

Schmidt, Reinhard H.; Von Pischke, John D.

Working Paper

Networks of micro and small enterprise banks: A contribution to financial sector development

Working Paper Series: Finance & Accounting, No. 126

Provided in Cooperation with:

Faculty of Economics and Business Administration, Goethe University Frankfurt

Suggested Citation: Schmidt, Reinhard H.; Von Pischke, John D. (2005) : Networks of micro and small enterprise banks: A contribution to financial sector development, Working Paper Series: Finance & Accounting, No. 126, Johann Wolfgang Goethe-Universität Frankfurt am Main, Fachbereich Wirtschaftswissenschaften, Frankfurt a. M., <https://nbn-resolving.de/urn:nbn:de:hebis:30-17625>

This Version is available at:

<https://hdl.handle.net/10419/76792>

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FACHBEREICH WIRTSCHAFTSWISSENSCHAFTEN

Reinhard H. Schmidt / J.D. Von Pischke

**Networks of Micro and Small Enterprise Banks:
A Contribution to Financial Sector Development**

No. 126

March 2005 (with updated figures)



WORKING PAPER SERIES: FINANCE & ACCOUNTING

REINHARD H. SCHMIDT AND J.D. VON PISCHKE*

**NETWORKS OF MICRO AND SMALL ENTERPRISE BANKS:
A CONTRIBUTION TO FINANCIAL SECTOR DEVELOPMENT**

Frankfurt and Washington

No. 126

First Version Jan. 2004

This version March 2005 (with updated figures)

ISSN 1434-3401

A French version (with earlier figures) has been published in
Technique Financière et Développement, Vol. 74, April 2004, pp.

* Reinhard H. Schmidt is the Wilhelm Merton Professor of International Banking at the Goethe-Universität in Frankfurt (Germany). His email address is rschmidt@wiwi.uni-frankfurt.de. J.D. Von Pischke is the president of Frontier Finance International, a consulting firm based in Washington D.C. working in the area of development finance. His email is jdvp@erols.com.

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Abstract

The paper is a follow-up to an article published in *Technique Financière et Développement* in 2000 (see the appendix to the hardcopy version), which portrayed the first results of a new strategy in the field of development finance implemented in South-East Europe. This strategy consists in creating microfinance banks as greenfield investments, that is, of building up new banks which specialise in providing credit and other financial services to micro and small enterprises, instead of transforming existing credit-granting NGOs into formal banks, which had been the dominant approach in the 1990s. The present paper shows that this strategy has, in the course of the last five years, led to the emergence of a network of microfinance banks operating in several parts of the world.

After discussing why financial sector development is a crucial determinant of general social and economic development and contrasting the new strategy to former approaches in the area of development finance, the paper provides information about the shareholder composition and the investment portfolio of what is at present the world's largest and most successful network of microfinance banks. This network is a good example of a well-functioning "private public partnership". The paper then provides performance figures and discusses why the creation of such a network seems to be a particularly promising approach to the creation of financially self-sustaining financial institutions with a clear developmental objective.

Keywords: Development finance; institution building, credit rationing; corporate governance, networks

JEL-Classification: O 16, 17

I. Introduction

This paper is a follow up of an article published in *Technique Financière et Développement* four years ago¹ which discussed a new approach to financial sector development. That paper reported first efforts and successes of a strategy of creating "de nouvelles banques [de micro-entreprise] plutôt que transformer des institutions existantes". It discussed in detail the experience of four "greenfield" or newly founded banks for small and micro-enterprises. Four years later, much more can be reported about this experience, which we claim is so far unique and, as we will argue, makes an important contribution to the development of the financial sectors of those countries in which the network banks operate. Still today, the salient feature of the financial systems of most developing countries and transition economies is the extent to which they are segmented or dualistic. The banks and the network aspire to help mitigate financial system segmentation.

The paper of 2000 focussed on micro-enterprise banks in Albania, Bosnia & Hercegovina (or B&H), Georgia, and Kosovo. Table 1 compares indicators of these banks between 1999 and 2004.

	FEFAD-Albania		MEB B&H		MEB Georgia		MEB Kosovo	
Founded as a bank in	March 1999		October 1997		May 1999		January 2000	
Year end of	1999	2004	1999	2004	1999	2004	June 2000	2004
Total assets (in Mio. \$ or €)	18,2	148.2	9,2	71.1	5,5	101.7	50,6	344.4
Number of outstanding loans	1.007	22,025	2.171	20,119	1.635	16.680	177	29,907
Volume of loans outstanding (in Mio \$ or €)	7,3	79.2	7.1	61.4	3.1	68.8	0,9	109.9
Deposits (in Mio \$ or €)	8,6	116.8	0,6	20.6	0,1	34.0	46,8	310.3
No. of branches	3	12	4	10	2	9 (plus 10 outlets)	3	7
Total staff	62	368	54	280	40	540	80	388
Full year profit (after taxes in Mio \$ or €)	0,07	0.64	0,25	1.2	-0,14	0.8	--	3.9
Arrears rate	1,2%	0.9%	0,3%	0.7%	1,2%	1.8%	0,0%	0.44%

Table 1: Key indicators of four micro-enterprise banks. 1999 figures are in US-\$, 2004 figures in Euro where appropriate. These and other data have been provided by IMI.

