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Remittances and Bribery in Africa

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Abstract: This paper examines the effects of remittances on bribe payments to public officials to access public goods and services in Africa. We argue that migrant remittances may affect bribery among remittance recipients through the income and norm channels. Using Afrobarometer surveys administered in thirty-six African countries between 2004 and 2016, we find that remittance receivers are more prone to bribe payment than non-receivers. More importantly, we find that individuals who live in countries with higher levels of remittances as a share of gross domestic product (GDP) are more likely to pay bribes than individuals from countries with lower remittances as a share of GDP, which supports the income channel. However, the positive link between remittances and bribery diminishes in countries with a high level of control over corruption. When looking at the stock of migrants living abroad, we find that citizens from African countries that record a high stock of migrants living in OECD countries are less likely to pay bribe than citizens from African countries with lower level of stock of migrants in OECD countries. This finding is in line with the norm channel, but more data are needed for a better understanding of this mechanism.

Keywords: Remittances; Bribery; Africa; SDGs

JEL: F24; O55

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1. Introduction

According to the World Bank 2019 report on migration and development, recorded remittances to low- and middle-income countries reached \$466 billion in 2017 from their previous value of \$429 billion in 2016. Measured as a share of GDP, Africa has continuously topped the chart on the volume of remittances inflow. Amid this rise, quantitative analysis on the impact of remittances on socioeconomic outcomes, including poverty and inequality, labour productivity, consumption stability, education and financial development (Azizi, 2019; Acosta et al., 2008; Mamun et al., 2015; Combes & Ebeke, 2011; Edwards & Ureta, 2003; Giuliano & Ruiz-Arranz, 2009) have also proliferated. While most of these studies show that remittances improve socioeconomic outcomes, its net effect on economic growth remains elusive (Barajas et al., 2009).

More recently, a growing body of literature has examined the impact of remittances on the institutional quality and political outcomes of the remittance recipient countries. Studies in this literature evaluated the effects of remittances on the political regime types and transitions (Escribà-Folch et al., 2015; Deonanan & Williams, 2017; Williams, 2018), political participation (Goodman & Hiskey, 2008; O'Mahony, 2013; Tyburski, 2012), political patronage or clientelism (Combes et al., 2015; Pfutze, 2014; Baudase et al., 2018), and the level of corruption in the government or government effectiveness in providing public goods (Abidh et al., 2012; Beriev et al., 2013; Ahmed, 2013).

However, only few studies have focused on African countries (Escribà-Folch et al., 2018; Williams, 2017 and Konte, 2016 among others³) despite the region hosting a significant portion of global remittances. Moreover, discussions in these studies show a mixed effect of remittances on institutional quality and political outcomes in Africa. For instance, Williams (2017) found that increasing migrant remittances had a positive effect on democracy in sub-Saharan Africa, whereas Escribà-Folch et al. (2018), using data for eight non-democracies in Africa, discovered that remittance receipt increased protest in opposition areas but not in pro-government regions. In addition, Konte (2016) empirically showed that receiving remittances can undermine the

³ See also Ebeke & Yogo (2013) and Dionne et al. (2014) for earlier research on the effects of remittances on political participation in Africa.

endorsement of and support for democracy, depending on whether the recipients prioritise freedom and rights over the economic conditions in their countries.

While these studies have helped us gain important insights on the relationship between remittances and governance or political outcomes in Africa, the question of how migrant remittances affect corruption in Africa has received little attention in the literature. This is surprising because more than 130 million citizens interviewed across thirty-five African countries have paid bribes to access public services and that more than half of the people think that corruption is worsening and that governments are not doing enough to tackle it (see Transparency International, 2019).

Against this backdrop, in this paper, we examine whether receiving remittances from abroad increases or decreases the likelihood of bribing public officials to access public goods and services such as official documents, household services, education and health or to avoid run-ins with the police. We identify and empirically test two potential pathways by which this situation may occur: the income and norm channels. First, because remittances increase the receiver's income, [s]he is better placed to pay bribes in exchange for public services or goods. Alternatively, depending on the nature of the services or goods, the receiver may prefer to use private services/goods to avoid interactions with public officials. Second, remittances represent a direct link between senders and receivers, making it possible for the former to influence the values of the latter. The sender, for instance, can inveigle the receiver to comply with certain norms and beliefs by withholding transfer. This argument is consistent with Levit's (1998) social remittance thesis, which suggests that in addition to financial remittances, migrants transfer new knowledge, practices and norms to their home countries.

For our empirical analysis we used the Afrobarometer surveys administered in thirty-six African countries between 2004 and 2016 to evaluate the impact of remittances on the corrupt practices of remittance recipients such as bribe payments for public goods and services. The results corroborate our conjectures on the income and norm channels as potential pathways by which remittances affect corruption, such as bribe payments, among remittance recipients. Specifically, while we find that remittance receivers are more likely to pay bribes than non-receivers to access public goods or services. We obtain additional evidence that individuals who live in countries with higher levels of remittances as a share of GDP are more likely to pay bribes to access public goods and services than

individuals who live in countries with lower levels of remittances as a share of GDP which is in line with the income channel. However, the positive association between remittance inflows and bribe payments diminishes in countries with a high level of control over corruption. When considering the stock of migrants living in OECD countries, we further find that citizens of African countries with a high stock of migrants living in those OECD countries are less likely to pay bribe than citizens of countries with lower levels of stock of migrants in those OECD countries which is line with the norm channel. As we argue further in the main test however, more data and empirical analyses are needed to provide stronger evidence on remittances, norms and bribe payments in Africa.

