Global Financial Partnerships in Microfinance: India, Peru and Tanzania*

Relaciones financieras globales en microfinanzas: India, Perú y Tanzania

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Abstract

The paper studies the 'wholesale' market through which microfinance institutions operating in three contexts (Peru, Tanzania and the state of Tamil Nadu in India) obtain loans from a variety of domestic and international funding bodies. The nature and characteristics of the relationships between them are captured through network analysis and visualization tools, with a dataset comprising inter-organisational lending relationships and organisations' attributes over the years 2006-8. Focus is on the extent to which patterns in wholesale lending relationships relate to the legal status and characteristics of microfinance institutions; to the regulatory, business and social environment in which they operate; and to shifts in the balance between social and commercial interests of diverse types of lenders.

The analysis brings to light considerable cross-country variation in the structure and features of wholesale lending relationships, and relates it primarily to differences in governance and regulation. On this basis, it makes the case that building a more enabling regulatory environment for funding partnerships may improve the capacity of microfinance to achieve its dual goals of poverty alleviation and financial sustainability.

Keywords: microfinance, wholesale lending, Peru, India, Tanzania

Resumen

El artículo estudia los mercados mayoristas en que se financian instituciones de microfinanzas de tres contextos (Perú, Tanzania y el estado de Tamil Nadu en India). La naturaleza y las características de las relaciones entre ellos son capturadas mediante análisis de redes y herramientas de visualización, empleando una base de datos que contiene relaciones de préstamo entre organizaciones y atributos organizacionales de los años 2006-8. Se pone el énfasis en el vínculo entre los modelos de relaciones de préstamo mayoristas, la naturaleza legal y las características de las instituciones de microfinanzas; el entorno regulatorio, de negocios y social en el que operan; y los cambios en el balance entre los intereses sociales y comerciales de los distintos tipos de proveedores de financiación.

El análisis pone de manifiesto una considerable variación entre países en cuanto a la estructura y los patrones de financiación mayorista, que se relaciona principalmente con diferencias en gobernanza y regulación. Sobre esta base, se argumenta que la construcción de un entorno regulatorio más facilitador mejoraría la capacidad de alcanzar el doble objetivo de alivio de la pobreza y sostenibilidad financiera por parte de las microfinanzas.

Palabras clave: microfinanzas, financiación mayorista, Perú, India, Tanzania

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1
Introduction

Microfinance is the provision of financial services to low-income clients, particularly women in developing countries, who would otherwise have limited or no access to them. Microfinance products include loans, typically for small enterprise development, and to a lesser extent deposits, savings, remittances and even insurance. They tend to be for small monetary amounts, often sufficient to make a difference to those who live in poverty.

Microfinance Institutions (MFIs) are organisations that provide such services. Together with their social mission to improve the welfare of the poor through financial services, it is widely thought today that they also have a commercial mission to provide those services in a financially sustainable way (Cull et al 2009, Hermes and Lensink 2011). The challenge facing MFIs is to achieve both goals, despite potential trade-offs between them (González 2010b, Morduch 2004, Pawlak and Matul 2004, Mersland and Strøm 2011).

MFIs receive funding from organisations as diverse as governmental and inter-governmental agencies, financial institutions, and charities. Not only do funders differ in their motivations for involvement in microfinance, with different balances between commercial and social goals, but also in scale of activity, ranging from local to national and international. The extent and form of their contributions are possible determinants of the capacity of MFIs to reconcile their dual objectives.

Funding may take various forms, from loans to equity investment and grants; the former are particularly interesting for comparative analyses because almost all MFIs have some debt, while reliance on other funding modes is more heterogeneous across countries and organisations.[1] Accordingly in this paper, we set out to study the 'wholesale' lending market through which MFIs obtain credit to support their activities, and explore the extent to which patterns in their relationships to lenders relate to their legal status, their characteristics and performance, and the type and motivations of lenders. Our ultimate purpose is to shed light on how inter-organisational lending partnerships may affect the capacity of MFIs to jointly achieve their social and financial goals.

MFIs' ability to attract loans may also depend on the regulatory, business and social environment in which they operate. To take this into account, we compare three contexts that exhibit notable differences in terms of regulation and structure of the microfinance market, namely Peru, Tanzania, and the state of Tamil Nadu in India.[2] We use descriptive network analysis and visualization tools, with a dataset of wholesale lending relationships between MFIs and their lenders. We focus on the years 2006-2008 —a time in which the industry was still little affected by the slowdown accompanying the global financial crisis (MicroRate 2009).

1 Debt/equity ratios differ widely across MFIs, and shareholding relationships are diverse depending on legal status (members-owned cooperatives, privately-owned corporations, state-owned institutions); grants, instead, are increasingly less relevant as many MFIs strive towards financial sustainability (Robinson 2001, *Woller* et al *1999*).

2 The choice of Tamil Nadu instead of India as a whole has been determined by the need to ensure comparability with the other two countries, much smaller in size.

The data have been collected from publicly available sources, and complemented by primary data gathered during fieldwork in 2009-2010.

Our analyses show significant cross-country variation, largely depending on differences in governance and regulation. On this basis, we argue that more enabling regulatory environments for funding partnerships correspond to enhanced capacity of microfinance to engage in relations with a wide range of lender types.

The remainder of the paper is organized as follows. Section 2 presents the theoretical framework of our research and a typology of MFIs and lenders. Section 3 illustrates research questions and hypotheses. Section 4 provides background information on the regulatory, business and social environment in the three countries. Section 5 presents data, variables and indicators; section 6 contains our analyses, and section 7 concludes.

2 Theoretical framework

2.1. Financial intermediation and competition in the microfinance market

Financial intermediation transfers funds from savers to spenders. Wholesale lenders specialize in one part of the process (access to capital) while wholesale borrowers (MFIs, which are also retail lenders) select, manage and monitor final spenders. Wholesale lenders take advantage of economies of scale and lower transaction costs (e. g. legal costs to produce loan contracts) to raise more capital at better conditions, but lack the detailed local knowledge that would be necessary to lend directly to final spenders —often remote rural communities in developing countries. In turn, wholesale borrowers may be unable to access capital from individual investors, often based in the rich world, owing to high transaction costs; yet they are likely to have good knowledge of, and ability to interact with, the local communities in which they operate.

In this context, competition between MFIs is to get funders on the one side, and final clients on the other; competition between wholesale lenders is to access funds and get borrowers (MFIs). Economic theory predicts that increases in competition between lenders will result in better contracts for MFIs, in terms of lower equilibrium prices; similarly, enhanced competition between MFIs will lead to more favourable deals for final clients. The last few decades have indeed seen a dramatic rise in competition owing to greater emphasis on financial sustainability, liberalization of financial markets, and a high number of commercially-oriented new entrants in the microfinance market, with benefits such as increased attention to changes in clients' needs and expectations, and rapid adoption of new technologies (Christen & Rhyne 1999, McIntosh and Wydick 2005, Ghosh and Van Tassel 2011).

Yet increased competition has also brought calls for better organisation and regulation of the market. This has meant strengthening governance systems, with efforts to integrate microfinance into regulated financial markets and subject it to banking supervision (Christen et al 2003, Balkenhol 2007). Somewhat paradoxically, the need for more cooperative behaviour has emerged too. Potentially increasing information asymmetries require information sharing (for instance with credit bureaus) to prevent uncertainties over indebtedness of final borrowers, especially those with multiple loans. Possible opportunistic behaviours and the risk of escalation of any conflicts (e. g. when a wholesale lender becomes a retailer and competes directly with its MFI borrower for final clients), can be mitigated through a culture of greater transparency and even reciprocal trust.

