BBVA | RESEARCH

Working Paper n° 15/10
Madrid, April 2015

Extending access to the formal financial system: the banking correspondent business model

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Abstract

New ways of understanding banking, technological improvements, and regulation yield new means of interaction between customers and banks through outsourcing agreements. This paper presents a study of the banking correspondent business model to understand how they contribute to enhance financial inclusion. Also, we provide the first harmonised database with information about the number of banking correspondents by country, which helps in measuring access to the formal financial system. This database includes two types of information: the number of pure banking correspondent outlets (for 70 countries) and a classification of the e-money providers (in 73 countries).

Keywords: banking correspondents, e-money, outsourcing.

JEL: G21, O16, L23.

* The authors want to thank Andrea Real Ruiz, Ignacio Aparicio Torices and María Rodríguez Urbano for their excellent research assistance. We are also grateful to the Economic and Commercial offices of Spain in Argel, Berlin, Brussels, Cairo, Copenhagen, Lagos, Malabo and Vienna for providing contacts and information. We thank Carlos López Moctezuma for useful comments on this draft. No part of our remunerations were, are or will be related to the findings obtained in this paper.
Corresponding author: noelia.camara@bbva.com.
The reference citation for the Banking Correspondent database is Cámara, Tuesta & Urbiola (2015). “Extending access to the formal financial system: the banking correspondent business model”. BBVA Research Working Paper 15/10.

1 Introduction and Motivation

Financial inclusion improves social well-being and alleviates poverty. The usage of formal financial services buffers individuals against liquidity shocks, allows for saving with safe financial tools, obviates the unnecessary liquidation of illiquid investments, and channels savings from unproductive liquid assets toward investments in productive capital.

However, the question of how to build inclusive financial systems is not straightforward, and this is particularly important in developing countries and emerging markets, where banking penetration rates are relatively low. Financial inclusion is the situation in which all working age adults have effective access – i.e. usage option – to financial products such as payments, savings, credit and insurance from formal service providers. Effective access involves convenient and responsible service delivery, at a cost affordable to the customer and sustainable for the provider, with the result that financially excluded customers use formal financial services rather than existing informal options, which is usually quite expensive. This paper focuses on access, which is an important driver for financial inclusion, to shed some light on the understanding and measurement of this dimension.

According to Cámara and Tuesta (2014), access is the most important dimension when defining financial inclusion and represents a necessary but insufficient condition for using formal financial services.[1] Also, the lending literature provides evidence that bank–borrower proximity is important to improve small businesses' access to credit, since it eases interactions that reveal private information about the borrower to the lender. Ergungor (2010) finds a significant positive relationship between branch access and loan originations and a significant negative relationship between branch access and interest spreads. He shows that the presence of a bank branch in a low-income community improves the access to mortgage loans in the area by reducing the distance-related frictions in the information gathering process. Access to credit has been found to be crucial for the low-income population because of the ability to invest in productive assets, and the associated rise in wealth that encourages investment in human capital and increases both productivity and quality of life (Galor and Zeira, 1993; Wolfensohn and Bourguignon, 2004).

The World Bank's objective of reaching universal access to formal financial services by 2020 aims to foster financial inclusion. However, traditional access channels, such as bank branches and ATMs, seem to be limited in guaranteeing universal financial access, especially for low-income people who face important barriers to using formal financial services through the traditional channels. Apart from these channels, there are new means of access. Technology makes it possible for almost any brick-and-mortar outlet to provide basic financial services on behalf of the banks. At the same time, regulation increasingly permits banks to outsource some services, which allows them to reduce costs. Therefore, technology and regulation facilitate the emergence of a new branchless channel, i.e. banking correspondents, with the potential to reach millions of unbanked people more rapidly.

While there is harmonised information on the number of bank branches and ATMs provided by the International Monetary Fund (IMF), there is no systematic information about the availability of other branchless access points. The Financial Access Survey (FAS) developed by the IMF compiles country level data since 2004 on bank branches and ATMs. For the first time, in 2014, this database includes information on mobile money agents for 35 countries. However, information on banking correspondents remains scarce. In this context, this paper aims to contribute to the effort of improving the understanding of access to the formal financial services through the banking correspondent business model. Our contribution is twofold. First, we present a database with the number of banking correspondents across countries. We aim to get a

1: See Cámara and Tuesta (2014) for a detailed discussion.

sense of the order of magnitude and, more importantly, to start a project to collect harmonised information, across countries and over time, to analyse the speed at which access is growing through this business model and the regional variations in this trend. Second, as financial inclusion relies on customers' engagement with the formal financial system, we classify banking correspondents according to the degree of engagement that they facilitate.

Banking correspondents are non-financial commercial establishments that offer basic financial services under the name of a financial services provider, becoming access points to the formal financial system. Those establishments can belong to a broad range of sectors (grocery, gas stations, postal services, pharmacies, etc.), as long as they are bricks-and-mortar stores whose core business involves managing cash. In its most basic version, banking correspondents carry out only transactional operations (cash in, cash out and bill payments) but in many cases they have evolved to serve as a distribution channel for the banks' credit, saving and insurance products. The key difference with respect to other financial channels such as in-store branches or kiosks is that, in the banking correspondent business model, the financial services are provided by the employees of the commercial establishment itself, not by the bank's employees or machines. This business model makes it sustainable for banks to focus on low-income clients with cost-efficient access channels.

