



## **Are Microfinance Borrowers in Lebanon Over-Indebted?**

September 2017

This research was co-funded and overseen by CGAP (Nadine Chehade) and the Technical Assistance Facility of the SANAD Fund for MSME (Jacob Ole Nestingen, Jessica Bodmann, Hussam El Tayeb, Maxine Chehab), with support from Antoine Navarro, consultant for both parties. The fieldwork was led by MFC (Justyna Pytkowska, Piotr Korynski), in partnership with Sanabel (Sahar Tieby). The team is grateful to external reviewers for their comments and valuable feedback throughout the process (Roy Pratt, independent consultant, Alice Negre from CGAP, Laurent Gonnet and Peter McConaghy from the World Bank), and to all participating institutions' managers and staff who have dedicated significant time to allow for this publication (ADR, AEP, Al Majmoua, EDF, Emkan, Ibdaa, Makhzoumi Foundation, and Vitas), as well as for the Lebanese Microfinance Association (LMFA) support.

The SANAD TA Facility is funded, among others, by the German Federal Ministry for Economic Cooperation and Development (BMZ), the European Union through the Neighbourhood Investment Facility (NIF), the Swiss State Secretariat for Economic Affairs (SECO), the Austrian Development Bank (OeEB), and FMO Entrepreneurial Development Bank.

## Table of Contents

1. Executive Summary .....	4
2. Introduction, Objective, and Context.....	6
3. Analysis of Microfinance Clients Indebtedness Levels .....	8
3.1. Defining Indebtedness Levels .....	8
3.2. Methodological Approach .....	9
3.3. Borrowing Patterns.....	10
3.4. Key Findings on Multiple and Cross-Borrowings .....	11
3.5. Key Findings on Indebtedness Levels .....	14
3.6. Key Findings on Repayments Performance .....	16
3.7. Analysis of Supply-Side Factors Influencing Indebtedness.....	17
4. Pending Questions and Next Steps .....	20
4.1. Pending Research Questions .....	20
4.2. Possible Next Steps.....	21
4.2.1. The Need for Baseline Client Data .....	21
4.2.2. Coordinated Efforts of the Lending Sector.....	21
4.2.3. The Need to Define Over-indebtedness and Responsible Lending.....	21
5. Annexes .....	22
5.1. Methodology .....	22
5.2. Commonly used over-indebtedness indicators .....	25
5.3. Credit Registry Reporting Requirements by Type of Institution.....	26
5.4. Loan classification in credit bureau data .....	26
Figure 1: Microcredit to Total Population Across Selected Countries .....	8
Figure 2: Distribution of Loans by Purpose .....	11
Figure 3: Distribution of Loans by Purpose and Type of Source Institution.....	11
Figure 4: Multiple Borrowings Across Selected Countries .....	12
Figure 5: Distribution of Borrowers by Number of Source Institutions .....	13
Figure 6: Distribution of Borrowers by Type of Source Institution .....	13
Figure 7: Distribution of Borrowers by Household Net Indebtedness Index .....	14
Figure 8: Distribution of Borrowers by Household Net Indebtedness Index and Gross Income Level .....	14
Figure 9: Distribution of Borrowers by Household Net Indebtedness Index and Multiple Borrowing .....	15
Figure 10: Share of Borrowers with a Repayment Delay over 60 Days by Level of Multiple Borrowing and of Outstanding Debt Amount .....	16
Table 1: Lebanese Microfinance Market in Figures (as of November 2014, start of the project) .....	7
Table 2: Segmentation criteria by household net indebtedness index.....	9
Table 3: Available indicators for identifying over-indebtedness.....	25
Box 1 : Profile of Sampled Borrowers.....	10
Box 2: Cash Flows of Lower Income Lebanese Borrowers' Households .....	19
Box 3: Examples of Possible Research Options .....	20

### List of Abbreviations

ADR	Association for the Development of Rural Capacities
AEP	Association d'Entraide Professionnelle
AQAH	Al Qard Al Hassan
BDL	Banque du Liban (Central Bank of Lebanon)
BiH	Bosnia and Herzegovina
CDR	Centrale des Risques (Credit Registry)
CFC	Capital Finance Company
CGAP	Consultative Group to Assist the Poor
EDF	Entrepreneurial Development Foundation
EFSE	European Fund for Southeast Europe
GDP	Gross Domestic Product
LBP	Lebanese Pound
MFI	Microfinance institution
MIS	Management Information System
MSME	Micro, Small and Medium Enterprises
NBFI	Non-bank financial institution
NGO	Non-governmental organization
PAWL	Palestinian Arab Women League
UNRWA	United Nations Relief and Works Agency
USAID	United States Agency for International Development
USD	United States Dollar

### Currency

Lebanon Currency Unit: Lebanese Pound (LBP)

1 USD = 1,507.50 LBP

As of 31<sup>st</sup> August 2017

Source: Central Bank of Lebanon (BDL)

## 1. Executive Summary

In late 2014 and in light of sustained microcredit growth in an otherwise sluggish economy, the SANAD Fund for MSME's Technical Assistance Facility and the Consultative Group to Assist the Poor (CGAP) decided to conduct a study on the indebtedness levels of active microfinance borrowers in Lebanon. The research was aimed at providing empirical evidence that would confirm or refute indications of cross- and over-indebtedness. The study was implemented by the Microfinance Centre (MFC) in collaboration with Sanabel, the microfinance network of Arab countries. It included desk analysis of loan and income data for a sample of 1,200 microfinance institutions' (MFIs) borrowers verified against the central bank's credit registry, on top of interviews with key stakeholders and focus group discussions. Despite limitations primarily relating to the availability of data, the study reached several statistically valid conclusions. Most notably, and although multiple lending does not automatically mean over-indebtedness, data shows a strong correlation between cross-borrowing, over-indebtedness, and repayment delays.

While the majority of sampled clients (71%) have only one active loan, **29% of borrowers were simultaneously repaying loans to two institutions or more.** Interestingly, cross-indebtedness is twice as likely to occur between an MFI and a bank (19%) than it is to occur between two or more MFIs (10%), which also indicates that at least 19% of microfinance clients are in fact banked. This level of cross-borrowing is not problematic in itself, and is lower than in some of the countries that went through microfinance repayment crises, such as Bosnia and Herzegovina (58%) or Morocco (37%).

**Almost a third of sampled clients spend over 50% of their net income servicing debt, and are either at risk of over-indebtedness (15%), in a critical situation (5%), or insolvent (10%).**<sup>1</sup> Poorer clients, clients with multiple loans, those with the largest total debt, and those living in Beirut were most likely to fall into one of those categories. The study additionally determined a correlation between low indebtedness levels and high rates of timely repayment. Loan repayment remains however satisfactory even among those who are most heavily indebted. This confirms that falling behind on loan repayment is only a proxy among others of over-indebtedness, and that borrowers may well be over-indebted before being in arrears. Clients indeed explained that they typically resort to cutting back on household expenses to meet loan repayments.

The vast majority of clients (93%) repay their loans, be it for business or consumption purposes, within 60 days. **Repayment performance however deteriorates when either the number of concurrent loans or the aggregated debt load increases.** As compared to clients with one loan, clients with multiple loans were six times more likely to be overdue by more than 60 days on at least one installment, and clients with over U.S. \$10,000 of total outstanding debt were 2.5 to 5 times more likely to be overdue.

The figures cited above are likely to be lower end rates for multiple- and cross-borrowing among microfinance borrowers since both informal credit providers and a number of formal ones were not included in the analysis. Only eight institutions, NGOs or non-bank financial institutions (NBFIs) specialized in microcredit, chose to participate, leaving out of the scope the non-profit Al Qard Al Hassan Association (AQAH), whose portfolio is believed to be as large as the portion of the microcredit sector studied, as well as comptoirs, money lenders, retail stores selling on credit, and family and friends. Indeed, Lebanon is in the top tier of middle-income countries where formal credit penetration exceeds 15% of adults, and an analysis of households' cash flows based on publicly available data shows that 20% of the poorest households sampled would be insolvent, twice as many as in this study.

---

<sup>1</sup> Households spending 51% to 75% of their net income on loan installments are considered at risk, 75% to 100% in a critical situation, and over 100% insolvent. See section 3 for details.

Based on these findings, the report calls for coordinated efforts to monitor indebtedness levels on a regular basis and address the identified supply-side data gaps, and offers opportunities for further demand-side research to better understand borrowing patterns and debt burdens of Lebanon's low-income borrowers.

