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No Easy Solution: A Smorgasbord of Factors Drive Remittance Costs

by Tito Nicias Teixeira da Silva Filho

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I N T E R N A T I O N A L M O N E T A R Y F U N D

IMF Working Paper

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No Easy Solution: A Smorgasbord of Factors Drive Remittance Costs

Prepared by Tito Nicias Teixeira da Silva Filho¹

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Abstract

There has been a global push to decrease the cost of remittances since at least 2009, which has culminated with its inclusion in the Sustainable Development Goals in 2015. Despite this effort and the emergence of new business models, remittance costs have been decreasing very slowly, disproving predictions that sharp declines would be just around the corner. In addition, remitting to poorer countries remains very expensive. Oddly, this situation has not been able to elicit academic interest on the drivers of remittance costs. This paper delved deeply into the remittances ecosystem and found a very complex, heterogenous and unequal environment, one in which costs are driven by a myriad of factors and where there are no easy and quick solutions available, which explains the disappointing outcome so far. Nonetheless, it also shows that while policymakers have limited room to act they still have a very important role to play.

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Table of Contents

| | |
|--|-----------|
| Abstract | 2 |
| I. Introduction | 5 |
| II. The Geography of Remittance flows | 8 |
| III. The Mechanics of Remittances | 10 |
| IV. Data | 17 |
| A. The Remittance Prices Worldwide Database | 18 |
| B. Data Limitations | 20 |
| V. How Costly Remittances Are? | 22 |
| VI. Zooming in Further: The Complex Picture Behind Remittance costs | 29 |
| VII. What Drives Remittance costs? | 34 |
| VIII. How to Drive Remittance costs Down? | 44 |
| IX. Conclusions | 48 |
| References | 51 |
| Appendix 1 | 55 |
| A. Further Considerations | 57 |
| Appendix 2 | 59 |
| Boxes | |
| 1. Types of Remittances Services | 15 |
| Figures | |
| 1. The Relevance of Remittances | 6 |
| 2. Top 10 Remittances Sending and Receiving Countries | 8 |
| 3. Remittances Volume: Top 30 Corridors | 9 |
| 4. Remittance Flows by Income Level | 10 |
| 5. Overview of the Cross-Border Retail Payments Market | 11 |
| 6. The Remittance Negotiated Service Model: A Settlement Example | 13 |
| 7. Stylized Examples of Correspondent Banking Payment Transaction | 17 |
| 8. RPW Database: Number of Corridors Per Country | 19 |
| 9. RPW Database: Number of Corridors | 20 |
| 10. Average Global Cost of Remittances: Measurement Issues | 23 |
| 11. Regional Cost of Remittances | 24 |
| 12. Average Cost of Remittances: Selected Countries | 25 |
| 13. Average Remittance Costs: Inter-Country Variation for the Same Receiving Country | 26 |

| | |
|--|----|
| 14. Remittance Costs: Top-30 Least and Most Costly Corridors | 27 |
| 15. Average Remittance Costs: Inter-Country Variation for the Same Sending Country | 28 |
| 16. Remittance Costs: Intra-Corridor Variation for a Given Receiving Country | 30 |
| 17. Remittance Costs: Difference in Costs Among Different Type of Providers | 31 |
| 18. Remittance Costs: Difference in Costs Among Payment Methods | 32 |
| 19. Remittance Costs: The Relevance of FX Margins | 33 |
| 20. Remittance Costs and Economies of Scale | 36 |
| 21. Remittance Costs and Market Competition | 37 |
| 22. Difference in Remittance Costs Among Different Type of Providers | 38 |
| 23. Remittance Costs: Corresponding Banking Relationships | 39 |
| 24. Average Cost of Remittances: Fee and FX Margin | 41 |
| 25. Remittance Costs and the Exchange Rate Regime | 42 |

Tables

| | |
|--|----|
| 1. Average Remittances Cost: Sending x Receiving Country | 29 |
| 2. Remittance Costs Transparency: FX Margin | 40 |

Appendix Figures

| | |
|---|----|
| A2. The CBRs Network Has Become More Concentrated | 60 |
| A2. Countries Most Affected by The Loss of Correspondent Banking Relationship (2012–2018) | 61 |

I. INTRODUCTION

Remittance flows usually fly under the radar of macroeconomists, whose great interest generally lies in foreign direct investment (FDI) and the so-called hot money (HM) (e.g. portfolio) flows. The former is frequently praised for its longer-term nature, which would reflect confidence in the recipient economy, and by its growth-enhancing properties. The latter, on the other hand, bears a negative connotation due to its short-term horizon and volatile nature, playing a key role in many instability and crisis episodes (e.g. speculative attacks, sudden stops and capital flights). In addition to FDI and HM flows, development economists also focus on aid flows (e.g. ODA), which are an important support factor for poorer countries.²

Yet, as hinted above, there is another type of capital flow that has been underrated for decades and is often overlooked by many economists: remittance flows. For many countries, however, this assessment is unwarranted, be for their magnitude, cyclical properties or macro and micro relevance. Indeed, while FDI could retract substantially during downturns and aid flows could falter during political instability episodes, which are common in poorer countries, remittances are not only a much steadier source of external financing but play a key role when recipient countries are facing challenges, given their well-documented anti-cyclical nature.³ Most importantly, they are a lifeline for many families.

The unmistakable importance of remittances became evident when the Covid-19 pandemic struck, and concerns mounted on how hard they would be affected. The situation looked dire early on as international organizations expected that global remittances would plunge of 20% in 2020 (World Bank, 2020), endangering the livelihoods of millions of people in poor, fragile and conflicted-affected countries, in addition to all those economies that are heavily reliant on remittances (e.g. Sayeh and Chami, 2020).

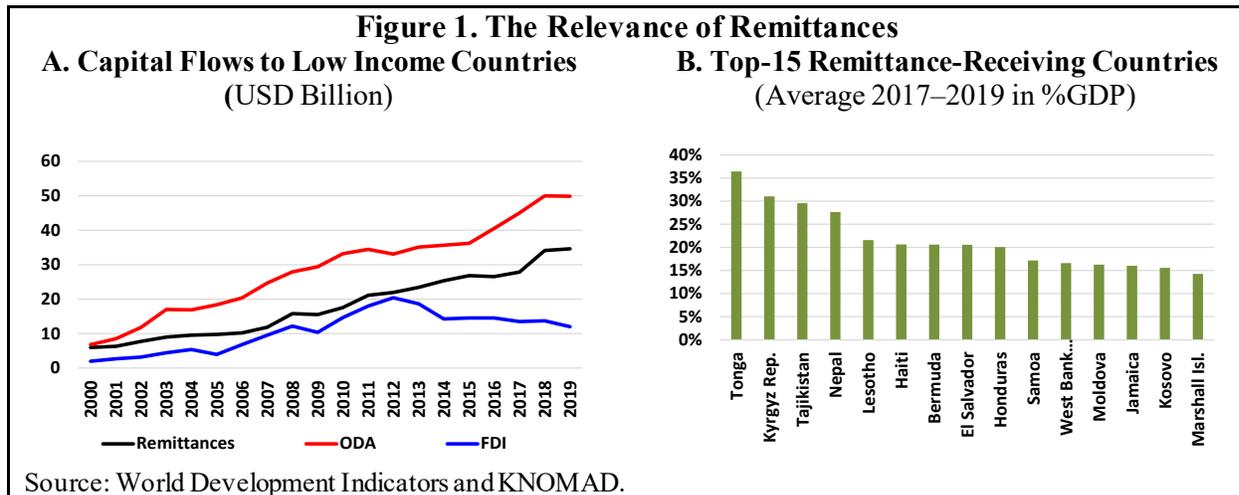
Figure 1 provides a good perspective on how important remittances are, especially to low income countries (LIC). Panel A shows that in the last two decades remittance flows to LIC have been larger than FDI flows, and the gap has increased in recent years. Panel B shows that, for many countries, remittances are macro-critical. Indeed, they can easily surpass 10 percent of GDP and could reach levels above 30 percent. Many of those countries are not LICs, but rather middle-income countries.⁴ In addition, some of the most remittance-dependent countries are also among the most vulnerable or exposed to natural disasters (e.g.

²ODA stands for Official Development Assistance.

³See Frankel (2011) and Bettin *et al.* (2014). See Lubambu (2014) for the evidence following the 2008 crisis.

⁴Even in emerging markets economies remittances could play an important role. For example, in 2018 remittances to India and Mexico reached almost 3% of GDP.

Haiti, Honduras, Philippines and Tonga). For them, once natural disasters strike remittances play an even more crucial role.⁵



Given this background it is not surprising that the micro and macro relevance of remittances have elicited much academic interest. For example, Azizi (2019) and Adams (2011) analyze their effects on poverty, Terrelonge (2014) and Amega (2018) on health, Acharya and Leon-Gonzalez (2014) and Askarov and Doucouliago (2020) on education, while Aggarwal *et al.* (2011), Donou-Adonsou *et al.* (2020) and Bhattacharya *et al.* (2018) study their effects on financial inclusion.

From a macro perspective, Cazachevici *et al.*, (2020) found that remittances have a positive effect on growth but that the effect is small. They also found evidence that the effect differs sharply between regions, including qualitatively. Indeed, there is skepticism on the growth-enhancing properties of remittances. For example, Chami *et al.*, (2005) hypothesize that one possible reason behind the negative correlation between remittances growth and per-capita GDP growth could be due to lower incentives to work. Barajas *et al.* (2009) acknowledge that remittances have poverty-alleviating and consumption-smoothing effects but argue that they do not have an impact on growth.

Interestingly, while the economic and social relevance of remittances have increasingly attracted the attention of economists, one key associated dimension has not: their cost. Indeed, the number of papers investigating the drivers of remittance costs is scant.⁶ But one might wonder why the cost of remittances should deserve the attention and scrutiny from economists. The simple answer is that because they are expensive and their high cost is

⁵Indeed, there is evidence that remittances increase in the aftermath of natural disasters (see, for example, Mohapatra *et al.*, 2012).

⁶One noteworthy exception is Beck and Peria (2009).

detrimental to millions of poor people.⁷ In addition, sending remittances to the poorest countries is substantially more expensive.⁸ As a result, not only a substantial share of remittances “gets lost along the way”, but those that most need them are precisely the ones who are most affected.

According to the Remittance Prices Worldwide (RPW) database, the average global cost of remittances stood at 6.8% at end-2019. Given the World Bank’s (2020) estimate that the global volume of remittances reached USD714 billion in 2019, this would mean that almost USD50 billion in remittances did not reach the hands of those who needed them. The situation is gloomier for poorer countries. For example, according to the RPW database at end-2019 the average cost of sending remittances to SSA countries stood at a staggering 9%. And, for many African countries, the cost is much higher than that. Therefore, it is difficult to understand the academic disconnect between the interest on the economic and social effects of remittances and the lack thereof in their cost.

Fortunately, this academic indifference towards remittance costs has not been shared by the international community. On the contrary, aware of the economic and social relevance of remittances and acknowledging their high costs, there has been a global push to decrease the cost of remittances since, at least, 2009.⁹ Indeed, this global push culminated on the inclusion of remittance costs in the Sustainable Development Goals (SDG).

This paper aims to help breaking this academic indifference – and, hence, the above disconnect – on the drivers of remittance costs. It contributes in important ways to the meager literature on remittance costs. For example, restricted by the available data at the time, Beck and Peria (2009) investigated the cost of remittances using only cross-section evidence. Using the same database, this paper benefits from the availability of ten years of data on remittance costs. In addition, the cross-section dimension is much larger. While Beck and Peria (2009) analyzed remittance costs in 119 corridors, here the evidence encompasses 365 corridors. Finally, this paper delves much deeper into the remittances ecosystem when identifying and uncovering the myriad of factors that drive their costs. Two key objectives are to come up with a realistic assessment on what policymakers can and cannot do to drive remittance costs down and to offer realistic policy advice towards that aim.

The paper is structured as follows. Section II reveals the geography of remittances. Section III provides key evidence on the mechanics of remittances. Without having a good understanding of how remittances transfers occur in practice, and the constraints underlying them, it becomes challenging to properly identify the reasons behind their high costs and, therefore, to propose feasible and meaningful policy actions. Section IV analyses the

⁷McKinsey (2016) found that the average cost of a cross-border payment for a US bank is more than 10 times that for a domestic payment.

⁸This is particularly true especially when one considers that migrants typically send small amounts of money back home.

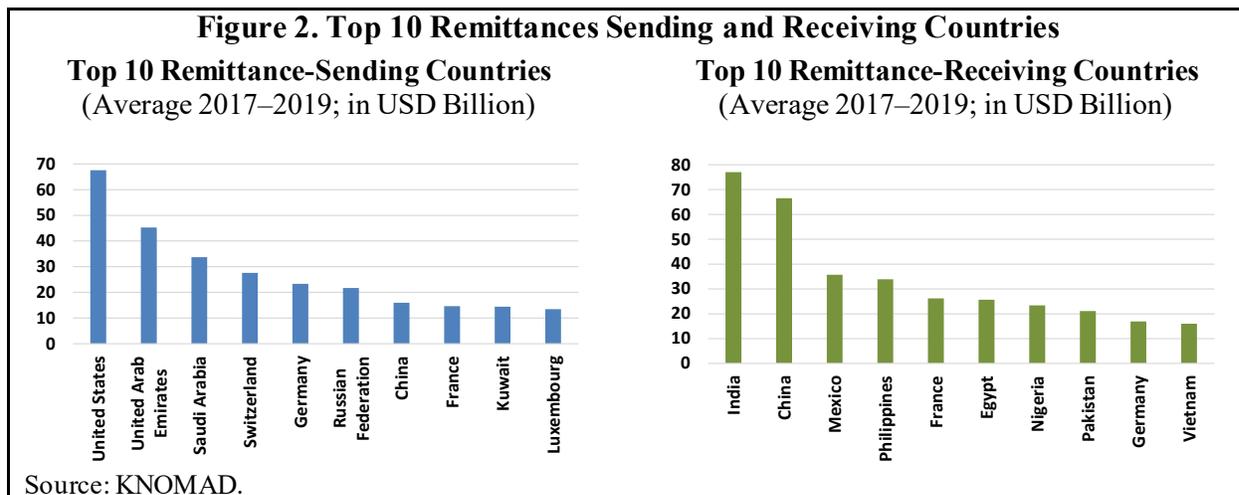
⁹See Section IV for details.

database used in the paper and notes some shortcomings and limitations of the data. Section V unveils how remittances costs have evolved across regions, countries and corridors, while Section VI digs deeper and looks at cost difference within corridors, among remittance service providers (RSP) and payment instruments. Section VII zeroes in on the evidence on what drives remittances costs. Section VIII identifies policy actions to help policymakers to drive them down. The following section concludes the paper.

II. THE GEOGRAPHY OF REMITTANCE FLOWS

To understand what drives remittance costs the natural starting point is to take a closer look on the geography of remittance flows, not only because prices show great dispersion among regions and countries but also because volume is a crucial variable for costs as they are affected by economies of scale. In addition, competition is likely to be higher for larger-volume corridors, which are likely to attract more remittance service providers (RSP).

Figure 2 shows the top 10 remittance-sending and receiving countries. One main stylized fact is that there is a large concentration at both sides. While the top ten sending countries account, approximately, for 60% of the world remittance outflows, the top ten receiving countries account, approximately, for 50% of remittance inflows.



While one is certainly not surprised to see the US as the leading remittance-sending country and India and China in the two top 2 receiving positions, given their development status and size, the ranking has some unexpected members. For example, it is not obvious that one would find Saudi Arabia and Russia to be in the main sending group and France and Germany – two industrialized large economies – in the main receiving group. Of course, part of the explanation must lie in migration flows. Indeed, the Philippines is an interesting case on that, as it is a country where there is a deeply rooted culture of migration, supported by the government.¹⁰ However, migration is unlikely to be the driving force in the cases of France

¹⁰See OECD/Scalabrini Migration Center (2017).

and Germany. Anyway, as **Figure 2** shows, there is large “inequality” behind remittance flows.

Since remittance-receiving countries receive them from many countries, the most relevant scale variable is likely to be the volume at the corridor level rather than at the country level.¹¹ Therefore, **Figure 3** shows the top 30 corridors in terms of volume.¹² Interestingly, despite Mexico being ranked in third place among the remittance-receiving countries, the US-Mexico corridor (green) is the by far the largest one, with a volume 70% higher than the second. Note that among the top 10 largest corridors 8 have the US as the origin, while 3 have India (black) in the receiving end, while China (red) has just one. Also, although the US-Nigeria and UK-Nigeria corridors are among the top 15 largest corridors, there are no other corridor involving SSA countries in the top 50. This shows that SSA corridors have small size, which is likely to be a key constraint on driving costs down.

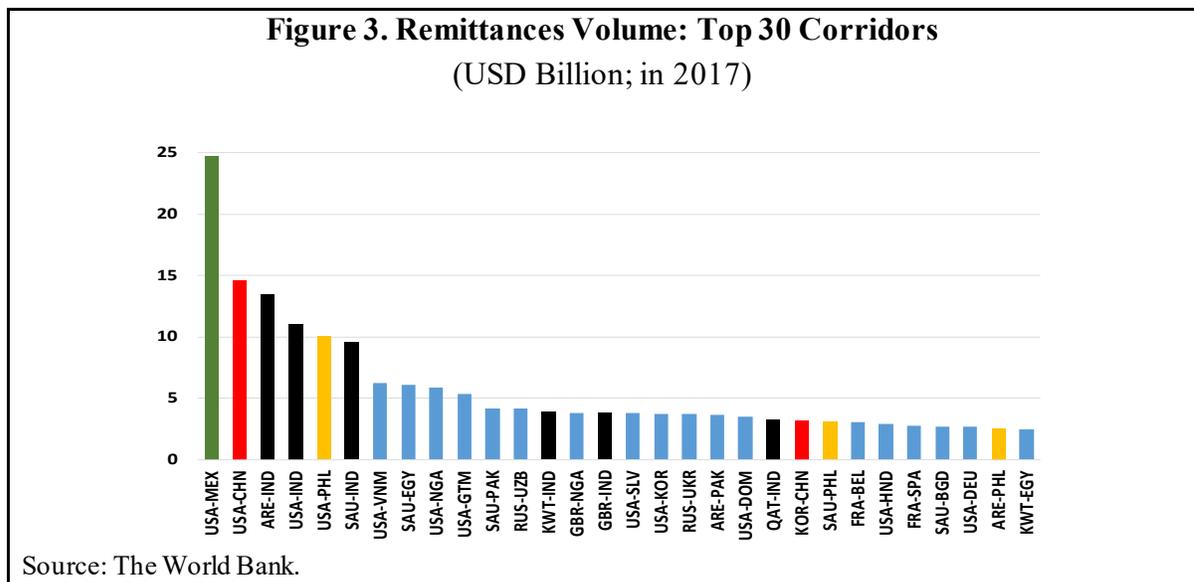
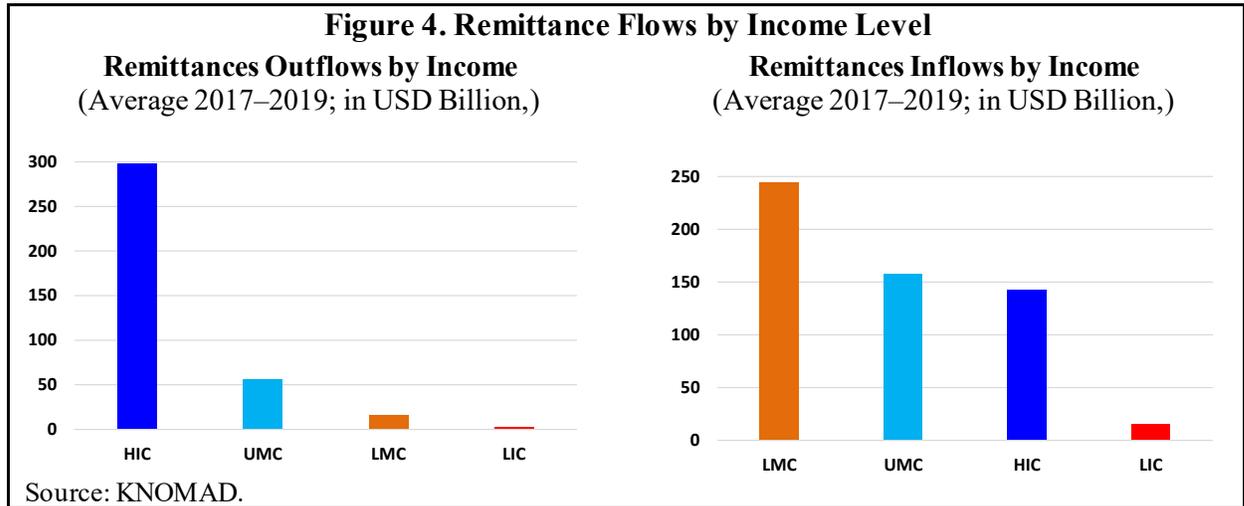


Figure 4 shows the volume of remittance flows according to countries’ income level, and some key evidence emerge. First, low-income countries (LIC) receive a tiny fraction of global remittance flows. This is consistent with the assessment above, as SSA is the region with most LIC. While this is to be expected – given the smaller size of their economies – this is relevant because scale matter for costs. Second, remittance flows seem to be “ill-targeted”. While most remittance flows go from high income countries (HIC) to lower-middle income

¹¹Nonetheless, country level volume might also provide relevant information as, for example, it might reflect the fact that large remittance-sending or receiving countries could have a well-established financial structure for remittances.

¹²It must be noted that “The methodology for these estimates has been questioned, as well as the accuracy of official data on remittance flows and migrant stocks. However, this still represents the only available comprehensive dataset on bilateral remittance flows.” (see World Bank, 2021). It should also be noted more recent estimates are not available.

countries (LMC), the amount going to LIC is substantially lower, while upper-middle income countries (UMC) and HIC receive about half of the remittance flows.



