

# Efficiency Drivers of MFIs: The Role of Age

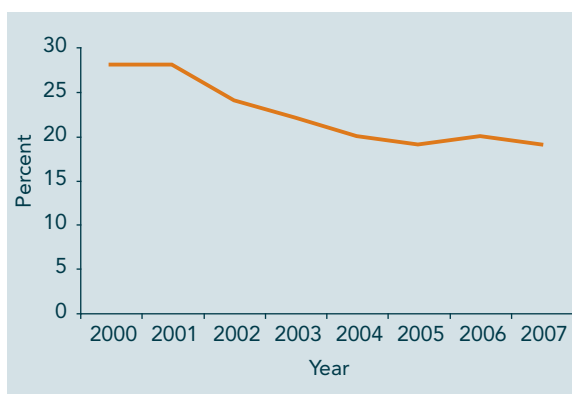
Microfinance institutions (MFIs) are becoming more efficient.<sup>1</sup> This Brief sheds light on how the age of individual MFIs and the age of the industry affect efficiency improvements. On an MFI level we look into scale economies, cost structure, and process durations as potential efficiency drivers. On an industry level we look into knowledge spillovers from one MFI to the other and marketwide learning effects.

Operating expenses are the most important cost component of MFIs. Institutional efficiency is generally measured by dividing operating expenses by the size of the loan portfolio. An MFI is usually regarded as having become more efficient when it lowers this indicator.<sup>2</sup>

Figure 1 shows the trend of efficiency for all MFIs in the MIX Market sample over time.<sup>3</sup> Efficiency has improved significantly over the last seven years, with the median operating efficiency ratio falling from 28 to 19 percent. MFIs recorded average efficiency improvements of roughly 10 percent annually.

We analyze the role of age from two different angles: How does the age of individual MFIs affect efficiency improvements? And how does the age of the whole industry contribute to efficiency improvements? Finally, we illustrate

**Figure 1: Median of operating expenses as % of gross loan portfolio over time**



Source: MIX.

what effects efficiency improvements have for individual clients as well as for the institution as a whole.

Figure 2 reflects the efficiency trends for six different age cohorts of MFIs between 2000 and 2007. Efficiency improves in every single age cohort, indicating that age is a determinant of efficiency.

## Age of individual MFIs as a driver of efficiency

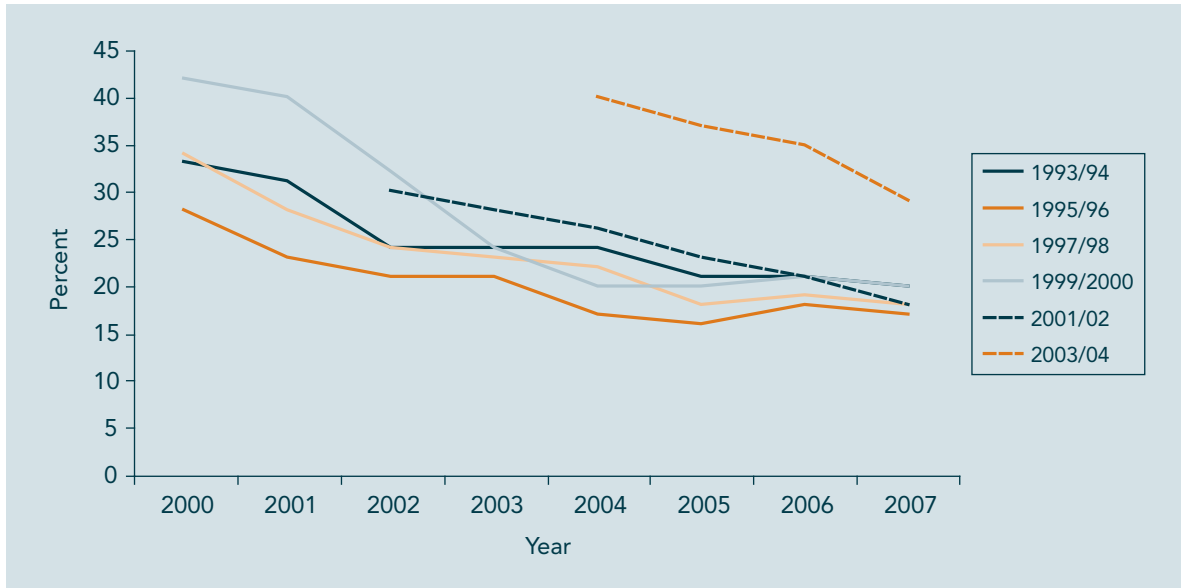
Age-related factors can be observed on three different levels:

- Higher numbers of loans may drive **scale economies**.
- Higher average loan sizes may improve the **cost structure**.
- More knowledge about customers may streamline **processes**.