The remainder of this paper is structured as follows: Section 2 presents a review of related literature. Section 3 describes the research methodology including data sources and model specification; Section 4 discusses the results, whereas Section 5 provides some concluding remarks.

2. Remittances, institutions and politics

The continuous rise in the volume of workers' remittances together with its potential as an alternative source of development finance have proliferated academic researches on its socioeconomic effects. One such area of research related to the current study is the literature on "remittances and institutional quality". The major issue analysed in this literature is whether remittances act as a curse or blessing to the remittance recipient country. Along this line, Abdih et al. (2012) developed a model wherein remittances lead to moral hazard by reducing households' incentive to hold the government accountable for lack of public goods provision. This occurs because remittances enable the recipient households to purchase public goods themselves rather than rely on the government. The government can then free ride and engage in rent-seeking behaviours.⁴ Using national indices on control of corruption, government effectiveness, rule of law, and the ratio of remittances to gross domestic product (GDP) in a cross-sectional sample of 111 countries, the authors found empirical evidence for their model's prediction. A similar conclusion has been reached by Beriev et al. (2013) and Ahmed (2013) among others. However, other studies such as Tyburski (2014), Baudasé, et al. (2018), and Tusalem, (2018) have found contradictory evidence. Tyburski (2014), for instance, showed that remittances lead to a higher income for people, which makes it easier for them to express their concerns and demand greater control of corruption.

⁴ Two other channels through which remittances can affect the corruption level in the government or the quality of governance, in general, include the following: First, remittances although untaxed, can increase the base for other taxes (e.g. VAT) which makes it less costly for the government to appropriate resources for its own gain (Abdih et al. (2012 p. 658). Second, by affecting the internal political discontent (see Ahmed, 2013 p.1181)

Similarly, Baudasé et al. (2017) argued that remittances lower clientelism, thereby allowing people to voice their concerns against the government and to demand higher accountability.

Some other studies argue that because remittances lowers clientelism, it lead to a less corrupt government, and fairer elections where citizens can express their actual opinions (Escriba-Folch et al., 2015; 2018; Deonanan & Williams, 2017). It also facilitates political opposition to develop, thereby decreasing the autocratic regime types (Combes et al., 2015). Williams (2017), for example, showed that higher remittances increase the level of democratization in sub-Saharan countries. On the other hand, it could also lead to political disengagement. Escriba-Folch et al. (2018), argue that remittances increase government revenues through higher consumption taxes and/or a reduction in the provision of public goods, as previously explained, which means that the government has more resources available for clientelism. In addition, because of the substitution effects induced by remittances, people could become less interested in politics thereby making it easier to politically manipulate them before an election (Combes et al., 2015). Along this line, Goodman and Hiskey (2008) found empirical evidence that cities in Mexico with higher levels of emigration and remittances have a population “that is far less inclined to participate in politics and more likely to view formal politics more ineffective in meeting their daily needs than those citizens living in low migration town” (p. 171). Similar result has also been reached by Ebeke and Yogo (2013) in a sample comprising Sub-Saharan African countries.

Overall, the existing literature on the impact of remittances on institution remains inconclusive which is largely explained by the research context and idiosyncrasies of the remittances recipient household. The current study contributes to the above literature by evaluating the potential impacts of remittance on the preponderance of corruption among remittances-recipient households. We argue that remittances represent a direct link between migrants and those left behind. According to Levitt (1998), this link is a pathway for financial flows and social values transfers, say, through direct communication which are possible of altering the believes of the recipient. Accordingly, the current study is also related to the erstwhile literature on the impact of (e)migration on the migrant’s home country institutional quality which takes the social remittances thesis suggested by Levit (1998) as a starting point.

As a retrospection, social remittances are values, practices and principles, normative structures, systems of practice and social capital which are transmitted by migrants to their home country (Levitt, 1998). Depending on the differences between the institutional qualities at home and abroad, the literature then argues that migrants could either transfer good or worst values to the home country either through direct communication with those left behind, voting and lobbying from abroad, and/or as returned migrants. Spilimbergo (2009) provides a first cross-country empirical evidence in this literature by examining the impact of foreign-trained students on the democratization of their home country. More detailed micro studies have found supportive evidence that migration to countries with good quality governances increase the demand for greater political accountability (Batista & Vicente, 2011), democratization (Pfütze, 2012), and higher electoral competitiveness (Chauvet, & Mercier, 2014) at home, respectively.

3. Data and Empirical Strategy

3.1 Data Description

To study the effects of migrant remittances on bribe payment, we use Afrobarometer data, which contain a collection of nationally representative surveys collected from thirty-six African countries. The surveys inform us about the attitudes of citizens towards democracy, markets, civil society and other aspects of development. To our knowledge, only the fourth (collected between 2008 and 2009) and sixth rounds (collected between 2014 and 2016) have a question about whether respondents receive migrant remittances. We combine these two rounds and provide a cross-sectional analysis controlling for country, region and time-fixed effects.

Both, rounds include the following question: *“How often, if at all, do you or anyone in your household receive money remittances from friends or relatives living outside of the country?”* The possible answers range from at least once a month to never. We create a dummy variable, *remit_receiver*, that equals one if the respondent receives remittances and zero otherwise. We code missing values for the responses “I don’t know” or “refused to respond”. For a robustness check, we will also use a categorical variable that will group those who receive remittances into different categories defined by the frequencies at which they receive remittances.