## 2. Introduction, Objective, and Context

The importance of monitoring over-indebtedness was highlighted by a series of sudden shocks and microcredit crises that swept through a number of countries including Morocco, Bosnia and Herzegovina, and Nicaragua at the end of the 2000s.<sup>2</sup> This in turn prompted practitioners and professionals to reevaluate how to responsibly promote microfinance, and pursue the commercial development of the sector while upholding their mission to improve the well-being of borrowers. This critical reevaluation naturally extended to over-indebtedness, which was prevalent in many though not all of the countries, and made it even more important to understand, define and assess this phenomenon. Yet, constructing an objective and comparative assessment of over-indebtedness is a challenging undertaking, given the absence of a generally accepted or simple definition of what constitutes over-indebtedness (see Annex 5.2 for more details). Additionally, there is a myriad of indicators or proxies for over-indebtedness that are not easily comparable: some are quantitative and others qualitative; some are client-centric and others are institution-centric; and some can support decision-making, while others do not lead to concrete actionable steps.

This study was commissioned to measure indebtedness levels, cross-borrowing, and the potential debt burden among active microfinance borrowers in Lebanon. The formal Lebanese microfinance sector had been growing steadily, with compound average growth rates (CAGR) of 30% in number of clients and 38% in outstanding portfolio over 2006-2013,<sup>3</sup> leading to varied opinions on the market's development: some stakeholders suggested that there was still significant unmet demand while others indicated early signs of saturation, with cross-lending among MFIs, especially in the South.<sup>4</sup>

In effect, Lebanese MFIs operate in one of the most active financial services market in the Arab world that includes, apart from informal sources, over 50 NBFIs, close to 80 commercial banks, *comptoirs*,<sup>5</sup> retail companies that sell on credit, a dozen NGOs, and some cooperatives. As of November 2014, a dozen MFIs were active in the market, with NBFIs specializing in microcredit and large NGOs serving its majority (see Table 1). Including AQAHA, believed to be the largest provider although somewhat on the sidelines of the microfinance market, there were slightly over 225,000 active borrowers and U.S. \$225 million in outstanding loans. The aggregated microcredit portfolio remained very small as compared to the banking sector's assets, but was estimated to impact ~15% of the Lebanese households, including vulnerable families who rely on small productive and consumption loans to manage their financial lives.

At the same time, information on small loans is scarce since the Central Bank's (Banque du Liban – BDL) credit registry (Centrale des Risques or CDR) records positive information only for loans provided by licensed banks or NBFIs and above 7 million LBP or U.S. \$4,650,<sup>6</sup> which is higher than the average microcredit loan size of approximately U.S. \$1,300 (see Annex 5.3 for the CDR's reporting requirements). Individuals or households at the lower end of the market could thus be subject to multiple or over-indebtedness and remain unnoticed.

---

<sup>2</sup> See for instance: CGAP Occasional Paper n°19, Too much Microcredit? A Survey of the Evidence on Over-Indebtedness, 2011; CGAP Brief, Lessons Learned from the Moroccan Crisis, 2013; European Fund for South East Europe, Indebtedness of Microcredit Clients in Bosnia and Herzegovina, 2009; Indebtedness of Microcredit Clients in Kosovo, 2010; Indebtedness of Microcredit Clients in Azerbaijan, 2011; CGAP Focus Note N°61, Growth and Vulnerabilities in Microfinance, 2010.

<sup>3</sup> This compares to CAGR in portfolio of 43% in Bosnia Herzegovina, 59% in Morocco, 33% in Nicaragua, and 67% in Pakistan over 2004-2008 (Source: CGAP, Focus Note n°61, February 2010).

<sup>4</sup> On market potential, see: IFC-Grameen Jameel study July 2008; Sanabel April 2009 study; Mimosa Index 2013.

<sup>5</sup> *Comptoir* is a specific legal status for non-bank financial institutions that lend out of their own capital and cannot borrow to on-lend. They now fall under the Central Bank's supervision and have to report to the credit registry.

<sup>6</sup> The threshold was brought down to 4.5 million LBP (~U.S. \$3,000) in February 2015. Negative information is reported in full to the CDR, regardless of the loan amount. The CDR also includes the portion of NGOs loans funded through local banks under circular 180, but this represents a relatively small portion of microloans.

**Table 1: Lebanese Microfinance Market in Figures (as of November 2014, start of the project)**

#	Institution	Legal Form	Gross Outstanding Loan Portfolio (U.S. \$ Million)	Number of Active Borrowers
1	Al Qard Al Hassan	NGO	100.0	130,000
2	<b>Al Majmoua</b>	NGO	41.0	48,000
3	<b>Vitas</b>	NBFI	24.0	17,000
4	<b>Emkan</b>	NBFI	25.0	13,000
5	<b>Ibdaa</b>	NBFI	6.0	7,000
6	CFC	NBFI	7.0	4,211
7	<b>ADR</b>	NGO	3.3	2,200
8	<b>Makhzoumi Foundation</b>	NGO	1.1	1,100
9	<b>AEP</b>	NGO	3.4	835
10	<b>EDF</b>	NGO	2.6	749
11	PAWL	NGO	5.0	600
12	UNRWA	UN Organization	2.5	600
13	CLD	Cooperative	4.8	361
Total (without AQAH)			125.7	95,656
<b>Grand Total</b>			<b>225.7</b>	<b>225,656</b>

Source: Statistics obtained from institutions in the beginning of the project, except AQAH for which data was taken from their website (AQAH had disbursed ~130,000 loans worth ~US \$280 million that year, so figures above are estimates of the active borrowers and outstanding portfolio). Note: Participating institutions are in bold.

Given such figures, and assuming that a 10% penetration of microcredit to total population could constitute a market saturation point,<sup>7</sup> the Lebanese microcredit market was still at mid distance from this tipping point, indicating room to grow for the industry. When including AQAH and the twelve largest MFIs, microcredit borrowers represented only 5.5% of the total population. Comparing this rate to that of countries that went through a repayment crisis did not allow drawing clear conclusions (see Figure 1), as some of these countries had high penetration rates (e.g. Bosnia and Herzegovina, Bangladesh, the Indian state of Andhra Pradesh), while others had much lower ones (e.g. Morocco, Nicaragua). Compared to some regional markets, the penetration rate in Lebanon was similar to Jordan (5.7%)<sup>8</sup> and more than twice higher than in Morocco (2.5%).<sup>9</sup>

However, basic growth projections could have rapidly placed Lebanon above saturation point. The overall level of lending was starting to be on the higher end by international comparison. Domestic credit to private sector as percent of GDP reached 103% (World Bank, 2014), which is above the threshold level deemed to be acceptable for an economy.<sup>10</sup> According to Findex, 15.6% of adults reported borrowing from a financial institution in 2014.<sup>11</sup> This was in line with supply-side figures suggesting that ~18% of adults had access to formal credit, even when adjusted by an estimated factor of multiple borrowing (e.g. 30%), since: i) the credit registry counted ~640,000 active unique individual borrowers as of late 2014; and ii) the NGOs and AQAH together served nearly 180,000 adults. Projections at a 5% growth rate, lower than historical CAGR, indicated that penetration would have exceeded 20% within few years, a level only seen in a handful of upper middle-income countries according to Findex.<sup>12</sup>

<sup>7</sup> See CGAP Occasional Paper n°19, Too Much Microcredit? A Survey of the Evidence on Over-Indebtedness, where 10% benchmark has been suggested by Adrian Gonzalez in 2010 as the tipping point at which the microloan market may start to experience over-extension of credit resulting in excessive debt burden leading to repayment problems. This 10% mark should be interpreted with caution as a proxy rather than a theoretically sound and empirically verified benchmark.

<sup>8</sup> 'Microfinance Industry Performance Report 2014', Tanmeyah 2015.

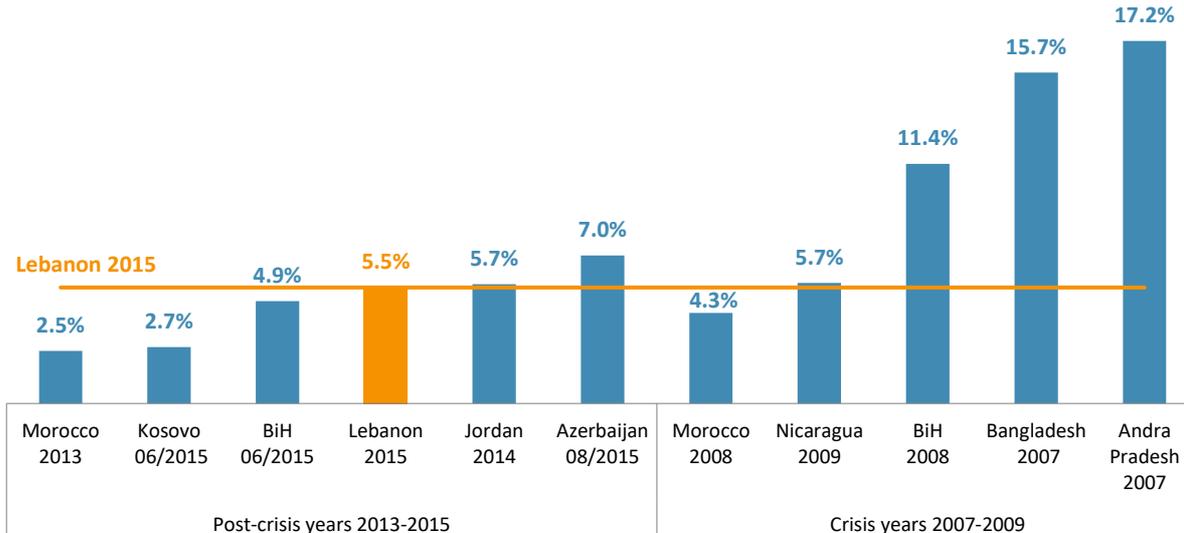
<sup>9</sup> 'Ending the Microfinance Crisis in Morocco: Acting early, acting right', IFC 2014.