III. THE MECHANICS OF REMITTANCES

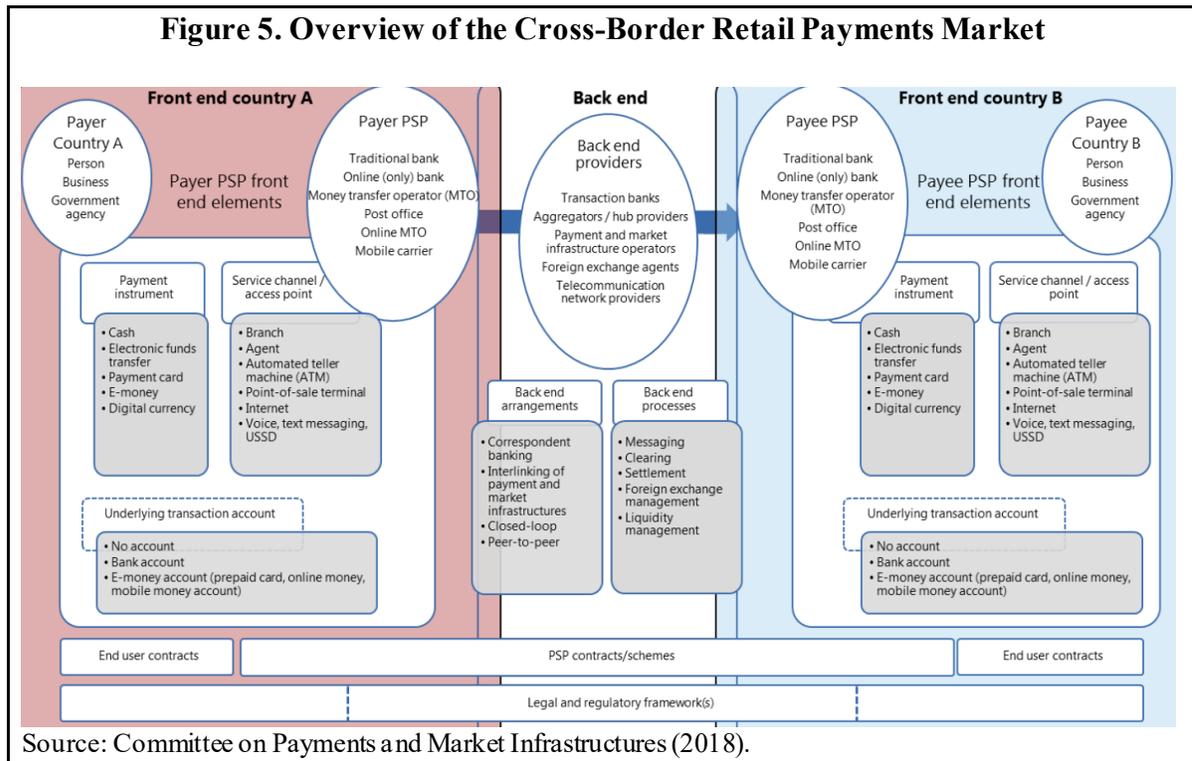
The aim of this section is as much explaining and clarifying the mechanics behind remittance flows as it is unveiling the complexity that lurks behind a simple remittance transfer. That understanding is essential if one’s aim is to devise policy advice that can reduce their costs. At first sight the qualifier complexity might be surprising given that remittance transfers are simply one type of payment and as such it shares many common elements with ordinary domestic payments. However, as it will become clear, that surprise would be misplaced as it indicates a lack of understanding or, perhaps, awareness, of the existing operational challenges behind the so-called cross-border retail payments. By its very nature, one obvious difference between a remittance payment and a domestic payment is that the former takes place between two jurisdictions and usually involve different currencies. Those two aspects have a large impact on the complexity and efficiency of the payment.

Figure 5 provides an overview of the key elements and features of cross-border retail payments, one of which are remittances.¹³ The distinguishing feature of a remittance payment is that it involves a payment between agents in two different countries: one agent, in “Country A”, say, a migrant, transfers some small amount of money to another agent, in “Country B”, say, one of his parents. Usually, this means that at least two currencies are involved in the process. However, this needs not be the case. For example, remittances that take place within a monetary union involve just one currency.

When analyzing how a remittance payment works it is essential to consider not only the interactions (physical or virtual) that take place between the end-users (i.e. sender and

¹³For a more detailed account of cross-border retail payments see Committee on Payment and Market Infrastructure (2018).

receiver) and the RSP (or its agent), but also what happens “behind the scenes” (e.g. IT systems, messaging, payment processes, etc.). The former, the visible part, is called the front-end environment. The latter, the invisible part, is called the back-end environment. This distinction is key not only for raising awareness that a lot of the activities behind an ordinary domestic payment transaction are unobserved, but mostly to understand the mechanics and complexities behind a cross-border one.



In the front-end environment the sender initiates the transaction with the RSP through a service channel or an access point. For example, it might be through the internet, a mobile phone, a bank branch, a money transfer operator (MTO) or an automated teller machine (ATM). There are a few types of RSP, although not all of them might be available (or accessible) to the sender: banks, MTO, post office (PO), etc. The transaction could take many forms as there are many payment instruments available. For example, the sender might remit using cash, make a bank transfer, use a debit, or credit card. The choice depends, in part, on whether the user has a transaction account and what type of account that is. For example, it could be a regular bank account or an e-money account. If the sender does not have an account, the transaction can take place by using cash or a prepaid card. The same possibilities exist on the receiver end, although the options available for a specific remittance payment depend on the type of contract hired by the sender.

After the resources have been transferred from the sender to the domestic RSP they need to “cross the border”. That is, the domestic RSP needs to send them to the chosen RSP in the destination country. To accomplish that many processes are involved, from the messaging to

identify and track the payment to converting the resources from one currency to another to clearing and settling the transaction. Usually, those services depend on other actors and are not carried out by the RSP itself, but rather by back-end providers, such as transaction banks, foreign exchange rate agents, aggregators and network providers, etc. The exact configuration of how they are executed depends on the type of back-end arrangements that is in place. For example, correspondent bank relationship (CBR) arrangements and closed-loop systems are two very popular types of back-end arrangements, although not the only ones.

In a CBR arrangement, one bank (correspondent) holds deposits from another bank (respondent) and provides payment and other services to that bank. In the current context, this arrangement arises because the respondent bank is not able to perform some of the steps needed to move the resources between jurisdictions. For example, it might not be present in the receiver's jurisdiction or, yet it might not be involved in foreign exchange operations. On the other hand, in the so-called closed-loop (or proprietary) system, the capturing and disbursement RSP are either the same or belong to the same group, which gives the RSP great control over the process. However, it does not mean that the RSP is self-sufficient, as other parties are often needed to provide some of the payment-related services (e.g. agents, franchisees, vendors, service providers). This is the arrangement used by most MTO.

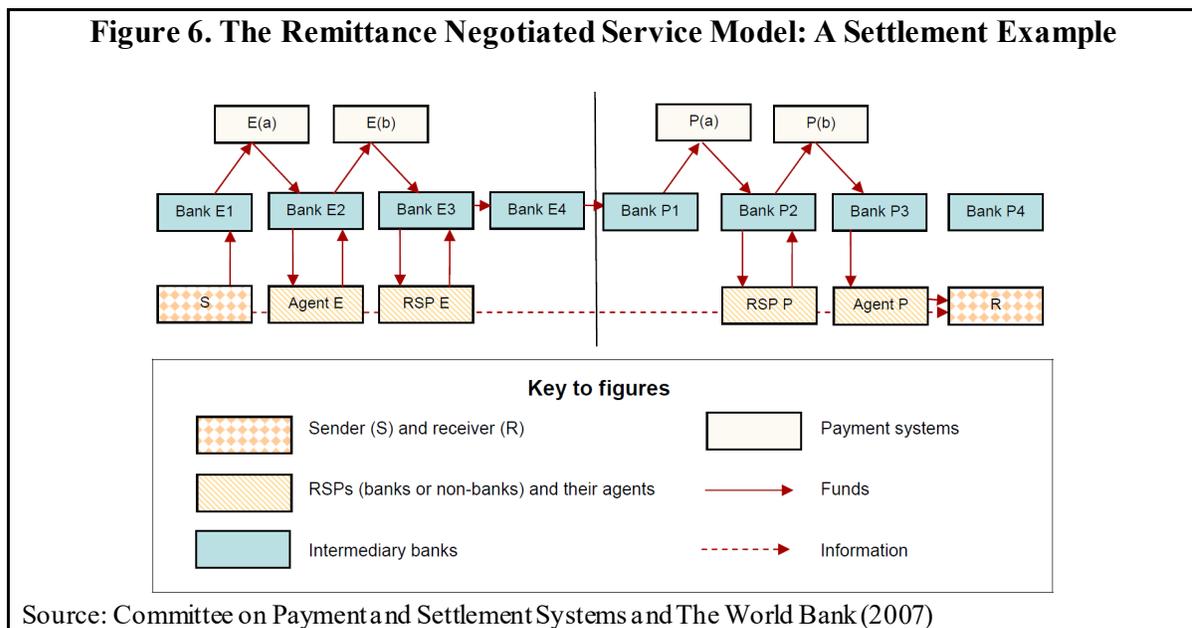
Another possibility is the interlinking of the national payment infrastructures between two jurisdictions. In this case, an RSP located in, say, country 1, which participates in the domestic payment infrastructure in country 1, can send a payment to an RSP located in country 2, which participates in the domestic payment infrastructure of country 2.¹⁴ One such example is the so-called Directo a México, an initiative between the US and Mexico governments that linked the FedACH system in the US with the Mexican RTGS system. Another theoretical additional possibility is the so-called peer-to-peer arrangement, where the transaction takes place directly (i.e. without using any RSP intermediary) between both end-users. This arrangement has recently been expanded due to the emergence of peer-to-peer technology (e.g. DLT).

Notwithstanding the level of details provided by **Figure 5** and the key clarifications it enables, it stills falls short in providing a good idea of the operational complexities and constraints behind an ordinary remittance payment, which is key to understand (at least some of) the reasons behind remittance costs and differences in pricing among different transaction types (i.e. payment instrument, service channel/access point, speed). Indeed, **Figure 5** is somewhat static as it focuses on raising awareness and explaining the key distinctions between front-end and back-end operations and laying out the technological options available for cross-border retail payments. In addition, those payments share many elements in common with domestic retail payments. For example, payment instruments, transaction accounts and service channels/access points are the same one finds in domestic payments. On the other hand, a remittance transfer elicits a chain of events that adds much complexity

¹⁴Payment infrastructures can be linked in different ways. For details, see World Bank (2014).

compared to a domestic payment, with non-trivial implications for its speed, transparency and cost. Those implications are not properly captured or easily inferred by **Figure 5** as it overlooks the different clearing and settlement processes involved and the challenges they might bring.

Figure 6 is better suited for that purpose, as it provides a clearer picture of the payment chain underlying a cross-border retail payment, since it focuses on the many clearing and settlement processes required from the moment a sender pays the RSP (or its agent) until the receiver gets paid in another country by another RSP (or its agent). For didactical purposes, **Figure 6** depicts a stylized example that boosts complexity to highlight frictions.¹⁵ It assumes that: a) both end-users deal with an RSP agent; b) the sender (S), the capturing agent (Agent E) and the RSP (RSP E) in the originating country hold bank accounts at different banks (Banks E1, E2 and E3); c) a symmetric configuration holds at the receiving country; d) in both countries domestic payments are settled at the central bank; e) the two RSP are members of a negotiated network, in which the information flow (dotted line) and the financial flow not only are sent separately but run at very different speeds. While the information with the transaction details (e.g. amount, identities, etc.) is sent immediately, the payment goes through a chain of clearing and settlements involving both countries domestic payment systems. So, what are the (so far hidden) steps involved until the financial flow reaches the receiver?¹⁶



Assume the sender is a migrant from Zambia living in the US who wants to send money to his mother. For simplicity, assume there is no fee involved. The sender (S) goes to Agent E

¹⁵Even so, it abstains from many practical details.

¹⁶To learn how the configuration changes in different settings see Committee on Payment and Settlement Systems and The World Bank (2007).

having planned to send USD200 and paying with his debit card. Assume the exchange rate used by Agent E equals to USD/ZMW=20, which happens to be the *de facto* official rate for that day. Thus, the receiver in Zambia is *expected* to get ZMBK 4,000. Once the payment system E(a) is settled the sender's account at Bank E1 is debited in USD200 while the Agent E's account at Bank E2 is credited by the same amount. Agent E then makes a credit transfer to RSP E through payment system E(b). Agent E's account at Bank E2 is debited in USD200 while RSP E's account at Bank E3 is credited by the same amount. How fast the two payments clear and settle depend on how efficient the settlement system run by the central bank is and Agent E and RSP E's operational procedures. Note that, up to this point, the payments have been regular domestic payments. However, now RSP E needs to send USD200 to Zambia. How does it accomplish that?

The next step in the payment chain involves a few transactions and includes correspondent banks. Upon request from RSP E, located in the US, to transfer USD200 to RSP P's account at Bank P2, located in Zambia, Bank E3 contacts Bank E4, since it does not provide international payment services, which is a global bank and where Bank E3 holds an account. When the payment request is made, Bank E4 informs Bank E3 about the exchange rate it will use in the transaction, which might differ from the one RSP E (via Agent E) had informed the sender. Assuming that Bank E3 holds enough funds at Bank E4 – otherwise it would need to make a transfer to its Bank E4's account – Bank E4 can promptly contact Bank P1, with whom it has a CBR, and where it holds an account in kwacha. Assuming now that Bank E4's account at Bank P1 has enough kwacha, it instructs Bank P1 to credit RSP P's account at Bank P2 by the amount of ZMW4,000.¹⁷ The amount is transferred via payment system P(a). Then, upon request from RSP P, Bank P2 transfer the funds to Agent P's account at Bank P3 using payment system P(b). Then, Agent P can finally pay the receiver in Zambia in cash.

The example above is very useful to call one's attention to several key, but hidden details, that in practice could have a large effect on the speed, transparency and cost of remittances. For example, while the transaction information flow could be transmitted very quickly (in certain settings) from the capturing RSP to the disbursing RSP, the financial flow could take a significant amount of time – mainly when compared with an ordinary domestic payment – to reach the receiving end-user, as it depends on several factors.¹⁸

It depends, for example, on the operational procedures followed by the institutions. For instance, as remittance transfers usually involve small amounts it might be cost-effective to wait and send many transactions in a single batch (e.g. once a day), which would entail some delay.¹⁹ The transaction speed also depends on how fast the domestic payment systems are, the hedonic features of the remittances service contracted by the sender and, mainly, on the

¹⁷If the balance is insufficient Bank E4 would need to buy kwacha in the market or get a credit from Bank P1.

¹⁸In a survey conducted by the BIS (2018), some participants reported that a cross-border transaction might take up to seven days to be executed.

¹⁹Savings could also come from netting financial flows from both countries.

actual configuration of the remittances service network (i.e. the network that connects the service channel/access used by the sender to that used by the receiver. See **Box 1**).

Box 1. Types of Remittances Services

Broadly speaking, remittances services take place under four types of networks. In the **unilateral service model**, a RSP offers its service without involving any other actor as capturing or disbursing agents. This is only possible when the RSP is physically present at both jurisdictions (as access points) or when the network is virtual (computers and mobile phones are the service channel). One example of the former are global banks, who have a physical presence in many countries. Even so, this model constrains their ability to deliver remittances services in many locations, for example, those in which, for any reason, it is not economically viable for them to be physically present. However, many of those locations are precisely where migrants come from. Two examples of such model are the ICICI Bank branch in the UK sending remittances to India and UK's Standard Chartered sending remittances from London to its branch in Zambia.

In the **franchised service model**, the RSP enters a legal contract (be it a franchise agreement or not) with the so-called agents who are interested in offering remittances services on the RSP behalf. The RSP provides all the necessary back-end infrastructure (e.g. messaging, settlement, etc.) as well front-end related needs (e.g. marketing). For the RSP, the advantage of this model is that it can vastly expand its network of physical access points as well as its global geographical reach. Gas stations, liquor stores, supermarkets, post offices and foreign exchange bureau are some of the typical RSP agents. This is the main model followed by the traditional MTO (e.g. Western Union, MoneyGram, Ria and UAE Exchange) and provides them great capillarity.

In the **negotiated service model**, the RSP engages with selected institutions in other jurisdictions to create a mutually beneficial network of physical access points. In this case, the RSP are likely not competitors and share some type of comparative advantage at each access point. This model is more commonly used by those RSP focused on specific corridors. Some examples are bilateral arrangements between banks (one in the sending country and one in the receiving country), credit union schemes, most transfer services or schemes established by postal organizations (CPSS and World Bank, 2007). Two practical examples are the agreements between La Poste (France's national post) and Algerie Poste and between the DBS (Singapore) and DBO (Philippines) banks.

In an **open service model**, the capturing RSP uses an open network – which any RSP can get access to it, either directly or indirectly – to send funds to the disbursing RSP. A key feature of an open service is that the capturing RSP (and its agent) has no direct relationship with the disbursing RSP (and its agent). As a result, the flows with the transaction information and funds need to travel together so that all required settlements can take place. This is the type of service typically provided by banks as they access a foreign country's national payment system through correspondent bank relationships (or via interlinked national payment systems). Non-bank RSP can also access the network as customers of banks. While this model provides a valuable service, as it allows banks to send funds to virtually any other bank in the world, being able to reach even the smallest corridors, it has non-negligible shortcomings. For example, given the absence of a direct link between the capturing and disbursing RSP, the former does not know in advance what the fee the latter charges is. Thus, the final remittance cost may not be known *ex-ante*. In addition, in this case not only the payment settlement is slower but its timing is also difficult to predict.

Second, the lack of synchronization between payment and information flows does not mean that the disbursing RSP (and other parties involved in the payment chain) needs to wait for the funds to settle before making the payment. For example, it might have an efficient liquidity management that allows paying the receiver before receiving the funds. It could also have access to a working capital line of credit or, in the current example, the RSP might provide liquidity to its Agent P. Of course, whenever one party pays before receiving the funds it means it is incurring in extra costs (opportunity cost) or operational risks (i.e. of not being paid), which asks for a “speed premium”. Indeed, the faster the remittance payment the costlier it is likely to be.

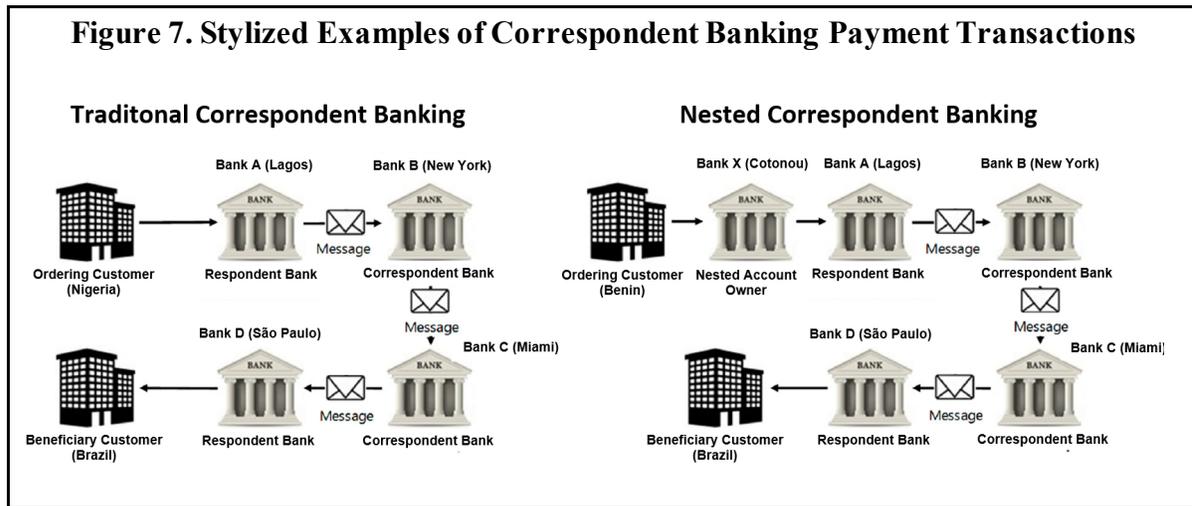
Third, the fact that the remittance payment involves an underlying payment chain might give rise to foreign exchange risks. For example, in explaining **Figure 6** it was assumed that the exchange rate charged by Agent E was equal to 20. However, by the time Bank E4 provides a quote to Bank E3 the exchange rate could have moved to, say, 19 kwachas per dollar, which means that in order to send the ZMW4000 agreed between the sender and Agent A, RSP E now needs USD210.5. However, Agent E had received only USD200. In such situations, one would expect Agent E to charge a FX premium.

Finally, in some settings, even if the RSP wants to implement a transparent pricing policy it might not be possible. For example, as explained above, in an open service network the capturing RSP does not bear any relationship with the disbursing RSP. Therefore, it is not possible to know how much the latter will charge for the disbursing fee. Note that in such type of setting charging a disbursing fee is the only way the disbursing RSP (or its agent) can be paid for providing the service, which increases the cost of remittances. Also note that in this situation it is more challenging for the capturing RSP not only to be transparent about the cost but also on speed of the payment.

Notwithstanding the large amount of details already provided by **Figure 5** and **Figure 6**, it is worthwhile to analyze further a key step in remittance payments: CBR. **Figure 6** depicted an example involving the so-called traditional CBR, which is more likely to occur between countries with more developed financial systems or when the volume of cross-border payments between them is high. However, this is not the only type of existing CBR arrangement, and other architectures add yet more complexity to remittance transfers and costs. In addition, they are likely to be more relevant when analyzing remittance markets involving poorer countries, which are precisely the ones facing the highest remittance costs.

Figure 7 illustrates the differences between the traditional and the so-called nested CBR, using two hypothetical examples. In the first, a customer of a Nigerian bank wants to send funds to a beneficiary in Brazil. In the second, a customer of a Beninese bank wants to do the same. In the first case, the Nigerian customer’s bank (the respondent) has a CBR agreement with a bank in New York (the correspondent), which is able to directly engage with the Brazilian customer bank’s correspondent, located in Miami. This is the arrangement depicted

by **Figure 6**. However, this arrangement is often not possible, especially in smaller corridors, when more “steps” are necessary.



In the second case, the Beninese customer’s bank does not have a correspondent agreement with any bank that could directly engage with the Brazilian customer bank’s correspondent. The solution is the Beninese customer’s bank to engage with its counterpart in Nigeria, which do have a CBR with a New York bank that has a direct relationship with the Brazilian beneficiary bank’s correspondent. This is the so-called nested architecture. As one might have guessed, this makes the payment slower, costlier and less transparent.

The two CBR explained above are not the only possible arrangements. There is yet another possibility, which is called payable-through accounts, also known as “pass-through” or “pass-by” accounts. This arrangement is similar to the nested CBR except that in this case the respondent bank allows its customers to access the correspondent account directly. However, this arrangement has been targeted by global banks’ de-risking strategies as they pose higher compliance risks [BIS (2016); See also **Appendix 2**].²⁰

IV. DATA

The start of the global efforts to reduce the cost of remittances could be dated to the G8 L’Aquila Summit in 2009, when the G8 leaders committed to reduce the global average cost of remittances to 5% (from around 10% prevailing at the time) in 5 years, a target that has become known as the 5x5 target (G8, 2009).²¹ In 2011, the G20 endorsed that commitment at its Summit in Cannes (G20, 2011). In 2014, the group reiterated its commitment at the Brisbane Summit, when the G20 vowed to “... take strong practical measures to reduce the

²⁰Another key part of the CBR is the messaging system. On that, see BIS (2016) and IMF (2017).

