

# LSE Global South Unit WORKING PAPER SERIES SUSTAINABLE DEVELOPMENT INITIATIVE (SDI)

**LSE GSU Working Paper – Volume 9 No. 2 (2023)**

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*Sustainability and Trust: Financial Inclusion in the Global South*

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Fernando Ubeda<sup>a</sup>, Alvaro Mendez<sup>bc</sup> and Francisco Javier Forcadell<sup>d</sup>

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<sup>a</sup> Universidad Autónoma, Madrid, Spain

<sup>b</sup> London School of Economics and Political Science, United Kingdom

<sup>c</sup> Fudan University, Institute for Global Public Policy, Shanghai, China

<sup>d</sup> Universidad Rey Juan Carlos, Madrid, Spain

**ABSTRACT.**

Lack of access to banking and financial services appreciably hinders development, particularly in the global South. For this reason, financial inclusion is a crucial objective of the Sustainable Development Goals. One main barrier to financial inclusion is the lack of trust in banking. From a sample of 40 developing countries and 82,724 individuals, we verify that multinational banks can increase trust in banking by incorporating sustainability criteria into their business model.

**Keywords:** ESG Criteria; Sustainable Banking; Financial Inclusion; Trust in Banking; Multinational Banks; SDGs.

## 1. INTRODUCTION

Lack of access to banking hinders development and exacerbates inequality. This problem is acutest in the global South, where only 63% of adults have bank accounts compared to 91% in the North (Demirgüç-Kunt, Klapper, Singer, Ansar, & Hess, 2018). Financial access is a Sustainable Development Goal (SDG); specifically, SDG 8.10 exhorts enhancing financial institutions' capacity to expand financial access. Trust in banking is a prerequisite to financial access (Demirguc-Kunt & Klapper, 2013); its lack in the global South makes banking unattainable for the poorest (Xu, 2020). General trust is society's cornerstone and a determinant of all market transactions (Etzioni, 1988). Fukuyama (1995: 99) considers mistrust a "very limiting factor" for development.

Developing countries are among the world's least-trusting societies (Moreno & Mattes, 2018). Banks have exacerbated this: Developing markets comprise 74% of countries exhibiting net negative trust in banking (Edelman, 2021). Curing mistrust in banking should unlock financial access. Easier said than done. The World Bank advocates international financial regulatory standards to enhance developing economies' public sector capacity, supposedly to build trust in banking (Ward, 2004). However, top-down structuralism is "poorly aligned to local contexts" and helps banking stability more than financial access for the poorest (Jones & Knaack, 2019, p. 195: 195).

Multinational banks (MNBs) may be the best positioned to deliver spontaneous private order because wherever they expand their operations in the global South they encounter social settings featuring distrust of the banking sector (Johnson, 1998). They pursue market and non-market innovations to survive and thrive in this complex business environment (Boddewyn, 2003). Nevertheless, MNBs may lessen public trust as they are less interested in lending money to the neediest than to wealthy elites (Stiglitz, 2005).

We argue MNBs offer a credible framework for improving trust in banking in the global South *if* they incorporate the Environmental, Social, and Governance (ESG) criteria into their operations. Evidence abounds that enterprises bringing sustainable values to mistrustful communities are favorably received (Jørgensen, Pedersen, & Skard, 2022). When MNBs are *and* are perceived to be sustainable, the host stakeholders are inspired to venture reciprocal trust (Tischer, 2013). Sustainable MNBs construct a sustainable business model that works when tried by real people like bank managers, who convince other real people, previously unlikely clients, to deposit money in banks.

We empirically analyze if MNBs espousing sustainable values can build trust in banking for a sample of 82,724 individuals in 40 developing countries.

## 2. DATA & METHODS

We merge data from various sources. We calculate the dependent variable, trust in banking ( $BTrust_{ij}$ ), using the World Values Survey (Bjørnskov, 2007; Guiso, Sapienza, & Zingales, 2003; Masoud & Albaity, 2021), on a scale one to four. Our sample comprises 82,724 randomly selected respondents in 40 countries in the global South.<sup>1</sup> Given a trust level tends to remain constant, we select the nearest year to 2017 from the surveys conducted in 2010-2014 and 2017-2021.