<sup>10</sup> See Stephen G Cecchetti, Madhusudan Mohanty and Fabrizio Zampolli, The Real Effects of Debt, BIS Working Papers No 352, September 2011.

<sup>11</sup> The Global Findex database, the world's most comprehensive database on financial inclusion, provides in-depth data on how individuals save, borrow, make payments, and manage risks. Collected by the World Bank in partnership with the Gallup World Poll and funded by the Bill & Melinda Gates Foundation, the Global Findex is based on interviews with about 150,000 adults in over 140 countries.

<sup>12</sup> Mongolia (35.6%), Iran (31.5%), Montenegro (23.5%), and Uruguay (21.0%).

**Figure 1: Microcredit to Total Population Across Selected Countries**



Source: Mix Market (Kosovo 2015, Bosnia Herzegovina or BiH 2008, 2015, Azerbaijan 2015); Tanmeyah (Jordan); IFC (Morocco, Bangladesh, Andra Pradesh); ACCION - Center for Financial Inclusion Blog (Nicaragua).

It is in such context that the research was kicked off. In what follows, “multiple borrowing” is defined as having several simultaneous loans, whereas “cross-borrowing” is defined as having several simultaneous loans from different financial institutions. “MFIs” refers to participating institutions regardless of their registration status as NGOs or as NBFIs.

**3. Analysis of Microfinance Clients Indebtedness Levels**

**3.1. Defining Indebtedness Levels**

For the purposes of this study, indebtedness levels were determined using a household net indebtedness index as per the following formula:

$$\text{Household net indebtedness index} = \frac{\text{Total monthly debt repayment of the borrower}}{\text{Total monthly income of the household, net of monthly expenses before loan installment}}$$

This index assesses the total monthly debt repayment of a borrower, which includes monthly principal repayments, interest, and applicable fees on all outstanding borrowings, as a function of the total net monthly income of the borrower’s household, which is the disposable income available to the household after meeting all monthly expenses (monthly expenses not including debt repayment, savings, investments). Borrowers were classified into one of four segments based on the criteria found in Table 2 below.

**Table 2: Segmentation criteria by household net indebtedness index**

Segment	Index range	Explanation
Not over-indebted	< 50%	Less than 50% of household's net income spent servicing debt
At risk of over-indebtedness	51%-75%	Between 51-75% of household's net income spent servicing debt
Critical	76%-100%	Between 76-100% of household's net income spent servicing debt
Insolvent	≥ 100%	More than the entire household's net income spent servicing debt

The threshold of 50% was set after several consultations with industry experts and stakeholders including microfinance institutions, international investors, and donor organizations as part of an earlier study.<sup>13</sup> It should be noted that common practice among many financial institutions is to cap installments at 60% of a client's net income, but this study has elected 50% as a conservative benchmark.

### 3.2. Methodological Approach

The study comprised a mix of quantitative and qualitative analyses, aimed at understanding indebtedness levels in the microcredit market by analyzing borrowing patterns, computing the household net indebtedness index, assessing supply- and demand-side factors that can contribute to – or be indicators of – over-indebtedness, and discussing with the borrowers their perceptions and management of debt.

The quantitative analysis was based on data of 1,200 randomly sampled active microfinance borrowers (see Box 1) from eight participating MFIs. Information on loans issued by these institutions and on the borrowers' repayment capacity was extracted from the institutions' management information system (MIS), and information on loans contracted by the same borrowers with banks and NBFIs was extracted from the credit registry. The qualitative analysis consisted of in-depth interviews with MFIs staff and other key stakeholders, as well as eight focus group discussions with clients.

Since banks and NBFIs only reported loans above U.S. \$ 4,650 to the credit registry when the study was launched, the figures are not inclusive of smaller loans that may have been disbursed by these institutions.<sup>14</sup> As such, it was not possible to fully assess the scale of low-income borrowers' credit engagements. However, it was possible to reach statistically valid conclusions related to the use of loans from NGOs and NBFIs, and of loans above U.S. \$4,650 disbursed by banks. See Annex 5.1 for additional details on the overall methodology, including data limitations. It is also to be noted that the credit registry only collects information on arrears of more than 60 days, preventing an analysis of earlier arrears, which would have provided important indications of a client's ability or willingness to repay.

<sup>13</sup> 'Indebtedness of Microcredit Clients in Kosovo' (2011), a study which was funded by European Fund for Southeast Europe (EFSE).

<sup>14</sup> A first analysis based on the U.S. \$4,650 threshold was conducted, followed by a second one when the threshold was lowered to U.S. \$3,000, with no significant difference. This report presents the results of the first analysis.

<b>Box 1 : Profile of Sampled Borrowers</b>		
<b>Criteria 1</b>	<b>Criteria 2</b>	<b>% borrowers</b>
Gender	Male	61.7
	Female	38.3
Settlement type	Peri-urban <sup>15</sup>	25.8
	Rural	55.0
	Urban	19.1
Region	Beirut	5.8
	Beqaa	21.9
	Mount Lebanon	27.7
	Nabatieh	8.7
	North	11.3
	South	24.6
Borrower age	Below 30 years old	32.7
	31-40 years old	30.0
	41-50 years old	20.8
	51-60 years old	12.8
	over 60 years old	3.9
Type of professional engagement	Business	59.1
	Salaried job	40.9
Type of business	Services	44.8
	Trade	34.5
	Agriculture	7.8
	Manufacturing	6.9
	Industry	2.3
	Unclassified	3.6

### 3.3. Borrowing Patterns

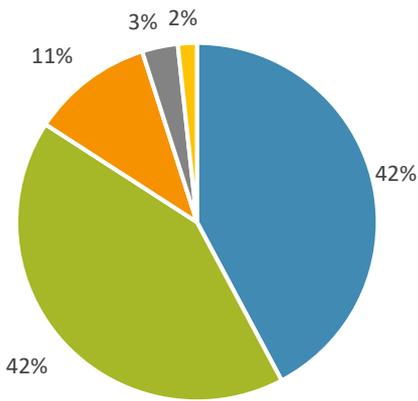
According to the sampled set of clients, borrowing from NGOs accounted for 44% of all active loans, followed by NBFIs at 35% and banks at 21%.

In terms of amount, the median outstanding debt held by borrowers was a little less than LBP 2 million (U.S. \$1,300) but the average was much larger at LBP 6 million (U.S. \$4,000) and was significantly driven up by very large aggregated borrowings for some clients. As for tenure, the majority of loans (77%) were due within one year, and 12% were to be repaid within two years. Loans with longer maturities were relatively rare, particularly for tenures exceeding five years, which accounted for only 1% of loans.

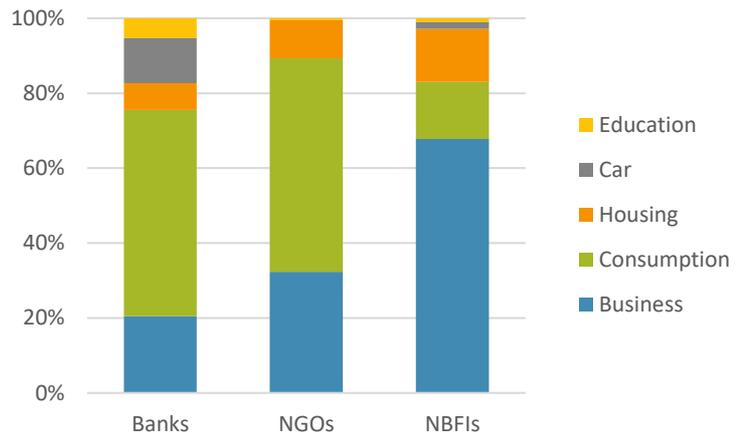
In terms of purpose, business use was the most prevalent and accounted for 42% of loans, followed by consumer finance at 38%, then housing and home improvement loans at 11%. The remaining 9% were used to finance education and other forms of miscellaneous consumption paid for with credit cards. The focus groups also provided additional insights regarding the use of loans, as participants stated they tended to rely on consumer loans to finance everyday expenses and meet emergency needs, but also to finance larger ticket items such as household appliances, or milestone social events such as weddings. Focus group participants regretted that none of the lending institutions were willing to provide a loan to startup-ups, or early stage businesses: business loans are only used to develop and grow an existing enterprise.