There has been a tremendous growth in terms of lending activity and deposit-taking, which almost naturally goes together with a substantial increase of institutional and organisational complexity. However, two features have not changed at all: the portfolio quality and the target group orientation of the banks. Portfolio quality can be measured by the arrears rate indicating

¹ See Schmidt and Zeitinger (2000) and the updated English language version in Schmidt and Zeitinger (2001).

the fraction of loans for which at least one payment is overdue for more than 30 days (see last line of Table 1). The most telling indicators of target group orientation are the average size of the loans and the proportion of loans below 10.000 € As when they were created, the banks remain clearly focussed on the small end of the market or, in other words, on clients which have typically not had access to loans from other financial institutions. The market segment of small and very small – or “micro” – and small enterprises (MSEs) remains grossly under-served or completely disregarded by existing banks in almost all developing and transition economies. It may now be easier to obtain a loan of above 50,000 € than it was five years ago. But especially for small businesses people, loans below this size are still very hard to get. The average loan size of the four banks covered in Table 1 has been 3.700 \$ at the end of 1999 and stands slightly below 3.600 € at the end of 2004, and the fraction of genuine micro-loans below 10.000 € still stands at around 93 percent.

Probably the most important feature of change, which cannot be reflected in Table 1, is the network to which these four banks belong. The focus of this paper is on the development of this network. In this paper, we will characterise the development of a network of MSE banks which operate in developing countries and transition economies. This network has been set up and is coordinated by two closely related companies located in Frankfurt, Germany. One is the investment company Internationale Mikro-Investitionen-AG (IMI), and the other one is the consulting firm Internationale Projekt Consult GmbH (IPC). After placing this experience into the broader contexts of financial development and development policy in section II, we discuss the development of this network and the merits and the problems of creating new banks within a network structure in section III. Section IV summarises and concludes.

II. The context and the background

1. The importance of financial sector development and of small and very small enterprises

For bankers, politicians and policy-oriented economists, it has always been self-evident that the financial sector of a country is of great importance for economic development. Probably the best known author who has emphasised this fact was Schumpeter, who, in his theory of capitalistic development (1911), portrays the banker as the partner of the entrepreneur, to whom he ascribes the role of innovation based on “creative destruction”.

However, under the influence of the neoclassical theory of economic growth the economic profession largely lost sight of the importance of the financial sector for a long time. Even the so-called new theory of economic growth, associated with the names of Lucas and Romer,

only acknowledged the importance of finance in general, but did not give it the attention which it deserves.

It was mainly practice and policy driven research which rectified this deficiency. The beginning was made in the 1989 World Development Report (World Bank, 1989), dedicated to the relationship between development and finance. This led to a wave of empirical studies which confirmed unambiguously that finance is important for economic development and that – to quote King and Levine, two pioneers in this line of research - “Schumpeter might be right” (1993). This is now generally accepted and has started to influence development policy.

However, almost all self-employed people and owners of small and very small commercial and industrial establishments are not “Schumpeterian dynamic entrepreneurs”. Instead of innovating and initiating industrial revolutions, their concern is to assure a decent living for themselves, their families and the few employees which they may have. In this respect, Schumpeter was *not* right, since he did not hold these “survivors” in high esteem, even though they form the basis of economic well-being and moderate progress in most countries. This applies in particular to developing countries and the economies in transition, in which the large state-owned enterprises no longer provide most employment: Overall, about half of the employment in these countries is in small and micro-scale establishments. Just like existing large firms and the few innovating entrepreneurs, the owners of small and very small businesses seek credit and other banking services.

Most established banks do not cater to these people, and this is for two reasons. One is that they do not know how to lend to them at reasonable costs and risks; the second reason is that they do not consider this clientele as commercially attractive. This assumption is not correct, but it seems sufficiently convincing to most established bankers to justify their failure to engage a large part of the economically active population.

It is exactly this neglected clientele which forms the target group of SME banks. They are not the poorest of the poor, who have other and more urgent concerns than credit, and might only be pushed into indebtedness if they were to take out loans; and they are not those who have access to credit from established banks anyway. They are the lower middle class of developing and transition countries. Though this does not apply to each and every individual small or micro-enterprise, as a group these firms have the economic potential to generate income and employment; and they can pay the price of loans, provided that this price reflects moderate costs.

Microfinance is not about picking potential Schumpeterian entrepreneurs, but about making a decent form of survival possible and easier, thereby enabling small and micro-scale establishments to grow at least moderately. Enabling and encouraging business people to aspire and achieve some growth in their businesses is extremely important for economic development. But in the present situation in most countries, the incentives to aspire even moderate growth are weak, and most micro-entrepreneurs are well aware that growth can lead them into a dilemma: Loans from informal lenders and from credit granting NGOs are available in most countries, but they are very costly and rarely exceed 3 to 5.000€ Thus, they are no longer sufficient for growing enterprises. At the same time, these enterprises are too small for loans from conventional banks. The combination of an upper limit for informal and semi-formal loans and a lower limit for bank loans lead to a gap in the supply of credit which seriously impedes the growth of individual firms and aggregate growth. One perspective of developmentally responsible microfinance is to bridge this gap and thereby to enable and encouraging growth.²

2. Traditional approaches to financial sector development and MSE financing

Development policy with respect to financial sector development and MSE financing has gone through various stages. For many years after the Second World War, development finance mainly consisted of transferring large amounts of foreign funds to governments and big, often state owned, enterprises for large-scale projects. The expectation was that growth of big firms and improvements of infrastructure would “trickle down” to improve the situation of the general population including MSEs. In some few cases, this strategy worked well, but in most cases it only fuelled a dualistic development which made broad segments of the population poorer. It was even explicitly aimed at eliminating the informal business sector.

This policy of development finance was consistent with the general policy of financial repression, which prevailed at that time in most countries. In the early 1970s, Shaw (1973) and McKinnon (1973) severely criticised this policy. Their criticism had some impact and lead to a wave of liberalisation in some parts of the world. But contrary to early expectations, liberalisation did not increase the access to credit for small and even informal business. Banks simply had other interests to pursue in the newly liberalised environments.

