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ACRONYMS

AFD Agence Française de Développement

ARE USAID/Lebanon Agriculture and Rural Empowerment Activity

EBRD European Bank for Reconstruction and Development

ESFD Economic and Social Fund for Development

IDAL Investment Development Authority of Lebanon

IFC International Finance Corporation

LC Letter of Credit

LMFA Lebanese Microfinance Association

MFI Microfinance Institution

MoET Ministry of Economy and Trade

MSME Micro, small, and medium enterprises

NPLs Non-Performing Loans

USAID United States Agency for International Development

I. INTRODUCTION

On October 17, 2019, anti-government protests broke out in the Lebanese capital of Beirut and rapidly grew to include millions of residents in what has become known as the October Revolution. The demonstrators denounced the country's sectarian rule, a stagnant economy, high unemployment, and endemic corruption among the country's political elite. They denounced the government's failure to provide basic services such as 24-hour electricity, clean water, and health care. The protesters blocked roads; forced the closure of educational institutions; caused banks to shutter for more than a week; and eventually caused the resignation of then—Prime Minister Saad Hariri. The protests persisted with varying degrees of intensity throughout the remainder of 2019 and into 2020.

The protests were an inflection point for the Lebanese economy, which was already struggling with a debt-to-GDP ratio of about 150 percent. They undermined investors' confidence in the country's solvency, and the rate of exchange from the Lebanese pounds (LBP) to the U.S. dollar — officially fixed at the Central Bank's midrate of LBP 1,507.5 to USD I — devalued by as much as 85 percent, routinely trading for more than LBP 8,000 on the parallel market to USD I by year-end 2020.

Before the protests, the Lebanese market was governed by a system that had prevailed in the country for more than two decades, which can be referred to as a low-productivity "annuitant economy." According to this model, the economy produces very little, depending instead on foreign currency transfers from Lebanese expatriates and other foreign depositors. These depositors were attracted by fast interest rates that they received from Lebanese commercial banks. However, the rates were possible only because banks placed their money in high-risk, high-yield sovereign debt rather than financing private enterprises. At the same time, potential borrowers in productive sectors did not need to borrow money and actually produce but simply keep deposits in banks, profiting off the extremely high yields. This enabled the Lebanese state to produce and export very little and still ensure that many of its people lived comfortably on affordable imports for two decades. However, this also translated into a private sector that lacked investment and an unsustainable public debt. Imports were affordable because the Lebanese banking sector had billions in foreign currency available for trade.

This carefully constructed financial model crumbled in the aftermath of October 2019. Banks began restricting depositors' access to their foreign currency accounts, but they still faced a liquidity crunch that crippled both domestic and international transactions. With funds to purchase imported goods dwindling, it became more important to substitute expensive imports with locally produced items and increase the exportable goods that can be produced in country and then sold to a buyer paying in a foreign currency.

Paradigm shifts such as these usually take place over the course of decades, directed by governments with clear strategies and public policies set in place to plan, execute, and monitor the changes. But in Lebanon, the state's response has been characterized by an absence of decision making in terms of the economy (and in some cases counterproductive intervention), forcing the private sector to react alone to the challenges now facing the country.

The events of 2019 and the accelerated decline of the Lebanese economy that ensued had a particularly profound effect on the agro-food sector. This report provides an overview of the evolution of the Lebanese agro-food sector's access to finance since October 2019. It describes the relationships between various stakeholders in the agro-food value chain, the mechanisms that steer the market, and the various options for financing that used to be available to the people and enterprises involved in the sector and how those options have changed.

The Lebanon Agriculture and Rural Empowerment (ARE) activity, funded by the United States Agency for International Development (USAID) and implemented by Chemonics International Inc., aims to develop rural economies in Lebanon through support to the agro-food sector and other industries to unlock local and export sales potential while also creating jobs and increasing farmers' and workers' incomes. Throughout January 2021, ARE conducted a study of the financial sector, specifically as it applies to the agro-food value chain, to understand how the events of 2019 and their aftermath have impacted it. The study engaged 55 stakeholders, including financial institutions, microfinance institutions, public sector institutions, multilateral agencies, insurance agencies, NGOs and donor-funded projects working in the sector, and agricultural input suppliers. A list of questions asked of interviewees can be found in Annex A.

Although all stakeholders in the agro-food value chain have borne the impact of the recent disruption in the financial system, some have been hit harder than others due to their needs and a lack of market regulations and protections. This report pays particular attention to the weaker links in the value chain: the farmers and the micro, small, and medium enterprises (MSMEs) whose businesses are most closely associated with farming. It analyzes existing streams of financing as well as potential mechanisms that could cater to the needs of the agro-food value chain in Lebanon in the short-to-medium term and also the long term. The researchers relied on intensive interaction and interviews with stakeholders, unless otherwise specified, figures and number presented in the report are primary data collected by the researchers through interviewees.

This report is organized around the primary mechanisms that financed the agro-food sector, describing their role prior to October 2019 compared with their capacities by January 2021. Chapter II provides an overview of sector-specific characteristics impacting access to financing. The report then presents a chapter each on traditional banking products and services, microfinance institutions, and agricultural input services. The report concludes with a chapter that summarizes initiatives and recommendations for financing the sector amid the economic crisis in the coming years.

II. LEBANESE AGRO-FOOD SECTOR OVERVIEW

Stakeholders in the Lebanese agro-food value chain face a number of structural challenges that affect their access to financing. These characteristics must be considered by any strategic policy framework or development initiative that seeks to develop the sector. This chapter examines some of the most prominent challenges faced by the sector, as pinpointed throughout the course of the study conducted in January 2021.

LEBANESE FARMERS SUFFER FROM AN OUTMODED LEGAL FRAMEWORK

Agriculture encompasses about 3.6 percent of the Lebanese workforce. A 2010 census by the Food and Agriculture Organization (FAO) found that nearly 170,000 households (about 15 percent of Lebanese households) benefit from revenues derived from agriculture. However, Lebanese farmers do not benefit from any recognized legal or professional status, and farm work is not governed by domestic laws. In other words, farmers operate informally, regardless of the scale of their production, and therefore do not receive the benefits they might receive if they were officially registered as agricultural workers, such as social safety nets and tax benefits. The lack of any formal structure in the sector causes agricultural activities to be considered high risk by banks, insurance companies, and microfinance institutions (MFIs). It also deters private investment and privileges short-term activities with a low possibility for sustainability. Although various initiatives have tried to get farmers some form of official recognition through channels such as the Chamber of Commerce, Industry, and Agriculture (mainly through the creation of a registry of farmers whereby a farming business as the profession of farmer would be clearly defined) these initiatives were unsuccessful for several reasons, yet most importantly because farmers' organizations are weak and lack representativity and hence, lobbying power. Besides, experience shows that the scattering of farmers and the weakness of professional organizations is likely to suit the interests of other value chain stakeholders such as input suppliers or traders whose profit margins would be likely be threatened by well-organized cooperatives or strong unions. It is also worth mentioning that farmers who are economically weak and are generally in need of monetary assistance, are easy targets to rally when it comes to comfort political power in rural areas.

In addition to receiving virtually none of the benefits of a registered profession, farmers and other agricultural workers receive sparse public funding. Most of the institutions and administrations overseeing the sector have marginal budgets. For example, the Ministry of Agriculture has received only about I – 3 percent of Lebanon's national budget for the past 15 years. Another institution, the Investment Development Authority of Lebanon (IDAL), was established in 1994 to promote and facilitate investment in Lebanon and market Lebanese exports. IDAL has operated an export subsidy program called Agri Plus for agricultural and agro-industrial products, incentivizing producers to export their goods and participate in international fairs. The program received an initial budget of USD 33 million for subsidies; in 2015 it was allocated an additional USD 20 million to help Lebanese traders make up for losses experienced following the closure of the Syrian Jordanian border, which is a vital route for Lebanese road export to Iraq and the Gulf. However, IDAL has experienced liquidity issues, with export subsidy reimbursements until 2019 experiencing delays of three years, and based on our research, appears to have been suspended.

Specialized institutions that were set up to support farmers directly have had some positive impact, such as the Green Plan I. However, many of these institutions were short-lived and are no longer operational, such as the Bank for Agriculture, Industry, and Real Estate. Cooperative initiatives have also yielded little success. The most renowned credit union, the National Union for Cooperative Credit, has weakened over the years and more or less fallen out of the agro-sector ecosystem because of poor management and political interference.

Finally, the land tenure systems and other regulations dictating agricultural production are associated with low productivity and land degradation, and have inhibited growth. Inadequate management of leased land has degraded land quality, while inheritance laws result in land fragmentation, preventing producers from attaining economies of scale. Meanwhile, farming areas have shrunk in the face of urbanization due to a lack of land use regulations or a strategic plan to preserve arable lands.

LEBANON HAS NO SYSTEM OF CROP INSURANCE

Currently, Lebanon has no crop insurance system. All of the stakeholders in the value chain face large risks as they are subject to natural conditions and seasonal variations that affect crop yield and profit margins. All of the interviewees who participated in this study — from farmers to traders, input suppliers to bankers, MFI representatives to fund managers — said introducing crop insurance would be a game changer for the sector, mitigating a substantial amount of risk for stakeholders, promoting farmers' liquidity, and therefore easing access to finance. It therefore bears describing the current state of crop insurance in Lebanon — and why it is unlikely to be introduced anytime soon.

In 2011, a group of stakeholders in the sector launched an initiative to lobby for the introduction of insurance products that would reduce farmer's risk and improve their access to finance. The initiative brought together bankers, commercial insurance companies, farmers, chambers of commerce, leading NGOs like *Arc-en-Ciel*, the Central Bank, and the Ministry of Agriculture. However, interviewees who were present at the time, said the initiative floundered without the institutional support it needed from the public sector.

Several other obstacles, mainly economic, exist to establishing a crop insurance system in Lebanon. On the one hand, private insurance companies must allocate an additional USD 500,000 in capital to provide crop insurance. According to the insurance experts interviewed as part of this study, that sum is way too high for the comparative amount of premiums that a company could hope to reach in Lebanon. On the other hand, the insurance must be made affordable to farmers. Almost everywhere around the world, crop insurance premiums are subsidized by states and professional organizations.

Additionally, before an insurance scheme is designed, an expert must map the existing crops and the historical climate risk to assess the types and volumes of the crops that would be worth insuring and potential risks. The assessment would determine what to insure against. Practically, this can be done

In 1963, with the aim of reducing economic development inequality and mitigate Rural exodus, the Lebanese government established the Green Plan (GP); a general directorate dependent of the Ministry of Agriculture and in charge of the development of program in support to the establishment of small-scale agricultural infrastructure (i.e. irrigation lakes,

agricultural roads), as well as the support of farm level investment through direct subsidies.

FINANCIAL MAPPING, AGRO-FOOD IN LEBANON | 4

in two ways. Index insurance (the current international trend) would pay out when weather conditions (i.e., rain or drought) breach parameters established by the insurance companies; it requires accurate and officially recognized weather stations and fast and effective claims settlement processes. Area yield insurance is more complicated and pays out in case of a shortfall of an area's realized crop yield relative to its average historical yield.

According to interviewee Coralie Zaccar, the assistant general manager at Commercial Insurance, crop insurance cannot be an initiative for one single insurance company without substantial support from the state (IDAL or the Ministry of Agriculture) or another body that would supply financial backing. She said a system must be in place to support the insurance system's setup and rollout, helping to raise awareness among farmers to gain their trust and contribute to a subsidization program that cultivates buy-in. For Zaccar, this setup must be the result of a private-public partnership. For instance, MFIs would promote agricultural loans, setting crop insurance as a prerequisite for accessing the loans. At the same time, the beneficiaries would benefit from IDAL's support to export and bring in foreign currency, while the Ministry of Agriculture would support the premiums.

A senior manager in a leading insurance company who did not wish to be quoted, noted Lebanon's size, pointing out that a single storm may affect crops throughout the country. This would prevent insurance companies from diversifying their risk and make them susceptible to huge losses in case of a single natural disaster.