<sup>15</sup> Peri-urban area: area immediately surrounding a city or town. It can be described as the landscape interface between town and country, or also as the rural—urban transition zone where urban and rural uses mix and often clash. (Source: Wikipedia)

**Figure 2: Distribution of Loans by Purpose**



**Figure 3: Distribution of Loans by Purpose and Type of Source Institution**



Source: MFC analysis.

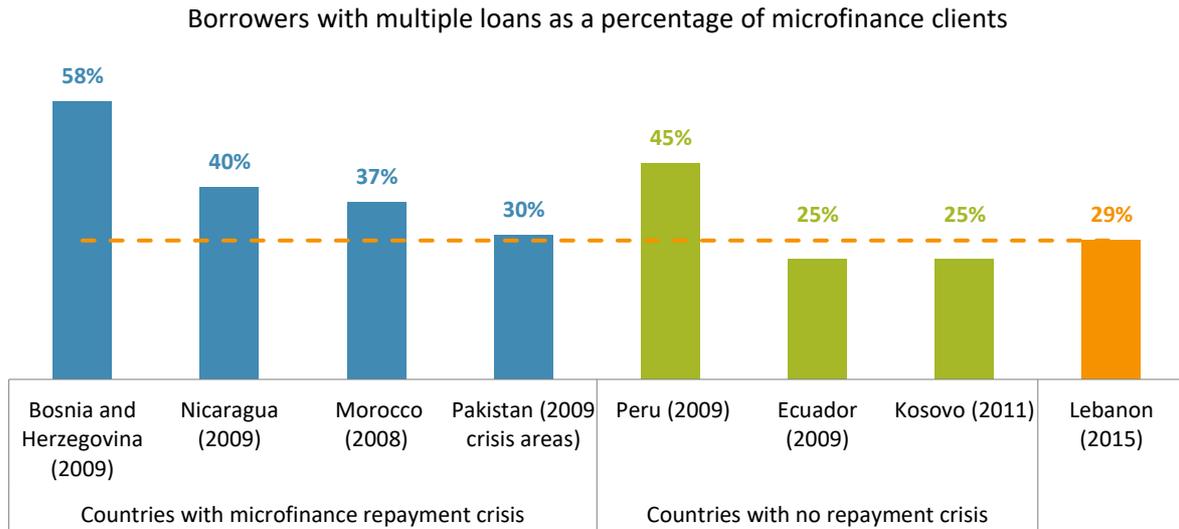
In terms of guarantees, over half the loans (52%) were backed by a personal guarantee from a family member, friend or neighbor – this was most common in loans from NGOs and NBFIs – and a fifth of the loans (21%) were backed by collateral. Roughly 17% of loans were classified as “not guaranteed” or “unsecured loans” according to the credit registry, but this category also included bank loans to salaried employees where the bank had a direct debit arrangement to ensure prompt monthly repayments, which is arguably a form of security. Solidarity group guarantees were rare.

The issue of personal guarantees was further explored in focus groups which revealed that it is quite difficult to identify a guarantor, as many of the respondent’s friends, family or neighbors were either repaying a loan, or had already guaranteed someone else, and in turn were disqualified from being guarantors. This was noted as a potential bottleneck, and is an issue that will become more pronounced as the sector continues to grow.

### 3.4. Key Findings on Multiple and Cross-Borrowings

**The majority of clients (71%) had only one active loan, and 29% of borrowers had more than one loan.** Most clients with incidences of multiple borrowings only had two outstanding loans, but there were some outliers with up to seven or nine loans. Overall, the average number of loans per borrower across the randomly selected sample was 1.44 loans. Although the extent of multiple borrowings is within the range observed in countries where similar research methodologies have been applied, benchmarking the multiple borrowing levels in Lebanon with selected countries does not lead to meaningful conclusions as some countries with comparable rates went through repayment crises while others did not (see Figure 4).

**Figure 4: Multiple Borrowings Across Selected Countries**



Source: MFC analysis.

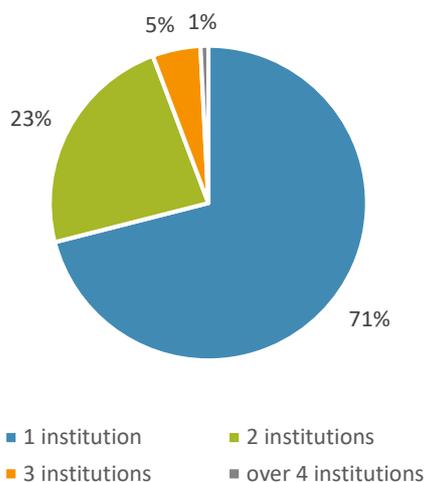
**The analysis showed that 19% of MFIs’ borrowers, be it from an NGO or a specialized NBF, had one or several additional loan(s) from a bank.** There was a lower prevalence of cross-borrowings across NGOs and NBFs or between NBFs (8% and 2% of clients, respectively). As such, with only 10% of clients from two or more MFIs, one finding of this study is that **cross-borrowing is not happening where anticipated.**<sup>16</sup> The concern about a possible high incidence of cross-borrowing between NGOs and NBFs, which initiated this survey, was therefore not confirmed. The overlap between the microfinance and banking markets requires further study. Almost all cases of multiple borrowings entailed a client borrowing from a different institution, so the incidences of cross-borrowing (29% of borrowers) were practically equivalent to the incidences of multiple borrowing. This is due to the fact that MFIs in Lebanon, unlike their counterparts in many parts of the world, very rarely disburse concurrent loans. According to insights gleaned from focus group participants, banks sometimes approve several loans for a single client but such multiple facilities are only provided to their prime clients, typically only when repayment is supported by direct salary transfer, and only after the initial loan is past its mid-term. Overall, the maximum observed instance of cross-borrowing was from five institutions and the average borrower was a client of 1.36 institutions.

According to feedback from the focus groups, the most common reasons for taking a secondary loan were the need for additional support to finance contemplated investments or purchases, and the need to meet unexpected emergencies such as medical expenses. Some clients also indicated that they took additional loans to cover monthly household budget deficits. At least one client in each of the groups admitted borrowing to pay an earlier overdue loan.

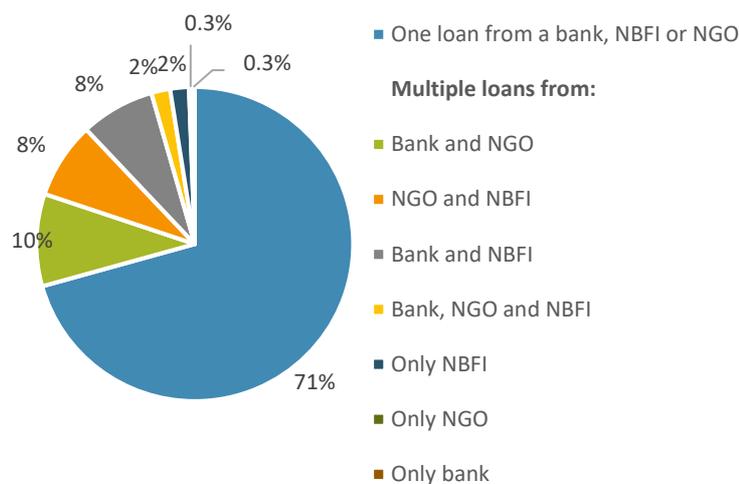
**Clients with multiple loans are six times more likely to face repayment delays.** While only 3% of borrowers with one loan are overdue on the repayments for more than two months, this percentage grows six-fold to 17% in the case of clients with more than one loan and who are borrowing from different institutions.

<sup>16</sup> In Bosnia Herzegovina and Kosovo, where similar in-depth studies were conducted, cross-borrowing patterns also revealed that cross-borrowing from banks and MFIs were more common than between MFIs.

**Figure 5: Distribution of Borrowers by Number of Source Institutions**



**Figure 6: Distribution of Borrowers by Type of Source Institution**



Source: MFC analysis.

Note: clients may have had multiple loans from banks only because they were no longer active with MFIs but had several bank loans at the time of collecting CDR information. This category also includes loans granted by banks with approval of NGOs (h1) and loans financed by banks and granted by NGOs (h21). See Annex 5.4 for the CDR loan classification.

**Inhabitants of Beirut had the highest incidences of multiple borrowings** with 60% of sampled clients repaying two or more active loans, significantly higher than other surveyed regions, which ranged between 24% in the North of Lebanon and 33% in Mount Lebanon. Cross-borrowing is thus most strongly pronounced in Beirut where banking density is highest and where over half of the microfinance clients have permanent jobs. **The suspicions of a high incidence of cross-borrowing in the South and Nabatieh were not confirmed in the analysis** – at least not significantly more than in other regions, despite the relatively high market penetration and the perception of competition from microcredit providers in those two governorates.

