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Governance and Growth of Cooperatives in Microfinance

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PART I – Governance

1.1. Surplus Distribution in Microfinance

Does Ownership Matter?

With Marek Hudon and Eddy Bloy

Surplus Distribution in Microfinance

- Governance is a major challenge (Labie, 2001; Hartarska, 2005; CSFI survey (2008); Ashta and Hudon, 2009; Mersland, 2009)

- Double bottom line in microfinance (Copestake, 2007), stakeholders approach of governance (Freeman et Reed, 1983)

➔ *Who benefits from the surplus created by MFIs? How is wealth distributed between the stakeholders?*

- *"Global Productivity Surplus" (GPS)* theory (CERC) (Courbis and Templé, 1975; Burlaud and Dahan, 1987, Mbangala, 2000 ; Butault, 2008)

The application of the GPS methodology to microfinance

$$GPS_t = \underbrace{\left[\Delta \mathrm{OL}_t \times i_{t-1} - \Delta \mathrm{OL}_t \times pr_{t-1}\right]}_{\Delta \text{Output}} - \underbrace{\left[\Delta DE_t \times i''_{t-1} + \Delta D_t \times i'_{t-1} + \Delta N_t \times s_{t-1}\right]}_{\Delta \text{Input}} = S_t^1 + S_t^2 + S_t^3$$

Clients surplus: borrowers

$$S_t^1 = -\left[\Delta i_t \times OL_t - \Delta pr_t \times OL_t\right]$$

Suppliers surplus: depositors, lenders, employees, providers

$$S_t^2 = \left[\Delta i''_t \times DE_t\right] + \left[\Delta i'_t \times D_t\right] + \left[\Delta w_t \times N_t\right] + \left[\Delta(f_t \times F_t)\right]$$

Shareholders surplus: reserve, future investments and capital growth

$$S_t^3 = \Delta GSFM_t$$

Does Ownership Matter?

- Different types of status : COOPs, NGOs, SHFs

Data and Methodology I

- From rating reports between 2002 and 2007 (such as Mersland and Strøm, 2008 ; Hudon and Traça, 2009)
- 184 MFIs – two full years
- Difference of means analysis

Main Results

- Initial remuneration - Static situation

	NPO N=113	SHF N= 71	COOP N=46	Z-stat		
	Mean	Mean	Mean	NPO-SHF	NPO-COOP	SHF-COOP
IR on credit	39.29%	33.85%	24.72%	1.93*	4.19***	2.54**
Provision rate	3.96%	2.49%	2.90%	1.39	0.86	0.43
IR on deposits	0.81%	1.01%	5.73%	0.46	2.11**	2.02**
IR on external funds	8.21%	7.11%	10.09%	0.40	0.42	0.72
Average salary	6512	7 526	7 458	1.41	0.37	0.03
Other operating expenses	298 441	325 406	402 614	0.52	0.92	0.68
Net operating income	169 887	293 092	71 305	1.40	1.29	2.36**
Average Loan Size	648	914	1 496	1.40	2.04**	1.33
Average Loan Size /GNI	0.19	0.29	0.51	1.22	2.49**	1.52
Average Salary/GNI	2.04	2.36	2.30	1.22	0.63	0.13
GPS	142 632	322 301	188 407	1.92*	0.46	1.67*

- Surplus distribution – Dynamic situation

	NPO	SHF	COOP	Z-stat		
	Mean	Mean	Mean	NPO-SHF	NPO-COOP	SHF-COOP
Borrowers	3.82%	-3.53%	-3.86%	0.6111	0.7148	0.0244
Doubtful clients	-5.67%	0.16%	-2.64%	1.3480	0.5414	0.5107
Savers	-0.06%	0.39%	0.46%	0.6650	0.2286	0.0279
Lending institutions	-4.04%	-0.65%	-8.53%	0.4990	0.3981	0.7755
Employees	1.39%	-8.36%	11.47%	1.1859	2.0243**	2.3541**
Providers	8.85%	12.64%	19.89%	0.6711	2.1431**	1.1165
GSFM	16.97%	21.35%	0.35%	0.5324	2.2307**	2.292**