We calculate the sustainable practices of MNBs from the Thomson-Reuters ESG scores (Cheng, Ioannou, & Serafeim, 2014; Dahlsrud, 2008) of headquarters of MNBs as proxies of sustainability of MNB  $i$  in country  $j$  ( $SB_{ij}$ ). We calculate  $SB_j = \sum_{i=1}^{ij} \frac{A_{ij}^f}{A_j} SB_{ij}$ , the sustainability level of MNBs in country  $j$ , where  $k_j$  is the number of foreign subsidiaries in country  $j$ .

To calculate MNB-controlled assets, we use the BankScope database of Bureau van Dijk and Fitch Ratings (Ahamed, Ho, Mallick, & Matousek, 2021); Claessens and van Horen, (2015). We consider Bank A a subsidiary if Headquarters H holds more than 50% of its shares.  $A_{ijt}^d$  is total assets controlled by domestic banks and  $A_{ijt}^f$  that by MNBs; therefore,  $A_j = \sum_{i=1}^{n_j} A_{ij}^d + A_{ij}^f$  is bank total assets in country  $j$ , where  $n_j$  is number of banks in country  $j$ . We identify 1,418 commercial banks in 109 developing countries, and 564 subsidiaries of MNBs.

We include several control variables at an individual level: socio-economic characteristics, information access, religion, and values, plus the presence of MNBs.<sup>2</sup> See Table 1 for descriptive statistics.

We estimate a multilevel ordered probit regression (Krull & MacKinnon, 2001) to analyze the effect of MNB sustainable practices on trust in banking:

$$BTrust_{ij} = \beta_1 + \beta_2 SB_j + \beta_3 CV_{ij} + \zeta_{ij} + \varepsilon_{ij} \quad (1)$$

<sup>1</sup> Algeria, Argentina, Armenia, Azerbaijan, Bangladesh, Bolivia, Brazil, Chile, China, Colombia, Ecuador, Egypt, Ethiopia, Ghana, Guatemala, Haiti, India, Indonesia, Iraq, Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Libya, Malaysia, Mexico, Morocco, Nicaragua, Nigeria, Pakistan, Peru, Philippines, Russia, Rwanda, Thailand, Tunisia, Turkey, Ukraine, Vietnam, Zimbabwe.

<sup>2</sup>  $MNB_i$ , the presence of MNBs in country  $j$  is measured by the percentage of the total assets controlled by foreign subsidiaries.

$CV_{ij}$  are the control variables.  $\zeta_{1j}$  is the intercept, which varies over individuals ( $\zeta_{1j} \sim N(0, \psi_{11})$ ).  $\varepsilon_{ij}$  are the errors and  $\varepsilon_{ij} \sim N(0, \theta)$ .

We use a control function with instrumental variables (Xu, 2020) to solve potential endogeneity:  $GDP:pc_j$  is GDP per capita,  $Population_j$  adult population,  $Free_j$  level of freedom.

### 3. RESULTS

The use of the instrumental variable  $Free_j$  requires a sample reduction. Therefore, we first estimate the control function without including this variable. In Model 1 (Table 2), the coefficient of the variable  $SB_j$  is positive and significant. After including the instrumental variable  $Free_j$  (Model 2, Table 3), we obtain the same results.

To probe robustness, we have repeated the analysis with two different samples. The first sample includes countries where ESG-rated MNBs control a percentage of assets surpassing 40%. The second includes those where the percentage surpasses 60%. In both cases, the coefficient of  $SB$  is positive and significant, confirming that MNBs' sustainable practices increase trust in banking in the global South.

### 3. CONCLUSIONS

Our empirical results confirm that MNBs increase trust in banking when they incorporate sustainable practices (e.g., ESG) into their operations. Sustainable banking boosts trust in places where access to banking is most needed, like the forty global South countries in our representative sample. Our study contributes to the limited literature addressing trust in banking in the South. This matters because trust in banks is essential for expanding financial inclusion in developing countries as mandated by SDG 8.10.

### 5. TABLES (SEE BELOW)

**DISCLAIMER:** The views and opinions expressed in this working paper are those of the author(s) and do not necessarily reflect the views or positions of the LSE Global South Unit or LSE IDEAS. The author(s) retain sole responsibility for any errors or omissions.

**FUNDING:** The publication of the LSE GSU Working Paper Series is supported by the Spanish Ministry of Science and Innovation.