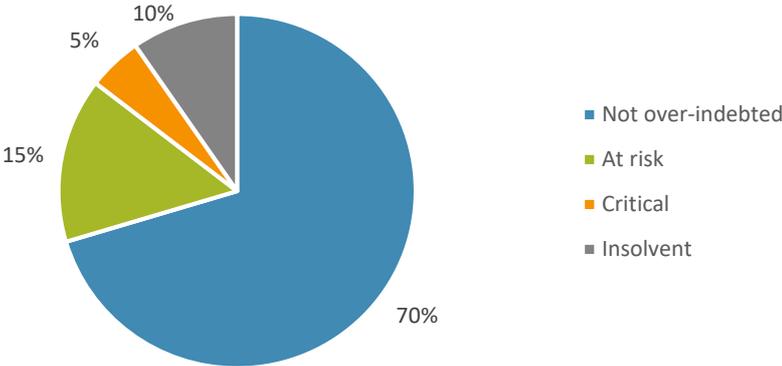
There were no observable differences across age groups or nationalities, but notable differences across occupation (35% of salaried clients had multiple borrowings, as compared to 25% for entrepreneurs), gender (33% of male borrowers, as compared to 23% of female clients), and location (35% of clients in peri-urban areas, compared to 31% for clients in urban areas and 26% for clients in rural areas).

The scale of multiple and cross-borrowings is likely to be higher than the figures above. During focus group discussions, many clients indicated borrowing from institutions that do not report to the credit registry. These included AQAH, which has relatively lenient loan approval procedures, and allows for repayment delays of up to three months, in addition to comptoirs which were estimated to serve between 5,000 and 10,000 clients. Clients typically resort to these institutions for their secondary borrowings. Additionally, many clients borrow from informal sources, primarily family and friends, but also resort to rotating savings clubs. These are often cited in focus groups, but participation and prevalence is difficult to quantify. This finding is echoed by the Global Findex results, where more than half of the 35% of adults who borrowed in 2014, did so informally.

**3.5. Key Findings on Indebtedness Levels**

The majority of borrowers, i.e. 70%, were not deemed over-indebted as they spent less than 50% of their monthly household net income on debt repayment. However, the remaining **30% of borrowers are in varying segments of indebtedness with 15% at risk of becoming over-indebted, 5% in a critical situation, and 10% already insolvent** (see Figure 7). Main correlated factors include net income, number of loans and lending sources, and total debt amount.

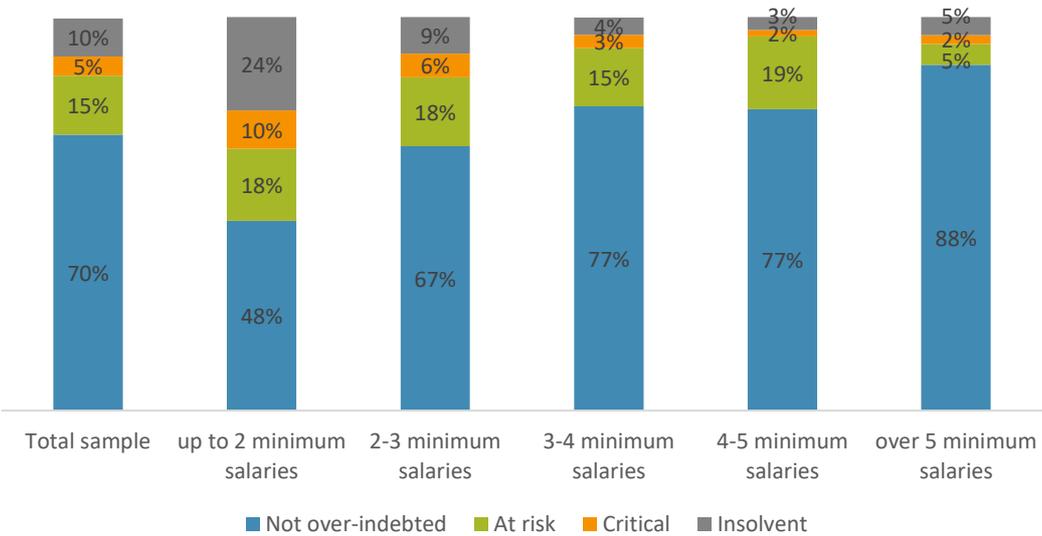
**Figure 7: Distribution of Borrowers by Household Net Indebtedness Index**



Source: MFC analysis.

**Over-indebtedness and net income were closely correlated:** the lower a borrower’s income is, the more likely the over-indebtedness. 52% of households earning less than the equivalent of two monthly minimum legal salaries (i.e. < U.S. \$900) are either insolvent (24%), in a critical situation (10%), or at risk (18%) The incidence of being over-indebted was substantially lower for households earning more than two minimum salaries (see Figure 8).

**Figure 8: Distribution of Borrowers by Household Net Indebtedness Index and Gross Income Level**



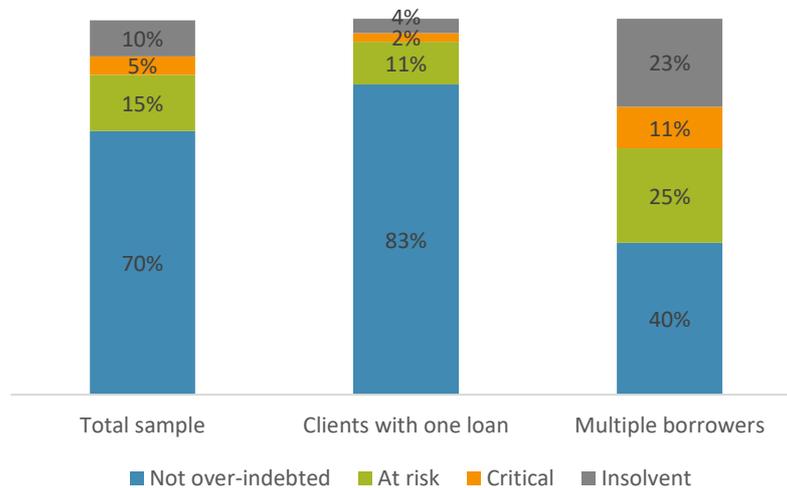
Source: MFC analysis.

Over-indebtedness levels and repayment delays are also correlated, as 16% of insolvent borrowers experienced repayment delays in excess of 60 days as compared to 6% of borrowers who were not deemed over-indebted. Yet, the remaining **84% of insolvent clients still repaid on time, which means they prioritize debt repayment over other expenses.** During focus groups discussions, borrowers indeed indicated that

the monthly loan installment takes precedence over other expenses such as rent, gasoline, phone bills, and even certain types of food.

**Clients who cross-borrow are almost three times more likely to be over-indebted or at risk:** 60% of those with two or more loans spent more than half of their net household income on loan repayments, compared to only 17% of clients with one loan; among clients with multiple borrowings, 23% were classified as insolvent and 11% critical, much higher than clients with only one loan where only 4% were deemed insolvent and only 2% were classified as critical (see Figure 9). A deeper look at cross-borrowings by type of lending institution revealed that almost half (48%) of clients who borrow from all three forms of lending institutions (banks, NGOs, and NBFIs) are insolvent as compared to 21% for clients that borrowed from banks and NGOs, and 12% for those who borrowed from an NBFi and an NGO. Although cross-borrowing does not automatically mean over-indebtedness, in this survey, the data shows a strong correlation between them. Cross borrowing can indeed lead to over-indebtedness, especially if the second loan is taken out in order to patch the holes in the household budget or is disbursed irresponsibly by a competing institution. Multiple financial needs, business and non-business, often motivate clients to take multiple loans, for instance to invest in business and also smooth out consumption or improve housing conditions.

**Figure 9: Distribution of Borrowers by Household Net Indebtedness Index and Multiple Borrowing**



Source: MFC analysis.

The **overall debt load also had an impact on indebtedness levels:** 21% of clients with aggregate borrowings of between U.S. \$5,000 and U.S. \$10,000 were deemed insolvent; this went up to 36% for clients with cumulative loans exceeding U.S. \$10,000; inversely, only 4% of clients with loans totaling less than U.S. \$1,000 were insolvent.

**Geography played a smaller role.** Indebtedness levels were similar across all governorates, with the exception of Beirut and Mount Lebanon. The latter has the highest prevalence of insolvent clients (17%), where the former has the highest prevalence of clients at risk of over-indebtedness. Insolvency rates were also higher in peri-urban areas, at 15% as compared to 9% in rural areas and 4% for urban centers. From a demographic perspective, **men were almost twice as likely as women to be at risk of being over-indebted** and twice as likely to be in a critical situation, but there was no statistically significant variance in indebtedness levels across age groups. Finally, there was significant difference between salaried clients of whom 15% were classified as insolvent, more than twice the rate for entrepreneurs and business owners (6%). It should however be noted that 90% of salaried clients also reported some form of additional business income.

