



Do remittances improve political institutions? Evidence from Sub-Saharan Africa



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ABSTRACT

Do remittances represent a significant positive determinant of democratic institutions in Sub-Saharan Africa? In this paper, we estimate the effect that remittances have on democratic institutions in Sub-Saharan Africa over the period 1975–2014. Using a 5-year non-overlapping panel sample and controlling for country and time fixed effects, we find that remittances are positively associated with democratic institutions. Our baseline system-GMM estimates indicate that a one standard deviation increase in remittance flows improves democratic institutions by around 0.32 standard deviations. Furthermore, we find that remittances improve democratic institutions by increasing schooling and reducing poverty.

1. Introduction

The stable, large, and permanent flow of international remittances have become one of the most important sources of foreign exchange and household income for many developing and emerging economies, including Sub-Saharan Africa (SSA). Total official flows of remittances was US\$592.9 billion in 2014, of which developing and emerging economies received US\$431.1 billion (Ratha et al., 2016). Though SSA countries received the lowest share of global remittances (US\$34.5 billion in 2014) compared to other developing countries, relative to GDP remittances play a central role in SSA economies.

Based on the most recent information available, in 2014 the SSA region remittance inflows as a share of GDP were 2.25%, 0.45% for East Asia and the Pacific, 1.14% for Latin America and the Caribbean, 1.77% for the Middle East and North Africa, and 4.46% for South Asia (World Bank, 2016a, 2006b). Further, in the SSA region, the Gambia, Lesotho, Liberia, and Comoros remittances share of GDP were 20% in 2013 and remittances finance 31% of Nigeria's imports in 2013 (Ratha et al., 2015). Also, real remittance per capita has risen rapidly in SSA (Fig. 1). Fig. 1 also illustrates that democracy¹ has tracked remittance inflows in SSA.

A natural question to consider, therefore, is whether and how remittances affect political institutions in SSA. In this paper, we tackle this question by studying the effect that remittance flows have on democratic institutions in the SSA region. Addressing this question is important because economic performance in SSA has been poor over the past half century (Arezki and Brückner, 2012), though growth has

improved since 2000 (Rodrik, 2014), and democratic institutions can promote economic growth (Acemoglu et al., 2015; Papaioannou and Siourounis, 2008).

Moreover, “Africa has supplied far more than its share of violent political conflict” (Bates et al., 2006). However, democracy can be a force of stabilization for SSA since democracy aggregates the views of contesting parties efficiently. Thus by allowing contesting parties to channel their views and grievances through non-violent means, democracy is less likely to be affected by political shocks associated with non-democracy where dissent and oppositions are not tolerated, for example Syria, Iran and Egypt (Acemoglu and Robinson, 2012). Democracy is also a universal value that all countries should seek to achieve (Sen, 1999). Thus, identifying the causes of democratic institutions in SSA is of key importance both for development agencies whose goal is to consolidate democratic institutions in new democracies and policymakers who aspire to achieve economic prosperity in SSA.

This paper is linked to the emerging literature on the determinants of support for democracy in Africa (Evans and Rose, 2007a; Evans and Rose, 2007b; MacCauley and Gyimah-Boadi, 2009). Closely related to this literature are studies that explore the gender gap in support of democracy in SSA (García-Peñalosa and Konte, 2014; Konte, 2014).

Following Lipset (1959), Evans and Rose (2007a) document in a cross-country analysis that support for democracy in SSA is conditioned by education through its effect on knowledge of politics, even when provided at elementary levels in a non-democratic environment (Evans and Rose, 2007b). MacCauley and Gyimah-Boadi (2009)

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¹ Throughout this paper, we use the words “democracy” and “democratic institutions” interchangeably. Our main measure of democracy is the Polity index score described in detail in Section 3.

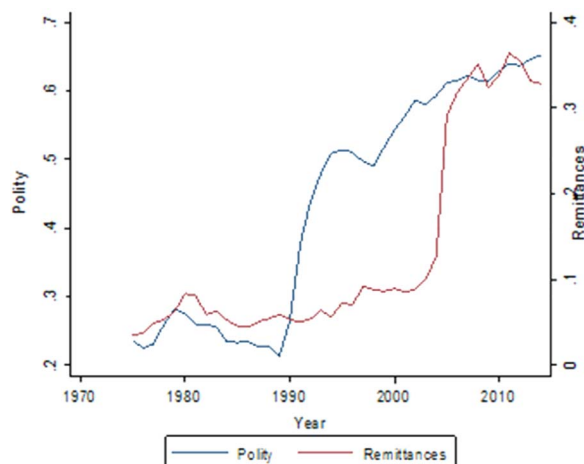


Fig. 1. Evolution of cross-country average of Polity score and of remittances (constant US\$).

explore the relationship between religion and democracy in SSA. These authors find no significant effect from religion to support for democracy. Males are more likely than females to support democracy in SSA; however, in countries with high human development index, political rights, and social institutions that do not discriminate against women, the negative effect of being female on support for democracy is moderated (García-Peñalosa and Konte, 2014; Konte, 2014).

Though the above studies shed light on factors driving democracy in SSA, they surprisingly overlooked one potentially important dimension: the impact of remittances. Our first contribution in this article is an empirical analysis of the previously overlooked effect that remittances have on democratic institutions in SSA. In our second contribution, we explore the channels through which remittances affect democracy.

Remittances can affect democratic institutions in recipient countries in many ways. Recipients of remittances who depend on these foreign transfers to satisfy their daily needs have an incentive to “exit” domestic politics because their foreign incomes can offset the welfare loss associated with government corruption (Goodman and Hiskey, 2008). Consistent with this view, Abdih et al. (2012) and Berdiev et al. (2013) using a large cross-section of countries report that remittances increase corruption and thus weaken democratic institutions in recipient countries.

Conversely, because remittances are migrant-to-household transfers that cannot directly be expropriated by government, they reduce the link between the welfare of recipients and government support and by doing so reduce the utility of government patronage (Pfütze, 2012), which is often a strategy for maintaining power in developing countries, which in turn elevates “voice” in demanding greater accountability in government performance. Using information from Mexico, Tyburski (2012) shows that states that received larger remittance flows had less corruption and thus better quality democratic institutions. The evidence also points to a change in the relative strength of the state-society relationship in favour of society in Senegal as the economy becomes more dependent on migrant remittances (Dahou and Foucher, 2009).

