



CIRCULAR 331

\$500+ Million to Create Lebanon's
Knowledge-Based Economy?

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ABOUT

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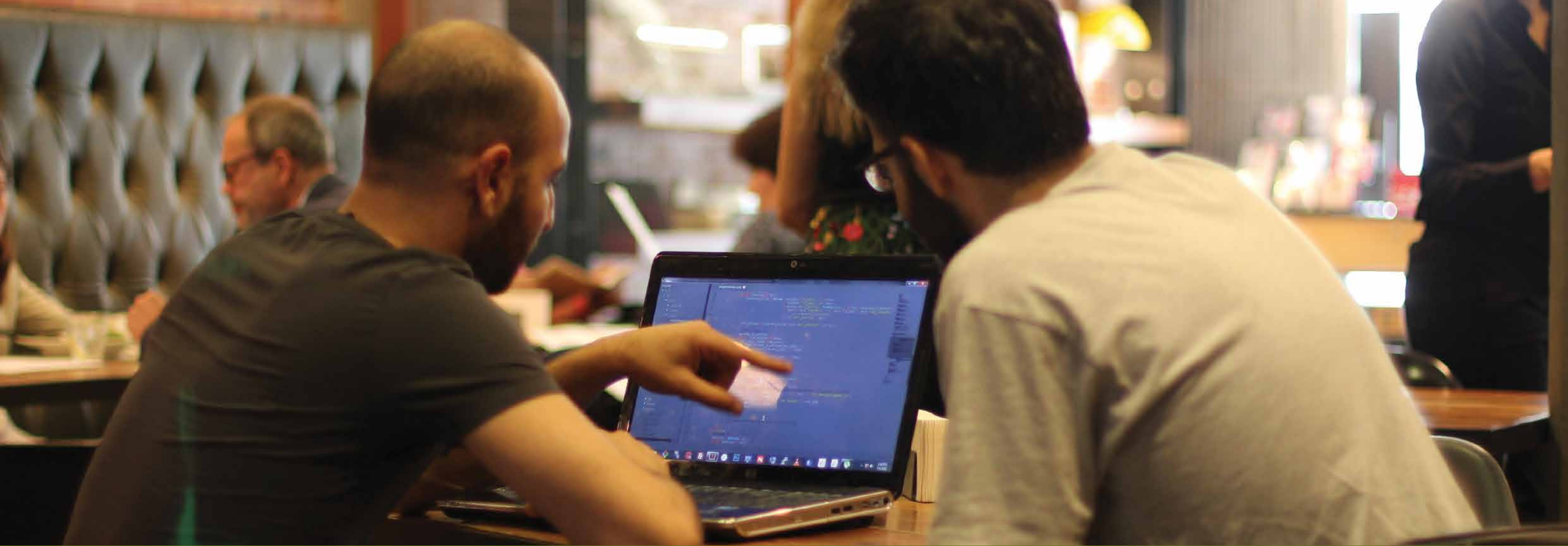
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EXECUTIVE SUMMARY

With almost no warning, Banque du Liban (BdL), the Lebanese central bank, issued Circular 331 in August 2013. Designed to foster a knowledge-based economy (KBE), Circular 331 is a guarantee scheme to increase equity investment into Lebanese start-ups.¹

As of the end of 2015, it has made over \$500 million available. While often hailed as a success by those who benefit from it, complaints have arisen; namely, that Circular 331 benefits the banks and the venture capital (VC) funds more than start-ups, and BdL has overextended its role. Despite these criticisms, Circular 331 has effectively increased access to finance:

- Circular 331 ensures that BdL and the banks share profits and risks.² This has incentivized Lebanese banks, traditionally an economic pillar but conservative in their investment and lending practices, to engage in equity investments in the entrepreneurial ecosystem. But no non-Lebanese banks have invested through Circular 331, raising questions about the attractiveness of investments.
- Circular 331 has made more money available for start-ups, which have (as

of September 2016) received \$46.5 million in investment. The accelerators, incubators, and other support organizations have received \$22.5 million. Before Circular 331, funds for the ecosystem were \$20 million, according to BdL.³ Further, since the banks invest their previously unusable capital reserves, existing investments should not be crowded out.

- The ecosystem's financial system may prove sustainable after Circular 331, though exit opportunities will be the ultimate determinant. The banks have mainly invested in VC funds, which do not have guarantees and therefore are incentivized to make market-driven investments. The VC funds also provide non-financial support, such as governance and market access. Combining finance and support may increase start-ups' commercial viability. Circular 331, however, requires exits

after seven to nine years, which may be premature. That means that exits by VC funds—assuming the funds seek conservative 20% annual rates of return over seven years—may need to reach a cumulative value ranging between \$700 million and \$1.8 billion.

Circular 331 investments must be consistent with the KBE,⁴ but BdL allows “the market”—in this case the VC funds—to define a KBE. This limits the KBE's scope: VC funds tend to invest in Internet and software start-ups, which may deliver exponential returns. Using the entrepreneurial ecosystem as a proxy for a KBE provides a more inclusive definition, one that goes beyond how the VC funds define the KBE through their investment decisions. It emphasizes that while providing access to finance is a start, more needs to be done. BdL may have to continue to lead the ecosystem's development, as it may be the only

institution capable of taking on this role. Further, BdL has embraced the spotlight by hosting BdL Accelerate and has taken the unusual responsibility to review all Circular 331 activity.

