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CROSS-BORDER FUNDING AND MICROFINANCE MISSION DRIFT: EVIDENCE FROM SUB-SAHARAN AFRICA

ABSTRACT

Sub-Saharan Africa (SSA) has become the top priority for international funders and they are now increasing their cross-border funding to microfinance institutions (MFIs) in the region. This foreign funding is considered an additional source of capital for MFIs in the region who are facing difficulties in meeting the demand of the poor. However, these funds are provided by public and private funders who each have different motives. The paper examines the impact of these different sources of funding on microfinance performance and mission drift in SSA, which is the world's poorest region. The study utilizes data from 212 MFIs in 30 SSA countries accessed over a three-year period (i.e. 2007, 2009, and 2011). The findings show that cross-border funding does not affect either the social or financial performance of MFIs when time and country effects are accounted for.

Key Words: microfinance, cross-border funding, mission drift, Sub-Saharan Africa

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INTRODUCTION

A survey by the Consultative Group to Assist the Poor (CGAP, 2012) showed that despite the financial crisis, cross-border commitments to microfinance institutions (MFIs) in Sub-Saharan Africa (SSA) increased by 12%per year on average between 2009 and 2011, around US$ 2.7 billion. This funding can be seen as an additional source of capital for MFIs that could be used to serve many more poor people (Swanson, 2008). However, these funds are provided by public and private investors who each have different motives. Most public funders use microfinance as a tool to achieve development goals such as poverty reduction and financial inclusion (El-Zoghbi, Gähwiler, and Lauer, 2011). On the contrary, for some private investors microfinance is a new emerging asset where high profit could be maximized (Dieckmann, 2007). For other private investors microfinance presents an opportunity to diversify their investment portfolios, while also achieving social and environment objectives or socially responsible investments (SRIs) (El-Zoghbi et al.,2011). There are concerns that these different sources of capital might affect the dual mission of MFIs (Balkenhol, 2007; Mersland, 2009).

According to the founder of modern day microfinance, Muhammad Yunus, MFIs should strive to attain a balance between providing financial services to the poor (social performance or development logic) and to cover their costs (financial performance or banking logic) (Yunus, 2010). In practice, while some MFIs have been able to achieve this balance between their social and financial objectives, the majority tends to face difficulties (Simanowitz, 2007). Many MFIs are being accused of focusing more on their financial than social performance, consequently leading to mission drifting.

One possible reason for this increase focus on financial performance is the high transactions costs incurred when serving poorer clients (Hermes, Lensink, and Meesters, 2011). Nevertheless, other authors have argued that the presence of profit-oriented funders in the microfinance environment might trigger mission drift (Besley and Ghatak, 2005; Ghosh and Van Tassel, 2009).

Despite this fear, MFIs in SSA in particular stand to gain from the increase in foreign involvement since 43% of the total population lives in absolute poverty (World Bank, 2016). Additionally, just about 24% of adult population in SSA has access to formal finance (Demirgüc-Kunt, Klapper, Singer and Van Oudheusden, 2015). The presence of foreign investors in microfinance could provide additional funding and development that is necessary to meet the needs and demands of the unbanked population in this sub region.

MFIs in SSA were initially financed by public funders, who for the most part did not seek a financial gain or profit. However, Balkenhol (2007) pointed out that most of these public funders hardly understood the dual mission of MFIs. Field surveys carried out between 2004 and 2005 among 45 MFIs worldwide showed that funders either pushed for social performance or better financial performance but never towards efficiency within the context of social and financial performance objectives (Balkenhol, 2007).

In addition to public funders, many foreign commercial institutional and private investors as well as SRIs are increasingly seeing microfinance as a new investment asset. These new group of investors channel funds directly or indirectly through foundations, NGOs and microfinance investments (MIVs) which have currently become very popular in the microfinance sector. Moreover, recently, internet-enabled fundraising platforms have also taken off as a mean for the public to invest in microfinance, for instance, through Kiva, Babylon, or MyC4 online lending platforms (Reille, Forster, and Rozas, 2011).

Some authors see this interaction between local MFIs in SSA and foreign investors as good news. According to Swanson (2008) and Yunus (2010) foreign funding will provide access to more capital which could be used to increase outreach to poor clients. In addition, developing countries, in general, have equity and debt markets that are not very functional, and foreign capital comes as an alternative (cheap) source of capital for MFIs who most often find it difficult to obtain capital from domestic markets (Deshpande, Nestor, and Abrams 2007). Consequently, MFIs that can obtain cheaper foreign capital may be able pass on this cheaper funding cost to their customers by charging lower interest rates. In contrast, opponents argue that access to foreign sources of capital will present a threat to the dual mission of MFIs (Armendáriz and Morduch, 2010; Ghosh and Van Tassel, 2011). Recent findings by Mersland and Urgeghe (2013) illustrates that commercial foreign funding are available only to MFIs with a strong level of professionalism and financial performance, thereby ignoring social performance. Country level studies by Reille et al. (2011) on microfinance crises in Bosnia-Herzegovina and Nicaragua have shown that the presence of foreign commercial investment in the microfinance sector has intensified its profit orientation such that MFIs became focused on lending volumes rather than focusing on responsible lending. The question is: if foreign funding from different funders and/or investors might affect MFIs' ability to attain its dual mission within their social and financial lines.