At the same time, another approach to small and micro-scale business financing became fashionable and was tried out in thousands of projects during the 1980s. It consisted in channelling micro-loans through various institutions which were not banks and even made a

² See Tschach, 2002, for a formal development of this role of MSE finance.

point of not being and appearing to be bank-like. A preferred institutional form was that of credit-granting NGOs. But in general this approach also did not work, mainly because its costs were so exorbitant – and the level of professionalism so low – that there was little hope of achieving a scale of activity which would have produced cost-efficiency and ultimately financial sustainability.

A way out of this dilemma, which had numerous followers in the 1990s, seemed to be the strategy of “upgrading” credit granting NGOs and similar organisations. The earlier paper in this journal mentioned above explained why this is also not the key to success. Since the end of the millennium, our criticism has been generally accepted, paving the way for the new approach of creating target group-oriented banks from scratch.

3. Experience of MSE banking along commercial lines

In the early 1990s, the concept of commercially oriented micro-finance gained some followers, though certainly not general acceptance. For some observers and practitioners, it had become more and more obvious that merely distributing money in the legal form of small loans to poor people and micro-entrepreneurs and of just hoping that these borrowers would pay the money back when it would be due could not be pursued on a grand scale. Therefore it could never make a contribution to the development of financial sectors and ease the problems of large numbers of small business people. To have any relevant impact, micro-finance institutions would also have to have considerable outreach, which in turn presupposes that administrative costs and loan losses are low. One benchmark, which seemed extremely ambitious at that time, was that the sum of annualised administrative costs and loan losses should not exceed 20 percent of the average outstanding micro-loan portfolio of that year. It was rightly assumed that this level of lending costs could be passed on to MSE borrowers who typically sought very small loans for a short time. Ultimately, these insights led to the creation of commercially oriented microfinance institutions in Asia and Latin America.

A first step in the development of commercially oriented microfinance was to design and implement lending techniques with low costs and built-in repayment incentives. One attempt was group lending. Another was individual lending with a strong emphasis on standardised but thorough assessment of the repayment capacity of potential borrowers and the implicit promise that a borrower who repaid his loan fully and on time would have a fair chance of getting another loan when it was requested. In combination with a heavy dose of IT to support the operations, it turned out that repayment rates could be kept sufficiently high and adminis-

trative costs sufficiently low that in principle sustainable micro-lending could become a commercially attractive proposition and therefore also a sound development strategy.

But lending technology was not enough. Financial institutions were required which were capable and willing to implement such a technology on a large scale, and which would make the implicit promise of further loans credible by signalling that they are here to stay and to be there when a client comes back for another loan. Evidently, only financial institutions which are financially sustainable – and which are recognised as being stable - would be able to make this promise of later rewarding sound repayment of loans, and only sustainable institutions would be in a position to attract deposits which could be used for lending. This is how institution building became part of the agenda of development finance.

Apart from the operational challenge which institution building posed, there were the more far-reaching and more fundamental questions of governance and ownership of the micro-finance institutions which were to be created. Ownership in developmentally relevant institutions is not just a question of political correctness or of the source of funding. Rather it concerns who would be interested and able to determine and shape the growth and the current operations of these institutions in such a way that they can become stable and grow while maintaining their development focus.

The consulting firm Internationale Project Consult (IPC) was one of the industry leaders that succeeded in setting up microfinance institutions which achieved financial sustainability in several countries in the 1990s. This was first done in Latin America, and later also in other parts of the world. But IPC learned rather soon that the conventional strategy en vogue at that time of building up formal microfinance institutions by upgrading existing NGOs was not appropriate. It takes too long, is too costly, and almost always creates opposition of those who had initially set up the institutions to be transformed. Quite rightly, these “incumbents” fear that transformation and formalisation undermine their personal influence. Therefore, they tend to resist these changes even though they would clearly be in the interests of the target population. This experience inspired IPC to look for alternatives. One of these is to build up MSE banks from scratch or as “greenfield investments”.

III. A network of MSE banks in developing and transition economies

1. The creation of an investment company to support microfinance institutions

After the Dayton Accord of 1996, IPC was commissioned to build up a microfinance bank in Bosnia and Hercegovina "from scratch". The investors were a group of international finance institutions (IFIs), including the EBRD, the World Bank affiliate IFC and the Dutch FMO.

Inspired by the practice of venture capital financing, one of them, the IFC, promoted the idea that strong incentives for the so-called technical implementer to succeed in the extremely difficult environment of post-war B&H would be created by requiring IPC to also take over an equity share in the new bank.³ Although IPC felt that they did not need this additional incentive since their professional reputation as an institution builder was at stake and that this would by itself provide a powerful incentive anyway, the consulting firm accepted the invitation to become a shareholder. This first case with a consultant as a co-investor in a new microfinance institution seemed encouraging to all parties involved in this project, and it led to making the rule out of what started as an exception. However, IPC as a family-owned “small business” did not have sufficient funds to undertake shareholdings in a number of MSE banks patterned on the successful case of the "Micro-Enterprise Bank" in B&H.

This is how the idea was born to set up an investment company which is closely related to IPC, in which IPC is the largest shareholder, but which also seeks other shareholders. This investment company, Internationale Mikro-Investitionen AG (IMI), was founded in 1998 as a joint stock corporation under German law with an initial equity of about 1 Mio. €. The group of founding shareholders were IPC, IPC Invest GbR (comprising a group of IPC staff members who believe in the commercial success of the IPC approach), the Dutch DOEN Foundation, the German DEG and the Bolivian foundation ProCredito. Thus, with one exception the original shareholders were private institutions and persons. In the course of time and as IMI made a series of investments and grew considerably, other shareholders from the ranks of the IFIs joined, first FMO in 1999, then IFC in 2000, and later the Belgian BIO and the German KfW. At the end of 2004, IMI's total equity stands at almost 67 million. Table 2 shows its current shareholder composition.