Forms of cooperation often arise in such cases and —provided they remain within the boundaries of anti-trust legislation— support healthier forms of competition, in the long-term interest of all market participants (Lazega 2009). In finance in particular, social motivations have been recognized as a factor increasing the scope for cooperation (Penalva 2007); this is particularly important in the case of microfinance, where the social mission has a more prominent place than in other industries. In practice, MFIs may lend to one another; or a larger, well-established MFI may administer a loan for a small, less solid one. Both in this case and in the above-mentioned conflict situation, the roles of wholesale lender and borrower become blurred, though for entirely different reasons.

Organisations' characteristics introduce further variation in this broad picture. As already mentioned, wholesale lenders are of different types; some are more commercially-oriented and invest in microfinance chiefly because of their expectations of profit, while others are more socially-oriented and primarily aim to contribute to social development or poverty reduction. There are differences between national and international lenders too. The extent to which foreign actors are more sensitive to financial than to social aspects has been long debated (ADA 2009, Boúúaert 2008, Forster & Reille 2008). Further, international lenders face different competitive conditions to the extent that they can move operations to other countries at lower transaction costs. They often have greater scope for cooperation, for instance by pooling resources —e. g. with LOCFUND, a local currency fund for MFIs in Latin America and the Caribbean, jointly created by Inter-American Development Bank, Norway's Norfund and The Netherlands' FMO.

MFIs are of different types too. The main dividing line is between those that are subject to supervision by the national financial authorities, and those that are not, mainly non-governmental organisations (NGOs). The former typically, though not always, enjoy greater financial solidity (Hartarska & Nadolnyak 2007). Other aspects such as size, age and deposit-mobilizing activity may also result in differential competitiveness in the market for funders (González 2010a, Cull et al 2009).

The overall question we address is the extent to which these very diverse actors coexist and manage their partnerships in order to strike a balance between financial sustainability and social development. This may lead to mutual acknowledgement and integration, with emergence of a sort of market «niche» (Lazega 2009) in which denser network relationships enable microfinance to gain legitimacy in financial markets (sustainability goal), while still attracting socially-motivated partners (development goal). In other cases, this may not happen and the network is likely to be sparser, with greater diversification of actors by type and motivation, and a potentially higher trade-off between social and financial aspects.

2.2. Typology

In line with the above considerations, we assume that motivations for involvement in the wholesale lending market in microfinance co-vary with organisational type. Accordingly, we propose the following typology, built as a variation of the one developed by the Microfinance Information Exchange (the MIX), an industry information provider. Table 1 below concerns wholesale lenders, while table 2 is about borrowers. The categories indicated are rather broad and need to be interpreted in light of the regulatory and legal framework of each of the countries under study, as detailed in section 4.3.

Commercially-oriented	Bank or other financial institution (FIN)	Financial intermediary, owned primarily by private shareholders, which makes loans and may or may not take deposits or savings.
Socially-oriented	Governmental agency or inter-governmental institution (GOV).	National or foreign governmental development agency (e.g. Germany's KfW), ministry (e.g. of the economy), or other authority; inter-governmental institution (e. g. World Bank).
	Non-Governmental Organisation (NGO)	Nonprofit entity (foundation, voluntary association, charity, church, etc.).
Mixed	Socially-responsible investor (SRI)	Private fund or organisation specialized in channeling financial resources to microfinance (e. g. Blue Orchard, Triodos).

Table 1
Typology of wholesale lenders.

In addition, we distinguish between national and international lenders.

Position vis-a-vis financial authorities	Type	Definition
Regulated	Bank	Financial intermediary, owned primarily by private shareholders, which takes deposits and makes loans.
	Cooperative	Financial institution owned by its members (savings and loan association, credit union, etc.).
	Non-Banking Financial Institution (NBFI)	Financial institution allowed to lend; may or may not be authorized to take deposits.
Unregulated	Non-Governmental Organisation (NGO)	Non-profit entity (foundation, voluntary association, charity, church, etc.).
	Cooperative	Institution owned by its members (if unregulated).

Table 2
Typology of wholesale borrowers (MFIs).

3 Research questions and hypotheses

We aim to explore the extent to which patterns in wholesale lending relationships in microfinance relate, on the one hand, to the legal status, characteristics, social and financial performance of MFIs; and on the other hand to the type, motivations and nationality of lenders. Accordingly, we test the following hypotheses.

H1. MFI characteristics

H1.1. Size

Smaller MFIs may lack resources to promote themselves (set up and maintain a web site, obtain rating reports or audits, participate in international networks, etc.) so that lenders, especially international ones, may find the cost of obtaining information about them too high. Therefore, small MFIs may rely primarily on their personal relationships at local level to obtain funding (as is often the case for small businesses). Thus, we expect:

— smaller MFIs to attract a lower number of lenders relative to those attracted by larger MFIs, at local level;

— larger MFIs to attract more lenders, whether locally or internationally.

H1.2. Age

González (2010a) suggests that younger MFIs may find it more difficult to access funding, especially when funders require a minimum of experience or maturity. Large and international lenders may find it difficult to assess the creditworthiness of a start-up, while local lenders may do so more easily. Hence, we expect:

- younger MFIs to attract a lower number of lenders, mostly at local level;
- international involvement to be limited to large NGOs setting up a local subsidiary.

H1.3. Deposit mobilization

Deposit mobilization is an alternative source of funding with respect to debt, and is thus likely to be negatively correlated with number of lenders. Hence, we expect negative or no correlation between deposit-taking and number of lenders. However, there may be nuances in the case of commercial lenders, for whom deposit mobilization may be attractive because it involves stricter regulation and closer supervision by national regulators, therefore improved financial strength, and because deposit-mobilizing MFIs are more likely to have financial backing from public authorities in case of liquidity problems, so that there is an implicit insurance for funders (González 2010a).

H2. MFI Profitability

Profitable MFIs are likely to attract more lenders, especially commercial ones; instead, lenders with a stronger social focus may be less sensitive to profitability. Thus:

- profitable MFIs are more likely to borrow from commercial lenders;
- unprofitable MFIs are likely to borrow less; if they do, it will be from NGOs, SRIs, and governmental agencies.

H3. MFI Social performance

Social performance is likely to attract more lenders, especially socially-oriented ones (NGOs, governmental agencies), as well as SRIs. In addition international lenders, including commercial ones, may be sensitive to social performance to the extent that their involvement in microfinance is part of their corporate social responsibility. We expect:

- Good social performance to be correlated with a higher number of lenders that are NGOs, governments, and SRIs;
- Some positive correlation between social performance and number of international lenders.

H4. Regulatory, business and social environment

The above-indicated correlations may vary in strength depending on the regulatory, business and social environment. Hence, we expect variation across the three countries. To better understand their extent and character, the following section provides necessary background information.

4
Socio-economic, regulatory and business environment in Peru, India and Tanzania

Contextual understanding of the countries under study is important to help determine the extent of variability in the wholesale lending market in microfinance. Three aspects are particularly relevant: the socio-economic country background; the regulatory framework as applied to microfinance; and the characteristics of the business environment.

4.1. Socio-economic country background

In recent years, all three countries have experienced significant economic growth both at overall and per capita levels. Poverty incidence, however, varies markedly across countries, while the extent of financial exclusion is also dissimilar and more accentuated in one country as compared to the others in the sample.

Both India and Peru have undergone average economic growth of over 8% during 2006-2008, while Tanzania has grown at a slightly lower

	India	Peru	Tanzania
GDP growth rate annualised 2006-2008 1/	8.3%	8.8%	7.1%
GDP per capita growth annualised 2006-2008 1/	6.8%	7.5%	4.1%
Population under US$2 a day 1/	75.6%	17.8%	96.6%
Financial exclusion (% population excluded from financial services)	65% 2/	55%-65% 3/	89% 4/

Table 3
Key Country Features.[3]

3 Sources: 1/ World Bank (2010); 2/ SAMN (2009); 3/ CFI (2010); 4/ FSDT (2006).

rate of about 7%. India, in particular, has emerged as a major world economic power in this decade; economic reforms, strong domestic demand, foreign investment and increasing levels of international trade have contributed to its rapid economic growth. Peru, meanwhile, has become one of the fastest-growing economies in Latin America since the early nineties. From being a country threatened by terrorist groups and an economy engulfed in recession during the 1980s, Peru has undergone drastic policy changes that catalyzed an extensive process of structural readjustment, stabilization and growth. Tanzania's economic performance has also been strong in recent years, supported by prudent macroeconomic policies and far-reaching structural reforms such as economic liberalization, improved public-sector management and financial sector development.