Data and Methodology II

- Panel data model with robust clustering method

- The random effects model - often used to conduct analyses on MFIs' behaviors and performances (Lensink and Mersland, 2009; Hartarska, 2005; Vanroose and D'Espallier, 2009)

$$Spl_{i,t+1} = \alpha + \beta_1 \times GOV_i + \beta_2 \times SIZE_{it} + \beta_3 \times SUB_{it} + \beta_4 \times GEO_i + \beta_5 \times AGE_{it} + \beta_6 \times ALS_{it} + \beta_7 \times GNI_{it} + \beta_8 \times YEAR_t + \mu_i + u_{it}$$

- Data from rating reports from 1999 to 2008
- On average: 3.4 years of obs/MFI
- We use 758 observations of 225 MFIs to calculate the surpluses = 529 surpluses

Main Results

	Global productivity surplus	
	a	b
GOV : COOP	0.293	0.189
GOV : SHF	0.071	0.073
SIZE : LnBorr	0.183***	0.185***
SUB : sub/port		-0.002
AGE : OLD	-0.280	-0.280
AGE : INTER	-0.349	-0.358
LnGNI	0.050	0.044
LnALS	0.086	0.083
GEO : LA	-0.120	-0.124
GEO : AFSS	-0.476	-0.481
GEO : ASIA	-0.648	-0.665
GEO : NAME	0.090	0.085
Model Stat		
N	521	520
Wald chi2	97.13***	524.52***
R^2 – within	0.019	0.020
R^2 - between	0.049	0.052

	1. Surplus to clients		2. Surplus to Staff		3. Surplus to GSFM		
	1.a	1.b	2.a	2.b	3.a	3.b	3.c
GOV : COOP	-0.043	-0.048	0.135***	0.133***	-0.127**	-0.135**	-0.107*
GOV : SHF	0.018	0.018	-0.012	-0.013	-0.027	-0.028	-0.028
SIZE : LnBorr	0.055**	0.056**	0.031**	0.031**	0.068***	0.070***	0.074***
SUB : sub/port		0.001***		0.001***		0.002***	0.053**
SUB^2							-0.0001**
AGE : OLD	0.167*	0.162*	-0.064	-0.065	-0.110	-0.118	-0.118*
AGE : INTER	0.230**	0.229**	-0.100*	-0.100*	-0.062	-0.064	-0.058
LnGNI	-0.052	-0.051	-0.024	-0.023	-0.015	-0.013	0.011
LnALS	0.031	0.033	0.021	0.022	0.038	0.042	0.060**
GEO : LA	0.032	0.035	-0.026	-0.024	-0.085	-0.079	-0.055
GEO : AFSS	-0.148	-0.150	-0.154*	-0.154*	-0.172	-0.175	-0.170
GEO : ASIA	-0.211	-0.211	-0.006	-0.004	0.028	0.030	0.067
GEO : NAME	-0.026	-0.026	-0.016	-0.015	0.135	0.136	0.135
Model Stat							
N	521	520	521	520	521	520	520
Wald chi2	301.13***	414.59***	32.00**	61.18***	118.97***	202.90***	1.32e+06***
R^2 – within	0.0138	0.014	0.0053	0.0054	0.0253	0.0246	0.016
R^2 - between	0.0788	0.081	0.0803	0.0826	0.1278	0.142	0.168

