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# What Win-Win Lost: Rethinking Microfinance Subsidy in the Past and Designing for the Future

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## **What Win-Win Lost:**

### **Rethinking Microfinance Subsidy in the Past and Designing for the Future**

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#### **Abstract**

The modern microfinance industry was built on the idea that lenders could (and should) profit while serving poor and excluded customers. This idea—that lenders could “win” while customers would also “win” —inspired the broader field of social enterprise and opened possibilities for business-driven responses to social problems. However, in hindsight it is possible to see that not only was the idea flawed—important claims underpinning the core idea have failed to find empirical support—but the lingering belief that “win-win” was right continues to handicap not only financial inclusion and consumer protection policies, but the social investment and finance industry as a whole. The win-win formulation was driven by the assertion that customers would be indifferent to the level of interest rates on loans and that it was simply access to finance that mattered most to customers. The argument was used to justify charging the highest interest rates to the most operationally expensive customers, who turned out to not coincidentally be the poorest customers. However, studies show that customers are indeed sensitive to interest rates and that high interest rates discourage borrowers. Moreover, despite charging high rates, financial data show that most lenders failed to earn profit after fully accounting for the subsidies received from donors and social investors. Microfinance and the social investment industry it helped spawn remain important tools for addressing poverty and inequality, but both sectors are overdue for a transparent reckoning of the roles of subsidy (including its benefits) and greater recognition of the potential for exclusion caused by high prices and the drive for profitability or “sustainability”. Muddled thinking on subsidy and prices handicapped the past but does not need to handicap the future.

Keywords: subsidy, social investment, interest rates, microcredit  
JEL Codes: G21, L31, L33, O16

## **Introduction**

While the most popular narratives about the modern microfinance movement emphasize the insight that poor households, and women in particular, were able to use credit productively, aided by contractual innovations that ensured high repayment rates (Yunus, 1999), there is another part of the story that is more relevant from a policy perspective.<sup>1</sup> The single most consequential idea in the creation of the global microfinance *industry* was about subsidy policy and prices, not innovative contract structures.

Credit programs for the poor were far from unknown when Grameen Bank started attracting attention well beyond Bangladesh (Armendàriz and Morduch, 2010). However, the predominant credit programs for the poor were heavily subsidized agricultural credit programs (Adams 1984). The nascent microcredit movement not only asserted that poor households had productive investment opportunities, but that such borrowers could and would pay far higher prices for the credit they received than the orthodoxy of the time held (Morduch, 2000).

Looking back over the past four decades, setting higher prices—which in credit terms largely means higher interest rates—was even more important than contractual innovations like group lending. Why? Because higher prices opened the door to the possibility that poor customers could be served profitably, without subsidy, and that the promise of profits would drive scale to such an extent that microfinance would reach far more poor households than subsidized government credit (which was necessarily limited by how much subsidy the government could afford given other pressing demands on government resources). Thus high interest rates could generate the now-cliché formulation of a “win-win”. Charging high interest

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<sup>1</sup> See FAI Working Paper 1/2024 Klein and Ogden “Lessons for Global Microfinance from...the United States?” exploring the centuries old history of “microfinance” and the lessons for the modern microfinance industry to be drawn from that history, including the on-going need for subsidy even at market interest rates

rates would be a win for financial providers who could lend profitably and with no subsidy. It would be a win too for customers who had been excluded from financial markets, by making them an attractive market for commercial providers and therefore expand their access to “productive” credit. This formulation was not just at the heart of the growth of the microfinance industry, it also became a core element of the even larger social investment industry of which microfinance was the poster child.

This win-win story certainly succeeded in attracting massive flows of capital to microfinance and to other social investments—the Global Impact Investing Network estimates that in 2022 the global impact investing market was more than \$1 trillion (Hand et al., 2022). Yet the win-win vision failed in two fundamental ways, and the failure holds lessons for the broad vision and policy around social enterprise as well. First, even with higher interest rates, many lending institutions failed to become fully profitable; the cost of making small loans is simply too high and the constraints on raising interest rates even higher too great. Cull et al (2018) show how few microfinance lenders actually achieved full profitability. Second, while advocates for commercial microfinance viewed high-interest policies as unequivocal wins for customers who would not otherwise have gained access to microfinance, in fact the high charges turned many customers away from loans, discouraging borrowing. For those that borrowed, the high cost took a big bite out of their gains.