Finally, due to Lebanon's economic crisis, all local insurance companies have European reinsurance companies backing their portfolios. The reinsurers are either withdrawing from the Lebanese market or, more commonly, tightening their conditions and drastically reducing their coverage and their limits. This is taking place for both basic and classic insurance policies, let alone new types of coverage. Many companies have seen the limits they once had with reinsurance companies lowered significantly in 2021, with risks such as popular and mass movements and riots excluded from their portfolios. In light of these reasons, A-rated international reinsurance companies are unlikely to consider increasing their exposure to new types of risk in the volatile Lebanese market.

AGRICULTURAL COOPERATIVES ARE UNDERUTILIZED IN LEBANON

The law governing Lebanon's cooperatives (COOPs) dates back to the 1960s and needs to be updated to account for contemporary economic needs and practices. Currently, a large number of COOPs in Lebanon lack credibility as legal entities with a true economic objective, having in the past been misused as instruments that enabled private interests to avoid taxation and embezzle grant funds. Consequently, only 4.5 percent of farmers in Lebanon belong to an agricultural COOP, and COOPs usually are unable to secure bank loans. The opportunities they provide for their members are therefore limited.

In 2017, 1,238 COOPs were registered with the Lebanese Directorate of Cooperatives (MoA); it was estimated that only a third of those were active. Fifty-one percent of the registered COOPs were agricultural COOPs, and just 27 percent operated in the agro-food sector. One hundred twenty-five COOPs were women's COOPs, and most of them produced traditional Lebanese food products like mouneh and dried zaatar ("thyme"). Interviewee Christian Kamel, a project manager at Fair Trade Lebanon, has an even bleaker assessment of COOP activity in Lebanon; he says no more than 100 "serious" COOPs are currently operating.

However, it is to be noted that interviewees specified that the Ministry of Agriculture, specifically the directorate of cooperatives has been actively working towards maintaining the active and legal COOPs by implementing a strict audit of their accounts, which they are legally required to submit annually to the directorate. COOPs that failed to submit their accounts had their registration suspended.

THE MARKET DYNAMICS AROUND THE FARMERS HINDER THEIR ACCESS TO FUNDING

To name only a few of the Lebanese market characteristics that weigh on farmers' access to finance, the following can be divided into three categories: structural (market and value chain structure and dynamics that reduce profit and economic returns to agricultural activities), institutional (policy framework, public sector strategy, enabling environment) and behavioral (lack of mutual trust between farmers and financial institutions). Some of these challenges are ²:

> Structural

- Strong fluctuations in the prices of agricultural products and lack of transparency in the price determination mechanism.
- The high prices of inputs that are practically all imported.
- Lack of access to post-harvest facilities and services (storage, refrigeration) which
 forces the farmer to get rid of his produce and reduces significantly his negotiating
 power in terms of sales price.
- High fragmentation of agricultural land.
- Major weaknesses and deficiencies in terms of information and services pertaining to quality control, traceability (non-existent), certifications, information on required standards in export markets, etc.

Institutional

- Lack of government policies and enforcement of regulations.
- Informality of the agricultural sector, and lack of status for farmers as a profession.
- Bad governance of wholesale market.
- Oligopolistic characteristics of the sector at all levels, enabling a few actors to set the prices of products and control their marketing.
- Lack of marketing studies and reliable information for developing exports.

Behavioral

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- Lack of trust between banks and farmers.
- Reluctance of farmers to secure their loans by supplying real estate collateral.
- Banks not willing to use farming output as collaterals for loans.

² FAO (unpublished). Agriculture small holders' access to finance – report by Srour, Ilina 2019 Hamade, K. and Grondier, P. (2020) Agriculture sector diagnostic (AFD)

III. BANKING PRODUCTS AND SERVICES

According to a senior manager at a leading bank, the least that could be said in terms of impact of the crisis on the banking sector is that the crisis disrupted everything in the sector.

This section examines the range of funding available to stakeholders in the agro-food sector through commercial banks in Lebanon and how it has shifted since late 2019.

BANKING PRODUCTS AND SERVICES

PRE-OCTOBER 2019

FARMERS' APPROACH TO BANKS It is worth noting that interviews conducted with farmers, especially smallholders, for the purpose of this study showed that they have been reluctant to approach banks for funding opportunities. This trend was confirmed in interviews with input suppliers and entrepreneurs dealing with smallholders on a daily basis.

The smallholders noted several fears that keep them away from banks. First, they expressed concern about having to provide real estate collateral for fear of losing their property, if they even have the valid legal documents required to do so. They also said that set monthly payments are hard to ensure due to the nature of agricultural production, and that the proposed grace periods do not fully account for fluctuations in yield, seasonal agricultural schedules, or potential natural disasters. They said they feared defaulting on loan payments given the absence of crop insurance.

Additionally, farmers expressed concern about interest payments on input services. However, it is important to note that farmers commonly pay for credit services supplied by input providers, as the deferred payments that the suppliers concede to actually account for interest, although this is never mentioned to the farmer. Indeed, many farmers appeared to be unaware of this implicit interest they had been paying, and said they feared having to pay interest in case they had to turn to other forms of credit. Finally, farmers said that bank loans entailed long and cumbersome loan application processes and that this fact dissuaded them from seeking bank loans.

TRADITIONAL LOANS Up until mid-2019, commercial banks in Lebanon offered a range of loan products to cover the fixed and working capital needs of productive economic actors, including nearly all agro-food value chain stakeholders, among which the larger farmers. The loans generally fell under three classifications, based on their funding source:

- Loans financed by individual banks through their equity and deposits.
- Loans provided to commercial banks by the Central Bank at lower-than-market rates (I percent) to incentivize banks to lend (and charge a hefty markup) and clients to borrow. However, on February I, 2018, Central Bank Intermediary Circular 485 suspended the supply of subsidized funds and replaced them with an interest rate subsidization system whereby banks had to apply for interest subsidies, setting a ceiling for the interest rates charged to clients and specifying the subsidy rates that would be reimbursed to the lending banks.

Loans financed by multiyear credit lines in foreign currency, supplied by multilateral agencies
 (International Finance Corporation — IFC, the European Investment Bank, and more recently the
 European Bank for Development and Reconstruction — EBRD) and intended to support the
 Lebanese economy. Lebanese banks received the funds for medium tenures and on-lent them to
 their clients for shorter periods; once banks were reimbursed (with interest), the amounts could
 be loaned to other clients.

As of September 30, 2020, stakeholders in the agricultural sector represented 1.06 percent of commercial loan beneficiaries and 1.3 percent of outstanding bank loans, valued at about USD 589 million³. For an overview of the different types of bank loans that could have catered to the needs of the agro-food value chain before 2019 crisis, please refer to Annex B.

ADDITIONAL FINANCING SUPPORT MECHANISMS In order to further support the productive sectors, the Central Bank set up two programs to promote MSMEs' access to formal finance and foster economic growth. Two key programs were introduced, the first based on a guarantee mechanism, and the second on an interest subsidy mechanism.

In 2000, a loan guarantee company called Kafalat S.A.L. was set up to improve MSMEs' access to bank loans by providing loan guarantees to eligible sectors and companies. A so-called 'Kafalat Loan' is a loan from the applicant's bank that Kafalat S.A.L. has accepted to guarantee against a fee of 2.5 percent paid by the borrower. Before reaching Kafalat for approval, the applicant's file and project must first be screened, assessed, and approved by their bank.

Over the years, Kafalat S.A.L. has developed a range of products, including a special guarantee product dedicated to agriculture.

'Kafalat Agriculture' is one of Kafalat's programs, implemented in the framework of the ARDP (Agricultural and Rural Development Program) funded by the European Union and executed by the Lebanese Ministry of Agriculture, which aims at financing activities related to the agriculture business in all its aspects. This program is co-financed by the EU and Kafalat S.A.L., and responds to special needs raised by activities of small-scale agriculture and tree plantation. The EU support enabled the extension of resources to increase the guaranteed amount for small-scale agriculture as well as the duration of the guarantee and that of the grace period for arboriculture. The 'Kafalat Agriculture' product offers two products, "the Small famers" product (that guarantees loans extended to various agricultural activities) and the "Trees" product (targets investments in arboriculture).

However, it is important to note that not all banks have adopted the entire range of Kafalat products. In the case of agriculture, many of the largest banks have chosen not to supply "the small famers" or the "Trees' Kafalat products.

It is worth noting that the classification of loans by sector is partially left up to the banks. Agricultural loans, as appearing in Central bank publications, are most likely restricted to loans financing farming activities, while agro-food processing most likely fits under "manufacturing," whereas imports of inputs and equipment for agriculture are classified as "trade."

³ BDL Quarterly report Q3-2020.

At the end of 2019, total loan portfolio guaranteed by Kafalat amounted to USD 515 M of which 37% (in terms of value) was allocated to agriculture (farmers represented 45% of Kafalat's beneficiaries).

Regarding interest subsidies, BDL introduced an interest subsidy program in 2001 whereby eligible loans would be granted a quarterly reimbursement of 4.5 percent in interest. In other words, the borrower pays the interest on their loan with their monthly payments, and receives a quarterly reimbursement equivalent to 4.5 percent of the payment into his account each quarter.

It is worth noting that some of the loan products provided by banks are eligible for the two national support programs concurrently. For instance, a loan granted under a Kafalat guarantee can also benefit from a 4.5% interest subsidy.

ECONOMIC AND SOCIAL FUND FOR DEVELOPMENT

Fifteen years ago, few support programs were available for microenterprises and individual entrepreneurs. banking products were addressed only to bankable citizens — typically employees with a regular, fixed salary; liberal professions; SMEs; registered corporations; and other trades with an identifiable and traceable income. Banks did little to expand their services. As a result, rural populations in remote areas and otherwise economically active people with an ongoing business that wasn't registered and had no legal status — farmers, handicraft businesses, and the like — were excluded from the formal financial system.

The Economic and Social Fund for Development (ESFD) — originally funded by the European Commission — was set up to tackle several social and economic issues, including the promotion of bankability. The ESFD operates under the Council for Development and Reconstruction (CDR) but is financially autonomous and receives no public funding.

Under its latest partnership with Lebanese banks (2011 – 2018), the fund deposited funds with six partner banks — SGBL, BLOM, BLF, Crédit Libanais, FNB, and BLC — to supply cash collateral for MSMEs that would otherwise not have access to bank loans to grow their business. This loan guarantee scheme was built on a risk-sharing mechanism whereby the lending banks would supply the loan from their own funds and carry only 50 percent of the risk. ESFD partner banks also agreed to mobilize an amount equivalent to twice the ESFD guarantee deposit from their own funds. The program operated across sectors and regions. Target beneficiaries were typically unbanked, formal and informal MSMEs such as farmers, carpenters, plumbers, who usually did not have access to the collateral funds typically required by banks to access credit.

Prior to the program's suspension by the partner banks in 2018, the ESFD's team of business advisors would identify the clients, assess their project, and help them to set up a business plan to approach the banks. For some partner banks, the credit assessment presented by the ESFD team was reliable enough to extend the loan, while for others, another in-house loan appraisal process was conducted by the bank staff before the loan was approved. The maximum loan was worth LBP 75 million (USD 50,000 at the official rate) with a maturity of up to five years and covered both fixed and working capital needs.

As far as farmers and small agro-food projects are concerned, the ESFD program was — in terms of bank financing — the initiative most relevant to cater to their needs by bridging the gap between them and the banks.

ESFD Risk-sharing scheme: outreach in the agricultural field

Over the lifespan of the program (2011 - 2018), loans given out under the ESFD risk-sharing program to the agricultural sector served 8.9% of the program's beneficiaries (399 stakeholders) and 9.6% of the global amount of the loans under the program.

The average loan to agriculture was LBP 28.45 million (officially USD 18,876), a figure in line with the average of the program's loan portfolio, all sectors included.

PRIVATE EQUITY AND VENTURE CAPITAL FUNDS Private equity and venture capital funds activity was limited in Lebanon up until 2013, when the Central Bank introduced Intermediate Circular 331 generating a significant boom in the sector between 2013 and 2017. Banks started taking advantage of the circular's incentivizing schemes and investing tens of millions of dollars especially in venture capital funds.

