GSM Association.

GSMA. (2019). Overcoming the Know Your Customer hurdle: Innovative solutions for the mobile money sector. London: GSM Association.

Haber, S., & Mussachio, A. (2013). These are the good old days: foreign entry and the Mexican banking system. National Bureau of Economic Research.

Hardy, D. (2006). Regulatory Capture in Banking. Washington, DC: International Monetary Fund.

Identification for Development (ID4D). (2019). Identity Authentication and Verification Fees: Overview of Current Practices. Washington, DC: World Bank Group.

KPMG. (2015, April 17). Global Anti-Money Laundering Survey. Retrieved from KPMG: http://www.kpmg.com/KY/en/IssuesAndInsights/ArticlesPublications/PublishingImages/global-anti-money-laundering-survey-v3.pdf

Martínez Gutiérrez, A. L. (2018). ¿Quién tiene acceso al crédito en México? Discriminación por color de piel en el mercado crediticio mexicano. Tesis doctoral. Centro de Investigación y Docencia Económicas.

Mattern, M., & McKay, C. (2018, June). Building Inclusive Payment Ecosystems in Tanzania and Ghana. Retrieved from CGAP: https://www.cgap.org/research/publication/building-inclusive-payment-ecosystems-tanzania-and-ghana

Ndung'u, N. (2019). Digital Technology and State Capacity in Kenya. Washington, DC: CGD Policy Paper 154.

Pisa, M., & Woodsome, J. (2019, February 7). Overcoming the "Know Your Customer" Hurdle with E-KYC. Retrieved from Center for Global Development: https://www.cgdev.org/blog/overcoming-know-your-customer-hurdle-e-kyc

PWC. (2003). Anti-money Laundering Current Customer Review Cost Benefit Analysis. London: The Financial Services Authority.

Registro Nacional de Identificación y Estado Civil. (2018). Correspondence with RENIEC. Lima: RENIEC.

Sathye, M. (2008). Estimating the cost of compliance of AML/CTF for financial institutions in Australia. Journal of Financial Crime, 15(4): 347-363.

Suárez, S. (2016). Poor people's money: The politics of mobile money in Mexico and Kenya. Telecommunications Policy, 945-955.

Superintendencia de Banca, Seguros y AFP. (2017). Encuesta Nacional de Demanda de Servicios Financieros y Nivel de Cultura Financiera en el Perú. Lima: SBS.

Veris Consulting. (2013). The Global Cost of Anti-Money-Laundering Compliance. Washington, DC: Veris Consulting.

World Bank. (2009). Banking the Poor: Measuring Banking Access in 54 Economies. Washington DC: World Bank.

World Bank. (2014). The Potential of New Delivery and Business Models for Financial Inclusion in Peru. Washington, DC: World Bank.
World Bank. (2017). Global Financial Inclusion and Consumer Protection Survey: 2017 Report. Washington, DC: World Bank.

Annex 1. Findex Data for Some Countries

	2014			2017		
Country	Account (% age 15+)	Financial institution account (% age 15+)	Mobile money account (% age 15+)	Account (% age 15+)	Financial institution account (% age 15+)	Mobile money account (% age 15+)
Azerbaijan	29%	29%		29%	29%	
Botswana	52%	49%	21%	51%	45%	24%
Egypt, Arab Rep.	14%	14%	1%	33%	32%	2%
Haiti	19%	17%	4%	33%	28%	14%
Cambodia	22%	13%	13%	22%	18%	6%
Lesotho	n.d.	n.d.	n.d.	46%	33%	28%
Myanmar	23%	23%	0%	26%	26%	1%
Mauritania	23%	20%	6%	21%	19%	4%
Mauritius	82%	82%	1%	90%	89%	6%
Malawi	18%	16%	4%	34%	23%	20%
Nigeria	44%	44%	2%	40%	39%	6%

Annex 2. Documentation Required at Commercial Banks and Financial Inclusion