Furthermore, given that remittances are an important feature of developing and emerging economies that governments use to finance their economic goals, theoretically, migrants and remittance recipients can use their foreign incomes to pressure governments to pursue political reforms through threats of withdrawals.² This strategy is also

² Countries in SSA, for example Kenya, Nigeria, Rwanda, and Zimbabwe issued diaspora bonds to attract migrant remittances for development projects. In Mexico, Transnational Migrant Associations (TMA), a form of collective remittances (matched by

used by development agencies to force developing countries to implement economic and political reforms. Additionally, to the extent remittance recipients and migrants invest in education (World Bank, 2016a, 2006b) and that education is a pre-requisite for support of democratic institutions (Lipset, 1959), through their effect on education, remittances can enhance democratic institutions in recipient countries.

Our paper is most closely related to Dionne et al. (2014). They use cross-country survey data for 20 SSA countries to investigate political participation of remittance recipients. They provide evidence that remittance recipients are less likely to participate in elections but more likely to engage in protests and to contact government officials. Our approach differs from that of Dionne et al. (2014) in several ways. First, we examine the impact of remittances on democratic institutions.³ Second we construct a panel of 45 SSA countries over 1975–2014 and employ rigorous panel data techniques to address endogeneity between remittances and democratic institutions. Third, we use both cross-country and within-country variations to identify the effect that remittances have on democratic institutions. Finally, we also explore potential mechanisms mediating the relationship between remittances and democratic institutions. Our approach therefore allows us to systematically study the relationship between remittances and democratic institutions in SSA.

The rest of the paper is organized as follows. The next section discusses two strands of the literature that are related to our paper: the political consequences of remittances and the economic effects of remittances. Section 3 describes the econometric model and presents the data and descriptive statistics for the main variables used in our analysis. Section 4 presents the empirical results. Section 5 presents robustness checks. Section 6 explores potential mechanisms mediating the relationship between remittances and democratic institutions. Section 7 concludes.

2. Related literature

The relationship between remittances and democratic institutions is the subject of a growing literature in economics and political science. The literature identifies several channels through which remittances can potentially impact democratic institutions in countries of origin. Through the income channel, one group of studies argue that the additional resources from remittances bolster the income of recipient households and thus enable them to be less receptive to political influences. Empowered by higher income, remittance recipients are therefore able to allocate more time to monitor government performances and demand political reforms in order to improve democratic institutions. In Mexico, for example, remittances improve the ability of recipients to make government more accountable and more responsive to political pressure (Tyburski, 2012), leading to better governance institutions.

Party-based dictatorships rely on the distribution of patronage to maintain their hold on power. Remittances can break this clientelistic relationship between poor households and government support (Pfützte, 2014). This is possible since remittances allow recipients access to public goods through private markets and in turn enable them to express their political preferences. Based on an empirical model of 137 autocratic regimes for the years 1975–2009, Escribà-Folch et al. (2015) show that remittances increase the transition from dominant-party-regimes to democratization. Counterbalancing this finding, Ahmed (2012) argues that remittances along with foreign aid

(footnote continued)

the government) used to finance community development projects, illustrate that migrants used their foreign incomes to influence political reforms at home (Orozco and Lapointe, 2004).

³ Dionne et al. (2014) is probably best understood as potential channels through which remittances affect democracy.

can extend the survival of autocracies. These unearned incomes, according to Ahmed (2012), enable incumbent governments to divert expenditures away from the provision of public goods and toward financing patronage in order to buy political support.⁴ Using data on a sample of 97 countries for the period 1975–2004, the author shows that these unearned incomes received in autocracies reduce government turnover and other political shocks associated with government survival.

The literature also identifies contentious mobilization as a central channel linking remittances and democratic institutions in countries of origin. International migrants influence political outcomes in their home countries by providing financial support for opposition parties to more effectively challenge incumbent governments, which increases the risk of civil wars (Miller and Ritter, 2014). Also, by providing financial support for armed groups such as rebels, international migrants can also increase the likelihood of civil conflict in their home countries (Collier and Hoeffler, 2004). In line with the contentious mobilization channel mediating remittances and democratic institutions, evidence from SSA demonstrates that remittance recipients express their dissatisfaction with government performances by protesting and demonstrations (Dionne et al., 2014), forcing government to pursue political reforms.

Other studies emphasise that remittances and migrants affect democratic institutions via “social remittances.” Social remittances are the norms, ideas, beliefs, and democratic values that migrants transmit back to their home countries through regular contacts with families and friends (Levitt, 1998). These cross-border contacts by migrants with their home countries change the political incentives of families and friends to participate in domestic politics (Pérez-Armendáriz, 2014). Pérez-Armendáriz and Crow (2014) find that Mexicans with relatives living abroad have higher political engagements. Unlike the above studies, our paper focuses on Africa and presents evidence that remittances foster democratic institutions in SSA by increasing schooling and reducing poverty.

Our study is also related to a larger literature that examines the effect of remittances on various aspects of economic development. For example, Chowdhury (2011) and Coulibaly (2015) look at the relationship between remittances and financial development, Alkhatlan (2013) and Ahamada and Coulibaly (2011) study the effect of remittances on growth, while Narayan et al. (2011) find a positive effect of remittances on inflation.

3. Econometric model and data

In this section, we present the data and our econometric model that we use to estimate the impact that remittances have on democratic institutions in SSA. We construct a 5-year non-overlapping panel sample based on 45 SSA countries for the period 1975–2014 and estimate the following reduced-form dynamic model:

$$\Delta \text{Polity}_{it} = \delta_i + \alpha_t + \beta \text{Polity}_{it-1} + \gamma \text{Remittances}_{it-1} + \eta x_{it-1} + \varepsilon_{it} \quad (1)$$

where $\Delta \text{Polity}_{it}$ is the change in democratic institutions in country i between year t and $t-1$. Our main measure of democratic institutions is the widely used Polity2 index score from the Polity IV database. The Polity2 index is a composite measure of the difference between autocracy and democracy indices and ranges from -10 to $+10$, with higher score indicating better quality democratic institutions. In the Polity IV database the democracy index is constructed from coding the competitiveness of political participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive and ranges on a $0-10$ scale.

The autocracy index also ranges on a $0-10$ scale from coding the

competitiveness of political participation, the regulation of participation, the openness and competitiveness of executive recruitment, and constraints on the executive. We follow the literature and rescale the Polity2 index to range from 0 to 1, with 1 indicating more democratic institutions. As robustness checks on our main measure we also use the Freedom House indices of Political Rights and Civil Liberties as well as the Polity2 sub-scores on competitiveness of political participation and constraints on the executive.

