Governance, Inequality and Inclusive Education in Sub-Saharan Africa

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Abstract

The study provides thresholds of income inequality that if exceeded will nullify the positive effect of governance dynamics on gender-inclusive education in 42 countries in sub-Saharan Africa for the period 2004-2014. The Generalised Method of Moments is used as an estimation strategy. The following findings are established. First, the unconditional effects of governance dynamics on inclusive education are consistently positive whereas the corresponding conditional effects from the interaction between inequality and governance dynamics are consistently negative. Second, the levels of inequality that completely crowd-out the positive incidence of governance on inclusive "primary and secondary education" are: 0.587 for the rule of law and 0.565 for corruption-control. Third, the levels of inequality that completely dampen the positive incidence of governance on inclusive "secondary education" are: 0.601 for "voice & accountability" and 0.700 for regulation quality. Fourth, for tertiary education, inequality thresholds are respectively 0.568 for political stability and 0.562 for corruption-control. The main policy implication is that for governance dynamics to promote inclusive education in the sampled countries, income inequality levels should be kept within the established thresholds. Other implications are discussed in the light of Sustainable Development Goals.

JEL Classification: G20; I10; I32; O40; O55

Keywords: Africa; Inequality; Gender; Inclusive development

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1. Introduction

Inclusive education prominently features in the Sustainable Development Goals (SDGs) agenda of the United Nations Development Programme (UNDP), notably: SDG 4 (i.e. "*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*") and SDG 5 (i.e. "*achieve gender equality and empower all women and girls*").This research aims to assess thresholds of inequality that dampen the positive impact of governance on inclusive education in sub-Saharan Africa (SSA)[1]. Motivations for the research are multifaceted and build on policy and scholarly concerns pertaining to challenges in the attainment of SDGs in the sub-region.

Incidentally, a recent report from the United Nations Development Programme (UNDP) is particularly explicit on the need to tackle the policy syndrome of inequality that is inhibiting most countries in SSA from adopting a feasible course to the achievement of SDGs (UNDP, 2017). It is important to recall that most SDGs are related to the concern of inequality and the importance of tackling inequality in policy circles is consistent with recent scholarship on policy requirements for poverty reduction and socio-economic development in SSA in the post-2015 development agenda. Correspondingly, an eloquent example can be articulated from the conclusions of Bicaba, Brixiova and Ncube (2017) which maintain that mitigating inequality is fundamental in the reduction of extreme poverty to a threshold of below 3% which is a SDG target: "*This paper examines its feasibility for Sub-Saharan Africa (SSA), the world's poorest but growing region. It finds that under plausible assumptions extreme poverty will not be eradicated in SSA by 2030, but it can be reduced to low levels through high growth and income redistribution towards the poor segments of the society*" (p. 93).

It is a common acknowledgement in policy and scholarly circles that good governance is imperative for the promotion of quality education (Asongu & Nwachukwu, 2016a; Asongu & Odhiambo, 2020) and existing inequality levels can severely constraint the ability of governments to formulate and implement policies that promote inclusive development (Goetz & Jenkins, 2016). Against this background, it is policy-relevant to position a research on the understanding of levels of inequality at which good governance is no longer relevant in promoting inclusive development within the framework of gender inclusion in the education sector. Moreover, the positioning of the research can also be further substantiated with three

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[1] "Income inequality" and inequality are used interchangeably throughout this study. "Inclusive education", "gender parity education" and "gender inclusive education" are also used interchangeably throughout the study.

main tendencies in scholarly and policy circles, namely: (i) more insights into the concerns of inequality and gender exclusion in SSA in the post-2015 development agenda or SDGs; (ii) the established importance of good governance as a mechanism for the promotion of inclusive development and (iii) gaps in the attendant and contemporary scholarship related to the issues underpinning this research. These motivational elements are expanded in the same chronology as they are highlighted.

First, complementary African-centric policy and scholarly literature is consistent on the position that inequality is the principal policy concern hampering the ability of most countries in SSA to achieve SDGs (Asongu & Kodila-Tedika, 2017; McGeown, 2017; Asongu& le Roux, 2019; Tchamyou, 2019, 2020). Two main SDGs are directly related to this research, namely: (i) SDG-4 (i.e. "*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*") and (ii) SDG-5 ("*achieve gender equality and empower all women and girls*"). SSA is a good example with which to illustrate the underlying issue of gender exclusion because the sub-region is host to the poorest women in the world (Hazel, 2010) and most women in the region are excluded from the formal economic sector (Ellis, Blackden, Cutura, MacCulloch & Seebens, 2007; FAO, 2011; Tandon & Wegerif, 2013; International Labour Organization, 2013; World Bank, 2015; Efobi, Tanankem & Asongu, 2018).

Second, as previously highlighted, good governance is a fundamental channel through which inclusive development can be promoted in Africa. Some relevant contemporary studies supporting this stance entail: Efobi (2015), Ajide and Raheem (2016a, 2016b), Pelizzo, Araral, Pak and Xun (2016), Pelizzo and Nwokora (2016, 2018), Nwokora and Pelizzo (2018) and Asongu and Kodila-Tedika (2016). Moreover, according to a recent World Bank report, improved governance is essential for the promotion of gender inclusion in Africa because the exclusion of women represents an estimated loss of 2.5 trillion USD (World Bank, 2018; Nkurunziza, 2018). This research accommodates the recommendations of the World Bank by employing governance as a channel for the promotion of gender inclusion. The integration of the underpinning recommendation is also motivated by a gap in the corresponding literature.

Third, to the best of knowledge, contemporary studies on the promotion of gender inclusion have not focused on the problem statement motivating this study. The attendant literature can be discussed in two main strands, pertaining respectively to the broad literature on gender inclusion and more specific literature on gender education inclusion. On the front of the broader strand of literature, Theriault, Smale and Haider, (2017), Uduji and Okolo-Obasi (2018, 2019, 2020) and Uduji, Okolo-Obasi and Asongu (2019) argue for the

involvement of women in decisions on corporate social responsibility and technology-backed gender inclusive policies in the agricultural sector in order to promote sustainable development. Ntayi, Munene and Malinga (2018) engage linkages surrounding mobile money and financial access in the light of the moderating roles of gender and social networks. The nexus between inclusive finance and exclusion is examined by Kairiza, Kiprono and Magadzire (2017); Bayraktar and Fofack (2018) are concerned with the relevance of gender in the financial and informal sectors whereas Mannah-Blankson (2018) engages the relationship between financial access and the exclusion of women from microfinance activities. In addition, a branch of the literature articulates the importance of information and communication technology (ICT) inboosting the participation of women in the formal economic sector (Asongu & Odhiambo, 2018; Efobi *et al*., 2018).