Recommendations for BdL

Orientation of Circular 331

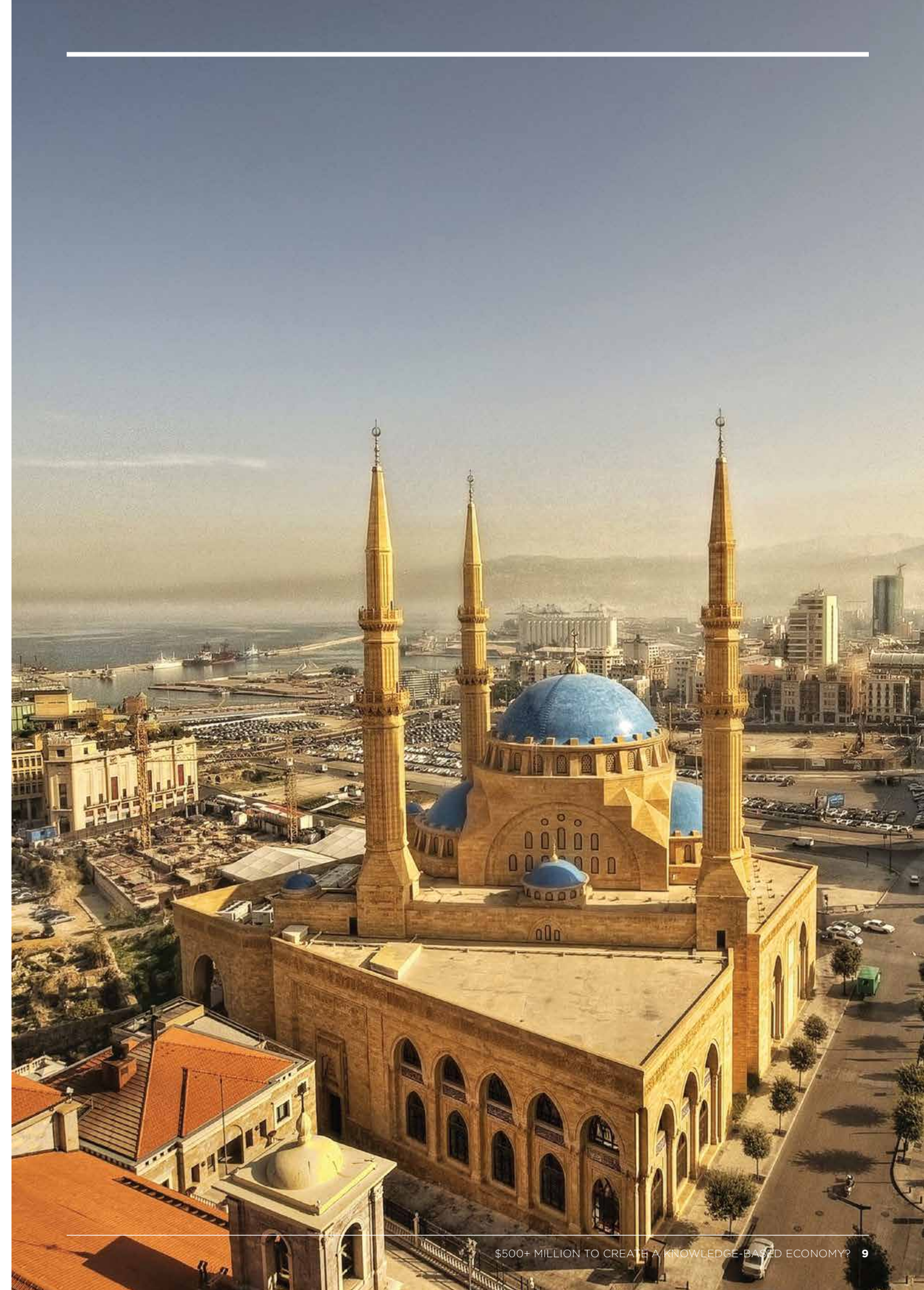
- *Ensure the KBE remains broadly defined.* Start-ups from all sectors should be eligible to receive investment. BdL should allow guarantees for investments into enterprises that are not start-ups and should support organizations for established enterprises that want to grow within the KBE definition.
- *Take a systematic approach to Circular 331's development.* BdL should create and disseminate a monitoring and evaluation plan, with clear and measurable objectives.

Communication

- *Create a "Start-up Interphone"⁵* to educate people in and out of the ecosystem who may be ill-informed about Circular 331. It could increase outreach efforts outside of Beirut to ensure entrepreneurs can benefit from funding and support. Further, it could help create feedback loops, by using surveys and interviews, to solicit the opinions of those who benefit from Circular 331 and those who do not.
- *Increase transparency about Circular 331* by centralizing and releasing information and aggregate data about Circular 331.

Coordination

- *Work with government ministries, business associations, and others to identify, prioritize, and remove constraints on the development of the ecosystem.* Circular 331 should be the start of a wider reform process. Poor infrastructure, an outdated legal system, and corruption are some of the problems which hinder the ecosystem's development.