³ As Ahmed (2003, p. 73) points out, the IFC "believe(s) that an essential reason for the success is that the management service provider – IPC – participates in the ownership of these banks ... This is a model that IFC fought hard for. There were many who claimed that linking management services with ownership meant conflict of interest, whereas we believed it aligns interests."

Shareholder	Share in the equity of IMI (%)
IPC GmbH	21,8
IPC-Invest GbR	4,2
DOEN-Foundation	24,4
Pro Credito	3,5
KfW-Group (DEG & KfW)	14,9
IFC	9,3
FMO	8,5
BIO	8,2

Table 2: Shareholder composition of IMI as of end 2004

2. The IMI investments: A set of specialised banks for small and very small enterprises

It had always been the intention of the creators of IMI that this investment company should be the nucleus of a network of banks specialised in providing all kinds of financial services, and not merely credit, to small and very small enterprises in developing and transition countries. In most cases, the banks in which IMI became a shareholder, were newly founded, and set up and managed by IPC. In a few other cases, IMI invested in banks which had existed for some time, some of which had been created by IPC in earlier years.

The first IMI investments were those dealt with in the earlier article in *Technique financière et développement*. Relatively soon other banks were added to the list of IMI investments. Currently IMI has investments in 19 banks, mostly in South-East Europe and Latin America, but also one in Asia and currently three in Africa (one of them in the process of being created). Table 3 provides the original names of the banks – most of them have recently been renamed “ProCredit Bank” so that they can be recognised as being part of an international network and benefit from a common corporate identity - , the year in which IMI invested in them, their paid-in equity, the size of their current loan portfolios and the amount and the fraction of the equity which IMI currently holds.

Institution (Reporting Ccy)	First IMI Investment		December 2004			
	Date	Amount (in mio USD or EUR)	Loan Portfolio (in mio USD or EUR)	Paid-in-Capital (in mio USD or EUR)	IMI investment (in mio. USD or EUR)	IMI share (in %)
Caja Los Andes Bolivia (\$)	03/1999	0,4	113,7	10,8	7,4	68,7
MEB B&H (€)	04/1999	0,5	61,4	8,0	2,7	33,6
MEB Kosovo (€)	12/1999	0,4	109,9	10,1	1,7	16,7
MCN Haiti (\$)	01/2000	0,4	6,8	1,0	0,3	25,0
FEFAD Albania (€)	02/2000	0,8	79,1	11,8	3,8	32,5
MEC Moldova (\$)	02/2000	0,2	12,6	0,7	0,3	38,4
Financiera Confia Nicaragua (\$)	07/2000	0,5	43,6	4,5	3,7	81,3
NovoBanco Mozambique (\$)	10/2000	0,4	6,9	4,1	1,0	25,0
MFB Ukraine (\$)	11/2000	0,5	101,3	14,3	2,9	20,0
MBG Georgia (\$)	01/2001	0,2	68,8	15,5	6,0	39,0
Fianciera Calpia El Salvador (\$)	01/2001	2,4	90,3	12,6	3,2	25,1
SFE Ecuador (\$)	03/2001	1,0	43,6	8,6	6,3	73,2
ProCredit Bulgaria(€)	06/2001	1,2	139,3	17,6	3,6	20,3
MIRO Bank Romania (\$)	01/2002	0,3	70,6	19,3	3,9	20,0
Sikhaman Ghana (\$)	04/2002	0,8	4,7	2,2	0,8	35,0
MFB Serbia (€)	05/2002	0,5	121,9	9,8	1,6	16,7
ProCredit Bank, Macedonia (€)	05/2003	1,6	23,7	10,0	5,3	53,3
Angola (\$)	14/2004	4,9	1,2	4,6	2,0	42,9

Table 3: The IMI investment portfolio (current values in € or \$ as indicated)

As Table 3 shows, the IMI portfolio of equity participations has greatly increased over the past years. There are three dimensions of growth. One is the sheer number of investments; the second one is the result of the fact that the banks themselves have grown very fast (see below). In order to maintain its influence as an owner, IMI has regularly participated in capital increases which were necessary to support the growing loan volume according to established banking regulation. The third dimension of growth is that since 2002 IMI aspires to increase its ownership share in the banks because this strengthens the ties between the banks and, under certain conditions, allows the transfer of deposits from banks in the network which have surplus deposits to banks with less success in deposit mobilisation.

3. The network of shareholders

IMI has networks at two levels. One is the network of shareholders, investors and providers of technical assistance. The other one is the network of the banks themselves. The shareholder structure of eight banks in South-East Europe represented in Table 4 is largely identical. To a large extent, the IFIs which hold shares in IMI are also shareholders in the individual banks. For instance, in the case of MFB Serbia the equity is divided in six equal shares. One is held by IMI, one each by three IFIs which are shareholders in IMI (IFC, FMO and KfW), one by EBRD and one by Commerzbank. EBRD has been a major provider of technical assistance for setting up the banks and of credit lines, and is therefore a stakeholder in the network

without being an IMI shareholder. Commerzbank is a big private German bank which joined the network some time ago.