We also consider remittance inflows as share of gross domestic product (GDP) to explore if individuals living in different countries with different levels of remittance inflows behave differently

in terms of bribe payment. The data of remittances as share of GDP is taken from the World Development Indicators. This variable enters in our estimation in logs and is denoted by **Remit/GDP**.

Table 1 shows the share of the respondents who received remittances in each of the countries. We observe some heterogeneity across the countries. Cape Verde records the highest proportion of people who receive migrant remittances, with 42 percent, followed by Algeria, which has a proportion of 39 percent. The country with the lowest proportion is Burundi, where only 4.6 percent of respondents report having received migrant remittances, followed by Tanzania, with a proportion of around 6 percent.

<Table 1 here>

To measure the incidence of corruption, we rely on the questions in the surveys that ask respondents how often (if ever) they have had to pay a bribe by giving a gift to or doing a favour for a public official to get a document, a permit or a household service such as water or sanitation or to avoid any problems with the police. The possible replies to this question are the following: “never”, “once or twice”, “a few times” or “no experience with this in the past year”. We construct a dummy variable, *bribe_payment*, that equals one if the respondent ever paid a bribe to a public official and zero otherwise. Furthermore, round six adds two more items: bribe payment for public school services and bribe payment for treatment at a public clinic or hospital. In some of the specifications, we restrict our analysis to round six to examine the effect of receiving remittances on bribe payments for public school and health services.

Table 2 presents the proportion of people who paid bribes in each country. We first report the proportion for the aggregated measure that records a bribe payment to get a permit or an official document, receive a household service or avoid a problem with the police. Countries are sorted by level of bribe payment, and those that have the highest proportion of people who paid a bribe are placed at the top of the first column. Liberia has the highest proportion, with roughly 38 percent of the population paying a bribe during the year before the survey interviews. Morocco and Kenya have the second- and third-highest proportions of people who made a bribe payment. Mauritius and

Botswana are the two countries with the lowest proportion of people who made a bribe payment for a permit or document or a household service or to avoid a problem with the police.

<Table 2 here>

In addition to our key variable, *remit_receiver*, we control for various individual socio-economic characteristics, such as the gender of the respondents, their age categories, geographical locations and levels of education. We also add information about access to information using the survey questions asking whether the respondents have access to information through TV, radio or newspapers. One limitation of the data is that it does not include income information. Therefore, we propose to create the dummy variable *poverty*, which equals one if a respondent has gone without food, water, medicine or cash during the last twelve years and zero otherwise. We also add another dummy indicating whether the respondent is interested in public affairs.

Furthermore, we control for country-level variables to account for time-varying information that may affect the environment in which people live. One variable that we consider is country level of control for corruption, available from the Worldwide Governance Indicators. Control of corruption measures perceptions on the extent to which public power is exercised for private gain, including both petty and grand forms of corruption. This variable varies between -2.5 and 2.5, where a higher value indicates a higher control of corruption in a given country.

Another country-level variable that we include in our analysis is the stock of migrants in OECD countries measured as the difference between the number of migrants from a given country of our sample who migrate to OECD countries and the number of migrants from the same country who exit the OECD country in the same year. These data are available from the OECD data portal and include the countries in our dataset and the survey years. To control for the difference in the level of development between the countries, we include the GDP per capita in the empirical analysis.

3.2 Empirical Strategy

We have data for $J = 1, 2, \dots, 36$ countries, and n_j defines the number of observations for a given country j . In the data, the respondents are nested within regions, and in turn, regions are nested within countries. To cluster at the region and country levels simultaneously, we estimate a two-level

varying-intercept multilevel (or hierarchical) logit model. We are interested in estimating the probability that an individual i , living in region r from country j and interviewed at time t paid a bribe over the last twelve years to get a permit or document or a household service or to avoid a problem with the police.

Let us denote this probability by π_{irjt} . The equation of estimation can be written as follows:

$$\pi_{irjt} = \text{Prob}(\text{bribe_payment}_{irjt} = 1, \omega_{irjt}) \quad (1)$$

Where,

$$\omega_{irjt} = \beta_{0rc} + \beta_1 \text{remit_receiver}_{irjt} + \beta_2 (\text{Remit/GDP})_{jt} + \beta_3 Z_{jt} + \beta_3 X_{irjt} + \epsilon_{irjt} \quad (2)$$

By allowing the intercept to vary among the countries we have then:

$$\text{Level 1: } \beta_{0rj} = \beta_{0j} + u_{rj}, \quad u_{rc} \sim N(0, \sigma^2)$$

$$\text{Level 2: } \beta_{0j} = \beta_{00} + v_j, \quad v_c \sim N(0, \delta^2)$$

(3)

Thus the general model can be written as follows:

$$\begin{aligned} \omega_{ijt} &= \beta_{00} + \beta_1 \text{remit_receiver}_{irjt} + \beta_2 (\text{Remit/GDP})_{jt} + \beta_3 Z_{jt} + \beta_3 X_{irj} + \text{time} + u_{rj} + v_j \\ &+ \epsilon_{irjt} \end{aligned} \quad (4)$$

Z is the vector that contains the additional country level variables such as GDP, control of corruption, stock of migrants in OECD countries and GDP per capita. X is the vector that includes all the variables at the individual level. The term $u_{rj} + v_j + \epsilon_{ij}$ in equation (4) represents the random part of the model where u_{rc} is the region-specific effect, v_c the country-specific effect and ϵ_{ij} is the individual-level error term. We use the command `melogit` of Stata 15 to run the estimations.