Gonzalez (2008) shows that MFI efficiency is strongly related to age, after screening out the effect of other variables. This effect is strongest in the first six years of institutional history, when efficiency increases 2–8 percent annually. In the following years this figure drops to 1–2 percent per year. Next to the obvious learning effects that explain this finding, it seems reasonable to assume that MFIs build up a solid customer base in their early years of existence, which significantly translates into greater efficiency. In

1 In this Brief, efficiency should be understood purely as a technical term, not as a value judgment.  
 2 Efficiency also can be defined as cost per borrower. This measure factors in that small loans are inherently expensive, and therefore it uses the borrower as the reference unit. In this Brief, we use the more common definition of operating expenses/gross loan portfolio.  
 3 Weighting the distribution by asset size does not significantly change the finding of decreasing operating expenses as percentage of gross loan portfolio.

**Figure 2: Median of operating expenses as % of loan portfolio, by age cohort**



Source: MIX.

subsequent years, this trend is still positive, but begins to level off, as most internal processes have already been tested and improved.

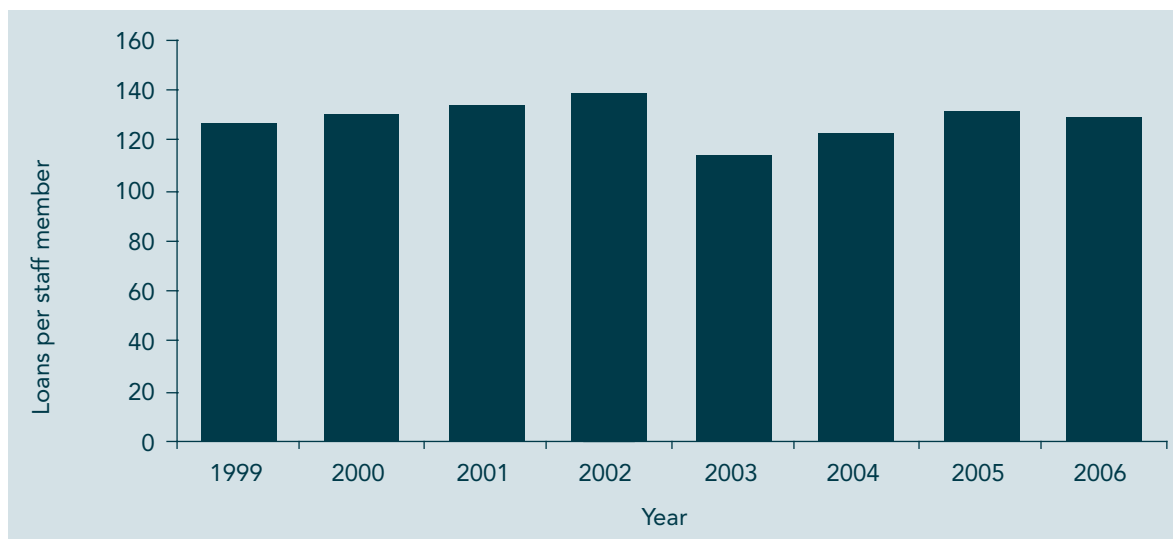
### Do higher numbers of loans generate scale economies?

Gonzalez (2008) shows that as MFIs grow beyond 2,000 customers, there are no significant further efficiency gains resulting from economies of scale, controlling for a range of other variables like lending technology, geographical location, etc. On average, most productivity gains therefore are realized during the very early growth phase of an institution. A vast majority of financially sustainable MFIs lie above this threshold of 2,000 borrowers. This might be one of the reasons why there has been little in the way of productivity gains, measured in terms of loans per staff member, over the past decade or so (see Figure 3).

### Do rising average loan sizes improve the cost structure?

If efficiency improvements are not driven by a higher number of loans per staff member, is increasing loan size a driver? A common observation about growing MFIs is that their average loan sizes increase over time. Industry data (Microbanking Bulletin Trend Lines) show that young MFIs doubled their average loan sizes over a three-year period, whereas mature MFIs increased loan sizes by roughly 25 percent during the same period. Some assume that this reflects "mission drift," as the MFIs leave behind poorer borrowers and move to better off ones. But it also can reflect a slowdown in MFIs' growth, relaxation of limits on borrowers' first loans, or simply growth involving existing customers while continuing to serve smaller ones.