**Table 1. Descriptive statistics**

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>BTrust<sub>ij</sub></i>	2.592	0.965	1.000	4.000
<i>MNB<sub>j</sub></i>	0.194	0.170	0.000	0.887
<i>Social<sub>j</sub></i>	62.988	24.886	0.000	86.588
<i>Trust<sub>ij</sub></i>	0.223	0.416	0.000	1.000
<i>Gender<sub>ij</sub></i>	0.521	0.500	0.000	1.000
<i>Married<sub>ij</sub></i>	0.562	0.496	0.000	1.000
<i>Age<sub>ij</sub></i>	40.916	15.963	16.000	103.000
<i>Educ<sub>ij</sub></i>	0.682	0.466	0.000	1.000
<i>Inc(2)<sub>ij</sub></i>	0.069	0.254	0.000	1.000
<i>Inc(3)<sub>ij</sub></i>	0.116	0.321	0.000	1.000
<i>Inc(4)<sub>ij</sub></i>	0.141	0.348	0.000	1.000
<i>Inc(5)<sub>ij</sub></i>	0.230	0.421	0.000	1.000
<i>Inc(6)<sub>ij</sub></i>	0.148	0.355	0.000	1.000
<i>Inc(7)<sub>ij</sub></i>	0.113	0.317	0.000	1.000
<i>Inc(8)<sub>ij</sub></i>	0.063	0.243	0.000	1.000
<i>Inc(9)<sub>ij</sub></i>	0.016	0.127	0.000	1.000
<i>Inc(10)<sub>ij</sub></i>	0.016	0.125	0.000	1.000
<i>Newspaper<sub>ij</sub></i>	0.218	0.413	0.000	1.000
<i>Television<sub>ij</sub></i>	2.474	0.907	1.000	4.000
<i>Religious<sub>ij</sub></i>	0.689	0.463	0.000	1.000
<i>Protestant<sub>ij</sub></i>	0.060	0.237	0.000	1.000
<i>Hindu<sub>ij</sub></i>	0.032	0.177	0.000	1.000
<i>Buddhist<sub>ij</sub></i>	0.043	0.203	0.000	1.000
<i>Atheist<sub>ij</sub></i>	0.153	0.360	0.000	1.000
<i>Ecology<sub>ij</sub></i>	0.509	0.500	0.000	1.000
<i>Democracy<sub>ij</sub></i>	8.258	2.166	1.000	10.000
<i>Equality<sub>ij</sub></i>	5.740	3.088	1.000	10.000
<i>Government<sub>ij</sub></i>	5.801	2.874	1.000	10.000
<i>Competition<sub>ij</sub></i>	3.985	2.781	1.000	10.000

**Table 2. Multilevel ordered probit regression with control function**

		<i>Model 1</i>			
		<i>BTrust<sub>ij</sub></i>			
<i>SB<sub>j</sub></i>	0.003**** (0.001)	<i>Educ<sub>ij</sub></i>	-0.036**** (0.010)	$\lambda_{Inc}$	1.988**** (0.257)
<i>MNB<sub>j</sub></i>	-0.406** (0.189)	<i>Newspaper<sub>ij</sub></i>	-0.009 (0.011)	$\lambda_{Educ}$	9.354**** (2.313)
<i>Gender<sub>ij</sub></i>	-0.021*** (0.008)	<i>Television<sub>ij</sub></i>	0.383**** (0.005)	<i>Instrumental variables (1<sup>st</sup> stage)</i>	
<i>Married<sub>ij</sub></i>	-0.000 (0.009)	<i>Religious<sub>ij</sub></i>	0.118**** (0.010)	<i>Inc<sub>j</sub></i>	
<i>Age<sub>ij</sub></i>	-0.003**** (0.000)	<i>Protestant<sub>ij</sub></i>	-0.084*** (0.025)	<i>GDP.pc<sub>j</sub></i>	0.000**** (0.000)
<i>Inc(2)<sub>ij</sub></i>	-0.064*** (0.020)	<i>Hindu<sub>ij</sub></i>	-0.197**** (0.046)	<i>Free<sub>j</sub></i>	
<i>Inc(3)<sub>ij</sub></i>	-0.062*** (0.018)	<i>Buddhist<sub>ij</sub></i>	-0.094**** (0.034)	<i>Population<sub>j</sub></i>	-0.090**** (0.008)
<i>Inc(4)<sub>ij</sub></i>	-0.000 (0.018)	<i>Atheist<sub>ij</sub></i>	-0.092**** (0.017)	<i>Educ<sub>j</sub></i>	
<i>Inc(5)<sub>ij</sub></i>	0.051*** (0.018)	<i>Ecology<sub>ij</sub></i>	0.033**** (0.008)	<i>GDP.pc<sub>j</sub></i>	0.000**** (0.000)
<i>Inc(6)<sub>ij</sub></i>	0.064**** (0.018)	<i>Democracy<sub>ij</sub></i>	0.020**** (0.001)	<i>Free<sub>j</sub></i>	
<i>Inc(7)<sub>ij</sub></i>	0.073**** (0.019)	<i>Equality<sub>ij</sub></i>	0.010**** (0.001)	<i>Population<sub>j</sub></i>	-0.104**** (0.003)
<i>Inc(8)<sub>ij</sub></i>	0.063*** (0.022)	<i>Government<sub>ij</sub></i>	0.003** (0.001)	<i>Wald – <math>\chi^2_1</math></i>	7946.330
<i>Inc(9)<sub>ij</sub></i>	0.008 (0.055)	<i>Competition<sub>ij</sub></i>	-0.012**** (0.001)	<i>VIF max</i>	7.070
<i>Inc(10)<sub>ij</sub></i>	0.025 (0.054)	<i>Trust<sub>ij</sub></i>	0.044**** (0.012)	<i>LR-test</i>	5794.16****
				<i>Observations</i>	82,724
				<i>Countries</i>	40