This is not to say that keeping interest rates very low would have been better. The criticisms of low-interest policies still hold (that lenders would become unsustainable if revenues were insufficient, often requiring politically unsustainable levels of subsidy to balance their books, and that “cheap” credit would be vulnerable to capture by politically powerful favorites).<sup>2</sup> In the end, the microfinance sector inadvertently found a middle ground, with interest rates that

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<sup>2</sup> See Adams and von Pischke (1992) for a discussion of the problems posed by cheap credit policies.

were high enough to create an accounting proposition sufficient to attract long-term investment from governments, foundations and social investors but that failed to fully cover all costs.

It is a reasonable compromise, but it was not and still is not transparent, with deleterious consequences for setting appropriate and effective policy and ultimately limiting development of social investment opportunities. The lingering win-win rhetoric continues to hinder serious conversations about the costs and benefits of using subsidy to help serve poor people. Missing is a reckoning with the downsides of setting high interest rates—in terms of client impact and exclusion—alongside appreciation of the benefits from the operational vantage of institutions.

Given the lack of reckoning with the reality hidden by win-win rhetoric, we begin by reviewing the win-win arguments, noting that the case for setting relatively high interest rates was far from obvious, and it still rests on shaky economic foundations. Borrowing from prior work (Cull et al. 2009 and Cull et al. 2018), we show how, despite heated anti-subsidy rhetoric during microfinance’s formative years in the 1980s and 1990s, subsidy continued to be an important part of microfinance sector decades. We then consider evidence on whether customers care about interest rates (they do); next we show that the pretense that subsidy was not being deployed hid not only the fact that subsidy was an important part of the story, but that it was distributed unequally when considering subsidy per borrower, and, as a group, the poorest borrowers and women end up paying the highest prices and receiving the least subsidy. We conclude by reviewing what this means for policy today and in the future for microfinance and for other forms of social investment.

### **The case for raising interest rates and eliminating subsidy**

Given that the modern microfinance industry traces its origins in part to Muhammad Yunus, who while being a vocal proponent of social business has generally been a vocal critic of commercial microfinance and a critic of high interest rates, how did the call for higher interest rates and the lionization of commercial microfinance as a “win-win” come about?

The most straightforward case was simply about enabling scale. Once policymakers and donors absorbed the idea that there was a need and use for credit among poor people, they quickly had to confront the scale of the need this implied. There were far more poor people than there was subsidy available to ensure that microfinance reached them.

Early on, a particular argument for high(er) interest rates took hold among microfinance experts, tying price hikes not just to profit but to the welfare of customers. The notion was that setting high prices in poor communities—which, it was envisioned, would allow the transformation of microfinance institutions from being NGOs to becoming commercial banks—would clearly be best for inclusion, or as stated by Christen and Drake (2002): “the ultimate irony of microfinance may be that the best way to reach a large number of the truly poor with financial services will be through commercial banking institutions, not [subsidized NGO] microfinance.” This sentiment became a truism among many policymakers in the 1990s, convinced by Reagan-era analyses that extrapolated from the problems of highly-subsidized agricultural credit to argue that subsidized microfinance was not the solution to the problem, subsidies were the problem.<sup>3</sup> Looking back on agricultural credit, for example, analysts concluded that “low-interest-rate policies are very closely associated with much of the poor performance of rural financial markets in many developing countries” and that “interest-rate

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<sup>3</sup> The sentiment echoes Ronald Reagan’s 1981 inaugural address, where he famously stated: “Government is not the solution to our problem, government is the problem” (<https://www.reaganlibrary.gov/archives/speech/inaugural-address-1981>). Similar sentiments echo, for example, in Adams’s (1984) critique of agricultural credit policies, which was then deployed in the microfinance context (Adams and von Pischke 1992).

restrictions caused rural people not to save in financial form, resulted in long queues of people who want cheap credit, [and] allowed rich people to get a disproportionate share of the cheap credit,” (Adams 1984).

As Rosenberg (2002) wrote as a senior staff member of CGAP (The Consultative Group to Assist the Poor, the microfinance donor consortium housed at the World Bank):

... let’s assume that the only objective we care about is maximizing benefit to poor people. From this perspective, the argument for high interest rates is straightforward. In most countries, donor funding is a limited quantity that will never be capable of reaching more than a tiny fraction of those poor households who could benefit from quality financial services. We can hope to reach most of those households only if [microfinance institutions] can mobilize relatively large amounts of commercial finance at market rates. They cannot do this unless they charge interest rates that cover the [full costs of lending]. (Rosenberg 2002, p. 11)<sup>4</sup>

If this was the only argument for raising interest rates, policymakers could debate the actual availability of funding and the tradeoffs attached to high interest rates. However, arguments for raising interest rates went beyond the claim of financial necessity as stated by Rosenberg—and beyond arguments from the supply-side (how interest rate caps would undermine lenders and how subsidies would be grabbed by rich borrowers).