In areas where bank branches are a long way away from households, banking correspondents pool the cash requirements of all customers and reduce the number of costly (and sometimes risky) trips to the bank. Moreover, since deposits and withdrawals are offset at the agent's till, the total amount of cash that needs to be transported to the bank branch is also reduced. Thus, the banking correspondent business model leads to economic efficiencies.

We assume that actual financial inclusion can be achieved when individuals are engaged with a formal financial institution.[2] Depending on the degree of engagement that banking correspondents facilitate with the formal financial system, we identify two different models of banking correspondents: pure and hybrid. The pure model facilitates the highest degree of engagement between individuals and the formal financial system, whereas the hybrid model represents a lower (conditional) level of engagement. Nevertheless, given that there is a link with a formal financial institution, both may enhance financial inclusion.

Over the past decade, the emergence of 'mobile money' – the practice of sending, receiving, and storing money using mobile phones – has grown exponentially in developing countries. However, when there is not a financial intermediary involved, we only consider this new channel as an early stage of financial inclusion.

The rest of the paper is organised as follows. Section 2 defines and characterises the banking correspondent business model. Section 3 presents the information contained in our database. Section 4 concludes.

2: Formal financial institutions are those legally allowed to conduct financial intermediation, i.e. taking deposits from the general public and using them to provide credit. We focus on banks as formal financial institutions because other financial companies, such as microfinance institutions, have a different status depending on the country-specific regulation. There are some governments that do not allow those financial institutions to take deposits from the general public.

2 Banking correspondents' characteristics and classification

2.1. Classification of banking correspondent models

2.1.1. Pure banking correspondents: outsourcing in the banking sector

Outsourcing in the service sector has been expanding dramatically in recent years and this trend is likely to continue. Thanks to advances in information and communication technologies, some value chains can now be sliced up. Particularly, across the banking-financial service industry, as company strategies become more complex, it becomes efficient to outsource the stages of the value chain that are less human capital-intensive or simpler from a technological point of view. This allows financial service providers to have a greater presence in markets through a third-party model while retaining "in-house" processes that are more complex. As a result, financial institutions benefit from having coverage in places where establishing a bank branch would be inefficient, and customers gain greater access to formal financial services.

We define pure banking correspondents as a branchless channel that generates direct physical access points to the formal financial system (see Figure 1). Pure banking correspondents enter into direct agreements with banks to offer financial services on their behalf.[3] This outsourcing agreement allows banks to turn fixed costs into variable costs, lowering and making more flexible their cost structure. In particular, banks have two main incentives for outsourcing their most basic customer contact activities to retail agents. First, correspondents allow banks to reach new customer segments (low-income, rural, etc.) that are too costly to serve with bank branches, due to the fixed costs involved. Second, in the case of areas already covered by bank branches, transferring some activities to correspondents (i.e. channel substitution) allows banks to cut costs and concentrate their employees' efforts in more value-added activities while also decongesting bank branches and increasing convenience for customers.[4]

From the customers' perspective, operating in a pure banking correspondent is equivalent to operating in a bank branch.

2.1.2. Hybrid banking correspondents: indirect or potential access points to the formal financial system

Hybrid banking correspondents offer financial services on behalf of non-bank electronic money issuers[5] which, at the same time, have agreements with banks guaranteeing indirect or potential access to the formal financial system (see Figure 1). Indirect access takes place when it is possible to make transfers from e-money accounts to bank accounts or to manage bank accounts from e-money applications. Yet financial inclusion depends on the demand-side taking the initiative to contract banking services and using the e-money correspondent as an indirect access channel (depositing money in the e-money account and then transferring funds to the bank account). On the other hand, potential access occurs when the e-money product is offered by a non-bank institution in partnership with banks. In this case, formal financial institutions

3: The origin of the banking correspondent business model dates from 2000 in Brazil. After a Central Bank's resolution formally recognising banking correspondents, Caixa Econômica Federal expanded its existing partnership with the national chain of lottery shops to broaden the range of services offered in those locations (Kumar et al., 2006).
4: In general, banking correspondents are a complementary access channel to branches. However, a few banks use agents as their primary distribution channel. This is the case of some postal banks that were legally separated from the postal services' company but continue using the post offices network as their main (or even the only) distribution channel.
5: Electronic money or e-money is a financial instrument that stores value electronically against the receipt by the issuer of the equivalent funds. It is accepted as a payment instrument by third parties other than the issuer and may be converted back into cash. The value is stored on an electronic device that may be an Internet account, a prepaid payment card or other smart cards such as a mobile phone card.

have access to the customers' database and may exploit it to offer banking products such as savings or credit. In this case, the initiative for financial inclusion to occur relies on the supply side.

As most non-bank e-money issuers are mobile network operators, they have always used retail agents to sell pre-paid airtime. These pre-existing agent networks are also used as a distribution channel for financial services when firms enter the e-money business. Therefore, mobile network operators face lower entry costs than banks to offer basic financial services in remote or widely dispersed areas.

There are other agents outside the formal financial system that offer e-money services on the basis of a correspondent model. In this case the role of banks is non-existent or negligible in fostering financial inclusion. We consider this group of agents as other financial services' correspondents and they may comprise only a preliminary step towards financial inclusion.

2.2. Banking correspondent attributes

There are some necessary conditions that any bricks-and-mortar store needs to fulfil to become eligible as a banking correspondent: managing cash, having a bank or e-money account and being connected to a telecommunications network.