4. Results and Discussions

(a) Aggregate measure of bribe payment

Table 3 presents the estimation results of the probability of paying a bribe to a government official in order to receive public goods or services such as official documents, permits, household services, or to avoid problems with the police. In column (1), we only control for our key explanatory variable, the dummy *remit_receiver*, which equals one if the respondent receives remittances from relatives or friends abroad and zero otherwise. The coefficient on *remit_receiver* is positive and statistically significant at the 1 percent significance level. This indicates that an individual who receives remittances from friends or relatives abroad is more likely to pay a bribe to receive public goods or services than a non-remittance receiver. In the next column (2), we add the three country-level variables: the log of remittances received in a country as a percentage of GDP (RemitGDP), control of corruption at the country level (CCE), the log of stock of migrants in OECD countries (inflows–outflows), and the log of the GDP per capita to control for the countries’ level of development (GDP). We find that the coefficient on *remit_receiver* is still positive and highly significant, confirming the conclusion of column (1).

<Table 3 here>

Interestingly, the coefficient on the country level of remittances as a share of GDP is also positive and significant. This means that people who live in countries with a higher level of remittances are more likely to pay a bribe than are people who live in countries with a lower level of remittances. As expected, the coefficient on the country level of corruption is negative and statistically significant at the 1 percent significance level. In fact, individuals in countries with greater control of corruption are less likely to pay a bribe than are individuals living in countries with lesser control of corruption. These findings support the income channel where more income from migrant remittances increases the incentives of people to pay more bribe to public officials for easier access to public goods and services.

Turning now to the variable, inflows–outflows, which captures the number of migrants living in OECD countries, we find a negative and statistically significant result. This indicates that countries with more emigrants living in OECD countries are also countries where people have a lower probability of paying a bribe for public goods or services. There may be different plausible interpretations of this result, and one may think that because bribe payment is less common in OECD countries than in the countries considered in our sample, emigrants living in OECD

countries may share this norm to their family and friends in their home country, who in turn may be less willing to pay a bribe in exchange for public goods and services.

This result is therefore in line with the norm channel discussed in the preceding sections and the findings in the broader literature on the impact of international migration on the institutional development of migrants' home country (Batista & Vicente, 2011; Pfütze, 2012; Chauvet & Mercier, 2014). More specifically, our result suggests that receiving remittances, which indicates a direct communication between migrants and their loved ones that are left behind, induces a positive effect on home country institutional development. For the GDP per capita variable, the coefficient is not statistically significant. Thus, we cannot conclude whether respondents from richer countries are more or less likely to pay a bribe than respondents living in poor countries.

In the last two columns of Table 3, we control for numerous individual socio-economic characteristics such as gender, education, age, and geographical location. Furthermore, in column (4), we add the dummies *access_information*, *poverty* and *public_affairs*. The positive effect of receiving remittances on bribe payment still hold in columns (3) and (4). Turning to the individual socio-economic characteristics that are controlled for, the results in column (3) show that the respondent's gender matters: being a woman reduces the probability of paying a bribe. This finding is in line with previous studies that have provided evidence that women are less corrupt than men are (e.g. Dollar et al. 2001; Swamy et al. 2001).

Interestingly, educated people are more likely to pay a bribe than people with no formal education. This finding holds regardless of the level of education. The age of the respondent also matters: people over thirty-five years old are less likely to pay a bribe than younger people. In addition, people located in urban areas have a higher probability of paying a bribe than those living in rural areas. Finally, the results in column (4) show that the respondents accessing information through radio, TV or newspapers are more likely to pay a bribe. Likewise, being poor and being interested in public affairs increase the probability of paying a bribe in exchange for a public good or service.

(b) Disaggregate measures of bribe payment

To deepen our analysis, Table 4 displays the results when we run separate regressions for the different types of bribe payments such as; bribe payment for official documents, household services, and police issues. In addition, we explore the effects of migrant remittances on bribe payment for both public school services and treatment at a public clinic or hospital. Because information about bribe payment for both school services and health services are only available in round six, the number of observations significantly decreases as shown in columns (4) and (5).

<Table 4 here>

The results displayed in Table 4 show that the effects of receiving remittances on bribe payment are positive and statistically significant across the different columns. This confirms that remittance receivers are more likely to pay a bribe regardless of the type of public good or service they would like to access. However, the coefficient on remittances as a share of GDP at the country level becomes insignificant in the last two columns when we estimate the probability to pay a bribe to access public school services and the probability to pay a bribe for public health services. The country control of corruption still has a negative effect on the probability of paying a bribe regardless of which measure we use.

The variable stock of migrants in OECD countries affects the probability to pay bribes to access official documents or household services. However, it is insignificant when we consider bribe payment to avoid problems with the police and has an opposite effect when using a bribe to pay for public school or health services. GDP per capita has a positive effect on bribe payment to access official permits or documents, a weak and negative effect on bribe payment to access public school services and an insignificant effect on bribe payment to access household services or to avoid problems with the police.

The respondent's gender remains a key determinant of bribe payment; we still find that women are less corrupt than men are. Individual level of education still plays an important role except in a few cases where it has no statistically significant effect on some categories of bribe payments. Overall, the results indicate that across the different columns, educated people are more likely to pay a bribe than uneducated ones are.