On the demand-side, proponents of higher interest rates (and less subsidy) asserted that there would be little down-side for customers. To justify raising prices charged to poor borrowers, leading experts argued that “there is abundant proof that poor people’s tiny businesses can often pay interest rates that would strangle a larger business” (Rosenberg 2002, p. 11). They suggested that customers were so desperate for capital that they did not particularly care about the level of interest charged. To buttress the claim, advocates for higher prices asserted that moneylenders charged even higher interest rates and did not seem to suffer for lack of demand,

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<sup>4</sup> Rosenberg’s view on interest rates shifted over time. See, for example, Rosenberg (2007) and (2009). His 2002 note helpfully collects arguments for raising interest rates in a succinct way, and is written to provoke discussion.

so customers were willing and able (otherwise the moneylenders would be out of business) to pay even higher interest rates and would be happy paying the relatively lower, albeit still high, interest rates they advocated (Rosenberg 2002, Kota 2007). As the CEO of Compartamos, a Mexican lender charging annualized rates around 100 percent, would later comment: “Before Compartamos...they didn’t have access to credit, so it is better than not having credit or going to loan sharks” (Finch and Kocieniewski 2022).<sup>5</sup>

Together with supply-side arguments, these demand-side claims led to the over-arching argument that charging higher prices for services would ultimately benefit poor people. Maximum scale could not be achieved if microfinance was dependent on subsidy, and removing subsidy would hardly dent impact. By raising interest rates, institutions would generate the profits necessary to expand, and more credit would get to poorer customers who were starved of capital (Akula 2011). Borrowers need access to credit, the donors argued, not “cheap” credit. In other words, lenders should raise interest rates, minimize subsidy, and thereby maximize inclusion and benefit.

These kinds of arguments had been powerfully and constructively deployed against highly-politicized interventions in agricultural credit, but the arguments missed the mark when turned to microfinance. When applied to microfinance, the arguments suffer at least three conceptual flaws: (1) The arguments took for granted that borrowers had higher returns to capital than the cost of credit (which implies high margins), even though the businesses households were operating involved limited skill and offered largely undifferentiated products; (2) The arguments extrapolated from rural credit—a context with deep subsidies, state-run banks, and very political contexts—to analyze microfinance, a sector with little direct government

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<sup>5</sup> See Rosenberg (2007) and Rosenberg (2009) for arguments that Compartamos interest rates are too high. Compartamos is the largest microfinance lender in Mexico, focusing on low-income women. The institution grew fast by using retained earnings, fueled by charging high interest rates.



involvement in lending and far lower subsidy levels<sup>6</sup>; and (3) The arguments ignored the new economic theory and evidence from the 1970s, 1980s, and 1990s that was transforming academic understandings of the mechanisms of rural credit markets—and which supported a practical case for productive subsidies (e.g., the ideas reviewed by Hoff et al 1993).

### **Was there a cost to high cost credit?**

Today, we are decades beyond the Reagan-era arguments, and the case seems settled.

Microfinance institutions around the world charge interest rates far higher than was considered possible or prudent in the 1970s, and other than a few lone voices or specific contexts, such as Cambodia and Mexico, there is rarely meaningful pushback against the interest rates charged.

Cull et al (2018) provide real (inflation-adjusted) average portfolio yields averaged across a broad range of microfinance institutions.<sup>7</sup> The portfolio yields are a measure of average interest rates, calculated by dividing the total interest earnings and fees by the size of the loan portfolio and then subtracting the local inflation rate. They find that most inflation-adjusted interest rates varied between 20 percent and 40 percent, with larger loans under 30 percent and smaller loans above 30 percent. (On average, inflation added another 13 percentage points to these interest rates.) By following microfinance “best practices” to try to cover costs with interest revenues, NGOs, the institutions that tend to serve the poorest customers, lent at an average of 28 percent per year after inflation. The top quarter of NGOs charged 38 percent or more. In contrast, for-profit commercial microfinance banks, which were making considerably larger loans, allowing them to reduce their costs per unit lent, charged an average of just 22 percent per year

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<sup>6</sup> There are some notable exceptions. Bank Rakyat Indonesia, for example, is a major state-run bank that provides micro-loans, but it has long operated on commercial principles.

and just 27 percent at the 75<sup>th</sup> percentile. The poorest customers (who are more likely to be served by NGOs) were thus paying the highest prices.