²¹A roadmap of the international efforts to drive remittance costs down would show that the first steps were taken in 2004. The 5x5 target set in 2009 followed successive G8 remarks on the importance of facilitating remittances made at the Sea Island Summit (G8, 2004), Heiligendamm Summit (G8, 2007) and Hokkaido Toyako Summit (G8, 2008).

global average cost of transferring remittances to five percent...” (G20, 2014). However, perhaps reflecting the failure to meet the 5x5 target, no new deadline was set. The last big push came in 2015, when the cost of remittances was included in the United Nation’s Sustainable Development Goals (SDGs), which laid out the objective that by 2030 the global average cost of remittances should be lower than 3% and no corridor with costs above to 5% should exist (UN, 2015).²²

Any meaningful target not only requires a deadline, or horizon, on which agents can act upon but, more importantly, the variable of interest needs to be properly measured. On the latter, the SDG on remittance costs is particularly challenging as the target is defined on global terms, which requires not only a global coverage of remittance costs but also a common methodology. In addition, measuring remittance costs is not a trivial task as costs depend on transactions’ hedonic features.

Indeed, until recently data on remittance costs were not only scant but also not directly comparable, given that the few databases available did not share a common methodology. Fortunately, when the global push to drive remittance costs down started to get momentum in 2009, the World Bank already had them on its radar, given its focus on development issues.²³ Indeed, in 2007 the World Bank Group’s Financial Sector Strategy laid out the need to create a global remittances price database (WB, 2007). Previously, a report laying out the General Principles for International Remittance Services, aiming at helping driving remittance costs down, was prepared by a multilateral taskforce co-chaired by the World Bank (WB) and the Committee on Payment and Settlement Systems (CPSS) of the Bank for International Settlements (BIS) (CPSS and World Bank, 2007).

A. The Remittance Prices Worldwide Database

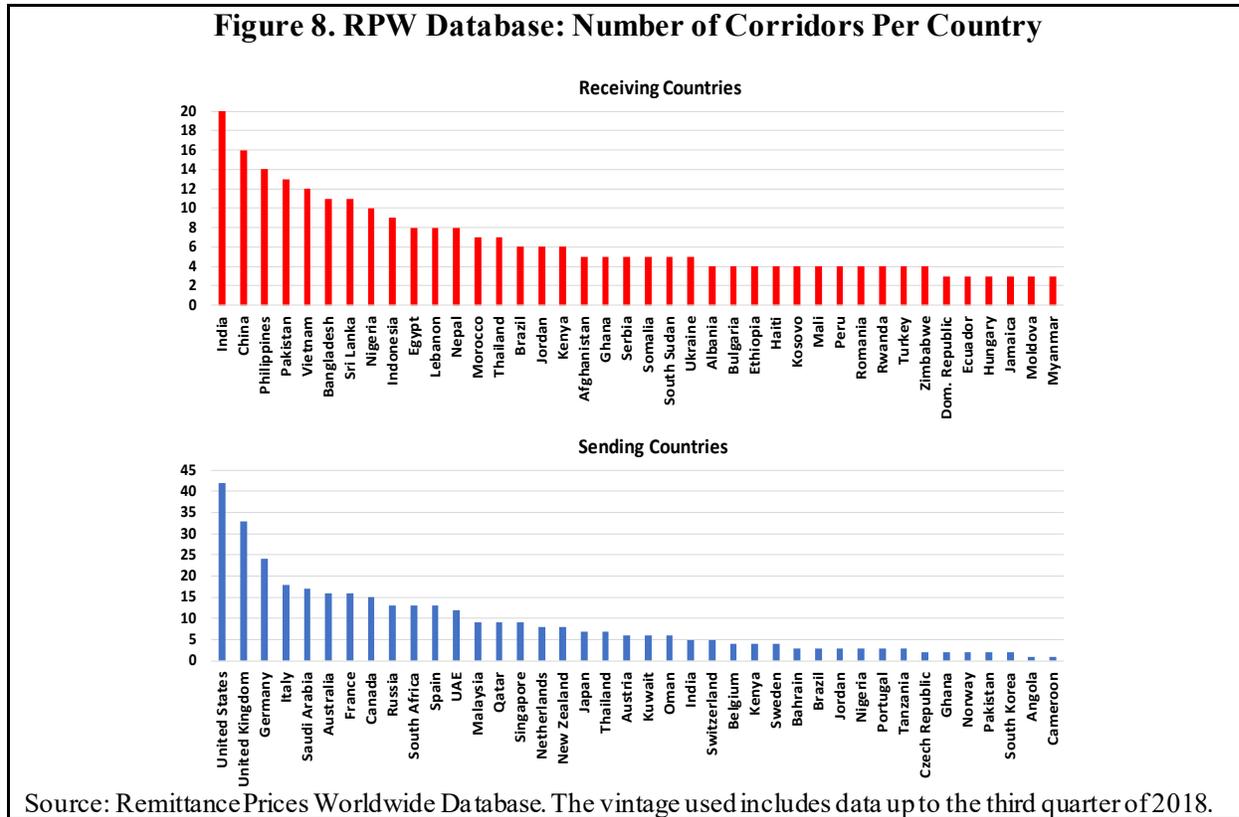
Following recommendations from its 2007 Financial Sector Strategy the World Bank launched the first global database for international remittance prices in September 2008, to support its goal of promoting reductions in remittance costs. It was named Remittance Prices Worldwide (RPW) database and initially covered 14 sending and 67 receiving countries, totaling 120 corridors. Since then, it has continuously grown and today it approaches 400 corridors.²⁴

²²Note that the SDG is surprisingly vague (see Section V), as the global average metric is implied, but not explicitly mentioned. However, as just described, all the discussions about reducing remittance costs that have led to the SDG have focused on the global average cost.

²³Responding to a request made by the G8 at the Heiligendamm Summit, the German Federal Ministry of Finance hosted a high-level meeting on remittances in Berlin in 2007 (GFME, 2007). During the meeting participants reviewed the actions agreed at the Sea Island Summit, where the G8 launched its Global Remittances Initiative, and formulated seven recommendations. One of them was the creation of a Global Remittance Working Group (GRWG) to monitor the G8+5’s progress in lowering remittance costs. The GRWG is led by the World Bank and the recommendations were officially adopted at the 2008 Hokkaido Summit (G8, 2008).

²⁴The World Bank, Remittance Prices Worldwide is available at <http://remittanceprices.worldbank.org>.

The database vintage used in this paper included 48 sending and 110 receiving countries, covering 365 corridors.²⁵ **Figure 8** shows, as expected, that the sending country with most corridors is the US (42), which is followed by the UK (33) and Germany (24). The receiving country with most corridors is India (20), followed by China (16) and The Philippines (14).



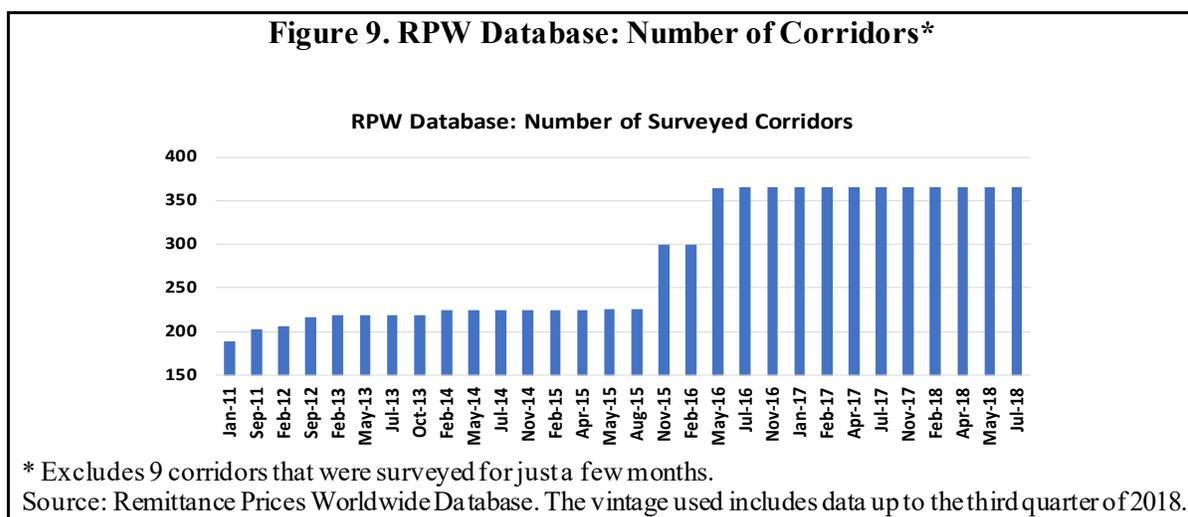
The RPW database is an impressive, multi-country, multi-dimensional, multi-layered, survey-based database that uses a common methodology to gather information on several corridors. The data on remittance costs are collected by independent researchers posing as customers. For each corridor, data collection takes place on the same day to control for possible exchange rate effects. Also, for each corridor, data is collected for the major remittances service providers (RSP), including the primary money transfer operator (MTO), banks and the post office, if data is available. As to market coverage, the surveyed RSP in each corridor are selected aiming at a representative sample totaling an aggregated market share of, at least 80, percent.²⁶ Finally, since costs vary with the amounts sent, two amounts are surveyed: the local currency equivalent of USD200 and USD500. Since migrants

²⁵Total number of corridors net of 9 corridors that were surveyed for just a few months.

²⁶For a more details see the RPW website: <https://remittanceprices.worldbank.org/en/methodology>.

typically remit small amounts of money, this paper focus is on remittance costs associated with remitting USD200.²⁷

Given the idiosyncrasies of the remittances market, the survey collects data on a myriad of variables, as costs depend on hedonic features of the transaction. For example, costs vary according to the service channel/access point used (e.g. agent, bank branch, post office, internet, mobile phone, etc.), the payment instrument used (e.g. cash, bank account transfer, debit/credit card, prepaid card, etc.), the speed of the transaction (e.g. same day, next day, etc.), among other factors.²⁸ Therefore, the pricing strategies used by the RSP are rather complex, which decreases the signal to noise ratio that consumers face, making it more difficult for them to make well-informed decisions.



Although the RPW survey initiated in 2008 the database is only available from 2011. The survey is carried out every quarter, although the specific month it is done within the quarter varies according to the corridor.²⁹ Also, as pointed out above, the number of surveyed corridors has increased over time (**Figure 9**), which means that while the sample period for some corridors start at the beginning of the database sample period (e.g. Australia-Fiji) for others it could begin as later as the second quarter of 2016 (e.g. UAE-Sudan). The database vintage used in this paper goes from the first quarter of 2011 to the third quarter of 2018.

B. Data Limitations

Given its nature and scope, the data collected by the RPW database is particularly prone to measurement errors. As survey-based data, the RPW database is susceptible to reporting and

²⁷According to Orozco and Yansura (2017), for Latin American migrants living in the US, the average amount per remittance is USD250.

²⁸The methodology of the survey changed in the second quarter of 2016. New categories were created, others renamed, and one dropped. For further details see <https://remittanceprices.worldbank.org/en/methodology>.

²⁹Initially, the survey was carried out semi-annually. Since the second quarter of 2013, it has become quarterly.

recording errors, which is likely to be exacerbated by its high level of granularity. One important source of error is that the survey tries to measure some variables that are “time sensitive”. For example, the exchange rate margin depends on the actual exchange rate used to calculate it (e.g. average, closing, etc.), which might differ from that used by the RSP when setting its price.³⁰ While in many countries the exchange rate is quite stable in any given day this might not always be the case. Indeed, in developing countries the exchange rate can vary in a meaningful way within the same day, what might shed some light on why the RPW database shows negative exchange rate margins, which is puzzling. In addition, the database also shows entries with large negative margins (i.e. outliers), which likely reflect other measurement issues as well, although those are rare. While one hopes for random measurement errors, there are reasons to suspect that this might not be the case.

Even though the previous problem might prove to be less severe when the data is aggregated over a time period, this might not be the case with two potentially serious problems: non-response and inaccurate reporting. As Section III pointed out, remittances pricing strategies are often not transparent. That reflects not only constraints imposed by the complexity of the payment chain, but also misleading pricing policies. The latter is likely to cause inaccurate reporting as those firms have less incentive to fully disclose their prices. In addition, as Section III explained, it might not be possible for a RSP to disclose its final price when it does not have a direct relationship with the disbursing agent. As a result, the RPW database is particularly “noisy” and requires some level of scrutiny and care before making inferences.

Indeed, returning to the exchange rate margin – an “Achilles heel” of the remittances industry – while 3.7 percent of the RWP database entries show negative exchange rate margins, which raises accuracy questions, 23.1 percent show margins equal to zero, which is also hard to believe.³¹ Indeed, the database’s metadata notes that in some of those cases “The 0% in the exchange rate margin does NOT necessarily mean that there is no exchange rate cost, but rather that this cost is not disclosed to the sender at the time of sending.”, or yet that “... this cost is not known by the sender at the time of sending”.³² This evidence strongly suggests that at least one quarter of the entries seems to *underestimate* remittance costs.

Even when one is fully aware of the problems listed above, one must also be mindful that the survey itself has some important limitations. For example, in some cases the RPW might be unable to capture fees charged at the destination. Overall, it is not possible to know how many entries have been affected by measurement errors, nor how serious they are, but almost surely remittance costs are being underestimated. Finally, when tracking and assessing remittance costs, it is also important to take explicitly into account that the number of

³⁰Another issue is the exchange rate concept used, as some countries have multiple exchange rates.

³¹And one percent of the entries shows zero total remittance cost.

³²The RWP database classifies more than 6 percent of the entries as not transparent due to exchange rate related issues.

countries and corridors have grown over time (see Section V on how this fact has non-negligible consequences on tracking remittance costs).

V. HOW COSTLY REMITTANCES ARE?

Why do remittance costs matter? One can answer this question from different perspectives. From an efficiency point of view, higher remittance costs mean higher transaction costs and, therefore, higher inefficiency. High costs also increase the incentives for migrants to send remittances through informal channels, not only impairing official balance of payments statistics but possibly hindering financial inclusion. Most importantly, remittances are a lifeline for many families in poor and developing countries. Thus, costs matter because the higher they are the less is left to those that need the resources the most. In addition, when remittances are used to finance education and enable access to health services, lower remittances might also mean lower human capital and, possibly, growth. Thus, it does not come as a surprise that reducing remittance costs are included in the SDG.³³ That goal is stated by item 10.c, which reads:

“By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent.”

This goal is part of the SDG N° 10, which is labelled “Reduce inequality within and among countries”, acknowledging that remittances could help decreasing global inequalities. However, remittances can also contribute to the achievement of SDGs 1 to 5, which aim to end poverty and hunger, and improve health outcomes, education quality and gender equality.³⁴

By defining the goal in terms of an average global cost and a corridor ceiling, item 10c acknowledges the wide difference in costs that exist among different remittances corridors.³⁵ However, the goal does not provide further details on how the global average cost should be calculated and, therefore, on how best to track and monitor success. For example, is it a simple or weighted average? If the latter, how are the weights defined? Finally, what is the level of aggregation for calculating the average?

The first three RPW reports only provided estimates for the simple average.³⁶ Since issue 4, from November 2012, a weighted average has begun to be published as well. The weights are

³³As Section IV showed, while the SDG on remittances was set in 2015, concerns about their cost have been on policymakers and the international community’s radar well before that. Indeed, there has been a global effort to reduce remittance costs since, at least, 2009.

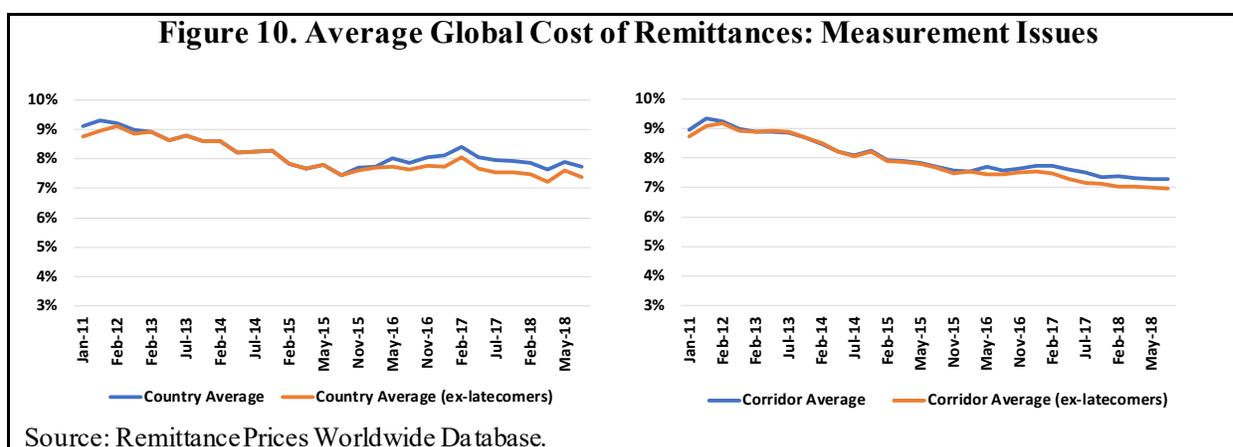
³⁴For some evidence on the micro-relevance of remittances see Section I.

³⁵See footnote 22.

³⁶The first RPW report was published in April 2010. Initially, the survey was carried out on a semi-annual basis but has become quarterly since issue N° 6, published in July 2013.

given by size of the flows in each remittance corridor. The World Bank acknowledges that this weighting scheme is not ideal as it does not consider the market share of RSP in each corridor as well.³⁷ However, regardless of how the weighted average is calculated, one drawback is that it downplays the importance of the costliest corridors, which are precisely the ones associated with the poorest countries, who face the highest costs. Therefore, it is far from obvious that a weighted average should be the preferred metric.

Figure 10 depicts how remittance costs have evolved since around the time the G20 endorsed the 5x5 target. It also uncovers the relevance of measurement issues, which are non-negligible and matter for tracking the prospects of reaching the SDG. Specifically, instead of focusing on whether the average should be simple or weighted, as discussed in World Bank (2016), **Figure 10** calls the attention to the effects of aggregation and a changing sample. It shows that in 2011 the global average cost of remittances was around 9%, a sizable cut according to any criterion. That situation, and the underlying inequality it reflects – the poorest countries face the highest costs – along with the importance of remittances to many developing countries, has garnered wide interest from major outlets who since then has joined calls on the need to decrease those costs.³⁸



Panel A shows that global costs have been falling, but at a slow pace.³⁹ In addition, since mid-2015 the trend has apparently been reversed. However, upon closer scrutiny one finds that this increase is an artifact of a changing sample, as it reflects the increasing number of corridors that have been added to the RPW database over time. These latecomers are usually from less developed economies, which have scarcer data and face higher costs. Therefore, to track more accurately the pace of the decrease in remittance costs one should use a balanced

³⁷The RPW report also calculates the so-called the Smart Remitter Target (SmarRT) "... to complement existing measures in monitoring the progress towards price reduction at a more granular level." This measure considers the availability and accessibility of services and address "... some of the limitations of Global Average and the Global Weighted Average". See [World Bank \(2016\)](#) for further details.

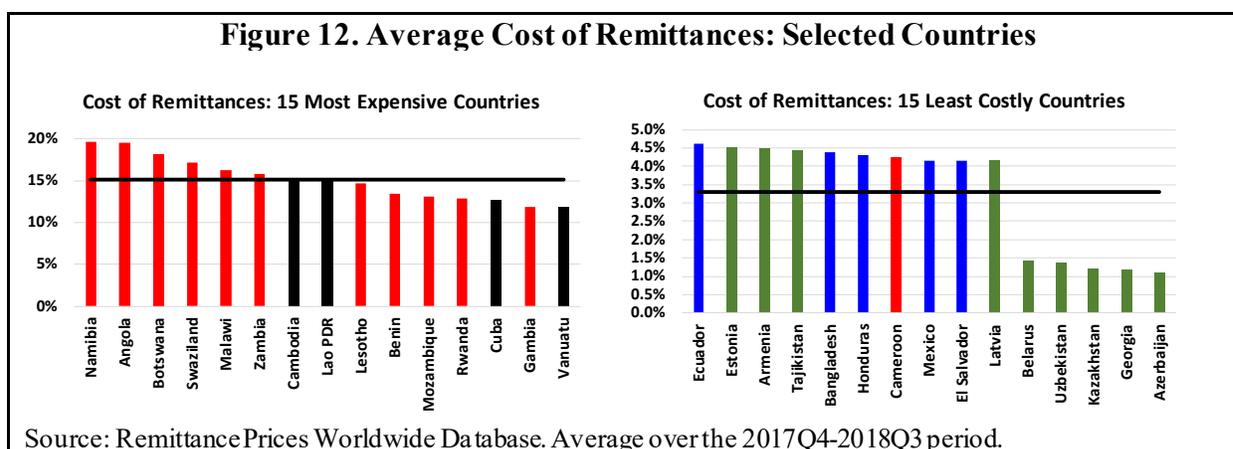
³⁸See, for example, [The New York Times \(2012\)](#), [The Guardian \(2013\)](#), [The Economist \(2015\)](#) and [The Financial Times \(2015\)](#).

³⁹Panels are ordered notionally from left to right and top to bottom.

a region which not only host more countries but the poorest ones. Nonetheless, costs have been falling at a faster pace in SSA than in any other region, and by mid-2018 the difference to the East Asia and the Pacific (EAP) region, the second most expensive region, had been drastically reduced. It is also noteworthy the sharp fall in costs in the Middle East and North Africa (MENA) region after 2014.

The six regions can broadly be categorized into three groups. There is a lower cost group, which is formed by the Europe and Central Asia (ECA), Latin America and Caribbean (LAC) and the South Asia (SAR) regions, which face lower and similar costs. The EAP and MENA regions form the middle cost group, while SSA remains as a standalone group of countries that face the highest average costs. However, to have a better picture and improve our understanding of what drives remittance costs one needs a more granular evidence.

Figure 12 shows the top 15 least and most expensive countries to send remittances to. It hints that besides marked heterogeneity in costs across regions there is also large heterogeneity across countries, both within each region and between regions. More specifically, it shows that: a) the discrepancy between the two groups is stunning: the difference in average costs between the least and most expensive group is almost fivefold; b) the most expensive group is highly concentrated: 11 out of the 15 most expensive countries are from SSA (red); c) the least expensive group is more diverse, as one finds countries from LAC, ECA, EAP and even SSA. However, one peculiarity of this group is the large number (9 out of 15) of former Soviet Republics (green);⁴² d) While Mexico is among the least expensive countries, it is surprising that neither India nor the Philippines (and, perhaps, less so, China) are not, given the volume and competitiveness in those markets; e) Finally, in 2018 only five countries – all former Soviet Republics – had an average cost of remittances in line with the SDG target of less than 3%.