In Table 5, we separate remittance receivers into different groups depending on how often they receive remittances from friends or relatives abroad. We then have three groups of remittance receivers: those who receive remittances at least once a year, those who receive them three or six times a year and those who receive them every month. In the estimations we then control simultaneously for the following three dummies: *remit_receiver_once*, *remit_receiver_sixthree* and *remit_receiver_month*. The control group is people who never receive migrant remittances.

<Table 5 here>

In the first column of Table 5, we use our aggregate measure of bribe payment, which takes a value one for respondents who paid a bribe to get official documents or permits, to receive household services or to avoid problems with the police. We can see that the coefficients on all the different categories of remittances are positive and statistically significant at the 1 percent significance level. These findings highlight that remittance receivers are more likely to pay a bribe than non-receivers, regardless of the frequencies at which they receive the money.

In columns (2)–(6), we separate the different categories of bribe payments as we did in Table 4. We find that regardless of the frequency at which an individual receives remittances, a receiver is more likely to pay a bribe to get official documents. Similarly, s[he] is less likely to pay a bribe to receive household services or to avoid problems with the police compared to a non-receiver. But in the last two columns, where we consider bribe payment for services in public school or in public health care, there is no difference between those who receive remittances once a month and those who do not receive remittances in terms of bribe payment. However, receiving remittances less than once a month significantly increases the probability of paying a bribe at school or hospital. The effects of all other country- and individual-level variables are similar to those presented in the previous tables.

(c) Interactions between remittances and control of corruption

We argue that the effect of remittance receipt on corruption may depend on the institutional environment of the countries. For instance, in societies where corruption is high and poorly controlled people may be less exposed to pay bribe when they receive more income. We add a term of interaction between the country level of remittances (*Remit/GDP*) and the country level of

control of corruption (CC) as shown in Table 6. In the first column of the table, we use our main variable of bribe payment, and in the following columns, we use disaggregate measures of bribe payment. The coefficients on the interaction term are negative and statistically significant in almost all columns. This means that the effect of remittances as a share of GDP becomes negative when the level of control of corruption increases. In fact, if we have two countries with similar levels of remittances as a share of GDP, people living in the country with a higher level of control of corruption are less likely to pay a bribe to public officials than the people in countries with a lower level of control for corruption.

<Table 6 here>

Because we have added the interaction term, the coefficient on the variable Remit_GDP is the effect of remittances on bribe payment incidence when the control of corruption is equal to zero. As one can see, this coefficient is not statistically significant. Besides, in our dataset there are no countries for which the control of corruption, which varies between -2.5 and 2.5, is equal to zero.

5. Concluding remarks

The 2019 report of the Transparency International has highlighted that bribe payments in exchange for public goods and services are prevalent in Africa and, according to a large number of African citizens, corruption is poorly handled by governments. Both internal and external factors may affect incidence of corruption. In this paper we examined how international inflows such as migrant remittances, i.e. external factor, affect the level of corruption in African countries. This paper complements the growing literature that shed light on the effects of remittances on institutions, political involvement and preferences, but did not pay enough attention to the potential effect of remittances on corruption in Africa. For our empirical analysis, we used the Afrobarometer surveys conducted in thirty-six African countries between 2004 and 2016. We considered bribe payments for different public goods and services such as access to official documents or permits; household, public school and health care services; or payments to avoid problems with police.

The results showed that remittance receivers are more likely to pay bribes than non-receivers regardless of the public goods or services under consideration. Furthermore, they suggested that individuals living in countries with higher levels of remittances as a share of GDP are more likely to

pay bribes to access public goods and services than individual living in countries with lower levels of remittances as a share of GDP. This positive relationship between remittances and bribe payments is in line with the income channel hypothesis, whereby remittances increase individual and household income, and in turn, recipients are more likely to pay bribes for ease of access to public goods and services. In addition, we found that in countries wherein the control of corruption is high, the positive effect of remittances on corruption diminishes. The estimation results on the stock of migrants in OECD countries highlighted that people who live in African countries with a high level of migrants living in OECD countries are less likely to pay bribes than the respondents living in African countries with fewer people who migrate to Europe. This result is in line with the norm effect, suggesting that migrants in OECD countries may share anti-corruption attitudes with the compatriots they left behind. However, more data and empirical analyses are needed to provide stronger evidence on remittances, norms and bribe payments in Africa.

The findings in this paper have implications for SDGs 17.3 and 16.5 and highlight the importance of effective policies of SDG 16.5 in terms of countries successfully achieving SDG 17.3 without increasing the level of corruption. In fact, the SDG 17.3 target calls for more mobilisation of resources in developing countries, including African nations. One of the target indicators is to increase the volume of migrant remittances as a proportion of total GDP. Such an increase may have positive effects on poverty and hunger among other variables. However, if no anti-corruption actions are effectively implemented in the receiving countries, remittances may increase the incidence of bribery as shown in this paper. The SDG 16.5 target seeks to substantially reduce corruption and bribery in all their forms. One of the indicators of this target is the significant reduction in the proportion of people who pay bribes to – or are asked to pay bribes by – public officials. The findings in this paper indicate that higher control of corruption at the national level tends to reduce the effect of remittances on bribery. Therefore, the evidence in this paper claim that policies for the success of SDG 17.3 should be coupled with the anti-corruption policies advocated in SDG 16.5.