In August 2013, the Central Bank issued Intermediate Circular 331, which would inject up to USD 400 million in bank equity into Lebanese enterprises. The circular was designed to foster a knowledgebased economy by guaranteeing an increase in equity investment in Lebanese start-ups and scaleups, ensuring that the Central Bank would share risks (and profits) with commercial banks.

The Circular guarantees 75 percent of banks' investments under 331 through direct equity investment in start-ups or indirect investment in venture capital funds that invest in startups. Local banks receive a seven-year interest-free credit from the Central Bank, which can be invested in Treasury bonds at an interest rate of 7 percent. In return, the banks commit to investing in the knowledge economy.

Although no official figures have been published related to the amount of bank equity invested under Circular 331, estimates are about USD 300 million. Local banks have mainly invested in venture capital funds, which do not have guarantees and therefore are incentivized to make market-driven investments. However, venture capital funds tend to invest in internet and software start-ups, which may deliver exponential returns. This type of investment is further incentivized as the circular requires exits after seven to nine years, which may be premature for other types of start-ups.

Funds that have benefited from Intermediate Circular 331 include Berytech Fund II, Leap Fund, MEVP Impact Fund, Phoenician Fund, Cedar Mundi, Flat6Labs. Agro-food companies have benefited from investments under 331 only marginally, with the bulk of investments having been oriented toward telecom and technology-based startups. It is worth noting that sources interviewed for this study confirmed that agricultural ventures seem to be high on the list of future investments, with a preference for those synthesizing agriculture and technology.

POST-OCTOBER 2019

TRADITIONAL LOANS As early as mid-2019, Lebanese commercial banks had started reducing their lending activity to a bare minimum, no longer giving out loans to customers — retail, middle market, or corporate. Trade finance is restricted to highly essential goods (see below). Interviewees who participated in this study said demand still exists from SMEs and corporations. However, the banks are unable to accommodate it. Financial intermediaries are no longer able to supply loans because their lending capacity is limited: the strain they have experienced on their deposits and equity is threatening their liquidity, preventing them from lending.

According to bankers interviewed for this study, commercial banks have since 2019 been working to encourage clients to repay their debts early to alleviate their loan portfolios and reduce the strain on their equity requirements. Many banks, including branches of the leading Alpha Bank, had deployed aggressive marketing campaigns in recent years on SME financing and, according to interviewees, were lending too easily. Since Quarter 4 of 2019 and the continuous depreciation of the Lebanese pound against the dollar, both banks and clients sought to end loans prematurely. In a first stage, the Central Bank allowed loans denominated in foreign currency to be reimbursed in local currency at the official exchange rate of LBP 1,515 to USD 1. However, in 2020, the BDL directed that FC loans be reimbursed in the same currency as that they were taken out in). Professionals, MSMEs, and corporations are also encouraged to repay their loans through cash facilities (overdrafts) or medium-to-long-term loans repaid through annuities. Clients with bank overdraft limits have seen their limits either terminated or brought down to a minimum value. At the same time, outstanding loans that were granted approval for interest subsidies continue to benefit from quarterly reimbursements.

Many customers seized the opportunity to settle their debts at the official rate while the alternative market rate was skyrocketing. They were grateful to free up the mortgages and other types of assets they had put collateral against the loans by paying back them loans with deposits that banks have rendered inaccessible. For retail and SME clients who were not able to ensure early loan repayment, energy is focused on collecting monthly payments to limit the impact on banks' nonperforming loan (NPL) portfolio. NPLs are high across client categories; one banker interviewed for the study said they hover around 50 percent in the SME portfolio. The Central Bank has instructed banks not to bring action against clients who are defaulting in order to maximize the chances for repayment.

As a result of this trend, the portfolio of one of Lebanon's top three banks was brought down from USD 5 billion to about USD1 billion in less than 2 years. Many banks experienced similar trends.

The large amount of loans that benefited from early repayment in U.S. dollars by direct transfer from in-country dollar deposits gave the impression that dollar deposits were being taken out illegally from the banking sector. Although some deposits were transferred out of the country, the drop in deposits is also explained in part by the early loan repayments.

TREND TOWARD REAL ESTATE The banks also witnessed a trend from their medium size and larger clients who want to free their mortgages. Basically, the preference for real estate rocketed whereas deposits lost appeal. Those with hefty bank accounts preferred to pay back their loans with their savings at the bank and free their real estate that had been mortgaged to the bank. Not only was real estate gaining value as compared to amounts stuck in banks, but it was also sellable against either cash money, or even a bank check at least twice the amount.

According to the manager of the real estate portfolio in a leading bank, Land plots and constructed property made available again can then be sold at significantly higher prices than if they had been traded in by the bank to pay back the loan.

Banks usually accept property acquired in settlement of debt at best at the price estimate that was made when the loan was given out. With the price increase noted in the market over the last year, prices have rocketed — especially if payment is made in bankers' check. On average, the price multiplier for payment by bankers' check is twice the cash price in US dollars (December 2020). Debtor clients with significant deposits are therefore preferring to pay back their loans with their deposits, liberating their guarantees, and then, in case of need, they would sell their property either in cash or partly in cash partly by check (at a higher price) and would live out of the check money by converting it progressively into Lebanese pounds at the bank's rate, currently LBP 3,900 per USD I.

It is interesting to note that the real, cash price of property in Lebanon today is considered to be the same as that of 2017 (prior to PM Hariri's first resignation). Banks have significant databases, in that sense that they regularly estimate (through experts) their portfolio of properties, and in particular those taken as collateral for loans to customers. They are currently referring to 2017 prices when they negotiate with their clients today to acquire their property in settlement of their debts.

This said, banks (and more specifically, their real estate departments) have witnessed - since Q4-2019 - a huge demand on real estate, both constructed and unconstructed. Indeed, banks own property due to the fact that they sometimes acquire real estate in repayment of debt. The regulation allows them to carry these properties for a certain number of years.

Creditor clients with medium to large deposits have quasi systematically approached banks' real estate departments to acquire property, just for the sake of withdrawing their deposits from the banking system, fearing a haircut on deposits in the framework of the sector's unavoidable restructuring. Some banks have even played matchmaking between indebted clients with mortgages and creditor clients who were seeking real estate investments, thus achieving the netting of client loans with other clients' deposits.

Paradoxically, the culminating interest in real estate that has resulted from depositors' loss of confidence in banks, might well fuel the agricultural sector's potential as some properties might well end up being developed for agricultural use. This impact would likely show a few years down the line.

INTEREST RATES DROP Interest rates on existing and outstanding facilities have dropped. As banks reduced drastically creditor interest rates on their deposits (the intention being to reduce their cost of funds), they also decreased their debtor rates on loans, aiming to make reimbursement easier for clients. All of the outstanding loans with a variable interest rate saw their cost drop upon maturity, both in Lebanese pounds and in foreign currency.

What about the new cost of funds and future interest rates in the market?

Any institutional lender today that would be considering entering the market as an alternative to commercial banks (that are out of the lending market for the time being), should be considering on the one hand, their cost of funds, and on the other, the collateral that would be given against the loan (risk factor). If the funds are not subsidized, then the price of on-lending to the customer would be this cost of funds plus the spread to cover risk, and that is expected to be very high and might be a deterrent.

For reference purposes, the IFC envelope that was given to banks in early 2019 and was marketed to SMEs and Corporates was on-lent at around (3-3.5% cost of funds) + (4-5% spread) = 7-8.5% to the customer in US\$.

INTERMEDIARY ROLE OF BANKS ERODED The 'all-cash settlements' that reign in the market also explain why trade terms are changing. The whole way of doing business is changing.

When a client is required by their bank to bring in fresh cash to issue an LC, if he or she has relatively small invoices, they would rather wire out the funds directly to their supplier instead of placing them at the bank as cash collateral for a letter of credit (LC) or a standby LC (SBLC). The greater the trust between the foreign supplier and the local buyer, the more trade operations on non-essential goods are going to be settled without the intermediation of the bank (without a trade facility, just cash transfer).

Also note that these new mechanisms have, in turn, imposed a new bias in the market towards the use of cash. When the imported goods are sold in Lebanon, importers are forcing their off-takers to pay them in cash. This trend is pushing the Lebanese economy every day closer to becoming a cash economy, not to mention that importers are fueling the parallel market for FX as they are buying dollars (sometimes euros) with the outcome of the domestic sales in order to replenish their accounts with fresh dollars that would allow them to import again.

PRICING One would expect all the radical changes that took place in the market since October 2019, to have weighed on the price of banking transactions. However, the price of trade finance products, typically letters of credit open for importing products into Lebanon, has not changed in the market. In one of the country's largest banks, the standard price stands of an LC stands at 3.15 per thousand per quarter, unchanged. These prices are more or less aligned among banks. The main reason why the price of LCs has not increased with the crisis is because banks are not accepting to issue them anymore without receiving, prior to issuance, the full amount of the LC in cash. With 100% cash collateral, there is no risk taken.

TRADE FINANCE PRODUCTS

Trade finance products — typically letters of credit (LCs) and letters of guarantee — serve as the main financing instrument for importing goods into Lebanon. Most foreign exporters wishing to import a product into Lebanon would require payment to be made through a trade finance instrument issued by a local bank to the exporters corresponding bank.

Lebanon imports more than 90 percent of its products. The agro-food sector depends on imports at all levels of the value chain to operate. These imports include agricultural inputs (seeds, pesticides, fertilizers), agricultural equipment (irrigation materials, greenhouse material, machinery), raw materials for processing and manufacturing, packaging materials, and labelling materials.

However, with the deterioration of Lebanon's international credit rating starting in 2018 and the associated risk perceived by foreign banks, exporters' banks refuse to accept the risk of Lebanese banks. In other words, when a bank opens an LC or a standby LC (SBLC), the exporter's bank needs a guarantee. Any Lebanese bank wanting to make a trade finance transaction therefore has to supply 100 percent or 110 percent of cash collateral at the correspondent bank that is confirming the LC. The only way to secure an LC at lower prices or under less constraining conditions is through a separate guarantee mechanism. The EBRD and the IFC offered trade finance facilitation programs to Lebanese banks beginning in 2018, whereby they agreed to pay the correspondent bank in case the local bank defaulted on payment. The IFC later suspended its facility. EBRD has signed trade guarantee agreements with leading Lebanese banks (at least 5) for over USD 300 million. According to KIIs from the banking sector, EBRD's trade facility costs around 2.2 percent in addition to the cost of the trade loan itself, which is usually paid for by the foreign exporter.

Following the onset of the economic crisis, EBRD has approved fewer and fewer imports under the guarantee mechanism and has been accepting only short-term transactions (less than six months). The only imports being guaranteed under the program are essential goods such as oil and fuel imports, food items, and medical products.

HOW ARE IMPORTS INTO LEBANON BEING FINANCED?

With trade finance operations having practically come to a halt, it begs the question of how imports into Lebanon continue to be financed. As far as letters of credit or similar instruments are concerned,

note that the cash collateral required by correspondents from local banks is extremely hard to supply as banks now have very limited deposits in foreign currency with correspondent banks. Besides those few businesses approved for a guarantee from EBRD, clients who want to import are being asked to supply in cash in foreign currency the full amount of the import invoice. Clients' existing dollar deposits are ignored in the framework of these transactions; the deposits effectively do not exist.

Another share of imports is paid directly to the supplier through so-called fresh money transfers, or transfers made using U.S. dollars that have not entered Lebanon's banking sector. In this method, banks transfer only the cash money that clients inject directly at the counter. In cases when the amount is relatively small, importers carry out transfers through companies such as Western Union, completely evading the banking system.

A third option is now becoming more apparent, whereby several of Lebanon's largest banks overcome local restrictions by utilizing their banking subsidiaries abroad. Their biggest customers, mostly traders, kept their deposits and credit facilities within the same banking group after their accounts were transferred to foreign subsidiaries in Cyprus, other parts of Europe, Gulf countries. Despite the restrictions on foreign currency transfers and withdrawals — which are illegal at the time this report is being prepared — banks have transferred foreign currency deposits from Lebanon to the subsidiaries. In this way, the subsidiaries can issue the trade facility without restrictions set by Lebanon's Central Bank. As a result, the subsidiaries enjoy a more favorable credit rating vis-à-vis correspondent banks and are able to make the payment to the foreign exporter.