Ownership structure	Albania	Bosnia	Bulgaria	Georgia	Kosovo	Romania	Serbia	Ukraine
KfW group (DEG & KfW)	25,0%	7,7%	20,0%	10,0%	16,7%	20,8%	16,7%	20,0%
IFC	20,0%	23,1%	18,3%	16,0%	16,7%	19,0%	16,7%	20,0%
FMO					16,7%	6,5%	16,7%	
IMI	15,0%	33,6%	21,7%	39,0%	16,7%	11,9%	16,7%	20,0%
Commerzbank	20,0%	12,5%	20,0%	3,0%	16,7%	20,8%	16,7%	
EBRD	20,0%	23,1%	20,0%	20,0%	16,7%	20,8%	16,7%	20,0%
Others				12%				20,0%
Total Capital	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table 4: Shareholder composition in eight IMI banks in South-East Europe

There are three arguments in favour of having a network of owners and associated supporters. One is that it makes it easier to pursue a similar strategy and apply the same business model consistently in all banks. After all it is the adherence to the concept of having banks which pursue a clear developmental mission and are at the same time determined to do this in a commercially sound way, which allowed the network to emerge and which keeps it together. The second argument is that the similar ownership structure makes the transfer of valuable resources, that is, personnel, funds and know-how, from one institution to the other very easy. As we will show later, this transfer is essential for the business model of the banks. With a different ownership, any transfer of resources could pose a problem since it is never completely clear what a correct transfer price should be. Any transfer might imply the danger that one group of owners feels that the terms under which the transfer occurs are not in their favour. This is all the more important in the case of know-how; and know-how and learning are, again, essential determinants of success in an innovative business like commercial MSE banking.

The third argument is that the similarity of ownership greatly facilitates centralised control of the banks and furthers good governance in the entire network. Currently, this control is jointly exercised by IPC and IMI in Frankfurt. In principle, this might create an agency problem since IPC is a private company which works on a for-profit basis. However, having several shareholders in IMI also as shareholders in the individual banks and on the boards of these banks provides ample opportunities for them to monitor how well IPC and IMI manage the network and possibly also to intervene in appropriate ways if the network management should appear wanting (for details see Schmidt and Tschach, 2003).

4. The network of banks

The second level of networks is that between the banks themselves. Imagine how a bank is set up. A team of experts visits a country to determine if an MSE bank would be useful and commercially feasible there. The experts entrusted with this job have learned in other countries how to assess the demand for and the requirements of the operations of such a bank. At the next step, business systems such as the accounting and management information systems need to be put into place. These systems are taken from the other banks where their effectiveness has been tested. Moreover, local staff who will work at the new bank need to be trained. To a large extent, this is done by sending them to another bank in the network, where they gain practical experience before the new bank opens its doors. Finally, experience confirms that having the network structure in place makes it much easier to obtain a banking license. The argument that the same set of investors and managers have built up MSE banks in countries A, B and C which function well and which operate in exactly the way as the new bank will, is very helpful in convincing the bank supervisor in country D of the merits of the proposed new bank in his country. This is important since bank supervisors tend to share the common reservations of most established bankers vis-à-vis MSE banks and their viability. Together these factors explain why all IMI banks are fully operational from the day they open their doors and why the time required for setting up a new bank is relatively short.

Banking is a people business. When the bank is up and running, there will often be a person, local or foreign, who shows extreme capability and motivation. Such a person is highly valuable, but he or she may also be inclined to change jobs to further his or her career. Being able to offer him or her an advancement opportunity may not always be easy in just one bank. But if several banks operate in similar environments with English as the common working language and with a similar corporate culture, this is much easier.

Banking is also a knowledge business. It would never have been possible to create a network of banks if the experience gained in one case could not be transferred and used in other cases. Know-how transfer concerns strategic and operational aspects such as lending techniques and IT/MIS, the design of internal promotion paths, incentive schemes, product design, auditing techniques and loan documentation. Having a network of banks between which information flows freely is an efficient way of lowering the one-time costs of learning and innovation. For instance, the MSE bank in Kosovo was the first in the network – and in the country - to introduce ATMs. This was a learning experience, and it was costly. Now this knowledge is being transferred at low cost to other MSE banks in the region.

5. An assessment of the banks in the network

The network currently comprises 19 banks. Those in South-East Europe are the largest group. They have been founded between 1996 and 2003, and they are the fastest growing part of the network. The second group are the banks in Latin America. The largest two among them are by now relatively old, which explains why they do not grow as fast as the others. They were created by IPC as consultants in the early 1990s. The smallest group, the “rest of the world group”, are those in the Philippines, in Haiti and in Africa. They differ from the others in two respects. Most of them have a strong local shareholder, typically a local bank, and they are much smaller than the others. This is why we do not refer to them in what follows.

One standard of performance is the size and the growth of the loan portfolio. Currently the banks in the network have a combined portfolio of 400,000 outstanding loans amounting to almost €1,000 Mio. € As Figure 1 shows, the banks’ loan portfolios grow on average by about 30% per year in South-East Europe and slightly less in Latin America.⁴ IMI anticipates that loan portfolio growth is likely to continue for the coming years and expects the combined portfolio to exceed €3 billion (or 3,000 million) in 2008.