The lagged dependent variable on the right-hand side of Eq. (1) captures mean-reverting dynamic effects and persistence in democratic institutions. We include country fixed effects, δ_i , to control for omitted time-invariant country specific factors that affect both democratic institutions and remittances, for example ethnicity, history, and geography. By including country fixed effects in Eq. (1), the impact of remittances on democratic institutions is identified from within-country variations. The time fixed effects, α_t , account for common time shocks to both remittances and democratic institutions such as worldwide business cycle effects (e.g., global financial crisis) and other political shocks (e.g., the fall of the Berlin Wall and the end of the Cold War).

The vector, x_{it-1} , includes the set of control variables that predict democratic institutions as suggested by the literature (Acemoglu et al., 2008; Barro, 1999; Benhabib et al., 2013; Che et al., 2013). These control variables are: the log of population, the log of per capita GDP (constant 2005 US\$), the log of trade openness (imports+exports/GDP), the log of the share of the population living in urban areas, the log of infant mortality, and the log of life expectancy at birth.

The population variable measures country size. The hypothesis here is that larger countries are more likely to be non-democratic because they are more difficult to manage. We include urbanization to capture the possibility that urban populations are easier to mobilize and to organize and thus more likely to counter a dictator. Log per capita GDP captures the “modernization hypothesis” that rich countries are more democratic. The trade ratio reflects the hypothesis that international trade promotes democracy by exposing a country to democratic values. It is also expected that international trade promotes democracy by increasing prosperity, which reduces class conflict between the rich and the poor and makes it more costly for the rich to support a return to non-democracy (Acemoglu and Robinson, 2006). We follow Barro (1999) and include the log of infant mortality and the log of life expectancy to capture the standard of living in a country. Note that we lagged these regressors one period (5-year lag) to alleviate concern about reverse causality.

Our main explanatory variable of interest is $\text{Remittances}_{it-1}$, the lagged of real remittance per capita. The parameter γ therefore captures the average impact that remittances have on democratic institutions. We follow Escrià-Folch et al. (2015) and use real remittance per capita instead of the ratio of remittances to GDP because, as they argue, a change in this ratio could be due to a change in GDP as well as a change in remittances, which makes it difficult to isolate the true effect that remittances have on democratic institutions.

We follow common practice in the literature and use the sum of personal transfers and compensation of employees to measure remittances (Clemens and McKenzie, 2014; Feeny et al., 2014). According to the World Bank, personal transfers are current transfers in cash or in kind made by migrants employed in their host country. These transfers do not distinguish between income earned from labour and other sources. Compensation of employees consists of the income of workers employed in a country where they are not resident. We note that our remittances data only capture flows through official channels, but a large amount of remittance transactions go undetected through informal channels. The error term ε_{it} is clustered at the country level to adjust for arbitrary serial correlation within country (Wooldridge, 2010). All our regressors are from the World Bank, WDI.

Estimating the effect that remittances have on democratic institutions is problematic because of the reverse impact of democratic

⁴ Ahmed (2013) uses a similar argument to explain the negative impact of remittances on corruption in a sample of 57 countries for the period 1984–2004.

Table 1
Descriptive statistics.

Variables	Mean	Std. dev.	Obs.
Remittances per capita (constant US\$)	0.385	0.779	298
Δ Polity	0.047	0.198	341
Log trade	4.189	0.530	363
Log per capita GDP (constant 2005 US\$)	6.545	1.061	376
Log population	15.402	1.614	405
Log urbanization	3.339	0.560	405
Log infant mortality	4.340	0.522	397
Log life expectancy	3.963	0.145	399

institutions on remittances. It is possible that international migrants may have left their country of origin to escape political instability and in turn send remittances home to influence political decisions, for example financing opposition parties that support political reforms. Therefore, in order to obtain unbiased estimate of the impact of remittances it is important to control for this endogeneity. We address this identification problem in a number of ways. We include remittances 5 years ago (lagged one period) on the right-hand side of Eq. (1) to predict current changes in democratic institutions. It is unlikely that changes in current democracy are predicting remittances 5 years ago.

Though including country fixed effects δ_i in Eq. (1) is a key step forward in estimating the causal impact of remittances because they reduce endogeneity arising from time-invariant omitted variable bias, we use the dynamic system-GMM estimation (Blundell and Bond, 1998) with both internal and external instruments to more rigorously address reverse causality between remittances and democratic institutions. The system-GMM estimator combines the equation in first differences with the equation in levels in a system and uses lagged first differences of remittances as instruments for the equation in levels and lagged levels of remittances as instruments for the equation in first differences. The key assumption of the system-GMM is that, conditional on the control variables, lagged remittances are not reacting to current changes in democratic institutions.

Following Akobeng (2016) and Acosta et al. (2008), we use as our external instruments real GDP per capita and the unemployment rate of the 5 OECD countries where the largest share of migrants in our estimating sample reside, weighted by the inverse of the distance between each of the remittance-receiving countries in our estimating sample and the 5 largest OECD remittance-sending countries. Akobeng (2016) and Acosta et al. (2008) show that economic conditions in remittance-sending countries are plausible exogenous source of variation for remittances that migrants send to their home countries.

We will report the p-value of the Hansen test to confirm the instrument relevance of lagged remittances and our external instruments. The absence of serial correlation in the error term in Eq. (1) is a necessary condition for the system-GMM to produce unbiased estimates. We will also check this condition and present the p-values for the first and second-order serial correlation of the residuals in the first-difference equation.

There are two important advantages why the dynamic system-GMM is preferred over standard instrumental variable (IV) estimation methods. First, the dynamic system-GMM allows us to control for the Nickell (1981) bias due to the correlation between the lagged dependent variable and the error term (Baltagi et al., 2009) in Eq. (1). Second, standard IV tends to ignore the endogeneity of other regressors (Feeny et al., 2014), which could potentially bias the relationship between remittances and democratic institutions. We address this econometric concern with the dynamic system-GMM estimator using lag values as instruments for these regressors. A particular drawback of the system-GMM, however, is that the additional moments generated increase the likelihood of instrument proliferation and over-identification of the model. To address this issue, we follow Roodman (2009) and limit the number of instruments below the number of cross-sections. Table 1 reports descriptive statistics on the variables above.