This third structuring gained prominence throughout 2020, and triangular import operations have flourished for non-subsidized goods. For instance, a Lebanese client imports goods from a European country to Lebanon by issuing an LC from a Cypriot bank that is the subsidiary of a commercial Lebanese bank. Given that Cypriot banks' risk level is perceived to be much lower than that of a Lebanese bank to a foreign exporter's bank, many European- and U.S.-based banks are accommodating such trade operations. Furthermore, the trade finance limits granted by correspondent banks to Cypriot subsidiaries are given with a multiplier, which makes this solution more accommodating than those offered to Lebanese banks.

CONCLUSION: FINANCING AGRICULTURE WILL REMAIN A CHALLENGE FOR BANKS

When asked about financing the agricultural sector, all of the bankers interviewed for this study say agriculture will be considered only riskier than it already was before the economic crisis, even when their respective banks vary in terms of risk appetite. Bankers lack the technical expertise to evaluate agricultural risk. Although bankers are better equipped to assess risk and evaluate cash flow when it comes to trading and processing upstream or downstream from farming in the agro-food value chain, small companies and businesses nevertheless represent a risk for banks.

As confirmed by a relationship manager for the middle market at a major bank, typically, the smaller companies present a significant lack of skills, mostly management skills. They need assistance to produce a serious feasibility study, a business plan, a SWOT analysis ... There is a great deal of confusion between accounting concepts such as cash flow and profit as well. However, she clearly underlined that the poor accounting and management skills that we tend to see at SMEs does not imply that there aren't any excellent business ideas in the SME sector and that they don't deserve a financial push to help them access the market. Unfortunately, banks are not present for the time being in order to supply this much needed push.

Even when banks begin to recover from the crisis, the knowledge gap between MSMEs and lenders must be bridged before the MSMEs are able to financing through traditional banking products and services. Additionally, an adequate legal framework for agricultural activity as an official economic sector must be established to help mitigate risk.

IV. MICROFINANCE INSTITUTIONS

PRE-OCTOBER 2019

Historically, banks focused on urban areas and marginalized rural areas. Many rural areas were therefore under-banked (e.g. Akkar or the North). Banks were never able to reach the small farmers. The best they could do was reach agriculture through reaching the larger companies and later on, SMEs involved in agriculture, through Kafalat loans.

Microfinance institutions (MFIs) tried to fill this service gap, and although agricultural activities do not constitute a major part of their lending portfolio, MFIs have succeeded in tapping into the agricultural sector. Just before the onset of the 2019 economic crisis, the microfinance sector in Lebanon was estimated at 170,000 clients/households; its worth at the time can be estimated at about USD 170 -200 million.

In Lebanon, nine institutions officially supply micro-financial services; they are grouped in a network called the Lebanese Microfinance Association (LMFA), which was created through USAID support. (Several NGOs such as Tamkeen conduct auxiliary microfinance activities, but they operate on a small scale and do not belong to the LMFA.) The nine MFIs are grouped into three categories: five are registered as NGOs, three are financial institutions registered with and regulated by the Central Bank, and one is a COOP. An overview of the LMFA is provided in the table below.

NAME	TYPE	NB OF ACTIVE CLIENTS BEFORE THE CRISIS (MID-2019)	REMARKS
Al Majmoua	NGO	95,000 (portfolio = USD100 M) 55% in market share in terms of clients.	The largest MFI in the market (if we exclude the claims of Al Qard el Hassan that caters quasi exclusively to the Chiaa community). Director: Youssef Fawaz. Operates at national level.
ADR (Association pour le Développement Rural)	NGO	n.a. Small scale	Set up by Youssef Khalil, one of BDL's executives who has initiated this NGO to cater mainly to the needs of the citizens of Tyr (his hometown) and its surroundings. Local activities.
Makhzoumi Foundation	NGO	n.a. small scale	Set up by Fouad Makhzoumi, a Lebanese businessman and political figure.
AEP (Association pour l'Entraide Professionnelle)	NGO	n.a. small scale	Set up by the Mouvement Social, a Lebanese NGO that supports development
Al Qard al Hassan	NGO	200,000 (claimed)	Affiliated to Hezbollah. It is blacklisted by the US Treasury. Director: Adel Mansour Claims that it is the largest MFI in Lebanon. Contrary to all other MFIs, it takes deposits and offers an ATM network. Lends up to USD5000 interest free (Islamic finance principle) but with administrative charges, against a guarantee. 2019 figures: average loan USD2500; term: up to 30 months, turnover 2019: USD500 million.

			New program (end of 2020) goes up to 60 months and LBP80 million. Claims to have over 200,000 clients, a figure believed to be overblown by the rest of the players in the sector
Vitas	Fl. For profit.	25,000	Previously CHF (initially funded by USAID). Turned into a Fl. 49% owned by Saradar Bank. Director: Ziad Halabi.
Emkan	Fl. For profit.	14,000-15,000 (portfolio = USD53 M)	NGO that turned into a Fl. Belongs to BankMed. Director: Mayada Baydas. Important branch network. Achieved rapid growth.
Ibdaa	Fl. For profit.	18,000	Owned by AGFUND (Arab Gulf Fund for Development). Belongs to a network with presence in the Middle East and the Gulf region.
Cooperative Libanaise pour le Développement	Cooperative	n.a. small scale	Set up as a cooperative by a group of bankers. Main target: supply microfinance for the Maronite community in order to prevent the members of the community who are in financial need from selling their land.

Source: interviews and various media

n.a.= not available

MFIs typically cater to the unbanked populations, and loans can be used for personal expenses or small productive projects. MFI loan application assessments are much less constraining for applicants, and the process is much quicker. Awards are typically less than USD 5,000 (or LBP 7.5 million at the official rate), although some MFIs will make exceptions for specific projects (namely the FIs among them). Interest rates are significantly higher than bank loans, and tenures are usually less than 2 years. MFIs decide whether to disburse a loan in the local currency or in U.S. dollars. Up until 2019, Al Majmoua provided loans in both USD and LBP, whereas Emkan lent only in LBP historically, and commenced lending in both currencies early that year. These strategic pre-crisis choices have obviously led to different impacts of the crisis on MFI portfolios. Predominantly, microfinance loans are reimbursed through OMT, Cash United, or partner bank branches, for those like Al Majmoua, Emkan, Vitas and Ibdaa, that have a significant number of clients; while few microloans are repaid at the MFIs' offices for those entities with a smaller client base. MFIs that are also financial institutions, such as Emkan, have licenses to open branches in areas with concentrated numbers of clients.

Overall, MFIs have invested little in agriculture. In 2019, agriculture represented 13 percent of Emkan's outstanding loans portfolio, and just 8 percent of Al Majmoua's.

Youssef Fawaz of Al Majmoua says there are several reasons for this. First, profit margins in agriculture are perceived as very low, making farmers high-risk customers. Second, comparatively few people and households depend on farming for their income, and if they do, the size of their business tends to exceed MFI targets. Third, MFIs' loan officers — no matter how well trained they are — do not have the technical skills and competencies to understand and assess farmers' businesses in order to assess the soundness of their agricultural plan and monitor a loan. Finally, and as noted earlier, crop insurance does not exist to mitigate risk in Lebanon.

At the same time, Mayada Baydas, the CEO of Emkan, says MFIs have in fact become an important source of financing for agricultural activities. In the realm of microcredit, clients are usually assessed as a household with various income streams, and households usually do not rely solely on farming for their income. Therefore, when these households take out an MFI loan, part of it is very likely to be used for farming activities.

MFIs' involvement downstream in the agro-food value chain is more significant. For example, Al Majmoua affirms that it has a significant number of clients in food processing, including small-scale catering and preservation.

POST-OCTOBER 2019: NON-PERFORMING LOANS SKYROCKET WHILE THE MARKET

MFIs' loan portfolios are estimated to have shrunk by an average of 40 percent during the past year. In 2020, Al Majmoua saw its number of customers fall from 95,000 to 50,000. Many of their clients lost their business and income source, leading them to default on their loan payments. According to Youssef Fawaz, Al Majmoua's executive director, before October 2019 the organization kept nonperforming loans (NPLs) to less than I percent of the outstanding loan portfolio. Today, Al Majmoua's NPLs stand at 20 percent of its loan portfolio.

NPLs are not the only challenge MFIs are facing since October 2019. Many MFIs' clients are taking advantage of the official exchange rate as the alternative market rate soars to repay loans denominated in dollars, paying at LBP 1,500 Lebanese pounds to USD 1 as opposed to the market rate of more than LBP 8,500 to USD 1.

AL MAJMOUA	UNTIL 2019	SINCE EARLY 2020	
Loan amount	Up to \$5000 in dollars	Up to LBP7.5 million in LBP	
Tenure	Up to 24 months		
Interest rate	12-16% yearly (flat)	24% flat rate per year	
Object of the loan	Investment / working capital / personal loan	Investment / working capital / personal loan	

MFIs have tried to adapt their strategies to the market, shifting to lending in local currency only or suspending their lending activities altogether. Many have also reduced tenures and loan amounts and laid off staff.

Emkan's lending activity has been suspended for more than a year. Mayada Baydas, CEO of Emkan, has confirmed that Emkan is a regulated financial institution, so in terms of loan performance, they are already very prudent and NPLs are fully provisioned as per international financial reporting standards. Some of Emkan's clients also received a small assistance from USAID's Livelihoods and Inclusive Finance Expansion (LIFE) project amid the COVID-19 pandemic and in the aftermath of the August 4 Port explosions in Beirut. The project had an ongoing intervention with some of the leading banks in Lebanon to enhance financial inclusion. In the framework of the economic crisis that badly hit the country in 2019, part of the project's funds were reallocated, and the funds that were earmarked for the partnership with Bankmed were reallocated to alleviate the financial burdens of Emkan's clients and provide an incentive to continue with their microloan repayment.

THE FUTURE OF MFIS

If we extrapolate based on the 2019 figures, an estimated 850,000 people in Lebanon rely on microfinance to support their income generation activities (170,000 clients/households with an

estimated five people per household). If the microfinance sector fails, many of these people will lose access to external finance, threatening their stability.

Unless MFIs are endowed with capital grants and equity in the form of grants and donations, they need funding to grow, so they usually turn to debt. It is estimated that the microfinance sector's funding breakdown is 40 percent debt to 60 percent equity (mainly NGOs' capital structure). Equity generally increases thanks to retained profits. NPLs and reimbursements in the local currency at the official rate have weighed heavily on MFIs' balance sheets, as most MFIs borrowed funds in foreign currency to operate. Fawaz confirms, saying the strain on Al Majmoua's balance sheet is "tremendous."

Emkan Finance, a fully owned subsidiary by BankMed group and a regulated financial institution, has lent in Lebanese Lira since its inception. The small accumulated portfolio lent in USD during 2019 is being repaid in LBP at the official exchange rate. Baydas asserts Emkan Finance has achieved remarkable growth since BankMed capitalized the company in 2011 through borrowing locally and regionally, and have been able to disburse a total value of microloans exceeding USD 300 million in ten years. Financial institutions had a window of opportunity set by the Central Bank where commercial banks have the right to lend a part of their legal reserves in Lebanese Lira to MFIs. Accordingly, MFIs belonging to banking groups sometimes have access to credit lines from their main shareholder. Nevertheless, Emkan, like other MFIs, is financially stressed and, according to Baydas, is focusing mainly on collection.

MFIs with international creditors are experiencing pressure to cut costs wherever possible. Al Majmoua for instance, was forced to lay off 100 loan officers in Quarter 4 of 2020; prior to that, Al Majmoua had 500 employees, 300 of whom were loan field officers. According to Fawaz, human resources personnel are MFIs' most valuable assets, being selected from the populations they serve and trained to provide their communities with optimal business support. He says MFIs experience a huge loss when experienced staff are let go as it will take years to rebuild those skillsets once the sector kicks off again.

Fawaz says that any funding from a development partner or other that would enable MFIs to retain existing staff would have a high socioeconomic return down the line. He says Al Majmoua needs USD 3 – 4 million annually to operate with 350 employees. A cash injection of this scale would stabilize the MFI for the time being and enable it bounce back once the country begins recovering from the economic crisis.