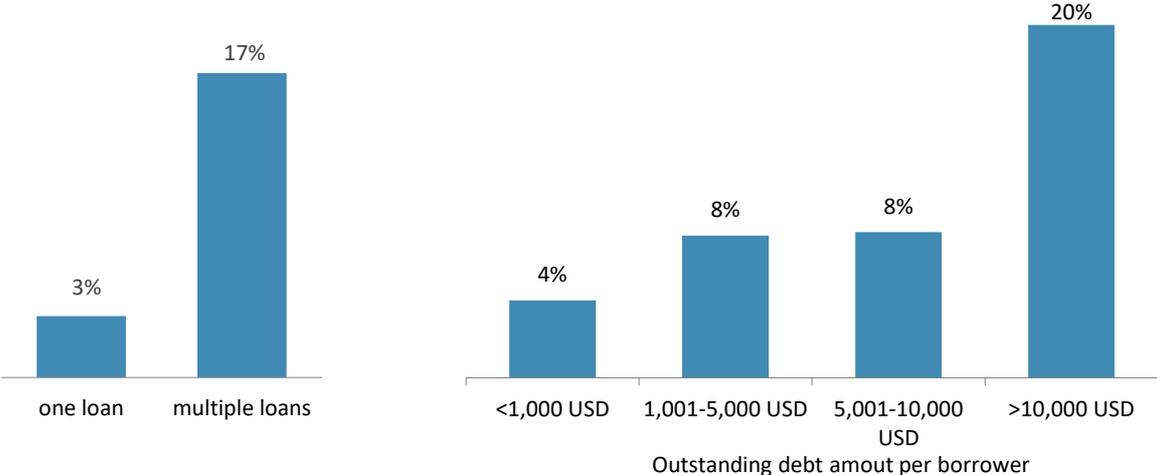
**3.6. Key Findings on Repayments Performance**

Overall, repayment performance was good, with 93% of clients repaying their loans on a timely basis or within 60 days and only 7% of borrowers in arrears for more than 60 days. A deeper analysis of non-performing loans indicated that the bulk of these 7% were cases of default which most likely would be written-off.

Additionally, it was noted that repayment differed per type of institution and product, with microloans financed by banks and granted by NBFIs faring the worst, followed by advances on commercial papers, and credit cards (respectively, 15%, 12%, and 9.5% in arrears). Inversely, NGO loans performed markedly better than bank and NBFi loans with less than 3% of loans in arrears over 60 days.<sup>17</sup>

**There was a strong correlation between multiple borrowings and deterioration in repayment performance**, as 17% of borrowers with multiple loans were in arrears, as compared to 3% of borrowers with only one loan. Also, the larger the overall debt of a given client the higher the arrears: borrowers with more than U.S. \$10,000 in aggregated outstanding debt from multiple sources (including larger loans from banks), though representing only 9% of all borrowers, were far more likely to be in arrears (20% as opposed to 4% to 8% in arrears among borrowers with smaller outstanding loans).

**Figure 10: Share of Borrowers with a Repayment Delay over 60 Days by Level of Multiple Borrowing and of Outstanding Debt Amount**



Source: MFC analysis.

Repayment performance was worse for male borrowers (9% of male clients in arrears versus 5% of females), for younger people (10% those aged thirty or below in arrears versus 3% of those above fifty), for inhabitants of peri-urban areas (12% versus 7% in rural areas, and 4% in urban). It was also worse for Lebanese as compared to the minority of foreign borrowers (11%), primarily Palestinians and Syrians (8% versus 2%, respectively).

<sup>17</sup> There are several categories of microloans reported in the credit registry, according to their source of funding and mode of disbursement:  
 - Funded and granted by a bank with the approval of an NGO;  
 - Funded by a bank and granted by an NGO;  
 - Funded by a bank and granted by an NBFi;  
 - Funded and granted by an NBFi or funded by an NBFi and granted by an NGO;  
 - Funded and granted by an NGO.  
 See Annex 5.4 for the CDR loan classification.

In terms of location, Mount Lebanon had the worst repayment rate, with 13% of sampled borrowers in arrears. Beirut stood at 10%, not far from the national average of 7% despite the higher incidence of multiple and cross-borrowing.<sup>18</sup> Arrears were lowest in the South and Beqa'a (respectively 2% and 5% of borrowers).

During focus group discussions, borrowers explained that they were able to repay their loans on a timely basis when they prudently managed their money by borrowing reasonable amounts, and by specifically putting money aside to meet monthly loan installment obligations. As mentioned above (see Section 3.5), borrowers also indicated that they prioritized installments over other expenses. Another insight from the focus groups was that clients were well aware of the incentives that credit institutions provide for timely payment, the penalties that result from delays, and that a strong repayment history is typically rewarded with follow-up loans, often larger, or at better terms, whereas repayment delays could lead to the rejection of subsequent loan applications.

### 3.7. Analysis of Supply-Side Factors Influencing Indebtedness

This study included interviews with several industry stakeholders to document other factors that could drive the indebtedness of borrowers in Lebanon. **While rising competition and capital in-flow from investors were not found to be contributing factors, consumer lending would deserve to be monitored,** which in turn might call for regulatory changes.

Indeed, given similarities in loan products and lending procedures, microcredit providers distinguish their service by the short turn-around to approve and disburse loans, and loan officers say speed is a key selling feature for clients as opposed to competitive interest rates or loan tenures.<sup>19</sup> Arguably, a shorter time to review loans and to assess a borrower's repayment capacity could drive an increase in defaults and over-indebtedness. There is, however, no evidence, despite sustained growth since 2006, that increased competition in Lebanon has led to more relaxed underwriting standards, an adverse selection of clients, or a rise in over-indebtedness. Also, there does not appear to be a strong push on the part of investors for fast growth and disbursement of loans, so they are not likely to be a source of clients' indebtedness.

A more worrying channel of competition for clients comes from consumer lending, such as shops selling durable consumer goods on credit. While little is known about the size and scope of this 'fringe' sector, it has been repeatedly reported in interviews and discussions with clients and industry stakeholders, and is consistent with macroeconomic data on consumer debt (see Section 2). Higher incidences of borrowing from these providers – not covered in this study – could potentially undermine the microfinance market as debts have to be repaid from the same source of income, a phenomenon which has been observed in other mature microfinance markets (e.g. Bosnia and Herzegovina).

On a closing note, gaps in credit reporting limit the ability of all players to assess the indebtedness level of borrowers and guarantors. Only banks and NBFIs reported to the credit registry at the time of the study, leaving out NGOs and cooperatives that do not fall under the Central Bank's umbrella. As a result, less than 19% of all microfinance borrowers was reported to the credit registry,<sup>20</sup> and there was not enough

---

<sup>18</sup> Repayment and multiple or cross-borrowing are generally correlated. In the case of multiple borrowing from banks, correlation is weaker. This is the case in Beirut where clients more often borrow from banks or have credit cards.

<sup>19</sup> Anecdotal information on AQA's lending processes indicates a flexible approach to repayment, allowing clients to repay when they can, unlike the typical microfinance providers. This flexible approach seems to drive more clients to the organization and offers a cash buffer for consumption smoothing. Paradoxically, high repayment to microcredit providers other than AQA could be a result of clients having some sort of 'line of credit' from AQA.

<sup>20</sup> This represents NBFIs borrowers. NBFIs report their positive information in full, and represented 19% of the sector when including AQA.

information to properly assess the outreach of AQAH, comptoirs, or other fringe lenders.<sup>21</sup> It is to be noted that the Central Bank introduced consumer protection measures in the past few years, including on credit transparency.<sup>22</sup> Their effectiveness in limiting over-indebtedness levels was outside of the scope of this work and remains to be studied.

---

<sup>21</sup> Since then, comptoirs have been required to report to the credit registry.

<sup>22</sup> See for example BDL Circular n°124 of 2010 and related Banking Control Commission of Lebanon n°273 of 2011 on credit transparency.

## Box 2: Cash Flows of Lower Income Lebanese Borrowers' Households

According to Findex, Lebanese adults borrow and save more significantly than regional peers, and on average rely more on formal financial institutions to do so. This conceals however a significant gap between the richest 60% and poorest 40% of the population: the latter borrow more and save less, and have fewer dealings with formal financial institutions. This more intensive use of informal financial services limits the ability to assess the indebtedness of lower-income segments of the population through MFI or credit registry data.

However, the 2012 Lebanese household budget survey presents reliable enough information to serve as a basis for an analysis of this segment of the Lebanese population. It presents a breakdown of household expenses according to several income brackets and shows basic expenses are an almost fixed amount that makes up the majority of the poorest household's budget. **This data** provides insight into the very limited amount of money these people can dedicate to loan repayment, and **confirms the higher likelihood of insolvency among the lower income segments**. Even with conservative assumptions, simulating households' cash flows based on publicly available consumption figures, it appears that 20% of the sampled households, concentrated in the lowest income segment, would be insolvent when facing repayment obligations of a typical microfinance loan. This is twice the 10% insolvency level found in the quantitative analysis.