	4. Surplus to savers		5. Surplus to lending institution		6. Surplus to providers	
	4.a	4.b	5.a	5.b	6.a	6.b
GOV : COOP	-0.014	-0.014	0.170	0.169	0.023	0.027
GOV : SHF	-0.002	-0.002	0.030	0.032	-0.002	-0.002
SIZE : LnBorr	-0.002	-0.002	0.029	0.031	0.008	0.007
SUB : sub/port		-0.00002		-0.002***		-0.001***
AGE : OLD	0.012	0.012	-0.227**	-0.225**	-0.014	-0.010
AGE : INTER	0.012	0.012	-0.357*	-0.366*	-0.028	-0.027
LnGNI	-0.002	-0.002	0.133	0.126	-0.005	-0.006
LnALS	0.007	0.007	-0.048	-0.052	0.020	0.018
GEO : LA	-0.0002	-0.0002	-0.072	-0.077	-0.036	-0.038
GEO : AFSS	0.012	0.012	0.005	0.001	-0.059	-0.057
GEO : ASIA	-0.009	-0.009	-0.477	-0.496	-0.007	-0.008
GEO : NAME	0.010	0.010	-0.034	-0.040	-0.060	-0.061
Model Stat						
N	521	520	521	520	521	520
Wald chi2	13.03	13.07	765.57***	943.74***	467.13	585.23***
R^2 – within	0.043	0.043	0.037	0.037	0.078	0.079
R^2 - between	0.027	0.027	0.029	0.036	0.042	0.054

Main findings

- GPS as new instrument to evaluate MFIs social responsibility

⇒ Surplus distribution significantly different for **COOPs**, but not between SHF and NPO

⇒ **COOPs** keep a significantly lower surplus part for future growth, reserve, or distribution to investors

⇒ Finally, larger, more subsidized MFIs, and particularly **COOPs**, tend to allocate a greater part of their surplus to their employees

PART I – Governance

I.2. Lessons from History

What West African Microfinance Cooperatives could learn from the Raiffeisen Model?

Historical approach

- To tackle the main limit of rural microfinance

  ⇒The lack of long-term loan supply and the related governance issues

Especially in West Africa

- Microfinance sector dominated by COOPs, mainly rural : 3.6 Mio members (BCEAO, 2006)
- Regulated by a specific law with a maturity ratio (BCEAO, 1994)
- Resources: short-term savings (74% of total liabilities) (Ouedraogo, 2008)
  Portfolio: short-term loans

⇒ No credit for investment (FAO/GTZ, 2004; Wampfler *et al.*, 2007)

Long-term credits and governance issues

- Financial Intermediation : Two COOPs' characteristics
  a) Very short-term resources
  b) Ownership : net savers vs net borrowers members (Branch and Baker, 2000; Armendariz and Morduch, 2005)

- 2 options to provide long-term credits

  a) Use LT external funding ⇒ risk of net borrowers' domination
  b) Use of short-term resources ⇒ risk of liquidity gap

⇒ Both require good governance mechanisms and efficient control systems - Applied in 19th century Germany

19th century German COOPs' experience

- Resources: short-term savings (Guinnane, forthcoming; Emmons and Mueller, 1997)
  Portfolio : huge part of long-term credits (Guinnane, 2001)

- Maturity mismatch but: Stable savings + 2 regional mechanisms
  a) Regional centrals
  b) Auditing associations

⇒ Helped to deal with maturity mismatch : liquidity facilities + financial skills and control → favored strong confidence from the members