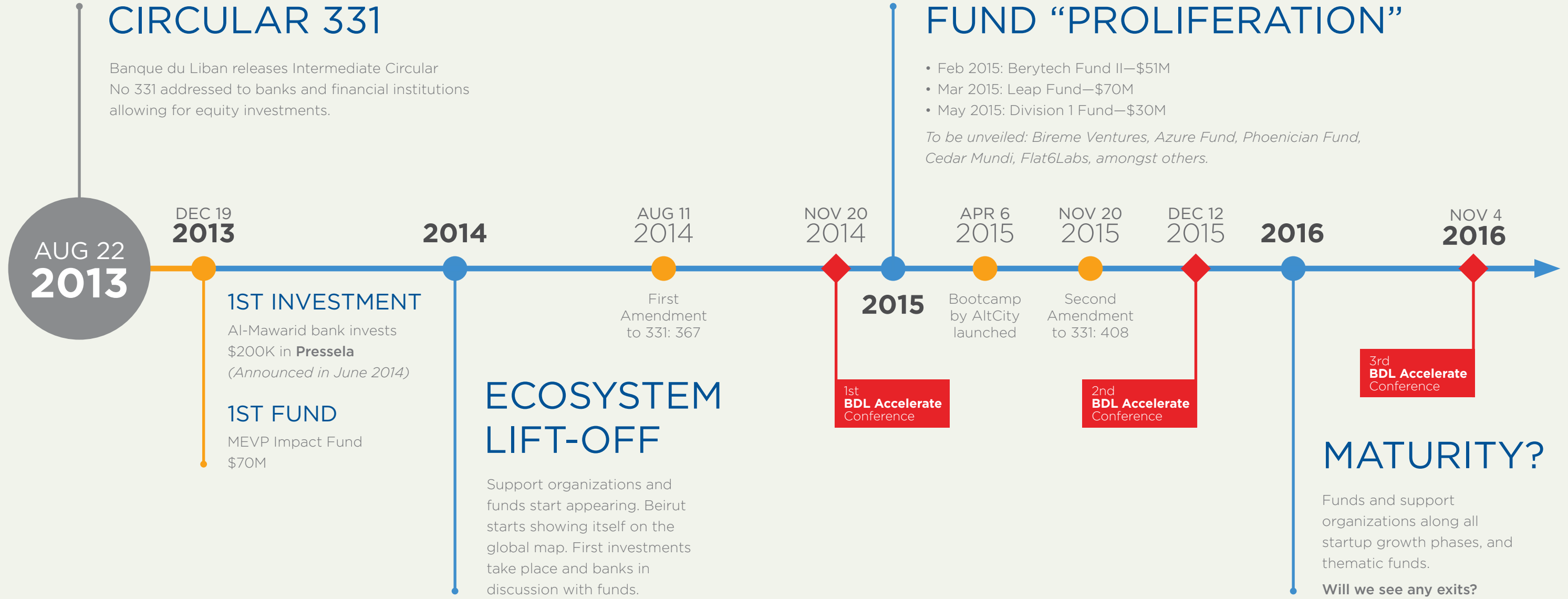
CIRCULAR 331

Banque du Liban releases Intermediate Circular No 331 addressed to banks and financial institutions allowing for equity investments.

FUND “PROLIFERATION”

- Feb 2015: Berytech Fund II—\$51M
- Mar 2015: Leap Fund—\$70M
- May 2015: Division 1 Fund—\$30M

To be unveiled: Bireme Ventures, Azure Fund, Phoenician Fund, Cedar Mundi, Flat6Labs, amongst others.



INTRODUCTION

Banque du Liban (BdL), the Lebanese central bank, unexpectedly issued Circular 331 in August 2013. According to some, the idea for Circular 331 came from the mind of BdL’s governor, who conceived of it while flying from New York City to Beirut. Others say the motivation was to allow Lebanese banks to invest their reserve capital.

Whatever the case, Circular 331 encourages Lebanese banks—an economic pillar of the country, yet risk-averse—to invest up to 3% of their capital, amounting to \$501 million by the end of 2015, in start-ups, incubators, accelerators, and venture capital funds (please see endnote for modifications to Circular 331).⁶ BdL guarantees losses: 75% for investments into start-ups and VC funds and 100% for incubators, accelerators, and various support programs. BdL and the banks each take 50% of all profits.

Lebanon’s economy has struggled since 2010, the country’s political institutions are ineffective, and its infrastructure is

weak. The war in Syria and the rise of the so-called Islamic State have scared away foreign investors and tourists, particularly those from the Arab Gulf. Lebanon’s traditionally strong real estate and tourism sectors have subsequently faltered. Instead of focusing on these traditional sectors, Circular 331 builds on the wave of technology entrepreneurship, which emerged in Lebanon in the mid-2000s, and Lebanon’s nascent entrepreneurial ecosystem. This should spur economic growth and help foster a knowledge-based economy (KBE).

In the summer of 2016, The Fletcher School Master of Arts in Law and

Diplomacy candidates, Nadim Choucair and Thomas Flynn, went to Lebanon to answer: Given the context of Lebanon, is Circular 331 an effective way to improve access to finance for Lebanon’s entrepreneurial ecosystem and therefore to help foster a KBE? Many people interviewed have mentioned that Circular 331 has created a “buzz,” at least in certain circles. But does Circular 331 actually increase access to finance and help foster a KBE?



CONTEXT

Before Circular 331, Lebanese start-ups were hard-pressed to find equity financing and had to rely on subsidized debt.

Lebanon's financial system is healthy. The capital accounts of commercial banks operating in Lebanon reached \$16.7 billion at the end of 2015.⁷ Domestic credit to the private sector reached 194% from the financial sector and 99% from banks in 2014, according to the World Bank, numbers which are comparable to an average OECD country. But Lebanese banks have been traditionally risk-averse, perhaps a product of their "civil war mindset," according to the Chairman of Kafalat, a Lebanese loan guarantee agency.⁸ During the civil war (1975-1990), banks preferred short-term lending to long-term and favored financing trade and commerce activities because of the short-term cash flow. This mindset

started to change in the mid-90s. Working with international organizations such as the European Investment Bank and the Overseas Private Investment Corporation, the Lebanese banks developed new lending and investment schemes targeting small and medium enterprises (SMEs), industry, and housing, and began to lend outside of Beirut. Kafalat, which started in 1999, further encouraged the banks to change their lending practices.

