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## A Study of Four Listed Micro Finance Institutions

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**Abstract.** Compared to the size of the microfinance market, the number of Microfinance Institutions that are professionally ran like commercial banks is still scarce, and even more scarce are the MFI listed in public stock exchanges. This document focuses on four listed MFIs and reviews its business model and funding sources. The document also analyses the market price evolution of the listed shares and investigates whether investors are assigning a premium to the MFIs compared with its respective market indices.

**Keywords:** Microfinance institutions, Micro-credits, Financial Institutions, Equity; Stock Exchange

### 1.1 Listed Microfinance Institutions

Historically stock exchanges have been one of the most important sources of capital for Financial Institutions, that have used them extensively since the banking business requires dynamic capital buffers to expand the operations in growth times, and to strengthen the balance sheet in economic downturns. But Microfinance Institutions (MFI) in its modern format are a relative new subsector of the banking industry; born in the seventies, its expansion took place in the first decade of the XXI century, when raising debt was easy. Most of the MFIs in operation are yet in their early stages or work in an informal way. Only a reduced number of MIFs can be considered as professionally run institutions. Notwithstanding the sector is growing at rates of 30% every year, according to the MIX<sup>2</sup>. Presently the number of listed MFIs in global stock exchanges is small compared to the size of the microfinance industry, which in terms of loan amounts is estimated to be close to \$142 billion according to the MIX database gathering information from more than 1,890 MFIs operating around the world. Our research has identified only six

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<sup>2</sup> MicroFinance Information Exchange, [www.mixmarket.org](http://www.mixmarket.org)

listed financial institutions globally that can be considered MFIs using the MIX and CGAP<sup>3</sup> criteria *SKS Microfinance*, listed in the Indian stock exchange; *Compartamos Banco*, in the Mexican stock exchange; *Equity Group Kenya*, in the Kenyan stock exchange; *Bank Rakyat Indonesia*, in the Indonesian stock exchange; *Brac Bank*, in the Bangladeshi stock exchange; *Financiera Independencia*, in the Mexican stock exchange. In the following pages four out of the above (*SKS Microfinance*, *Compartamos Banco*, *Equity Bank Kenya* and *Bank Rakyat Indonesia*) are analyzed.

## **1.2 SKS Microfinance**

SKS Microfinance was founded in 1998 as a nonprofit organization by Dr Vikram Akula, who detected the inability of the nonprofit MFIs to scale to large operations due to capital constraints. All mayor Indian MFIs operate now on a “for profit” model (Kudva 2009). SKS Microfinance is the largest MFI in India with a loan book of approximately USD1b and a market share of 25% (Gupta et al 2010b).

### ***1.2.1 Business Model***

SKS Microfinance offers uncollateralized loans to poor borrowers, where has little or no recourse in the event of default. SKS risk management tools are:

- Joint Liability Group. Borrowers grouped in groups of five in a village. The group is jointly responsible for the repayment of individual loans which reduces the default rates. (Parameshhwar et al 2010).
- Village selection. Social and political stability is a factor to enter into a village or area
- Focus on women. SKS believes that women are more risk averse, work better in group and prioritize better the needs of the microenterprise and the family.

The main products of SKS Microfinance are the following (Gupta et al 2010a):

- Income Generation Loan. Provides working capital or asset acquisition to start a microenterprise. Loan average amount USD240 and 50 weeks loan term. Effective interest rates range from 25% to 30% (Sen 2010).
- Medium Term Loans. Similar to the Income Generation Loans but given to existing microenterprises in smaller sizes.
- SKS distributes third party insurance products. The commissions obtained from this source reached 10% of the pretax profit in 2010.

### ***1.2.2 Funding***

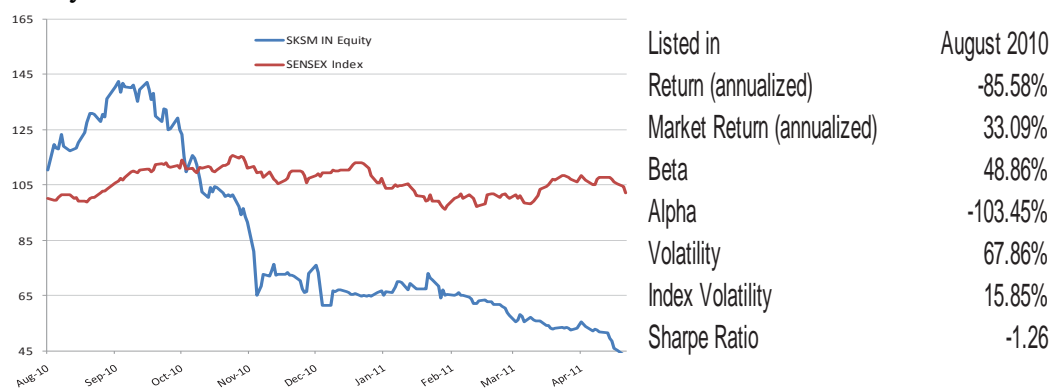
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<sup>3</sup>Consultative Group to Assist the Poor, an independent multilateral organization of the World Bank