Using various income categories, the table below estimates the net disposable cash flow, by deducting estimated minimum household expenditures from the total household income. The household expenditures are estimated using the national upper poverty line (estimated at U.S. \$630 USD per household and per month<sup>23</sup>) as a proxy. The last columns then subtract the average monthly loan installment<sup>24</sup> from the average net disposable income.

Household cash flow per income segment based on poverty line

Household income				HH expense = upper poverty line		Monthly cash flow after loan repayment for the studied sample		
% of the sample	Monthly minimum salaries	Range (US\$)	Average income (US\$)	Expense (US\$)	Net disposable income (US\$)	Average monthly loan installment (US\$)	Monthly net cash flow best scenario	Monthly net cash flow worse scenario
			(a)	(b)	(c = a - b)	(d)	(c - d)	(c - d)
2%	Up to 1	Up to 465	400	630	-230	111 - 250	-341	-480
18%	1 to 2	465 – 930	698	630	68	111 - 250	-43	-182
32%	2 to 3	930 – 1,395	1,163	630	533	111 - 250	422	283
18%	3 to 4	1,395 – 1,860	1,628	630	998	111 - 250	887	748
16%	4 to 5	1,860 – 2,325	2,093	630	1,463	111 - 250	1,352	1,213
6%	5 to 6	2,325 – 2,790	2,558	630	1,928	111 - 250	1,817	1,678
9%	Over 6	Over 2,790	3,200	630	2,570	111 - 250	2,459	2,320

Notwithstanding this static cash flow analysis, indicating that Lebanese households do not have a financial cushion proportionate to their revenues, a key element of a globally poor household's cash flow is the higher volatility of both income and expenses. Indeed, a small change in only the cost of basic items can cause a significant pressure on disposable income, since a significant portion of poor households' income goes to basic expenditures. Besides, low-income micro-entrepreneurs usually face factors of uncertainty that affect their net income. For example, they tend to engage in highly competitive, hence uncertain, activities. They might also be acting as lenders, which changes their cash flows and indebtedness levels. In the Lebanese context, **it is thus advisable that credit providers more precisely segment their clients and study their income patterns**, while adapting their lending policies to lower income clients whose cash flows are more likely to vary during the course of the loan.

## 4. Pending Questions and Next Steps

### 4.1. Pending Research Questions

Data from this research shows a strong correlation between cross-borrowing, over-indebtedness, and repayment delays. The picture remains however incomplete and a number of questions stand out. Answering the following would allow drawing a fuller picture of credit engagements and their implications on low-income clients' indebtedness level.

On the credit market:

- What is the market share of comptoirs and other commercially-oriented fringe lenders such as stores selling on credit?
- What is the coverage of the territory of Lebanon by each lender?
- What is the overlap between microfinance institutions and banks/NBFIs for loans falling below the reporting threshold to the credit registry?
- What is the scale of cross-borrowing when loans from all credit institutions (including AQAH, comptoirs and any other), all informal sources, and all sizes are analyzed?
- What are the drivers for cross-borrowing between NGOs/NBFIs and banks: are the banks entering the microcredit market? Are microfinance clients graduating to become bank clients? Are NGOs/NBFIs upscaling?

On indebtedness levels:

- What is the level of engagement of active borrowers in providing guarantees to other borrowers?
- What is the extent of multiple borrowings within one household (i.e. more than one household member being an active borrower)?
- What is the perception of debt burden among borrowers?

<b>Box 3: Examples of Possible Research Options</b>	
<b>Demand-side options</b>	<b>Supply-side options</b>
<ul style="list-style-type: none"><li>• Survey the sampled clients</li><li>• Undertake a national population survey</li><li>• Undertake a population survey in one region (reference point)</li><li>• Assess the average 'shopping basket' cost</li><li>• Assess the market potential for the different segments</li></ul>	<ul style="list-style-type: none"><li>• Check a new sample against the enriched CDR</li><li>• Undertake a MIMOSA exercise</li><li>• Undertake a geographical mapping of lenders branches and offices (e.g. MIX Market's mapping)</li><li>• Conduct a mystery shopping exercise</li></ul>

## **4.2. Possible Next Steps**

### **4.2.1. The Need for Baseline Client Data**

Answering some of the above questions can be done through a survey.<sup>25</sup> Depending on the scope of interest, surveys may focus on MFIs' borrowers, or encompass a broader, more representative sample of the total population. Focusing only on borrowers would help enable the exploration of credit use in more depth. Conducting the survey on a sample of the total population (at the national or regional level) would create an opportunity to compare financial practices, knowledge, attitudes and preferences of borrowers and non-borrowers and to assess the potential demand for financial services in various segments of the population.

Collecting adequate and consistent client data, including income, is also necessary at the MFI level if monitoring the actual indebtedness level on a regular basis is to be done.

### **4.2.2. Coordinated Efforts of the Lending Sector**

Problem debt and over-indebtedness have the potential to affect the reputation and stability of the lending industry as a whole. Documenting and forecasting precisely the extent of the phenomenon should be the result of a widespread commitment, interest, and participation by industry stakeholders and lending institutions. Reliable evidence should lead market players to decide upon the potential options to address the situation. Among these, governance (which institutions, if any, are responsible for addressing the problem of over-indebtedness?), infrastructure (what improvements are needed in credit information systems?) and market conduct (commitment to some common responsible business practices?) will be key to ensuring sustained and well-designed efforts are made.

### **4.2.3. The Need to Define Over-indebtedness and Responsible Lending**

Further assessments of over-indebtedness need to be based on unified definitions of responsible lending, responsible borrowing, and over-indebtedness. Studies conducted in other countries have produced evidence that over-indebtedness levels estimated based on cash flow analyses or repayment rates are usually much lower than what borrowers' declarations imply. Taking action on over-indebtedness requires taking a position on the different approaches to the concept.

---

<sup>25</sup> Initially, this research included a survey of the sampled borrowers, aimed at assessing their perspective of debt burden. Upon the industry's request, the survey was put on hold until after the results of the first three components – the subject of the current report – are discussed.

## 5. Annexes

### 5.1. Methodology

#### **The research comprised three components:**

- a supply-side qualitative analysis of factors which can contribute to over-indebtedness based on interviews with microcredit industry stakeholders (November 2014 to January 2015);
- a quantitative analysis of loan and income data drawn from CDR database and MIS of participating MFIs for a representative sample of 1,200 borrowers (February to August 2015);
- focus group discussions with borrowers and non-borrowers (July 2015).

Eight microfinance institutions participated in the project: five NGOs (Al Majmoua, ADR, AEP, EDF, Makhzoumi Foundation) and three NBFIs (Emkan, Ibdaa, Vitas). Altogether, as of November 2014, they served close to 95,000 active borrowers, or 89% of the microfinance market without AQAH and 39% of the market if AQAH is included. It is to be noted that the project sought to involve AQAH in the scope of the study. Despite preliminary interest expressed in November 2014, AQAH never confirmed its participation in writing. Follow up was dropped in March 2015.

#### **Supply-side qualitative analysis**

This part of the study aimed at identifying factors on the supply side which can contribute to over-indebtedness. For this purpose, in-depth interviews were conducted with staff of financial institutions participating in the project – top level managers, branch managers, and loan officers. Additionally, interviews with other stakeholders (regulators, donors, investors, other lenders) were conducted – BDL, Kiva, World Bank, USAID LIM project, Grameen Jameel, responsAbility, AQAH, PAWL, UNRWA, CFC.

#### **Quantitative analysis of loan and income data**

Data was gathered from the credit registry (CDR, housed at Lebanon's Central Bank) and the management and information system (MIS) of the participating institutions for a sample of 1,200 active borrowers. The sample size was determined based on the total number of clients. The assumptions in the calculation were that the confidence level should be 95% and the margin of error (confidence interval) below 3%, requiring however a sample as small as possible in order to facilitate the data extraction. In order to ensure fair representation of the smallest institutions and allow for a separate, per-institution analysis, the sub-sample size for the small institutions serving less than 4,000 borrowers was set at 50 regardless of the actual market share. In the case of large institutions serving more than 4,000 borrowers, the sub-sample size was 250 regardless of the market share to ease the data extraction and compilation. Small institutions were thus over-represented while large institutions were under-represented, but this was corrected in the course of the analysis, with the dataset weighted to account for the market share of each participating institution.

The sample composition was chosen after considering different options and trade-offs between the workload for participating institutions (extracting data for a large number of sampled clients) and the margin of error. All participating institutions agreed on this approach after reviewing the different options (see benchmark of sampling options below).