If the experience of the last 30 years is that interest rates like these can or need to be relatively high for practical reasons, what is the value in revisiting decades-old ideological debates? With distance and better data, we're in a position to take stock of the arguments. By doing so, it becomes clearer how what had been presented by donors as a "win-win" formula (good for investors and good for customers) is in fact built on tradeoffs. Raising interest rates brings costs, often unseen. Returning to debates around interest rates and the role of subsidy is a critical step in understanding those tradeoffs (and who remains excluded because of high prices). The tradeoffs in turn, should be the drivers of future discussions of policy and regulation.

Empirical evidence from the last 20 years shows that customers do not have an endless supply of investment opportunities with very high returns to capital and do, in fact, care a lot about interest rates. High interest rates can lead to exclusion, and subsidy can thus, by implication, be an important element of inclusive policies. The evidence also shows that subsidy can be applied in ways that do not generate the kind of political and market distortions that were central to anti-subsidy arguments; subsidy is not a binary between zero and "major distortion." Counter to assertions, households borrow from moneylenders reluctantly, and, when they do so, they often borrow to cover short-term spending needs rather than to invest in assets. Moreover,

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<sup>7</sup> The main source for microfinance interest rates and related financial data is the Microfinance Information Exchange (MIX Market) database, originally created by the World Bank's Consultative Group to Assist the Poor (CGAP) and whose public data has been analyzed widely. Cull et al (2018) obtained access to the underlying confidential data, allowing a more accurate accounting of microfinance business models. They analyze data on 930 institutions with a combined 80.1 million borrowers, using data available between 2005 and 2009. More recent public data are available on the World Bank website but for individual institutions rather than for sector aggregates, making it impossible to replicate Cull et al (2018) with updated data. While the data in Cull et al (2018) are no longer current, they remain analytically useful and capture the microfinance sector at the point at which it was gaining global recognition. The United Nations Year of Microcredit was held in 2005, for example, and the Nobel Peace Prize for Grameen Bank and Muhammad Yunus was awarded in 2006. The Cull et al (2018) data capture the state of microfinance at that moment of ascendance.

the most common alternative to formal borrowing is borrowing from family and friends (Demirgüç-Kunt, et al 2022, Figure 2.3.1), not from moneylenders, and not at high interest but usually at zero interest (Collins et al. 2009, Brandt and Hosios 2010, Karaivanov and Kessler 2018). The evidence also shows that microcredit, as with borrowing from moneylenders, is not used just for business but often for consumption (Cai et al 2023). Borrowers use microfinance loans to buy food in lean seasons, for healthcare, and to pay down more expensive debt, among other uses (e.g., Collins et al. 2009, Kaboski and Townsend 2012, Breza and Kinnan 2021). Together these realities should force us to fundamentally reconsider the debate about interest rates and subsidy, and reshape the arguments for and against high interest rates/prices.

#### *Borrowers care about interest rates*

The main demand-side claim for raising rates boils down to the assertion that borrowers do not care much about interest rates. In other words, the demand elasticity of loans with respect to interest rates is effectively zero. This is a testable proposition, and, when tested, the evidence suggests that borrowers actually care a lot.

Dehejia et al (2012) take advantage of an unexpected change in interest rate policy at *SafeSave*, a lender operating in low-income neighborhoods of Dhaka, Bangladesh, known for flexible, convenient operations that serve very poor customers through daily visits. *SafeSave* had charged its borrowers 2 percent per month for loans, but to cover costs, *SafeSave* increased interest rates to 3 percent in new branches. In annualized terms this is a jump from roughly 24 percent to 36 percent interest, a relatively big increase.<sup>8</sup> Dehejia et al (2012) are able to estimate interest rate sensitivity by quantifying the demand for loans in the older branches as they were

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<sup>8</sup> Disclosure: At the time, Morduch was a member of the *SafeSave* cooperative, effectively serving as a member of its governing board. The institution is now part of the NGO BRAC.

brought into conformity with the new branches. In other words, they can see changes in loan demand as interest rates increased from 2 percent to 3 percent per month in the older branches—and they can compare those changes to trends in the new branches (where interest rates held steady at 3 percent) as a way to control for macro shocks and broader conditions. The research design is thus a non-randomized difference-in-difference framework which exploits a quasi-experiment.