Technology is the essential element that enables the banking correspondent business model to function. It facilitates the remote interaction between the financial services' provider and its customers at the agent's outlet. In the most traditional system, the interaction takes place using bank cards and point-of-sale (POS) devices connected to the bank through a phone line, wireless or satellite technology. In the case of e-money products, the interaction usually takes place using mobile phones. As well as the appropriate technological connection, banking correspondents need to have an active bank or e-money account to offset the cash transactions processed at their till. The procedure works as follows. When a customer makes a cash deposit at a banking correspondent, the same amount of money is automatically withdrawn from the agent's account and transferred to the customer's account. As this automatic clearance requires banking correspondents to hold enough balance in their accounts, banks sometimes grant them with a credit line or overdraft facility under favourable conditions with the aim of facilitating the banking correspondent business model. In the case of cash withdrawals, the remote interaction with the bank allows, first of all, checking that the customer has enough funds in his or her account. Then, the banking correspondent provides cash to the customer from its till and the bank transfers the same amount of money from the customer's to the agent's account. Thus, interaction in real time between the three parties (bank, agent and customer), together with the automatic clearance process, creates a safe environment for all parties with no additional settlement risk.

Apart from the necessary requirements, there are some attributes that make a particular bricks-and-mortar store particularly valuable as a banking agent. First, proximity, since the closer the merchant is to the customers, the more the access to the formal financial system is extended. A similar argument applies to opening hours. Second, security conditions are also valuable, since the banking correspondent business increases the amount of cash handled by the store and its customers. Although banks are not exposed to the risk of burglary (the cash is either the agent's or the customers'), they are concerned about the reputational implications of extending access to their services through risky locations. Third, the degree of trust that a store inspires in its customers conditions its potential as a banking distribution channel. Poor people may be prevented from going to bank branches because they are new environments for them where they do not know how to behave, in contrast to local merchants whom they know well. Particularly reliable businesses, such as pharmacies or post offices, may improve the reputation of the financial system when used as agents.

Finally, the merchant business structure is also important for the banking correspondents' deployment. Retail chains or franchises offer some advantages over smaller independent merchants. On the one hand, costs

are lower if a single eligibility screening, contract negotiation and overdraft facility is needed to establish a collection of agents. On the other hand, chains facilitate the advertising of the new banking channel as they have widespread name recognition. However, smaller independent merchants enable extending access to the formal financial system in remote areas where retail chains have not spread. In this case, to overcome the difficulties of managing a large network of independent agents, some banks have outsourced functions such as agent selection, contracting, installation, training and support to external service companies. These agent-management firms benefit from economies of scale, since they can build a large network of retail stores and offer correspondent services to banks, remittance firms, insurance companies and mobile network operators, among other firms.

2.3. Operations and compensation

The range and complexity of the operations offered by banking correspondents depend on each bank's distribution strategy and the country-specific regulation of banking agents. In general, banking correspondents conduct transactional operations such as cash-in, cash-out and bill payments. As these are low value-added activities for banks and do not require highly skilled human capital, they have been the first to be outsourced to agents. Yet in some cases the banking correspondent business model has developed further to serve as a distribution channel where basic accounts, credit, saving and insurance products are marketed and contracted. These activities not only need specific and higher-skilled human capital but also they are much more sensitive to the banks' strategy and customer relationships. Moreover, there is a risk of misalignment of incentives if banking correspondents are in charge of marketing credit products, as they may be particularly interested in targeting customers that need the money to purchase the store's products. Thus, outsourcing these activities requires a higher degree of trust, engagement and incentives' alignment between the bank and its correspondents. However, some countries impose legal restrictions on banks outsourcing some operations, such as opening an account, that involve Know Your Customer (KYC) requirements. In the context of anti-money laundering (AML) and combating the financing of terrorism (CFT) measures, banks are usually required to check for themselves the identity of their account holders.

From a theoretical point of view, the competitive environment among financial service providers and among agents (that may or not be exclusive to one bank or e-money issuer) should determine the pricing strategy. In general, banking correspondents get a monetary compensation in exchange for the financial services they provide on behalf of banks or e-money issuers. The standard compensation scheme is based on the number and amount of transactions and is generally paid by the financial services' providers. In addition to the monetary compensation, the banking correspondent business model has indirect benefits for merchants such as an increase in the flow of people into the stores (potential customers) and, in some cases, reputational benefits derived from linking their retail business with the bank's brand.

3 The database

Our database covers 101 developed and less developed countries. The information is divided into two tables. The first one contains the number of outlets that we identify as pure banking correspondents, with available data for 70 countries, which is our main contribution. The second table provides a classification of e-money providers, for 73 countries, that are prone to be delivered through banking correspondent networks. We are not able to compile the number of hybrid banking correspondents due to the scarcity of the information offered, in general, by non-bank e-money issuers. Given this constraint, we address this issue by building the second table of our database that compiles and classifies the number of e-money providers according to the degree of engagement with a bank that is provided to users; in other words, in terms of their mechanisms to improve financial inclusion. This is a by-product that aims to be an indicator of the relevance of the different models of banking correspondents. In the case where these e-money services are delivered by agents, it yields the same classification as for banking correspondents.