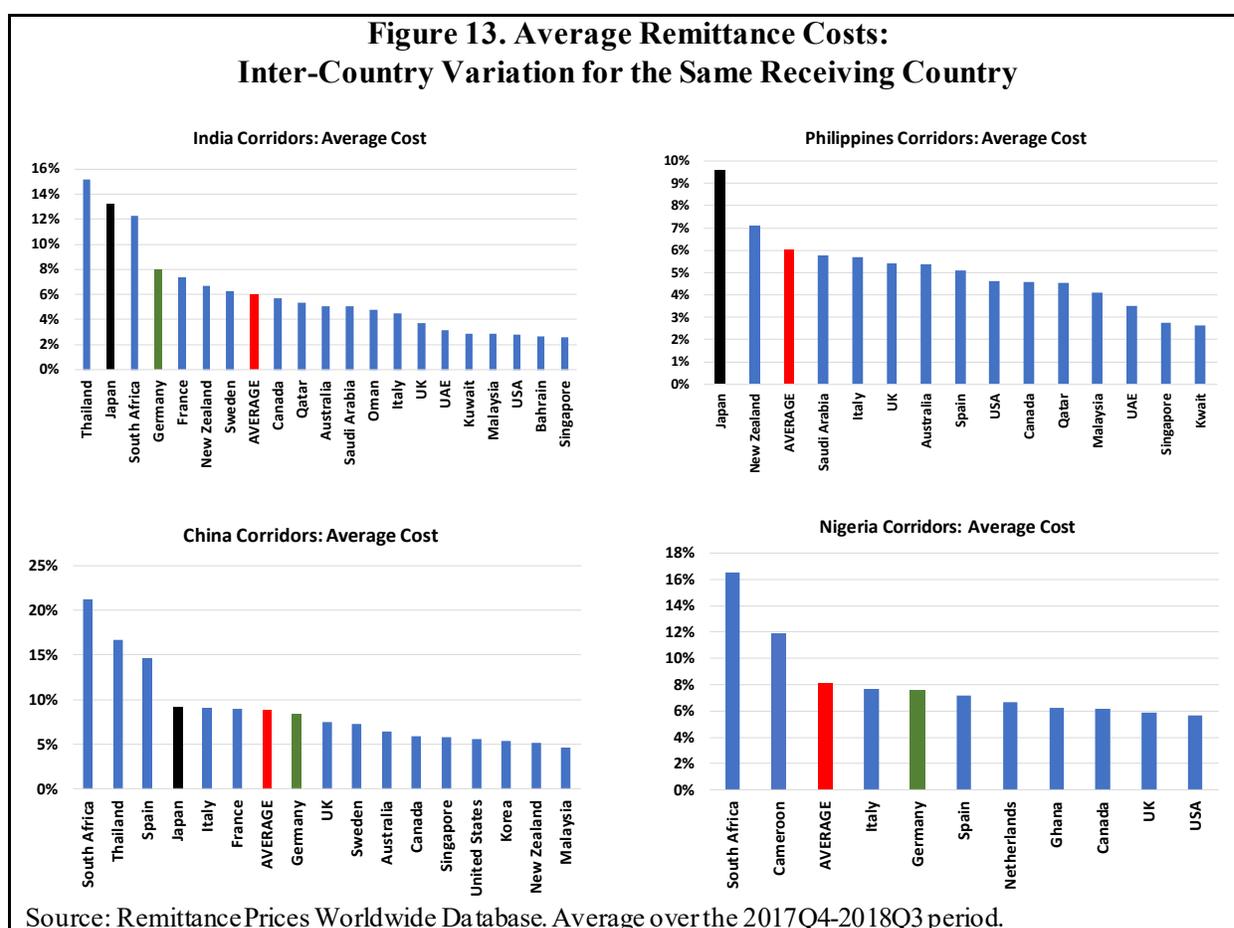


Although country level data provides a much more informative description of remittance costs, given large within region heterogeneity, this type of evidence puts the focus entirely on

⁴²However, this data might not be reliable as the RPW survey shows that remittances to those countries have a zero FX margin. For an analysis of the FX margin see Section VI.

the receiving country. In addition, the average conceals the fact that a country receives remittances from many others, whose differences in cost could be large. To control for this fact an even higher degree of granularity is needed.

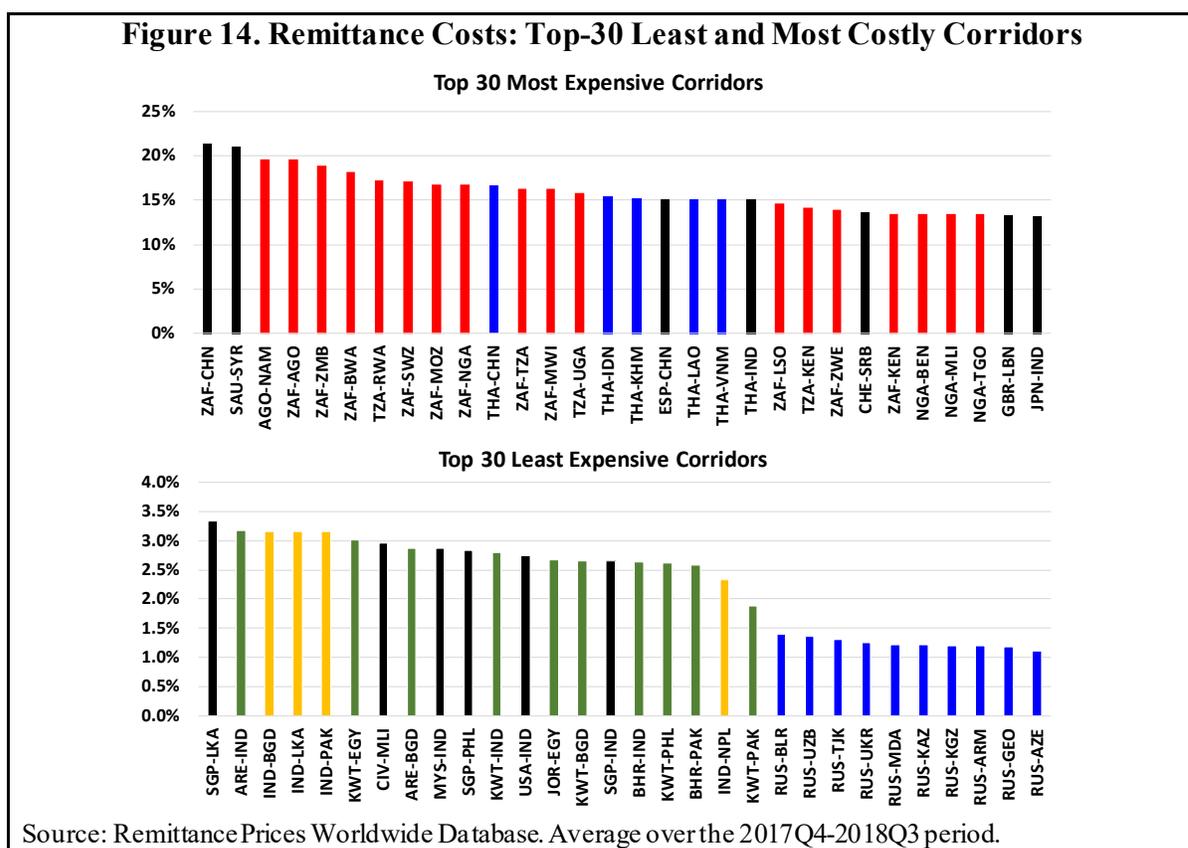
Figure 13 shows, for the three largest remittance-receiving countries and Nigeria – the largest receiver in the most expensive region – how costs vary according to the originating country. All four cases share a common evidence: there is a wide variation in remittance costs depending on where they are coming from. The difference between the cheapest and the most expensive sending country could reach almost 3 times, as in the case of Nigeria, or could be as large as 6-fold, as in the case of India. This shows that receiving-country specific factors explains only part of differences in remittance costs. More specifically, it suggests that sender-country specific factors are also likely to play an important role in explaining cross-country variation in remittance costs.



Indeed, it is interesting to notice that Japan (black) is the costliest country to send remittances to the Philippines and the second costliest to India (as Thailand is in relation to India and China), and the fourth costliest to send to China. Germany (green) is among the costliest countries to send to India, China and Nigeria. The fact that some of the costliest corridors originate in industrialized countries hints that regulatory, besides structural or technological

factors, are likely to be important drivers of remittance costs. Finally, this more granular evidence also sheds light on why the SDG on remittance costs has targets for the average global cost (less than 3%) and a ceiling for the costliest corridor (5%). On this regard, note that several corridors to India and Philippines have achieved the SDG.

Figure 14 plots, out of the 365 corridors, the 30 least and most costly.⁴³ The main findings confirm, refine and extend the evidence shown so far. First, 8 out of the 10 costliest corridors are in SSA (red). Moreover, they take place between SSA countries, with 6 originating in South Africa. This evidence is worrisome, since it is much easier to migrate within than outside Africa. Second, overall, among the 30 costliest corridors 18 are between SSA countries and 5 are between EAP countries (blue), all of them originating in Thailand. This evidence is not encouraging as those countries are either mostly LICs (e.g. Benin, Mozambique and Togo), highly dependent on remittances (e.g. Cambodia and Vietnam) or both (e.g. Comoros, Lesotho). Finally, despite the sheer size of their remittances market, three of the costliest corridors have China in the receiving end while two have India.

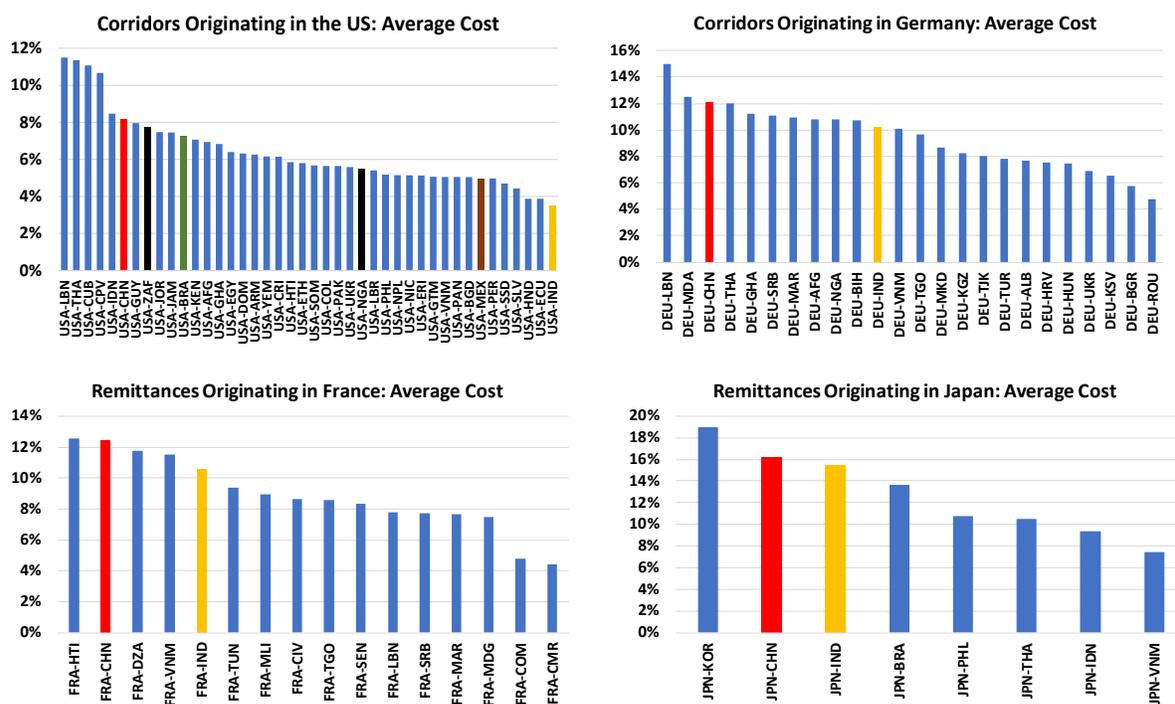


On the other side of the spectrum, the evidence shows that all the 10 least costly corridors take place between former Soviet Republics (blue) and have Russia as the sending country. In addition, other four corridors take place between SAR countries and have India as the

⁴³Total number of corridors net of 9 corridors, which were surveyed for just a few months.

sending country (orange). Second, 10 out of the 30 least costly corridors originate in MENA countries (green), while 15 have SAR countries as the destination. This evidence calls for further investigation on what is behind lower costs witnessed in those countries and regions. Third, just a few of the least costly corridors involve the largest remittance-receiving countries: while 6 corridors have India, the largest remittances-receiving country, as the destination, 2 have the Philippines, the fourth largest and a country that officially fosters immigration. Furthermore, the USA-MEX corridor, the largest by far, is amazingly not among the 30 least costly. Finally, surprisingly, only one US-originating corridor (US-India) is among the top 30 least costly. This evidence clearly suggests that factors unrelated to economies of scale (size) and competition (number of RSP) also play a key role in driving remittance costs.

Figure 15. Average Remittance Costs: Inter-Country Variation for the Same Sending Country



Source: RemittancePrices Worldwide Database. The RPW database vintage used goes from 2011.Q1 to 2018.Q3. The available sample is not the same for all corridors.

Given the evidence suggesting the importance of both receiving and sending-country specific factors as remittance costs drivers, it could be instructive to replicate **Figure 13** but now from a sending country perspective. **Figure 15** shows evidence for the US, Germany and France – three G7 countries that are among the largest remittance sending countries – and Japan, given the evidence from **Figure 13**, on how costs vary according to where remittances are being sent to. Some interesting evidence and regularities are unveiled.

First, China’s specificities have now become clear. Despite being the second global receiver of remittances, China (red) is among the most expensive countries to send remittances to. Second, India (orange) is the cheapest location to send remittances from the US, which is close to what an educated guess would have predicted. Curiously, however, India is one of the costliest countries to send money from Germany and France. In addition, in those cases the average cost hovers around 10%, which is more than twice what one would pay in the US. Third, it is way more expensive to send remittances from Japan. Both cases make it very clear the importance of sending country-specific factors. Fourth, there seems to be some “gravity-type effects” behind remittance costs. For example, most of the US cheapest corridors are those to central and north American countries, while those from Germany involve European countries. Finally, cultural factors also seem relevant. More specifically, colonization – which overlaps with gravity effects via migrants’ population size – seems to matter, as many corridors from France involve former African French colonies, although costs differences among them are not irrelevant.⁴⁴

Table 1. Average Remittances Cost: Sending x Receiving Country

| | Average Cost of Corridors TO | | | | Average Cost of Corridors FROM | | | | | |
|------|------------------------------|-------|-------------|-------------|--------------------------------|------|---------|--------|-----------|-------------|
| | China | India | Philippines | Avg | US | UK | Germany | France | S. Arabia | Avg |
| Cost | 10.6% | 7.0% | 6.0% | 7.9% | 6.4% | 8.4% | 8.9% | 9.4% | 5.7% | 7.8% |
| SD | 6.9% | 6.1% | 3.8% | 5.6% | 2.0% | 2.3% | 2.4% | 2.4% | 2.5% | 2.3% |
| CV | 0.7% | 0.9% | 0.6% | 0.7% | 0.3% | 0.3% | 0.3% | 0.3% | 0.4% | 0.3% |

Finally, **Table 1** attempts to provide first cut evidence on the relative importance of sending vis-à-vis receiving country specific factors. It shows that the cost dispersion among the top-3 remittance-receiving countries is twice as large as the cost dispersion among five of the largest remittance-sending countries, despite the higher number of corridors involved in the latter.⁴⁵ This evidence hints that sender-specific factors might be even more important than receiver-specific factors, which is, perhaps, counter-intuitive, as sending countries have more competitive markets.

VI. ZOOMING IN FURTHER: THE COMPLEX PICTURE BEHIND REMITTANCE COSTS

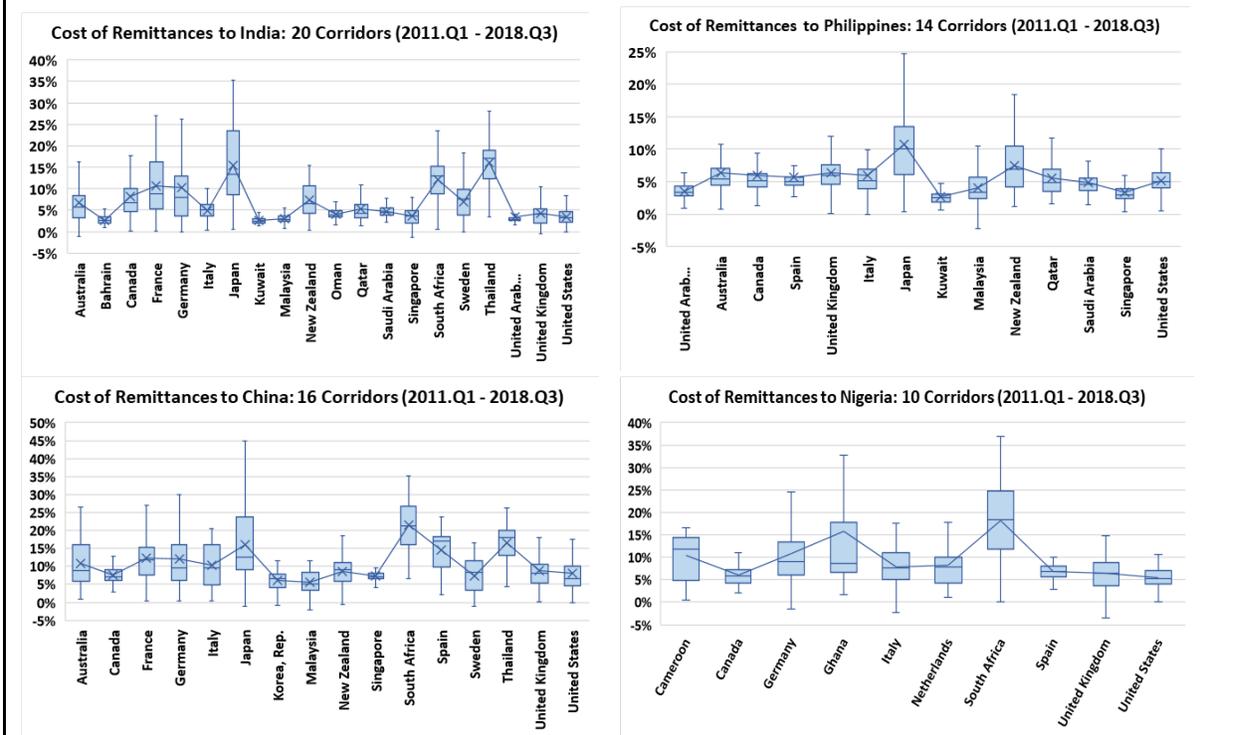
Last section started to uncover the several data layers one needs to peel to better understand remittance costs. It showed that costs vary widely not only between regions but also between countries. More importantly, as countries receive remittances from other countries average costs hide large differences in remittance costs among different corridors. However, even though Section V did show compelling evidence that both sending and receiving-country specific factors play a key role in remittance costs, it fell short on unveiling key aspects behind those costs. Therefore, one needs to zoom in further.

⁴⁴Of course, other factors are at play here, and the existence of conflict and terrorism activities are two strong candidates to help explaining those differences.

⁴⁵The volume of remittances received by India, China and Philippines is about the same of the volume of remittances sent by the US, UK, Germany, France and Saudi Arabia.

Figure 16 peels another layer of evidence by displaying the box plot version of **Figure 13**. The increased granularity reveals further key evidence. First, besides large inter-corridor cost discrepancies there is also large intra-corridor cost differences. Indeed, the latter could be as large as the former. This evidence reveals a rather complex picture behind remittance costs. Second, there seems to be a positive correlation between the average cost of a corridor and the variability of those costs. This suggests potential large savings for migrants if they shop around and search for cheaper ways of remitting. The payoff is particularly large in the most expensive corridors, where cost dispersion is larger. So, what lies behind such large intra-corridor variation?

Figure 16. Remittance Costs: Intra-Corridor Variation for a Given Receiving Country

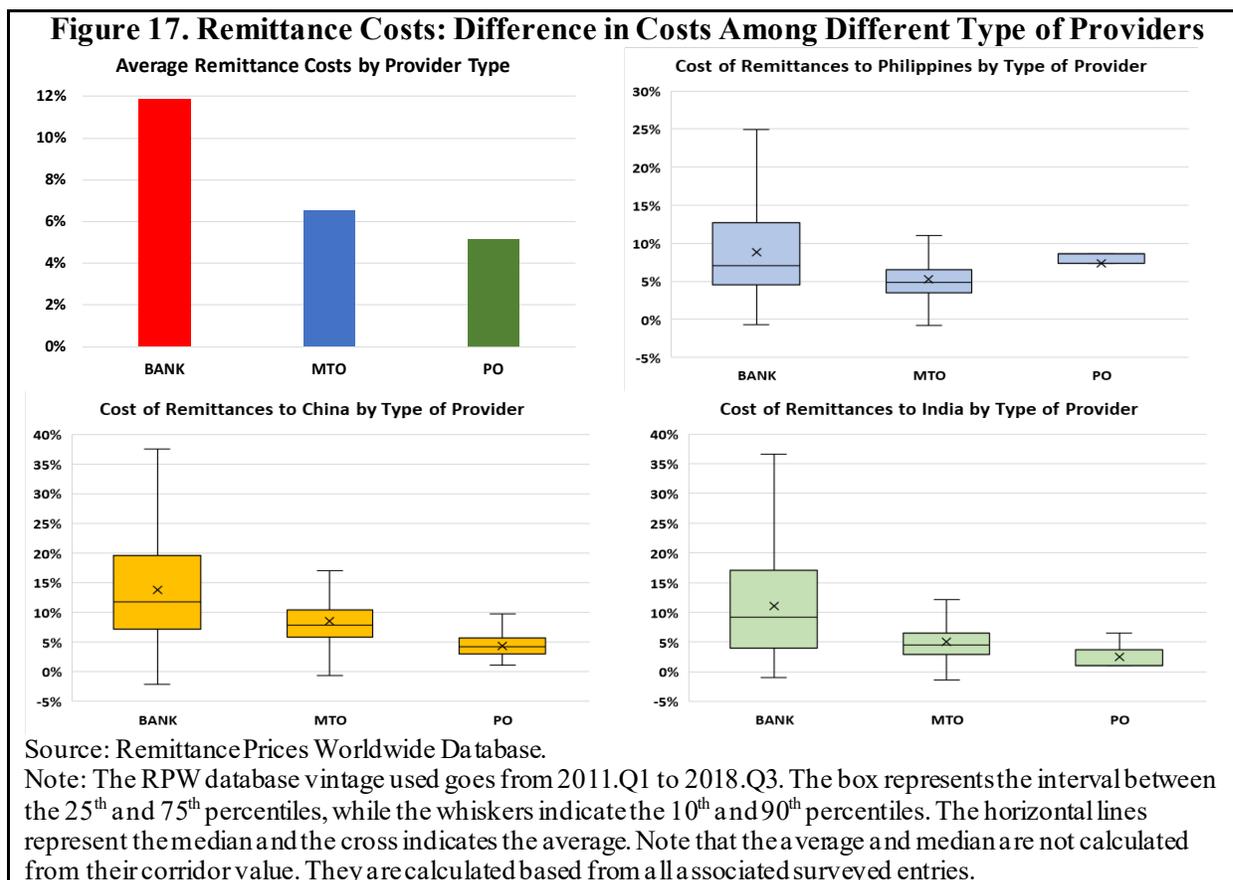


Source: RemittancePrices Worldwide Database.
 Note: The RPW database vintage used goes from 2011.Q1 to 2018.Q3. The box represents the interval between the 25th and 75th percentiles, while the whiskers indicate the 10th and 90th percentiles. The horizontal lines represent the median and the cross indicates the average.