In contrast to expectations from anti-subsidy arguments, Dehejia et al (2012) find substantial sensitivity to the interest rate hike. They estimate a long-term elasticity over  $-1.0$ , so raising the interest rate by 50 percent led to a greater than 50 percent drop in demand. Instead of leading to greater revenue, the interest rate hike led to a dip in net revenue and reduced borrowing. The findings thus directly contradict an assertion fundamental to the argument for raising interest rates. The study demonstrated that poor households, in an area that should be a priority for microfinance, cared substantially about price—and reduced borrowing when prices were seen as being too high.

Karlan and Zinman (2019) instead use a randomized control trial (RCT) to quantify interest rate sensitivity in Mexico, working with Banco Compartamos, the high-interest lender mentioned above. Compartamos is one of the most commercially-focused micro-lenders, and it is well known for—and controversial because of—charging interest rates around 100 percent per year (Rosenberg 2009). Eventually, the bank decided to reduce interest rates somewhat, and Karlan and Zinman (2019) worked with Compartamos on a plan to reduce interest rates by different amounts in different locations. This created randomized treatment and control groups that could be used to obtain a cleaner measure of interest rate sensitivity than was possible in the study of *SafeSave* in Bangladesh. There is one large difference between the studies, apart from

econometric method: the *SafeSave* study involved an interest rate increase, and the Compartamos study involved a decrease. Still, both set-ups allow estimation of interest rate sensitivities.

The randomization at Compartamos took place at the branch level across the country. In 40 regions, interest rates were dropped by about 10 percentage points relative to earlier interest rates. In another forty regions, interest rates were dropped by about 20 percentage points, allowing estimation of elasticities by comparing loan demand across branches. The results echoed Dehejia et al (2012). Karlan and Zinman (2019) estimated an interest rate elasticity after the first year of -1.1, and by Year 3 the elasticity was -2.9 as borrowers had a greater chance to adjust. Again echoing Dehejia et al (2012), Compartamos's move did not clearly change profits. Dropping interest rates brought in many new borrowers, but it lowered revenue per customer while increasing costs as each new loan increased fixed costs – such that the two balanced each other out.

Why was this interest rate sensitivity unexpected and hard to see? To again quote Rosenberg (2002):

For the past ten years, the author of this paper has been asking in conferences, courses, and (more recently) Internet newsgroups whether anyone present has ever heard of a microfinance program that ran into trouble by driving away clients with interest rates that were too high. No one has yet pointed to a single example. This remarkable piece of data does not indicate that there is no limit to the interest rates that the microcredit market can bear, but it does suggest that the limit is probably considerably higher than what even the more aggressive MFIs [microfinance institutions] are presently charging. (Rosenberg 2002, p. 11)

What was missing from Rosenberg's view was those potential customers who had chosen not to engage with Compartamos when it was charging higher interest rates. From the lenders' vantage, the potential customers were out of the picture—until interest rates were actually reduced and new borrowers showed up seeking loans. Even with relatively low interest rates (in the

microfinance context), Grameen Bank only serves about half of the population in its markets who are eligible for loans. The other, hidden half decides not to borrow, and the evidence on elasticities suggests that interest rates may be part of the story. Does Grameen Bank run into trouble because of this? No. But it does mean that interest rates may be discouraging some potential customers.

### *High prices can undermine incentives*

The studies by Dehejia et al (2012) in Bangladesh and Karlan and Zinman (2019) in Mexico show that raising interest rates is not obviously profit maximizing (or even profit increasing) because customers respond negatively to price increases.

Economic theory gives a second reason that raising interest rates will not necessarily increase profit, a lesson from the economics of information. The intellectual revolution brought by the economics of information in the 1970s and 1980s, and especially the pioneering work of Joseph Stiglitz and Andrew Weiss (1981) and George Akerlof (1970), created a theoretical base for understanding why markets tend to work least well for poorer people, providing new foundations for understanding credit market failure. The insights became part of the narrative for why the free market, left on its own, would leave poor borrowers under-served, laying a path for innovations like microfinance. But part of the story was ignored in arguments for raising interest rates. This part was a cautionary story about incentive problems created by high interest rates.