3.1. Pure banking correspondents

The first part of our database includes information about the number of pure banking correspondent outlets. Since there is no harmonised information on the number of these outlets in the different countries, our strategy for collecting the data is twofold. First, we compile data from official statistics such as central banks, government departments and banking authorities when available for the country. Also, we consider as official data those provided by financial industry associations or non-profit organisations analysing financial inclusion. Second, for countries with no statistics available, we conduct our own search of the existence of the banking correspondent business model and compile data which is self-reported by banks or agents. In this case, we identify a retail outlet as a pure banking correspondent when it offers at least one of the following services on behalf of a bank: i) cash-in and cash-out, or ii) marketing of bank accounts or credit or saving products. We consider those as the minimum available services that would lead to a significant improvement in financial inclusion. In addition, the retail outlet and the bank have to be legally separated entities, although they may share ownership, with one being a subsidiary of the other.[6] Data collected from different sources have only been added when we have adequately ensured there is no multiple counting. Adding the number of correspondents reported by different banks involves a risk of multiple counting when some retail outlets offer financial services in the name of more than one bank; in other words, when there is no exclusivity agreement.

Table 1 presents the number of pure banking correspondent outlets per 100,000 adults and per 1,000 square kilometres for the countries in our sample. As we observe, the largest number of banking correspondents per 100,000 adult population is in Bangladesh (530 outlets), followed by Colombia (275) and Brazil (253). Seven out of the top 10 are Latin American countries: Colombia, Brazil, Chile, Peru, Costa Rica, Guatemala and Ecuador. Latin America and the Caribbean is the world region with the highest rate of pure banking correspondents (136 outlets per 100,000 adults), followed at a considerable distance by South Asia (83) and Middle East and North Africa (72), as shown in Table 2.[7] The prevalence of the pure model of banking correspondents in Latin America is consistent with the emergence of this business model in Brazil in the year 2000, and with the pioneering specific regulation introduced by many countries in the region. This may be in part promoted by the long-standing banking tradition in this region relative to other emerging markets.

6: We have established this requirement based on the definition of bank branches according to the IMF's Financial Access Survey (FAS): "The number of branches, excluding headquarters, includes all units of each type of reporting institution covered in the FAS that provide financial services to customers and are physically separated from the main office but not organized as legally separated subsidiaries" (IMF, 2012).
7: These aggregated data need to be treated with caution since we do not have complete information for all the countries in the region.

3. 2. E-money providers

The second part of our database classifies e-money providers according to their degree of engagement with the formal financial system. The data provided in this part relies on the information offered by the GSMA's 'Mobile Money for the Unbanked Deployment Tracker'. This is the most complete database of mobile money providers in emerging countries.[8] Although this database does not incorporate any information for developed countries, this is not an important limitation for analysing the banking correspondent business model in terms of financial inclusion. While developing countries face important access limitations that can be filled in by banking correspondents, access is almost universal in developed countries.

Our database covers 218 mobile money services in 73 countries. They are classified according to the role of banks in each service, which determines the model of their potential agent network (in case they have one): pure banking correspondents, hybrid banking correspondents or other financial services' correspondents.[9] As we mentioned in the previous sections, pure banking correspondents are direct access points to the formal financial system, whereas hybrid banking correspondents are indirect or potential access points to the formal financial system. We classify as other financial services' correspondents the ones that are outside the formal financial system.

Our classification requirements for the e-money providers are as follows:

- The e-money product is offered by a bank, either alone or partnered with another company. Thus, its potential agent network would fit into the pure banking correspondent model.
- When the e-money product is offered by a non-bank institution, its potential agent network would fit into the hybrid banking correspondent model if at least one of the following conditions is met: i) the e-money service is offered in partnership with a bank[10], or ii) it is possible to transfer funds from the e-money account to bank accounts.
- For the remaining e-money products — i.e. with negligible or no bank participation — their potential agents are classified as other financial services' correspondents.

Table 3 shows that India (8 providers), Nigeria (7) and Kenya (6) are the countries with more e-money providers satisfying the hybrid requirements. If these services are distributed through agents, they will be defined as hybrid banking correspondents.

In the data aggregated by region (Table 4), Sub-Saharan Africa stands out with the largest number of e-money providers (56) that may potentially have hybrid banking correspondents. Such a large number of hybrid providers should not be surprising, given the more permissive regulatory environments on the continent. In this region, mobile network operators have led the way for financial inclusion by drawing on the high penetration of mobile phones among the unbanked population. Regarding banks, in many cases they have played a secondary role as partners of the telecom firms in the deployment of e-money services. The hybrid model of banking correspondents would also be important in South Asia (14 providers), East Asia and Pacific (8) and Middle East and North Africa (7).

8: The GSMA database compiles information on products that fit into a broad definition of mobile money. This definition includes both e-money and bank accounts managed through mobile devices. In our database we restrict the range of products to e-money accounts offered to the general public. Mobile bank accounts are considered in the pure banking correspondent database when they can be accessed through a network agent.
9: Some of the numbers in this database might have certain margins of error. Our aim in this section is not to get an exact figure for the number of hybrid providers in the world that may use a banking correspondent model, but a sense of the order of magnitude and the regional variations.
10: This is not a straightforward criteria as many non-bank e-money providers report to have banks among their partners, with an unclear degree of engagement. We only consider those cases in which the e-money provider reports "offering" the product in partnership with a bank.

4 Conclusions

Access to the formal financial services is a necessary condition to foster formal financial inclusion. The literature on development asserts that financial inclusion, understood as the usage of quality formal financial services, increases individuals' welfare. On the one hand, access to formal credit fosters investment in productive assets, and the associated rise in wealth encourages investment in human capital and increases productivity (Bencivenga and Smith, 1991). On the other hand, formal savings help agents to mitigate unexpected future income shocks by insuring against random liquidity needs and reduce the everyday risk of being robbed. However, to date relatively little progress has been made towards compiling systematic information to measure access through new channels. The International Monetary Fund (IMF) provides harmonised information on the number of bank branches and ATMs, but there is very limited systematic information about the number of access points provided by new branchless delivery channels (i.e. banking correspondents, internet and mobile phones).