The impact of foreign investments on microfinance performance has been studied in different dimensions (Ahlin, Lin, and Maio, 2011; Mersland, RandØy, and StrØm, 2011;

Martins and Winkler, 2013; Mersland and Urgeghe, 2013; Vanroose and D' Espallier, 2013; and Forkusam, 2014), with the majority of these studies focusing on a global data base.

This study differs from the above previous studies in two ways. Firstly, it uses the data on cross-border commitments which is the most reliable indicator for foreign flows into the microfinance sector (El-Zoghbi et al., 2011). Secondly, this study uses data from SSA which is the poorest region where43% of the total population lives in absolute poverty (World Bank, 2016). Additionally, the SSA region has one of the lowest levels of access to finance with an average banked population of 24% (Demirgüc-Kunt et al., 2015).

The findings show that cross-border funding does not affect either the social or financial performance of MFIs, once time and country dummies are accounted for. This implies that the effect of cross-border funding on performance cannot be separated from the time or country effects.

The paper is organized as follows: Section 2 provides a review of the research literature on the foreign investment and mission drift. Section 3 discusses the methodology and hypothesis to be tested. A description of the data and variables used in the analysis is provided in Section 4. The results are highlighted in Section 5, and lastly Section 6 ends with a summary and conclusion.

LITERATURE REVIEW

As mentioned earlier, some studies have examined the impact of foreign investment in microfinance with the most recent study being Forkusam (2014) which used a dataset of 315 from 36 SSA countries over an eight-year period (2003-2011). Using the fixed effect (FE) model, the effect of financial globalization (as measured by foreign direct investment (FDI) to gross domestic product (GDP)) on the microfinance performance and mission drift is evaluated. With respect to social performance, the results show that FDI to GDP positively influences average loan size. The finding is in line with studies by Ahlin et al. (2011) which analyzed a dataset of 373 MFIs operating in 74 countries found that FDI to GDP has positively and significantly affected loan-size growth. While both studies did not find any significant relationship between FDI to GDP and any of the financial performance indicators (i.e., return on assets (ROA) and operational self-sufficiency (OSS)), Vanroose and D' Espallier (2013) which analyzed a dataset of 1073 MFIs revealed that FDI to GDP was positively and significantly associated to OSS (see Table 1 for the definition of these variables).

By applying the OLS approach to a dataset of 84 MFIs found in 15 Latin American countries for the year 2009, Martins and Winkler (2013) analyzed the impact of foreign ownership on microfinance performance and mission drift. They find that foreign-owned MFIs (i.e., MFIs with more than 50% of foreign equity holdings) are not more operationally sustainable as compared to domestic-owned MFIs. With respect to social performance, their results revealed that MFIs with a majority of foreign investors tend to serve a larger number of clients (i.e., breadth of outreach). But they did not find any significant relationship between foreign-owned MFIs and average loan size implying no occurrence of mission drift. Although this analysis gives some insight as to the influence of foreign ownership on MFIs performance, results are based on static analysis for the year 2009.

Mersland and Urgeghe (2013) analyzed the main drivers of international funding to MFIs. Their dataset consists of 319 MFIs in 68 developing countries for the period 2001-2008. Their findings show that commercial international funding goes to MFIs with solid financial performance (i.e., ROA, low operating costs and low portfolio at risk) and professionalism. On the contrary, subsidized international funding is channeled more to institutions focusing on women without prioritizing the level of financial performance.

Another paper which comes close to analyzing the effect of foreign investment on microfinance performance is Mersland et al. (2011) which used a dataset of 379 rated from 73 developing countries for seven years (2001-2008). They find that an MFI that was international initiated and a member of an international network is positively associated to increase the outreach to female clients. Furthermore, they find that international commercial and subsidized debt does not enhance financial performance as measured by three variables-financial self-sufficiency (FSS), ROA and OSS. However, having subsidized or commercial debt tend to positively affect social performance by promoting outreach in rural markets. Overall, their results show that more internationally oriented MFIs performed better socially and financially. Although, these dummies in general reflect different dimensions of internationalization, they do not specifically say much about the direct impact of foreign investments on microfinance performance and mission drift.

METHODOLOGY AND HYPOTHESES

The continuous flow of foreign funding to MFIs in SSA, offers an additional financial source of finance to MFIs in this region. However, this might come at a price since different investors have different interests. While certain funders may be concerned mainly about poverty reduction, the profit maximizing donor may be more concerned about generating

profits, and the SRIs is concerned about achieving both social and financial objectives. Subsequently, MFIs may therefore have difficulty attaining the balance between their social and financial mission. For this reason, the regression analysis starts from the following equation:

$$MFIP_{ict} = \beta_1 Co_{ct} + \beta_2 X_{ict} + \beta_3 M_{ict} + \tau_t + \alpha_c + \varepsilon_{ict} \quad 1$$

Where the outcome variable is the performance (i.e. social or financial performance) of an MFI i in year t located in country c, with i=1…N, t=1…T; Co cross-border commitments, X microfinance specific variables, and M country-level specific characteristic. τ are the unobservable time fixed effects which capture effects that vary over time but are constant over individual, α is the country effect and ε_{ict} is the idiosyncratic error.