The revolution brought by the economics of information focused in large part on credit market failures in contexts very similar to those where microfinance would take root (Hoff et al., 1993). These were contexts in which many borrowers lacked the kinds of assets (or the legal title to those assets) that could be pledged as collateral when borrowing, monitoring borrowers was

costly, and centralized information about borrowers was sparse. Collateral would be key to lending by traditional banks, because with no collateral, borrowers who managed to get loans would face only limited consequences if they failed to repay loans (i.e., they had “limited liability”) since banks had little ability to seize valuable assets from defaulting borrowers.

In theory, banks were not interested in actually seizing the collateral but in using the *threat* of seizure as a mechanism to ensure that borrowers, in fear of losing a valuable asset, would invest wisely and work hard to make their project successful. If borrowers had collateral, banks could then raise interest rates to levels that were solely determined by supply and demand in credit markets. But if borrowers lacked collateral or banks could not credibly threaten to seize borrowers’ assets, it was a different story—excessive risk-taking and strategic default became more likely (i.e., borrowers could repay but did not because of the limited consequences of defaulting) and interest rates would have to be much higher to cover the losses caused by such defaulters. This was a common situation in poor communities, where the condition of poverty meant collateral was usually scarce, reinforcing exclusion from credit markets, even if people had good investment ideas and were more than willing to work hard.

The fundamental economic problem is that, in essence, interest rates do double duty (Stiglitz, 1987). They are a way for lenders to cover costs by charging fees to customers, and they are simultaneously an incentive mechanism. The problem is that as interest rates are increased to generate greater revenue for banks, they simultaneously lead to worsening incentives for borrowers—i.e., it creates “moral hazard.” The first effect increases expected profit, while the second reduces it. One can think of interest as a tax on a borrower’s profit, and as taxes rise, there is less incentive to put in the effort required to succeed. So, as interest rates rise high, borrowers become more likely to default. The less of their profit that customers are

able to hold onto (versus having to hand it over to the lender as interest), the less incentive they have to ensure success.

This was a fundamental lesson of the economics of information: raising interest rates can undermine profitability—and it can happen to such a degree that serving poor people (who lack collateral) is simply not possible. Judiciously-used subsidies which keep interest rates in check can then improve equity and efficiency. Subsidy, in other words, far from being the source of the problem undermining credit markets, can be part of shoring them up.

Group lending in microfinance (also known as joint liability lending) and dynamic incentives (cutting off borrowers who fail to repay) appeared to mitigate the moral hazard problem, without collateral. In essence, they created an alternative threat of punishment in the absence of the threat of seizing borrowers' property. This threat allowed lenders to raise interest rates without overly worrying about increasing moral hazard. But joint liability (especially) and dynamic incentives turn out to be difficult to reliably implement and microfinance lenders have found themselves spending a lot on staff costs to follow up on loans and investigate lending problems, often with an eye to renegotiation. In principle at least, raising interest rates increased the need for those expenses.

### *Lenders' profitability does not guarantee continued growth*

Once the mechanisms that lead to excessive risk-taking and strategic default are understood (or, in technical language, *ex ante* and *ex post* moral hazard), it is straightforward to see another conceptual challenge to the anti-subsidy view. One fundamental argument was that achieving profitability was essential for growth: By earning profit, lenders could attract additional



investment and take on external debt, creating leverage that would fuel expansion and thus aid inclusion.

But Conning (1999) and Conning and Morduch (2011) show that the mechanism is more complicated because profitability alone is not sufficient to generate leverage. In all credit markets there are incentive problems that shape the relationship between lenders and borrowers. Those incentive problems, notably moral hazard, then need to be managed by the employees and managers of microfinance institutions through contracts and processes that go beyond standard banking practices. Monitoring and enforcing loan repayments requires extra diligence on the part of the organization's leadership and microfinance institution (MFI) staff when customers are vulnerable to moral hazard. But that then effectively creates a second layer of moral hazard. Rather than just moral hazard on the part of customers vis-à-vis MFI employees, there is then a risk of moral hazard on the part of MFI employees and owners vis-à-vis investors. Investing in an organization that is offering unsecured debt is risky, and investors need to be compensated for the risk. But, because of moral hazard, the MFI also needs incentives to manage the risk reliably. In other words, if the microfinance institution is simply managing the funds provided by the investor, it has little incentive to maximize the funds that flow back to the investor. The most straightforward way to improve incentives for diligence by MFI staff and owners is to give them more "skin in the game." In other words, the MFI needs to keep a meaningful share of profit. In the end, even if the MFI raises interest rates to earn an accounting profit, potential investors may still be reluctant to invest because they know that the MFI needs to keep a share of profit for themselves, and that may not leave investors with satisfactory returns. Just earning profit is thus insufficient for MFIs to attract outside investment. Conning (1999) shows that lenders that work in contexts with the greatest likelihood of moral hazard in lending relationships (i.e., with