SKS Microfinance does not have the authorization from the Indian regulator to take deposits from clients. This fact exposes the bank to interbank lending availability and volatility in the Net Interest Margin and in profitability. SKS funds its operations using borrowings from Indian commercial banks. Another key source of financing for SKS Microfinance is the securitization market (Gupta et al 2010b). SKS acts as originator of the loans, loans are ring fenced and securitized, de-recognized of the balance sheet of SKS and sold to commercial banks. The tranches sold maintain the AAA CRISIL<sup>4</sup> rating due to the low historical default rate and additionally SKS gives credit guarantees to the securitizations on a percentage of the notes. SKS acts as a servicer of the loans, payments collector, documentation agent and acts as risk manager. At mid 2011 about 30% of the total loans originated by SKS Microfinance were sold through the securitization market. SKS keeps an initial fee and receives part of the spread through the guarantees. Securitization helps the scalability of the operations of SKS, limits the risk in the bank balance sheet and improves the profitability.

### 1.2.3 Stock Exchange Evolution

SKS was the first MFI to be listed in the Indian market where MFI assets were particularly sought after. The price to earnings ratio and the price to book value ratio were particularly high when it was listed, with a P/E of 38.9 just before the price fall from 1,360 to 650. At the end of 2010 the share price of SKS fell significantly and the P/E was reduced to 12.6 in line with the rest of the listed MFIs.



**Fig. 1** SKS Stock Price Evolution and Price Regression Analysis Relative to the Sensex Reference Index. Source Bloomberg. Base 100 in Aug 2010

### 1.3 Compartamos Banco

Founded in Mexico in 1990 as an NGO with operations in Chiapas and Oaxaca, Compartamos is since May 2006 a regulated bank operating in Mexico and Central America (Rozeira de Mariz et al 2010a). In June 2007 the bank issued shares in a secondary offering in the Mexican stock exchange. In 2011 Compartamos

<sup>4</sup> CRISIL: India country credit quality rating agency

Holding, announced the delisting Compartamos Banco leaving only the holding company on the stock exchange in order to accelerate the international expansion of the bank.

### ***1.3.1 Business Model***

Compartamos Banco is the largest microcredit lender for working capital to microenterprises in Latin America (Telles et al 2009). The bank had 325 branches at the beginning of 2010 and about 7,300 employees (Rozeira de Mariz et al 2010a). The bank targets lower income population and microenterprises and uses group lending. The bank had USD910m assets at the end of 2010. The average loan is MXN5,000 (USD430). The bank focuses primarily on providing financial products to low income women for self employment projects in rural areas. The main loan products of Compartamos Banco are the following:

- Credito Mujer. (75% of Compartamos loan book is Credito Mujer). Working capital credit with 16 weeks average tenor, granted to women in groups of 12 to 50. Loan amounts range from MXN60 to MXN100,000.
- Credito Solidario, For men and women, in a group of 3 to 8 people to start small business.
- Credito Individual. Loan granted to owners of small business

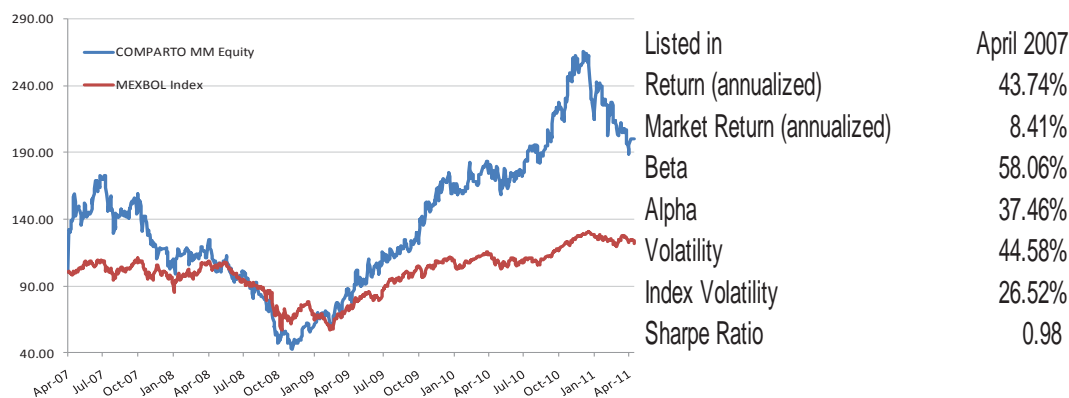
The MFI uses the Joint Liability Group schema, creating a group of women where each group member receives a loan, and all group members are liable if one member defaults.