Our contribution in this paper is twofold. First, we provide the first database with systematic information on the number of banking correspondents. It covers 70 developed and less-developed countries and includes country level information of the number of non-financial outlets that are a point of access to the formal financial system. We aim to get a sense of the order of magnitude and, more importantly, to start a project to collect harmonised information, across countries and over time, to analyse the speed at which access is growing through this business model and the regional variations in this trend. We also offer a database with information about the number of e-money providers and their classification. This is a by-product that aims to satisfy the absence of information on the number of banking correspondents in several countries. Second, we explore how banking correspondents contribute to enhancing financial inclusion. We classify the banking correspondent models in terms of the degree of engagement that they facilitate between individuals and the formal financial system, i.e. in terms of their mechanisms to improve financial inclusion. The pure model facilitates the highest degree of engagement between individuals and the formal financial system, whereas the hybrid model represents a lower (conditional) level of engagement. Nevertheless, given that there is a link with a formal financial institution, they may still enhance financial inclusion.

New ways of delivering banking services, such as banking correspondents, aim to broaden access to the formal financial system and promote financial inclusion. People who generally do not use formal financial services, due to access restrictions to more conventional banking channels (i.e. branches and ATMs), especially benefit from this business model. We focus on banking correspondents as a type of branchless access channel to offer information about the number of these access points. We are interested in both pure and hybrid models of banking correspondents, since they each generate plausible access (direct, indirect or potential) to the formal financial system, so that they enhance financial inclusion. Other financial services' correspondents are agents outside the formal financial system and the services they offer represent an early stage of financial inclusion.

We observe that the pure banking correspondent model is widespread in Latin America and the Caribbean. This may be due to the relatively advanced banking tradition in this region compared to other developing areas. Also regulation plays a significant role with many countries having specific regulations affecting this business model. The banking correspondent model is not usual in the developed world since access through the traditional banking channels - ATMs and branches - is not limited, and banking through the internet is increasingly popular.

When it comes to the extent of the hybrid model of banking correspondents, proxied by the number of hybrid e-money providers, the largest numbers are in Sub-Saharan Africa. This region has a less-developed

banking tradition but high penetration of mobile phones, so the mobile network operators are the main suppliers of this market by taking advantage of the e-money services and their extensive network of agents. Also, regulation favours this business model in the region.

Our database has some obvious constraints. First, some official statistics include not just banks' correspondents but also correspondents of microfinance institutions. Second, when the data that we provide have been compiled from banks or agents, the number of banking correspondents is a lower bound due to search limitations and our explicit decision of not adding data from different sources unless we have adequately ensured that there is not multiple counting. With these observations in mind, our database provides policy makers and researchers with geographic and demographic data on access to basic financial services worldwide through banking correspondents.

Appendix

Technical Notes relating to the pure banking correspondents database

Data compiled from postal services' self-reported information:

- Post offices that offer full-range banking services on their own, as well as performing services for third-party banks, are excluded from the database as they should be included as branches in the FAS database. We want to avoid counting the same access point in both databases, since our aim is to improve the measurement of access points to the formal financial system.
- Post offices that offer banking services on behalf of a postal bank are considered as banking correspondents as long as the postal service and the postal bank are legally separated entities, although they may share ultimate ownership.
- If financial services are offered at the post office by banks' employees, those locations are excluded from the database as they do not fit into the definition of banking correspondents. However, this information is not clear in all the cases. For instance, when post offices have specific "financial stands" where the postal bank's products are offered, we assume those stands are attended by the bank's employees and therefore they are not considered to be banking correspondents.

We exclude mobile post offices when the information available does not specify in which type of postal outlets banking correspondent services are offered.

Temporal issues

- There is no homogeneity on the specific month of data for each year.
- Data compiled from current information offered by banks or agents are assigned to year 2014 as it was the base year of the construction of these databases. However the information provided by some entities in their web pages might be slightly outdated.

References

Bencivenga, V. R., & Smith, B. D. (1991). Financial Intermediation and Endogenous Growth. The Review of Economic Studies, 58(2), 195-209.

Cámara, N., & Tuesta, D. (2014). Measuring Financial Inclusion: A Multidimensional Index. BBVA Research Working Paper, No. 14/26. Madrid, Spain: BBVA Research.

Ergungor, O. E. (2010). Bank Branch Presence and Access to Credit in Low- to Moderate- Income Neighborhoods. Journal of Money, Credit and Banking, 42(7), 1321-1349.

Galor, O., & Zeira, J. (1993). Income distribution and macroeconomics. The Review of Economic Studies, 60(1), 35–52.