The above model assumes the lack of mission drift in the original performance of MFIs, all MFIs seek to simultaneously maximize their social performance (serve the poor) as well as financial performance (earn profits). Equation 1 is extended to four different equations(i.e., 1.1-1.4) in order to capture the social and financial performance dimensions of MFIs.

$$ROA_{ict} = \beta_1 Co_{ct} + \beta_2 X_{ict} + \beta_3 M_{ict} + \tau_t + \alpha_c + \varepsilon_{ict} \quad 1.1$$

$$OSS_{ict} = \beta_1 Co_{ct} + \beta_2 X_{ict} + \beta_3 M_{ict} + \tau_t + \alpha_c + \varepsilon_{ict} \quad 1.2$$

$$Loan_{ict} = \beta_1 Co_{ct} + \beta_2 X_{ict} + \beta_3 M_{ict} + \tau_t + \alpha_c + \varepsilon_{ict} \quad 1.3$$

$$\ln(borrowers)_{ict} = \beta_1 Co_{ct} + \beta_2 X_{ict} + \beta_3 M_{ict} + \tau_t + \alpha_c + \varepsilon_{ict} \quad 1.4$$

where the outcome variables return on assets (ROA_{ict}) and operational self sufficiency (OSS_{ict}) measure the financial performance while average loan ($loan_{ict}$)and number of borrowers (ln(borrowers) tend to measure the social performance of MFIs.

The research builds its arguments on the agency theory. Jensen and Meckling (1976) define the agency relationship, "as a contract under which one or more persons (principal(s)) engage another person (agent) to perform some service on their behalf which involves

delegating some decision authority to the agent." The main problem here is how to enforce contracts in a manner in which the interest of the principal are protected since both parties may aim at maximizing different utilities. Consequently, it is not possible for the principal or the agent to ensure optimal decisions at zero costs. The costs may include monitoring costs, transactions costs, moral hazard, and legal enforcement expenses as well as other costs that are incurred for collecting and processing information (Adams, 1995).

In terms of foreign funding to MFIs, some of the above mentioned costs matter. Firstly, the transfer of funding between donors, investors and recipients requires collecting and processing information on the MFIs, since donors and recipients are usually 10,000 miles apart (Martens, 2005; El-Zoghbi et al., 2011). Moreover, foreign funders incur monitoring costs to ensure that MFI management works in their interest (see Hansmann, 1996). On the part of the MFI management, it may be difficult to align the needs of the different foreign investors with the dual mission of the MFI. For instance, some funders urge MFIs to disburse much of the available funding in order to ensure the injection of further funds, while other funders might be more interested in MFIs attaining a certain level of sustainability by a certain deadline. Meeting these standards may conflict with the MFIs' dual objectives and make it difficult for the MFIs to manage the obligations to their clients (Latortue et al., 2006).

Secondly, agency problems are compounded when an MFI receives funds from a range of different investors (i.e., governments or donors, social investors, and commercial investors) for on-lending to poor clients. Although, many MFIs do this as a way to diversify their donor partners and to reduce the risk of being dropped out unexpectedly, it nonetheless increases the risk that MFIs receive incoherent instructions from these different funders (Balkenhol, 2007). It could be summarized that the collective costs of decision making increases in MFIs with owners having different objectives (Mersland, 2009).

If foreign funds are passed through MIVs, governments or other sources, additional layers of agency problems accompany the insertion of funds (Adams, 1995). Theory by Martens (2005) and empirical evidence by Powell and Bobba (2006) show that indirect channeling of funding might enhance cost efficiency and reduce information asymmetry between donors and recipients. Nevertheless, it is unlikely that the preferences of the different channels may converge at all times.

Agency costs may also arise from conflicts between debt and equity holders of a firm, when there is a risk of default.In this case, debt has a negative effect on the value of the firm and therefore profitability. Alternatively, in instances where managers have incentives

to take excessive risks as part of risk shifting investment strategies, a higher level of leverage could be used as disciplinary device to reduce managerial cash flows (Grossman and Hart, 1982). Although international debt may serve as an agency costs control tool, it may come with its own costs. For instance greater debt leads to the pressure to generate cash flow to pay interest payments (Jensen, 1986). This means that MFIs receiving foreign debt may be forced to respond to funders pressures to operate more efficiently and may therefore choose to serve less poor clients with lower delivery costs, implying mission drift.