A Start-Up Mindset

Start-ups, which generally seek both debt and equity financing sources, are "a new phenomenon," according to the Secretary

General of the Association of Banks in Lebanon (ABL).⁹ Before Circular 331, Lebanese start-ups could access guaranteed loans, commonly through Kafalat. But the banks, which issue the guaranteed loans, still require collateral, which may be excessive. One start-up said that a bank required \$1 million in real estate as collateral to receive a guaranteed loan by Kafalat of a few hundred thousand dollars. Further, start-ups are "not looking to produce a product which has the fastest entry into market," according to the Chairman of Kafalat.¹⁰ Start-ups may have difficulties proving revenue streams will cover the loan repayments. Consequently, "young entrepreneurs without personal capital" found it "difficult to access commercial financial services."¹¹

In addition to self-funding and receiving money from family members, start-ups generally seek equity finance from angel investors and VC funds. But pre-Circular 331, the amount of equity compared to debt was miniscule: even with Circular 331, equity is less than 1% of the debt volume.¹² There are a few reasons. First, business angels are generally successful entrepreneurs who reinvest into the ecosystem. But the Lebanese ecosystem is nascent, and there are few successful entrepreneurs. Not surprisingly, “very few” Lebanese business angels exist, despite the Lebanese Business Angel forming in 2009.¹³ Second, private investors “have not woken up yet,” according to the Chairman of Al-Mawarid Bank.¹⁴ They are cautious and have low-risk alternatives, including real estate and global and regional capital markets. Further, deposits in Lebanese pounds, which finance the Lebanese debt at high interest rates, earn an average interest rate of 5.5%. Third, VC funds existed before Circular 331, but the funds were generally smaller. For example, the Berytech I Fund was for \$6 million, the Building Block Equity Fund was for \$7.5 million, and Middle East Venture Partners Fund was for \$10 million. The exception was Riyadh Enterprise Development’s \$50 million Lebanon Growth Capital Fund.

Did Start-Ups Really Lack Finance?

In March 2014 USAID concluded that Lebanese entrepreneurs have an “abundance of capital,” finding that a prospective entrepreneur has over \$550,000 in financing available. Curiously, USAID still established a VC

fund in Lebanon. To reach that conclusion, USAID added the 331 guaranteed investment funds (an estimate of 337 Million) to the \$145 billion in Lebanese bank assets since they are “technically” available for debt financing and with most at “reasonable, and often low,” interest rates.

Circular 331-guaranteed money represents less than 1% of this amount. But the vast majority of the identified capital is debt, often hard to access, and start-ups need different types of funding, including equity, at different stages of growth. Further, sources for reduced

interest rate loans other than Kafalat—when established it was for \$13.5 million, which represented one quarter of 1% of the banks’ equity at that time—are unclear.

More plausible is that start-ups may have lacked access to finance, but other constraints were more important. For example, a 2013 Wamda survey of Lebanese entrepreneurs reported they were more concerned with expanding into new countries, building a team, and generating revenues than accessing finance.¹⁵

Lebanon’s Entrepreneurial Ecosystem

Circular 331 supports a specific type of entrepreneur who exhibits “self-employment-plus-aspiration,” in the words of Daniel Isenberg, director of the Babson Entrepreneurship Ecosystem Project.¹⁶ These entrepreneurs are not content with owning their own business; they want their start-ups to grow rapidly. Skype and Snapchat are typical examples, but start-ups may be in computer hardware, alternative energy, logistics, or almost any other sector.

Entrepreneurs start and run their start-ups in an entrepreneurial ecosystem, which are complex and evolving environments—in essence, more intricately described business environments. Isenberg details an ecosystem as comprising six overarching domains: culture, finance, human capital, markets, policy, and supports. Subdomains include government institutions, policies, laws, businesses, NGOs, entrepreneurs, financing mechanisms, and educational facilities. Understanding the different interactions shows how entrepreneurs benefit from the whole ecosystem.

While Lebanon’s ecosystem may not be fully developed, Lebanon does have an entrepreneurial reputation. Lebanon’s family structure is important: Following the civil war, the family was the usually the “only intact institution capable of sustaining entrepreneurial activities,” according to Fahed-Sreih and Pistru.¹⁷ Traditional Lebanese entrepreneurs are older, with 17 years’ of work experience, and 85% are men. In contrast, the start-up community is generally younger, sometimes even recent university graduates. Female entrepreneurs have a larger role—almost half of the start-ups in the recent classes of Speed@BDD and UK Lebanon Tech Hub’s accelerator programs have female founders.

Why BdL and Why the Banks?

Governments often try to solve access to finance problems, but Lebanon’s government is dysfunctional. Lebanon was without a president between May 2014 and November 2016. Parliament rarely meets, and the line ministries are impacted. Conversely, BdL and particularly its governor have a strong reputation. BdL’s governor won Euromoney’s 2006 award for the world’s best central bank governor. He was reportedly considered for the Lebanese presidency. Moreover, Circular 331 works through the Lebanese banking sector, which funds the public sector’s debt and the Lebanese economy.