4. Empirical results

Table 2 presents our baseline estimates of the average effect that remittances have on Polity measure of democratic institutions in SSA. We present estimates using least squares estimator and dynamic system-GMM estimator. Column (1) reports estimates where all covariates and the lagged dependent variable are included as controls in the regression. Column (2) adds year fixed effects to the specification to control for common year shocks; column (3) includes country fixed effects as an additional control to account for country specific characteristics; and column (4) includes both year and country fixed effects.

In columns (1) and (2) that do not control for country fixed effects remittances have a significant effect on democratic institutions. The estimated coefficient of 0.03 is positive and statistically significant at the 1% significance level. These cross-country estimates imply that remittances improve the quality of democratic institutions in SSA. The lagged dependent variable is negative and significant at the 1% level, indicating persistence in the Polity index.

Moving to columns (3) and (4) where specifications include year and country fixed effects, we see that remittances continue to have a positive average effect on democratic institutions and the point estimate is quantitatively larger, though the significance of the estimate is somewhat attenuated. The main conclusion from the specifications in columns (1) to (4) is that the significant positive average effect of remittances exists both at the within-country level and at the cross-country level.

One may concern however that remittance flows are driven by political considerations and therefore our point estimate of remittances is inconsistent. For example, it is possible that migrants' desire to promote democratic institutions could be driving the remittances that they send to their home country, instead of remittances driving democratic institutions. We address this endogeneity in two ways. First, in column (5) we use the dynamic system-GMM that treats remittances as endogenous and instrument remittances with its own lags.

Second, in column (6) we instrument remittances using two external instruments based on the economic conditions of the 5 OECD countries with the largest share of migrants from each of the countries in our sample. These are the unemployment rate and GDP per capita, weighted by the inverse of the distance between these main OECD countries and each SSA country.

The dynamic system-GMM also addresses potential bias arising from including lagged Polity index as a regressor in fixed effects regression. After correcting for endogeneity and the Nickell (1981) bias with system-GMM estimator, the point estimate of remittances is positive and significant at the 1% level and quantitatively larger than the least squares estimates. The AR(1) test of no first-order serial correlation in the first-difference residuals is rejected as expected at the 5% level. The AR(2) test of no-second order serial correlation in the first-difference residuals is not rejected however. The Hansen test of instrument relevance together with the serial correlation tests suggest that the system-GMM is correctly specified.

Using column (6) with external instruments as our preferred specification⁵, the economic interpretation of the estimated coefficient on remittances is that, on average, a one standard deviation increase in remittances significantly improves democratic institutions by about 0.32 standard deviations in the sample of SSA countries. The negative and significant estimated coefficient on lagged Polity indicates persistence in both the least squares and dynamic system-GMM estimates.

The convergence estimate -0.739 suggests that the effect of a shock

⁵ Due to space constraint, in subsequent tables, we only report estimates using external instruments but results are very similar using internal instruments. These results are available upon request.

Table 2
Remittances and democratic institutions.

Dependent variable:	(1)	(2)	Δ Polity	(4)	(5)	(6)
	OLS	OLS	(3)	OLS	SYS-GMM	SYS-GMM
			OLS			
Polity, t-1	-0.236*** (0.052)	-0.222*** (0.064)	-0.550*** (0.102)	-0.612*** (0.108)	-0.736*** (0.157)	-0.739*** (0.177)
Remittances, t-1	0.033*** (0.009)	0.029*** (0.009)	0.044 (0.028)	0.054* (0.029)	0.089*** (0.031)	0.081*** (0.029)
Log Population, t-1	0.009 (0.011)	0.008 (0.011)	0.239 (0.145)	-0.623** (0.290)	0.027 (0.024)	0.032 (0.021)
Log Urbanization, t-1	0.073** (0.029)	0.028 (0.034)	0.155 (0.100)	-0.083 (0.088)	0.090 (0.103)	0.101 (0.120)
Log Trade, t-1	0.015 (0.042)	0.033 (0.038)	0.104 (0.077)	0.130** (0.060)	0.010 (0.093)	0.062 (0.086)
Log Infant mortality, t-1	-0.085 (0.051)	-0.030 (0.054)	0.105 (0.148)	0.086 (0.140)	-0.169 (0.103)	-0.207** (0.102)
Log Life expectancy, t-1	-0.178 (0.111)	-0.100 (0.110)	-0.019 (0.202)	0.240 (0.251)	-0.174 (0.288)	-0.242 (0.309)
Log Per capita GDP, t-1	-0.034 (0.021)	-0.015 (0.023)	-0.093 (0.077)	-0.042 (0.071)	-0.056 (0.044)	-0.058 (0.054)
Year FE	No	Yes	No	Yes	Yes	Yes
Country FE	No	No	Yes	Yes	Yes	Yes
R-squared	0.123	0.249	0.361	0.495		
AR(1) test, p-value					0.031	0.033
AR(2) test, p-value					0.583	0.403
Hansen test, p-value					0.868	0.827
Observations	239	239	239	239	124	122

Notes: This table presents estimates of the effect of remittances (constant US\$) on the change in Polity measure of democratic institutions. Columns (1–4) present results using least squares estimator and robust standard errors in parentheses are clustered at the country level. Columns (5–6) present results using system-GMM estimator with internal and external instruments for remittances, respectively, and standard errors are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. ***, ** and * denote significance at the 1, 5, and 10% level, respectively.

to the Polity index takes around 0.52 year to dissipate by one-half. The estimated coefficients on the covariates are often statistically insignificant and rarely have the expected sign. This is true for all specifications in Table 2.

In Table 3, we further show that the significant positive relationship between remittances and democratic institutions in the SSA sample is also present when using the Polity IV alternative measures of democratic institutions. In columns (1) and (2), we report estimates using democracy and autocracy indices, and columns (3) and (4) report findings for sub-scores on constraints on the executive and competitiveness of political participation.

The Polity IV database codes constraints on the executive as the “extent of institutionalized constraints on the decision-making power of chief executives” with a range from 1 to 7, where 7 indicates more constraints. And competitiveness of political participation is coded as “the extent to which alternative preferences for policy can be pursued in the political arena” on a range from 0 to 5, with 5 indicating greater political competition.