Consequently, the above arguments predict that foreign funding to MFIs might lead to agency cost problems that would eventually lead to mission drift for MFIs in SSA. The research includes cross-border commitments which include funds already disbursed as well as funds not yet disbursed based on the following hypothesis:

H_{1a}: *Cross-border commitments is positively related to financial performance*
H_{1b}: *Cross-border commitments is negatively related to social performance*

The study includes four MFI-specific control variables, namely capital asset ratio (CAR), operating efficiency (measured by operating costs divided by total assets), risk (measured by portfolio at risk 30 days or more) and age (years of existence) that are typically used in research on microfinance performance. Studies by Kyereboah-Coleman (2007), Kar (2012), and Bogan (2012) indicate that capital structure has implications for microfinance performance. With respect to costs and risks, previous studies by Cull, Demirgüc-Kunt, and Morduch (2007) and Mersland et al. (2011) have shown that low operating costs and low risks enhance profitability and self sufficiency in MFIs. According to Kneiding and Mas (2009) age related factors tends to influence performance in three different ways: a) higher number of loans may drive economies of scale, b) higher loan sizes may improve cost structure, and c) more knowledge about customers may streamline lending processes.

In addition, given the high variation in the economic development of SSA countries, the research uses country control variable of GDP per capita adjusted for purchasing power parity and inflation similar to those used by Hartarska and Nadolnyak (2007), Mersland et al. (2011), Ahlin et al. (2011), Martins and Winkler (2013), Vanroose and D'Espailler (2013), Kar and Swain (2014), and Cull, Demirgüc-Kunt, and Morduch (2014).

DATA

The study uses a data sample of 212 MFIs from 30 SSA countries for a period of 2007, 2009 and 2011. [1] Data on the cross-border commitments was provided by CGAP.The data however has the caveat that information are missing for some years (i.e., 2008 and 2010) since surveys are carried out biennially. Data for MFI specific variables was collected from microfinance information exchange (MIX-market), while country specific data from World Development indicators (WDI).

Table 1 presents the definition of the dependent and independent variables used in the analysis and information on the data sources. Financial performance is measured by ROA and OSS while the social performance measures are average loan and number of active borrowers. Cross-border funding is represented by logarithm (log) of cross-border commitments. Capital structure is represented by capital asset ratio (CAR). In addition to these independent variables; four MFI specific control variables are included in the regressions. These variables are: size which is represented by the logarithm (log) of assets; age is represented by the log of years since MFI's establishment; risk is measured by the portfolio at risk of at least 30 days; and lastly efficiency which is measured by the MFI operating expense over assets ratio. GDP per capita adjusted for purchasing power parity effects is included to control for different level of economic development and also inflation.

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[1] These countries include Angola, Benin, Burkina Faso, Burundi, Cameroon, Chad, Congo Republic, Democratic Republic of the Congo, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

Table 1. Definition and source of variables used in the analysis

Code	Variable	Explanation	Source
Dependent variables	*Financial performance*		
ROA	Return on assets	Net operating income/Average total assets	MIX Market
OSS	Operational self-sufficiency	Operating revenue/ Financial expense + loan-loss provision expense +operating expense	MIX Market
	Social performance		
ln(borrowers)	Number of borrowers	Log of number of borrowers	MIX Market
Loan	Average loan	Adjusted gross loan portfolio/ Active number of borrowers	MIX Market
Independent variables			
ln(com)	Cross-border commitments	Log of cross-border commitments	CGAP
CAR	Capital asset ratio	Total equity/Total assets	MIX Market
ln(age)	Age	Log of the number of years since existence	
Par30	Portfolio at risk at 30 days	The value of all loans outstanding that have one or more installments of principal past due more than 30 days	MIX Market
Op_expense	Efficiency	Operational expense/ Total assets	MIX Market
Macroeconomic variables			
ln(gdp)	Gross domestic product	Natural log of Gross domestic product	WDI
Inflation	Inflation	The percentage change of GDP deflator	WDI

Table 2. Descriptive statistics

	Mean	SD	Median	Min	Max	Obs
ROA	-0.03	0.15	0.01	-0.85	0.48	310
OSS	1.06	0.58	1.04	0.12	6.53	310
Loan (USD)	553.98	731.33	305.00	22.00	7949.00	304
Borrowers	33943	85143	10583	95	716000	304
ln(borrowers)	9.18	1.63	9.27	4.55	13.48	304
Commitments (USD)*	66400000	45400000	50500000	409717	166000000	310
ln(com)	17.66	0.97	17.74	14.29	18.93	310
CAR	0.34	0.73	0.27	-4.08	11.27	310
Op_expense	0.24	0.17	0.18	0.02	0.98	310
Par30	0.09	0.14	0.05	0.00	1.79	310
Age	9.51	6.68	8	1.0	45.0	310
ln(age)	2.10	0.80	2.30	0.00	3.78	310
ln(gdp)*	7.04	0.51	7.02	5.68	9.15	310
Inflation*	8.04	7.04	7.32	-20.63	35.11	310

Note: * The data for these variables are available at country level.

Table 2 provides descriptive statistics for the variables used in the regressions. The negative ROA (-0.03) shows that on average MFIs in SSA are not making profits after taxes and donations have been accounted for. However, looking at the positive average OSS at 1.06 suggests that MFIs' revenues from its operations are able to cover its costs. An OSS-value of less than 1 signifies that an MFI must rely on outside funding to maintain its current level of operation. A median loan balance of US$ 305 and a very high standard deviation of US$ 731.33 shows that average loan distribution is heavily tilted to the low end and with a long tail at the high end of large loans. On the other hand, the number of borrowers ranges from 95 to more than 716,000 borrowers. Cross-border commitments also show a large variability. It ranges from a minimum of US$ 409,717 and maximum of US$ 166 million. [2] The mean of commitments US$ 67 million while the standard deviation is US$ 46 million. Capital to asset shows that about 34% of MFIs fund their assets with equity, and yet a very high standard deviation of 73%. The average age of MFI operating in SSA is 10 years, while the oldest MFI(s) has been operating for 45 years.