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Table 1: Remittance receivers in Africa (%)

Country	Percentage of Remittance receivers
Algeria	38.87
Benin	13.56
Botswana	10.65
Burkina Faso	20.47
Burundi	4.59
Cameroon	35.04
Cape Verde	42.06
Cote d'Ivoire	19.43
Egypt	28.58
Gabon	15.28
Ghana	20.52
Guinea	21.99
Kenya	11.18
Lesotho	26.85
Liberia	30.00
Madagascar	6.70
Malawi	11.92
Mali	26.91
Mauritius	7.43
Morocco	30.08
Mozambique	21.15
Namibia	13.46
Niger	27.45
Nigeria	27.78
Tome and Principe	26.87
Senegal	28.70
Sierra Leone	15.26
South Africa	11.97
Sudan	36.55
Swaziland	20.40
Tanzania	5.82
Togo	15.98
Tunisia	6.68
Uganda	12.28
Zambia	9.69
Zimbabwe	27.83

Notes: This table reports the percentage of people who received migrant remittances from friends or relative living abroad

Table 2: Percentage of people who paid bribe in Africa (2008-2015)

Country	Bribe payment (overall)	Bribe payment (Official document)	Bribe payment (Police)	Bribe payment (Household services)
Liberia	38.26	27.16	27.27	19.64
Morocco	33.78	25.65	15.86	8.85
Kenya	32.24	22.62	18.12	6.45
Egypt	31.60	24.49	15.81	18.01
Nigeria	31.43	20.73	21.46	18.75
Uganda	30.15	16.43	18.60	13.15
Sudan	30.13	23.91	11.99	9.18
Cameroon	26.35	18.62	10.29	11.24
Mozambique	24.72	17.17	12.27	13.19
Zimbabwe	19.70	15.01	9.99	3.45
Sierra Leone	19.70	10.13	13.41	6.21
Gabon	18.20	10.53	2.34	9.35
Ghana	16.18	8.28	7.97	6.66
Benin	16.02	12.85	3.92	4.93
Mali	14.56	10.79	5.85	3.74
Cote d'Ivoire	14.01	11.26	2.25	2.17
Zambia	13.80	8.42	8.94	3.35
Burkina Faso	12.98	9.53	5.53	4.35
Senegal	12.90	11.58	2.01	2.51
Togo	11.33	8.50	2.08	3.01
Guinea	11.08	8.10	2.17	2.92
Tome and Principe	10.97	8.06	2.86	3.80
Tanzania	10.47	4.78	6.97	3.32
Madagascar	8.86	7.28	2.68	0.47
South Africa	8.36	5.19	4.27	4.09
Malawi	8.35	4.06	4.50	2.38
Algeria	8.18	5.79	2.84	2.80
Namibia	8.01	4.97	2.56	3.52
Lesotho	7.51	5.60	2.51	1.58
Cape Verde	7.09	4.89	1.57	4.21
Burundi	6.75	3.67	3.09	0.42
Swaziland	6.00	5.13	0.75	0.50
Niger	4.17	3.35	1.75	0.33
Tunisia	3.25	1.83	0.92	0.92
Botswana	1.96	0.75	1.42	0.21
Mauritius	1.08	0.25	0.67	0.17

Table 3: Remittances and bribe payment in Africa

	(1)	(2)	(3)	(4)
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remit_receiver (1=receiver)	0.460*** (0.025)	0.455*** (0.025)	0.395*** (0.025)	0.389*** (0.025)
Country level variables				
Remittances/GDP		0.223*** (0.030)	0.218*** (0.030)	0.208*** (0.030)
CCE		-1.048*** (0.125)	-1.084*** (0.123)	-1.060*** (0.122)
Inflow-outflows		-0.254*** (0.090)	-0.181** (0.080)	-0.159** (0.079)
GDP		0.183 (0.122)	0.159 (0.116)	0.189* (0.114)
Individual level variables				
gender(1=female)			-0.437*** (0.021)	-0.412*** (0.021)
educ_someprimary (1=some primary education)			0.129*** (0.041)	0.102** (0.041)
educ_primarycompleted (1=primaryl education completed)			0.388*** (0.036)	0.332*** (0.037)
educ_secondary (1=secondary educaton completed)			0.543*** (0.042)	0.488*** (0.042)
educ_postsecondary (1=post-secondary education)			0.652*** (0.042)	0.622*** (0.043)
age26to35 (1=aged between 26-35)			0.156*** (0.027)	0.141*** (0.027)
age35(1= above 35)			-0.075*** (0.027)	-0.084*** (0.027)
Urban(1= Yes)			0.153*** (0.026)	0.165*** (0.026)
access_information(1=Yes)				0.393*** (0.043)
Poverty(1= experienced poverty)				0.477*** (0.033)
public_affairs(1=interested in public affairs)				0.192*** (0.028)
Constant	-2.365*** (0.157)	-2.507** (1.190)	-3.089*** (1.056)	-4.388*** (1.042)
Observations	80,534	80,270	79,497	78,796
Nb regions	457	457	457	457
Number of countries	36	36	36	36

Notes: This table reports the estimation results of the multilevel logit model. The dependent variable is the probability to pay bribe to access official document or permit, household services or to avoid a problem with police. Clustered standard errors are in parenthesis. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Remittances and bribe payment by public services