Despite the impressive economic growth, large disparity exists in the levels of poverty across countries and within regions in each of the countries. Taking percentage of population under US$2 a day as an indicator of poverty levels, the latest statistics[4] show that the vast majority of people in Tanzania are poor, especially in the rural areas where about 66% of citizens live (UNDP 2009); over 75% of the Indian population falls into this category and, in Peru, the proportion is lower at 17.8%. In India, however, regional and class disparity is colossal. While much of the economic growth is primarily concentrated in the western and southern states, including Tamil Nadu, the northern and central states still show high levels of poverty incidence.

In Peru, migration from rural areas to urban towns and cities has been phenomenal in the past three decades, leading to the formation of widespread poor shanty towns and the proliferation of self-made micro-enterprises. Available sources report that small and micro-enterprises account for 95% of all business in the country's manufacturing, commercial and service sectors (Kane, Nair, Orozco & Sinha 2005). Such enterprises employ 65% of Peru's urban workforce (CFI 2010). By contrast, agriculture remains very important in India as it employs about 60% of the country's workforce (SAMN 2009), and in Tanzania where it employs about 80% of the workforce (Triodos 2007).

As a buoyant segment of the urban poor, micro-enterprises have been the much preferred target of microfinance in Peru and therefore MFIs tend to direct most of their credit services towards micro-enterprise development as opposed to consumer credit for individuals. This has resulted in some positive impact on reducing financial exclusion in the country. In 1994, only 5% of the demand for micro-enterprise credit was met by existing financial institutions. During 1995-2005, microfinance provision grew significantly and now the level of financial exclusion is estimated to have been reduced to approximately 55%-65% (CFI 2010). Financial exclusion is higher in India and, most notably, in Tanzania where exclusion levels rise to nearly 90% of the population.

4 The World Bank (2010) reports data for this poverty indicator in the following years per country. For Peru, data is from 2007; for India, 2005; and for Tanzania, 2000.

4.2. Enabling Environment for Microfinance

The overall business environment for microfinance is sharply differentiated across the three countries under examination. A recent global study conducted by The Economist's Economic Intelligence Unit ranks countries throughout the world in relation to how conducive their business environment is to facilitating the development of microfinance operations. Out of a total of 55 countries, Peru occupies the first place with a score of 73.8 out of 100, signifying a highly, albeit not perfect, enabling environment (EIU 2009). India follows in fourth place with a 62.1 score, which could be considered medium/high, whilst Tanzania is located at 19th place with a score below 50 demonstrating a much less conducive setting for microfinance.

Three components were assessed as part of this overall business environment ranking —the country's regulatory framework, its investment climate and institutional development. Table 4 shows the disaggregated ranking for each category. It is interesting to note that compared to their overall ranking places, all three countries were awarded a lower rank in the category of investment climate, particularly Tanzania (that occupied the 35th place in the list of the total of 55 countries). This is primarily due to some instability in the countries' capital markets and, in the case of Tanzania, because of limited transparency in microfinance institutions and the scarcity of readily-available information, which might limit the entry of investors in the Tanzanian microfinance sector.

	India	Peru	Tanzania
Regulatory Framework	13	3	10
Investment Climate	14	8	35
Institutional Development	3	1	20
OVERALL (ranking out of 55 countries worldwide)	4	1	19

Table 4
Ranking of the Microfinance Business Environment.[5]

In Peru and India, on the other hand, institutional development is quite advanced. In both countries, microfinance institutions offer a wide range of services including savings, checking, ATM services, fund transfers, insurance and other products. Although some specialised MFIs are restricted from providing some services, facilitating mechanisms are beginning to expand their possibilities, such as NGOs in India entering into partnerships with mainstream financial institutions as banking corres-

5 Source: Authors' elaboration based on data from EIU (2009).

pondents, and specialised MFIs in Peru being allowed to gain access to capital markets as a result of a legal decree of 2008 (SBS 2009). Peru's microfinance market is highly competitive and credit bureaus are well developed and operational, which contributes to the award of first rank in the category of institutional development. The Indian microfinance market is also quite competitive but most MFIs are concentrated in the South while the rest of the country remains underserved or not served at all.

The Tanzanian microfinance market, though, exhibits a lower number of microfinance institutions, with PRIDE, Akiba and BRAC among the most prominent players, and the microfinance activity concentrated mainly in Dar es Salaam, showing superficial penetration in the rural areas of the country (EIU 2009). The range of financial services is also modest, limited primarily to the delivery of credit and savings products only.

4.3. Regulatory environment

While in Tanzania and in India, the country's central bank has the official mandate to regulate MFIs, Peru constituted an independent institution that regulates the financial system in general including microfinance institutions. The Peruvian Superintendencia de Bancos y Seguros[6] (SBS) is therefore in charge of regulating MFIs, alongside other formal financial institutions. For the quality of general financial regulation and supervision, the SBS was rated 96.6 out of 100 in 2005 by a combined mission undertaken by the World Bank and the International Monetary Fund (The Economist 2008). In its regulatory duty to legislate the microfinance sector, the SBS introduced specific regulations and methodologies for MFIs, such as loan-loss provisioning based on loan status rather than institution type, thorough on-site inspection procedures, and stringent requirements for internal MFI control systems. Documentation requirements, meanwhile, are not burdensome and capital-adequacy ratios are reasonable.

Peru has also put in place important incentives for NGOs to become regulated MFIs. Unlike regulated MFIs, NGOs are burdened with tax obligations on interest income and are restricted by a cap on the interest rates they can charge to final users of microfinance. Importantly, NGOs are also not allowed to have access to some second-tier funds such as those from COFIDE, which restricts the number of sources available to finance their operations. In addition, NGOs have a multiplicity of institutions that they have to be registered with, including the National Superintendency of Public Registries (SUNARP), tax authorities, labour authorities, the municipality in which they operate and the Peruvian Agency for International Cooperation's registry of NGOs receiving international assistance. All these factors act as incentives for NGOs to become, in the majority of cases, Entidades de Desarrollo de la Pequeña y Micro Empresa[7] (EDPYMEs), which are non-deposit taking MFIs regulated by the SBS.

6 Superintendency of Banking, Insurance and Pension Funds.

7 Entities for the Development of Small and Micro Enterprises.

	India	Peru	Tanzania
Key regulatory features	*The Reserve Bank of India regulates MF activities *A percentage of bank lending has to be for priority sectors including MF * Free interest rates	*Specialised MF unit within the national regulatory body (SBS) *New MF regulations *Free interest rates *Strict scrutiny – same as with traditional financial institutions	*National Microfinance Policy approved in 2000 *Bank of Tanzania (central bank) regulates *Free interest rates
Type of regulated MFIs	*Commercial banks *Cooperative banks *NBFIs (called Non-banking finance companies)	*Banks *EDPYMEs (NBFIs, non-deposit taking) *Financieras (NBFIs) *Cajas Municipales (NBFIs) *Cajas Rurales (NBFIs)	*Banks *NBFIs *Microfinance companies *FICOs (SACCOs with minimum capital requirement or above)[9]
Type of unregulated MFIs (but supervised by other government agencies) 1/	*NGOs (specific Act)[10] *Cooperative societies (state-appointed RCS) *Regional rural banks (NABARD) *SHGs (NABARD)	*NGOs (self-regulated by own association COPEME). *Cooperatives (same as above)	*NGOs (Ministry of Finance) *SACCOs with below minimum capital requirement (Ministry of Cooperatives)[11]