Zoom in on an MFI's asset-liability challenge in the backdrop of a severe economic crisis with sharp local currency depreciation

Up until Q3-2019, Al Majmoua's business model was structured around borrowing funds (essentially in US dollars and in the international market) and on-lending to their clients (also in US dollars) with a markup. Among their creditors, there are supranational multilateral organizations (IFC, EIB), development agencies (KFW through Sanad initiative, the Dutch cooperation FMO), as well as private sector funds (Responsibility, Symbiotics) that promoted their investments in microfinance as 'ethical investments'. With the political and economic crisis setting in, many of these lending institutions started pushing Al Majmoua for reimbursement with a very strict schedule or pushed for debt restructuring regardless of the difficult times that the country, and hence the MFI and its clients, were going through.

Ten years ago (2010), Al Majmoua had even managed to borrow money in the local market, from SGBL bank, thanks to a guarantee supplied by the AFD, the French Development Agency. Once this Ioan was reimbursed, Fawaz affirms that the bank turned down Al Majmoua's application for another loan without an international guarantee.

As of January 2021, Al Majmoua has outstanding loans with several international institutions and they are facing huge challenges to reimburse them. The situation is seemingly comparable for other MFIs (Vitas and Ibdaa) - but we were not able to confirm that.

Source: interview with Youssef Fawaz, Al Majmoua's executive director

Once a structural adjustment program is in place in Lebanon, MFIs will be key players, especially with the banking sector down. In the short term, MFIs' clients are devastated, and the institutions need support to help the communities they serve. But as more and more people are expected to fall out of the banking system, once it is up and running again, MFIs would play an increasingly vital economic role in the country. Al Majmoua and one of its main funders, the IFC, have shown a great interest in growing and diversifying their lending portfolio, which could include agro-food stakeholders and in particular farmers. The key question, according to Fawaz, is whether MFIs will survive until that time, due to the strain caused by current operating costs.

V. AGRICULTRUAL INPUT SUPPLIERS

PRE-OCTOBER 2019

While Kafalat bank loans, personal loans, and Green Plan support are the most prominent sources of investment capital for setting up a farming business, farmers depend heavily on credit from input suppliers for working capital to cover operating costs. This credit is considered the most important source of informal financing in the market, helping to pay for inputs such as seeds, fertilizers, pesticides, and even irrigation systems. It is paid off once crops are grown and sold.

The vast majority of farmers with businesses of all sizes rely mainly on credit from input suppliers. Midsize farmers with at least one other source of income besides agriculture may be able to access subsidized bank loans for investment, but as noted in Chapter IV, many smallholders are reluctant to do so for a variety of reasons. Even large-scale growers would buy their inputs on credit; input suppliers interviewed for this study said they compete for large-scale farmers' business, elongating the credit period to do that.

Before October 2019, input suppliers would sell to farmers on credit, and the tenure averaged 270 days — or about one agricultural cycle plus three months to allow the farmer time to reimburse their supplier. The amount of credit received by farmers depended on their credit history, relationship with the input supplier, reputation, and operation size. According to Rola Khoury, the chief financial officer of Robinson Agri, a major input supplier in Lebanon, her company was known to be tough when following up with farmers, thus managing to collect within 270 days, whereas competitors often took up to a year to collect their receivables.

The system created a relationship of dependency between farmers and input suppliers, especially because the latter provided advice and extension services in addition to credit on inputs. Some suppliers, including Robinson Agri, also used to support farmers who were well positioned to grow their operations by accessing Kafalat loans. The companies would prepare the farmer's file, set up his business plan, and walk him through the loan process. The bank loan would complement the supplier credit, with the former being dedicated to capital expenditures while the latter would typically finance operational expenditure.

In 2019, according to official Customs figures, Lebanon has imported seeds, fertilizers, pesticides, and agricultural inputs as a whole, for USD 107 million (including USD12 M in irrigation equipment and greenhouses, USD31 M in seeds, almost USD19 M in pesticides, and USD45 M in various fertilizers).

Given that input suppliers run large inventories, and that their lending activities are revolving, we could estimate suppliers' lending to farmers to stand at least at double this figure. We could safely say that farmers were taking out, before the crisis in Q4-2019, at least USD 200 M in supplier credit (revolving), with payback periods of not less than 6 months 4.

⁴ Interview with a major input supplier

POST-OCTOBER 2019: A FUNDAMENTAL SOURCE OF FINANCING FOR FARMERS **DISAPPEARS OVERNIGHT**

Once the economic crisis began accelerating, credit sales were suddenly suspended. Sales terms shifted from local currency to cash dollars or local currency paid at the alternative market exchange rate. Suppliers did not want to carry the risk of depreciation, so they simply stopped lending the farmers.

Farmers interviewed for this study said paying back input suppliers was not a major challenge until 2020. Farmers describe input suppliers as formerly being flexible in terms of payment schedules, which changed when the crisis set in and the currency began depreciating. According to Khoury, large growers did not struggle to reimburse their 2019 debts in 2020, having managed their expenses correctly.

Following the crisis' onset, farmers refrained from reimbursing the inputs they had bought on credit. With the 270 days' payment deferral, input suppliers are collecting, in the Quarter I of 2021, receivables on inputs that were sold on credit in October 2019, and farmers are reimbursing them at the official exchange rate, which was the prevailing market rate when they purchased the merchandise. Input suppliers sustained some losses, but many of them were able to hedge against additional losses because they had a solid inventory, and all input suppliers are now accepting only cash payments at the alternative market rate. Farmers, not the input suppliers, have had to adapt.

In the first months after this business shift, many farmers decided to suspend planting. Khoury says 80 percent of Robinson Agri's clients suspended farming activities for one cycle. Others chose to maintain the quality of their inputs, remaining the clients of their usual suppliers, but reduced the areas they planted. Still, others shifted to other, generally cheaper inputs, risking lower yields and facing higher risks in an attempt to reduce costs.

The only farmers who have weathered the crisis comparatively in 2020 are those with long agricultural cycles, such as olive farmers. When they bought inputs like pesticides and other chemicals, they paid at a rate that was cheaper than the rate they sold their final product for in Quarter 4 of 2020.

HOW HAS THE CRISIS AFFECTED INPUT SUPPLY FINANCING?

Farmers' diminished purchasing power and their resulting substitution of traditional products with cheaper options has led to a redistribution of market shares. Robinson Agri said it lost 50 percent of its market share, despite the substantial inventories it controlled in October 2019.

Additionally, the state has introduced a system whereby the Central Bank will subsidize agro-inputs at a rate of LBP 3,900 to USD 1, based on historical imports. Up until 2019, 13 companies operated in agricultural inputs; the five main suppliers in the market were Robinson Agri, Debbane, Unifert, AMC, and Asmida (only fertilizers). Only the MoET legally has the right to study the import application file of existing importers and to deliver importation approvals based on the quantities that were imported in previous years (2018-2019).

These emerging financial challenges have forced input suppliers to reduce their imports. Input suppliers who in the past needed facilities opened by banks to import merchandise now need fresh dollars either in cash or by a transfer from abroad — to pay for those same goods. However, the main importers usually have good longstanding relations with their foreign suppliers who understood the situation where foreign currency could not be transferred out of the banks to pay bills. Most suppliers have therefore managed their liquidity in such a way that they are financing their new imports thanks to the fresh cash that they have now started collecting from the market.

Note however, that input suppliers used to have a need for working capital that they do not have access to anymore. They used to have overdraft facilities with banks in order to fund the gap generating from around 270 days in differed payments by their clients. Now that everything has shifted to cashbased, banks have required their clients to close their overdrafts - especially as they were in USD, and to repay their outstanding loans (investment loans) to the highest possible extent.

Subsidization mechanism for agricultural inputs

The Central bank of Lebanon has issued Intermediary Circular 13229 (27/05/2020) that allows agricultural input suppliers to access US dollars at the 'official rate of the exchange platform' i.e. 3900 Lebanese Pounds per dollar. As for the official procedure, in theory all the range of agricultural inputs are included in this measure. The importer is expected to present their file to the Ministry of Agriculture (approval usually takes 48hrs) and then to the Ministry of Economy and Trade for the approval of the merchandise. Due to inefficient governance, but especially to the lack of knowledge of the ministry's staff as far agricultural inputs are concerned, the file could just be neglected. But many of these inputs (seeds, trees, seedlings) must be imported in specific seasons in order to be of use to farmers – unlike fertilizers for example, that can be imported all year round. That is why importers often call off their application before they get the MoET's approval and they lobby as much as they can to get approval on whatever merchandise they can. Once - and if - this approval is obtained, then suppliers have to take the amount of LBP money needed for buying the dollars to their bank, and wait for the bank to send their application for approval to the Central Bank. Once the Central Bank approves the file, then finally, the dollars are wired to the exporter abroad.

As for the repercussion of the subsidized prices on the final prices to farmers, input suppliers claim that they charge the dollar at 3,900 pounds on the merchandise that they succeed in getting subsidized. The importers estimate that less than 10 percent of imports are getting access to the Central Bank's foreign expenditure subsidy system. These are mainly fertilizers, as they do not suffer significantly if stored for longer periods or used the following season.

Robinson Agri's CFO noted that the sales prices of agricultural outputs did not rise proportionately to the depreciation of the local currency. In fact, supply of output has fallen but demand has fallen as well, which might explain why prices of vegetables especially, have not risen as much as their inputs. However, the consequence on Lebanon's food security is obvious: It is more and more threatened every day.

FAO's voucher program to support farmers

In 2020, the FAO launched an initiative to support farmers, by issuing US 200 vouchers to a selection of vulnerable farmers (with less than 5 dunums of land) for buying specific inputs from a group of partner suppliers. The budget invested was around USD150 K and had an overall favorable impact although the amount per farmer was small in absolute terms. According to feedback from several players in the market, FAO is trying to repeat the same program in partnership with suppliers for 2021 but the organization has not specified yet which inputs they would seek to subsidize.

VI. INITIATIVES, OPPORTUNITIES, AND RECOMMENDATIONS

As described in the preceding chapters, access to financing for key stakeholders in the agro-food value chain has become severely complicated since October 2019 and Lebanon's accelerated economic decline. In the short to intermediate future, banks cannot be relied on to provide loans and other services. Microfinance institutions may be able to fill in the void left by banking products and services to a degree. However, without support such as capital injections or other support, MFIs will have to shed staff who are essential to providing quality services in order to cut costs, and even risk failing and falling out of the market altogether. Finally, input suppliers have reduced their imports, which will become only more expensive and difficult to access amid Lebanon's dollar crunch and trade finance complications. These consequences will have ramifications on the entire agro-food value chain, and especially on its the actors farthest upstream — namely, farmers and other producers.

With traditional modes of financing becoming less and less accessible, individual farmers and agro-food MSMEs must seek new ways of funding their operations. This chapter presents potential opportunities and dynamics that these actors (and initiatives wishing to support them) may leverage to unlock new sources of financing for the sector. It also indicates where loans or grants can fill identified needs and potential points of collaboration among agencies that share common goals. The new means of financing the sector can be divided along two tracks: revitalizing traditional modes of financing and seeking alternative financing techniques.

REVITALIZING TRADITIONAL FUNDING MODALITIES

SUPPORTING MICROFINANCE

As noted earlier in this report, MFIs seem poised to have their client bases expand as banks are unable to provide services amid the deepening economic crisis. However, MFIs are depleting their funds as operating costs remain high while revenues dipped as a result of the Lebanese lira's depreciation, a high level of NPLs, and lower demand, and outstanding credits in foreign currency from international organizations that need to be reimbursed.

In this context, MFIs would benefit from any type of support during the coming three to five years years. This support could take the form of capital injections in the form of grants, loans, and staff capacity building training. As described in this report, there is a strong reason to believe that MFIs can play a vital role in the economy if they are able to survive the next few years.

One of this study's key findings is that agricultural input suppliers abruptly stopped lending credit to farmers of all sizes as early as October 2019. We then looked more closely into the financing opportunities that had emerged to fill the gap and assessed MFIs' ability to do so. The International Finance Corporation and the World Bank Group's Consultative Group to Assist the Poor (CGAP) have shown interest, and a reflection session was held with the two stakeholders. (It is worth mentioning that the IFC is also one of Al Majmoua's founders.)