significant unsecured loan portfolios) are also less leveraged (in other words, they source less capital from investors) than other MFIs, even when controlling for profitability.

### **Did raising interest rates eliminate subsidy?**

Do microfinance interest rates translate into profit? Yes, if the question concerns accounting profit, which measures whether revenues exceed direct costs. Cull et al (2018) find that two-thirds of microfinance borrowers in their sample were served by institutions earning accounting profits (this average is weighted by each MFI's number of borrowers). But accounting profit misses a big part of the story. Much subsidy arrives via providing capital to MFIs at rates below standard investments available in the market. Specifically, social investors typically make both equity investments in and lend to MFIs at lower rates of return than the market offers. Cull et al (2018) thus make adjustments to get closer to a notion of economic profit, which takes into account the opportunity cost of capital<sup>9</sup> which is invested in or lent to MFIs. The adjustments change the picture on profitability: only about 45 percent of their sample is now profitable. A more realistic assumption of opportunity costs reduces the percentage of institutions that are profitable to 36 percent.

This more complete calculation of how much of the “win-win”, “sustainable” microfinance industry is profitable paints a different picture than might be expected from media reports, and it leads to a different view of subsidy too. Under the same adjustments, Cull et al. (2018) find that when subsidy is measured on a per dollar lent basis, NGOs in their sample have an average subsidy of 18 percent and a median of 8 percent. For microfinance banks, the

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<sup>9</sup> They make a very conservative adjustment by calculating the approximate opportunity cost of capital based on the US prime lending rate (a rate used for the least risky financial transactions, which is certainly lower than MFIs could actually obtain from fully commercial investors). Then they also calculate it using the prime rate in the institutions' own local market, a likely more accurate estimate of the “true” cost of capital for the MFI absent the social investors' subsidy.

numbers are slightly lower but in a similar range: commercial microfinance banks have an average subsidy per unit lent of 15 percent and a median of 8 percent.

The big difference comes when Cull et al (2018) calculate subsidy per borrower, rather than subsidy per unit lent. Since more commercially oriented, for-profit institutions make substantially larger loans, their subsidies per borrower tend to be much larger. Similarly, NGOs making smaller loans receive substantially less subsidy per borrower. Using purchasing power parity (PPP) exchange rates to calculate subsidies on a comparable basis, Cull et al find that the mean subsidy per borrower for commercial microfinance banks is \$578 and the median is \$215. For NGOs, the mean is just \$174 and the median is \$51, reflecting the smaller loan sizes of NGO loans. In sum, the data show that once implicit subsidies are taken into account, most “for-profit” microfinance institutions are significantly subsidized. At the same time, NGOs, though also subsidized, receive much less per borrower.<sup>10</sup> The contrast has implications for the incidence of subsidy by gender. Because NGOs tend to serve a much higher proportion of women relative to commercial microfinance banks, not only are borrowers with lower incomes (as proxied by average loan sizes) getting less subsidy on average, the same is true for women on average. Microfinance subsidies in this reckoning disproportionately went to better-off men.

Cull et al. (2018) take a first pass at relating the cost of subsidies to measured impacts. While the impacts are small on average, the subsidy to poorer borrowers and to women is also relatively modest (Banerjee et al., 2015). The resulting ratio of benefits to costs is favorable as long as the benefits persist for four months or longer. Put another way, it turns out there is a “win-win” in providing subsidy to extend credit to poorer borrowers and women, in the sense

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<sup>10</sup> Cull et al (2018) also show that subsidies tend to be enduring. Across their sample, the total subsidy was \$4.9 billion per year, and, of that, 76% went to the 932 institutions that were older than ten years.

that the gain from the subsidy is greater than its cost, which is what should ultimately motivate social investment.