Bootstrapping: 1000 replications

**Table 3. Multilevel ordered probit regression with control function**

<i>Model 2</i> <i>BTrust<sub>ij</sub></i>					
<i>SB<sub>j</sub></i>	0.004**** (0.001)	<i>Educ<sub>ij</sub></i>	-0.042**** (0.010)	$\lambda_{Inc}$	2.013**** (0.240)
<i>MNB<sub>j</sub></i>	-0.357** (0.189)	<i>Newspaper<sub>ij</sub></i>	-0.005 (0.012)	$\lambda_{Educ}$	7.938*** (2.321)
<i>Gender<sub>ij</sub></i>	-0.025*** (0.008)	<i>Television<sub>ij</sub></i>	0.381**** (0.005)	<i>Instrumental variables (1<sup>st</sup> stage)</i>	
<i>Married<sub>ij</sub></i>	-0.003 (0.009)	<i>Religious<sub>ij</sub></i>	0.118**** (0.010)	<i>Inc<sub>j</sub></i>	
<i>Age<sub>ij</sub></i>	-0.003**** (0.000)	<i>Protestant<sub>ij</sub></i>	-0.061** (0.025)	<i>GDP.pc<sub>j</sub></i>	0.000**** (0.000)
<i>Inc(2)<sub>ij</sub></i>	-0.071*** (0.020)	<i>Hindu<sub>ij</sub></i>	-0.140*** (0.047)	<i>Free<sub>j</sub></i>	0.129**** (0.017)
<i>Inc(3)<sub>ij</sub></i>	-0.072**** (0.019)	<i>Buddhist<sub>ij</sub></i>	-0.079** (0.034)	<i>Population<sub>j</sub></i>	-0.065**** (0.008)
<i>Inc(4)<sub>ij</sub></i>	-0.010 (0.018)	<i>Atheist<sub>ij</sub></i>	-0.079**** (0.016)	<i>Educ<sub>j</sub></i>	
<i>Inc(5)<sub>ij</sub></i>	0.039** (0.019)	<i>Ecology<sub>ij</sub></i>	0.030**** (0.008)	<i>GDP.pc<sub>j</sub></i>	0.000**** (0.000)
<i>Inc(6)<sub>ij</sub></i>	0.066**** (0.018)	<i>Democracy<sub>ij</sub></i>	0.019**** (0.002)	<i>Free<sub>j</sub></i>	0.122**** (0.004)
<i>Inc(7)<sub>ij</sub></i>	0.073**** (0.019)	<i>Equality<sub>ij</sub></i>	0.004** (0.001)	<i>Population<sub>j</sub></i>	-0.142**** (0.004)
<i>Inc(8)<sub>ij</sub></i>	0.059*** (0.022)	<i>Government<sub>ij</sub></i>	0.003** (0.001)	<i>Wald – <math>\chi^2_1</math></i>	2209.720
<i>Inc(9)<sub>ij</sub></i>	0.003 (0.060)	<i>Competition<sub>ij</sub></i>	-0.011**** (0.002)	<i>VIF max</i>	2.690
<i>Inc(10)<sub>ij</sub></i>	0.038 (0.058)	<i>Trust<sub>ij</sub></i>	0.060**** (0.011)	<i>LR-test</i>	643.060****
				<i>Observations</i>	20,565
				<i>Countries</i>	19

Bootstrapping: 1000 replications



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