According to them, Al Majmoua is interested in exploring this market niche and capitalizing on its experience to diversify its portfolio into agriculture, and would not find it difficult to supply loans of up to USD 20,000. Its ceiling was USD 5,000 before the crisis and has been LBP 7.5 million since 2020. However, to assess the opportunity of tapping into this very specific market segment, and later design the right product, more precise data is needed on potential beneficiaries and their needs. Al Majmoua would need to determine the scale of the operations that would be under consideration (number of farmers, average ticket, type of facilities needed). MFIs would need technical support for the

assessment and follow-up of a farming business, as agriculture is a highly technical field, and loan assessments would be fundamentally different from the MFIs previously worked in.

IFC and CGAP would appreciate joining efforts and collaborating with the ARE project in order to dive deeper into the assessment of the opportunity of helping Al Majmoua cater to the financial needs of farmers who have been left out of the system or seen their livelihoods highly compromised due to the disappearing of input supplier credit.

In parallel, Al Majmoua is seeking grant funding to help it survive this difficult period without having to lay off additional staff that would be a critical resource once microfinancing starts off again.

A leading input supplier was also consulted about the opportunity of having MFIs fill in for the disappearance of supplier credit to smallholders. This supplier noted that a number of associations set up by members of the Lebanese diaspora seem to have envisaged setting up microfinance funds in Lebanon to fill the gap left by input suppliers. They contacted the main suppliers to assess the possibility of partnering with them for the purposes of client forwarding. However, nothing concrete had materialized by early February 2021.

The supplier also noted that the shortage in financing due to the suspension of credit facilities by input suppliers is actually perceived as a great opportunity by the suppliers. Input suppliers are currently being paid cash on delivery for merchandise that they sold at a value that was about 10 - 15 percent higher, yet with payment delays of three to nine months. While suppliers have seen their market shrink due to the crisis and the inability of many to pay cash on delivery, it is not surprising that they would prefer lower sales based on cash payments to higher sales on differed payment basis given the economic session. Additionally, their system was built on informal credit, allowing farmers a lot of room to maneuver in terms of timeliness. All of this has disappeared with cash payments. Input suppliers now perceive supplier credit as toxic to market mechanisms. They would gladly support any initiative to fund farmers' access to inputs as long as these initiatives do not compromise their cash payments.

Additionally, the average size of a would-be borrower profile is difficult to project. The interviewee expressed that it was not "reasonable" to lend to farmers cultivating fewer than 10 - 15 dunums. Smaller farmers would be better off without credit as they tend to lack the accounting and management skills to reimburse their credit correctly. Larger-scale farmers need higher budgets and do not conform to MFI targets.

It is also expected that a bulk of small-scale farmers would refuse to pay interest and would not be able to shoulder regular annuities. With supplier credit, the interest was included in the price, and farmers were sometimes unaware of this. Any reimbursement mechanism would have to be carefully studied as it would have to take into consideration the revenue streams of the farmers and their seasonality.

There is also the issue of Lebanon's many exchange rates. Would MFIs need to hedge the alternative exchange rate risk? As long as the exchange rate fluctuates, it will be difficult to lend in dollars or control lending risks. Input suppliers want to be paid in cash up front. Ideally, MFIs would partner with one or several suppliers and pay them directly (in USD or in LBP at the daily alternative market rate) to avoid the funds lent being otherwise spent. Depending on the reimbursement mechanism, the MFI would collect from the farmers later. Even if the credit is extended in local currency, there would be a risk of depreciation, in addition to the market risk borne by the farmer.

Finally, force majeure issues that are likely to impact repayment, such as natural disasters, should be taken into account. The supplier also said investment expenses (greenhouses, irrigation systems) should not be treated like seeds or fertilizer (from a reimbursement point of view). Hence, a loan financing capex should have a reimbursement schedule that is longer than a loan financing working capital, with a grace period that is related to the time when the investment becomes operational and starts yielding results. On the contrary, loans for financing seeds and fertilizers for example, would reasonably be reimbursed once the crop is sold (much shorter timeframe).

TECHNICAL ASSISTANCE TO EXISTING ACTORS

Although banks are unlikely to be key players in agro-food the short to medium term, other actors in the traditional agriculture financing ecosystem may benefit from technical assistance that would enhance their funding access.

FARMERS Smallholder farmers have grown accustomed to buying their inputs on credit from input suppliers who would not charge them interest on top of their agreed-upon repayment, understood crop cycles, and would not interrogate the farmers about their off-takers, other sources of income, or the quality of their output. With this type of credit no longer available, farmers must adapt. Targeted technical assistance can help farmers identify and then enter into profitable partnerships.

For instance, agro-food processors and fresh produce exporters are increasingly looking for farmers who would be willing to join their value chains. Some processors are willing to go beyond buying farmers' crops, securing inputs at wholesale or bulk prices to farmers who partner with them. Trainings and awareness campaigns on topics such as contract farming and food-quality certifications for the sake of export may have a significant impact if carried out in conjunction with firms looking to enroll farmers who can produce higher volumes of crops that have certifications.

Farmers and other stakeholders interviewed for this study suggested a range of training topics smallholders would benefit from, including financial literacy (accounting, cash flow, profit), post-harvest techniques and loss reduction, quality standards and certifications, contracts and service-level agreements (SLAs), foreign market requirements, digital literacy, and agricultural clustering (see the text box).

Clustering is a key non-financial strategy in agriculture, that can significantly reduce individual financial needs. This includes setting up cooperatives or other type of alliances to make purchases and share ownership of equipment, or aggregate and market products together, leasing equipment instead of buying it, purchasing inputs at wholesale prices rather than on retail terms, etc.

MICROFINANCE INSTITUTION As mentioned earlier, MFIs could well play a part in financing agricultural activities that have been left out of the financial loop in the aftermath of the crisis. However, this transition to a new market segment and to larger scale loans, would likely require MFIs to get support and technical assistance in order to optimize their chances of success in this endeavor.

MFIs commonly point to their lack of technical agricultural expertise as a primary reason they are reluctant to lend to farmers. For example, interviewees said they did not know the timelines and cash flow details of various crops, and therefore how to match farmers with their standard microloans. Major MFIs have expressed interest in helping to fill in the current void in the agro-food sector's access to financial resources and perhaps eventually offer customized microcredit products with longer grace periods and tailor-made reimbursement schedules. However, the interviews identified several technical gaps that would have to be bridged before MFIs could maximize their support to the sector. These include a lack of understanding of how to design and customize agricultural products with

specifications that match farmers' needs, a need for loan officers who have undergone specialized training to understand the basics of farming (types of costs, cash flow according to the crop, profit generation), and a lack of internal staff, such as agricultural engineers, with the expertise needed to evaluate the technical aspects of the agri files.

De-risking through partnering with NGO's

Whether for a lender or for an investor who seek to further develop their agri portfolio, teaming up with NGOs can be a valuable asset. To start with, NGOs can be a source of pipeline by identifying and pre-screening agro-businesses that would otherwise be harder to identify without a strong rural network. Second, NGOs involved in agriculture can help de-risk investments through their programmatic activity within the value chain (farmers and agro-enterprises involved in an NGO program often have access to technical assistance, business support services, capacity building, or even broader value chain coordination). NGOs can leverage these strengths by collaborating with investors and lenders, and thereby contribute to attract more capital into rural businesses.

FINANCING TRADE

With trade finance mechanisms having become more complicated since the crisis' onsets, all the stakeholders in the agro-food value chain will likely have to find alternative mechanisms of funding to continue importing materials needed for their operations. It is therefore worth looking at alternative upstarts that have arisen to take up the role formerly served by banks in facilitating trade, such as the Cedar Oxygen Fund. An overview of the fund is provided in the following text box.

Cedar Oxygen Fund: Technical SheetLegal setup and investors: Cedar Oxygen (Cedar O2) operates a securitization vehicle based in Luxembourg and abides by European standards as regards to KYC/AML/CTF compliance. The company maintains an office in Paris from which they objectively manage the credit and investment process; and an office in Beirut, where their front office services their Lebanese clientele. Cedar Oxygen are in the process of establishing a Luxembourg-based investment fund to attract additional outside investors keen on helping meet the liquidity needs of Lebanese businesses during the present crisis. Cedar O2 is not regulated by the Central bank of Lebanon; however, BDL is a debt investor in the investment platform (USD175 M as at end of 2020). The AUM (assets under management) is presently managed by two banks in Europe.

Target: Cedar O2 offers supply chain financing, import finance for raw materials, and working capital solutions to Lebanese industrialists, including the prominent agro-food sector. The initial focus is on Lebanese companies that export value-added finished goods, and importers that sell locally with a particular focus on high-priority food staples. The group targets their customers across the full spectrum of Lebanese industry, from large local corporates to small and medium enterprises.

Commercial approach: As a matter of principle, initial priority is given to those not currently benefiting from any existing BDL subsidy program. Once subsidies are removed, groups formerly benefiting would be eligible to seek needed credit from Cedar O2.

The group has recently signed an MoU with the Association of Lebanese Industrialists, with whom they work closely to source borrowers.

Mechanism: Cedar O2 extends finance from outside Lebanon as many borrowers have had difficulty issuing letters of credit through Lebanese banks. The group takes a bespoke approach to assisting

clients and attempts to structure programs either on an open account basis or through documentary credit methods.

One key model is for the Lebanese borrower (importer or exporter) to assign their export receivables to the fund in order for Cedar O2 to better assure that they will be duly repaid in a timely manner. Given the global approach taken by Lebanese industrialists, many borrowers have clients and receivables from European, American or other low-risk countries where credit insurance is often available.

Ticket size: from USD100 K to USD5 M for the time being. They expect the bulk of the transactions to be between USD200 K and USD5 M.

Tenure: Cedar O2 is initially focused on short-term trade finance (max. 180 days). Exceptionally, they will consider one-year facilities if they perfectly understand the business cycle of the client and the longer timeframe is justified.

Industrial exports account for 80 - 90 percent of the fresh funds generated by the Lebanese economy. The Cedar Oxygen Fund's initial aim is to promote the sustainability of industrial exports and maintain and improve employment in industries that have remained open. At the end of January 2021, Cedar O2 reportedly financed its first transaction, with an agro-food processing company.

The team is aware of the agriculture sector's import needs and remains interested in extending their services to agricultural companies. Companies that fit the profile of Cedar O2 include companies with shorter production cycles that carry less risk, such as agro-food packaging and bottling industries. They are less likely to support industries such as pesticide importers, which carry high risk and take longer to see returns and have business models that are potentially harmful to the natural environment.

For the near term, Cedar O2 is scaling-up its balance sheet by considering three primary options. First, they have approached a number of commercial banks for potential cooperation. Cedar O2 has offered to work with these banks in financing larger tickets and sharing the repayment risk. Some importers have approached Cedar O2 for requests in helping to finance imports of USD 4-5 million in raw materials; and the group has opted to co-finance or risk-share these larger funding opportunities with commercial banks.

Secondly, according to Mounir Bsat of the Syndicate of Food Industries, Cedar O2 is also approaching exporters and working on solutions to help repatriate hard currency into Lebanon through transparent and legal means to help pay for their local working capital needs.

Thirdly, Cedar O2 also facilitates LCs to be opened by banks with correspondent banks abroad by supplying a guarantee or limit with foreign financial institutions. The company has been making arrangements abroad in order to implement such transaction structures.

At the end of December 2020, Cedar O2 was in negotiation to sign partnership agreement with a number of choice Lebanese banks and is presently signing arrangements with regional and international banks, as well. The fund's objective is to secure an additional USD 400 million in investment throughout 2021.

Regarding any work by Cedar O2 in the agro-food sector, Anthony Jabbour, the Managing Director of the Beirut office, confirms it is a priority sector given Lebanon's significant global expertise and quality in this space and says a list of imports and other needs are being prepared so that Cedar O2 can assess the sector's ability to repay new debts in the current environment. In other words, an ideal

early client in the sector would be a client with a solid and diverse base of off-takers capable of repaying their debts in fresh money.

In the medium term, Cedar O2 is looking at supporting capital expenditure (as opposed to working capital exclusively) and to broaden its reach beyond industrialists, and potentially explore earlier stages within the agro-food value chain.