Table 3 shows the correlations amongst dependent and independent variables. Significant correlations could indicate a multicolinearity problem. Kennedy (2008) state that correlations must be between 0.8-0.9 to detect multicolinearity amongst two variables. None of the variables presented in Table 3 have correlation coefficients of this magnitude. The

[2] Ethiopia received the highest cross-border commitments (US dollars 166 million) in 2009, while Gabon received the lowest commitments (US dollars 409717) for the same year.

highest significant correlation coefficient is between ROA and operating expense to assets ratio (which is -0.69) while all other correlation coefficients are less than 0.41. Consequently, all independent variables could be included in the regression models.

Table 3. Correlation amongst variables

	ROA	OSS	Loan	ln(borrowers)	ln(com)	CAR	Op_expense	Par30	ln(age)	ln(gdp)	Inflation
ROA	1.0000										
OSS	0.3919*	1.0000									
	(0.0000)										
Loan	0.0369	0.0245	1.0000								
	(0.5209)	(0.6698)									
ln(borrowers)	0.20642*	0.0948	-0.1619*	1.0000							
	(0.0002)	(0.0991)	(0.0046)								
ln(com)	0.20569*	0.1263*	-0.2044*	0.2541*	1.0000						
	(0.0003)	(0.0276)	(0.0003)	(0.0001)							
CAR	0.1391*	0.0720	-0.1220*	-0.0590	0.0298	1.0000					
	(0.01522)	(0.2109)	(0.03345)	(0.3053)	(0.6050)						
Op_expense	-0.5987*	-0.2987*	-0.2094*	-0.1117	-0.0613	0.0471	1.0000				
	(0.0000)	(0.0000)	(0.0002)	(0.0516)	(0.2864)	(0.4130)					
Par30	-0.1320*	-0.1792*	0.0024	-0.1809*	-0.2465*	-0.0750	-0.0988	1.0000			
	(0.0212)	(0.0017)	(0.9667)	(0.0015)	(0.0001)	(0.1924)	(0.0852)				
ln(age)	0.2444*	0.0120	0.1816*	0.3762*	0.0351	0.1340*	-0.3141*	0.0958	1.0000		
	(0.0002)	(0.8349)	(0.0014)	(0.0000)	(0.5423)	(0.0193)	(0.0000)	(0.0954)			
ln(gdp)	0.0643	0.0569	0.1148*	0.1081	-0.0300	-0.0842	-0.0552	0.0037	0.0513	1.0000	
	(0.2635)	(0.3228)	(0.04539)	(0.0597)	(0.6023)	(0.1428)	(0.3375)	(0.9490)	(0.3728)		
Inflation	0.0174	-0.0453	-0.1532*	0.0040	0.3232*	0.1350*	0.1349*	-0.0470	-0.1455*	-0.3953*	1.0000
	(0.7632)	(0.4311)	(0.0074)	(0.9446)	(0.0000)	(0.0184)	(0.0186)	(0.4146)	(0.0110)	0.00000	

Note: Correlations is significant at the 0.05 level (2-tailed). Figures beneath are significant levels.

EMPIRICAL FINDINGS

The study uses the pooled ordinary least squares (POLS) estimator and includes time and country specific dummies. According to Baltagi (2008) a joint F-test is used to check for poolability and this reveals that time and country are statistically significant at one per cent level. This implies a rejection of homogeneity across time and country, justifying the inclusion of time and country fixed effects in the regression models. Firstly, the time dummies capture global stocks that would affect all MFIs such as the 2008 global financial crisis. Secondly, country dummies are included to control for country differences in macroeconomic development and inference that might explain low regulation issues (such as having specific laws that govern different types of MFIs and having credit bureaus), or countries that have specific rules on foreign investment in microfinance. All these factors might indirectly affect all MFIs in a particular country. The estimation results for the financial and social performance regressions are presented in Tables 4 and 5.

Table 4 indicates the findings for financial performance, measured by return on assets (ROA) and operational self sufficiency (OSS). The result indicates that cross-border commitments are insignificant in three (1, 4 and 5) out of the six model specifications. This result tends to reject H_{1a} which suggests that cross-border commitments are positively related to financial performance. With respect to models ROA and OSS, results are similar for three significant control variables (i.e., CAR, Op_expense and Par30). Capital asset ratio is positively related to ROA and OSS thereby confirmingprevious research which found that better capitalized MFIs have better performance (Hartarska and Nadolynak, 2007; Kyereboah-Coleman, 2007; Bogan, 2012; and Kar, 2012). Efficiency (operating expense ratio) and risk (Par30) coefficients are negative and statistically related to both profitability indicators. This shows that operating costs and credit risk tend to have strong influence on MFIs' financial performance in SSA. The coefficient of the age variable tends to be positive and significantly related to ROA, indicating that older MFIs are more profitable. The coefficient for the variable inflation is negative and significant with respect to OSS in model 6, suggesting that MFIs perform better in countries which are less affected by inflation. This result is similar to previous studies by Mersland et al. (2011) and Vanroose and D'Espallier (2013).