However, some, including within BdL, believe that Circular 331 stretches BdL’s mandate. This may be true, but the Code of Money and Credit, which established BdL in 1963, includes “safeguarding economic stability” and “developing the monetary and financial market” among BdL’s duties. Other BdL-subsidized loan programs support the economy. For example, Circular 313, issued in January 2013, provided concessionary financing to Lebanese banks so they would issue \$3.36 billion in low interest loans to sectors, particularly housing, over three years. Further, while targeting the entrepreneurial ecosystem may be nontraditional, “virtually all central banks have used direct means to support economic sectors,” including the US Federal Reserve’s support of the financial sector and Banque de France’s role in developing the French economy.¹⁸

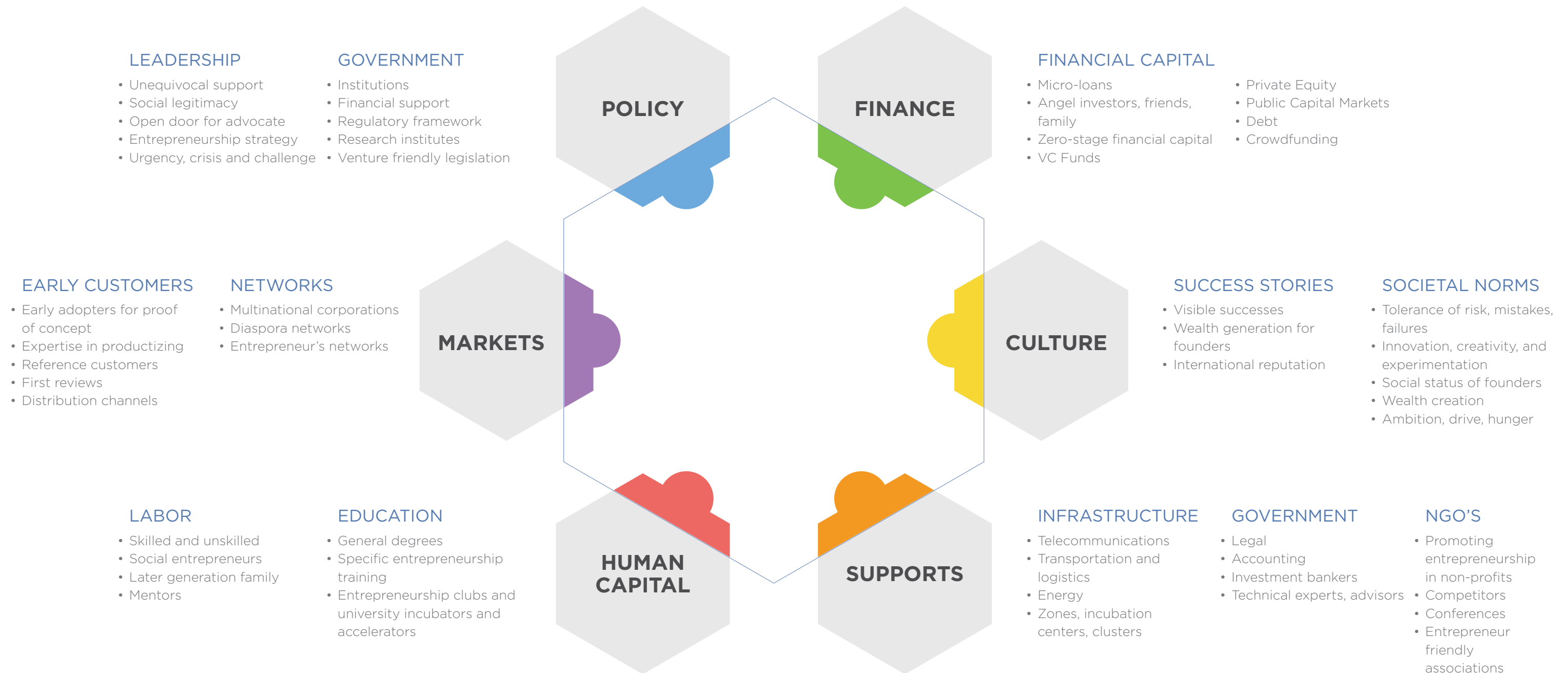
A more contentious objection, stated by the founder of Lebanon for Entrepreneurs, was that while the initiative is welcome, no emergency required BdL’s intervention. But supporters—many of whom work for institutions benefiting from Circular 331—point to Lebanon’s faltering economy and declining foreign investment pre-Circular 331. There was a “need to do something,” according to the chief economist at BankMed, as “difficult circumstances require different measures.”¹⁹ BdL was “the only institution carrying the economic torch,” continued the chief economist. The ex-Minister of Telecommunications and current chairman of the UK Lebanon Tech Hub is blunter: There is “no coordination, no state, only BdL.”²⁰

Defining a Knowledge-Based Economy

Though there are many definitions of a KBE, which can be a “fuzzy concept,”²¹ the OECD’s 1996 definition—or “manifesto,” as Isenberg terms it—is perhaps the most useful: a KBE includes “economies which are directly based on the production, distribution, and use of knowledge and information.”²²

DOMAINS OF THE ENTREPRENEURSHIP ECOSYSTEM

Adapted from Daniel Isenberg—Babson Global





METHODOLOGY

Overview

Researchers used a qualitative research approach, interviewing 65 people and attending:

- Speed@BDD accelerator’s Demo Day II (July 11). As one of three accelerator programs operational at the time researchers were in Lebanon, this pitch event provided a snapshot of the start-up pipeline, the engagement of the larger ecosystem, and information about the seven start-ups of that specific batch.
- Opening of the Seeders Masterclass for Business Angels (July 12) to learn

about the status of angel investors in the Lebanese ecosystem and how different funding options can support entrepreneurs.