Keeping context differences and similarities in mind …

Local FCs	*Germany:Haas and Raiffeisen*	*West Africa: CIF Networks*
Size (number of members)	Around 100 members per local FC	Around 4,083 members per local FC Around 1,291 members per local rural FC
Type	Open-coops Often unlimited liabilities for members	Closed-coops Always limited members' liabilities
Services	Short, mid and very long-term credits (*investment*)	Short and mid-term credits (*very few for investment*)
Centrals		
Size	Around 442 local coops per Central	Around 74 local FCs per network
Members' types	FCs and non-financial coops	Only FCs
Services	Only financial	Financial + formation + HRM + economies of scale (ICT, others)
Nature of link	Weak - Contractual – sporadically – high local FCs' autonomy	Strong - highly integrated - Sharing identity – low local FCs' autonomy
Legislation		
Law	1889 First Reich Coop Law, very flexible	1993 Parmec Law revised in 2007, strict
Prudential ratios	No prudential ratio – no maturity mismatch restriction	Many prudential ratio – maturity mismatch restriction
Supervision		
Local supervision	Relatively efficient, universal education	Relatively inefficient, high illiteracy
State Supervision	None, autonomous system	Yes, but weak - lack of resources
Other supervision	Coop auditing associations, external efficient system Specific school, re-auditing process	In network - additional control by the technician team No specific school

Main findings

<u>19th century mechanisms could be valued in West Africa to improve long-term loans offer</u>

a) Grouping of liquidity management through regional centrals
- Developing alliances through federations – CIF example
- Regional centrals on a more contractual base

b) Efficient governance system through auditing associations
- Improving external supervision – increase State supervisory capacities
- Autonomous supervision : through farmer movement, cross-supervision through confederation

⇒ Amending the law : relax maturity ratio (in function of COOPs categories)

PART 2 – Growth

2.1. Microfinance Development: Cooperatives and Banks, Complements or Substitutes?

Microfinance Cooperatives and Banks

- Macro factors matter (Vanroose, 2008; Ahlin, 2008) + importance to understand the relation between microfinance and the broader banking sector (Cull et al., 2009).

⇒ How banks' presence affects the COOPs development?

Created to fill a gap

- In the 19th century, Northern COOPs were created to tackle credit rationing especially in rural areas (Hollis and Sweetman, 1998; Guinnane, 2001; IRU, 2005)

- In the South, they continue to serve financially excluded people (Rogaly, 1998; Cuevas and Fischer, 2006)

But not disconnected from the banking sector

- *Historically,* Schulze-Delitzsch case (Guinnane, 2002)
- Savings security (Andersen and Malchow-Moller, 2006)
- Facilities for COOP networks liquidity transfer
- Broaden the scope of services (Evans and Klaehn, 2004; Sukadi Mata, 2009)

Two opposite hypotheses

H1- Substitutes: COOPs more developed where banks presence is weak. Banks development and competition represent a threat for COOPs expansion

H2 - Complements: COOPs more developed where a well-established domestic financial sector is present. They are not in competition working with a different population

Data and Methodology

- Panel data model - Fixed effects method

$$Outreach_{it} = \alpha + \beta_1 finsyst_{it} + \beta_2 \ln Inflation_{it} + \beta_3 \ln GNI_{it} + \beta_4 density_{it} + \beta_5 rural_{it}$$
$$+ \beta_6 \ln AID_{it} + \beta_7 FDI_{it} + \beta_8 \ln size_{it} + \beta_9 year_t + \mu_i + u_{it}$$

- Data on microfinance COOPs from WOCCU - From 1980 to 2008 - 73 countries

- Data on Macro-environment from World Bank

- $finsyst_{it}$: bankcred, credprivate, irspread (Hermes *et al.*, 2009; Levine, 2005)

Main Results

FCs' outreach	1	2	3	4 (Outreach <10%)
Bank	0.0005***	0.0004***	0.0005*	0.0003***
Bank*D_1			-0.0004**	-0.0001**
Bank* D_2			-0.0001	-0.0002**
Irspread	-0.0001	-0.0001	0.00004	0.000011
Density	-0.0004**	-0.0003*	-0.0003*	-0.0001**
lnInflation	0.0026	0.0027	0.0024	0.0015
lnAID	-0.0053	-0.0055	-0.0055	-0.0016*
lnGNI	0.0670***	0.0621**	0.0660**	0.0172***
FDI	0.0009	0.0009	0.0009	0.0000001
Rural	0.2543*	0.2619*	0.2480*	0.0713**
lnSize		0.0062	0.0062	
N	1092	1092	1092	920
F-stat	5.16***	6.18***	5.46***	16.36***
R^2within	0.440	0.446	0.46	0.41