Cedar Oxygen is seeking to grow their investor base. Should the fund has additional access to donor funding (whether through grants, investment or through soft loans), labbour is confident that the parties to the agreement could agree on a custom-based framework that would facilitate the needs of the agro-sector.

The fund is presently operating on funds lent by the Central bank of Lebanon and, as per Anthony labbour, these funds will be used to encourage outside investors to assist Lebanon.

ALTERNATIVE FINANCING MODALITIES

IMPACT FUNDS

The global Impact investing market has benefited from significant growth in the past decade, reaching USD 715bn at end-2019 compared to USD 50bn in 2010 (source: the Global Impact Investment Network (GIIN) 2020 annual report). The MENA region has lagged other regions during this period and is currently under-represented in the global impact investing sector. Nevertheless, the region has shown steady signs of improvement in the past few years, delivering a 19% growth rate in impact investing between 2015 and 2019. This is helped by the emergence of more impactful start-ups in the region, and by an increased interest of impact-oriented capital.

Within the MENA region, the Lebanese market has to date shown little interest for Impact Funds. Nevertheless, the country's economic and social crisis, combined with this worldwide trend toward generating impact alongside financial return, make Lebanon a prime candidate for this type of fund.

Impact investing has two general criteria. The enterprise must have a measurable, scalable social impact, and it must be able to generate a return for investors. Most enterprises whose primary objective is social as opposed to economic are kick-started through support by NGOs and international donors. Once on their feet, these enterprises must sustain themselves by generating a profit. Even though these enterprises are ready for investment, they tend to struggle to secure investors willing to dedicate funds to helping a socially oriented company achieve its social vision as the primary objective.

This is where organizations such as Alfanar can step in. Alfanar is the Arab region's first venture philanthropy organization that supports social enterprises with funding, management support and access to networks. It is currently working on the launch of Lift Ventures, an impact fund dedicated to the MENA region, due to be launched in 2021.

According to Amine Goraieb, Impact Fund Advisor at Alfanar, although sector-agnostic, the fund is already planning to invest in a significant number of agro-food enterprises that have an important social impact on vulnerable communities.

Due to the economic situation, Lebanese enterprises, including those in the agro-food sector, must prioritize survival before considering growth. The dire situation is leading investors to approach financing local enterprises from a new perspective, structuring their deals to answer short-term needs — in other words, working capital — instead of around investment and upscaling capital. This sort of bridge financing allows companies to get back on their feet and finance their operations, while a longterm investment package is being prepared to finance development.

How, in that case, can working capital be financed? One vehicle is the Cedar Oxygen Fund (described in the previous section), which finances the import of raw materials for export manufacturers. Some market players also appear to have considered asset-based loans, whereby an exporting company's assets are used as collateral to get a short term loan that works similarly to a revolving credit line.

Another option is a fund like Alfanar's Lift Ventures, which will be investing in companies operating in sectors of the old economy that are less volatile than, say, technology companies, and those with a high export potential or a capacity for import substitution. Lift Ventures' investment strategy is based on simple logic: exports reduce the enterprises' risk exposure to Lebanon; visibility on a company whose market is outside Lebanon is higher than visibility on a company dealing only with the local market, which is subject to context-specific developments. Additionally, Lebanese companies are now much more competitive in terms of export potential due to the financial situation. Finally, an exporting company would have income in foreign currency and therefore be able to ensure its inputs in a sustainable manner.

The Lift Ventures impact fund is expected to have the concept and the skills to be a noteworthy vehicle to support agro-food in Lebanon, amongst other sectors. Although it is still in the process of fundraising, Alfanar welcomes donor support via its venture philanthropy arm to support social enterprises and businesses with impact in becoming more investment-ready.

CROWDFUNDING

Although this study did not identify any crowdfunding initiatives dedicated to the agro-food value chain, these campaigns should nevertheless be considered a viable funding option. In short, crowdfunding funds initiatives by pooling small amounts of capital from a large number of people, broadening a project's capital structure. Crowdfunding is typically used for raising seed capital for a project, filling a financial gap, or even supporting a social movement, but it can also support an economic activity or sector. Given the lack of sophistication of the Lebanese capital markets, let alone farmers' financial illiteracy and their aversion to capital remuneration (interest or shares), perhaps a reward-based type of crowdfunding initiative could be realistically set up. For example, a crowdfunding campaign could support a group of farmers who have a specific objective in terms of quality (e.g., organic produce) or cost cutting (e.g., investing in irrigation systems).

PEER-TO-PEER LENDING

Whereas crowdfunding raises capital without aiming to provide investors a return, peer-to-peer lending platforms match people who have borrowing needs with others who have excess liquidity. People who borrow through a peer-to-peer platform commit to repay the loan with interest. Peerto-peer lending in agriculture remains limited. However, peer-to-peer lending in Lebanon would face a slew of challenges, including securing a bank's banking of a digital lending platform to a weak legal framework

DIGITIZATION

Although this study did not explore in depth the role digitization could play in helping the agro-food sector to acquire funding, digitizing various links in the agro-food value chain would help drive greater efficiency at the level of the various stakeholders, modernize the ecosystem, and ease access to finance and financial services. A forthcoming IFC study is expected to shed light on the potential of developing digital services along the agro-food value chain.

PRIVATE INITIATIVES: EXAMPLES OF ALTERNATIVE FINANCING

NATAGRI

The company Natagri was set up five years ago and successfully implemented a sort of aggregation of the whole value chain for table grapes. Natagri is worth a closer look as its model appears to be replicable. Natagri's model is a hybrid inspired, on the one hand, by serious COOP endeavors such as those in countries with highly developed agriculture and industrial sectors and, on the other hand, by private businesses that adopt a profit-driven market approach. Their target is not mass production, but high-quality produce destined for high value-added markets. For the time being, they are considering only fruits.

Their main challenge is to bridge the huge gap that exists between local practices and the standards required by foreign markets. They aim to achieve quality standards of the type that would allow Lebanese crops to reach very demanding retail markets. This implies quality controls from the farm to the shelf, including harvesting and post-harvesting techniques and standards.

According to Natagri's CEO, success factors for reaching export markets and creating value are as follows:

- Quantity is needed to be able to cater to the importers' needs.
- Quality can be achieved only if follow-up is done on the production from the beginning. Exporters are working to standards that farmers in Lebanon are unfamiliar with. There is a huge gap between reality in the field in Lebanon and the standards applied in export markets. The gap is not only in the implementation, it is in competencies.
- Money is a key to competitiveness. Natagri persuades farmers through the argument that if they do what is asked for, they are guaranteed to earn at least as much (and likely more) as they currently earn. In other words, Natagri persuades farmers that they get part of the return of the sales generated by their crops.

Practically speaking, Natagri is acting as a service center to support the grape value chain, meaning they have departments specialized in all steps of the value chain, including administration, sales and marketing, technical issues, mechanization to ensure that the equipment that is essential for a specific need is supplied, purchasing for inputs. Natagri also works with the most competitive input suppliers. From the beginning of the season, Natagri specifies all the quantities and products that they need and

then launch a bidding process. Even the farmers benefit from the economies generated at the level of inputs.

According to Sarkis, the only way for adding value to any value chain in Lebanon today is through an integrated approach translating into this service center concept. A COOP cannot play that part because COOPs are manipulated in Lebanon, either politically or by businessmen who end up by transforming them into private businesses. Sarkis believes every value chain should have its service center, and possibly even in each region where the value chain has stakeholders.

Aggregators as instruments for efficient support to a value chain

Because exports are key to supporting local agro companies and farmers, and because it is critical to improve the efficiency of the agricultural sector in Lebanon, there is a big need for aggregators to group small farmers, standardize their practices, their inputs, ensure product conservation etc. This is where technical assistance would play an efficient part today, pushing farmers to be working in a coherent standardized cost-efficient manner, with a quality target. These aggregators would also need equipment and capital to increase their outreach (funding component).

Practical ideas for rationalizing donor support

Support for private companies: many Lebanese companies have identified windows of opportunity during the crisis, especially in export markets, and they lack the funding to grow their business.

There needs to be a system whereby loans can be given out to the people with an investment need, to substitute for banks that have disappeared from the market. One idea midway between loans and grants, but that at least, guarantees that the company does have access to funds, is the loan that is appended to an incentive: for the purpose of this study, we will call the mechanism 'incentivized loans'. One idea is to lower the interest rate on the loan but at least, the entrepreneur would have the target of reimbursing the funds (performance obligation).

Another idea is for donor agencies for instance, to give out loans and as an incentive, slash off 50% of the interest if the project is successful in terms of certain performance indicators. Best case scenario, the loan can be transformed into a grant if certain performance indicators are achieved.

Support for a whole value chain: to extend support to the largest possible numbers of beneficiaries, it is worth considering setting up service centers (possible regionally) that would cater to specific value chains, be efficiently managed, and would help pull Lebanese agricultural value chains one level up in terms of achievements. As cooperatives have proven to be a failure in Lebanon for several reasons, Sarkis (Natagri's CEO) believes well-operated service centers funded by donor agencies could really make a difference. To guarantee quality services and efficiency, he believes a bidding process to select the operator, with performance objectives, would be a useful approach.

SHREEK

The company Shreek ("partner," in Arabic) positions itself as an alternative to banks in Lebanon, aiming to provide access to savings, loans, and money management. Currently led by the well-known economist, activist, and professor Jad Chaaban, Shreek was recently set up as a civil company but will operate as a cooperative union. It also has a management board, a member's admission board, and a credit committee. It will have proper audit procedures, will be audited by an independent audit firm, and will set strict compliance practices.

Like COOPs, Shreek has members whom its capital belongs to, not shareholders. The company operates according to basic cooperative principles, such as each member having an equivalent say regardless of the level of their financial participation. Its services will include granting loans, issuing prepaid debit cards in dollars that are usable in Lebanon and abroad (in partnership with CSC, a company that has a banking license and operates a credit card switch), and remuneration of participations; it will not provide current accounts, checkbooks, payroll services or invoice domiciliation. Shreek already has a pipeline of membership requests and aims to have at least 1,000 members by the end of 2021; it hopes to reach 5,000 – 10,000 members within five years and have an estimated operating budget of USD 300,000. Members will have to pay LBP 100,000 in annual registration fees. The minimum participation required, in terms of deposit, is yet to be defined. Members of Shreek will be able to deposit money in Lebanese pounds and earn a projected interest of 5 - 8 percent annually. Memberships in pounds will be collected from members and reinvested in enterprises or initiatives within the agro-food value chain; industries that received investment will be expected to produce an exportable output.

Shreek's business approach looks like this: The group will purchase in the local currency all the next year's output of a COOP or group of farmers for an agreed-upon price. At maturity, either the producer will deliver the merchandise to Shreek, or it will pay Shreek an amount previously agreed on and keep their merchandise in order to sell it at a higher price. In all cases, the product is guaranteed to be sold.

In the future, Shreek hopes to enter into the field of small lending and microfinance to support "Made in Lebanon" products, made by Lebanese labor.

Shreek is working on resolving two main concerns with legal experts: The quality of the product will have to be monitored closely to ensure that the product matches the order, and insurance on the contract by a third party needs to be devised. For funding, Shreek will have to rely on external sources, and has approached international organizations for funding, seeking a loan in order to on-lend to beneficiaries at a markup.

Additional challenges lie in communicating with producers on legal issues related to future contracts or service level agreements. Additionally, a great deal of work will have to be done in the way of awareness raising, as farmers are expected to be reluctant to buy into the enterprise from the outset.

For the time being, Shreek is keen to set up and rapidly grow its activity. The founding members are considering joining the Agrytech Program as an accelerator for their nascent business. They are also actively seeking external funding for developing the appropriate organizational structure using technology at its core to provide the various activities of their business model in accordance with international norms of compliance and risk mitigation. However, a legal concern have been raised regarding the capacity of Shreek to provide loans and access depositor money. Interviewed Shreek members, argued that they do have all the legal right to be registered as a lending cooperative since the legal framework for such activities does exist. Nonetheless, legal issues may arise if the Central Bank acts toward regulating this type of initiatives

VII. CONCLUSION

For this study, we interviewed a variety of representatives from multilateral organizations, development agencies, and USAID implementing partners. Overall, interviewees expressed interest supporting the agro-food value chain, but they expressed a hesitance toward providing any funding or monetary support to the public sector — at least not before structural reforms are carried out on a country level. This includes initiatives such as the Cedar Oxygen Fund, which involves the Central Bank. They also did not envision support to the banking sector in the present moment. As a result, donors conveyed feeling lost as to projects that would not involve the public sector and would also have a potential for significant impact, factoring in the multiplicity of exchange rates from the Lebanese pounds to the USD in the current market.