### ***1.3.2 Funding***

The bank has recently started to accept deposits from clients. Compartamos has historically been funded through loans from other Mexican banks. The bank is also funded through long term loans from international development agencies. Compartamos has a very solid equity and Tier I capital (53% of its balance sheet) and can access the equity markets for rights issues and equity increases.

### ***1.3.3 Stock Exchange Evolution***

The stock performance of Compartamos Bank has been excellent offering an annualized return of 43% since April 2007 although suffering at the beginning of the global financial crisis in 2008. At the end of 2010 the Price to Book Value ratio of Compartamos was 8.1% and its PE ratio was 17.8%. The regression of the prices of Compartamos compared to the reference index, Mexbol, shows a relatively low beta and a very good outperformance of the bank compared to the index. The Sharpe ratio of Compartamos is close to 1, showing a good risk return profile.



**Fig. 2** Compartamos Stock Price Evolution and Price Regression Analysis Relative to the Mexbol Reference Index. Source Bloomberg. Base 100 in Apr 2007

## 1.4 Equity Bank Kenya

Equity Bank was founded as Equity Building Society in October 1984 as a provider of mortgages for the low income population. EBS operated as an informal business and the lack of controls made that by 1993 non-performing loans peaked and losses totalled KSh8 33 million. Subsequently the bank was recapitalized and in 2004 the bank migrated from a mortgage financing provider to microfinance. In August 2006, the bank was listed on the Nairobi Stock Exchange, with an initial valuation of KSh 6.3 billion. Equity Bank operates in Kenya, Uganda and Sudan.

### 1.4.1 Business Model

According to one study conducted in 2006 by Finaccess<sup>5</sup> about 38% of adult Kenyans had not access to financial services, 19% of Kenyans were served by commercial banks while 8% were served by microfinance institutions, and 35% were served by informal financial service providers (from Savings Associations to money lenders). In the 2009 Kenya Finaccess study the informal providers had diminished to 26.8%. The reduction on the informal creditors is perceived as a social improvement in Africa (Hoffmann et al 2010). Equity Bank main products are micro-loans because it offers a less competitive market and higher margin than mortgages. In 2010 Equity Bank had more than 6.3 clients. The average loan has an amount of USD1,142, with an average interest rate of 17.5% (D'souza 2010). The bank uses the joint liability group. The bank types of loan products are:

- Working Loans, for salary advances
- Micro Agricultural Loans, for farm development
- Microenterprise Loans, working capital and business growth

### 1.4.2 Funding

<sup>5</sup> Finaccess <http://www.fsdkenya.org/finaccess/index.html>

The Kenya Micro-Finance Act (2008) allowed MFI licensed by the Central Bank of Kenya to take and mobilize deposits; this had the effect of reducing lending rates. Deposits target to the previously “unbanked” and no commissions are charged (commercial banks charge commissions), deposits are competitive compared to the very risky informal deposit saving clubs. Most of the funding required by Equity Bank Group comes from customer deposits reaching USD1,294m in December 2010. Additionally most of the deposits have long maturities which help to manage the funding risk of the MFI. Equity Bank Kenya also received long term loans at low fixed interest rates from international development agencies and from the Kenyan government.

### 1.4.3 Stock Exchange Evolution

Equity Bank has grown at an annualized rate of 130% since August 2006 higher than the Kenyan Stock Index. The Price to Book Value ratio was 3.6% at the end of 2010, and the Price Earnings ratio was 14% at the end 2010. Equity Bank Kenya has a beta close to 100% with the Kenyan Index.



**Fig. 3** Equity Bank Stock Price Evolution and Price Regression Analysis Relative to the KNSMIDX Reference Index  $a_1$ . Source Bloomberg. Base 100 in August 2006

## 1.5 Bank Rakyat Indonesia

Bank Rakyat Indonesia is today the third largest bank in Indonesia. Founded in 1895, nationalised in 1945 and until 1983 controlled by the Indonesian Government. During the eighties the non performing loans reached 50% of its portfolio (Seibel et al 2010). In 1984 with the assistance of the Harvard Institute for International Development and the supervision of the Indonesian Government, the bank focused on microfinance. The 1997/98 Asian crisis destroyed most of the banking sector in Indonesia but BRI microfinance division resisted (Patten 2001). On November 2003 the the Indonesian Government listed 40.5% of the bank for USD450m. Today BRI is still 57% owned by the Indonesian Government but managed independently. BRI is the largest MFI in the world, market cap December 2010 USD4,085m, 37,000 employees and 7,000 branches (Seibel et al 2009).