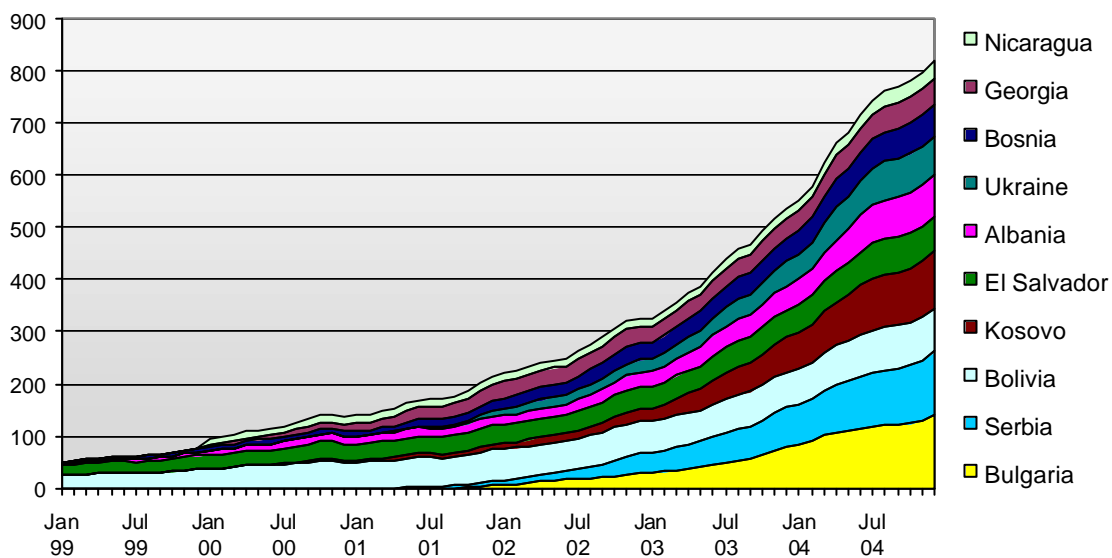


Figure 1: The development of the loan portfolio of the ten largest banks in the IMI network

⁴ The presentation in Figure 4 is adjusted for exchange rate changes, so that the growth expressed in Euros is much lower than the growth in numbers of loans or than it would be if one disregarded the 2003 development of the Euro-Dollar exchange rate. All Latin American banks, and some others, provide their accounts in Dollars.

As a group, the 18 banks currently have total assets of € 1,500 million. They employ more than 6.300 people, 99 percent of whom are local or from the respective region; only one percent are foreign advisors who, for the time being, are at the helms of these banks. Thus the banks also make a considerable contribution to human capital creation in their host countries. Since the staff is very well trained in technical and ethical aspects, and some will eventually change jobs and go to other banks, this human capital development itself is a contribution to financial sector development.

The second standard of assessment is the size distribution of loans. It seems desirable from a development standpoint and especially for poverty alleviation that the IMI microfinance banks do not lose their traditional orientation towards small and very small business clients. On the other hand, if these people obtain loans and use them wisely their businesses grow and clients come back asking for larger loans in later rounds. Moreover, in order to be stable and profitable, the banks also have to lend not only to micro enterprises, but also to small and in some cases even to medium sized enterprises.

About two out of three loans had initial sizes below 1,000 € and more than 95 percent are below 10,000 € In volume terms, the corresponding fractions are 10 percent ("micro-micro" below 1,000 €) and 45 percent ("micro" below 10,000 €). For both subgroups of micro-loans together, the average loan size is slightly above 1000 € Of course, there are regional differences. What one would call a small loan in Latin America and even more so in Africa would be regarded as a genuine micro-loan in South-East Europe. The distribution of loan sizes is almost completely stable in each of the three groups of banks or the three regions, only the relative importance of the groups is shifting in favour of the banks in South-East Europe so that the average loan size in the entire network increases.

The third assessment standard of the banks in the network is the risk of their lending operations. For this, two measures can be employed. One is capital at risk, which is defined here as the total amount of that fraction of outstanding loans for which at least one payment is overdue – i.e. not just the amount which is overdue – for 30 days or more. The other measure is the fraction of loans (in volume terms) which have to be written off per year. These measures differ between the regions. In South-East Europe, the arrears rate stands at about 1 percent, and the annual write-offs are well below 1 percent. In Latin America, both figures are at the 2 percent level. Thus, one can say that the losses which the banks experience with a clientele that is considered as particularly risky by conventional bankers are not higher than those of most banks in industrialised countries.

But of course there are risks, and the banks need to be cushioned to absorb them. Typically, of course, the write-offs become necessary for loans which have been in arrears before, so that one cannot add these two numbers. Overall, the reserves for loan losses which the IMI banks have accumulated, are about twice as high as their capital at risk.

The fourth standard of assessment is profitability, which depends in part on the age of a given bank. In the first year they can hardly be profitable, in the second year, a typical IMI bank reaches its break even point, and in its third year it starts to generate profit. In fact, by the end of 2004, only three very small banks were not yet profitable. Overall, the return on equity of the banks in the network, measured in book value terms and weighted by the banks' equity, is above 10 percent. What may be surprising to some observers is this. Even if one counted the start-up subsidies, which most of the banks have received from international donors for a limited span of time, as equity, the return on the "adjusted equity" would still be close to 10 percent in the network as a whole.⁵

One can summarise this section by saying that as a group the banks performed very well in all relevant dimensions. Not a single investment has turned out to be a failure. However, there are differences, and there have been problems with individual banks at certain times. But in all cases, these problems have been solved, and in some cases this required the active support of the shareholders in IMI.

6. The assessment of IMI as a network

The performance of IMI as a developmentally oriented investment is quite good. First, with its close cooperation with IPC, IMI has played a leading role in establishing a network of banks which is unique in its line of business. There are now several other groups, typically also set up by so-called technical implementers like IPC, which have admittedly copied the IMI model, but to our knowledge none has so far been able to assemble a sizable investment portfolio or to create new banks.

In financial terms, IMI can not be as successful as its portfolio of investments because of the costs it bears as an intermediary. But even if one measured IMI's financial performance only by the book values of its investments or, what amounts to the same thing, applied a really strict principle of prudence, it compares favourably with that of the stock market for the last four years. During this time, IMI has created a well functioning network of MSB banks, which has produced more value for IMI's investors than is reflected in its financial accounts.

⁵ All of the data reported here can be obtained on the IMI website (www.imi-ag.de), and with the exception of those referring to the end of 2003, all come from audited accounts.

What is the role of the network in this respect ? As we said above, one aspect of the network is the close cooperation between IMI, IPC and IMI's other shareholders. There is no doubt among the members in the network of shareholders and other supporters that the success of the banks owes much to the approach of building commercially and developmentally relevant microfinance institutions developed and implemented by IPC and to the close control over the banks which IPC and IMI jointly exercise. The leading local staff of the banks consider themselves as belonging to an international group of banks and not merely to their own bank.