The preceding chapters sought to put forward a framework of entry points for development investment in Lebanon that have a potential for sustainable impact on various parts of the agro-food value sector. Several key cross-cutting conclusions can be drawn.

First, the winners in the Lebanese agro-food sector will be the exporters. With the volatility in the local market and inputs growing in price, access to fresh funding when possible will be essential in the short to medium term in sustaining quality farming. However, a sharp stop in credit opportunities is causing problems at every link of the value chain, especially when it comes to operating costs. Companies with an export capacity are having an easier time coping with this; farmers who rely on local markets are hard hit, as nearly all of them are used to relying on overdraft facilities or advance payments to finance their operations. Other industries import their inputs but sell their output locally (e.g., dairy, meat processing). For this category of companies, the challenge has been bigger.

One possible entry point for development initiatives to support the agro-food sector is by promoting projects that enable MSMEs and industries in Lebanon to be more export oriented. One method of doing so would be through technical assistance projects that teach local producers about certifications needed to make their crop more marketable to foreign buyers. This approach would be optimized by pairing the assistance with an institution or program that helps to match both players in the transaction.

In the short to medium term, development projects may also consider propping up local MFIs, helping them to manage their operating costs so that they can become a major financier in the sector while providing them with the technical training they will need to be major players down the line. However, it is worth noting that European Union representatives appear to have explored this potential and found that investing in MFIs as a future source of agro-food financing would not have as large an impact as they would expect. Their overall approach to supporting the Lebanese economy seems to be more focused on supporting private profit-making companies and have a bias towards technology investments.

Finally, novel enterprises such as impact funds and organizations like Natgari and Shreek represent new pathways for intervention in the sector, whether through monetary or in-kind assistance. These enterprises may pose a risk as new models of support being introduced at a particularly volatile moment for the Lebanese market. But in addition to presenting an opportunity for donors and development agencies to not only support tangibly the Lebanese agro-food sector, they offer the opportunity for these organizations to become thought leaders in helping the agro-food sector value chain rethink the concept of sustainable financing.

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VII. ANNEXES

ANNEX A: INTERVIEW GUIDELINES

Financial institutions

- What sort of facilities did your agri-food clients usually ask for before the crisis that started in 2019? Long term loans for investment? Working capital? Trade finance facilities?
- Are they generally SMEs or corporate customers?
- Is any part of the agri-food value chain privileged by banks as compared to others?(for instance distributors as compared to farmers?)
- How has your agri-food portfolio been performing?
- What are your management's instructions regarding the outstanding loans and trade facilities to the agri-food sector (promote early reimbursement? renew the facilities? Increase/decrease the limits?). What is the aim sought for on balance sheets?
- Has the sector been more disturbed than others by the crisis?
- How have your agri-food clients managed to circumvent or overcome all the regulatory and market hindrances and challenges?
- · According to you, what type of solution, if any, would cater to the needs of the agri-food enterprises (be they farmers involved in production or enterprises that process, pack and market the produce)?
- How would you qualify the knowledge of financial institutions / investment firms regarding nonfinancial services demanded by the agricultural and agri-industry sectors?
- If a funding agency, would be willing to allocate fresh funds to support Lebanon's agri-food sector, how would you imagine it should use the funds? What shape or type of intervention should these funds take up in order to best serve their aim? (loans to banks for onlending? Trade finance guarantee programs? Equity investments? Subsidy mechanisms? ...)
- How do you imagine banking activity over the 2-5 coming years as far as financing the economy is concerned?

Additional questions to be addressed to fund managers and other non-bank / alternative finance providers:

- Is your company invested in agro-food? If not, would your fund / your investors be potentially interested in investing in agro-food?
- Would the agro-food value chain benefit from an injection of equity funds or is capital easily
- Is there any particular financing need in the agro-food market that you know of?
- If there were foreign funds to reach the agro-food sector, how do you think it could best help the sector? Under what mechanisms?

Farmers

Before the crisis

• Before the crisis, how did you cover your initial investment/setup cost?

- Similarly, how did you cover your operation cost?
- Today, how do you cope with the crisis in term of financing?
- Did you have any change in the production in 2020? Compare to previous years?
- how did you ensure you operating cost are covered?
- What about reinvestment cost?
- How do you usually secure the funds for these costs?
- What would be the ideal loan for you? (Delivery mechanisms, timing, instalments, interest rates, use)
- Who would you consider taking this loan from? And why? (Bank, Microfinance institution, Trader, Input supplier, Other)
- What are the major challenges you face if you consider getting a loan? Probe the following Documents, Collateral, I don't like going to the bank, Bad financial record, I cannot repay it)
- If the respondent has gotten a loan, how did you overcome these challenges?

International development agencies and key projects

- How is your agencies/project adapting (designing) activities to tackle the impact of the financial crisis?
- Do your project/agencies support access to finance for farmers and SMEs including non-agricultural SMEs? (probe on all type of potential activities including grants and voucher support)?

Other actors of the value chain

- How did the crisis impact you and what are you doing to overcome its effects?
- In terms of financing what strategies are you using to ensure the financing of both your operating and financial costs?
- Do you trust the Lebanese Financial sector? What would it need for you to collaborate with Lebanese banks?

MFIs

- What is the size of the microfinance business in Lebanon?
- Who are the leading companies?
- Are they all NGO's?
- What is the difference between microcredit supplied by an NGO and microcredit supplied by a financial institution regulated by the Central bank?
- What are the relevant regulations to which MFIs are subjected?
- What is the proportion of agriculture among beneficiaries?
- Any specific difficulties encountered with agri-food beneficiaries?
- Sources of funding for microfinance providers?
- Cost of microcredit in Lebanon, before Oct 2019 and after?
- Any specific shift in the needs noted post-October 2019?
- How has demand evolved?
- What has changed post Oct2019?

- Is there a need for a fresh fund injection into the microfinance realm or can the amounts currently available in the market cater to the needs?
- Does any microfinance program in Lebanon benefit from any subsidy or support scheme by BDL or multilateral organizations?
- Are lending conditions comparable among MFIs even though the cost structure is probably not the same among them? (especially NGOs vs Fls)
- As compared to banks, how much higher is the price of microfinance?
- If there were USAID funds to be channeled into the agri-food value chain, how could your MFI be able to capitalize on this opportunity?
- Any specific scheme being prepared and that needs funding?
- Any particular need that needs special financing?
- What is the future of the microfinance / agri-food tandem in the coming 2-5 years, if any? In other words, would they become more interconnected or not? Would their evolution have anything in common

ANNEX B. OVERVIEW OF THE MAIN TYPES OF LOANS SUPPLIED BY THE LARGEST BANKS IN LEBANON 5 FOR BUSINESSES (PRE-**OCTOBER 2019)**

PRODUCT	DESCRIPTION	SOURCE OF FUNDING	INTEREST PAID BY THE CLIENT (PREVIOUS TO 17 OCTOBER 2019)		
EXAMPLES OF UNREGULATED LOANS (STRUCTURED BY BANKS)					

⁵ Until Q3- 2019, leading banks were offering practically the same range of products to their corporate and SME clients. The conditions presented in the table are those that were applied by a leading bank in the market right before the events of October 2019. At the time of preparation of this report, the terms and conditions of these loans are not valid anymore, as all banks have restricted loans to overdrafts to their best clients, and to trade finance operations on priority goods.

Medium to long term loans	Target: professionals such as specialized craftsmen (plumber, carpenter) or doctors, lawyers, engineers, consultants Object: loan to finance a professional project	Bank's own funds	USD : BRR 6 + 5% with minimum 16%
ESFD loans	ESFD Plus is a loan dedicated to either unbanked professionals or small enterprises, or clients who do not have sufficient collateral to access a bank loan in order to finance their professional project or the extension of their business – across sectors. The main aim of these loans is job creation and poverty alleviation.	Bank's own funds (loans guaranteed up to 75% by the ESFD)	LBP: Iyr TB + 5.5% with minimum 12.5%
EIB Ioans	EIB loans target the financing of new or existing projects implemented in Lebanon by companies operating in all sectors (industry, agriculture, tourism, services, health, education, technology). EIB loans whose characteristics fit the requirements of BDL circular 80 (incentivizing lending to SMEs) also qualify for BDL's interest subsidy (basic circular 80).	Credit line from EIB to partner banks	Fixed or floating rate left up the bank, generally with a contractual ceiling (EIB-Bank) for the spread set by the bank. Possibility for collecting 4.5% in interest subsidy.
IFC loans	IFC loans target MSMEs that have a project to finance in Lebanon. The loans whose characteristics match the requirements of BDL for benefiting from an interest subsidy, can apply for such a subsidy (basic circular 80).	Credit line from IFC to partner banks	Floating rate, generally with a contractual ceiling (IFC-Bank) for the spread set by the bank. Possibility for collecting 4.5% in interest subsidy.
EBRD loans	EBRD loans target MSMEs that have a project to finance in Lebanon (<\$2M). The loans whose characteristics match the requirements of BDL for benefiting from an interest subsidy, can apply for such a subsidy (basic circular 80).	Credit line from EBRD to partner banks	Floating rate, generally with a contractual ceiling (EBRD-Bank) for the spread set by the bank. Possibility for collecting 4.5% in interest subsidy.
REGULATED LOANS			

⁶ BRR = Beirut Reference Rate. Benchmark rate for banks in Lebanon to set lending rates. The BRR is calculated monthly by the Association of Banks in Lebanon for both, the US dollar and the Lebanese pound. It is based on the average cost of funds and the average operating cost of banks.

Kafalat loans (basic circular 80)	Kafalat loans are given out to professionals and SMEs operating in the fields of industry, agriculture, tourism, technology, and artisanal work, to develop their business. These loans offer several advantages: they are subsidized by the Central bank + they offer the guarantee of Kafalat.	Bank's own funds; interest subsidy given by BDL as a quarterly interest reimbursement to the client, by means of the bank	LBP: 40% of I-year TB ⁷ + max 3% USD: Libor Tyr + max 5.5%
Subsidized loans (basic circular 80)	Subsidized loans target professionals and enterprises for the financing of their projects in Lebanon in the following sectors: tourism, agriculture, industry, artisanal crafts, and IT. They benefit from an interest subsidy by the Central bank.	Bank's own funds; interest subsidy given by BDL as a quarterly interest reimbursement to the client, through the bank	LBP: 2yr TB + 1% USD: Libor 3m + max 7%
Green Energy Ioan (basic circular 23)	Loan in US dollar, intended for financing new projects that have an energy component (green) i.e. that are intended to improve the energy efficiency of the business	Bank's own funds (usually with an incentive given by the Central bank to the bank to reduce the cost of funds)	USD : Index BDL ⁸ – 4.75%
Project finance / non housing loans (basic circular 23)	Loans in USD targeting professionals and enterprises, and that enable the financing of a new project or the expansion of an existing project – whatever the economic sector.	cost of failury	USD : Index BDL – 2%

In November 2019, the BRR was 10.39% for USD, and 13.49% for LBP. It has been dropping since, following a deliberate drop in the interest rates served on deposits in Lebanese banks in the backdrop of the severe economic and financial crisis that has crippled the economy since the October 2019 events and the State's defaulting on foreign currency debt in March 2020. The latest published BRR dates back to July 2020: 4.53% for USD, and 7.75% for LBP.

⁷ For reference purposes, yields on Lebanon's Treasury bills (in local currency) were as follows: on November 28, 2019: 1-year TB: 6.5%; 2-year TB: 7%; on Nov. 19, 2020: 1-year TB: 4.5%; 2-year TB: 5%

⁸ Index BDL = average interest on bank assets placed with the Central bank. Latest (March 2020): 5.5% in USD; November 2019: 7%