	(1) Official document	(2) Household services	(3) Police	(4) School	(5) Healthcare
remit_receiver (1=receiver)	0.454*** (0.029)	0.517*** (0.036)	0.472*** (0.033)	0.300*** (0.046)	0.152*** (0.041)
Country level variables					
Remittances/GDP	0.216*** (0.042)	0.264*** (0.049)	0.300*** (0.038)	-0.073 (0.125)	0.090 (0.131)
CCE	-1.275*** (0.152)	-2.715*** (0.284)	-0.660*** (0.174)	-0.963*** (0.336)	-1.090*** (0.356)
Inflow-Outflows	-0.461*** (0.147)	-1.188*** (0.172)	-0.104 (0.085)	0.193** (0.096)	0.290*** (0.100)
GDP	0.375** (0.159)	0.239 (0.283)	-0.075 (0.152)	-0.358* (0.214)	-0.173 (0.224)
Individual level variables					
gender (1=female)	-0.402*** (0.025)	-0.198*** (0.032)	-0.475*** (0.029)	-0.080** (0.039)	-0.123*** (0.034)
educ_someprimary (1=some primary education)	0.125*** (0.049)	0.031 (0.066)	0.051 (0.056)	0.086 (0.078)	0.250*** (0.063)
educ_primarycompleted (1=primary education completed)	0.353*** (0.043)	0.295*** (0.058)	0.240*** (0.050)	0.426*** (0.068)	0.260*** (0.057)
educ_secondary (1=secondary education completed)	0.511*** (0.050)	0.387*** (0.065)	0.353*** (0.056)	0.445*** (0.078)	0.279*** (0.067)
educ_postsecondary	0.681*** (0.049)	0.517*** (0.065)	0.460*** (0.057)	0.365*** (0.078)	0.182*** (0.066)
age26to35 (1=age between 26-35)	0.094*** (0.031)	0.101** (0.040)	0.190*** (0.036)	-0.100** (0.051)	0.120*** (0.044)
age35 (age above 35)	-0.125*** (0.031)	-0.053 (0.041)	0.027 (0.036)	-0.071 (0.049)	-0.034 (0.044)
urban (1=yes)	0.101*** (0.030)	0.258*** (0.039)	0.199*** (0.034)	0.070 (0.047)	0.042 (0.041)
access_information (1=yes)	0.321*** (0.051)	0.419*** (0.074)	0.430*** (0.060)	0.164** (0.075)	0.139** (0.063)
poverty (1=yes)	0.458*** (0.039)	0.634*** (0.051)	0.415*** (0.044)	0.602*** (0.064)	0.654*** (0.054)
public_affairs (1=interested in public affairs)	0.189*** (0.033)	0.242*** (0.044)	0.189*** (0.039)	0.139*** (0.050)	0.071* (0.043)
Constant	-4.041*** (1.537)	0.528 (2.677)	-3.531*** (1.346)	-3.216* (1.707)	-5.071*** (1.788)
Observations	78,278	78,463	78,462	51,574	51,417
Nb regions	457	457	457	454	454
Number of countries	36	36	36	36	36

Notes: This table reports the estimation results of the multilevel logit model. The dependent variable is the probability to pay bribe to access official document (1), household services (2), avoid problem with the police (3), school services (4) and healthcare services (5). Clustered standard errors are in parenthesis. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Remittances and bribe payment by frequency of receipt and by public services

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Bribery	Document	Household services	Police	School	Hospital
remit_receiver_once	0.413*** (0.035)	0.489*** (0.039)	0.488*** (0.049)	0.497*** (0.044)	0.354*** (0.064)	0.223*** (0.058)
remit_receiver_six-three	0.415*** (0.039)	0.481*** (0.043)	0.577*** (0.054)	0.533*** (0.050)	0.354*** (0.066)	0.150** (0.060)
remit_receiver_month	0.300*** (0.048)	0.338*** (0.054)	0.479*** (0.069)	0.304*** (0.066)	0.121 (0.084)	0.037 (0.074)
Remittances/GDP	0.208*** (0.030)	0.216*** (0.042)	0.263*** (0.049)	0.299*** (0.038)	-0.073 (0.125)	0.090 (0.131)
Inflow-outflows	-0.157** (0.079)	-0.451*** (0.146)	-1.187*** (0.172)	-0.100 (0.085)	0.192** (0.096)	0.289*** (0.100)
GDP	0.188 (0.114)	0.373** (0.159)	0.237 (0.283)	-0.076 (0.151)	-0.359* (0.214)	-0.173 (0.224)
Individual level variables						
gender (1=female)	-0.411*** (0.021)	-0.401*** (0.025)	-0.198*** (0.032)	-0.475*** (0.029)	-0.079** (0.039)	-0.122*** (0.034)
educ_someprimary (1=some primary education)	0.102** (0.041)	0.125** (0.049)	0.031 (0.066)	0.050 (0.056)	0.085 (0.078)	0.249*** (0.063)
educ_primarycompleted (1=primary education completed)	0.332*** (0.037)	0.353*** (0.043)	0.296*** (0.058)	0.239*** (0.050)	0.427*** (0.068)	0.260*** (0.057)
educ_secondary (1=secondary education completed)	0.488*** (0.042)	0.510*** (0.050)	0.388*** (0.065)	0.352*** (0.056)	0.444*** (0.078)	0.278*** (0.067)
educ_postsecondary	0.622*** (0.043)	0.681*** (0.049)	0.518*** (0.065)	0.459*** (0.057)	0.366*** (0.078)	0.183*** (0.066)
age26to35 (1=age between 26-35)	0.139*** (0.027)	0.092*** (0.031)	0.101** (0.040)	0.187*** (0.036)	-0.103** (0.051)	0.118*** (0.044)
age35 (age above 35)	-0.086*** (0.027)	-0.128*** (0.031)	-0.053 (0.041)	0.024 (0.036)	-0.075 (0.049)	-0.037 (0.044)
urban (1=yes)	0.165*** (0.026)	0.102*** (0.030)	0.258*** (0.039)	0.201*** (0.034)	0.072 (0.047)	0.043 (0.041)
access_information (1=yes)	0.393*** (0.043)	0.321*** (0.051)	0.419*** (0.074)	0.431*** (0.060)	0.165** (0.075)	0.139** (0.063)
poverty (1=yes)	0.475*** (0.033)	0.455*** (0.039)	0.634*** (0.051)	0.412*** (0.044)	0.596*** (0.064)	0.649*** (0.054)
public_affairs (1=interested in public affairs)	0.192*** (0.028)	0.188*** (0.033)	0.241*** (0.044)	0.188*** (0.039)	0.139*** (0.050)	0.070 (0.043)
Constant	-4.394*** (1.039)	-4.087*** (1.524)	0.539 (2.678)	-3.545*** (1.341)	-3.199* (1.704)	-5.061*** (1.788)
Nb Obs	78,796	78,278	78,463	78,462	51,574	51,417
Nb regions	457	457	457	457	454	454
Nb countries	36	36	36	36	36	36