With regards to contemporary literature on gender inclusion in the education sector, Elu (2018) presents a case for more involvement of women in education and science while Hui, Vickery, Njelesani and Cameron (2018) are concerned with gender experiences of inclusive schooling for youths and children with disabilities in the West and East regions of Africa. The importance of assistive technology in renegotiating the involvement of handicapped students in North Africa is investigated by Clouder*et al*., (2019) while Magumise and Sefotho (2020) assess the perceptions of teachers and parents. Besides, Asongu and Nwachukwu (2018) investigate educational quality critical masses in the diffusion of knowledge for inclusive development while Asongu and Odhiambo (2019a, 2019b) focus on nexuses between information technology, basic formal quality education and inclusive human development. Tlale and Romm (2018) are concerned with a systematic thinking and practice that improve inclusive education while Majoko (2018) focus on how special and inclusive teaching is robust in the effectiveness of early education. Other research in this "inclusive education"-centric strand include: the relevance of inclusive intervention on the readiness of teachers to impart knowledge to children that are victim of physical disability (Carew, Deluca, Groce & Kett, 2018) and the engagement of students who have disabilities in institutions of higher learning in South Africa (Mutanga, 2018).

In the light of the engaged stylised facts in the introductory paragraphs of this section, this research complements the extant literature on gender inclusion by establishing income inequality thresholds that should not be exceeded in order for governance to promote inclusive education. The research falls within the remit of applied econometrics because the intuition motivating the study is simple to follow: income inequality can dampen the effectiveness of governance in the delivery of inclusive education. Accordingly, this research

expects governance to unconditionally influence inclusive education in a positive light while inequality should mitigate the positive unconditional effect. Furthermore, contrary to the engaged studies that are concerned with nexuses between inclusive education and other microeconomic/macroeconomic outcomes, this research argues that providing critical masses underlying the nexus between policy outcomes (i.e. inclusive education) and policy actions or channels (i.e. governance) avails more room for policy implications. This is essentially because; governments of sampled countries are informed with specific actionable thresholds of inequality that should not be exceeded for good governance to promote gender inclusiveness in the education sector.

Given the applied econometrics positioning of the study, this research argues that applied econometrics can be used for theory-building and hence, should not exclusively be restricted to empirical exercises that are designed to accept or reject existing theoretical underpinnings. Therefore, the research is consistent with a strand of contemporary applied econometrics literature which argues that applied economics that is motivated by sound intuition (i.e. as in this study) is a useful scientific activity (Costantini & Lupi, 2005; Narayan, Mishra & Narayan, 2011; Asongu & Nwachukwu, 2016b).

The rest of the study is organised as follows. The literature review is presented in section 2. The data and analytical procedure are covered in section 3 while the empirical results are disclosed in section 4. Section 5 concludes with implications and future research directions as well as limitation.

2. Literature review

In accordance with contemporary inclusive education literature in SSA (Asongu, Orim & Nting, 2019), the literature surrounding inclusive development which is highlighted in the introduction is discussed in two main categories, notably: inclusive development studies and "inclusive-education" related literature.

2.1 Inclusive development

Kaulihowa and Adjasi (2018) have examined linkages between external flows and income inequality in order to test whether the foreign investment has an impact on income inequality, employing data from 1980 to 2013 from 16 countries in Africa. The authors leverage on the Pooled Mean Group estimation strategy to emphasise both heterogeneity and non-linear tendencies. The results reveal a U-shaped relationship between foreign investment and inequality. In essence, the results reveal that foreign investment ameliorates the fair

distribution of wealth in the countries sampled. Some nuances are also apparent in the light of the perspective that the underlying favorable income redistributive effect diminishes as foreign investment increases. In terms of policy implications, it is suggested by the authors that, though foreign investment is growth-enhancing, the corresponding growth does not always engender a reduction in income inequality levels.

De Magalhães and Santaeulàlia-Llopis (2018) focus on linkages among income levels, the poorest in society and consumption. The authors use both cross-sectional data and a survey based on panel data to provide new empirical perspectives on the connections between consumption, income and wealth in three of the poorest countries in the world, namely: Uganda, Tanzania and Malawi. The contribution of the authors to the extant literature is based on the establishment of two principal linkages, notably: (i) low transmission/accumulation from income inequality to wealth inequality and (ii) high insurance in consumption or meager transmission from income inequality to consumption inequality. It is further shown by the study that rural-urban disparities within SSA on the one hand and on the other, between SSA and the United States, show a negative relationship that reflects a trade-off between the accumulation of insurance and consumption.

Linkages between corruption and inequality in income are examined by Sulemana and Kpienbaareh (2018). The authors employ an unbalanced panel dataset from 48 nations in SSA during the period 1996-2016. The findings reveal that countries with lower corruption levels are associated with higher income inequality levels. The results provide insights into the varying nature of the connection between inequality in income and corruption between countries that are characterised by varying income trajectories and levels. The findings also reveal reverse causality underlying income inequality and corruption nexus. Accordingly, there is a U-shaped linkage between income inequality and corruption in low and lower-middle-income countries. The empirical evidence is based on random effects, fixed effects and ordinary least squares regressions.

Lorenzo and Coleridge (2019) are concerned with the possibilities of collaborative work for inclusive development purposes. According to the authors, inclusive development is multidimensional and represents different perspectives in a plethora of countries, especially as it pertains to diversity in terms of cultural, social, political and economic spectra. Again, disability is perceived by the authors as an additional level of complexity when it comes to tackling oppression and injustice. Consequently, the authors propose potential avenues through which inclusive and sustainable development can be achieved, *inter alia*: avoidance of dominance, justice promotion and positive identity of support, consisting of the three

pillars enabling the reciprocal linkages between people that are disabled and development practitioners. According to the authors, empowerment and inclusion are the principal strategies given that people that are disabled as supposed to be viewed as active contributors within communities and not exclusively as advocates of personal concerns.