With respect to social performance indicators, the results on Table 5 show that cross-border commitments is significant only in models 1, 4 and 5, however it is insignificant in models 3 and 6 which include the country dummies. This tends to reject H_{1b} which suggests that cross-border commitments are negatively related to social performance. The results

further show that capital to asset ratio does not affect the average loan size. The above finding contradicts the study by Forkusam (2014) which illustrated that capital to asset positively affects social performance.

Table 4. Cross-border funding and finance performance (ROA and OSS)

	(1) ROA	(2) ROA	(3) ROA	(4) OSS	(5) OSS	(6) OSS
ln(com)	0.0312***	0.0140	0.00676	0.0778***	0.0476**	0.334
	(0.0105)	(0.00858)	(0.0234)	(0.0275)	(0.0237)	(0.219)
CAR		0.0306*	0.0180**		0.0542*	0.0480***
		(0.0170)	(0.00751)		(0.0298)	(0.0175)
Op_expense		-0.495***	-0.671***		-1.115***	-1.330***
		(0.0764)	(0.0809)		(0.238)	(0.263)
Par30		-0.176**	-0.150*		-0.757***	-0.942***
		(0.0802)	(0.0795)		(0.237)	(0.261)
ln(age)		0.0177	0.0203*		-0.0588	-0.0495
		(0.0108)	(0.0105)		(0.0750)	(0.0822)
ln(gdp)		0.0204	0.360		0.0295	1.401
		(0.0147)	(0.242)		(0.0514)	(1.411)
Inflation		0.00216*	-0.00207		-0.00271	-0.0278***
		(0.00110)	(0.00218)		(0.00616)	(0.0107)
N	310	310	310	310	310	310
R-sq	0.04	0.46	0.62	0.02	0.15	0.27
Adj. R-sq	0.04	0.44	0.57	0.01	0.13	0.16
Time effects	yes	yes	yes	yes	yes	yes
Country effects	no	no	yes	no	no	yes

Note: Standard errors in parentheses; *$p<0.10$ **$p<0.05$ ***$p<0.01$.

The results also reveals that operating expense are reduced when average loan sizes increase, thereby suggesting that small loan amounts are more costly than larger loan amounts. There is a negative and significant relationship between the number of borrowers and the risk of default. The age coefficient is the only independent variable which tends to positively influence both social performance indicators and this disagrees with previous findings by Olivares-Polanco (2005) and Kar (2013) which found a negative and significant association between age and social performance indicators. Finally, the results show no evidence of macroeconomic variables affecting social performance. This result disagrees with previous research by Martins and Winkler (2013) which found GDP per capita adjusted for purchasing power parity and inflation negative and significantly affects number of borrowers.

Table 5. Cross-border funding and social performance (Loan and ln(borrowers))

	(1) Loan	(2) Loan	(3) Loan	(4) ln(borrowers)	(5) ln(borrowers)	(6) ln(borrowers)
ln(com)	-151.8***	-183.3***	-184.4	0.430***	0.319***	0.0351
	(48.42)	(61.47)	(131.9)	(0.0913)	(0.0880)	(0.391)
CAR		-87.55	-123.6		-0.0443	-0.0312
		(126.5)	(111.7)		(0.0802)	(0.0733)
Op_expense		-845.7***	-714.8***		0.141	-0.333
		(206.9)	(249.5)		(0.482)	(0.579)
Par30		-502.0*	-340.9		-2.016***	-1.973**
		(271.4)	(311.1)		(0.679)	(0.857)
ln(age)		102.9*	156.3*		0.764***	0.709***
		(61.50)	(81.20)		(0.121)	(0.128)
ln(gdp)		126.5	223.2		0.356*	1.491
		(95.22)	(1687.8)		(0.205)	(3.559)
Inflation		2.171	-5.344		0.0125	-0.0133
		(7.474)	(15.03)		(0.0143)	(0.0308)
N	304	304	304	304	304	304
R-sq	0.05	0.13	0.26	0.08	0.25	0.38
Adj. R-sq	0.04	0.11	0.15	0.08	0.22	0.28
Time effects	yes	yes	yes	yes	yes	yes
Country effects	no	no	yes	no	no	yes

Note: Standard errors in parentheses; *p<0.10 **p<0.05 ***p<0.01.

Robustness checks: [3] The majority of regional economic communities (RECs) in SSA are increasingly updated and revising microfinance laws and regulations with the aim of getting better and stronger MFIs. For instance, the Central Africa Economic and Monetary Union (CEMAC) and West African Economic and Monetary Union (WAEMU) have each adopted new microfinance laws in 2010 and 2012 respectively with WAEMU encouraging foreign investment in MFIs. Consequently, regressions analyses are carried out to control for these differences. The results reveal that cross-border commitments is positively affecting ROA for MFIs operating in East African Community (EAC) which is made of countries with the most advanced microfinance sector in SSA. The result also indicate that while cross-border commitment is positively and significant affecting the number of borrowers for MFIs operating in CEMAC region, it is however negatively and significantly influencing the number of borrowers for MFIs operating in WAEMU.