Table 5
Regulatory Framework.[8]

In the past couple of years, some EDPYMES have further upgraded to the category of Financieras, a regulated MFI classification that permits the mobilisation of deposits and other financial services. Other regulated MFIs include the Cajas Municipales de Ahorros y Crédito[12] (CMACs) and the Cajas Rurales de Ahorros y Crédito[13] (CRACs). These two types of financial institutions resemble the cooperative model as they are financial intermediaries whereby savings mobilisation is a significant element of their business model. Regulated MFIs do not have restrictions on levels of interest rates charged for their services and are allowed to access wholesale finance from second-tier institutions such as COFIDE. Amongst the unregulated MFIs, notably NGOs, there is an element of self-regulation

8 The government agency that regulates a particular type of MFI is specified in brackets. Acronyms: MF=Microfinance; MFI=Microfinance Institution; NGO=Non-governmental organisation; EDPYMEs=Entities for the Development of Small and Micro Enterprises; FICO=Financial Cooperative; SHG=Self-Help Group; NABARD=National Bank for Agriculture and Rural Development; RCS=Registrar of Cooperative Societies; COPEME=Consortium of Private Organisations that Promotes the Development of Small and Medium Enterprises.

9 The minimum capital requirement is TSh800m (about US$600,000).

10 NGOs are regulated by the specific Act under which they are registered: NGOs/MFIs=Societies Registration Act, 1860, similar Provincial Acts/Indian Trust Act, 1882;

as many voluntarily report financial disclosures to COPEME that in turn provides supervision and promotes good practices.

In India, the Reserve Bank of India (RBI) regulates both banking and non-banking finance companies. The Department of Non-Banking Supervision is responsible for the compulsory registration and maintenance of liquid assets and reserve funds, while the Rural Planning and Credit Department focuses on rural credit including microfinance. However, assessors indicate that microfinance expertise of regulators and examiners is in need of upgrading (EIU 2009). Proposed reforms, under the Microfinance Sector Bill, state that the National Bank for Agriculture and Rural Development (NABARD) would be responsible for regulating NGOs and unregistered cooperatives. However, this is considered problematic, as NABARD is itself a key player in the sector (CGAP 2010). Meanwhile, many of the unregulated MFIs have joined associations like Sa-Dhan and Microfinance India Network, which are developing codes of conduct to improve practices.

Compared to the mostly free-market-based microfinance sector of Peru, RBI regulations in India are directional and mandatory in terms of wholesale lending and interest rates. According to RBI regulations, domestic banks are required to lend 40% of their portfolio to weaker sectors which includes microfinance. Bank interest rates to MFIs are free because these loans are larger than the Rs200,000 (US$4,000)[14] threshold set by the RBI. However, bank charges to SHGs[15] must follow the interest rate guidelines set by the RBI, e. g. in circular of July 2008, the RBI requires that interest rates should be set at equal to or below the Benchmark Prime Lending rate (SAMN 2009).

Regulatory guidelines for the transformation of NGOs into regulated MFIs, meanwhile, have been created and the process is relatively uncomplicated. As a result, several NGOs working with SHGs have been transformed into non-banking finance companies (NBFCs) largely to attract commercial investment. There are however a number of regulatory constraints that are limiting NBFCs' ability to access finance: (1) Only those NBFCs that have at least Rs20m (US$400,000) and maintain a 12%-15% capital adequacy ratio can mobilise term deposits; (2) Although there are no stipulations on leverage capacity, the capital adequacy ratios effectively delimits the leverage capacity for NBFCs. As many NBFCs struggle to meet regulatory requirements to be able to mobilise deposits, they must depend on wholesale lending from banks, commercial equity and retained earnings in order to sustain and expand their operations. Lending from foreign investors has recently been facilitated as the government now classifies microfinance as an activity that qualifies for automatic investment approval (EIU 2009), which means that foreign investment can occur prior to formal government permission.

Non-profit companies=Section 25 of the Companies Act, 1956; Mutually Aided Cooperative Societies (MACS): Mutually Aided Cooperative Societies Act enacted by State Government.

11 The SACCOs are normally supervised by the Registrar of Cooperatives under the Ministry of Cooperatives and Marketing under the Cooperative Societies Act 1991 as amended from time to time..

12 Municipal Savings and Loan Institutions.

13 Rural Savings and Loan Institutions.

14 Exchange rate: Rs50=US$1.

15 Self-Help Groups are informal savings and credit groups composed of 5-20 low-income members. Many MFIs in India provide credit to SHGs which in turn extends loans to their individual members.

By contrast, the Tanzanian regulatory environment for the creation of new regulated MFIs appears to be rather limiting. This is demonstrated by the fact that very few of the larger NGOs have transformed themselves into regulated MFIs despite the existence of specific legal provisions. A defining factor is the restrictive characteristic of the loan provisioning requirements for Microfinance Companies (MFCs), which makes it difficult for NGOs with risky portfolios to transform into regulated MFIs.

Nevertheless, regulations for microfinance have progressed steadily in Tanzania in recent years. After the establishment of general guidelines for the development of microfinance in the 2000 National Microfinance Policy, more specific policies were drawn in the Microfinance Companies and Microcredit Activities Regulations of 2005. In these regulations, MFIs are classified by size and type of operation and capital requirements are determined. In this framework, minimum core capital requirements for national, multi-branch MFCs is set lower than that of commercial banks, at TSh800m (about US$600,000)[16] and at TSh200m for single-branch MFCs (Triodos 2007). However, as mentioned before, the restrictive factor preventing NGOs to convert into MFCs in large number is the stringent loan provisioning requirements.

Another widespread type of microfinance institution in Tanzania is the Savings and Credit Cooperatives (SACCOs), which are over 3,000 in number but small in loan portfolio and more prevalent in rural areas. In 2005, the Financial Cooperative Societies Regulations were approved, which specify that SACCOs engaged in accepting savings and deposits from their members for an amount totalling at least Tsh800m are to be licensed as a Financial Cooperative (FICO), supervised by the Bank of Tanzania as other MFIs are. However, at present no FICO has yet been licensed. An overall limitation in the slow transformation of microfinance institutions into regulated MFIs is the limited resources and skills that support the regulatory system in Tanzania.

With this backdrop, workshops were conducted during fieldwork in Peru, India and Tanzania during 2009-2010 in order to assess the overall conduciveness of the countries' regulatory environment for the provision of microfinance and the formation of specialised MFIs. Supported by the documentation and information mentioned above, the broad consideration of the workshop participants (i. e. microfinance practitioners and regulators in each country) was that while the Peruvian environment is relatively highly conducive to the development of its microfinance industry, the situation in India is mixed as the South is far more advantageous than in the rest of the country. Tanzania, meanwhile, presents an environment that, although making important progress is in need for improvements particularly in strengthening staff capabilities in the regulation and supervisory institutions.

16 Exchange rate: 1,300TSh=1US$.

5
Data, variables and indicators

5.1. Data

Ideally, use of network analysis tools should be based on the complete list of MFIs operating in a country. For Peru, we have come rather close to this target as many organisations report to MixMarket, the microfinance data service set up by the MIX[17] and a major reference for the industry. Accordingly, we have identified as wholesale borrowers the 64 Peruvian MFIs that report to it; lenders are those that are mentioned as such by these MFIs (127 organisations).

For Tanzania, this has been more difficult as only 13 MFIs report to MixMarket. Therefore, we have completed the database with information from TAMFI, the Tanzania Association of Microfinance Institutions,[18] to obtain a total of 19 organisations. Extra care has been necessary to distinguish between the roles of borrowers and lenders in the wholesale market, as both are present in the two websites. We have not included individual SACCOs, too difficult to map, but three registered networks of SACCOs, namely SCCULT, Dunduliza Ltd. and Usawa Kilimanjaro Ltd. A list of 26 lenders has been derived from borrowers' reports.