GSMA (n.d.). Mobile Money for the Unbanked Deployment Tracker. Retrieved from: http://www.gsma.com/mobilefordevelopment/programmes/mobile-money-for-the-unbanked/insights/tracker

IMF (2012). Financial Access Survey Explanatory Notes. Retrieved from: http://fas.imf.org/misc/Explanatory_Notes.pdf

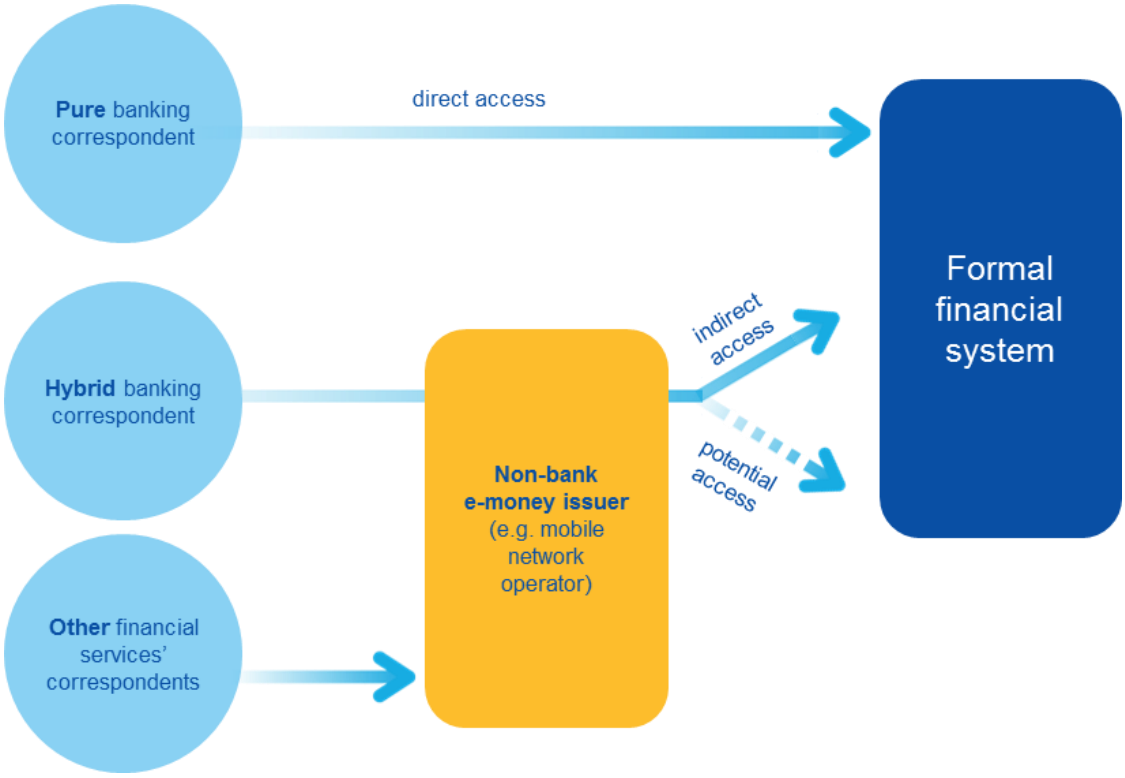
Kumar, A., Nair, A., Parsons, A., & Urdapilleta, E. (2006). Expanding bank outreach through retail partnerships: correspondent banking in Brazil. World Bank Working Paper, No. 85. Washington DC, USA: The World Bank.

Lyman, T., Ivatury, G., & Staschen, S. (2006). Use of agents in branchless banking for the poor: rewards, risks, and regulation. CGAP Focus Note, No. 38. Washington DC, USA: CGAP.

Wolfensohn, J. D., & Bourguignon, F. (2004). Development and poverty Reduction: Looking back, looking ahead. Washington DC, USA: The World Bank.

Tables and Figures

Figure 1
Banking correspondent models



Source: BBVA Research

Table 1

Pure banking correspondents database

	Pure banking correspondents per 100,000 adults				Pure banking correspondents per 1,000 sq. km			
	2011	2012	2013	2014	2011	2012	2013	2014
Afghanistan	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Algeria	n/a	n/a	n/a	11.9	n/a	n/a	n/a	1.3
Argentina	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Armenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Australia	n/a	n/a	n/a	20.8	n/a	n/a	n/a	0.4
Austria	n/a	n/a	24.9	n/a	n/a	n/a	16.9	n/a
Azerbaijan	13.2	14.1	14.0	14.7	10.0	10.9	11.0	11.5
Bangladesh*	n/a	n/a	n/a	529.7	n/a	n/a	n/a	3644.0
Belarus	n/a	n/a	n/a	42.9	n/a	n/a	n/a	13.9
Benin	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bolivia*	n/a	0.5	1.2	1.4	n/a	0.0	0.1	0.1
Bosnia and Herzegovina	n/a	n/a	n/a	10.2	n/a	n/a	n/a	5.3
Botswana	n/a	9.6	9.7	n/a	n/a	0.2	0.2	n/a
Brazil*	120.4	262.2	273.9	252.9	18.9	41.7	44.1	40.7
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Burkina Faso	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Burundi	n/a	n/a	n/a	2.6	n/a	n/a	n/a	5.1
Cambodia	n/a	n/a	n/a	10.4	n/a	n/a	n/a	5.5
Cameroon	n/a	n/a	n/a	0.3	n/a	n/a	n/a	0.1
Chad	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chile*	61.0	117.0	149.0	178.0	9.6	18.6	23.9	28.6
China*	n/a	n/a	50.4	n/a	n/a	n/a	52.3	n/a
Colombia*	64.3	108.5	153.9	275.0	17.5	29.9	43.1	77.0
Congo, Dem. Rep.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Congo, Rep.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Costa Rica	53.6	n/a	n/a	82.7	34.2	n/a	n/a	54.8
Croatia	n/a	n/a	n/a	35.7	n/a	n/a	n/a	18.0
Czech Republic	n/a	n/a	45.1	n/a	n/a	n/a	41.2	n/a
Dominican Republic*	n/a	n/a	n/a	10.1	n/a	n/a	n/a	13.8
Ecuador*	34.2	50.5	70.0	n/a	12.8	19.3	27.3	n/a
Egypt	7.5	7.4	46.0	46.0	3.8	3.8	23.8	23.8
El Salvador*	n/a	n/a	1.4	2.6	n/a	n/a	2.7	4.9
Estonia	n/a	n/a	n/a	38.4	n/a	n/a	n/a	7.4