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[3] Detailed tables of results are provided in Annex 1 which is available from the author on request.

Other results show that even after controlling for ten countries which received large amounts of funding over the three-year period, the baseline results do not change. [4] Also, when the different funders (public versus private) are considered results are very similar to the baseline results where cross-border commitments does not affect microfinance performance.

CONCLUSIONS

This study analyzes to what extent cross-border funding influences microfinance performance and mission drift in SSA. The main finding is that cross-border commitments do not affect microfinance mission drift.

Based on data from 212 MFIs operating in 30 SSA countries for a three-year period(i.e., 2007, 2009, and 2011), the study finds that cross-border commitments do not influence either the social or financial performance of MFIs once time and country dummies are accounted for. The results suggest that despite the continuous increase of foreign funding into SSA from different funders, agency costs problems are not being generated which could lead to higher profitability but lower outreach to poorer clients or mission drift. Based on this finding, one can argue that there are other factors that influence the flow of funding to microfinance in SSA and not their social or financial performance. Factors such as the macroeconomic environment of the country in which the MFI operates and the foreign policy of countries. However, these results should be interpreted with caution since they are based on cross-border commitments and not the actual flows which reach the MFIs.

Contrarily to studies by Kyereboah-Coleman (2007) and Kar (2012), this study finds that MFIs in SSA that use more equity relative to debt tend to have better financial performance. As MFIs in SSA continue to receive foreign equity from different types of funders, if well managed, it could lead to better financially performing MFIs.

From the robustness checks, cross-border commitment tends to enhance financial performance only in EAC which is made of countries (such as Kenya, Uganda, and Tanzania) with the most advanced microfinance sector in the sub region. What is perhaps most surprising is that although CEMAC and WAEMU have each revised their microfinance laws; cross-border commitment is positive and significantly affects the number of borrowers in CEMAC countries, while it is negative and significant to the number of

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[4] The 10 countries include Ethiopia, Democratic Republic of Congo, Nigeria, South Africa, Kenya, Uganda, Tanzania, Ghana, Senegal, and Cameroon.

borrowers for MFIs operating in WAEMU countries. This may be explained by the fact that MFIs in WAEMU are currently undergoing consolidation, while this process has been slower in CEMAC countries.

This article contributes to the ongoing debate on whether foreign funding or investment affects microfinance performance and mission drift in SSA. Future research could address the direct or indirect impact of actual foreign flows from secondary sources such as microfinance investments funds and other private sources. This will provide relevant insights on the interests of these investors which could be useful information for MFIs in SSA as they seek additional funding.

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REFERENCES

Adams, D. 1995. Using credit unions as conduits for micro-enterprise lending: Latin-American insights. *Social Finance Working Paper 12*. Geneva: International Labour, Enterprise and Cooperative Development Department (pp. 1-18).

Ahlin, C., J. Lin, and M. Maio. 2011. Where does microfinance flourish? Microfinance institution performance in macroeconomic context. *Journal of Development Economics* 95: 105-120.

Armendáriz, B. and J. Morduch. 2010. *The economics of microfinance*. Cambridge, MA: Massachusetts Institute of Technology Press.

Balkenhol, B. 2007. Policy implications. In B. Balkenhol, editor, *Microfinance and public policy: Outreach performance and efficiency*. Geneva and New York: International Labour Office and Palgrave Macmillan (pp. 211-227).

Baltagi, B. H. 2008. Econometric analysis of panel data (4th edn). Chichester: John Wiley and Sons Ltd.

Besley, T. and M. Ghatak. 2005. Competition and incentives with motivated agents. *American Economic Association* 95 (3): 616-636.

Bogan, V. 2012. Capital structure and sustainability: An empirical study of microfinance institutions. *The Review of Economics and Statistics* 94 (4): 1045-1058.

Cull, R., A. Demirgüc-Kunt, and J. Morduch. 2007. Financial performance and outreach: A global analysis of leading microbanks. *The Economic Journal* 117: F107-F133.

Cull, R., A. Demirgüc-Kunt, and J. Morduch. 2014. Banks and microbanks. *Journal of Financial Services Research* 46 (1): 1-53.

Demirgüc-Kunt, A., L. Klapper, D. Singer, P. Van Oudheusden. 2015. The global financial index database 2014: Measuring financial inclusion around the world. *World Bank Policy Research Working Paper 7255*. Washington DC: World Bank (pp. 1-88).

Deshpande, R., C. Nestor, and J. Abrams. 2007. MFI capital structure decision making: A call for greater awareness. *CGAP Brief August*. Washington DC: CGAP (pp. 1-4).

Dieckmann, R. 2007. Microfinance: An emerging investment opportunity. Frankfurt am Main: Deutsche Bank Research (pp. 1-26).

El-Zoghbi, M., M. Gähwiler, and K. Lauer. 2011. Cross-border funding of microfinance. Consultative Group to Assist the Poor (CGAP) Focus Note 70. Washington DC: CGAP (pp. 1-12).