Furthermore, Lang, Schneider, Kett, Cole and Groce (2019) examine progress in policy with an emphasis on how the concept of disability is taken on board in a plethora of policies from the African Union. The premise of the study is largely in relation to people that are disabled in Africa as well as the importance of debates on international development in contemporary circles, especially as they pertain to the involvement and non-tokenistic inclusion of marginalised factions of the population in the process of making decisions. The authors have examined nine strategy and policy documents from the African Union which cover policy areas surrounding health, education, social protection and employment, which are identified by them as essential for the involvement of people that are disabled in international development processes.

2.2 Inclusive education

Hui, Vickery, Njelesani and Cameron (2018) in this strand focus on experiences from gender in inclusive schooling that, are relevant for disabled children in some countries in East and West Africa, namely: Sierra Leone, Guinea, Zambia, Togo, Niger and Malawi. Stakeholders' interviews are performed and thematically analysed in view of examining potential interactions that are apparent among gender, disability and education. The findings reveal that boys and girls with disabilities experience social exclusion to the same extent in academic circles. It is revealed by the authors that girls that are the victim of disabilities are also affected by societal biases and sexual abuse which are in stark contrast to their potentials in education. Thus, the authors recommended that for quality education to be available for all, some measures should be encouraged, *inter alia*, policies that: promote inclusive and safe schooling; bolster the prospects of girls having disabilities to continue schooling and challenge negative societal perspectives that reduce education opportunities.

Clouder et al. (2018) focus on the importance of technology that is assistive in making arrangements for handicapped students in North African higher learning institutions to engage in school. Egypt and Morocco are considered as case studies. The authors aim to investigate the manner in which career prospects as well as fairer opportunities of accessing university education can be promoted to benefit students that are victims of disabilities using technologies that are assistive. The analytical approach is an appreciative assessment that

engenders the exploration of outcomes as well as processes the project entails. It is shown by the authors that when assistive technology is articulated, it enhances individual agencies and collective studies which ultimately address concerns related to the invisibility of students with disabilities. The empowerment mode that is emerging from students can be traced to two fundamental features that motivate a wider inclusive education debate, notably: the relevance of technology as a change moderator and the importance of bottom-top as well as top-down dynamics.

Magumise and Sefotho (2018) are concerned with the perceptions of teachers and parents in primary schools in Zimbabwe. Using data collected from 12 parents and 2 teachers on issues pertaining to inclusive education, the findings reveal that the perception of inclusive education from participants can be divided into three main categories, namely: negative, positive and mixed perceptions. Accordingly, the results are shown in terms of a tree diagram and a model, with significant implications for all stakeholders concerned. Uniquely, in Zimbabwe, Majoko (2018) has examined the effectiveness of special and inclusive scholarship in Early Childhood Education (ECE) in the country. The study provides a start point for future works on how services should be delivered in special and inclusive education in ECE.

In South Africa, Mutanga (2018) has focused on the involvement of students that are affected by disabilities in institutions of higher learning in the country. 14 students having disabilities from the University of Free State and University of Venda are involved in the qualitative research from which their experiences are assessed in order to understand their academic experiences and lives. The results of the study emphasise some areas for inclusive development that should be given critical consideration by policymakers in order for the needs of students having disabilities to be comprehensively addressed. Similarly, in South Africa, Tlale and Romm (2018) reflects the idea of systematic practice and thinking to the school teachers and management members that consolidate inclusive education. They also share reflections, which are drawn from interactions with participants of research in a rural area in the Eastern Cape of South Africa.

3. Data and methodology
3.1 Data

Given the motivation of the study discussed in the preceding section, this research focuses on 42 countries in SSA using data of annual periodicity for the period 2004 to 2014[2]. The sampled countries and corresponding periodicity are motivated by constraints in data availability at the time of the research. Three main sources of data are used for the study. (i) The inequality indicator or the Gini coefficient is obtained from the Global Consumption and Income Project (GCIP).

(ii)Three inclusive education indicators and a control variable are obtained from World Development Indicators (WDI) of the World Bank, namely: "primary and secondary school education", secondary school education, tertiary school education and remittances. The choice of the three inclusive education indicators is motivated by insights from lifelong learning and knowledge economy literature which argue for the importance of engaging more levels of education in order to avail room for more policy implications (Petrakis & Stamatakis, 2002; Asiedu, 2014; Tchamyou, 2017; Asongu & Tchamyou, 2016, 2019, 2020).

(iii) Six governance indicators employed as sourced from the World Governance Indicators (WGI) of the World Bank. The choice of governance variables is motivated by a recent stream of African governance literature which supports the relevance of including more governance indicators in empirical analyses in order to improve room for more policy implications (Andres, Asongu & Amavilah 2015; Oluwatobi, Efobi, Olurinola, Alege, 2015; Ajide & Raheem, 2016a, 2016b; Asongu, le Roux, Nwachukwu & Pyke, 2019; Tchamyou, 2017). For instance, as Andres, Asongu and Amavilah articulated: "*The first concept is about the process by which those in authority are selected and replaced (Political Governance): voice and accountability and political stability. The second has to do with the capacity of government to formulate and implement policies, and to deliver services (Economic Governance): regulatory quality and government effectiveness. The last, but by no means least, regards the respect for citizens and the state of institutions that govern the interactions among them (Institutional Governance): rule of law and control of corruption*" (Andres *et al.*, 2015, p. 1041).