For Tamil Nadu, the list of borrowers has been derived from MixMarket and the latest Bharat Microfinance Report of Sa-Dhan, a network of microfinance actors in India.[19] We have included all MFIs that are either headquartered in Tamil Nadu, or have operations there even if their headquarters are in another state in India; however, we have left out those for which no data were available (except a short summary provided by Sa-Dhan). The result is a list of 36 organisations. As for the other two countries, lenders are those reported by borrowers (89 organisations).

The primary sources of information on lending relationships are the audited financial statements of borrowers for the financial year in question, most of which are available from MixMarket. A lending relationship is recorded if there is an outstanding amount due from a borrower to a lender on the last day of the financial year according to present accounting rules (i.e. for 2008, on 31/12/2008 for Peru and Tanzania, and on 31/03/2009 for India). Occasionally, it has been necessary to complete this information with rating reports, as available on MixMarket or the homepage of The Rating Fund, a joint donor initiative aiming at increasing the availability of high-quality reporting on microfinance.[20] Both audited financial statements and ratings contain information that is verified by accredited third parties and hence ensure reliability.

We obtained further information during fieldwork in 2009-10, in particular by Financiera Edyficar (Peru), PRIDE (Tanzania) and BWDA-BFL (India). In limit cases in which neither financial statements nor rating re-

17 http://www.mixmarket.org/
18 http://www.bot-tz.org/mfi/Default.asp?Menu=TAMFI
19 http://www.sa-dhan.net
20 http://www.ratingfund2.org

ports were available, we found information on lending partnerships on MFIs' websites. Overall, this happened rarely, but more often in the case of unregulated MFIs that are not subject to strict reporting requirements, particularly in India. As these data are not verified by third parties and web-site updates are not always systematic, the related findings must be taken with some caution.

Attributes of MFIs (legal status, age, size, capital structure, indicators of profitability and outreach) are taken from MixMarket; hence, they are only available for the organisations listed there. These are self-reported data, less dependable than those verified by rating agencies or auditors, but the advantage is that they are presented homogeneously across organisations and facilitate comparison. For Tamil Nadu, they have been completed with data from the *India Top 50 Microfinance Institutions Report,* an initiative by CRISIL, a specialized rating agency (2009) which includes 19 of the 36 organisations in our sample, and also provides comparable information.

Due to uneven reporting criteria across organisations, lending ties are coded as binary variables (absence/presence of a tie), without considering amounts. Likewise, we do not distinguish between secured and unsecured loans, or between subsidised and commercial loans. For the same reason, whenever a loan is provided by a joint initiative of two or more organisations (e. g. Hivos-Triodos), or by a fund created by pooling resources from different providers (e. g. Locfund), only the grant manager or the main representative of the pool is listed as the lender. Similarly, we sometimes pooled information on loans from related organisations (e. g. parent company and subsidiary) whenever there was ambiguity on the actual lender. Grants, in-kind donations, equity participations, and other types of investments or partnerships are not considered.

The best-quality data are those for Peru, as lending ties have been derived primarily from audited financial statements and most organisations report to MixMarket, with regular updates. The information for India is also rich though there are some missing data and a higher proportion of less reliable information derived from websites. The proportion of missings is highest for Tanzania, where organisations' limited use of the Internet has prevented us from collecting even second-best information.

5.2. Variables and indicators

The table below summarizes our choice of variables and indicators to test the hypotheses indicated above. It largely reflects standard usage in the literature. All monetary amounts are reported in US dollars.

Technically, the wholesale lending network is conceptualized as a two-mode network (Borgatti & Everett 1997), with lenders constituting one mode and borrowers constituting another mode. They constitute two entirely different sets of actors; relationships can exist between one mode and the other, but not within each mode.[21]

21 As mentioned in section 2, there are cases in which the distinction becomes blurred but they correspond to different competitive situations and therefore, they must be conceptualised differently. For this reason, they are excluded from this analysis.

Variables	Indicators
Size	Total assets.
Age	Number of years of operation, from start date to 2008.
Deposit mobilisation	Amount of deposits collected.
Profitability	Return on Assets (ROA). Because debt/equity levels vary widely across MFIs, comparison of financial performance is best captured using ROA rather than ROE (Return on Equity).
	Operational Self-Sufficiency (OSS) = Financial Revenue / (Financial Expense + Net Impairment Loss + Operating Expense).
	Rating, as a binary variable (whether or not the MFI has been rated over 2006-8).
Social performance	Average loan balance per borrower / GNI per capita.
	Total number of borrowers.
	Percentage of women borrowers.
	Social rating, as a binary variable (whether the MFI had a social rating over 2006-8 and/or reported to the MixMarket social performance survey of 2008).[22]
Number of lenders	In-degree (i.e. number of incoming ties) in the wholesale lending network.
Number of lenders of a given type	In-degree in the 2008 wholesale lending network, weighted by lender type (dummy) variable.

Table 6
Variables and indicators

For brevity, we only report analysis of the lending network for 2008. This is because very similar patterns are observed in 2006 and 2007, and the degrees (number of outgoing and incoming lending ties) are highly correlated over the three dates. However, we still include indicators of profitability and social performance for 2006-7. This is because lending relationships are often long and those observed in 2008 may have originated earlier, thereby requiring knowledge of MFI characteristics in previous years.

22 Social rating is a recently introduced reporting framework aiming to assess the non-financial performance of a MFI, interpreted as institutional capacity to pursue its social mission and to achieve development goals. It is offered by leading rating agencies in the industry. The MIX has launched an analogous initiative in 2009, based on voluntarily provided 2008 data (http://www.themix.org/standards/social-performance).

5.3. Aggregate indicators

The table below summarizes the characteristics of MFIs in our threefold dataset. The data largely mirror variation in size, maturity, degree of competition and regulation of the microfinance market as outlined in section 4. In particular, accessibility of data as reflected in the percentage of missings and availability of ratings depend on the degree of transparency of the system. There is also strong within-country variation, though, and the average indicators reported in the table do not fully account for differences between local organisations –particularly strong in Tamil Nadu and Peru, less so in Tanzania.

	India (Tamil Nadu)	Peru	Tanzania
Number of MFIs	36	64	19
% missing data	28%	4.70%	58%
% regulated	42%	64%	21%
% rated in 2006-8	64%	61%	11%
% deposit mobilising	8%	47%	42%
Average age (years)	11	16	9
Average gross loan portfolio	35,710,310	65,601,327	8,586,381
Average total assets	49,490,885	79,340,000	12,760,897
Average number of borrowers	295,000	43,610	27,347
Average debt/ equity ratio	3.77	4.72	7.02
Number of lenders	89	127	26
% domestic	79%	45%	25%
% international	21%	55%	75%

Table 7
Aggregate sample characteristics.

Regarding lenders, international ones are a mere 21% in India; about half the total in Peru (55%) and an overwhelming majority in Tanzania (75%). Of the domestic lenders, private and public banks dominate in India (70%); while in Peru all types of domestic and international lenders co-exist in almost equal share. In Tanzania, on the other hand, the international lenders are mainly NGOs and SRIs. These differences reflect the regulatory factors outlined in section 4. The strong presence of the Indian banking sector results from its legal obligation to invest in government-defined priority sectors and from remaining restrictions to inflows of foreign direct investment. The involvement of foreign NGOs and SRIs in Tanzania relates to the less mature nature of its microfinance market, still dependable on charitable and governmental donors rather than commercial lenders, and where international actors typically offer better loan contracts than resource-constrained local banks. In contrast, Peru offers a more enabling environment, equally open to all types of lenders.

6 Analyses

6.1. India (Tamil Nadu)

Figure 1 represents the wholesale lending network for Tamil Nadu in 2008. MFIs are represented as **blue squares** and lenders as **red circles**; a tie between a **blue and a red node** corresponds to a lending relationship, as defined above. The size of **blue nodes** (MFIs) is proportional to their number of lenders and, conversely, the size **of red** nodes (wholesale lenders) is proportional to the number of their local MFI borrowers.