The main role of the other investors in IMI and in the banks is that they provide the bulk of the funding for the growth of the banks. The equity of the banks has grown alongside the growth of IMI's equity, and the shareholders have supported this growth. As shareholders in the banks, the IMI shareholders and those "network affiliates" who are not IMI shareholders, have also provided or helped to secure the technical assistance which is required, or at least seemed to be required in the past, to set up a bank with a small business orientation in difficult environments in which conventional banks would either not venture at all or in which they would rather seek only well-to-do clients.

In addition to finance, the other shareholders in IMI and in the banks provide governance and moral support for the approach implemented by IPC. This could suggest still another role for the public development organisations with a mandate to support MSEs worldwide which are shareholders both in IMI and in the banks: They could have the role of guardians of the developmental mission of IMI and the banks. However, in the case of IMI – and probably in the similar networks mentioned above, which are being created – the developmental orientation of the private partners is not less than that of the public partners. Conversely, no one of the two "camps", i.e. the camps of the private and the public stakeholders, is generally more commercially oriented than the other. In fact, the similarity of values and views is probably the reason why the partnership has worked well so far (see also Ahmed, 2003).

To return to the close cooperation between the banks and the possibility of transferring best practice within the network: It is the task of IMI and IPC to make this transfer possible, and it should be apparent if a complex organisation like the IMI network is successful in its efforts to learn and to transfer and use the learning. And this is indeed the case. As isolated banks, none of them would perform as well as they do now. Moreover, learning and know-how transfer should speed up growth in business, profitability and impact. The time path of the development of the individual institutions has changed greatly over the years. Banks which have been created later take less time to reach the break-even point, at which they cover all

current costs, and the pay-back point at which their accumulated profits are sufficient to recoup the all their establishment costs. This increase in the banks' growth rates is reflected in Figure 2 which shows how the loan portfolio growth of the eight IMI banks in South-East Europe have developed during their first two to three years. The younger the banks are (see the year of establishment of the institutions on the right of the table), the faster they grow.

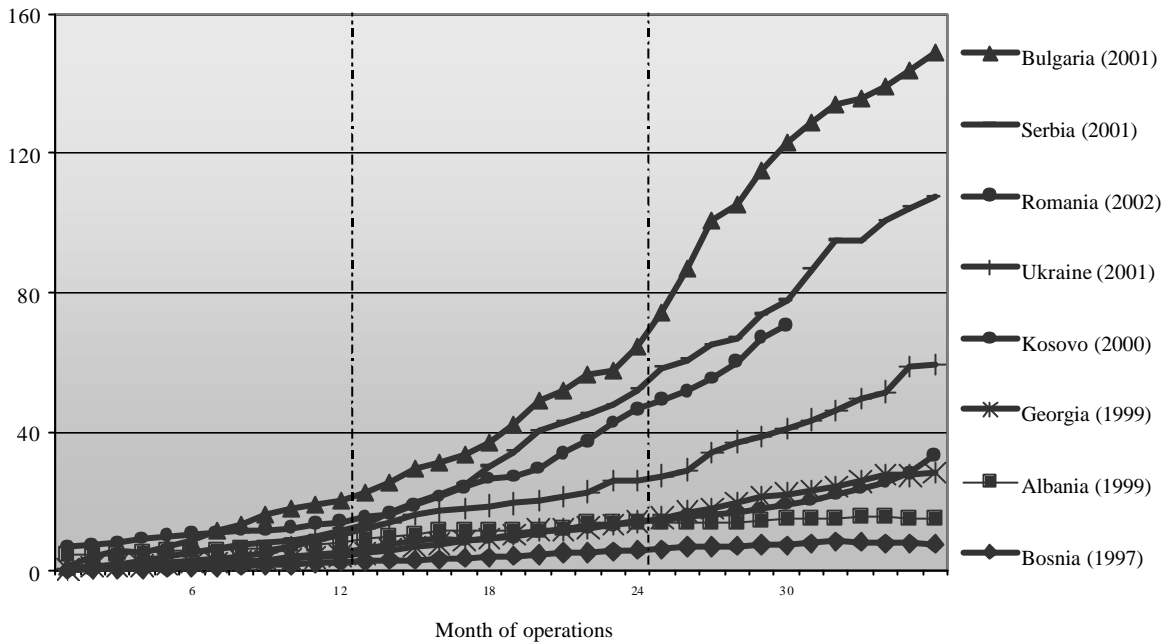


Figure 2: Loan portfolio growth of 8 IMI banks in South-East Europe (loans in Mio. €)

IV. Generalisation and conclusion

As the focus of this issue of *Technique Financière et Développement* is financial sector development, we want to conclude by taking a look at the importance of networks of specialised banks for small and very small enterprises.

The role of any MSE bank in its respective financial sector depends very much on the country in which it operates. Of course, this also applies to the IMI affiliated banks. There is the case of Caja los Andes in Bolivia, a country which has for several years now suffered from a deep crisis. This institution is not only an extremely successful microfinance provider, but it has also become the most profitable bank in terms of RoE and the bank with the highest rate of loan loss provisions in the entire Bolivian banking system. Calpia in El Salvador has maintained its status as the clear market leader in the microfinance business over many years.

MEB Georgia is now among the three largest banks in the country. Typically, however, the share of the IMI banks in the respective banking system measured in terms of total assets is moderate, whereas their shares in lending to small and very small businesses is quite high and often the highest in the country.