The choice of only one control variable (i.e. remittances) which is in line with contemporary inclusive development literature is motivated by the imperative to provide

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[2]The 42 countries include: "Angola, Benin, Botswana, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo Democratic Republic, Congo Republic, Côte d'Ivoire, Djibouti, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome & Principe, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda and Zambia".

robust specifications (Asongu & Odhiambo, 2019b; Tchamyou *et al.*, 2019). However, the expected sign of remittances is ambiguous and contingent on specification dynamics or levels of education. Accordingly, the use of remittances to fund primary education may concern the general society while remittances used for tertiary education may be more relevant to wealthy factions of the society for two main reasons. On the one hand, the wealthy for the most part can afford to send their children to higher levels of education and on the other, as documented in recent inclusive development literature, remittances to Africa largely end-up increasing the wealth of rich households because those migrating abroad are averagely more from rich households (Meniago & Asongu, 2018). Hence, while the research expects remittances to influence the outcome variable of inclusive education, a definite sign cannot be established a priori.

On the front of deriving tight or robust specifications, even when the collapse option is adopted, it is admissible in the GMM-centric literature to restrict control variables in order to mitigate the concern of instrument proliferation that can severely bias estimated coefficients. The restriction of elements in the conditioning information set in order to derive robust estimates is consistent with the attendant Generalized Method of Moments (GMM)-oriented literature. For examples: (i) Bruno, DeBonis and Silvestrini (2012) have employed two control variables while (ii) Osabuohien and Efobi (2013) and Asongu and Nwachukwu (2017) have not employed any control variable. The use of one control variable in this study is therefore situated between the two examples. The definitions and sources of variables are disclosed in Appendix 1 while Appendix 2 covers the summary statistics. The correlation matrix is provided in Appendix 3.

3.2 Analytical procedure

In the light of the narrative in the preceding section, it is important to note that the key outcome variables are inclusive education variables, the main predictor variables are governance variables while the moderating variable is inequality. The purpose of the study is to assess the thresholds of inequality that dampen the positive impact of governance on inclusive education. In other words, the study aims to provide levels of inequality that should not be exceeded for governance to promote inclusive education. The underlying levels or thresholds of inequality are established within the framework of interactive regressions. Two hypotheses were outlined in the study design:

Hypothesis 1: Governance promotes inclusive education.

Hypothesis 2: Inequality mitigates the favorable role of governance in promoting inclusive education and by extension; some levels of inequality should not be exceeded in order for governance to promote inclusive education.

In order for the above hypotheses to be valid: (i) the study expects a positive unconditional effect of governance on inclusive education and (ii) the interactive effect between governance and inequality on inclusive education should be negative from which, a corresponding critical mass or threshold of inequality is established.

3.2.1 GMM Specification

Following Tchamyou (2019, 2020) and Tchamyou, Erreygers and Cassimon (2019), the GMM empirical approach is adopted by this research because of four fundamental motives. (i)A prime condition for the adoption of the empirical strategy is that the number of sampled countries should be higher than the corresponding number of annual observations apparent in each cross-section. This condition is met by the research structure because the study is dealing with 42 countries over the period 2004-2014 (or 11 years). (ii)The notion of persistence is taken on board because from an exploratory analysis, the correlation between the level and first differences series' of the outcomes variables is above 0.800 which is the established rule of thumb threshold for confirming persistence in variables (Asongu & Odhiambo, 2019c, 2019d). (iii) The panel data structure of the research implies that both time series and cross-country properties are involved in the empirical exercise. Hence, cross-country variations are considered in the estimation approaches. (iv) Ignoring the concern of endogeneity in the estimation obviously generates estimates that are biased and violate the assumption of exogeneity underpinning the independent variables of interest.

In the research, simultaneity or reversed causality is addressed with the use of instrumental variables while the unobserved heterogeneity is incorporated by controlling for time-invariant omitted variables in the estimation exercise. The estimation strategy used for the research is from Roodman (2009a, 2009b). This strategy is an extension of the traditional difference GMM approach because it has been established to limit the proliferation of instruments (Tchamyou*et al*., 2019). The following equations in level (1) and first difference (2) summaries the standard *system* GMM estimation procedure:

$$E_{i,t} = \sigma_0 + \sigma_1 E_{i,t-\tau} + \sigma_2 G_{i,t} + \sigma_3 I_{i,t} + \sigma_4 GI_{i,t} + \sigma_5 R_{i,t} + \eta_i + \xi_t + \varepsilon_{i,t} \quad (1)$$

$$E_{i,t} - E_{i,t-\tau} = \sigma_1(E_{i,t-\tau} - E_{i,t-2\tau}) + \sigma_2(G_{i,t} - G_{i,t-\tau}) + \sigma_3(I_{i,t} - I_{i,t-\tau}) + \sigma_4(GI_{i,t} - GI_{i,t-\tau})$$
$$+ \sigma_5(R_{i,t} - R_{i,t-\tau}) + (\xi_t - \xi_{t-\tau}) + (\varepsilon_{i,t} - \varepsilon_{i,t-\tau}) \quad (2)$$

where, $E_{i,t}$ denotes an indicator of inclusive education(i.e. "primary and secondary education", secondary education and tertiary education) of country i in period t, σ_0 is a constant, G represents governance (political stability, "voice & accountability", regulation quality, government effectiveness, rule of law and corruption-control), I denotes the income inequality indicator or the Gini coefficient, GI represents interactions between inequality indicators and governance ("the Gini coefficient" × "political stability"; "the Gini coefficient" × "voice & accountability"; "the Gini coefficient"דregulation quality";"the Gini coefficient" × "government effectiveness"; "the Gini coefficient"דthe rule of law" and "the Gini coefficient"× "corruption-control"), R is remittances, τ represents the coefficient of auto-regression which in this study is considered to be one because a one year lag feasibly captures past information, ξ_t is the time-specific constant, η_i is the country-specific effect and $\varepsilon_{i,t}$ the error term.

3.2.2Identification and exclusion restrictions

As with every robust empirical specification, in the GMM approach, clarifications on identification and exclusion restrictions are fundamental to a tight empirical analysis. While the identification process consists of articulating the strictly exogenous and endogenous explaining variables: the corresponding exclusion restriction is that the outcome variable is affected by the strictly exogenous variables exclusively through the endogenous explaining mechanisms. The robustness of the GMM specification partly builds on assessing the validity of this exclusion restriction assumption.