The network exhibits strong cohesiveness in that all actors are directly or indirectly connected to all others, with very few exceptions mostly due to missing data. Visualisations of 2006 and 2007 data (not shown here) reveal a similar pattern, thus providing evidence of a remarkable stability in the structure of lending partnerships; this is partly because many wholesale loans are for a term of more than one year, with an average of 39 months in India.[23] Most MFIs have at least some lenders in common, and they are all similar in terms of *type* of their lenders —with a generalised tendency to partner with domestic financial institutions, mainly banks. To complete this analysis, Table 8 shows the sign of correlations between number of lenders in the Tamil Nadu wholesale lending network of 2008, weighted by type of lender (columns), and key attributes of MFIs for 2006-8 (rows).

The table shows that hypotheses H1.1 and H1.2 (section 3) are partially confirmed in that lenders do not overwhelmingly favour large and mature MFIs. This is partly because some recently created Indian MFIs originate in fact from the microfinance arm of pre-existing large organisations (mainly NGOs), and became independent to better cope with regulations and have more opportunities for growth. Overall, H1.3 is confirmed, suggesting a substitution effect between deposit mobilization and funding through debt, although some nuances are in order especially —as expected— for financial institutions and SRIs. Regarding financial performance indicators, ROA and having a rating report are positively correlated with number of lenders of all types, while this is more ambiguous for OSS; hence, it can be inferred that there is some tendency for lenders to prefer profitable borrowers, but with no major difference across

23 Source: MixMarket, funding structure database

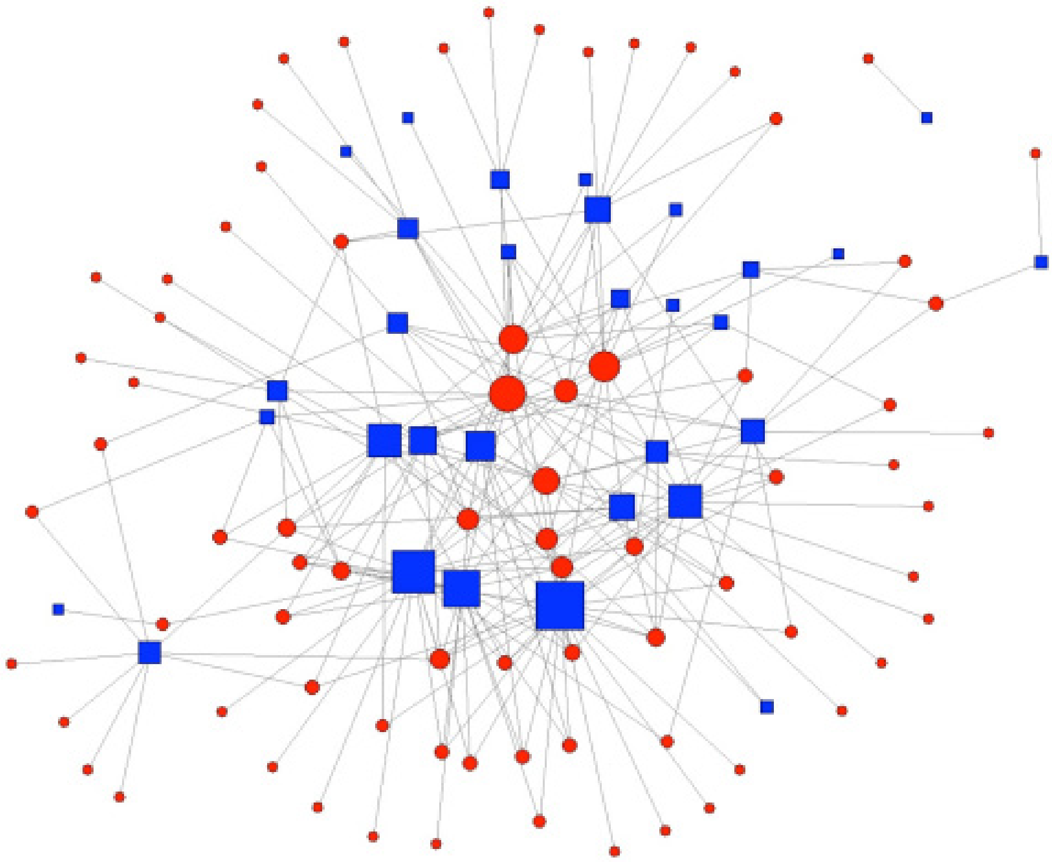

Figure 1
Wholesale lending network, Tamil Nadu 2008. MFIs (blue) and their lenders (red); a tie is a loan. Size depends on number of lending partners.

types of lenders, thus largely confirming H2. On social performance, H3 is corroborated to the extent that the number of women borrowers is positively correlated with the number of NGO lenders, while other indicators exhibit less clear correlations with partnership type and number. Social rating matters little as only four MFIs in the sample had such an evaluation in 2006-8. On the whole, these results suggest that MFIs exhibit greater variation in their (social and financial) performance than in the overall structure of their lending partnerships.

6.2. Peru

Along similar lines, figure 2 represents the wholesale lending network for Peru in 2008. The **colour** and size conventions are the same as above.

As in Tamil Nadu, the network exhibits strong cohesiveness as all actors are connected to all, with very few exceptions. Again, visualisations of 2006 and 2007 data (not shown here) reveal a similar pattern, largely owing to long-term loans (57 months on average for Peru[25]). Among the largest borrowers are MFIs of different types, both regulated (Edpymes,

			Lender type				
			GOV	SRI	NGO	FIN	International
Basic MFI attributes	Regulated		-	+	+	+	+
Basic MFI attributes	Age		+	-	-	+	+
Basic MFI attributes	Total assets (size)	2008	-	+	-	-	-
Basic MFI attributes	Total assets (size)	2007	-	+	-	-	-
Basic MFI attributes	Total assets (size)	2006	-	+	-	-	-
Basic MFI attributes	Deposits	2008	-	-	-	-	-
Basic MFI attributes	Deposits	2007	+	+	-	+	+
Basic MFI attributes	Deposits	2006	-	+	-	+	+
Financial perfor-mance	ROA	2008	+	+	-	+	-
Financial perfor-mance	ROA	2007	+	+	+	+	+
Financial perfor-mance	ROA	2006	+	+	+	+	+
Financial perfor-mance	Rating		+	+	+	+	+
Financial perfor-mance	OSS	2008	-	+	-	-	-
Financial perfor-mance	OSS	2007	+	-	-	+	+
Financial perfor-mance	OSS	2006	+	-	-	+	-
Social perfor-mance	% Women borrowers	2008	+	+	+	+	+
Social perfor-mance	% Women borrowers	2007	-	-	+	-	-
Social perfor-mance	% Women borrowers	2006	-	+	+	-	
Social perfor-mance	Number of Borrowers	2008	-	+	-	-	-
Social perfor-mance	Number of Borrowers	2007	-	+	-	-	-
Social perfor-mance	Number of Borrowers	2006	-	+	-	-	-
Social perfor-mance	Average loan / GNI per capita	2008	+	-	+	-	-
Social perfor-mance	Average loan / GNI per capita	2007	+	+	+	-	-
Social perfor-mance	Average loan / GNI per capita	2006	+	-	-	-	-
	Social rating		+	+	-	+	+

Table 8
Correlations between number of lenders by type, and borrowers' attributes (Tamil Nadu).[24]

Financieras) and unregulated (large NGOs such as Prisma). Although some lenders are common to all types of MFIs, differences appear: Oikocredit, a Dutch SRI, is the main lender for unregulated institutions while COFIDE, a Peruvian second-tier bank, is the main lender of regulated MFIs. To complete this analysis, Table 9 provides the sign of correlations between number of lenders of Peruvian MFIs in 2008, weighted by their type (columns), and attributes of these MFIs for 2006-8 (rows).