Notes: This table reports the estimation results of the multilevel logit model. The dependent variable is the probability to pay bribe to access official document (1), household services (2), avoid problem with the police (3), school services (4) and healthcare services (5). Clustered standard errors are in parenthesis. *** p<0.01, ** p<0.05, * p<0

Table 6: Remittances and bribe payment with interaction between control over corruption and remittance inflows

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Bribery	Document	Household services	Police	School	Hospital
remit_receiver	0.377*** (0.025)	0.443*** (0.029)	0.499*** (0.037)	0.460*** (0.033)	0.300*** (0.046)	0.151*** (0.041)
Remit/GDP	-0.062 (0.039)	-0.079 (0.050)	-0.085 (0.061)	0.004 (0.051)	-0.083 (0.152)	0.217 (0.162)
CCE	-0.497*** (0.144)	-0.582*** (0.167)	-2.235*** (0.288)	-0.416** (0.188)	-0.946** (0.367)	-1.328*** (0.398)
CCE*Remit/GDP	-0.916*** (0.078)	-0.918*** (0.089)	-1.370*** (0.133)	-1.012*** (0.118)	-0.019 (0.169)	0.242 (0.181)
Inflow-Outflows	-0.068 (0.080)	-0.292*** (0.106)	-0.650*** (0.148)	0.040 (0.091)	0.194** (0.097)	0.278*** (0.099)
GDP	0.323** (0.138)	0.461*** (0.170)	0.711*** (0.273)	0.098 (0.170)	-0.361* (0.216)	-0.137 (0.222)
Individual level variables						
gender (1=female)	-0.412*** (0.021)	-0.402*** (0.025)	-0.197*** (0.032)	-0.476*** (0.029)	-0.080** (0.039)	-0.123*** (0.034)
educ_someprimary 1=some primary education)	0.100** (0.041)	0.124** (0.049)	0.024 (0.066)	0.048 (0.056)	0.086 (0.078)	0.250*** (0.063)
educ_primarycompleted (1=primary education completed)	0.329*** (0.037)	0.351*** (0.043)	0.292*** (0.058)	0.235*** (0.050)	0.426*** (0.068)	0.260*** (0.057)
educ_secondary (1=secondary education completed)	0.483*** (0.042)	0.507*** (0.050)	0.380*** (0.065)	0.344*** (0.056)	0.445*** (0.078)	0.280*** (0.067)
educ_postsecondary	0.623*** (0.043)	0.683*** (0.049)	0.521*** (0.065)	0.456*** (0.057)	0.365*** (0.078)	0.182*** (0.066)
age26to35 (1=age between 26-35)	0.139*** (0.027)	0.093*** (0.031)	0.098** (0.040)	0.188*** (0.036)	-0.100** (0.051)	0.120*** (0.044)
age35 (age above 35)	-0.083*** (0.027)	-0.124*** (0.031)	-0.053 (0.041)	0.029 (0.036)	-0.071 (0.049)	-0.034 (0.044)
urban (1=yes)	0.165*** (0.026)	0.101*** (0.030)	0.262*** (0.039)	0.203*** (0.034)	0.070 (0.047)	0.042 (0.041)
access_information (1=yes)	0.381*** (0.043)	0.310*** (0.051)	0.409*** (0.074)	0.418*** (0.060)	0.164** (0.075)	0.139** (0.063)
poverty (1=yes)	0.474*** (0.033)	0.456*** (0.039)	0.629*** (0.051)	0.414*** (0.044)	0.602*** (0.064)	0.654*** (0.054)
public_affairs	0.194*** (0.028)	0.190*** (0.033)	0.239*** (0.044)	0.186*** (0.039)	0.139*** (0.050)	0.071* (0.043)
Constant	-6.073*** (1.267)	-5.869*** (1.534)	-7.605*** (2.457)	-6.144*** (1.526)	-3.188* (1.724)	-5.448*** (1.786)
Nb obs	78,796	78,278	78,463	78,462	51,574	51,417
Nb regions	457	457	457	457	454	454
Nb countries	36	36	36	36	36	36

Notes: This table reports the estimation results of the multilevel logit model. The dependent variable is the probability to pay bribe to access official document (1), household services (2), avoid problem with the police (3), school services (4) and healthcare services (5). Standard errors are in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

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