In the light of contemporary GMM-centric literature, the identification process and exclusion restrictions are such that, years are strictly exogenous variables whereas all independent variables (i.e. governance and inequality variables) and elements in the conditioning information set (i.e. the remittances control variable) are acknowledged to be predetermined or endogenous explaining (Asongu & Nwachukwu, 2016c; Tchamyou & Asongu, 2017; Boateng *et al*., 2018; Tchamyou*et al*., 2019). The identification approach is

consistent with insights from Roodman (2009b) which articulate that years are feasible strictly exogenous variables because years are unlikely to be endogenous upon a first difference[3]. Furthermore, in the GMM with forward orthogonal deviations, the exclusion restriction assumption is investigated with the Difference in Hansen Test (DHT) for instrument exogeneity. In the investigation, the null hypothesis of the underlying test should not be rejected because it translates a position on the strict exogeneity of the identified strictly exogenous variables. In other words, it confirms the perspective that the adopted strictly exogenous variables affect inclusive education exclusively via the defined predetermined or endogenous explaining variables. This criterion for validating the process of identification and corresponding exclusion restriction is not different from the more traditional criterion related to instrumental variable (IV) estimations from which a failure to reject the null hypothesis pertaining to the Sargan/Hansen test is an indication that the exclusion restriction assumption withstands empirical scrutiny (Demirgüç-Kunt & Levine, 2003; Asongu & Nwachukwu, 2016d).

4. Empirical results

4.1 Presentation of results

Table 1 to 3 discloses the results from the empirical analysis. Table 1 focuses on linkages between governance, inequality and "primary and secondary education" while Table 2 provides results on nexuses between governance, inequality and secondary education. Similarly, Table 3 demonstrates the connections between governance, inequality and inclusive tertiary education. Furthermore, Table 1 is concerned with findings pertaining to linkages between governance, inequality and tertiary education. Each table is divided into three main sections, entailing respectively, political governance (consisting of political stability and "voice & accountability"), economic governance (encompassing government effectiveness and regulation quality) and institutional governance (comprising corruption-control and the rule of law).

For every model that is estimated, four main information criteria are used to assess whether the model passes post-estimation diagnostic tests[4].In the light of these criteria, the estimated

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[3]Hence, the procedure for treating *ivstyle* (years) is 'iv (years, eq(diff))' whereas the *gmmstyle* is employed for predetermined variables.

[4] "*First, the null hypothesis of the second-order Arellano and Bond autocorrelation test (AR (2)) in difference for the absence of autocorrelation in the residuals should not be rejected. Second the Sargan and Hansen over-identification restrictions (OIR) tests should not be significant because their null hypotheses are the positions that instruments are valid or not correlated with the error terms. In essence, while the Sargan OIR test is not robust but not weakened by instruments, the Hansen OIR is robust but weakened by instruments. In order to restrict identification or limit the proliferation of instruments, we have ensured that instruments are lower than the number of cross-sections in most specifications. Third, the Difference in Hansen Test (DHT) for exogeneity of instruments is also employed to assess the validity of*

models are overwhelmingly valid with the exceptions of those in the second and fourth columns of Table 2. Accordingly, in the second column, the Hansen test is rejected while in the fourth there isfirst difference second-order serial auto-correlation. These concerns that have invalidated the models are discussed in detail in what follows.

The first-order Arellano-Bond auto-correlation test in-difference [i.e. AR(1)] andthe second-order Arellano-Bond auto-correlation test indifference [i.e. AR(2)]are employed to assess the serial correlation in the error terms. Serial correlation is expected in the first-order test due to the lagged dependent variable. Hence, the first difference errors should be first-order auto-correlated while the first difference errors should not be auto-correlated in the second-order. Theoretically, there should be no autocorrelation in the first difference errors at an order that higher than one because such evidence implies that the instruments are not valid.

Concerning the Hansen test that is rejected, it is worthwhile to point out that compared to the Hansen test which is robust, the Sargan is less robust. However, whereas the Sargan is not weakened by instrument proliferation, the Hansen test may be weakened by instrument proliferation. A strategy with which to avoid the conflicting criteria is to adopt the Hansen test and ensure that the proliferation of instruments is avoided. A means by which to mitigate instrument proliferation is to ensure that for each specification, the number of cross-sections (i.e. countries) in higher than the corresponding number of instruments (Tchamyou *et al*., 2019).

In light of the problem statement motivating this study, the approach adopted for the computation of thresholds is from Asongu (2018). As a case of illustration, in the last column of Table 1, the highest level of income inequality (i.e. the Gini coefficient) at which the control of corruption can no longer promote inclusive education is 0.565(0.130/0.230). In this calculation, 0.130 is the unconditional impact of corruption-control on inclusive "primary and secondary education" while 0.230 represents the absolute value of the conditional impact pertaining to the interaction between the Gini coefficient and corruption-control. It follows that a Gini coefficient critical mass of 0.565 should not be exceeded in the sampled countries because above this threshold, income inequality crowds-out the positive incidence of corruption-control on inclusive "primary and secondary education".

Moreover, the following findings can be established from Table 1 to 3. First, the unconditional effects of governance dynamics on inclusive education are consistently positive whereas the corresponding conditional effects from the interaction between inequality and

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governance dynamics are consistently negative. Second, the levels of inequality that completely crowd-out the positive incidence of governance on inclusive "primary and secondary education" are: 0.587 for the rule of law and 0.565 for corruption-control. Third, the levels of inequality that completely dampen the positive incidence governance on inclusive "secondary education" are: 0.601 for "voice & accountability" and 0.700 for regulation quality. Fourth, for tertiary education, inequality thresholds are respectively 0.568 for political stability and 0.562 for corruption-control. Fifth, the control variables are overwhelmingly significant.