Figure 17 peels two additional data layers in this intricate smorgasbord of factors that drive remittance costs, and not only it provides key insights on intra-corridor variability, but also prompts further interesting questions. Panel A shows that average costs vary greatly between different types of RSP. On average, banks are much more expensive than MTO, which are more expensive than post offices (PO). The other three panels show the country evidence for China, India and the Philippines but now adding an extra layer: intra RSP variability.

The country evidence remains the same, except that for Philippines where PO are more expensive than MTO. On average, banks charge 50% more than MTO to send money to

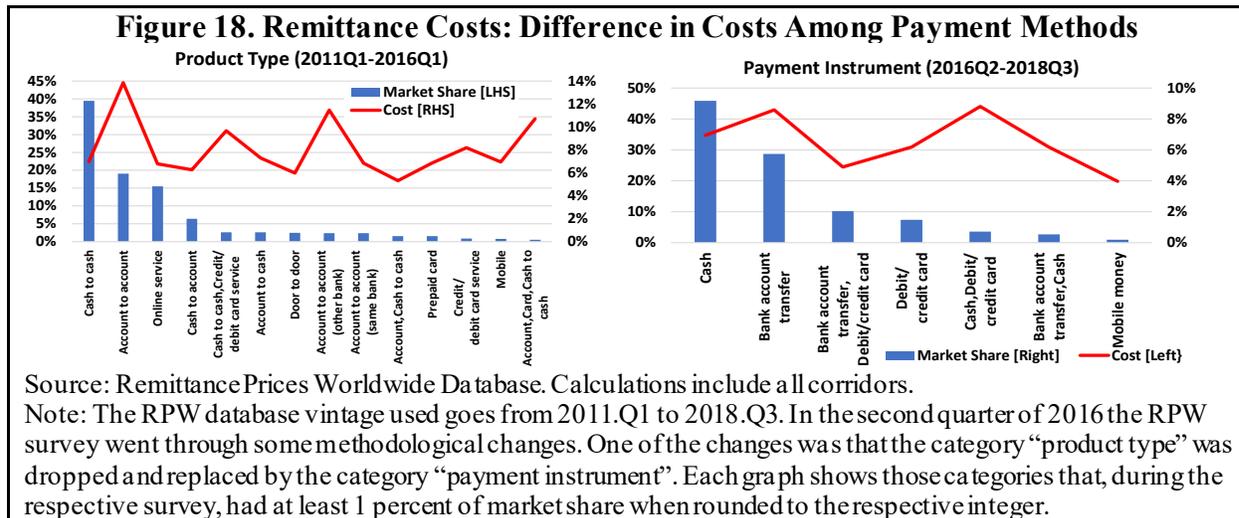
China and Philippines and twice as much to send money to India and Nigeria (not shown). **Figure 17** also shows that, even for the same type of provider in the same corridor, one faces wide variations in the costs, with banks showing the greatest variation. Thus, there is no guarantee that MTO, or even PO, would always deliver lower costs, which stresses, once again, the importance of actively searching for the lowest costs. Finally, inter-provider cost dispersion also seems to be positively related to average costs.



Thus, **Figure 17** provides key context to understand the large intra-corridor differences in remittance costs observed in practice. It does not provide, however, a rationale on why such larger differences exist, and endure, mainly in *average* costs, both within and between corridors. Nonetheless, it suggests that part of the answer might stem from differences in the proportion of each type provider in each corridor.

However, the breakdown by provider type also brings a new question: why is there such large variation in costs among the same type of RSP? **Figure 18** provides key evidence on this regard, adding yet more complexity to the smorgasbord of factors that drive remittance costs. It shows that prices also vary according to the payment method used to remit. The evidence shows that the most common way to remit is using cash. Around 40% of remittances involve cash at both ends of the transfer. The second most popular payment method are bank transfers. Another interesting evidence is that less than one percentage of

remittances are carried out using mobile money. In addition, this percentage has remained constant during the two periods.⁴⁶



It is interesting to notice that bank transfers, the second most popular method of remitting, have always been among the most expensive methods, which raises questions on why so many people chose to transfer using this method. Cash-only transfers are more affordable, but it has not been among the cheapest methods, mainly since the second quarter of 2016 (Panel B).

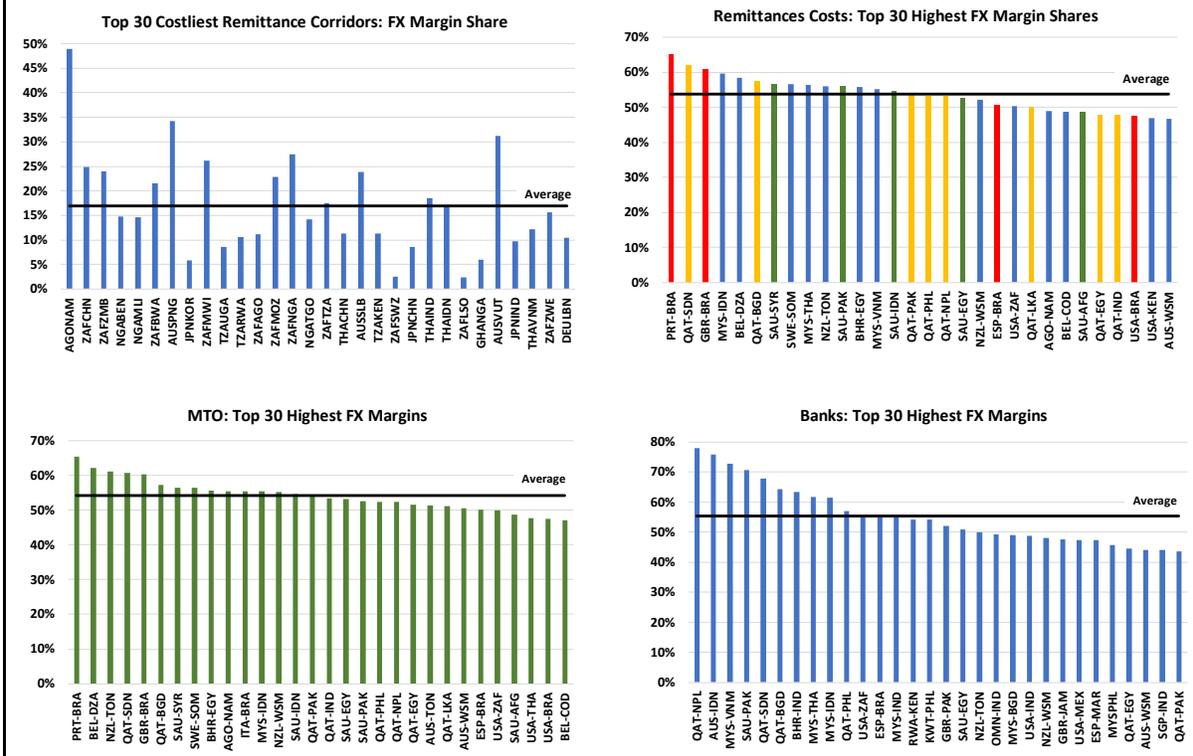
Further analysis suggests that the reason for such large discrepancies could lie, at least in part, on how remittance costs are formed and publicized. More specifically, remittance costs are made of two components: the remittances fee, which is the formal, *ex-ante* known cost, and an implicitly fee, which arises due to the embedded premium included in the actual exchange rate used in the transaction. This premium – known as the foreign exchange (FX) margin – is often not transparently publicized, even though it could sometimes be higher than the formal fee. Consequently, the lack of transparency (or flat-out deceiving behavior) hinders “price discovery” and, therefore, cost convergence.

Figure 19 unveils interesting evidence on this issue. Panel A shows that the average FX margin for the 30 costliest corridors is about 17%. Although this is a sizable cut, Panel B shows that in some corridors the FX margin could be as high as 60% of the total cost. Panels C and D provide the same evidence, but now for banks and MTO separately. They show that the average FX margin among the 30 corridors with the highest FX margins is essentially the same for MTO and banks. At first sight, this might suggest that MTO and banks show the same level of transparency (or lack thereof) in their pricing strategies. However, this would

⁴⁶The RPW methodology (<https://remittanceprices.worldbank.org/en/methodology>) states that 14 product type categories were previously surveyed and 5 payment instrument categories are currently surveyed. However, the database shows 24 categories in the first period (even if 9 totaled less than 150 transactions, out of more than 50 thousand) and 9 in the second period (one category totals less than 100 transactions, out of more than 35 thousand).

be a hasty conclusion.⁴⁷ The next section will unveil more evidence on this regard. Nonetheless, the large variation in FX margins could help explaining not only the large dispersion in remittance costs among RSP but also between each type of RSP, although it does not shed much light on why, on average, remitting through banks is costlier.

Figure 19. Remittance Costs: The Relevance of FX Margins*



Source: RemittancePrices Worldwide Database. The RPW database vintage used goes from 2011.Q1 to 2018.Q3. The available sample is not the same for all corridors.

It is interesting to notice that Brazil (red), a large emerging market with a highly developed and agile financial system, built on the back of decades of high inflation, in which speed was key, is at the receiving end of 2 of the top-3 highest FX margins corridors (and 4 out of 30). This evidence is in line with much evidence showing that the Brazilian banking system is characterized by high transaction costs. It is also eye-catching that 8 out of the 30 highest FX margins corridors (Panel B) originate in Qatar (orange) and 5 in Saudi Arabia (green). This strongly suggests, once again, the relevance of both sending and receiving-country specific factors as determinants of remittance costs. For example, factors such as market structure and degree of competition, need to be investigated.

⁴⁷Indeed, interestingly, in the highest and third highest FX margins corridors, between Portugal and Brazil and UK and Brazil (in red), the FX margin was only disclosed by MTO. The same happened with the sixth and seventh ranked corridors (Qatar to Bangladesh and Saudi Arabia to Syria) among others.

VII. WHAT DRIVES REMITTANCE COSTS?

The evidence analyzed so far suggests that remittance costs are driven by a myriad of factors. Broadly speaking, one can divide those factors into four categories: market structure, firm-specific, demand-related, and regulatory factors. It should be noted that classifying factors in each of those groups is not straightforward, as some of them could fit well in more than one category. For example, not only regulation could have a big impact on market structure, through increasing competition and decreasing barriers to entry, but also on consumer behavior, through policies that enforce price transparency. In addition, technological factors, which affect firm costs, might easily have been singled out as a standalone category. Thus, there is an unavoidable degree of arbitrariness in this classification.

Market structure factors are those that define the economic environment in which firms operate. They essentially reflect the structure of the market and how firms behave. They reveal, for example, whether the market is fragmented or concentrated, how fierce is the competition among firms, whether there are natural barriers to entry, the size of the market and product differentiation. For example, the less competitive a market is the higher firms' market power and, therefore, the higher the prices are likely to be. Also, the larger the market the more competitors it is likely to attract, and the likelier economies of scale will kick in, driving costs down.

Demand-related factors can be understood as those that reflect remitters' constraints and behavior. For example, remitters could pressure costs down by becoming more price elastic. They can do that either by changing the RSP they use and reducing their demand (scale effect) and/or by changing the method they use to remit (composition effect). In both cases, remitters need to actively search not only for the cheapest firms but also for the cheapest services (e.g. cash transfers, online transfers, etc.). In the extreme case, they might choose to send money via informal channels, sidestepping the financial system all together, which is indeed a common practice.

Regulatory factors are those that define the constraints and boundaries imposed on incumbent firms and potential entrants. Therefore, they are likely to have a large effect in shaping market structure. Broadly speaking, they can affect remittance costs in two ways: by directly affecting competition firms' face or their costs. In both cases, the price firms charge is likely to be affected.

Firm-specific factors are those related to the cost structure companies face and, more broadly, to their business model. They are important not only because of differences say, in firm size, which could give rise to economies of scale, but also because different business models might translate into specific comparative advantages. For example, remittances are just another service banks provide to their customers. As such, they share and benefit from the structure banks have already in place for delivering a menu of services to their customers. On the other hand, MTO are specialized entities whose key purpose is to provide money transfer services.

In principle, this difference seems to suggest that remittances-related operational costs are likely to be lower for banks, which would allow them to pass along those lower costs to consumers. However, this conclusion would be hasty as their business models also differ in other relevant ways.

For example, due to their nature, magnitude and more diverse provision of financial services, regulatory compliance costs might be higher for banks compared to MTO (CPSS and World Bank, 2007). On the other hand, the business model from traditional MTOs [e.g. Western Union (WU), Money Gram (MG)] has historically involved a more fragmented physical network than banks, which could imply higher costs.⁴⁸ However, that has also allowed MTOs to have a broader geographical coverage than banks. In addition, traditional MTOs also take advantage of the infra-structure of their so-called agents (e.g. shops, post-offices, etc.) and banks, which helps them to minimize costs. Finally, the relevance of any meaningful gap in terms of physical infra-structure could be changing due to technology.⁴⁹ Indeed, improvements in technology has allowed the emergence of the so-called fintechs, which have business models that differ from MTO and banks. For example, usually their business is entirely online.⁵⁰

As pointed out, a well-known factor that affects costs, be in the production of goods or delivery of services – common or financial – is the size of the market. Higher volumes allow for economies of scale to kick in, which would enable price reductions while allowing firms to keep the same mark-up. In addition, higher demand levels, in the absence of barriers to entry, attracts more competition, which also drive prices down.⁵¹ Therefore, one would expect remittance costs to be negatively correlated with scale indicators. Thus, **Figure 20** shows the association between average remittance costs and a few demand proxies, both at a country and at a corridor level.

Panel A does show a negative correlation between average remittance costs and remittance-receiving countries' GDP. The same negative relationship is found with the number of migrants, be at a country or corridor level (Panels B and C). However, the variable that seems to be most correlated to average costs are the volume of remittances inflows (Panel D), which is not surprising since inflows are a better measure of effective demand for remittances than the number of migrants or the GDP. Note that close to the horizontal axis of the country level panels five dots stand out from the others. They represent former USSR republics, which face much lower remittance costs, as **Figure 12** has already shown. Given their outlier nature, they could distort the relationship between costs and demand. Therefore, Panels A, B

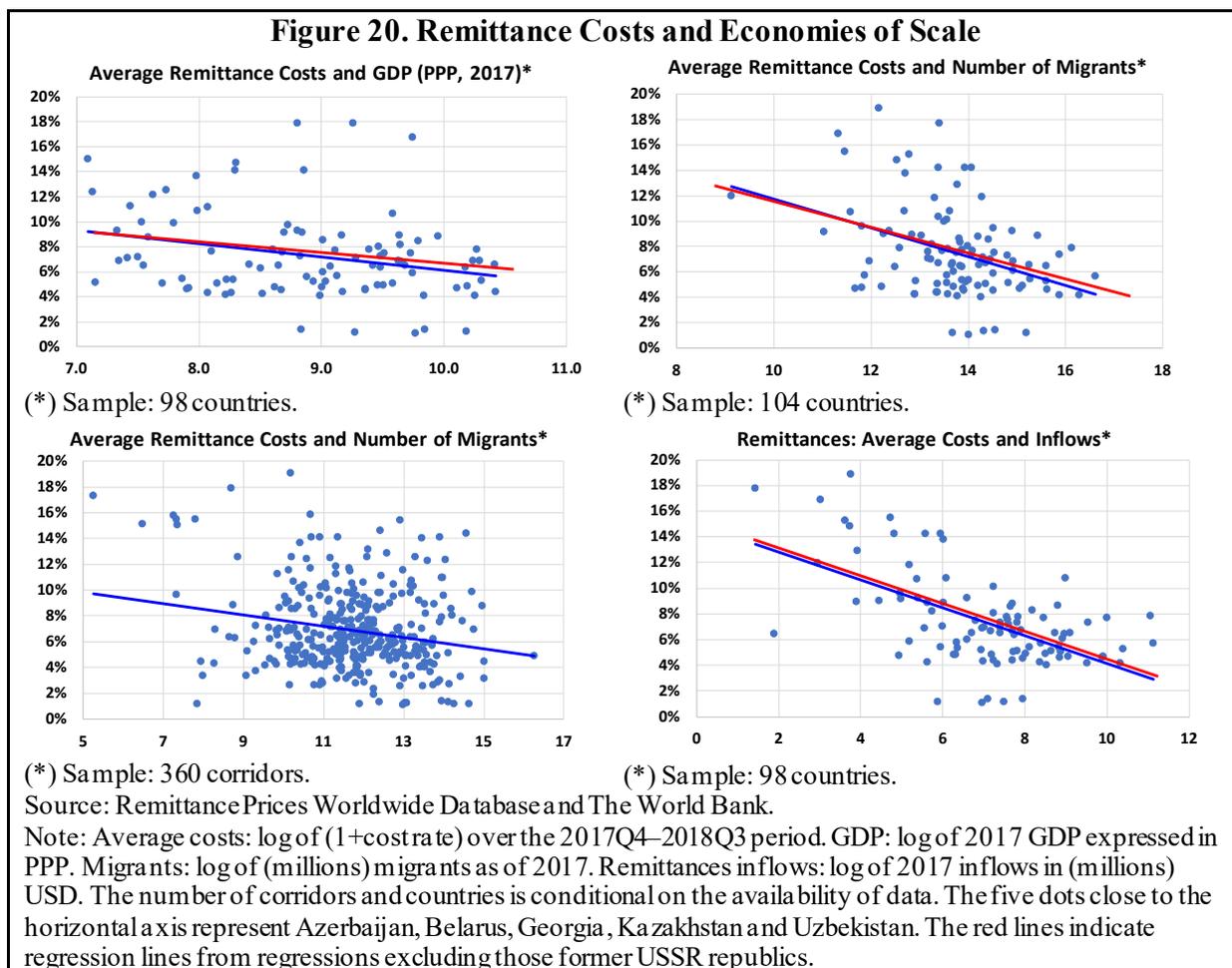
⁴⁸For example, Western Union's global transfer network is the largest in the world, with more than 550,000 agent locations in 200 countries and territories, and more than 100,000 ATMs and kiosks across the globe.

⁴⁹While the effects of technology on the number of banks branches have clearly been negative (i.e. less need of branches), MTOs are present in many countries and regions where financial inclusion is low, which requires their physical presence. Thus, technology is likely affecting banks and MTOs in different ways.

⁵⁰Although the business model of fintech firms preclude their physical presence, they need to use the infrastructure provide by banks and other parties to transfer resources and making remittances payments.

⁵¹Also, some activities only become viable when there is a certain minimum level of demand.

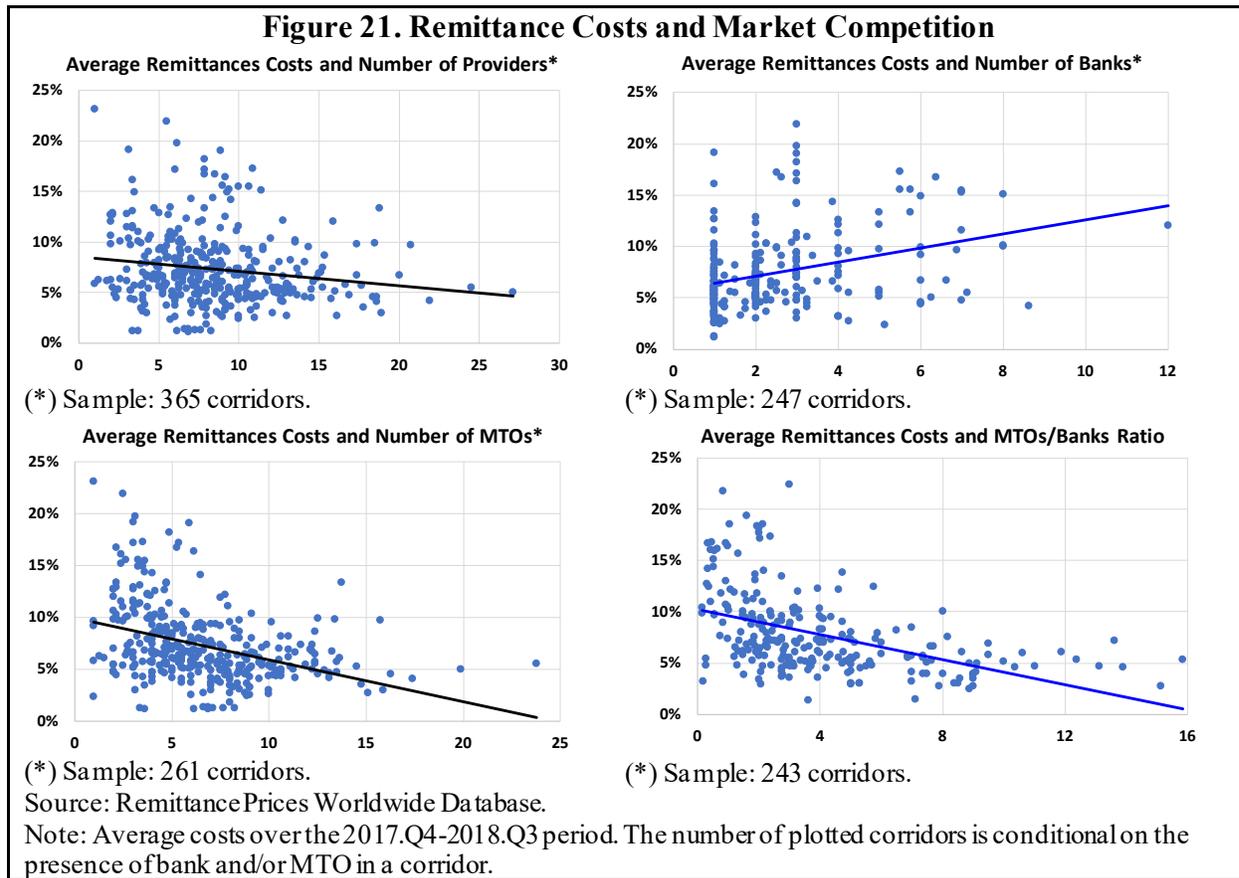
and D also plot the regression line excluding those countries (red line), but the conclusion does not change.