- Opening of UNIDO’s Creative Lebanon, a boutique for small, artisanal producers (July 12) to learn if Circular 331 has affected Lebanese businesses outside of Beirut’s start-up scene.
- “The Journey to Investment Readiness” talk at UK Lebanon Tech Hub (July 20) to examine efforts by a support institution to bridge the knowledge gap between entrepreneurs and potential investors.

Researchers also spent time at the Beirut office of Wamda, an organization that accelerates entrepreneurship ecosystems in the Middle East and North Africa (MENA) region, and the Innovation Factory, a space in Beirut for designers and entrepreneurs.

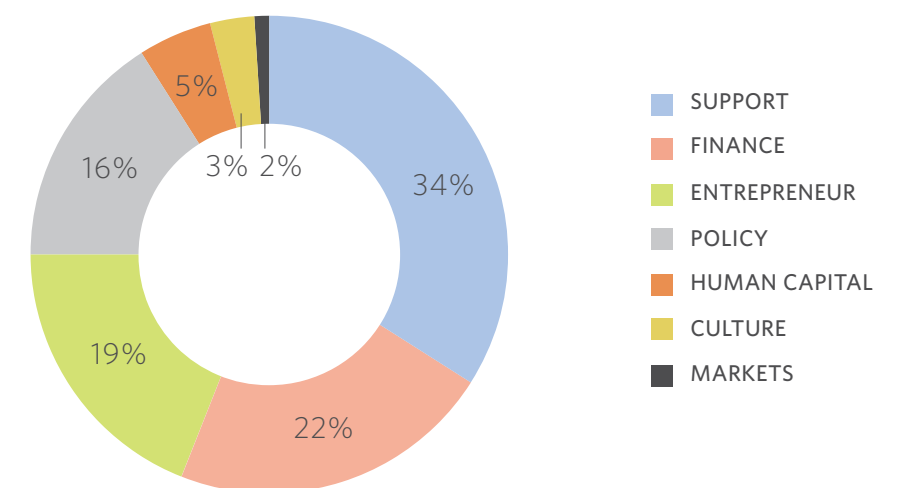
Researchers reviewed over 35 publications about entrepreneurship theory, entrepreneurship in Lebanon, Lebanon’s banking and financial sector, and Circular 331. Researchers also used Wamda Research Lab’s 2013 survey of Lebanese entrepreneurs to inform the report.

The Appendix has a full list of people interviewed and works consulted.

Recruitment

Researchers categorized potential interviewees as belonging to culture, finance, human capital, markets, policy, and supports domains as detailed in Daniel Isenberg’s “Six Domains of the Entrepreneurial Ecosystem.” Researchers then interviewed a sample from each category. Researchers elected to concentrate on supports, finance, and entrepreneurs because these are the categories which can receive investments from Circular 331. (They are the “companies,” referred to in the Circular 331 mechanism diagram.)

Figure 1: Distribution of Interviewed Stakeholders Per Domain Vertical





In selecting participants, researchers did not consider age or gender. Interviewees were concentrated in Beirut as it is Lebanon's entrepreneurship hub, with a small minority in Tripoli, Lebanon's second largest city.

Researchers scheduled initial interviews based on recommendations from Endeavor, The Fletcher School's Fares Center for Eastern Mediterranean Studies, the Organization for Economic Cooperation and Development (OECD), and Wamda. After starting interviews, researchers employed snowball sampling methods, receiving recommendations from interviewees for new contacts to interview.

Questionnaire Design

Researchers asked general questions to the interviewees, which aimed at understanding their role in the ecosystem, their interaction with Circular 331 and familiarity with its mechanism, and how

they benefit from it. Further, researchers sought the interviewees' opinions about the effect of Circular 331 on the ecosystem and Lebanese economy (and KBE). Researchers further tailored questions based on the ecosystem domain in which the interviewee was believed to belong.

The researchers conducted in-person and phone semi-structured interviews, with follow-up probes that evolved as the researchers learned more about Lebanon's entrepreneurial ecosystem.

Data Collection

Between June 9 and August 16, researchers interviewed 65 people. 55 people were interviewed in-person in Beirut and four in Tripoli. Six people were interviewed over Skype/phone call. Interviews lasted 60-90 minutes. Interviews were conducted in English,

except for one in Arabic. Researchers conducted most interviews at the interviewee's workplace and often in a closed office; a small number were done in public spaces.

Before each interview, the researcher introduced the research topic and reviewed the consent form with the interviewee. After ensuring the interviewee understood the risks and benefits of participating, the researcher received the interviewee's written consent. Interviews were audio recorded with the interviewee's consent. The interviewees who consented to be identified are listed in the interview section.

Data Analysis

Researchers used a deductive data analysis approach to group and analyze the data (interviews and publications) by five questions:

1. What is needed to create a KBE?
2. Will a better entrepreneurial ecosystem foster a KBE?
3. Is access to finance what Lebanon's entrepreneurial ecosystem needs?
4. Is the BdL the best way to improve access to finance?
5. Is Circular 331 the best way to improve access to finance?

Researchers then grouped data (written notes of interviews from both researchers and information from publications) by each question. Researchers used audio recordings to verify interview notes.

Further, researchers could not interview anyone at Lebanon's Ministry of Economy and Trade and the Ministry of Finance.

- Though almost all interviews were held in English, language did not bias the interview sample. The Lebanese who constitute the ecosystem are mostly fluent English speakers, often having been educated at English-speaking schools and universities in Lebanon or elsewhere. Had researchers concentrated on other types of entrepreneurship, such as family-owned businesses, they might have conducted more interviews in Arabic.