The estimates in Table 3 show that regardless of the Polity IV measure of democratic institutions, remittances improve the quality of democratic institutions in SSA countries. Note that in column (2) the estimated coefficient on remittances is significantly negative, suggesting that remittances make autocracy less autocratic. This result is consistent with Escriáb-Folch et al. (2015) who find that remittances reduce the survival of party-based dictatorships. The lagged dependent variable continues to be highly persistent and the covariates are once again statistically insignificant.

In Table 4, we present estimates using measures of democratic

institutions from a different data source. Column (1) uses the Freedom House index of political rights as the dependent variable and column (2) reports estimates using the civil liberties index also from Freedom House. These indices range from 1 to 7. We scale them on a range from 0 to 1 so that higher scores imply better quality democratic institutions. In column (3), following Fortunato and Panizza (2015), we construct as the dependent variable a composite index of democratic institutions using the political rights index and the civil liberties index. The picture does not change substantially when using Freedom House measures of democratic institutions. The estimated coefficient on remittances is positive in sign and statistically significant at conventional significance levels across all three measures of democratic institutions.

The quantitative magnitudes of remittances in Table 4 are smaller than that of our baseline estimate in Table 2 column (6) and statistically less powerful. Notwithstanding these differences, the main conclusion that there is a significant positive relationship between remittances and democratic institutions in SSA countries remains both with the Polity index and Freedom House indices of democratic institutions. The serial correlation tests and the Hansen test of instrument relevance, two necessary conditions for system-GMM estimation to yield unbiased estimates, suggest that the model is again well specified.

5. Robustness checks

In this section, we report additional robustness checks on our baseline estimates in Table 2. Thus far we have used 5-year non-overlapping panel sample where we take observations every fifth year.

Table 3
Remittances and alternative Polity IV measures of democratic institutions.

Dependent variables:	ΔDemocracy (1) SYS-GMM	ΔAutocracy (2) SYS-GMM	ΔEx constraint (3) SYS-GMM	ΔPol competition (4) SYS-GMM
Democracy, t-1	-0.148** (0.065)			
Autocracy, t-1		-0.280*** (0.101)		
Ex constraint, t-1			-0.216*** (0.073)	
Pol competition, t-1				-0.236*** (0.050)
Remittances, t-1	0.299*** (0.108)	-0.165* (0.096)	0.151** (0.065)	0.211** (0.105)
Log Population, t-1	-0.045 (0.145)	-0.076 (0.113)	-0.058 (0.100)	-0.042 (0.152)
Log Urbanization, t-1	0.210 (0.330)	-0.121 (0.313)	-0.011 (0.192)	0.043 (0.382)
Log Trade, t-1	-0.187 (0.551)	-0.411 (0.436)	0.102 (0.340)	-0.291 (0.575)
Log Infant mortality, t-1	0.179 (0.701)	0.028 (0.589)	-0.028 (0.321)	0.328 (0.644)
Log Life expectancy, t-1	0.996 (1.638)	0.206 (1.418)	0.378 (0.928)	1.488 (1.770)
Log Per capita GDP, t-1	-0.056 (0.243)	0.080 (0.239)	-0.092 (0.168)	0.016 (0.215)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
AR(1) test, p-value	0.001	0.017	0.009	0.002
AR(2) test, p-value	0.108	0.242	0.264	0.535
Hansen test, p-value	0.406	0.563	0.762	0.529
Observations	215	215	215	215

Notes: This table presents estimates of the effect of remittances (constant US\$) on alternative Polity measures of democratic institutions. The dependent variable in column (1) is the change in democracy; column (2) the change in autocracy; column (3) the change in constraints on executive; column (4) the change in competitiveness of political competition. The method of estimation is system-GMM. Remittances are instrumented with external instruments. Standard errors in parentheses are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. ***, ** and * denote significance at the 1, 5, and 10% level, respectively.

The reason is that averaged data makes inference and estimation problematic because it generates addition serial correlation (Acemoglu et al., 2008).

As a robustness check on our 5-year interval panel sample, in Table 5 column (1) we present estimates using 5-year averaged panel sample. This check helps to determine whether our particular choice of fifth-year observations is driving the baseline results. Though the quantitative magnitude of the estimated coefficient on remittances is now smaller than our baseline estimates, remittances continue to have a significant positive average effect on democratic institutions.

In column (2) we report estimates from a regression where we

Table 4
Remittances and freedom house measures of democratic institutions.

Dependent variables:	ΔPolitical Rights (1) SYS-GMM	ΔCivil Liberties (2) SYS-GMM	ΔFH Composite Index (3) SYS-GMM
Political rights, t-1	-0.272*** (0.057)		
Civil Liberties, t-1		-0.250*** (0.068)	
FH Composite index, t-1			-0.136* (0.076)
Remittances, t-1	0.039** (0.017)	0.030* (0.017)	0.029** (0.012)
Log Population, t-1	0.013 (0.012)	0.005 (0.010)	0.014 (0.009)
Log Urbanization, t-1	0.027 (0.038)	0.024 (0.037)	0.037 (0.025)
Log Trade, t-1	0.044 (0.052)	0.020 (0.043)	0.018 (0.037)
Log Infant mortality, t-1	-0.059 (0.062)	-0.047 (0.057)	-0.031 (0.048)
Log Life expectancy, t-1	-0.084 (0.160)	-0.125 (0.150)	-0.121 (0.153)
Log Per capita GDP, t-1	-0.010 (0.025)	0.002 (0.025)	-0.014 (0.023)
Year FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
AR(1) test, p-value	0.000	0.003	0.002
AR(2) test, p-value	0.261	0.867	0.868
Hansen test, p-value	0.914	0.689	0.785
Observations	234	234	194

Notes: This table presents estimates of the effect of remittances (constant US\$) on Freedom House measures of democratic institutions. The dependent variable in column (1) is the change in political rights; column (2) is the change in civil liberties; column (3) is a composite index of the change in political rights and civil liberties indices. The method of estimation is system-GMM. Remittances are instrumented with external instruments. Standard errors in parentheses are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. ***, ** and * denote significance at the 1, 5 and 10% level, respectively.

replace as the dependent variable changes in the Polity index with its levels. This is useful to check whether the significant effect of remittances is confined to changes in the Polity index. Our main finding from this regression is that using the levels of the Polity index does not change the significant relationship between remittances and democratic institutions.

Another interesting check to consider is whether the impact that remittances have on democratic institutions depends on how we measure remittances. In the baseline regressions we measure remittances in constant US\$. In column (3) remittances are measured instead in current US\$. That remittances are significantly related to democratic institutions is also supported with this alternative measure of remittances.