Table 1: Governance, Inequality and Inclusive "Primary and Secondary Education"

	Dependent variable: Inclusive Primary and Secondary Education (PSSE)					
	Political Governance		Economic Governance		Institutional Governance	
	Political Stability	Voice & Accountability	Government Effectiveness	Regulation Quality	Rule of Law	Corruption-Control
PSSE (-1)	0.973***	0.956***	0.961***	0.965***	0.912***	0.970***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gini Coefficient (Gini)	0.160***	0.138***	0.077**	0.091**	-0.024	0.072***
	(0.000)	(0.000)	(0.045)	(0.034)	(0.318)	(0.002)
Political Stability (PolS)	-0.028*	---	---	---	---	---
	(0.091)					
Voice & Accountability(VA)	---	0.054*	---	---	---	---
		(0.074)				
Government Effectiveness (GE)	---	---	0.042	---	---	---
			(0.272)			
Regulation Quality (RQ)	---	---	---	-0.008	---	---
				(0.832)		
Rule of Law (RL)	---	---	---	---	0.262***	---
					(0.000)	
Corruption-Control (CC)	---	---	---	---	---	0.130**
						(0.011)
Gini ×PolS	0.040	---	---	---	---	---
	(0.204)					
Gini × VA	---	-0.078	---	---	---	---
		(0.100)				
Gini × GE	---	---	-0.068	---	---	---
			(0.320)			
Gini × RQ	---	---	---	0.025	---	---
				(0.716)		
Gini × RL	---	---	---	---	-0.446***	---
					(0.000)	
Gini × CC	---	---	---	---	---	-0.230**
						(0.010)
Remittances	-0.0001	-0.0001	-0.0001	-0.00004	0.0003***	3.48e-06
	(0.266)	(0.246)	(0.316)	(0.848)	(0.003)	(0.967)
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes
Thresholds	na	na	na	na	0.587	0.565
AR(1)	(0.023)	(0.021)	(0.023)	(0.023)	(0.024)	(0.022)
AR(2)	(0.231)	(0.188)	(0.219)	(0.242)	(0.201)	(0.191)
Sargan OIR	(0.118)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Hansen OIR	(0.567)	(0.482)	(0.456)	(0.601)	(0.511)	(0.492)
DHT for instruments (a)Instruments in levels						
H excluding group	(0.205)	(0.091)	(0.105)	(0.225)	(0.182)	(0.252)
Dif(null, H=exogenous)	(0.697)	(0.764)	(0.704)	(0.715)	(0.718)	(0.567)
(b) IV (years, eq(diff))						
H excluding group	(0.136)	(0.241)	(0.168)	(0.223)	(0.247)	(0.132)
Dif(null, H=exogenous)	(0.779)	(0.564)	(0.608)	(0.717)	(0.710)	(0.701)
Fisher	266.69***	1435.89***	5830.19***	2215.98***	2802.20***	1762.66***
Instruments	28	28	28	28	32	28
Countries	33	33	33	33	33	33
Observations	231	231	231	231	231	231

*** , ** , *: significance levels at 1%, 5% and 10% respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan and Hansen OIR tests. The mean value of the Gini coefficient is 0.586. na: not applicable because at least one estimated coefficient needed for the computation of net effects is not significant.

Table 2: Governance, Inequality and Inclusive Secondary Education

	Dependent variable: Inclusive Secondary Education (SSE)					
	Political Governance		Economic Governance		Institutional Governance	
	Political Stability	**Voice & Accountability**	**Government Effectiveness**	**Regulation Quality**	**Rule of Law**	**Corruption-Control**
SSE (-1)	**0.900*****	**0.945*****	**0.903*****	**0.905*****	**0.892*****	**0.945*****
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Gini Coefficient (Gini)	**0.357*****	**0.246*****	**0.210*****	**0.202****	0.070	**0.305*****
	(0.007)	**(0.000)**	**(0.002)**	**(0.037)**	(0.229)	**(0.000)**
Political Stability (PolS)	-0.080	---	---	---	---	---
	(0.245)					
Voice & Accountability (VA)	---	**0.202****	---	---	---	---
		(0.017)				
Government Effectiveness (GE)	---	---	**0.190*****	---	---	---
			(0.003)			
Regulation Quality (RQ)	---	---	---	**0.192*****	---	---
				(0.000)		
Rule of Law (RL)	---	---	---	---	0.179	---
					(0.114)	
Corruption-Control (CC)	---	---	---	---	---	0.110
						(0.147)
Gini ×PolS	0.164	---	---	---	---	---
	(0.215)					
Gini × VA	---	**-0.336****	---	---	---	---
		(0.029)				
Gini × GE	---	---	**-0.292*****	---	---	---
			(0.008)			
Gini × RQ	---	---	---	**-0.274****	---	---
				(0.024)		
Gini × RL	---	---	---	---	-0.283	---
					(0.159)	
Gini × CC	---	---	---	---	---	-0.191
						(0.156)
Remittances	**0.001*****	**0.001*****	**0.001*****	**0.001*****	**0.002*****	**0.001*****
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes
Thresholds	na	0.601	0.650	0.700	na	na
AR(1)	(0.031)	(0.025)	(0.023)	(0.020)	(0.026)	(0.023)
AR(2)	**(0.165)**	**(0.114)**	(0.093)	**(0.125)**	**(0.134)**	**(0.107)**
Sargan OIR	(0.312)	(0.074)	(0.069)	**(0.467)**	(0.058)	**(0.298)**
Hansen OIR	(0.084)	**(0.197)**	(0.143)	**(0.464)**	**(0.259)**	**(0.270)**
DHT for instruments						
(a)Instruments in levels						
H excluding group	**(0.265)**	(0.024)	(0.042)	(0.045)	**(0.227)**	**(0.183)**
Dif(null, H=exogenous)	(0.085)	**(0.616)**	**(0.385)**	**(0.870)**	**(0.333)**	**(0.353)**
(b) IV (years, eq(diff))						
H excluding group	(0.049)	(0.081)	(0.041)	**(0.286)**	**(0.528)**	(0.099)
Dif(null, H=exogenous)	**(0.222)**	**(0.378)**	**(0.388)**	**(0.509)**	**(0.165)**	**(0.462)**
Fisher	**2459.95*****	**2884.09*****	**2505.46*****	**1935.10*****	**15117.47*****	**2286.55*****
Instruments	28	28	28	28	32	28
Countries	33	33	33	33	33	33
Observations	214	214	214	214	214	214

***,**,*: significance levels at 1%, 5% and 10% respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan and Hansen OIR tests. The mean value of the Gini coefficient is 0.586. na: not applicable because at least one estimated coefficient needed for the computation of net effects is not significant.