Obviously, another key factor relevant for prices is market structure. **Figure 21** shows evidence on the link between average remittance costs and some proxies for the degree of market competition, which is a central feature of any market structure. In the current context, the first variable that comes to mind when thinking about the degree of competition is the number of (surveyed) RSP.⁵² Panel A shows that there is indeed a negative correlation between average costs and the number of RSP in each corridor. However, it is insignificant. Thus, Panels B and C break down RSP into banks and MTO, and the evidence that emerges is very interesting. While the total number of RSP does not seem to be very informative, the number of (surveyed) banks and MTO are. Moreover, surprisingly, Panel B shows a positive

⁵²The number of RSP surveyed in each corridor is such that it cover, at least, 80% of the market (see <https://remittanceprices.worldbank.org/en/methodology>). Therefore, it seems a sensible assumption to consider the number of RSP as a proxy for the degree of market competition, as in more competitive markets one would expect that more RSP would be necessary to add up to 80% threshold.

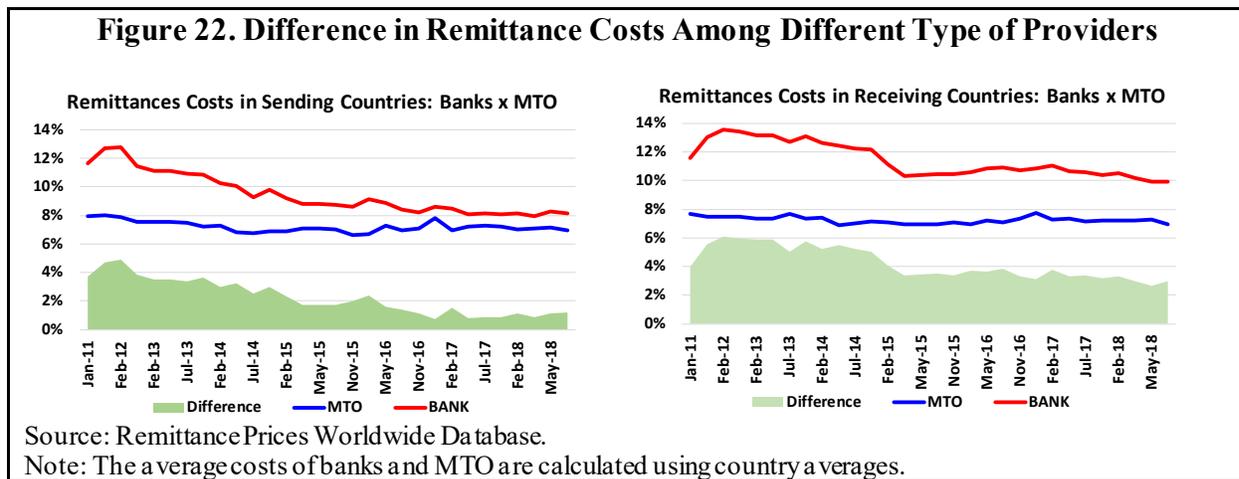
correlation between the number of banks and average costs, which explains the weak aggregate evidence.



Two possible explanations for this counter-intuitive result are: a) many corridors have concentrated banking systems; and/or b) in many corridors there is lack of competition between banks. In other words, banks do not seem to behave in a competitive way. This suggests bank concentration could be a more informative variable on costs than the number of banks. On the other hand, the evidence shows that the larger the number of MTO the lower the cost, which suggests that competition in the remittances market happens mostly through specialized entities. And, more interesting, the variable that seems to matter the most to remittance costs is the ratio of the number of MTO to the number of banks. This reinforces the interpretation that competition comes mainly through MTO.

Laws and regulations (or lack thereof) are another key factor that helps to shape market structure. Particularly, those that prevent or curb anti-competitive behavior such as artificial barriers to entry and excessive market concentration. In the remittance markets, two issues stand out: exclusivity clauses and AML/CFT. Indeed, an often-cited factor behind high remittance costs is the old, but still widespread practice, of imposing exclusivity agreements,

by the two largest MTOs, on their network of agents, including banks (see Appendix 1).⁵³ Those agreements not only curb competition by virtually locking markets to a single or couple of providers, acting as a powerful barrier to entry and driving remittance costs up, but also likely make remittance costs less sensitive to technological changes. Note that the widespread use of exclusivity clauses might help to explain why the gap between costs charged by banks and MTO has been falling more slowly in the remittance-receiving countries (Figure 22).



Another example of the effects of regulation on remittance costs are the unintended consequences from the greater scrutiny over financial transactions that has taken place in recent years. Driven by AML/CFT concerns, especially after the 2001 terrorist attacks, authorities and regulators have stepped up their efforts to mitigate money laundering and terrorism financing. However, because of the nature and peculiarities of the remittances market, as well as governance issues, RSP have been affected by the more stringent regulation and stricter enforcement in two ways (see Appendix 2).⁵⁴ First, due to the risky nature of the remittances business, which usually involves transactions in cash and the sender/receiver of funds could easily remain anonymous, many financial institutions have decided to end their correspondent banking relationships (CBR) with several RSP. Second, besides the de-risking behavior, the withdrawal of CBR also reflects higher compliance costs for banks due to “know your client” (KYC) requirements, making the business less financially attractive. In addition, compliance

⁵³Those agreements have elicited investigations at both sides of the Atlantic. For example, in 2004, the US Justice Department opened an antitrust inquiry into WU business practices of signing exclusive agreements with retail outlets where WU services are offered. In 2016, the European Union opened a preliminary antitrust inquire into WU’s business practices that curbed competition. Although this type of agreement is not necessarily illegal, it can violate anti-trust laws. Earlier, in 2004, Russia had become the first country where exclusivity clauses were declared illegal. Interestingly, as shown above, the 10 least expensive corridors are between former Soviet Republics.

⁵⁴For example, in January 2017 the U.S. Department of Justice and the FTC reached a USD586 million settlement with Western Union over Anti-Money Laundering and Consumer Fraud Violation charges. Other examples are the USD1.9 billion money-laundering charge against HSBC in 2012 and a USD1.7 billion settlement in 2014 for JPMorgan Chase related to money-laundering controls.

costs have also risen for the RSP themselves.⁵⁵ In the same way as with exclusivity clauses, fewer CBRs could have a detrimental effect on costs through less competition.

Exclusivity clauses and AML/CFT concerns are not the only regulation-related problem. For example, in 80% of African countries, regulators restrict the type of institution that can offer remittance services to banks (IFAD, 2009). Moreover, according to IFAD (2017) “Banks are often the only institutions allowed to pay out international remittances.”. Cenfri (2018) also calls the attention to restrictions on remittances licenses, which in many SSA countries are granted to banks only.

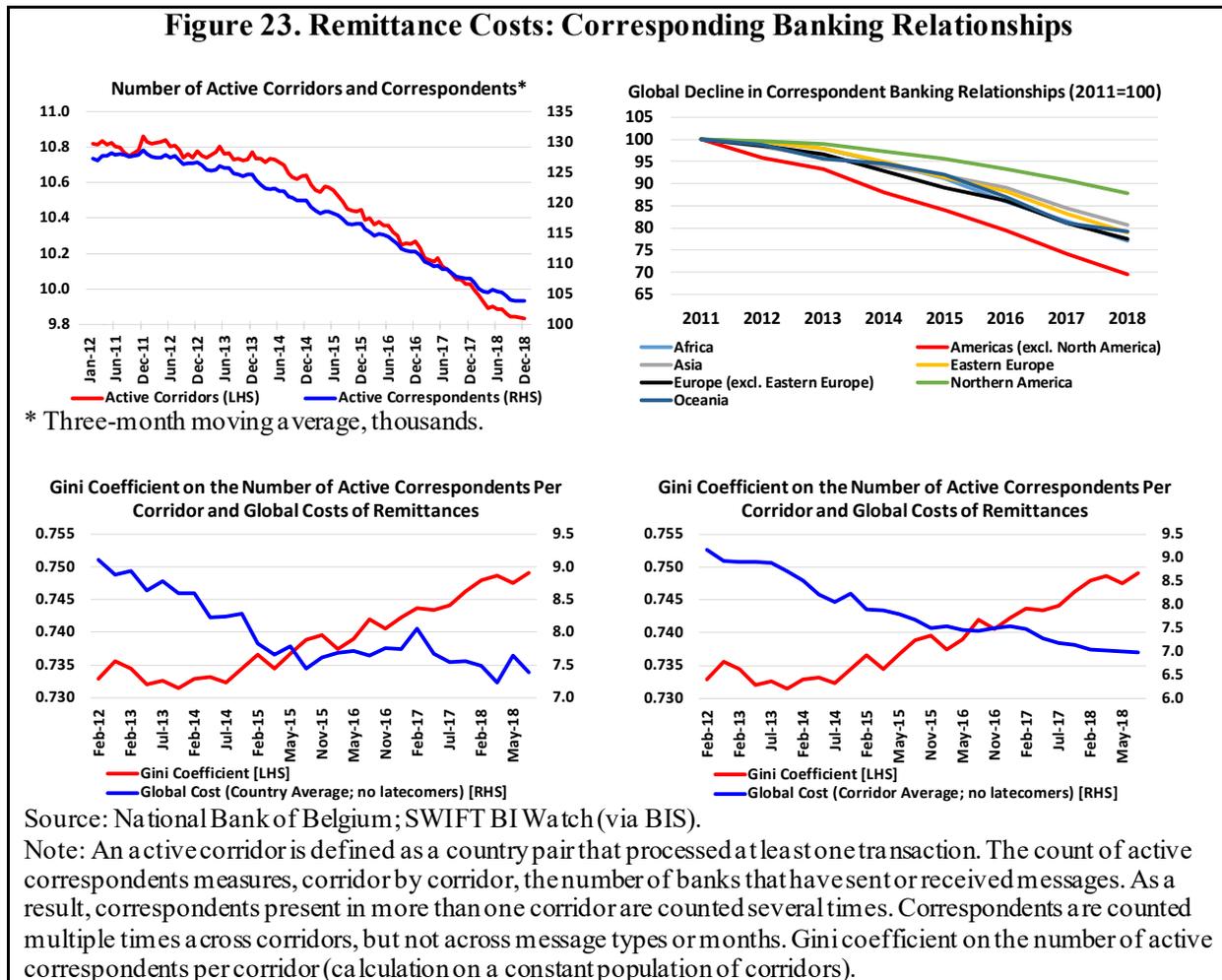


Figure 23 shows the outcome of the situation described above. Panel A shows the large decline in active corridors and CBR that have taken place since 2012, even as the volume of remittances continued to grow steeply during this period. From the beginning of 2012 to end-2018 the number of CBR shrunk by 20%, while the number of active corridors decreased by

⁵⁵It is estimated that 20% of Western Union’s staff is involved in compliance activities (see [WU Press Release, 18 September 2017](#)).

10%. Panel B shows that the decrease has been widespread geographically, but it has hit some regions particularly hard. The largest decline took place in the Americas (excluding North America), with a decrease of around 30%, almost three times larger than in North America alone. The other regions faced similar but large decline, of around 20%, even though there was large heterogeneity among countries (see Appendix 2).

Figure 23 also shows that the reduction in the number of CBR seems to have affected the speed at which remittance costs were falling, although the evidence is less clear when the corridor average is used. The concentration of the CBR network has been sharply increasing since mid-2014 (although it only surpassed the end-2012 level in the first quarter of 2015). Interestingly, around one year later the downward trend that had been observed in the global average cost of remittances not only halted but even reversed until early-2017. And, even though it started falling again, the end-2018 it was almost at the same level it was at mid-2015 (Panel C). The evidence using the corridor average is less clear, as it did not show the reversion but rather stagnant costs for almost one year before they started falling again in 2017, although at a slower pace (Panel D).

Price transparency is also a key determinant of remittance costs, as it allows consumers to make informed decisions, increasing competition. Unfortunately, the remittances market has historically been characterized by opaque and complex pricing strategies. For example, Section VI has showed that a large share of remittance costs comes from hidden FX margins. Lack of transparency not only characterizes an unacceptable behavior – since it aims at misleading or even fooling customers about the true cost they are paying – but it also prevents remitters from efficiently comparing costs among different RSP, which hinders competition.⁵⁶ In the same way, by decreasing the signal to noise ratio consumers receive, complex pricing strategies reduce transparency.

Table 2. Remittance Costs Transparency: FX Margin

| FX Margin | Banks | MTO | PO |
|-----------|-------|-----|-----|
| Zero | 19% | 7% | 53% |
| Negative | 2% | 1% | 2% |

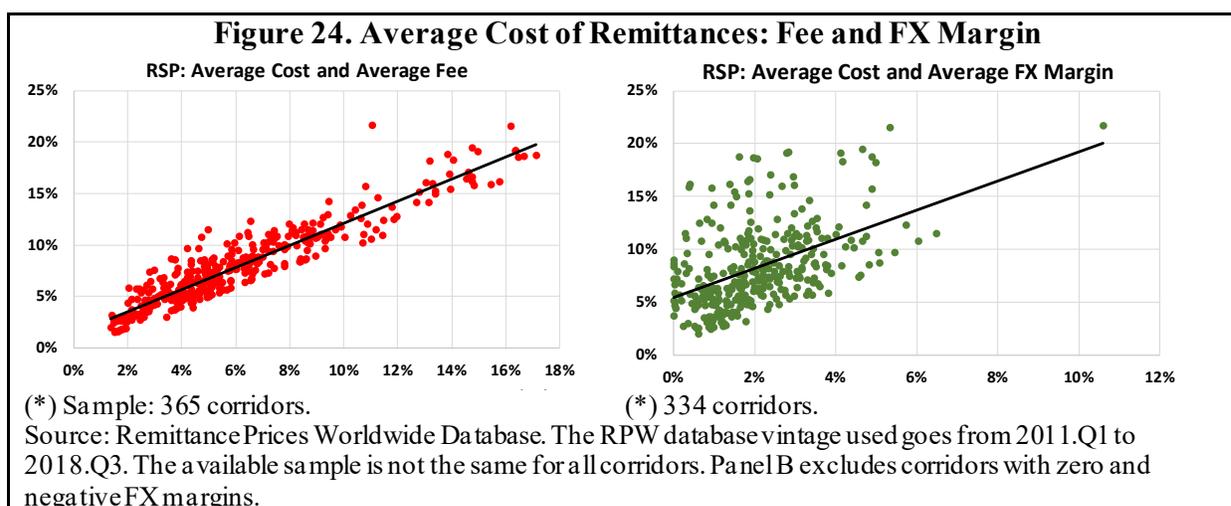
Note: Statistics calculated using data from 361 corridors for MTO, from 267 corridors for banks and from 49 for PO, as not all corridors have data for all types of RSP.

Figure 19 showed that, among the 30 corridors with the highest FX margins, the average FX margin was essentially the same between MTO and banks. However, Section VI also cautioned that it would be hasty to conclude that MTO and banks show the same level of transparency in their pricing strategies. Indeed, **Table 2** provides key evidence on this regard and confirms that the previous prudent assessment was warranted. It shows that the percentage of banks that reported either zero or negative FX margins – which are not credible – is almost 3 times higher than MTO. This evidence strongly suggests that banks are less transparent in their pricing

⁵⁶Some RSP advertise that they have the lowest *fees*, even when the (unaccounted) FX margin is high, clearly misleading consumers.

strategy than MTO. It also shows that banks are even costlier than **Figure 17** indicates. Consequently, it also reveals that the real global average cost of remittances is higher than that measured by the RPW database.⁵⁷

Given the potential detrimental effects of the lack of price transparency it would be interesting to investigate if remittance costs are related to the FX margin, and if so, how. **Figure 24** shows the evidence at the corridor level. As expected, total remittance costs are not only positively correlated with fees but also with the FX margin. The link is a little bit stronger and much tighter for fees (Panel A), also as expected, but FX margins are clearly strongly associated with total remittance costs (Panel B).



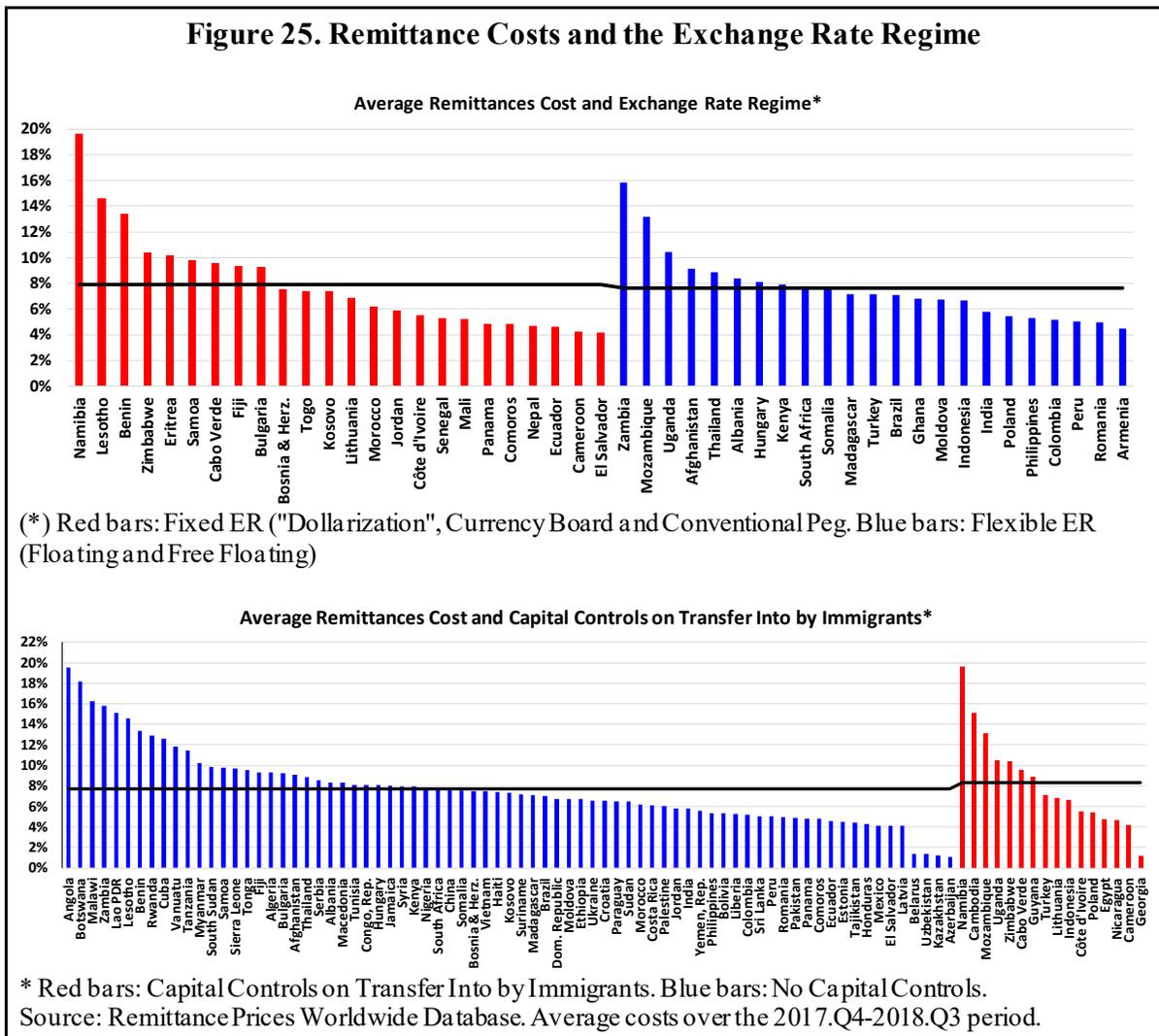
Whether or not acting like a disguised fee, it is important to acknowledge that the FX margin could also reflect a genuine factor: the exchange rate risk, as pointed out by Section III. Therefore, it would be useful to investigate how it relates to the exchange rate regime. The null hypothesis is that a more stable exchange rate regime means lower exchange rate risks, which would entail lower FX margins. Therefore, using the “polar” classification from the IMF AREAER (2018) database **Figure 25** shows the evidence on this regard. The upper panel compares the 25 most expensive corridors that operate under a fixed-exchange rate regime with those that operate under a floating ER regime. Interestingly, the evidence shows that the average FX margin in the two groups is almost the same. In addition, the flexible ER group has unexpectedly a lower cost dispersion (2.8 versus 4.1 standard deviation). Thus, there seems to be no evidence that the ER regime matters for the cost of remittances.⁵⁸

What could explain such unexpected result? One might argue that the existence of capital controls, which is more likely in fixed ER regimes, might blur any ER regime–remittances

⁵⁷This was already the case as the RPW survey does not capture fees that many times the receiver has to pay.

⁵⁸Note that according to **Figure 19**, 8 out of the 30 highest FX margins corridors originate in Qatar and 5 in Saudi Arabia. Both countries’ exchange rate regime is classified as conventional pegs by AREAR (2018).

cost link.⁵⁹ However, in theory capital controls should not be relevant for remittances, since they are precisely the type of capital flow that governments welcome and want to attract. Indeed, very few countries have any type of controls on “transfer into by immigrants” according to the IMF AREAER (2018) database. And, in those cases, the average remittance cost is only marginally higher than that for the other countries, as the bottom panel shows. Therefore, the absence of evidence that the ER regime matters for the cost of remittances seems robust. One explanation for this puzzle could be that for many countries that have a fixed ER regime, migrants live in countries that are not the anchor currency country. This would mean that when they send money back home a cross ER, which does float, will be used.



⁵⁹Note that capital controls could also be seen as yet another example of how regulation can affect remittance costs.

Finally, another commonly cited reason behind the high cost of remittances is financial literacy.⁶⁰ The lack of financial literacy could be seen as a constraint that decreases the signal-to-noise remitters face (as complex pricing strategies do), as their awareness about the remittances market is constrained. Limited knowledge on remitting options mean that migrants cannot take well informed decisions and end up paying more than they should have, hindering competition. However, although this argument seems sensible at first, it needs to be taken with caution for, at least, two reasons. First, remitting is a repeated game. Second, the migrant community interacts a lot. Thus, learning about the cheapest options available should be relatively easy as remitters exchange their experiences (word of mouth).