H1.1 is partly confirmed in that size matters only for governmental and financial lenders, but not for SRIs and NGOs; H1.2 is disconfirmed as ma-

24 Source: authors' elaboration. To read the table, consider for instance cell «Regulated-GOV»: it means that regulated MFIs tend to have a relatively lower number of lenders that are governmental agencies or inter-governmental institutions.

25 Source: MixMarket, funding structure database.

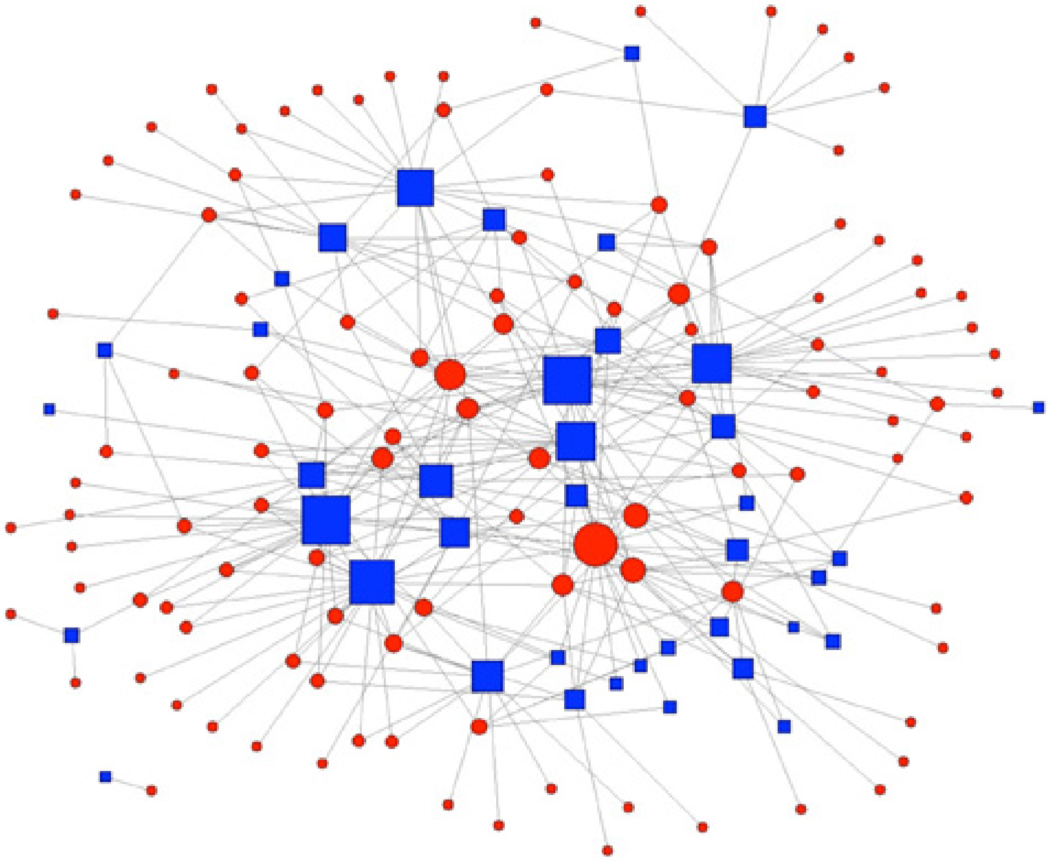

Figure 2
Wholesale lending network, Peru 2008. MFIs (blue) and their lenders (red); a tie is a loan. Size depends on number of lending partners.

turity does not seem to matter; H1.3 is confirmed, suggesting a substitution effect between deposit mobilization and funding through debt, for all types of lenders. Regarding financial performance indicators, ROA and having a rating report are consistently positively correlated with number of lenders of all types, while OSS is more ambiguous; hence, it can be inferred that there is a tendency for lenders to prefer profitable borrowers, but with no major difference across types of lenders, thus largely confirming H2. Of the social performance indicators, H3 is confirmed to the extent that social rating is positively correlated with number of lenders of all types, the number of women borrowers is positively correlated with the number of NGO lenders, and total number of borrowers and average loan divided by GNI per capita are associated with a higher number of governmental lenders.

Notice also the first row, showing that financial institutions lend more to regulated than to unregulated MFIs; this is also true of governmental agencies, while SRIs and NGOs tend instead to prefer unregulated MFIs, and so do the majority of international lenders. This reveals some degree of specialisation, despite network cohesiveness, thereby confirming the impression derived from visualization (figure 2).

			Lender type				
			GOV	SRI	NGO	FIN	International
Basic MFI attributes	Regulated		+	-	-	+	-
	Age		-	-	-	-	-
	Total assets (size)	2008	+	-	-	+	+
		2007	+	-	-	+	+
		2006	+	-	-	+	-
	Deposits	2008	-	-	-	-	-
		2007	-	-	-	-	-
		2006	-	-	-	-	-
Financial perfor-mance	ROA	2008	+	+	+	+	+
		2007	+	+	+	+	+
		2006	+	+	+	+	+
	Rating		+	+	+	+	+
	OSS	2008	+	+	+	-	-
		2007	+	+	+	-	-
		2006	+	-	-	-	-
Social perfor-mance	% Women borrowers	2008	-	-	+	-	-
		2007	-	+	+	-	-
		2006	-	+	+	-	-
	Number of Borrowers	2008	+	+	-	+	+
		2007	+	-	-	+	+
		2006	+	-	-	+	+
	Average loan / GNI per capita	2008	+	-	-	-	-
		2007	+	-	-	-	-
		2006	+	-	-	+	+
	Social rating		+	+	+	+	+

Table 9
Correlations between number of lenders by type, and borrowers' attributes (Peru).[26]

6.3. Tanzania

Figure 3 represents the wholesale lending network for Tanzania in 2008, according to the same principles and graphic conventions.

In striking contrast to India and Peru, this is a non-cohesive, sparse network with many small components and star-shaped sets of ties, representing MFIs that do not share any lenders. Sharp dissimilarities across organisations' patterns of relationships appear. This is partly due to the small size of the market and the fact that some MFIs are in fact

26 Source: authors' elaboration. To be read as table 8 above.

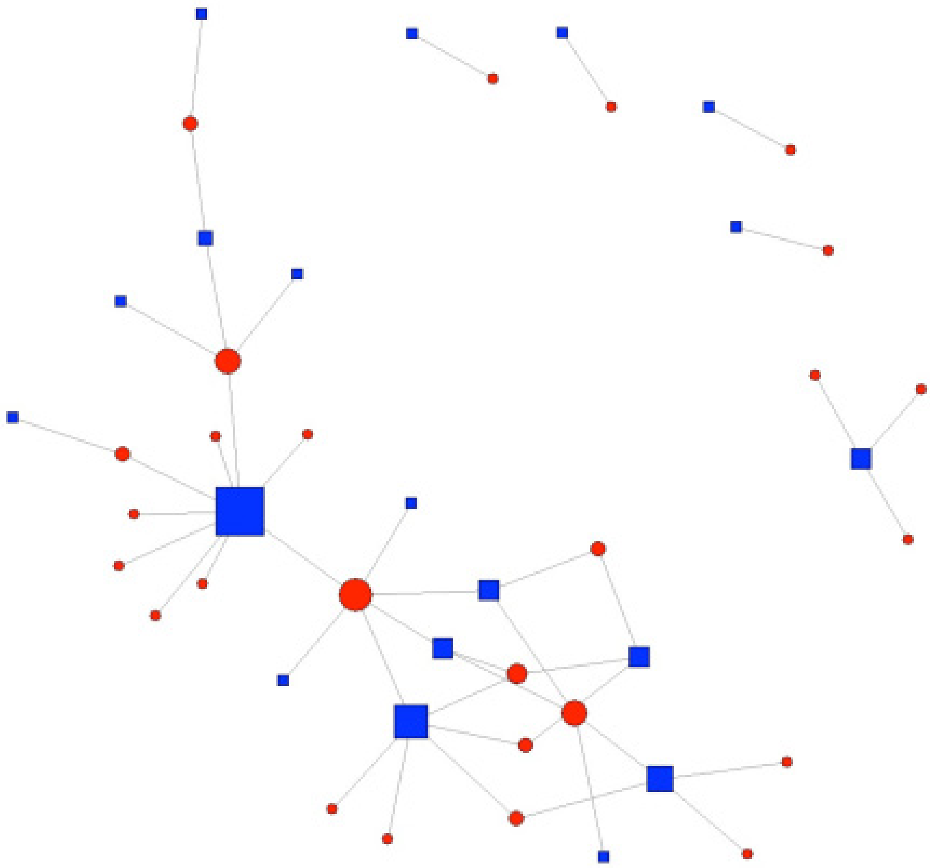

Figure 3
Wholesale lending network, Tanzania 2008. MFIs (blue) and their lenders (red); a tie is a loan.
Size depends on number of lending partners.