Forkusam, A. 2014. Does financial globalization affect microfinance mission: Evidence from Sub Saharan Africa. In R. Mersland and R. StrØm, editors, *Microfinance institutions: Financial and social performance*. Hamsphire, UK: Palgrave Macmillan (pp. 79-98).

Ghosh, S. and E. Van Tassel. 2009. Recent trends in microfinance institutions: Some theoretical implications. In B. Dutta, T. Ray, and E. Somanathan, editors, *New and enduring themes in development economics*. Singapore: World Scientific Publishing (pp. 467-484).

Grossman, S. and O. Hart. 1982. Corporate financial structure and managerial incentives. In J. McCall, editor, *The economics of information and uncertainty*. Chicago: University of Chicago Press (pp. 107-140).

Hansmann, H. B. 1996. *The ownership of enterprise.* Cambridge, MA: The Belkap Press of Harvard University Press.

Hartarska, V. and D. Nadolnyak. 2007. Do regulated microfinance institutions achieve better sustainability and outreach? Cross-country evidence. *Applied Economics* 39 (10): 1207-1222.

Hermes, N., R. Lensink, and A. Meesters 2011. Outreach and efficiency of microfinance institutions. *World Development* 39 (6): 938-948.

Jensen, M. 1986. Agency cost of free cash flow, corporate finance and takeovers. *American Economic Review* 76 (2): 323-329.

Jensen, M. and W. Meckling. 1976. Theory of the firm: Managerial behaviour, agency cost and ownership structure. *Journal of Financial Economics* 43: 305-360.

Kar, A. K. 2012. Does capital and financing structure have any relevance to the performance of microfinance institutions. *International Review of Applied Economics* 26 (3): 329-348.

Kar, A. K. 2013. Mission drift in microfinance: Are the concerns really worrying? Recent cross-border results. *International Review of Applied Economics* 27 (1): 44-60.

Kar, A. K. and R. B. Swain. 2014. Competition in performance: Does it affect performance, portfolio quality and capitalization? In R. Mersland and R. StrØm, editors, *Microfinance institutions: Financial and social performance.* Hamsphire, UK: Palgrave Macmillan (pp. 208-226).

Kennedy, P. 2008. *A guide to econometrics* (6th edn). Malden, MA: Blackwell Publishing.

Kneiding, C. and I. Mas. 2009. Efficiency drivers of MFIs: The role of age. *CGAP Brief 47973.* Washington: CGAP (pp. 1-4).

Kyereboah-Coleman, A. 2007. The impact of capital structure on the performance of microfinance institutions. *The Journal of Risk Finance* 8(1): 56-71.

Latortue, A., E. Littlefield, H. Siedek, and K. Mckee. 2006. *Managing the floodgates: Making the most of international flows of microfinance funding.* Washington: CGAP (pp. 1-27).

Martens, B. 2005. Why do aid agencies exist? *Development Policy Review* 23 (6): 643-663.

Martins, F. and A. Winkler. 2013. Foreign ownership in Latin American microfinance institutions: Evidence and impact. *Journal of Business Economics* 83 (6): 665-702.

Mersland, R. 2009. The cost of ownership in microfinance organizations. *World Development* 37 (2): 469-479.

Mersland, R., T. RandØy, and R. StrØm. 2011. The impact of international influence on microbanks' performance: A global survey. *International Business Review* 20 (2): 163-176.

Mersland, R. and L. Urgeghe. 2013. International debt financing and performance of microfinance institutions. *Strategic Change* 22 (1-2): 17-29.

Olivares-Polanco, F. 2005. Commercializing microfinance and deepening outreach? Empirical evidence from Latin America. *Journal of Microfinance* 7: 47-69.

Powell, A. and M. Bobba. 2006. Multilateral intermediation of foreign aid: What is the trade-off for donor countries. *Inter-American Development Bank Working Paper No. 594.* New York: Inter-American Development Bank (pp. 1-28).

Reille, X., S. Forster, and D. Rozas. 2011. *CGAP focus note 71.* Washington DC: CGAP (pp. 1-14).

Simanowitz, A. 2007. Achieving poverty outreach, impact and sustainability: Managing trade-offs in microfinance. In B. Balkenhol, editor, *Microfinance and public policy: Outreach performance and efficiency.* Geneva and New York: International Labour Office and Palgrave Macmillan (pp. 61-71).

Swanson, B. 2008. The role of international capital markets in microfinance. In B. Swanson, editor, *Microfinance: Emerging trends and challenges.* Cheltenham: Edward Elgar.

Vanroose, A. and B. D'Espallier. 2013. Do microfinance institutions accomplish their mission? Evidence from the relationship between traditional financial sector development and microfinance institutions' outreach and performance. *Applied Economics* 45 (15): 1965-1982.

World Bank. 2016. Poverty and Equity: Sub Saharan Africa. Available at: http://data.worldbank.org/topic/poverty (accessed June 2, 2016).

Yunus, M. 2010. *Building social business: The new kind of capitalism that serve humanity most pressing needs.* New York: Public Affairs.