3. Regional focus:

- Researchers concentrated on Beirut and incorporated Tripoli to analyze entrepreneurship outside of Beirut. Other areas of Lebanon, such as Zahleh or Saida, may have offered additional insights.

4. The relationship among entrepreneurship, ecosystems, and KBE:

- Researchers assumed that developing an entrepreneurial ecosystem is a plausible way to foster a KBE based on the works of Joseph Schumpeter, Daniel Isenberg, the OECD, and BdL's strategy.

Research Limitations

1. Lack of official data about Circular 331, including amounts invested and where investments went:

- Researchers pieced together information about Circular 331 money flows from interviews with VCs, the banks, and BdL; public announcements and press releases; and publications. Researchers could only verify data on money flows until the end of 2015, though the situation has now changed. Researchers elected to use the verified data rather than including more speculative data.

- Due to time constraints, researchers did not survey the banks to clarify their motivations to participate (or not) in Circular 331. Instead, researchers relied on interviews and the annual reports of the ABL.

2. Selection bias in interviews:

- Researchers interviewed people from all six ecosystem domains, though some domains were better represented. Researchers may have not interviewed enough people outside of the ecosystem, including entrepreneurs who do not want to develop start-ups that expand regionally or globally.

Further Research

Follow-on research could add further depth to this report's conclusions, including:

- Social network analysis of the Circular 331 money flow
- Surveying the Lebanese entrepreneurial ecosystem needs to identify constraints on its development and barriers to exits for Lebanese start-ups
- Comparing the Circular 331 financing mechanism with other financing mechanisms (and cross-country comparisons)



ASSESSING CIRCULAR 331

To assess the effectiveness of Circular 331, researchers created a three-part analytical framework based on Leone and Vento's *Credit Guarantee Institutions and SME Finance*:

Structure

Circular 331 must incentivize banks to invest in Circular 331-defined "companies."

Access to Finance

Additionality: Circular 331 must increase new money for companies, while not crowding-out existing investments.

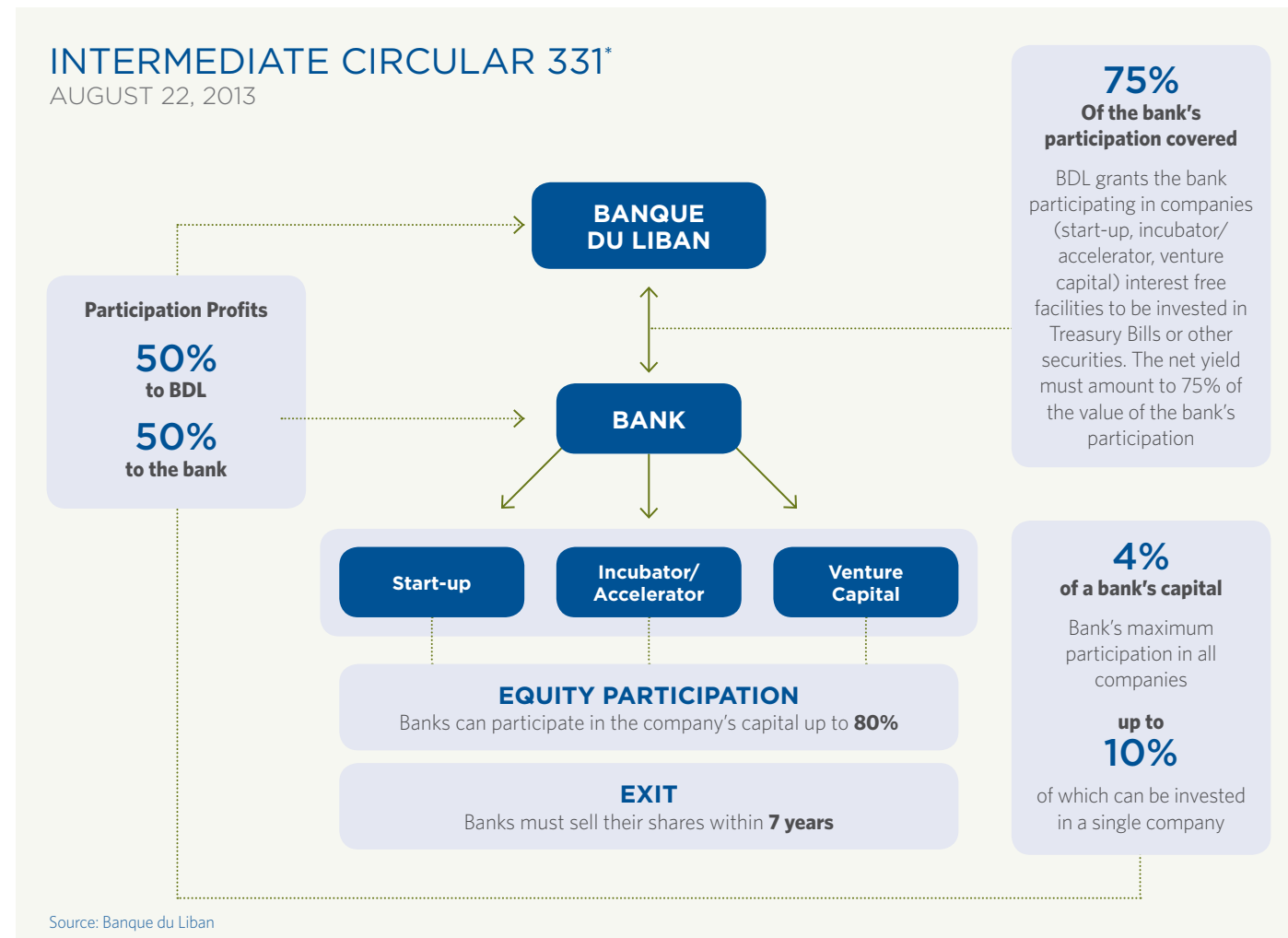
Sustainability or "resiliency over time": Circular 331 must allocate resources properly and become self-financing.