### **The case for subsidy for microfinance and other social investments**

Why revisit the debates of the past about microfinance, interest rates and subsidy now? Because policy decisions about microfinance, and other interventions that blend social benefit with commercial business models (Novogratz, 2009; Yunus 2010), remain important—and the decisions today should be informed by a clear reckoning of the past not just the rhetoric. A reconsideration of the arguments and the empirical realities helps chart a path for the future of both microfinance and other social investments.

The global microfinance industry that exists today was built with a steady stream of subsidy, even though microfinance rhetoric continues to suggest that subsidy is not necessary and may be harmful to the health of the industry as a whole. Microfinance interest rates have indeed been raised substantially beyond the rates typically charged by state banks—no one would label it “cheap credit” today and the media routinely criticizes how high microfinance interests have gone (e.g., Finch and Kocieniewski, 2022). Still, lending at small scale is difficult, particularly when loans are unsecured, and few lenders are making large (economic) profits and the available data show that most don’t make profit at all.

What does this mean for microfinance and social investment policy? What does it mean for the rationale to subsidize microfinance or other services for poor households that could be provided on a commercial basis?

The mounting empirical evidence creates an alternative picture of markets for the poor, the financial lives of low-income and marginalized people, and the behavior and economics of

institutions that provide services to them at a fee. That picture presents the possibilities for policy that doesn't ignore the need for subsidy, but better allocates that subsidy and is more likely to achieve the social goals that policymakers are pursuing (Morduch, 2006; Ogden, 2016).

Particularly in an age when governments and donors are contemplating the allocation of capital to not only reduce poverty but cope with climate change and other global challenges, a serious reconsideration of the most effective role of and allocation of subsidy is necessary—along with more empirical evidence.

In the context of microfinance specifically, the case for subsidy begins with the volatile and unpredictable financial lives of low-income households who can benefit greatly from access to tools to manage liquidity—both to turn larger lumps into smaller cash flows and smaller flows into larger lumps. Saving and borrowing via microfinance can play an important role in both. However, the data show that the unit economics of providing these tools make it challenging to provide them at market rates (or earn profits), especially for the poorer segments of the market.

This suggests that there is a role for sustained subsidy that enables the provision of credit to low-income households. At the same time, such subsidies must take into account consumer protection and related issues that arise when providing credit for household financial management rather than “start-up capital” for rapidly growing and successful small businesses. Subsidy could be external or it could be cross-subsidy provided by the lender itself. Since cross-subsidy is vulnerable to being eaten away by market forces, policies like the US Consumer Reinvestment Act or the Reserve Bank of India's Priority Sector Policies deserve renewed consideration. So too do questions around improving the targeting and impact of subsidized capital delivered by social investors and public agencies.

Well beyond microfinance, the lessons learned on the need for, use of, and distributional challenges of subsidy detailed here deserve attention. It should be clear that the rhetoric of “win-win”—and the implicit denial of trade-offs—and “sustainability” in social investment circles hides critical information that policymakers and social investors need to take into account when deciding how to allocate (and sustain) subsidy. The distortions that can be caused by subsidy and the limits to scale of interventions that require subsidy that originally inspired the efforts to do away with subsidy are real—but there are ways of avoiding or minimizing those distortions and maximizing scale despite the need for subsidy. We need not rely on rhetoric when there is now 30-plus years of empirical evidence to help guide policy decisions.

One approach is to consider how to make subsidy “smart” (Morduch and Ogden, 2019; Ogden 2016). Rather than simply attempting to keep prices below their maximum level for low-income customers, subsidy can be deployed in the service of specific policy goals such as, 1) Experimenting with new products and/or business models that are as yet unproven, 2) Extending products or business models that have been proven in one context to others where there is not yet certainty about outcomes or demand, 3) Multiplying investment by using subsidy to absorb risk and making investments by less socially-minded investors more attractive, or 4) Demonstrating and disseminating lessons from successful investments (research and “marketing” to non-customers are substantial costs) in the hopes of crowding-in additional investment or market participants.

As the detailed look at the distribution of microfinance subsidy makes clear, another important consideration for policymakers considering subsidy in other social sectors is ensuring that subsidy flows to the intended targets. Market pressures are real for social businesses. There is now a long history showing those pressures often nudge even the most socially-minded

businesses toward the least-costly, or most profitable customers—customers that are rarely the intended targets of subsidy.

By reclaiming what “win-win” rhetoric in the microfinance industry lost, and reclaiming the power and value of subsidy to accomplish policy goals, the future of social investment in microfinance and in other domains can be more effective.

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