Indeed, a recent survey with Latin America migrants that live in the US provided key evidence on migrants' behavior (see Orozco and Yansura, 2017). It showed that migrants remit, on average, 14 times per year. It also suggested that migrants' legal and labor market status play a key role in financial access, inclusion and remittance choices. More specifically, many migrants fear that if they join the formal financial system, they risk being identified (including by the tax authority) and deported. Thus, many migrants do not have current accounts and remit using cash only. As **Figure 18** has shown, there are cheaper options than cash, the most used payment method, but usually they require a bank account. Therefore, what might be considered as a lack of financial literacy could mainly be reflecting constrained behavior due to other causes. The survey also shows evidence that many migrants do not behave rationally, as they do not consider changing providers and/or payment methods even when more convenient and/or cheaper alternatives are available. Finally, as argued, wittingly confusing and opaque pricing policies by RSP increase searching costs and pose serious challenges even for more literate remitters.

The results presented in this section share many similarities with those from Beck and Peria (2009). However, there are some noteworthy differences. They differ in two important ways. First, Beck and Peria (2009) found that the effects of some key variables (e.g. importance of banks, bank branches per capita, regulation) are relevant only from the sending country perspective. **Figure 22** is very instructive on this regard, as it strongly suggests that receiving country factors are hampering the convergence in costs between banks and MTO. Second, in addition to receiving country's regulation not being significant, the effect of sending country's regulation is positive (i.e. corridors with broader regulation have lower costs). On the other hand, this paper has shown that regulation has usually been a hindrance to costs, especially from the receiving country perspective, either because they don't forbid the existence of artificial barriers to entry (i.e. inaction) or because they are over stringent and unbalanced (i.e. too active), raising costs and preventing competition. Part of the reason for this discrepancy might lie on how both papers approached the problem. While this paper has provided granular evidence on regulation, Beck and Peria's constructed an index to measure it, one in which aggregates several aspects of regulation, making it hard to understand what

⁶⁰See, for example, Cecchetti and Schoenholtz (2018).

the issues are. In addition, it ignores some key regulatory aspects, such as the harmful effect of exclusivity clauses.

VIII. HOW TO DRIVE REMITTANCE COSTS DOWN?

As it should be sufficiently clear at this point, remittance costs are driven by a multitude of factors, which affect different countries and corridors in different ways and intensities. While some of the drivers are not obviously identifiable others are straightforward. Regardless, tackling them require coherent and consistent efforts by policymakers, enhanced cooperation among different jurisdictions and patience. In addition, it is important to bear in mind that while policies can help to mitigate the effects of some frictions that hinder the functioning of remittance markets, they have limited effect on others and, therefore, should not be seen as a panacea. This assessment, along with the available evidence, indicates that there is no easy solution for driving remittance costs down, mainly in poorer countries.

As pointed out in Section III, remittances are yet another form of payment, and as such they share many similarities with ordinary domestic payments. Indeed, the so-called “initial mile” and “final mile” in the remittances payment chain take place through regular domestic payments systems. However, the extra steps needed for moving resources across jurisdictions and currencies have non-trivial effects on the efficiency of the payment process. As a result, there is a wide perception – confirmed by evidence – that remittances payments are costly, slow, non-transparent and complex. As Section III has showed, these problems are intertwined. This finding already points to the nature of some of the measures needed to bring remittance costs down.

From a policy perspective, there are several complementary and reinforcing channels through which policymakers can act to decrease the cost of remittances. One obvious channel is by fostering competition, as most remittances markets are highly concentrated. According to Watkins and Quattri (2014), the two largest MTO (WU and MG) control at least 50% of the remittances market (proxied by the number of payout locations) in more than two thirds of SSA countries.⁶¹ An older estimate from IFAD (2009) assesses that banks, in partnerships with WU and MG, are responsible by 41 percent of the remittances payments and 65 percent of all payout locations in Africa. Not surprisingly, **Figure 21** shows that corridors with a higher number of MTO tend to face lower remittance costs. Most importantly, it also shows that competition seems to materialize mainly through MTO, as costs are positively correlated to the number of banks, which suggests that banking systems are usually not competitive. Alternatively, it might also indicate that among a myriad of services that banks provide to their clients, they put low weight on remittances services and do not aggressively compete for them.

⁶¹Thus, recent news on a possible merge between WU and MG are concerning, and if materialized would be an important setback in fostering competition on remittances markets worldwide (see “[Western Union has made a takeover offer for MoneyGram](#)”)

It is worrisome, therefore, that many countries impose restrictions on what type of institution – and under what conditions – can provide remittances services. An example illustrates this point well. In 2016, the Central Bank of Nigeria (CBN) issued a directive whose effects would have forced all MTO operating in the country, but three, to suspend their operations.⁶² And that had not been the first time the CBN had tried to impose stringent conditions that would have made it unfeasible for many non-bank RSP, mainly newcomers, to provide remittances services. In 2015, it made it much more difficult for mobile money operators (MMO) to qualify to operate in the Nigerian market.⁶³ If that happened in the largest remittance-receiving country in SSA it is not surprising to learn that many SSA countries restrict remittances service licenses to banks and a few large MTO (Cenfri, 2018; World Bank, 2018b). And, according to IFAD (2017), 80% of SSA countries restrict the type of institution able to offer remittances to banks. Such restrictive policies not only limit competition, as non-banks are forced to partner with banks if they want to provide remittances services, incurring in extra operational costs, but also subject them to the same compliance requirements of banks, also increasing costs.

Instead, policymakers should foster competition not only by granting non-banks licenses to provide remittances services but also by ensuring that they face a level playing field through adequate and proportionate regulation. More specifically, they should allow non-banks to provide money transfer services independently of banks. In addition, they should not impose excessive burden on non-banks RSP by applying unnecessary stringent regulation tailored for banks. Otherwise, compliance costs could become prohibitive and might even discourage new entrants, acting like a barrier to entry. In contrast to commercial banks, due to their very nature (high number of small value transactions) RSP typically do not pose risks to financial stability, which calls for policymakers to apply proportionate, risk-based regulation, decreasing costly frictions in remittances markets.

A more sensible, risk-based, application of AML/CFT regulation is also warranted. Appendix 2 points out that when implementing de-risking strategies in recent years correspondent banks have gone well beyond the Financial Task Force recommendations (World Bank, 2018a). For example, by requiring information on respondent bank customer's customers (KYCC). That behavior has contributed to a sharp decrease in the numbers of CBR. This over stringent approach has “spilled over” to RSP as well. For instance, although FATF guidelines do not require proof of address from remittances senders they are being increasingly required by RSP (Cenfri, 2018).

Another obvious channel to increase competition and drive remittance costs down is to decrease barriers to entry, which should make remittances markets not only more competitive

⁶²See Directive “[TED/FEM/FPC/GEN/01/004](#)” on “Sales of Foreign Currency Proceeds of International Money Transfers to Bureaux de Change Operators”. See also the press release “[Beware of Unregistered Money Transfer Operators](#)”.

⁶³The CBN required MMO to have a minimum net worth of USD1 billion and to operate in at least 20 countries with at least 10 years’ experience in the money transfer business. See “[Guidelines on International Mobile Money Remittance Service in Nigeria](#)”

but also more contestable. This points to the importance of making exclusivity clauses illegal as they effectively lock markets to a few providers, curbing or even preventing competition (see Appendix 1). Although not the only factor, those clauses certainly help to explain the large dominance of WU and MG in SSA. However, although banning exclusivity clauses are likely to be a necessary condition to drive remittance costs down in any meaningful way, their prohibition is unlikely to be sufficient, since the existence of a competitive market depends on several factors.

Indeed, not only the legal status of exclusivity clauses matters but rather the overall regulation of non-banks RSP, a few aspects of which were singled out above. Moreover, in many cases, even after exclusivity clauses were banned, many agents have continued to work with one MTO (Cenfri, 2018, World Bank, 2018b). Finally, even in those markets where barriers to entry are low the size of the market and logistical challenges, among other factors, might discourage new entrants. For example, setting up operations in a meaningful way in many low-income countries, particularly in those where a large part of the remittances is received in cash, might be especially costly and, therefore, not economically attractive.

Notice that the combination of restrictive regulation with exclusivity causes could have large detrimental effects on competition as both factors compound each other. According to IFAD (2009), in the African countries where banks were the only institutions authorized to pay remittances, half of them were WU agents. This effectively locked half of the market to a single RSP.

Besides cracking down on anticompetitive practices, like exclusivity clauses, regulation should also foster competition by safeguarding transparent market practices. The higher price transparency the likelier the sender is to make an informed decision and, therefore, pay less for remittances services. Price awareness increases price sensitivity, which increases competition. Even though, as Section III explained, it is difficult for RSP to know in advance the total cost of remittances in certain situations, there is plenty of evidence that their pricing policies are often not transparent.⁶⁴ It is also common to find misleading advertisement from RSP, for example, focusing on the low standard fee instead of on the total cost. Therefore, transparency also relates to consumer protection.⁶⁵

Finally, in addition to requiring transparent pricing from RSP, any action, project or initiative that is able to collect timely remittance costs and disseminate them, providing an easy way for senders to easily compare costs among different RSP, is very helpful to foster competition and drive costs down. On this regard, it is worthwhile to mention the initiative from PROFECO (Office of the Federal Prosecutor for the Consumer) in Mexico, which publishes a weekly fee

⁶⁴RSP should clearly inform remitters on the cost components it knows for certainty at the time of the transfer and be clear on what it does not know.

⁶⁵One example of a regulation on price transparency and consumer protection is the so-called Dodd-Frank Remittance Transfer Rule. Among other requirements, it instructs money transfer companies to disclose certain information on remittance costs. For a summary see [“A Summary of the Final Remittance Transfer Rule \(Section 1073\)”](#).

statistics on a USD \$300 remittance from the US to Mexico, the exchange rate banks apply to the payments, dollars received and the total remittance cost.⁶⁶

It is also important that policymakers increase the contestability of remittances markets by ensuring that non-bank RSP have a fair and equitable access to the payment system infrastructure (WB, 2018b). The lack of interoperability between payment systems also generate frictions and increase costs.

Finally, it is essential that besides aiming at reducing the “tag cost” of remittances policymakers also focus on decreasing their hidden and non-pecuniary costs. This is especially relevant for poorer countries where payout locations are often situated in the biggest cities while a large share of beneficiaries live in rural areas.⁶⁷ Thus, they need to travel to those cities to cash their remittances. That means they need to spend not only (unproductive) time but also extra resources (e.g. with transportation) to get their remittances, which shows that remittances’ actual costs are even higher than their already expensive tag price.

Although this is a substantial hurdle to overcome, it seems easier to mitigate than some of the challenges listed above, as it can be largely tackled by increasing the coverage of payout locations through partnerships with national post operators. The post office is an “ideal partner” as its network not only is very granular but also has a large footprint in rural areas. According to the International Fund for Agricultural Development (IFAD, 2020), the post office global network exceeds 650,000 and most of them are located in rural areas. For example, Cloteau and Ansón (2011) cite evidence for SSA that more than 80% of the post offices are located in small and medium-sized towns and rural areas.⁶⁸

On this regard, it is instructive to learn about the African Postal Financial Services Initiative (APFSI) and the lessons drawn from it.⁶⁹ The APFSI was a broad partnership led by IFAD, co-financed by the European Union, which brought together the World Bank, the Universal Postal Union, the World Savings and Retail Banking Institute and the United Nations Capital Development Fund. More specifically, it aimed at “... promoting a cheaper, faster, more convenient and more client-friendly transfer of remittances, particularly to rural areas, while fostering dialogue among stakeholders, regulators and policymakers.”⁷⁰

The encouraging results from the pilot countries showed that there is ample space not only to leverage the role of postal networks in facilitating and expanding access to remittances, but

⁶⁶See <https://qqed.profeco.gob.mx/Index.php>.

⁶⁷According to IFAD (2016), more than 40 per cent of remittance receivers in Africa live in rural communities.

⁶⁸IFAD (2016) estimates that there are 26,000 post offices and post agents across Africa.

⁶⁹See <https://www.ifad.org/en/apfsi>.

⁷⁰Brazil also provides valuable evidence on leveraging post offices to bring and expand financial services to vast swaths of the country [see CPSS and the World Banks (2007) and Cloteau and Ansón (2011)].

also to increasing financial inclusion in rural areas. Evidence gathered during APFSI implementation showed that around 60 percent of recipients in the pilot countries walked to the post office to get their remittances.⁷¹ This represents a huge improvement over the previous situation.

Besides improving access and convenience the APFSI fostered competition among RSP, helping to drive remittance costs down. The benefits were significant given that PO are usually cheaper than traditional MTO (**Figure 17**). Indeed, IFAD (2018) reports that “The average cost of remittances delivered through the post offices in the four countries is 37 percent lower than the market average.” In addition, in the first three years the cost of sending money to the pilot countries delivered via PO plunged 42 per cent in their main corridors. During the same period the amount of remittances delivered by PO increased by 60 percent. Not surprisingly, the market share of post offices increased by almost 5 percentage points during the same period.

One of the main lessons from the APFSI (IFAD, 2020) is that “... postal operators have in many cases both the physical and logistical infrastructure required to expand financial services and remittances to rural areas, thus enhancing financial inclusion for the rural population.” Despite the large gaps and common challenges Africa faces (e.g. power supply, IT equipment and connectivity), post offices could be successfully upgraded and meet the standard requirements of financial regulators for payment agents by installing basic IT equipment and connectivity (IFAD, 2018). Indeed, during APFSI implementation, 260 post offices in the four pilot countries were successfully upgraded.

Therefore, the postal network represents a huge, mostly untapped, opportunity for increasing access to remittances and decreasing not only their tag price, but also their substantial hidden and non-pecuniary costs involved. However, it is important to bear in mind that to maximize its impact post offices should act in a non-discriminatory way, by fostering competition, when delivering remittances. That means, for example, not engaging in exclusivity clauses.

IX. CONCLUSIONS

This paper delved deep into the remittances ecosystem, trying to uncover, identify and understand what the main drivers of remittance costs are. What it found was a complex, heterogenous and unequal environment, one having several dimensions and overlapping layers, where jurisdictions intersect, and settlement and clearing roads are not always paved in parallel, have stretches with different qualities and are often bumpy and sometimes operate under low visibility. Therefore, it revealed that analogies – implicitly or explicit – with

⁷¹More specifically, around 50 percent of post offices were within a 10-minute walking distance in Senegal and Ghana, while in Benin and Madagascar the percentages were 45 and 20 percent. In addition, the number of remittance-receiving post offices within walking distance increased steadily during project implementation.

domestic payment systems are simplistic and potentially misleading. This awareness is important, mainly due to two reasons.

First, remittance costs are yet another type of transaction costs, and although papers analyzing their drivers are scant, there is a large literature on financial transaction costs. One important strand of that literature focuses on another transaction cost that is also relevant for many poor and developing countries: bank interest rate spreads. Although the drivers of both costs share many elements in common, they are also sufficiently different to warrant different investigations. Second, as it should be now clear, remittances transfers are vastly more complex than domestic payments. As a result, the quest to drive remittance costs down are much more difficult and complex than one might think. These acknowledgments have important implications for understanding the challenges policymakers face and, therefore, for better identifying and tailoring policy prescriptions.

Indeed, in recent years it has been a commonplace to read in magazines, newspapers and web articles analyses stating *ad nauseum* that the ultimate solution to drive remittance costs down rests on fintech. More specifically, a myriad of articles have praised the disruptive nature of blockchain and forecast that high costs would soon be an issue from the past. Although fintech does have an important role to play in driving remittance costs down, those predictions have miserably failed the reality test, mostly because expectations were not rooted on the “reality on the ground”.

Indeed, one main lesson this paper has tried to convey is that there is no magic solution for driving remittance costs down in a significant and fast way, especially to the world’s poorest regions, as they depend on a series of factors, several of them deeply structural and endogenous, upon which policymakers have little power. Nonetheless, the paper has also clearly shown that policymakers’ have an important role to play in lessening market failures, increasing competition, improving regulation, and leveling the playing field among RSP.

For example, a pervasive feature of the remittances ecosystem are the so-called exclusivity clauses. Those clauses have sharp detrimental effects on remittance costs as they lock markets to a few providers, hindering competition and allowing RSP to increase their margins. Therefore, they should be prohibited. A more challenging regulatory issue – in part because it requires coordination among jurisdictions – are the effects of more stringent AML/CFT regulation and practices, where a balance between curbing illegal activities and not imposing unnecessary burden on RSP – and poor countries –, which have been hit hard by the loss of CBR and higher compliance costs, is essential. For example, there is evidence that banks and regulators often go beyond FATF recommendations.

Another key regulatory issue is restrictive licensing. Many countries impose restrictions on what type of institutions can offer remittances services. Often, banks and large MTO are the only ones allowed. Not being able to get licenses, many RSP see no other option but to enter in agreements with banks to provide remittances services. This practice means that non-banks RSP are unnecessarily subject to the same regulatory burden as banks, even though

they pose a much smaller systemic risk, which drives their operational costs up. In addition, such regulatory practice acts like a barrier to entry. Thus, policymakers should foster competition by broadening the type of institutions allowed to provide remittances service, regulate non-bank RSP in a sensible way, considering the risks they pose, and leveling the playing field among RSP.

The paper has also shown that the remittances market is not a transparent market, to a great extent due to misleading or deceiving behavior by RSP, who often fail to properly disclose an important, but hidden, component of remittance costs: the exchange rate margin. Moreover, pricing policies are usually complex as they depend on hedonic features. Therefore, by imposing transparency requirements regulators could increase awareness and price sensitivity, increasing competition and decreasing costs.

Finally, it is important that policymakers not only focus on reducing the tag cost of remittances, but also their non-pecuniary – and unaccounted – costs, which are especially relevant in poorer countries, where a large share of the population lives in rural areas. This can be achieved by increasing the geographical coverage of payout locations. There is encouraging evidence that these objectives can be achieved by leveraging the role of post offices by fostering RSP to partner with them in a competitive regulatory setting.

Overall, the paper has shown that remittance costs depend on a myriad of factors. This is not surprising once one learns that those costs not only show substantial variation among regions and countries but also among corridors. In fact, they vary greatly within a corridor, where cost dispersion is high both between and within provider type. Nevertheless, amid such confusing and multi-layered background, some regularities do emerge. First, in general banks are much more expensive than MTO, which are often more expensive than post offices. One hypothesis is that remittances are a marginal service to banks and, therefore, they don't have much incentives to lower their costs. This might be true, but the explanation seems simplistic as higher costs appear to be much more related to the uneven but favorable regulatory environment bank face.

Somewhat unexpectedly, costs are positively associated with the number of banks in a corridor. Nonetheless, this is hardly surprising, since many countries have banking systems that are concentrated and non-competitive. On the other hand, they are negatively associated with the number of MTO and, even more so, with the ratio of MTO to banks. This evidence shows that competition takes place via MTO and highlights the importance of regulation that are conducive to a competitive-friendly environment. Another regularity is that the higher the costs the higher the cost dispersion remitters face. This evidence also holds for each type of RSP and shows the importance of actively searching for cheaper ways to remit. Also, surprisingly, the FX margin, a big component of the total cost, is unrelated to the type of exchange rate regime. Finally, remittance costs are negatively associated with the volume of remittances, which makes it clear some of the challenges poorer countries face to lower the cost of remittances.

REFERENCES

- Acharya, C. and R. Leon-Gonzalez (2014), “How do Migration and Remittances Affect Human Capital Investment? The Effects of Relaxing Information and Liquidity Constraints”, *Journal of Development Studies*, Vol. 50, Issue 3.
- Adams, R. (2011), “Evaluating the Economic Impact of International Remittances on Developing Countries Using Household Surveys: A Literature Review”, *Journal of Development Studies* 47.
- Aggarwal, R., A. Demirgüç-Kunt, M. S. M. Peria (2011), “Do remittances promote financial development”, *Journal of Development Economics*, Vol. 96, Issue 2.
- Amega, Komla (2018), “Remittances, education and health in Sub-Saharan Africa”, *Cogent Economics & Finance*, 6:1.
- Askarov, Z. and H. Doucouliago (2020), “A meta-analysis of the effects of remittances on household education expenditure”, *World Development*, Volume 129.
- Azizi, SeyedSoroosh (2019), “The impacts of workers’ remittances on poverty and inequality in developing countries”, *Empirical Economics*.
- Barajas, A., R. Chami, C. Fullenkamp, M. Gapen and P. Montiel (2009), “Do Workers’ Remittances Promote Economic Growth?”, IMF Working Paper 09/153 (Washington: International Monetary Fund).
- Beck, T and M. S. M. Peria (2009), “What explains the cost of remittances? An examination across 119 country corridors”, *The World Bank Economic Review*, Volume 25, N° 1.
- Bhattacharya, M., J. Inekwe, and S. R. Paramati (2018), “Remittances and Financial Development: Empirical Evidence from Heterogeneous Panel of Countries.”, *Applied Economics*.
- BIS (2020), “[New Correspondent Banking Data – The Decline Continues](#)”, last accessed on 11.11.2020.
- Bettin, G., A. F. Presbitero and N. Spatafora (2014), “Remittances and Vulnerability in Developing Countries”, IMF Working Paper 14/13.
- Cazachevici, A. T. Havranek and R. Horvath (2020), “Remittances and economic growth: A meta-analysis”, *World Development*, Volume 134.
- Cecchetti, S. and K. Schoenholtz (2018), “The stubbornly high cost of remittances”, VoxEU.org, 27 March.

- Chami, Ralph, C. Fullenkamp and S. Jahjah (2005), “Are Immigrant Remittance Flows a Source of Capital for Development?”, International Monetary Fund (IMF) Staff Paper 52.
- Cenfri (2018), “Market barriers to remittances in sub-Saharan Africa (SSA)”, in Exploring barriers to remittances in sub-Saharan African series, Vol. 2. Report in partnership with the Department for International Development (DFID) and Financial Sector Deepening Africa (FSD Africa).
- Cloteau, N. and J. Ansón (2011), “Role of Post Offices in Remittances and Financial Inclusion”, Migration and Development Brief 15, World Bank.
- CPMI (2016), “Correspondent Banking”, Bank of International Settlements.
- CPSS and World Bank (2007). “[General Principles for International Remittance Services](#)”.
- Donou-Adonsou, F., G. Pradhan and H. C. Basnet (2020), “Remittance inflows and financial development: evidence from the top recipient countries in Sub-Saharan Africa”, *Applied Economics*, 52:53.
- Erbenová, M., Y. Liu, N. Kyriakos-Saad, A. López-Mejía, G. Gasha, E. Mathias. M. Norat, F. Fernando and Y. Almeida (2016), “The Withdrawal of Correspondent Banking Relationships - A Case for Policy Action. IMF Staff Discussion Note.
- Lubambu, K. M. K. (2014), “[The impacts of remittances on developing countries](#)”, European Parliament.
- Frankel, Jeffrey (2011), “Are Bilateral Remittances Countercyclical?”, *Open Economies Review*, Vol. 22, issue 1.
- FSB (2018), “FSB Correspondent Banking Report – Update”, 16 November.
- G8 (2004), “[G8 Action Plan: Applying the Power of Entrepreneurship to the Eradication of Poverty](#)”, Sea Island Summit, United States, June 8-10.
- (2007), “[Growth and Responsibility in Africa](#)”, Heiligendamm Summit, Germany, June 6-8.
- (2008), “[G8 Hokkaido Toyako Summit Leaders' Declaration](#)”, Hokkaido Toyako Summit, Japan, July 7-9.
- (2009), “[Responsible leadership for a sustainable future](#)”, L’Aquila Summit, Italy, July 8-10.