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Table 1 (cont)

Pure banking correspondents database

	Pure banking correspondents per 100,000 adults				Pure banking correspondents per 1,000 sq. km			
	2011	2012	2013	2014	2011	2012	2013	2014
Gabon	n/a	n/a	n/a	53.1	n/a	n/a	n/a	1.9
Georgia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ghana	n/a	n/a	n/a	2.0	n/a	n/a	n/a	1.3
Greece	n/a	n/a	n/a	19.6	n/a	n/a	n/a	10.8
Guatemala*	50.1	62.7	70.0	79.9	36.8	47.5	54.7	62.4
Guinea	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Haiti	n/a	n/a	n/a	1.7	n/a	n/a	n/a	3.8
Honduras	n/a	n/a	n/a	12.3	n/a	n/a	n/a	5.3
Hungary	n/a	n/a	n/a	40.1	n/a	n/a	n/a	29.0
India*	10.2	17.5	26.9	n/a	24.6	42.9	67.3	n/a
Indonesia	n/a	n/a	n/a	2.2	n/a	n/a	n/a	1.9
Ireland	37.7	37.6	37.6	n/a	16.4	16.4	16.3	n/a
Jamaica	0.0	0.0	0.0	5.7	0.0	0.0	0.0	9.1
Jordan	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kazakhstan	n/a	n/a	n/a	27.8	n/a	n/a	n/a	1.2
Kenya*	n/a	n/a	n/a	28.9	n/a	n/a	n/a	12.2
Latvia	n/a	n/a	n/a	46.1	n/a	n/a	n/a	9.6
Lesotho	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Liberia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	43.1	n/a	n/a	n/a	13.5
Madagascar	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malawi*	n/a	n/a	0.5	1.5	n/a	n/a	0.3	1.1
Malaysia*	2.4	n/a	20.9	n/a	1.4	n/a	12.9	n/a
Mali	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mauritania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mauritius	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mexico*	27.4	30.2	31.8	33.7	10.7	12.0	12.9	13.7
Mongolia	n/a	n/a	n/a	20.4	n/a	n/a	n/a	0.3
Morocco	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mozambique	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Nepal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Zealand	n/a	n/a	n/a	25.3	n/a	n/a	n/a	2.8
Nicaragua	n/a	n/a	n/a	30.1	n/a	n/a	n/a	8.8
Niger	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Nigeria	n/a	n/a	n/a	3.4	n/a	n/a	n/a	3.4

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Pure banking correspondents database

	Pure banking correspondents per 100,000 adults				Pure banking correspondents per 1,000 sq. km			
	2011	2012	2013	2014	2011	2012	2013	2014
Pakistan*	16.3	37.8	97.9	n/a	22.0	52.2	138.4	n/a
Paraguay*	n/a	n/a	8.3	13.6	n/a	n/a	0.9	1.4
Peru*	56.6	76.6	96.7	125.5	8.4	11.5	14.8	19.2
Philippines	n/a	n/a	n/a	18.0	n/a	n/a	n/a	36.6
Poland	n/a	n/a	n/a	22.1	n/a	n/a	n/a	19.2
Portugal	n/a	n/a	9.0	n/a	n/a	n/a	6.8	n/a
Qatar	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	41.1	n/a	n/a	n/a	2.5
Rwanda*	n/a	13.6	31.8	33.1	n/a	32.0	77.7	81.0
Senegal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Serbia	30.0	30.0	29.9	n/a	17.1	17.0	16.9	n/a
Sierra Leone	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Singapore	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovak Republic	n/a	n/a	n/a	38.5	n/a	n/a	n/a	30.6
Slovenia	n/a	n/a	n/a	39.4	n/a	n/a	n/a	27.4
Somalia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Africa	n/a	n/a	n/a	26.1	n/a	n/a	n/a	7.4
Spain	n/a	n/a	n/a	7.4	n/a	n/a	n/a	4.5
Sudan	n/a	n/a	n/a	4.7	n/a	n/a	n/a	0.5
Swaziland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tanzania*	n/a	n/a	2.3	n/a	n/a	n/a	0.6	n/a
Thailand	n/a	n/a	n/a	2.9	n/a	n/a	n/a	2.7
Togo	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tunisia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	9.1	9.0	n/a	n/a	5.7	5.8	n/a
Uganda	0	0	0	0	0	0	0	0
United Kingdom	n/a	n/a	n/a	27.6	n/a	n/a	n/a	47.2
Uruguay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Venezuela*	4.6	12.0	14.4	n/a	1.0	2.6	3.1	n/a
Vietnam	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Zambia	n/a	n/a	2.2	n/a	n/a	n/a	0.2	n/a
Zimbabwe	n/a	n/a	n/a	19.7	n/a	n/a	n/a	4.0