Over the past two decades the official flows of remittances to developing countries have risen from US\$49 billion in 1990 to US\$431.1 billion in 2014. Part of this increase in official remittance flows reflects the ability of development agencies and developing countries to more accurately track and record remittance flows (Clemens and McKenzie, 2014).

In column (4) we report results excluding post-2000 observations from the sample, a period when remittances data might have been of

Table 5
Robustness Check I. Remittances and democratic institutions.

	5-year averaged observations (1) SYS-GMM	Polity in levels (2) SYS-GMM	Remittances per capita in current US\$ (3) SYS-GMM	Excluding post-2000 period (4) SYS-GMM	Excluding pre-1990 period (5) SYS-GMM
Polity, t-1	-0.280*** (0.062)	0.783*** (0.071)	-0.226*** (0.076)	-0.343*** (0.121)	-0.187*** (0.051)
Remittances, t-1	0.004** (0.002)	0.052*** (0.017)	0.0003*** (0.000)	0.059** (0.024)	0.036*** (0.012)
Log Population, t-1	0.0001 (0.001)	0.025** (0.011)	0.009 (0.088)	0.014 (0.021)	0.015 (0.009)
Log Urbanization, t-1	-0.0001 (0.007)	0.095* (0.056)	-0.004 (0.035)	0.010 (0.047)	0.048 (0.040)
Log Trade, t-1	0.007 (0.006)	0.013 (0.046)	0.021 (0.049)	0.047 (0.064)	0.002 (0.045)
Log Infant mortality, t-1	0.004 (0.011)	-0.060 (0.061)	0.098 (0.039)	0.054 (0.091)	-0.069 (0.057)
Log Life expectancy, t-1	-0.008 (0.031)	-0.135 (0.137)	0.066 (0.096)	-0.016 (0.161)	-0.188 (0.165)
Log Per capita GDP, t-1	-0.004 (0.005)	-0.036 (0.023)	0.005 (0.020)	0.015 (0.038)	-0.031 (0.024)
Year FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
AR(1) test, p-value	0.002	0.001	0.000	0.001	0.004
AR(2) test, p-value	0.534	0.038	0.063	0.406	0.294
Hansen test, p-value	0.952	0.495	0.595	0.628	0.901
Observations	216	152	232	131	164

Notes: This table presents estimates of the effect of remittances (constant US\$) on the change in Polity measure of democratic institutions. Column (1) uses 5-year averaged sample; column (2) uses as the dependent variable Polity in levels; column (3) uses remittance per capita in current US\$ as the regressor of interest; column (4) excludes post-2000 observations from the sample; column (5) excludes pre-1990 observations from the sample. The method of estimation is the system-GMM. Remittances are instrumented with external instruments. Standard errors in parentheses are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. ***, ** and * denote significance at the 1, 5 and 10% level, respectively.

better quality. As shown in column (4), excluding post-2000 observations improve the size of the estimated coefficient (0.059 and significant at the 5% level) on remittances. We complete the picture by excluding pre-1990 observations from the specification in column (5) when measurement problem might have been more severe. The main finding is that the estimated coefficient on remittances is broadly similar to also excluding post-2000 observations from the sample. Quantitatively, the estimated coefficient on remittances is 0.036 and significantly different from zero at the 1% significance level.

Though SSA is one region, it has different sub-regions with different democratic profiles and some of these countries are oil producers. For example, over the sample period 1975–2014, on a scale of zero to one Southern Africa has the highest Polity score (0.61) on average, this followed by Western Africa (0.44), Eastern Africa (0.42), and Central Africa (0.26). Following the United Nations classification of countries by regions, in Table 6 columns (1) to (4) we check whether our main result is influenced by these sub-regions with different democratic scores. This check is also useful to determine whether the impact that remittances have on democratic institutions is different across these sub-regions.

To conduct this exercise, we construct an interaction variable between remittances and an indicator that is unity if a country is part of any of these sub-regions. A significant coefficient on the interaction variable would suggest that remittances affect democratic institutions in that sub-region differently.

Moving across columns (1) to (4), the estimated coefficient on the interaction variable is statistically insignificant at conventional significance levels, indicating that remittances do not affect democratic institutions in these sub-regions differently. The estimate of remittances is however positive and statistically significant at the 1%

significance level. Quantitatively, the size of the estimate of remittances is broadly similar to those of our baseline results in Table 2.

Studies have found that oil income has anti-democratic effects (Ross, 2001; Ross, 2012). In Table 6 column (5) we test whether our main result is robust to anti-democratic pressures created by oil income through an interaction variable between remittances and an indicator for oil producing states in SSA.⁶ Remittances do not affect democratic institutions in oil producing states differently. The estimate of the interaction variable is not significantly different from zero. The estimate of remittances remains statistically significant at the 1% significance level, though quantitatively somewhat smaller than our baseline estimates.

We also examine the consequences for our main regressions of using annual data instead of data that captures the effect of remittances on democratic institutions over a 5-year horizon. As suggested by Acemoglu et al. (2008) who study the relationship between income and democracy, 5-year interval is appropriate for reducing serial correlation in such regressions. 5-year non-overlapping panel also smooth cyclical fluctuations associated with annual data.

Table 7 reports estimates using annual data as a check against 5-year interval accounting for our main result. The pattern in Table 7 is largely similar to our baseline estimates, with the main difference being that quantitatively the estimated coefficient on remittances is smaller, but with our preferred estimator, system-GMM, remittances remain

⁶ Following Ross (2012), these oil producers in SSA are: Equatorial Guinea, Gabon, Angola, Congo Republic, Nigeria, Chad, and Cameroon. These oil producing states, on average, have the lowest Polity score (0.28). Note that we do not include the dummy variables in the regression explicitly because they are already captured by the fixed effects.

Table 6
Robustness Check II. Are the sub-regions and oil producing states different?