**Figure 3: Medians of loans per staff member over time**



Source: *Microbanking Bulletin*.

Whatever explanation one picks, increasing loan sizes makes lending more efficient. For the same amount of money that you lend, you have to assess only one customer instead of two or three different customers. This means less paperwork, less hassle, and—above all—less staff time involved. This trend flattens as loan sizes increase. According to Gonzalez (2008), an increase in loan size from 10 percent of GNI per capita to 20 percent is expected to reduce operating expenses as a percentage of gross loan portfolio by over 7 percentage points (e.g., from 25 percent of loan portfolio to 18 percent). But an increase in relative loan size from 30 to 40 percent is expected to improve efficiency by only around 3 percent.

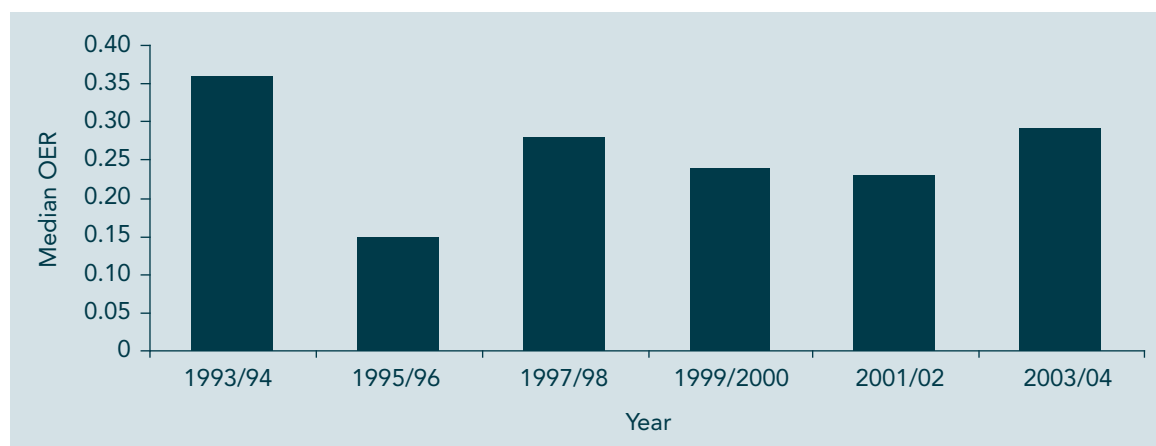
### **Does more knowledge about customers shorten process durations?**

As MFIs age, they not only aim at growing their customer base, but they also try to extend follow-up loans to existing customers. Aside

from the benefits for poor clients of repeat access to loans, from the MFI perspective, retaining customers is considerably cheaper than acquiring new customers. If an existing customer asks for her second or third loan, an MFI already has much of the information it needs to assess risk. As information about customers increases, the assessment process is shortened and efficiency improves, regardless of whether the size of loans increases.

### **Age of the microfinance industry as a driver of efficiency**

Beyond the age of individual MFIs, efficiency might also be improving as the microfinance industry as a whole matures. First, MFIs could be learning from each other. Some institutions might let borrowers take larger loan sizes right from the beginning of operations, which would result in higher efficiency levels. It could be that new MFIs that are part of large networks like ProCredit or ACCION can benefit from

**Figure 4: Median OER after three years of establishment, by cohort**

Source: MIX.

the expertise these networks offer in the form of consulting services to their partners. As a consequence, efficiency gains can be realized fairly early and are somewhat detached from a learning curve that is specific to the MFI and its experiences in the market it serves.

Second, if the time to become efficient were decreasing from one age cohort to the next, then one could assume a marketwide learning effect as new entrants into the market avoid the mistakes of previous entrants. And so more efficient MFIs entering the market could be contributing to overall efficiency over time. Figure 4 shows no such correlation: median operating efficiency ratios (OER) after three years of establishment don't exhibit a discernible pattern across the individual cohorts.

## The task that lies ahead

Data clearly show that every single cohort of MFIs has been able to continually improve efficiency over time. This development is very good news for the microfinance industry as a whole. It may be even likely that efficiency improvements are systematically understated because, over the past years, many MFIs have spent an increasing proportion of operating

expenses on noncredit activities like savings services, insurance, and money transfers. Thus, the actual improvement in credit efficiency would be even greater than what these numbers tell. One big question for the future of the sector is how low can costs go before they level off. In profitable MFIs, operating costs account for roughly half of interest yields (Rosenberg 2009), and thereby they represent the biggest cost block. Whether there is much potential for reduction of operating costs remains to be seen.

## References

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