Data about credit engagements and client characteristics were obtained from two sources – credit registry CDR and MIS databases of participating institutions. In order to ensure full confidentiality of the personal data, project codes were assigned to the client data which were used in the project. The project team did not have access to personal information of clients and only analyzed anonymous data. Confidentiality agreements were signed with each participating institution.

The credit registry CDR provided data containing some client characteristics and loan features. Each participating institution provided demographic and business data, as well as loan characteristics of the clients they sampled. NGOs and NBFIs cross-checked the full sample list against their own databases to detect if clients sampled by other participating institutions had loans, as these institutions do not report to the CDR.

#### **Data limitations**

There were several data limitations including: 1) the lack of a complete information set about all credit engagements, since only banks and NBFIs report loans above a certain threshold to the CDR (U.S. \$4,650 at the time of the data sourcing); 2) the lack of information about credit engagement of other household members (the assumption being made that only one household member had a loan); 3) the monthly repayment amount missing in the CDR; 4) the lack of consistent income data from participating institutions (data on the net household income was available for only 43% of the sample); 5) the mismatch between the date of income information and the date of the study (client income may vary rapidly); and 6) the time discrepancy (one month between the sample preparation and the time of data extraction from the CDR). Mitigating measures were applied where possible.

#### **Focus group discussions**

The focus group discussions were conducted with the aim of understanding how people perceive borrowing, how they assess their own indebtedness and more generally how they manage money to meet their obligations and to what extent they save. In order to account for diversity of microfinance clients the groups were organized in six different locations throughout the country and in different settings (urban areas and suburbs). The groups in suburbs were organized separately for men and women.

Altogether, eight focus groups were organized with 43 participants. Mini-groups consisted of 2-5 participants and full groups consisted of 8 participants. Microfinance clients were recruited by institutions participating in the project, while bank clients and non-borrowers were recruited by the local survey company InfoPro.

## Benchmark of sampling options

	Institution	Number of active clients (based on available information prior to the launch of the study)	Option A - Representative sample at 5% error margin per institution					Option B- Sample according to the market share of each institution with a total of 1,100 clients			Option C - Sample of 1% from each institution		Option D - Realistic sample taking into account burden for participating institutions - ALL institutions participate		Option E (chosen) - Realistic sample taking into account burden for participating institutions - FEW institutions participate	
			Sample size	Sample size with AQAH	Margin of error	Sample size w/o AQAH	Margin of error	Sample size	Margin of error	Sample size	Margin of error	Sample size	Margin of error	Sample size	Margin of error	
1	AQAH	130,000	383	622	3.9%	0		1,300	2.7%	250	6.2%					
2	Al Majmoua	48,000	381	230	6.5%	529	4.2%	480	4.5%	250	6.2%	250	6.2%			
3	Vitas	16,000	375	77	11%	176	7.4%	160	7.7%	250	6.2%	250	6.2%			
4	Emkan	15,000	375	72	12%	165	7.6%	150	8.0%	250	6.1%	250	6.1%			
5	Ibdaa	6,000	361	29	18%	66	12%	60	13%	250	6.1%	250	6.1%			
6	PAWL	6,000	361	29	18%	66	12%	60	13%	250	6.1%					
7	CFC	4,211	352	20	22%	46	14%	42	15%	250	6.1%	250	6.0%			
8	Makhzoumi	1,100	285	5	44%	12	28%	11	29%	50	14%	100	9.4%			
9	EDF	1,043	281	5	44%	11	29%	10	31%	50	14%					
10	ADR	1,000	278	5	44%	11	29%	10	31%	50	14%	100	9.3%			
11	AEP	850	265	4	49%	9	33%	9	33%	50	13%					
12	UNRWA	600	234	3	57%	7	37%	6	40%	50	14%					
<b>Total with AQAH</b>		<b>229,804</b>	<b>3,931</b>	<b>1,100</b>	<b>3.0%</b>			<b>2,298</b>	<b>2.0%</b>	<b>2,000</b>	<b>2.2%</b>					
<b>Total without AQAH</b>		<b>99,804</b>	<b>3,548</b>			<b>1,100</b>	<b>2.9%</b>	<b>998</b>	<b>2.9%</b>	<b>1,750</b>	<b>2.3%</b>	<b>1,450</b>	<b>2.6%</b>			
Statistical significance (95% confidence level)			Ideal	<ul style="list-style-type: none"> <li>Low margin of error for the few largest institutions only</li> <li>High margin of error for the majority of institutions (small ones)</li> </ul>				<ul style="list-style-type: none"> <li>Not significant for small institutions</li> <li>Some significance for large institutions</li> <li>Ideal for the largest only</li> <li>Not equally significant</li> </ul>		<ul style="list-style-type: none"> <li>Reasonable and equal margin of error for all large institutions</li> <li>Higher margin of error for the small institutions</li> </ul>		<ul style="list-style-type: none"> <li>Same as previous but lower margin of error for small institutions</li> </ul>				
Workload for participating institutions			Too heavy	Heavy for large institutions, none for small institutions				Heavy for the largest institutions		Ok		Ok				
Workload for CDR			Too heavy	Ok				Heavy if AQAH participates		Heavy if AQAH participates		Ok				

## 5.2. Commonly used over-indebtedness indicators

Detailed below is an overview of commonly used over-indebtedness indicators and proxies and an assessment of their advantages, drawbacks and potential for bias. This overview was based on Jessica Schicks and Richard Rosenberg's 2011 CGAP Occasional Paper on over-indebtedness.<sup>26</sup>

**Table 3: Available indicators for identifying over-indebtedness**

Indicator	Pros and Cons	Data source	Type of indicator	Moment of observation
<b>Negative impact:</b> Borrowers have more debt than is good for them: they prove to be financially worse-off than they would have been without a loan.	(+) Most conceptually accurate definition (-) A loan might worsen a borrower's situation without putting him/her in a particularly difficult one (-) Costly and time-consuming research required to assess loan impact (randomized controlled trials)	Client	Qualitative	Ex-post; Long delay
<b>Debt ratios:</b> The ratio of individual or household debt service over the disposable income.	(+) Easily implemented (-) Difficult to obtain figures, particularly if there is no credit bureau (-) Threshold usually based on repayment history of the institution (-) No one-size-fits-all ratio	Institution	Quantitative	Ex-post; Data readily available
<b>Borrower's struggles and sacrifices:</b> Consumption, even of a basic nature such as for food, is limited due to a repayment obligation.	(+) Encompasses borrowers who manage to repay but at the cost of extreme sacrifices (-) Difficulty to define what are unduly high sacrifices (-) A client struggling to repay might be better off than they would have been without a loan	Client	Qualitative	Ex-post; Long delay
<b>Default and arrears:</b> Late payments as a measure of an inability to meet repayment obligations.	(+) Easily monitored (-) Inability to repay can be caused by other factors than the excess of debt (-) Does not distinguish between ability and willingness to repay (-) Non-performing loans can be very low while clients struggle to repay	Institution	Quantitative	Ex-post; Long delay
<b>Cross and multiple borrowing:</b> Many empirical studies find that multiple concurrent borrowing is correlated with an increased risk of default.	(-) People can be over-indebted with one loan whereas others can perfectly manage several (-) Limiting multiple borrowing deprives clients from opportunities (compensate strict repayment schedules, take advantage of unforeseen business opportunities, face emergencies, etc.)	Institution	Quantitative	Ex-post; Data readily available

<sup>26</sup> Schicks, Jessica and Rosenberg, Richard, "Too Much Microcredit? A Survey of the Evidence on Over-Indebtedness," *CGAP Occasional Paper No. 19*, September 2011. Accessible on [www.cgap.org](http://www.cgap.org)

### 5.3. Credit Registry Reporting Requirements by Type of Institution

Information as of February 2015.

Credit Provider	Positive Information	Negative Information
Regulated FIs (Banks)	Credit registry (loans > U.S. \$ 3,000)	Credit registry for all loans
Regulated FIs (NBFIs)	Credit registry (all NBFIs for loans > U.S. \$ 3,000, NBFIs specialized in microcredit also for loans < U.S. \$ 3,000)	Credit registry for all loans
Registered Comptoirs	n/a	n/a
Retailers	n/a	Credit information companies
NGOs	Credit registry only for loans in Lebanese Pounds funded through local banks under BDL circular 180	

### 5.4. Loan classification in credit bureau data

Loan type	Code	Share of loans (% of all active loans)	% loans with a repayment delayed for over 60 days
Microloans financed by banks and granted by NBFIs	h22	5.7%	15.2%
Other advances on commercial paper	z2	5.3%	12.1%
Accounts receivable to monthly payments by credit cards	c1	3.4%	9.5%
Other fixed term loans	z3	5.3%	8.7%
NGO loan	h4	43.0%	2.5%
Microloans financed by financial institutions and granted by NBFIs or by NGOs	h3	26.9%	1.9%
Microloans granted by banks with the approval of NGOs	h1	0.8%	0.0%
Microloans financed by banks and granted by NGOs	h21	0.7%	0.0%