Dependent variable:	Δ Polity				
	C. Africa (1)	W. Africa (2)	S. Africa (3)	E. Africa (4)	Oil States (5)
	SYS-GMM	SYS-GMM	SYS-GMM	SYS-GMM	SYS-GMM
Remittances, t-1×C.Africa	-1.265 (4.068)				
Remittances, t-1×W.Africa		-0.013 (0.035)			
Remittances, t-1×S.Africa			0.005 (0.032)		
Remittances, t-1×E.Africa				-0.016 (0.047)	
Remittances, t-1×Oil States					-0.120 (0.076)
Polity, t-1	-0.384** (0.191)	-0.375*** (0.130)	-0.396*** (0.124)	-0.338* (0.195)	-0.167** (0.093)
Remittances, t-1	0.060*** (0.022)	0.076** (0.036)	0.072*** (0.028)	0.051*** (0.019)	0.046*** (0.017)
Log Population, t-1	0.020 (0.014)	0.029* (0.015)	0.029** (0.014)	0.022 (0.016)	0.021 (0.015)
Log Urbanization, t-1	0.086 (0.068)	0.053 (0.102)	0.071 (0.101)	0.001 (0.110)	0.027 (0.057)
Log Trade, t-1	0.013 (0.073)	0.002 (0.061)	-0.010 (0.064)	0.045 (0.080)	0.007 (0.054)
Log Infant mortality, t-1	-0.087 (0.072)	-0.098 (0.131)	-0.101 (0.133)	-0.082 (0.110)	-0.018 (0.071)
Log Life expectancy, t-1	-0.174 (0.193)	-0.104 (0.371)	-0.142 (0.351)	-0.102 (0.328)	-0.137 (0.195)
Log Per capita GDP, t-1	-0.020 (0.040)	-0.033 (0.047)	-0.036 (0.046)	-0.004 (0.050)	-0.012 (0.030)
Year FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
AR(1) test, p-value	0.010	0.003	0.003	0.005	0.002
AR(2) test, p-value	0.080	0.114	0.120	0.079	0.049
Hansen test, p-value	0.217	0.409	0.402	0.329	0.778
Observations	122	122	122	122	161

Notes: This table presents estimates of the effect of remittances (constant US\$) on the change in Polity measure of democratic institutions, accounting for the influence of each sub-region and oil producing states. The method of estimation is the system-GMM. Remittances are instrumented with external instruments. Standard errors in parentheses are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. ***, ** and * denote significance at the 1, 5 and 10% level, respectively.

positive and statistically significant at the 5% significance level.

Though there are possibly other threats to our main finding, overall the results presented in this section show that remittances are a fairly robust predictor of the quality of democratic institutions in SSA. This finding does not support evidence reported by Ahmed (2013) that remittances weaken governance and thus deteriorate the quality of democratic institutions.

6. Mechanism

Our analysis above shows that increased remittance flows, on average, improves the quality of democratic institutions in SSA. In this section, we examine two potential channels mediating the relationship between remittances and democratic institutions: education and poverty. As already suggested in the Introduction, to the degree that education is necessary to promote support for democracy and remit-

tances are used in part to finance educational attainment in developing countries (Fajnzylber and López, 2007), education is potentially an important channel through which remittances can improve the quality of democratic institutions.

To this end, we estimate variants of Eq. (1) with our preferred system-GMM estimator and instrument remittances with the two external instruments. We use as our dependent variables four commonly used measures of schooling from Barro and Lee (2013). These are the average years of primary schooling in the population aged 15 and over; the average years of total schooling in the population aged 15 and over; the average years of primary schooling in the population aged 25 and over; and the average years of total schooling in the population aged 25 and over.

In addition to year and country fixed effects, we include two controls from Eq. (1) that have theoretical predictions for education. We include per capita GDP because richer countries have better

Table 7
Robustness Check III. Using annual observations.

Dependent variable:	ΔPolity				
	(1) (OLS)	(2) (OLS)	(3) OLS	(4) OLS	(5) SYS-GMM
Polity, t-1	-0.055*** (0.012)	-0.058*** (0.016)	-0.129*** (0.021)	-0.157*** (0.027)	-0.058** (0.022)
Remittances, t-1	0.007** (0.003)	0.006** (0.003)	0.002 (0.007)	0.006 (0.006)	0.006** (0.003)
Log Population, t-1	0.003 (0.002)	0.003 (0.003)	0.055* (0.030)	-0.161** (0.076)	0.001 (0.005)
Log Urbanization, t-1	0.014** (0.006)	0.005 (0.008)	0.017 (0.018)	-0.038* (0.021)	0.020 (0.020)
Log Trade, t-1	0.008 (0.010)	0.011 (0.009)	0.026 (0.019)	0.033** (0.013)	0.012 (0.012)
Log Infant mortality, t-1	-0.017 (0.011)	-0.003 (0.014)	0.016 (0.027)	0.006 (0.028)	-0.065 (0.082)
Log Life expectancy, t-1	-0.032 (0.028)	0.0003 (0.033)	0.002 (0.041)	0.087 (0.063)	-0.172 (0.230)
Log Per capita GDP, t-1	-0.007 (0.004)	-0.003 (0.006)	-0.014 (0.016)	-0.003 (0.017)	-0.016 (0.015)
Year FE	No	Yes	No	Yes	Yes
Country FE	No	No	Yes	Yes	Yes
R-squared	0.027	0.103	0.080	0.165	
AR(1) test, p-value					0.000
AR(2) test, p-value					0.329
Hansen test, p-value					1.000
Observations	1146	1146	1146	1146	1023

Notes: This table presents estimates of the effect of remittances (constant US\$) on the change in Polity measure of democratic institutions. All regressions use annual observations. Columns (1–4) present results using least squares estimator and robust standard errors in parentheses are clustered at the country level. Column (5) presents results using system-GMM estimator with remittances instrumented with external instruments and standard errors are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. We follow Roodman (2009) and collapse the instrument to prevent instrument proliferation. ***, ** and * denote significance at the 1, 5, and 10% level, respectively.

capacity to finance access to more skills and education. We also include a measure of trade (imports+exports/GDP) since countries that are exposed to international trade have a greater need to supply an educated and skilled workforce in order to remain competitive.

These results are reported in Table 8. As can be seen in specifications (1) through (4), remittances have a significant positive average effect on all measures of schooling, with a larger impact on average years of primary and total schooling in the population aged 25 and over. The estimated coefficient on per capita GDP is significant and positive but not significantly different from zero for trade. We take these findings as indicating that education might be an important channel through which remittances improve the quality of democratic institutions.

We now turn to the poverty channel. A large and sufficiently rich middle class is more supportive of democratic institutions because democratic institutions offer more protection for their property rights (Acemoglu and Robinson, 2006). Africa has the highest incidence of poverty in the world. Highlighting the implications of the high incidence of poverty in Ghana, for example, Ninsin (2005) says: “The most dangerous effect of poverty is the vulnerability of the poor to tyrants and demagogues, who could easily mobilise them to subvert existing democratic institutions.”