Table 3: Governance, Inequality and Inclusive Tertiary Education

	Dependent variable: Inclusive Tertiary Education (TSE)					
	Political Governance		Economic Governance		Institutional Governance	
	Political Stability	Voice &Accountability	Government Effectiveness	Regulation Quality	Rule of Law	Corruption-Control
TSE (-1)	**1.003*****	**1.045*****	**1.051*****	**1.032*****	**0.995*****	**1.048*****
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Gini Coefficient (Gini)	0.521	0.171	0.728	**0.916****	-0.117	-0.308
	(0.256)	(0.814)	(0.421)	**(0.036)**	(0.686)	(0.361)
Political Stability (PolS)	**0.772*****	---	---	---	---	---
	(0.002)					
Voice & Accountability(VA)	---	0.386	---	---	---	---
		(0.506)				
Government Effectiveness (GE)	---	---	-0.254	---	---	---
			(0.730)			
Regulation Quality (RQ)	---	---	---	-0.346	---	---
				(0.313)		
Rule of Law (RL)	---	---	---	---	0.342	---
					(0.389)	
Corruption-Control (CC)	---	---	---	---	---	**0.621****
						(0.019)
Gini ×PolS	**-1.357*****	---	---	---	---	---
	(0.002)					
Gini × VA	---	-0.705	---	---	---	---
		(0.486)				
Gini × GE	---	---	0.401	---	---	---
			(0.758)			
Gini × RQ	---	---	---	0.538	---	---
				(0.368)		
Gini × RL	---	---	---	---	-0.580	---
					(0.395)	
Gini × CC	---	---	---	---	---	**-1.104****
						(0.017)
Remittances	-0.001	**-0.001***	**-0.002*****	**-0.002*****	**-0.001*****	**-0.001*****
	(0.350)	**(0.078)**	**(0.005)**	**(0.001)**	**(0.005)**	**(0.002)**
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes
Thresholds	0.568	na	na	na	na	0.562
AR(1)	**(0.269)**	**(0.269)**	**(0.259)**	**(0.269)**	**(0.263)**	**(0.268)**
AR(2)	**(0.368)**	**(0.310)**	**(0.172)**	**(0.198)**	**(0.303)**	**(0.177)**
Sargan OIR	(0.085)	**(0.118)**	**(0.100)**	(0.083)	**(0.160)**	(0.094)
Hansen OIR	**(0.496)**	**(0.259)**	**(0.521)**	**(0.219)**	**(0.346)**	**(0.411)**
DHT for instruments						
(a)Instruments in levels						
H excluding group	**(0.187)**	**(0.633)**	**(0.251)**	(0.076)	**(0.131)**	(0.051)
Dif(null, H=exogenous)	**(0.633)**	**(0.180)**	**(0.602)**	**(0.428)**	**(0.579)**	**(0.794)**
(b) IV (years, eq(diff))						
H excluding group	**(0.175)**	**(0.134)**	(0.091)	**(0.144)**	**(0.125)**	**(0.161)**
Dif(null, H=exogenous)	**(0.647)**	**(0.390)**	**(0.808)**	**(0.357)**	**(0.681)**	**(0.561)**
Fisher	**10237.83*****	**12740.45*****	**1025.61*****	**2500.32*****	**2.64e+07*****	**2069.15*****
Instruments	28	28	28	28	32	28
Countries	33	33	33	33	33	33
Observations	157	157	157	157	157	157

4.2 Further discussion of results

In the light of the findings discussed in the preceding section, it is apparent that from a general governance perspective that the two tested hypotheses withstand empirical scrutiny, notably because: (i) governance unconditionally promotes inclusive education and (ii) inequality dampens the favorable incidence of governance on inclusive education and by extension, there are corresponding inequality thresholds that should not be exceeded in order for the underlying favorable incidence of governance to be maintained.

The findings can be further discussed in two main strands, especially as it pertains to: (i) the favorable incidence of governance on inclusive education and (ii) the unfavorable incidence of inequality in the favorable role of governance on inclusive education. These two strands which are closely linked to the tested hypotheses outlined in Section 3.2 are discussed in the same order of chronology as highlighted.

First, the fact that governance taken holistically promotes inclusive education in SSA is consistent with contemporary literature on the importance of promoting good governance for gender-inclusive education, *inter alia*: smart governance for inclusive socio-economic transformation (Manda & Backhouse, 2019) and inclusive higher education (del Rosario & Kitada, 2020).

Equally important, the dominance of corruption-control in promoting inclusive development is consistent with recent studies which have also established that corruption-control and by extension, institutional governance (entailing the rule of law and corruption-control) are the most effective governance channels in the promotion of development outcomes, notably: in the fight against software piracy (Andrés & Asongu, 2013) and conflict/crimes (Asongu & Kodila-Tedika, 2016) in Africa. The arguments provided to support the relevance of corruption-control is that the policy mechanism is that last resort when it comes to formulating and implementing all other governance policies.

Second, the fact that income inequality (and by extension, exclusive development) mitigates the favorable incidence of governance measures on inclusive development is consistent with a growing strand of literature on the importance of reducing income inequality in order to achieve most SDGs, notably: Bicaba *et al*., (2017) on the imperative for a fairer

distribution of wealth in order to meet poverty-related SDGs targets and Fosu (2017, 2020) on the detrimental role of income inequality in nexus between poverty and inclusive growth.

5. Concluding implications and future research directions

5.1 Conclusions

The study provides thresholds of income inequality that if exceeded will nullify the positive effect of governance dynamics on gender-inclusive education in 42 countries in sub-Saharan Africa for the period 2004-2014. Three gender parity education indicators are used: "primary and secondary education", secondary education and tertiary education. The Gini coefficient is used to proxy for income inequality whereas six governance dynamics are employed, notably: (i) political governance (an embodiment of political stability and "voice & accountability); (ii) economic governance (consisting of government effectiveness and regulation quality) and institutional governance (entailing corruption-control and the rule of law). The Generalized Method of Moments (GMM) is used as an estimation strategy.