The IMI banks make a difference for the clientele which they aspire to serve, and thereby they also make a contribution to poverty alleviation. What may be more important, though, than the direct effect on poverty alleviation, is the function of bridging the gap, or filling in the “missing middle” in loan supply in these countries. With an average loan size of 2,000 € or USD, the IMI banks serve mostly very small local enterprises, but they are ready and able to continue supporting their clients also when they succeed in growing. In doing so they remove an important obstacle to the growth of their clientele’s businesses and contribute to the overall growth of employment and income.

A number of other aspects in which the IMI experience is relevant for financial sector development have already been mentioned. We only recall three of them here.

Together with others with a similar orientation, especially the US based ACCION and their network of affiliated MSE banks, the IMI banks introduce a professional banking attitude into the business of microfinance, hopefully replacing two other prevailing attitudes in this area. One is that of established bankers: lending to small enterprises is necessarily a loss-making business. There is now sufficient evidence that this attitude is incorrect. One can hope that examples like that of the IMI banks will also inspire conventional banks to give up their reluctance vis-à-vis the MSE clientele.⁶ The second attitude which is being replaced is that of the numerous credit-granting NGOs, which have traditionally not been conscious of the commercial aspects of their activities. Though with less determination than IPC/IMI and ACCION, many NGOs now also aspire to lower their costs, enforce repayment seriously and charge their clients cost-covering interest rates. Several donor agencies which support them have also started to exert some pressure in this direction. It can be hoped that this development will sooner or later remove distortions in local micro-credit markets and strengthen the incentives of more commercial and private involvement in the MSB market segment.

⁶ In their contribution to a volume on "The Commercialisation of Microfinance", Momartz and Schor (2002) argue that it may be premature to assume that commercial lenders will soon take over the microfinance market in developing countries. The same holds for the transition economies, where the local banks as well as the banks from Western countries have been extremely hesitant to lower the lower limits of the amounts they lend to businesses.

Secondly, the commercially oriented networks of microfinance banks have employed and trained a large number of local staff some of whom will eventually transfer their attitudes and know-how to conventional banks and thereby contribute to filling in the “missing middle” in local loan supply. Moreover, local banking authorities are increasingly willing to accept microfinance providers and to supervise them seriously.

Over the medium term, the role which “real” private capital plays in the respective banking markets will be very important. Especially in developing and transition economies the importance of private capital in banks is regarded as an indicator of financial sector quality. By now, most of the funding for MSE financing comes from public international or foreign donors, from private non-profit foundations and other private parties which have a special commitment to the clientele left behind by globalisation and transformation. This is very good for a certain time, but it cannot be the solution for long, not least because the funds of public and non-profit donors and investors are limited and because several IFIs have the rule that they must pull out of their developmental investments after a certain period. Therefore, much more private capital is needed, in the form of loans and even more so in the form of equity for MSE banks. IMI and similar networks play an important role here. Provided that they do their job well, they demonstrate that microbanking can be commercially successful and socially relevant and that the rewards of investing in MSE banks are higher and the risks lower than is generally assumed. Hopefully, this will encourage private capital to participate. Finally, and perhaps most importantly, they can also serve as an investment vehicle for those who want to combine a reasonable return with a socially responsible use of their savings. In fact, one of IMI's next challenges is to attract private capital to support the growth of the banks in the network. Success to date holds the promise that this objective can be fulfilled rather soon.

References

- Ahmed, S. A. (2003): Strengthening Financial Sectors in Transition Countries, in I. Matthäus-Maier and J.D. Von Pischke, eds.: *The Development of the Financial Sector in Southeast Europe*, Berlin et al.: Springer, 2003, pp. 71-78.
- King, R., and R. Levine (1993): Finance and Growth: Schumpeter Might be Right, *Quarterly Journal of Economics*, Vol. 108, pp.717-38.
- McKinnon, R. I. (1973): *Money and Capital in Economic Development*, Washington, D.C.: The Brookings Institution.
- Mommart, R., and G. Schor, (2002): The Role of Specialized Investors in Commercialization, in: D. Drake and E. Rhyne, eds.: *The Commercialisation of Microfinance*, Hartford, Conn.: Kumarian Press, pp. 75-90
- Schmidt, R.H., and C.P. Zeitinger (2000): Banques de Micro-entreprises: créer de nouvelles banque plutôt que transformer des institutions existantes", *Technique financière et développement*, No 59-60, pp. 131-137
- Schmidt, R.H., and C.P. Zeitinger (2001) Building new development finance institutions instead of remodelling existing ones, *Small Business Development*, Vol. 12, No.2 pp. 32-43
- Schmidt, R.H. and I. Tschach (2003): Microfinanzierung als ein Geflecht von Anreizproblemen, in: *Schriften des Vereins für Socialpolitik*, NF, Vol. 297, pp. 39-73, English version "Development Finance as a Network of Incentives", Finance and Accounting Working Paper 87a, Univ. of Frankfurt.
- Schumpeter, J. (1911): *Theorie der wirtschaftlichen Entwicklung*, Leipzig: Duncker und Humblot (English edition Cambridge: Harvard University Press 1934)
- Shaw, E.S. (1973): *Financial Deepening in Economic Development*, New York: Oxford University Press.
- Tschach, I. (2002) *The Theory of Microfinance*, Frankfurt: Lang Verlag
- Worldbank (1989): *World Development Report 1989: Finance and Development*, Washington D.C.

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Kontaktadresse für Bestellungen:

Professor Dr. Reinhard H. Schmidt
Wilhelm Merton Professur für
Internationales Bank- und Finanzwesen
Mertonstr. 17
Postfach 11 19 32 / HPF66
D-60054 Frankfurt/Main

Tel.: +49-69-798-28269

Fax: +49-69-798-28272

e-mail: merton@wiwi.uni-frankfurt.de

<http://www.finance.uni-frankfurt.de>

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