local subsidiaries of international parent organisations that are often their unique funders. To a certain extent, the apparent lack of cohesiveness is also an effect of limited data availability, resulting from limited transparency and weaknesses in regulation. In passing, information for 2006 and 2007 contain an even higher percentage of missing data.

Notice that the above visualisation does not include individual SACCOs but only the main networks that they have constituted; to draw a more complete picture of the microfinance market in Tanzania, it must be taken into account that many MFIs lend in turn to SACCOs, thereby forming inter-organisational «chains» from wholesale lenders to medium-level intermediaries to final retailers. In addition to the MFIs represented here, some local banks that are otherwise little active in microfinance also lend to SACCOs, thus indirectly participating in the market. This is for them a way to reach out to more potential clients, especially in underserved areas; however, these patterns blur the distinction between wholesale lenders and retail lenders, and the involvement of banks as lenders to SACCOs is an additional, albeit indirect, competitive threat to MFIs that may be difficult to address (Triodos 2007).

			Lender type				
			GOV	**SRI**	**NGO**	**FIN**	**International**
Basic MFI attributes	**Regulated**		+	-	-	-	-
	Age		+	+	+	+	+
	Total assets (size)	2008	-	+	+	-	+
		2007	-	+	+	-	+
		2006	-	+	+	-	+
	Deposits	2008	-	+	+	-	+
		2007	-	+	+	-	+
		2006	-	+	+	-	+
Financial perfor-mance	**ROA**	2008	-	+	+	-	+
		2007	+	+	-	-	-
		2006	-	-	-	-	-
	Rating		+	-	-	-	-
	OSS	2008	-	+	-	-	-
		2007	-	-	+	-	-
		2006	+	-	-	-	-
Social perfor-mance	**% Women borrowers**	2008	-	+	+	-	-
		2007	-	+	+	-	+
		2006	-	+	+	-	+
	Number of Borrowers	2008	-	+	+	+	+
		2007	-	+	+	+	+
		2006	-	+	+	+	+
	Average loan / GNI per capita	2008	-	+	+	-	+
		2007	-	+	+	-	+
		2006	-	+	+	-	+
	Social rating		NA	NA	NA	NA	NA

Table 10
Correlations between number of lenders by type, and borrowers' attributes (Tanzania).[27]

Table 10 completes this analysis by showing the sign of correlations between number of lenders in the Tanzania wholesale lending network of 2008, weighted by type of lender (columns), and attributes of MFIs for 2006-8 (rows).

The table shows that the main indicators of MFI structure and social performance are positively correlated with a higher number of lenders that are NGOs or SRIs —which as mentioned in section 5.3, are the majority for this country. Age seems to matter for all types of lenders (H1.2 confirmed),

27 Source: authors' elaboration. To be read as tables 8-9.

suggesting that it might be difficult for start-ups to attract new lenders. This might be due to the presence of MFIs that are local subsidiaries of international NGOs as mentioned above. The positive correlation between deposits and number of NGO and SRI lenders may seem odd, but it might in fact be due to ambiguities in regulation that have sometimes led Tanzanian MFIs to collect deposits without appropriate cautionary provisions. Interestingly, profitability does not seem to matter (H2 rejected) while indicators of social performance are consistently positively correlated with the number of NGO and SRI lenders —thereby confirming our H3— and with the number of international lenders. This can be explained in a context in which there is strong presence of socially-oriented foreign actors, motivated by a wish to contribute to poverty alleviation rather than looking for high returns. Notice, however, that social rating has not been included in the analysis as none of the MFIs included have undergone such an assessment in the time period considered.

7
Discussion and conclusions

We have used network analysis and visualisation tools to analyse the wholesale lending market in microfinance for Tamil Nadu (India), Peru and Tanzania, and related it to the regulatory framework and the macroeconomic environment of the three countries. The Indian microfinance market is highly advanced and mature but characterized by relatively strong government intervention, with limited involvement of foreign stakeholders. Wholesale lenders are numerous but little varied in type, with dominance of national financial institutions, both private and public. The network is cohesive, with a tendency for MFIs to share many lenders and an overall tendency to obtain funding mainly from domestic banks; MFIs exhibit greater variation in their performance than in the overall structure of their partnerships. With existing regulatory constraints, a MFI with growth ambitions may find it difficult to access new lenders (especially outside domestic banks).

In Peru, a well-regulated and mature market, several types of MFIs and lenders coexist, with an almost equal share of the market for each. The network is also cohesive but less so than in India, and some tendency towards specialisation can be detected: indeed commercial lenders have a tendency to partner with regulated MFIs while socially oriented ones tend to be associated with unregulated ones. Both financial and social performance indicators are correlated with high number of lenders of all types, though social performance is more relevant for NGO and SRI lenders. These results suggest that Peruvian MFIs can relatively easily access new funding from lenders of the type most consistent with their characteristics, specialization and performance; an appropriate regulatory framework offers opportunities for all types of market participants, and generalized compliance and good performance create spillover effects that benefit the industry as a whole.

In Tanzania, a smaller-size and less mature market, we observe a non-cohesive, sparse network with sharp dissimilarities across organisations and many «stars», namely MFIs not sharing any lenders; inter-organisational «chains» are formed, from wholesale lenders to medium-level intermediaries to final retailers, as a way to reach out to more potential clients, but also making competitive conditions more difficult; international lenders, mostly NGOs and SRIs, are dominant and generally offer better terms and conditions than domestic ones. Overall, the charitable aspects of microfinance prevail over its commercial aspects, and social performance indicators are better predictors of number of lenders than financial solidity measures. These findings suggest that access to new funding sources may be rather difficult regardless of MFI type, size and performance.

Overall, it appears that in India and Peru, MFIs have found ways to manage their partnerships that are consistent with the need to strike a balance between financial sustainability and social development. Dense network relationships accompany efforts of microfinance to gain legitimacy in financial markets while still attracting socially-motivated partners.[29] The industry is stronger in Peru than in India, however, due to a more balanced involvement of different types of stakeholders and more limited exposure to any problems that might affect the national banking system. In Tanzania, this does not happen and the network is sparser, with a higher trade-off between social and financial aspects, and greater vulnerability in case of retreat of foreign charitable providers of funding.

The observed cross-country variation depends partly on economic and social factors and even more on differences in governance and regulation. The Peruvian experience compared with the cases of India and Tanzania suggests that a more enabling regulatory environment may improve the capacity of microfinance to engage in funding partnerships with all types of lenders.

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28 It should be noted that this research covers the state of Tamil Nadu only, which seems to have been less affected by the current crisis in the neighbouring state of Andhra Pradesh. The reason for this differing effect appears to be due to the type of lenders that support MFIs in Tamil Nadu and the governance set up in this state. For further details, please read Marr and Tubaro (2011).

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