The following findings are established. First, the unconditional effects of governance dynamics on inclusive education are consistently positive whereas the corresponding conditional effects from the interaction between inequality and governance dynamics are consistently negative. Second, the levels of inequality that completely crowd-out the positive incidence governance on inclusive "primary and secondary education" are: 0.587 for the rule of law and 0.565 for corruption-control. Third, the levels of inequality that completely dampen the positive incidence of governance on inclusive "secondary education" are: 0.601 for "voice & accountability" and 0.700 for regulation quality. Fourth, for tertiary education, inequality thresholds are respectively 0.568 for political stability and 0.562 for corruption-control.

5.2 Recommendations to policy

The main policy implication is that for governance dynamics to promote inclusive education in the sampled countries, income inequality levels should be kept within the established thresholds.

The findings are also relevant to the achievement of most SDGs because these goals are largely centered on the need to promote inclusive education and reduce inequality. It is important to recall that most countries in the sub-region did not achieve most Millennium Development Goals (MDGs) because the economic growth resurgence experienced by most

countries in the region did not trickle down to the poorer segments of society. Moreover, as clarified in the introduction, scholarly and policy literature are consistent on the importance of reducing income inequality and promoting inclusive education in order to put countries in SSA on the path towards the achievement of SDGs. While inequality thresholds established in this study should not be exceeded for good governance to enhance inclusive development, the positive and negative effects of respectively governance dynamics and interactions, are indications that governance standards should be increased concurrently with measures aimed at curbing income inequality. Ultimately, promoting inclusive gender education by means of enhancing good governance and mitigating income inequality could increase general welfare, boost economic prosperity and further reduce income inequality. Accordingly, the integration of more women into academic circles provides them with opportunities for social mobility and potential employment because, in the post-2015 sustainable development era, no society can be developed sustainably by putting a greater proportion of women in the margins of the formal economic and education sectors.

5.3 Limitation and future research direction

Future research can extend the established findings by using relevant estimation techniques to assess whether the results withstand empirical scrutiny from country-specific settings. The recommendation is motivated by the fact, in order to control for endogeneity, the GMM estimation approach is designed to eliminate country-specific effects owing to the correlation between country-specific effects and the lagged outcome variable.

Appendices
Appendix 1: Definitions of Variables

Variables	Signs	Definitions of variables (Measurements)	Sources
Inclusive Education	PSSE	School enrolment, primary and secondary (gross), gender parity index (GPI)	WDI
	SSE	School enrolment, secondary (gross), gender parity index (GPI)	WDI
	TSE	School enrolment, tertiary (gross), gender parity index (GPI)	WDI
Political Stability	PolS	"Political stability/no violence (estimate): measured as the perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional and violent means, including domestic violence and terrorism"	WGI
Voice & Accountability	VA	"Voice and accountability (estimate): measures the extent to which a country's citizens are able to participate in selecting their government and to enjoy freedom of expression, freedom of association and a free media"	WGI
Government Effectiveness	GE	"Government effectiveness (estimate): measures the quality of public services, the quality and degree of independence from political pressures of the civil service, the quality of policy formulation and implementation, and the credibility of governments' commitments to such policies".	WGI
Regulation Quality	RQ	"Regulation quality (estimate): measured as the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development".	WGI
Corruption-Control	CC	"Control of corruption (estimate): captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests"	WGI
		"Rule of law (estimate): captures perceptions of the extent to which agents have confidence in and abide by	

Rule of Law	RL	the rules of society and in particular the quality of contract enforcement, property rights, the police, the courts, as well as the likelihood of crime and violence"	WGI
Gini Coefficient	Gini	*"The Gini coefficient is a measurement of the income distribution of a country's residents"*.	GCIP
Remittances	Remit	Remittance inflows to GDP (%)	WDI

WDI: World Bank Development Indicators of the World Bank. WGI: World Governance Indicators of the World Bank. GCIP: Global Consumption and Income Project.

Appendix 2: Summary statistics (2004-2014)

	Mean	SD	Minimum	Maximum	Observations
Primary & Secondary School Enrolment	0.919	0.111	0.600	1.105	307
Secondary School Enrolment	0.867	0.214	0.333	1.422	287
Tertiary School Enrolment	0.731	0.433	0.064	3.295	232
Political Stability	-0.490	0.867	-2.687	1.182	528
Voice & Accountability	-0.509	0.683	-1.780	0.970	462
Government Effectiveness	-0.711	0.599	-1.867	1.035	462
Regulation Quality	-0.608	0.529	-1.879	1.123	462
Corruption-Control	-0.577	0.590	-1.513	1.139	462
Rule of Law	-0.651	0.604	-1.816	1.007	462
Gini Coefficient	0.586	0.034	0.488	0.851	461
Remittances	4.313	6.817	0.00003	50.818	416

S.D: Standard Deviation.

Appendix 3: Correlation matrix (uniformsample size : 170)

PSSE	SSE	TSE	PolS	VA	GE	RQ	CC	RL	Gini	Remit	
1.000	0.874	0.603	0.521	0.542	0.637	0.589	0.653	0.668	0.370	0.318	PSSE
	1.000	0.700	0.526	0.502	0.584	0.498	0.672	0.607	0.397	0.499	SSE
		1.000	0.401	0.325	0.470	0.313	0.508	0.442	0.240	0.264	TSE
			1.000	0.800	0.772	0.778	0.825	0.826	0.327	0.164	PolS
				1.000	0.791	0.803	0.742	0.854	0.206	0.193	VA
					1.000	0.910	0.865	0.931	0.286	0.035	GE
						1.000	0.801	0.901	0.325	-0.031	RQ
							1.000	0.894	0.351	0.202	CC
								1.000	0.237	0.121	RL
									1.000	0.096	Gini
										1.000	Remit

PSSE: Primary and Secondary School Enrolment. SSE: Secondary School Enrolment. TSE: Tertiary School Enrolment. PolS: Political Stability. VA: Voice & Accountability. GE: Government Effectiveness. RQ: Regulation Quality. CC: Corruption-Control. RL: Rule of Law. Gini: the Gini Coefficient. Atkinson: Atkinson index. Palma: the Palma Ratio. Remit: Remittances.

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