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Source: BBVA Research

Table 2

Pure banking correspondents by world region

	Pure banking correspondents per 100,000 adults	Pure banking correspondents per 1,000 sq. Km
East Asia and Pacific	40.2	36.3
Eastern Europe and Central Asia	30.3	2.7
Latin America and the Caribbean	136.3	26.8
Middle East and North Africa	71.9	32.8
South Asia	82.5	221.9
Sub-Saharan Africa	9.2	3.0
Developed world*	22.7	3.7

* Developed world comprises Australia, Canada, United States, New Zealand and Western European countries. Due to modifications in official statistics, this database may be updated. Please check you are working with the latest version of this Working Paper published at www.bbvaresearch.com
Source: BBVA Research

Table 3

Classification of e-money providers based on their potential correspondent model

	Number of e-money providers		
	Pure	Hybrid	Other
Afghanistan	n/a	3	n/a
Algeria	n/a	n/a	n/a
Argentina	n/a	n/a	1
Armenia	n/a	1	n/a
Australia	n/a	n/a	n/a
Austria	n/a	n/a	n/a
Azerbaijan	n/a	n/a	n/a
Bangladesh	6	1	2
Belarus	n/a	n/a	n/a
Benin	n/a	1	2
Bolivia	n/a	n/a	1
Bosnia and Herzegovina	n/a	n/a	n/a
Botswana	1	1	1
Brazil	1	1	1
Bulgaria	n/a	n/a	1
Burkina Faso	n/a	1	2
Burundi	1	1	1
Cambodia	1	n/a	1
Cameroon	1	1	3
Chad	n/a	2	n/a
Chile	n/a	1	n/a
China	n/a	n/a	n/a
Colombia	3	n/a	1
Congo, Dem. Rep.	n/a	1	2
Congo, Rep.	n/a	2	n/a
Costa Rica	n/a	n/a	n/a
Croatia	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a

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N/a: no available data.

Table 3 (cont.)

Classification of e-money providers based on their potential correspondent model

	Number of e-money providers		
	Pure	**Hybrid**	**Other**
Dominican Republic	1	n/a	n/a
Ecuador	n/a	n/a	n/a
Egypt	1	3	n/a
El Salvador	n/a	n/a	2
Estonia	n/a	n/a	n/a
Gabon	1	2	1
Georgia	n/a	1	n/a
Ghana	n/a	2	2
Greece	n/a	n/a	n/a
Guatemala	1	n/a	1
Guinea	n/a	1	1
Haiti	1	1	1
Honduras	n/a	n/a	1
Hungary	n/a	n/a	n/a
India	4	8	2
Indonesia	2	3	1
Ireland	n/a	n/a	n/a
Jamaica	1	n/a	n/a
Jordan	n/a	1	1
Kazakhstan	n/a	n/a	n/a
Kenya	n/a	6	n/a
Latvia	n/a	n/a	n/a
Lesotho	1	n/a	2
Liberia	n/a	1	n/a
Lithuania	n/a	n/a	n/a
Madagascar	n/a	3	n/a
Malawi	n/a	2	1
Malaysia	n/a	1	1
Mali	n/a	2	n/a
Mauritania	n/a	n/a	1
Mauritius	n/a	1	n/a
Mexico	2	n/a	2
Mongolia	n/a	1	n/a
Morocco	n/a	1	n/a
Mozambique	n/a	n/a	2

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N/a: no available data.

Table 3 (cont.)

Classification of e-money providers based on their potential correspondent model

	Number of e-money providers		
	Pure	**Hybrid**	**Other**
Nepal	n/a	2	n/a
New Zealand	n/a	n/a	n/a
Nicaragua	n/a	n/a	1
Niger	n/a	2	1
Nigeria	8	7	4
Pakistan	6	n/a	n/a
Paraguay	n/a	1	1
Peru	n/a	n/a	1
Philippines	n/a	n/a	2
Poland	n/a	n/a	n/a
Portugal	n/a	n/a	n/a
Qatar	n/a	1	n/a
Romania	n/a	n/a	1
Russia	n/a	n/a	n/a
Rwanda	2	3	n/a
Senegal	1	n/a	3
Serbia	n/a	n/a	n/a
Sierra Leone	n/a	2	n/a
Singapore	n/a	1	n/a
Slovak Republic	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a
Somalia	n/a	n/a	5
South Africa	3	3	n/a
Spain	n/a	n/a	n/a
Sudan	1	n/a	n/a
Swaziland	1	1	n/a
Tanzania	n/a	3	1
Thailand	n/a	1	1
Togo	n/a	n/a	1
Tunisia	n/a	1	1
Turkey	n/a	n/a	1
Uganda	n/a	3	3
United Kingdom	n/a	n/a	n/a
Uruguay	n/a	n/a	n/a
Venezuela	n/a	n/a	1
Vietnam	n/a	1	n/a
Zambia	2	1	2
Zimbabwe	1	1	2

N/a: no available data.
Source: BBVA Research

Table 4
Classification of e-money providers based on their potential correspondent model (by world region)

	Number of e-money providers		
	Pure	**Hybrid**	**Other**
East Asia and Pacific	3	8	6
Eastern Europe and Central Asia	n/a	2	3
Latin America and the Caribbean	10	4	15
Middle East and North Africa	7	7	2
South Asia	10	14	4
Sub-Saharan Africa	24	56	43
Developed world*	n/a	n/a	n/a

* Developed world comprises Australia, Canada, United States, New Zealand and Western European countries. N/a: no available data.
Source: BBVA Research

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