- G20 (2011), “[Building our common future: Renewed collective action for the benefit of all](#)”, Cannes Summit, France, November 4.
- (2014), “[G20 Leaders’ Communiqué](#)”, Brisbane Summit, Australia, November 16.
- GFMF (2007), “[The 7 Recommendations of the G8 Outreach Meeting on Remittances](#)”, German Federal Ministry of Finance.
- IFAD (2009), *Sending Money Home to Africa: Remittance Markets, Enabling Environments, and Prospects*, Rome, Italy.
- (2016), “Remittances at the post office in Africa - Serving the financial needs of migrants and their families in rural areas.”
- (2017), *Sending Money Home: Contributing to the SDGs, one family at a time.*
- (2020), “How post offices can leverage the impact of remittances”
- IFAD and World Bank (2015), *The Use of Remittances and Financial Inclusion*, A report prepared by the International Fund for Agricultural Development and the World Bank Group to the G20 Global Partnership for Financial Inclusion.
- IMF (2008), “[Remittances: Release of Remittances Compilation Guide and Future Plans](#)”, Twenty-First Meeting of the IMF Committee on Balance of Payments Statistics Washington, D.C., November 4–7. See the attachment “The 7 Recommendations of the G8 Outreach Meeting on “Remittances”, 28 – 30 November 2007, Berlin.
- (2017), “[Recent Trends in Correspondent Banking Relationships: Further Considerations](#)”.
- (2018), “Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER).
- McKinsey (2016), “Global payments 2016: Strong Fundamentals Despite Uncertain Times”, McKinsey & Company.
- Mohapatra, S, G. Joseph and D. Ratha (2012), “Remittances and Natural Disasters: Ex-Post Response and Contribution to Ex-Ante Preparedness”, *Environment, Development and Sustainability*, Volume 14
- Moré, Iñigo (2015), “[Fighting exclusivity clauses in the market for remittances](#)”, Working Papers N° 9.

- OECD/Scalabrini Migration Center (2017), “Interrelations between Public Policies, Migration and Development in the Philippines”, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/9789264272286-en>.
- Orozco, Manuel and Julia Yansura (2017), “[On the Cusp of Change: Migrants use of the internet for remittance transfers](#)”, Inter-American Dialogue.
- Sayeh, Antoinette and Ralph Chami (2020), “[Lifelines in Danger](#)”, Finance & Development, June 2020, International Monetary Fund.
- Terrelonge, Sophia C. (2014), “For Health, Strength, and Daily Food: The Dual Impact of Remittances and Public Health Expenditure on Household Health Spending and Child Health Outcomes”, *The Journal of Development Studies*, 50:10.
- The Guardian (2013), “[We need to fix the leaks in remittance transfer systems around the world](#)”, February 8.
- UN (2015), “[Transforming our world: the 2030 Agenda for Sustainable Development](#)”.
- Watkins, Kevin and M. Quattri (2014), “Lost in intermediation: how excessive charges undermine the benefits of remittances for Africa”, Overseas Development Institute Report.
- World Bank (2007), “[Financial Sector Strategy For the World Bank Group](#)”, World Bank, March 28.
- (2014), “Guidelines for the Successful Regional Integration of Financial Infrastructures”, Washington, DC.
- (2016), [Getting SmaRT about remittance price monitoring](#). World Bank.
- (2018a), “The Decline in Access to Correspondent Banking Services in Emerging Markets: Trends, Impacts, and Solutions”.
- (2018b), “The Market for Remittance Services in Southern Africa”.
- (2020), “COVID-19 Crisis Through a Migration Lens”, Migration and Development Brief N° 32, Washington, D.C.
- (2021), “Remittance Prices Worldwide”, Issue 37, March.

APPENDIX 1

Remittance costs and Exclusivity Agreements⁷²

A central and longstanding feature of the global remittances market is the pervasive use of exclusivity clauses by the two largest MTO: Western Union (WU) and Money Gram (MG). Those clauses forbid their vast number of agents worldwide – banks, foreign exchange bureaus, post offices, etc. – to provide money transfer services to current and potential competitors, acting as a barrier to entry and taking a heavy toll on competition. IFAD (2009) assessed that “These agreements effectively ‘lock’ more than half of all available payout locations.” As a result, these clauses allow incumbents to charge excessive prices from migrants to send remittances back home.

Although exclusivity clauses continue playing an important role in many corridors, in recent years they have been increasingly challenged by market participants, contested by multilateral institutions and combated by policy makers, although in different ways and with different degrees of success. The first significant reaction to this practice took place in mid-2001 in Russia, when several correspondent Russian banks, members of a successful network of cash-to-cash transfers to within and outside Russia, were instructed to leave the network. The demand came from WU, who stated that they were in violation of item 4.2.8 of their correspondent contract. That item was an exclusivity clause.

Suddenly, Russlavbank, the bank operating the network, faced the loss of several correspondent banks, threatening the existence of its business. However, it did not take it lightly and reacted by filing a complaint with the Russian Ministry of Antimonopoly Policy against WU arguing that clause 4.2.8 was illegal as it granted monopoly powers to WU. In September 2003 the Russian regulator ruled in favor of Russlavbank stating that the clause was in violation of Art. 6 of the Federal Law “On Protection of Competition”. WU appealed and lost its final appeal in October 2004. As a result, the exclusivity clause, which was included in all WU contracts with more than 200 Russian banks, was ruled null and void. Thus, Russia seems to have been the first country to make exclusivity clauses illegal in the money transfer business.

That ruling reverberated well beyond Russian borders and yet in 2004 Ukraine’s Antimonopoly Committee opened an investigation on the reasons behind the high prices charged by WU to send money to Ukraine. A key aspect of that investigation was that it involved the WU’ international arm, who was the entity that had signed the contracts with Ukrainian banks. That arm followed international law and, therefore, was not under the control of Ukrainian authorities. Nonetheless, the Antimonopoly Committee reached an agreement in which WU committed to reduce its fees by “... no less than 40%” in remittances sent from overseas to Ukraine. By any criterion, that was a sizable reduction.

⁷²This Appendix draws on Moré (2015).

In August 2006 the National Bank of Ethiopia (NBE) issued a directive on Provisions for International Remittance Services, whose article 3.2.1 stated that “RSP shall arrange non-exclusive conditions when making agency agreements between them” and article 3.2.4 instructed that “RSP must obtain approval from the NBE before entering into new agency agreement with international money transferring operators”.⁷³ Thus, the NBE found a way to combat exclusivity clauses through indirectly regulating international MTO firms outside its legal jurisdiction. That strategy was a huge blow not only for WU but also for MG, as it directly challenged the core of their business models.

As the fight against exclusivity clauses started gaining momentum it got further legitimacy and visibility from the endorsement of two key multilateral institutions: The World Bank and the BIS. In 2007, they published a report (CPSS and World Bank, 2007) named “General Principles for International Remittances Services”, whose fourth principle addressed competitive market conditions, and recommended that “Competition can be assisted by discouraging RSPs from imposing exclusivity conditions on agents”.

In March 2008, Senegal’s Ministry of Finance issued a letter to the managers of banks operating in the country warning that exclusivity clauses in the remittances business were at odds with the Competition Law and directed them to make sure their contracts with MTO were compliant with the law. However, the instrument used by the Minister to exert pressure on banks was not legally binding. Nonetheless, other WAEMU member countries followed Senegal’s initiative in the following years and today all of them seem to have gotten rid of exclusivity clauses.⁷⁴

In November 2008, the Central Bank of Nigeria (CBN) followed the NBE and issued a directive on exclusivity clauses that stated “... the Central Bank of Nigeria, henceforth, will no longer approve any money transfer agreements between International Money Transfer Operators and agent banks that contain exclusivity clauses.” since those clauses “constitute a restraint on competition and unnecessarily increase the cost of money transfer services to the users”.⁷⁵ In September 2010 the Reserve Bank of India issued a circular ruling exclusivity arrangements for in-bound cross-border money transfers illegal, as it concluded they “limit competition, distort pricing and thereby act as a deterrent to a payment system from achieving the desired goal of efficiency, affordability and being ubiquitous”.⁷⁶

In October 2011 the Central Bank of Liberia (CBL) issued a “Directive to Promote Competition Concerning International Money Transfer Operations” that required “All licensed financial institutions having exclusivity clauses ... [to] ... expunge these clauses

⁷³Directive No FXD/30/2006 on Provisions for International Remittance Services.

⁷⁴WAEMU is formed by Benin, Burkina Faso, Côte D’Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo.

⁷⁵Directive “[BSD/DIR/CIR/GEN/VOL. 2/017](#)” on “Exclusivity clauses in the agreements between signed by Nigerian banks with international money transfer Operators”.

⁷⁶Circular “[RBI/2010-11/206](#)” on “In-bound Cross Border Money Transfer Service-Exclusivity Arrangements”.

from their agreements...” and set a fine of “... not less than L\$100,000 [approximately USD1,000] for each day of violation...”⁷⁷ In 2011, Bank Al Maghrib banned exclusivity agreements in Morocco. In June 2012, the National Bank of Rwanda issued regulation that prohibited exclusivity agreements for payment service providers.⁷⁸ And, in January 2013, the Central Bank of Tunisia, at the request of the Secretary of State for Emigration, instructed the country’s banks to remove the exclusivity clause from their money transfer agreements.⁷⁹

A. Further Considerations

As Moré (2015) points out, it is interesting to notice that no remittance-sending country has made exclusivity clauses illegal. The situation seems unchanged today. Nonetheless, they have been questioned in at least two important occasions. In 2004 The Antitrust Division of the US Department of Justice (DOJ) opened an investigation on WU’s exclusivity agreements and concluded in 2005, subsequently to Russia’s historic decision, that “... the facts do not support a claim that Western Union’s contracting practices with its agents in the United States have caused harm to consumers.”⁸⁰ The next meaningful action would only happen more than a decade later when the European Commission started a preliminary antitrust investigation in 2016 to check whether WU exclusivity clauses violated European Union competition rules. Four years later, the investigation never went beyond its preliminary status.

Another important point is that *discouraging* exclusivity clauses, as suggested by CPSS and World Bank (2007), seems insufficient from a policy perspective, since there is no reason that key market players would voluntarily give up on the vital advantage provided by those clauses. Indeed, they have been at the very core of WU and MG business models. In addition, any prohibition must be binding. For example, sending letters to banks stating that exclusivity clauses are at odds with the Competition Law (as Senegal did) are ineffective, as they do not have legal power. Finally, even when those clauses are made illegal, regulators must enforce them, including by applying financial penalties (as the CBN did).⁸¹

More importantly, although forbidding exclusivity agreements seem to be a necessary condition to sustained and meaningful decrease in remittance costs, it is not a panacea. The absence of exclusivity clauses will only lead to lower prices if it translates into more competition. According to Watkins and Quattri (2014), in more than two thirds of SSA countries WU and MG controlled at least 50% of the market. Indeed, in many cases, even

⁷⁷Directive “[CBL/RSD/002/2011](#)” on promoting “competition concerning international MTO”.

⁷⁸Regulation N° 06/2012 was repealed by Regulation N° 07/2015, which in its Article 32 stated “Contracts with exclusivity are not permitted by this regulation unless they are authorized by the Central Bank.”

⁷⁹[Circulaire aux Banques et aux Intermédiaires Agrées N°2013-01](#).

⁸⁰[Statement by Assistant Attorney General R. Hewitt Pate Regarding the Closing of the Western Union Money Transfer Investigation](#).

⁸¹For example, ODI (2014) notes that “Both Ghana and Nigeria have now adopted rules prohibiting exclusivity, though many sole agreements continue.”

after exclusivity clauses were banned, many agents continued working with one MTO (The World Bank, 2018b).

Despite not being a panacea, it does not seem a coincidence that, at least since 2011, many former USSR republics face the lowest costs in the world (**Figure 14**) and that Russia has the lowest sending costs among its G20 peers. One clear piece of evidence of this causality was the agreed reduction by “... no less than 40%” in remittances sent from overseas to Ukraine between the Ukraine’s Antimonopoly Committee and WU.

APPENDIX 2

AML/CFT and the Loss of Correspondent Banking Relationships

In addition to exclusivity clauses, another regulatory challenge involving the remittances market are concerns over the use of RSP to conduct illegal financial activities, especially money laundering and terrorism financing. While exclusivity clauses are, in principle, easier to address given its clear nature and effect, the latter is a much more complex task. In addition, the remittances market poses unique challenges to regulators and law enforcement institutions for monitoring, identifying and repressing these activities, due to three reasons. First, most of the transactions in the remittances market are carried out by a couple of MTO, which usually face less regulation as non-banks, and most of those transactions occur in cash. Second, traditionally it has been easy to conceal one's identity when sending money through them, since besides cash not leaving a trail, identification requirements by MTO have been historically lax.⁸² Finally, while more stringent regulation and stricter enforcement are key to curb illegal activities, they have produced some non-negligible unintended consequences, harming one key role of the remittances: providing a lifeline for many poor families in developing countries.

In recent years, driven by AML/CFT concerns, especially after the 2001 terrorist attacks, regulators have begun to put in place more stringent financial regulation, mainly on "know your client" (KYC) requirements, and enhanced enforcement. Due to the weaknesses pointed out above, which has made the remittances market a fertile ground for illegal activities, along with lenient behavior from MTO, that market has been hit hard by the crackdown on financial crimes. For example, in early 2017 WU settled on a massive \$586 million fine imposed by the US Federal Trade Commission (FTC) and the DOJ after admitting "... criminal violations including willfully failing to maintain an effective anti-money laundering program and aiding and abetting wire fraud."⁸³ In 2019 WU was fined again, now for a different reason: due to links between one of its Gambia-based subagents and one of the US State Department-listed "foreign terrorist organizations."⁸⁴ In 2019, WU was fined yet again, now in Europe, in €1 million by the French regulator for AML rule violations. MG has also been fined for similar reasons. Indeed, one year after the FTC and DOJ fined WU they fined MG in \$125 million because it "... failed to implement the comprehensive fraud prevention program mandated by the 2009 [FTC] order, which requires the company to promptly investigate, restrict, suspend, and terminate high-fraud agents." and violated a "... 2012 deferred prosecution agreement with the Department of Justice."⁸⁵ Those actions were a

⁸²Often, identification requirements by MTO have been loose.

⁸³[Western Union Admits Anti-Money Laundering Violations and Settles Consumer Fraud Charges, Forfeits \\$586 Million in Settlement with FTC and Justice Department.](#)

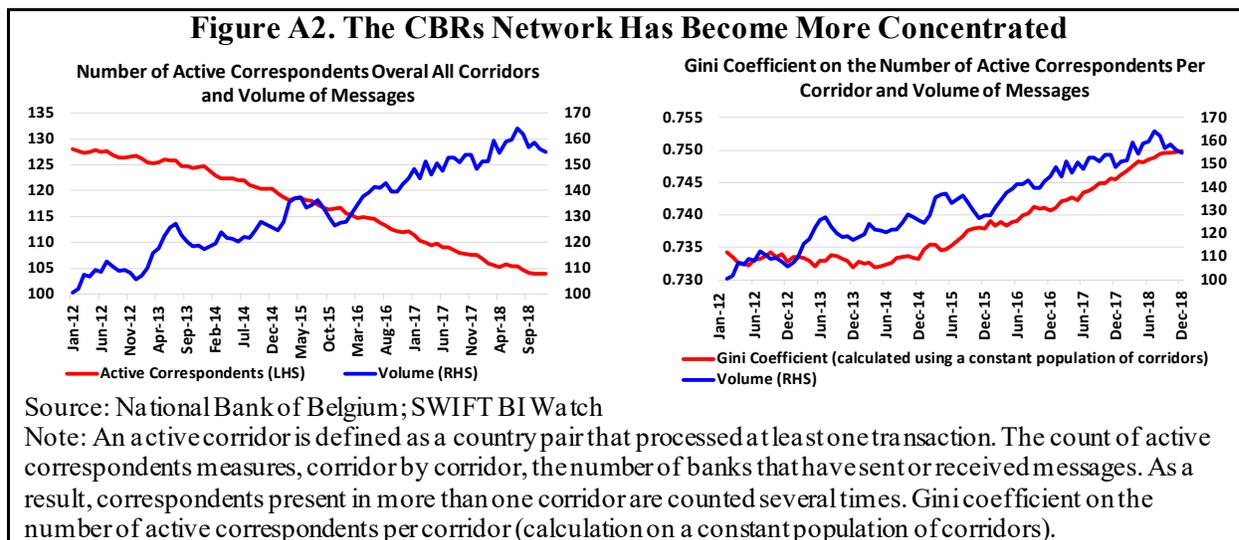
⁸⁴[Western Union Financial Services, Inc. Settles Potential Civil Liability for Apparent Violations of the Global Terrorism Sanctions Regulations.](#)

⁸⁵[MoneyGram Agrees to Pay \\$125 Million to Settle Allegations that the Company Violated the FTC's 2009 Order and Breached a 2012 DOJ Deferred Prosecution Agreement.](#)

wake-up call that MTO needed to start boosting their monitoring and compliance systems, increasing the costs of compliance.

Besides the *direct* channel above, the remittances market has also been hit hard through a second *indirect* channel due to AML/CFT concerns. Stepped up regulation and enforcement against financial crimes had already led to a large increase in the number of banks that have been fined in recent years, sometimes with hefty penalties. For example, in 2012 HSBC agreed to pay USD1.9 billion in fines for channeling Mexican drug money. In 2017 BNP Paribas admitted guilt for doing business with countries under US sanctions and agreed to pay a massive USD8.9 billion fine. It was also temporarily barred from dollar clearing. Deutsche Bank was also fined in 2017, in USD630 million, for its role in a Russian money-laundering scheme. Many other banks have faced stiff penalties for similar reasons.

As a result of this new reality, banks have not only boosted their internal controls to better know their customers and comply with laws and regulations but also started pulling away from some customers, sectors, countries and even regions (see IMF, 2017), where risks were perceived to overshadow possible forgone profits. In other words, they started de-risking. Further, the name of the game has changed from KYC to KYCC (know your customer's customer) and even to KYCCC (know your customer's customer's customer), going well beyond what the Financial Task Force requires (see World Bank, 2018).



One way through which banks de-risked was by severing CBR not only with respondent banks but also with MTO, whose lax controls made them particularly risky clients, and even with some central banks (Erbenová *et al.*, 2016). In addition to de-risking, increasing compliance costs made some CBR financially unattractive. **Figure 23** has already shown that all regions have faced a large reduction in the number of CBR. **Figure A2** provides additional evidence on CBR concentration that followed up. Panel A shows that, despite more than 50% increase in the volume of remittances, there has been a steep decrease in the number of active correspondents (around 20%) – and a smaller but still relevant drop of 10%

in the number of active corridors (see **Figure 23**) – since 2012. As a result, the CBR network has become increasingly concentrated (Panel B), which could mean more market power to correspondent banks and translate into upward pressures on costs.⁸⁶ It could also mean more RSP concentration if some of those who lost CBR were not able to replace it and leave the market.

However, the effect on remittance costs of a more concentrated CBR network is not unambiguous. For example, the continued increase in total SWIFT message volume indicates possible gains of scale for correspondent banks. In addition, although SWIFT data does capture a large bulk of cross-border payments, including remittances, it is not the only messaging system available by which financial institutions exchange information when settling financial transactions (see BIS, 2020). Finally, SWIFT data might not provide a reliable picture of what is happening on the overall remittances market, where most transactions are carried out by MTO and that do not rely on SWIFT platform.

Notwithstanding the uncertainty on the relative importance of each factor, the evidence do show a suggestive coincidence between the increase in active correspondent concentration as of early 2015 – reflecting the intensification of CBR losses that took place 6 months earlier – and the interruption in the decrease in the global costs of remittance 6 months later (**Figure 23**). And, as argued above and in Section VII, enhanced AML/CFT regulation and enforcement could also have affected costs by increasing the costs of compliance of RSP.

Table A2. Countries Most Affected by The Loss of Correspondent Banking Relationship (2012–2018)*

| | | | |
|----------------------|-------|------------------------|-------|
| Timor-Leste | -83.0 | Yemen | -49.9 |
| St Pierre and Miquel | -77.8 | Faeroe Islands | -48.5 |
| Mayotte | -71.4 | Venezuela | -48.5 |
| Vanuatu | -69.0 | Finland | -48.1 |
| Seychelles | -67.4 | Angola | -47.8 |
| Syrian Arab Republic | -67.1 | Ghana | -46.8 |
| Tajikistan | -67.1 | Tonga | -46.2 |
| French Guiana | -65.7 | Andorra | -46.0 |
| Eritrea | -64.1 | Vatican City State | -45.1 |
| Jamaica | -59.7 | Puerto Rico | -44.3 |
| Bermuda | -58.5 | Montenegro | -44.3 |
| Monaco | -56.4 | Trinidad and Tobago | -44.2 |
| Gibraltar | -55.7 | Libyan Arab Jamahiriya | -44.1 |
| Cook Islands | -53.2 | Jersey, C.I. | -43.7 |
| New Caledonia | -51.4 | Isle of Man | -43.4 |
| Belize | -51.2 | Fiji | -43.2 |
| Cuba | -50.8 | Bolivia | -43.1 |
| Brunei Darussalam | -50.7 | Morocco | -42.5 |
| Virquin dsl (GB) | -50.0 | Mauritius | -41.9 |
| Solomon Islands | -49.9 | Moldova | -40.2 |

* Changes in the ratio of the number of banks abroad receiving payment messages from the stated country, and the number of banks receiving payment messages in the stated country, in percent.

Source: National Bank of Belgium; SWIFT BI Watch (via BIS).

⁸⁶The reduction in the number of active correspondents might reflect different factors (see FSB, 2018), whose effects are not expected to be the same.

Finally, while all regions have been affected by the withdrawal of CBR, and many with similar magnitudes, poor countries and conflict zones have been particularly hit. For example, in 2014 there was a big outcry in Australia when Westpac, by then the last of the four major banks to keep MTOs accounts open, announced it would shut down its money transfer services to Somalia, one of the most remittance-dependent countries in the world, due to fears over breaching AML/CFTs laws. Like Somalia, many other countries have been hit hard by the decrease in CBR. **Table A2** shows the 40 countries that experienced the most dramatic losses of CBR during the period from 2012 to 2018. As one can see, most of them are poor and small states.