Main findings

⇒ **Results support H2 (invalid H1)**: Banking sector positively impacts COOPs' outreach

⇒ Differ from Vanroose and D'Espallier (2011): higher synergies between "COOPs and banks" than "other MFIs and banks"

⇒ COOPs serve a different population than banks – not affected by competition in the banking sector

Other findings

- GNI: COOPs more developed in richer southern countries, similar to Vanroose (2008) and Alhin et al. (2009)
- AID and FDI: COOPs rely mainly on local savings >< other MFIs depend from external funding (Vanroose, 2008)
- Rural and density: COOPs more developed in more rural and low population density countries

PART 2 – Growth

2.2. Evolution of the Governance System with Growth in Microfinance:

The Case of Microfinance COOPs in West Africa

Evolution of the Governance System with Growth

- Governance is a major challenge - Especially for COOPS (Branch and Baker, 2000; Cuevas and Fischer, 2006; Hirschland *et al.*, 2008, Fonteyne, 2007)…

  …and even more in *growth period* (Cuevas and Fischer, 2006)

➔ New challenges with growth

– Membership heterogeneity – risk of mission drift (Fournier and Ouédraogo, 1996)
– Members' power dilution (Desrochers *et al.*, 2003)
– Products more complex (Branch and Baker, 2000)
– Internal staff conflicts (Cerise, Iram, 2005)

Governance mechanisms

⇒ Analysis through West African case studies

- FONGS : 28 interviews
- Pamecas : 27 interviews

- Multiplicity of governance mechanisms
- Charreaux's framework (1997) ➔ Adaptation for COOPs

Charreaux's framework adapted to COOPs in Microfinance

	Specific	Non specific
Intentional	- Bodies: board of directors, security council, credit committee - Incentive scheme - Status - MIS - Organizational structure : network's characteristics	- Regulation - State supervision - Public policies - International cooperation policies

Spontaneous	- Peer monitoring
	  - Role of social capital
	  - Role of social norms/community rules
	- Savings as monitoring instrument
	- Employees and managers mutual monitoring
		- Weak presence of market monitoring mechanisms
		- Credit market

Evolution with growth

	Specific	Non specific
Intentional	- Bodies: board of directors, security council, credit committee - Incentive scheme - Status - MIS - Organizational structure : network's characteristics	- Regulation - State supervision - Public policies - International cooperation policies

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Main findings

- COOPs nature favors spontaneous mechanisms
- Growth favors more intentional mechanisms – especially through networking and regulation/supervision

⇒ However: important to keep strong social roots – Local embeddedness

The systemic dimension should be taken into account by public governments and international cooperation

⇒ Possible policies:

- Supporting growing COOPs in their mechanisms adaptation
- Help growing COOPs to prepare themselves to prudential ratios
- Help public supervision institutions to have the means needed to efficiently supervise the sector

Conclusions

New insights

<u>In terms of methodology:</u>

- Innovative approach of MFIs' governance through the surplus (GPS) method
- *Difference of means*, as well as an *econometric multivariate* analysis, to identify the factors influencing wealth repartition within MFIs
- Draw historical parallels to propose new perspectives for COOPs

In terms of new considerations:

Regarding *governance*

- The surplus allocation process within COOPs differs significantly from NPOs and SHFs. They allocate a larger part of their surplus to employees and keep a significantly lower part for self-financing

- The historical approach leads to concrete suggestions for West African COOPs in order to increase long-term loan offer in rural areas, while controlling for governance risks

Regarding *growth*

- Highlight macro-factors which favor the development of microfinance COOPs in southern countries and interactions with domestic banking. Stress the difference with results found for other MFIs

- Systemic vision of governance and evolution of governance mechanisms with growth

Thank you for your attention

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