To the extent remittances improve recipients’ financial security and

Table 8
Effect of remittances on potential education mechanism.

Dependent variables:	Average years of primary schooling in the pop. aged 15 and over	Average years of total schooling in the pop. aged 15 and over	Average years of primary schooling in the pop. aged 25 and over	Average years of total schooling in the pop. aged 25 and over
	(1)	(2)	(3)	(4)
	SYS-GMM	SYS-GMM	SYS-GMM	SYS-GMM
Remittances, t-1	0.497*** (0.141)	0.517*** (0.178)	0.827*** (0.203)	0.780*** (0.241)
Log Per capita GDP, t-1	0.825*** (0.237)	1.384*** (0.272)	0.831** (0.328)	1.299*** (0.391)
Log Trade, t-1	-0.141 (0.218)	-0.248 (0.402)	-0.387 (0.445)	-0.256 (0.525)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
AR(1) test, p-value	0.921	0.336	0.460	0.894
AR(2) test, p-value	0.154	0.172	0.167	0.263
Hansen test, p-value	0.263	0.323	0.289	0.273
Observations	155	155	155	155

Notes: This table presents estimates of the effect of remittances (constant US\$) on the education channel, indicated in the columns labels. The method of estimation is system-GMM. Remittances are instrumented with external instruments. Standard errors in parentheses are computed with the Windmeijer (2005) finite sample correction. AR(1) and AR (2) are p-values for first and second order serial correlation tests, respectively. Hansen test is the p-value of instrument relevance. *** and ** denote significance at the 1 and 5% level, respectively.

thus reduce poverty in SSA, poverty can mediate the impact that remittances have on democratic institutions since remittances may improve the well-being of poor households which enables them to refuse hand-outs from political elites and thus demand greater accountability from governments. The use of patronage to secure political support makes political elites less accountable to voters (Robinson, 2015).

Due to data limitation on the time-series of poverty measures for SSA, we are only able to provide cross-country evidence on the poverty channel. We therefore take this evidence as suggestive only. As more time-series data on poverty measures for SSA become available, future research can more carefully explore the intermediating role of poverty in the remittance-democratic institutions relationship.

We use four measures of poverty from the World Bank, WDI: the number of people living on less than \$1.90 a day; the poverty headcount ratio which measures the percentage of the population living on less than \$1.90 a day; the poverty gap index which measures the distance of the poor below the poverty line of \$1.90 a day; and the squared poverty gap index which captures the “depth of poverty” (Adams and Page, 2005). We follow the literature and include trade, per capita GDP, and the Gini index as controls (Gupta et al., 2009) in our regressions.

We present our cross-country estimates in Table 9. We see in all regressions that remittances have a significant negative average effect on all indicators of poverty. Taking these estimates at face value, remittances improve the quality of democratic institutions by reducing poverty in our SSA sample.

Ideally, we would like to examine the within-country effect of remittances on poverty, as we do with our education channel, but we are unable to do so because of the paucity of time-series data on poverty for SSA. We also recognize that remittances themselves may be an outcome of poverty, but the fact that there is a significant correlation between remittances and poverty might suggest that poverty is an ideal candidate for the channel through which remittances improve demo-

Table 9
Effect of remittances on potential poverty mechanism.

Dependent variables:	Log Number of poor on less than \$1.90 a day	Log Poverty headcount on less than \$1.90 a day	Log Poverty gap at \$1.90 a day	Log Squared poverty gap at \$1.90 a day
	(1)	(2)	(3)	(4)
	OLS	OLS	OLS	OLS
Remittances	-1.065*** (0.402)	-0.384** (0.192)	-0.459** (0.227)	-0.918** (0.455)
Log Per capita GDP	-1.314 (0.414)	-0.981*** (0.195)	-1.182*** (0.206)	-2.364 (0.413)
Log Gini index	3.212 (2.102)	3.235*** (1.146)	4.408*** (1.349)	8.817*** (2.699)
Log Trade	-0.637 (0.719)	0.399 (0.280)	0.390 (0.368)	0.779 (0.737)
R-squared	0.594	0.683	0.701	0.701
Countries	42	42	41	41

Notes: This table presents estimates of the effect of remittances (constant US\$) on the poverty channel, indicated in the columns labels. The method of estimation is least squares. Robust standard errors in parentheses. These OLS regressions have one observation per country. *** and ** denote significance at the 1 and 5% level, respectively.

cratic institutions. We therefore take this cross-country evidence as a partial view that poverty mediates the impact that remittances have on democratic institutions. Per capita GDP and the Gini index are significantly related to poverty.

7. Conclusion

Do remittances represent a significant positive determinant of democratic institutions in SSA? Our empirical analysis suggests the answer is yes. A large literature has examined the economic effects of remittances in developing countries. The view that remittances can also affect political institutions in developing countries has recently been gaining attention. However, the evidence on SSA is very thin. This is surprising given that remittances play a key role in SSA economies.

In this paper, we have investigated the impact that remittances have on democratic institutions in SSA over the period 1975–2014. Using a 5-year non-overlapping panel sample and controlling for country and time fixed effects, we show that remittances have a significant positive impact on democratic institutions in SSA. This finding remains true in least squares regressions and with dynamic system-GMM estimation that accounts for the endogenous relationship between remittances and democratic institutions and that controls for any bias arising from the lagged dependent variable, as well as using alternative measures of democratic institutions.

Our baseline estimates suggest that a one standard deviation increase in remittance flows, on average, improves the quality of democratic institutions in SSA by over one-third of one standard deviation. We have also presented some evidence on the channels via which remittances improve the quality of democratic institutions. We document that remittances improve democratic institutions through investment in education and lower poverty. Together, our results show that by increasing spending on education and reducing poverty remittances are increasing the incentives for recipients to hold their governments more accountable and thus promoting democratic institutions in SSA.

Our findings inform policy debates on how to consolidate democracy in SSA. Policies aimed at increasing the flows of remittances to SSA from remittance-sending OECD countries may serve as an important foreign policy strategy for Western democracies in promoting democracy in SSA, especially in countries where democracy is

under immediate threat. A further policy implication of our findings is that Western democracies interested in promoting democracy in SSA may provide financial support for poverty reduction directly to poor households and access to education, both of which serve to improve the quality of democratic institutions by changing the political attitudes of the poor towards patronage.

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