### 1.5.1 Business Model

Nearly 75% of the loan portfolio of BRI is composed of microcredits, agricultural loans and similar assets. The main products of Bank Rakyat Indonesia are:

- Microdeposit Simpedes, a savings product with a lottery component.
- Microcredit Kupedes, multipurpose credit at an average annual interest rate of 28%, with monthly repayments. Used for microenterprise working capital, agricultural loans or consumer loan. The loans are individually granted or using the joint liability schema.
- Microcredit Kur is a government microcredit for agricultural purposes.

The bank uses partially the joint liability group schema, but the BRI branches have a long presence in the local communities in Indonesia and the social pressure reduces the rate of defaults. The bank is considered one of the most profitable banks in the world, with an average ROE of average of 36%.

### 1.5.2 Funding

BRI obtains funding from several sources, among which are the following:

- Equity raised in the stock markets.
- Long term loans at very favorable conditions from development agencies
- The most important source of liquidity for Bank Rakyat Indonesia the Simpedes microdeposit schema (Lum et al 2005) that has proved to be a reliable source of funding in international credit crisis (1997 and in 2008). The loans/deposits ratio is close to 75%.

### 1.5.3 Stock Exchange Evolution

Bank Rakyat Indonesia outperformed the evolution of the Indonesian index from November 2003, with an annualized return of 105% whereas the JCI index returned 63%. The Price to Book Value ratio of Bank Rakyat Indonesia was 3.6% at the end of 2010 and its PE ratio was 12%. Bank Rakyat Indonesia has a beta coefficient of 131% and a volatility that nearly doubles the JCI reference index.





**Fig. 4** BRI Stock Price Evolution and Price Regression Analysis Relative to the JCI Reference Index. Source Bloomberg. Base 100 in January 2004

## 1.6 CONCLUSION

The four listed Microfinance Institutions share similar funding sources, concentrate on the microenterprises segment and have focused on a previously uncovered market segment, providing the lower layer of the society with a new source of capital. The four MFIs enjoy a high interest margin and a favorable duration mismatch. Those common characteristics result in a high ROE, a strong capital base, and in most of the cases a high stock price return, a high alpha coefficient and a very good Sharpe ratio. The exception is SKS Microfinance that can be explained by investors overpaying the August 2010 IPO- The MFI has a solid balance sheet, strong ROE and capital ratios in line with its three peers. Equity investors seem to prefer MFIs that can take deposits. The four MFIs have been affected by the global financial crisis but to a lower extent than its respective reference markets. The stock markets investors seem to be assigning a premium to the listed MFIs compared to its reference markets due to the fact that these companies are targeting a previously unreached segment of the population that needs financial services for its development.

## 1.7 REFERENCES

- D'souza, R. (2010): *Equity Bank Ltd, Banking Big. Research Document* 7th August 2010. Genghis Capital Ltd.
- Feasley, A. (2011): *SKS Microfinance and ForProfit MFIs, Unscrupulous Predators or Political Prey? Examining the Microfinance Credit Crunch in Andhra Pradesh and Assessing the Applicability of the UN Global Compact "Protect Respect Remedy" Framework.* Cornell Law School Student Conference Papers. Paper 49. 11 April 2011.
- Gupta, A., Ramineedi, D. (2010a): *India Financials Sector.* Research Document, 15<sup>th</sup> January 2010. Credit Suisse Research
- Gupta, A., Ramineedi, D. (2010b): *SKS Microfinance: Banking the Unbanked.* Research Document, 24th September 2010. Credit Suisse Research
- Hoffmann, O., Mwangi, F.; Parmar, V. (2010): *Kenya Banking Sector. Earnings and Valuations Update.* Research Document, 12th February 2010. African Alliance.
- Parameshwar, D., Zanchi, R., Aggarwal, N.; Shankar, S.S. (2010): *Indian MFIs: Growth for Old and New Institutions Alike.* Working Paper. The Microbanking Bulletin n° 20. September 2010. Microfinance Information Exchange.
- Rozeira de Mariz, F., Martinez, S. (2010a): *Compartamos Banco. Bank Beats Consensus again.* Research Document, 19 October 2010. JPMorgan Research.
- Sen, S. (2010): *SKS Microfinance. Regulatory Uncertainty Increases* Research Document, 25th October 2010. JPMorgan Research.
- Seibel, H. D., Okazi, M. (2009): *Restructuring Bank Rakyat Indonesia.* Working Paper. Asian Development Bank.
- Seibel, H. D., Schmidt, P. (2010): *How an Agricultural Development Bank Revolutionized Rural Finance: the Case of Bank Rakyat Indonesia.* November 2010. Development Research Center. University of Cologne.
- Telles, M.; Rocha, G.; Oliveira, R. (2009): *Compartamos. Attractive Opportunity on Untapped Microfinance Segment Potential.* Research Document 17 April 2009. Credit Suisse Research.