Impact

Circular 331 needs to help foster a KBE.

STRUCTURE OF CIRCULAR 331:

The Right Incentives for the Right Players?



Financial Structure

Circular 331's upside (50% profit sharing) and downside (risk sharing due to the guarantees) components encourage the banks to make equity investments. This has filled the finance gap, while ensuring that the banks have a vested interest in the outcomes.

Bank Participation

One person in BdL called Circular 331 a "great scheme, so why wouldn't [the banks want to participate]?"²³ The

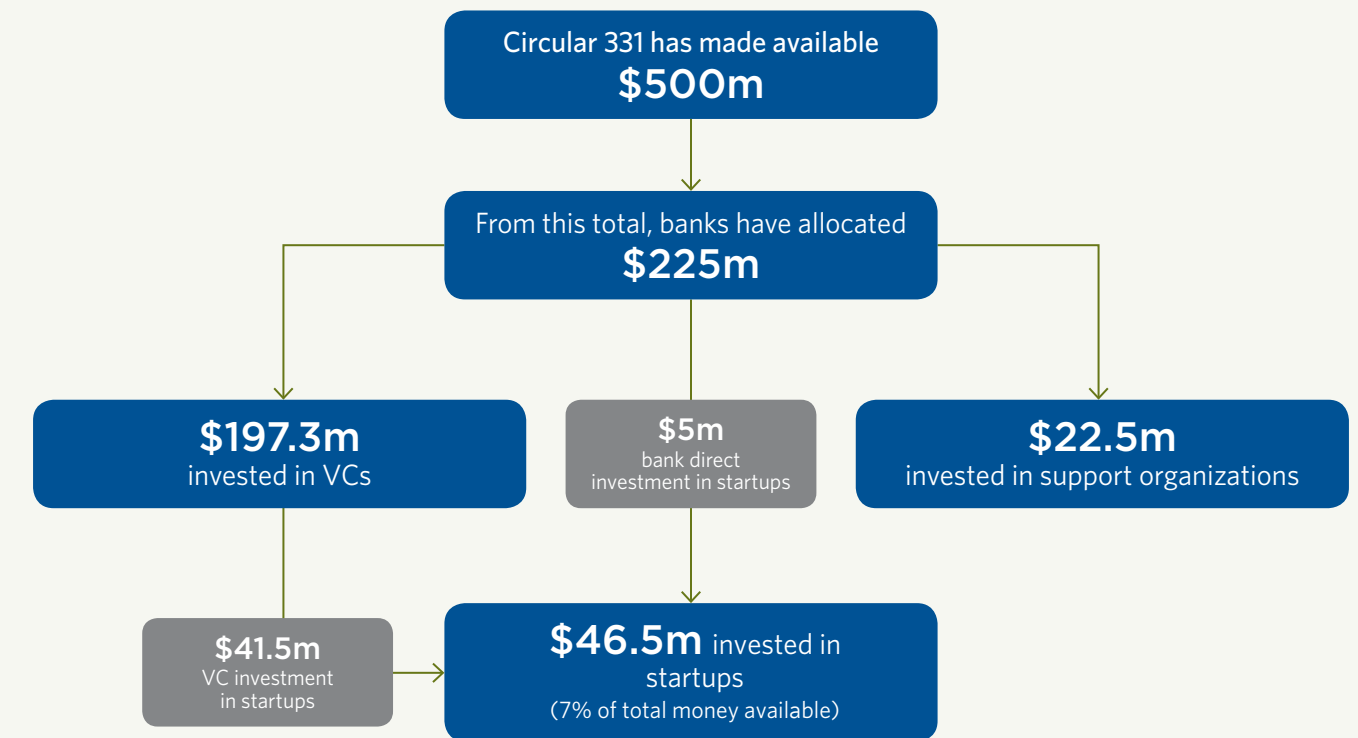
Chairman of Al-Mawarid Bank referred to it as a "revolution in the banking sector."²⁴ At least 18 out of 31 Lebanese commercial banks, and one non-affiliated investment bank, have invested through Circular 331, some through their investment banking arms. Since they may not have the expertise to perform due diligence on start-ups,²⁵ most commercial banks invest into VC funds which then invest in start-ups. Four commercial banks have directly invested in start-ups.

However, none of the 20 non-Lebanese commercial banks have participated. Non-Lebanese banks may not want the Lebanese treasury bonds, which they

receive (Structure of Circular 331 box), but it also raises questions about Circular 331's investment value. Instead, Lebanese banks may consider Circular 331 a marketing opportunity, as a way to appeal to a younger demographic. One entrepreneur claimed, "banks consider Circular 331 more of a marketing tool than an investment tool."²⁶ The Secretary General of the ABL said that while the banks view it "primarily" as an investment opportunity, it is also a marketing opportunity.²⁷

ACCESS TO FINANCE

CIRCULAR 331 ESTIMATED MONEY FLOW BASED ON DATA FROM END OF 2015



Additionality

Summary: Circular 331 increases money for companies, defined as VCs, accelerators, incubators, and start-ups. It brings in new money, while not crowding out existing investments.

Circular 331 allows banks to tap into 3% of their previously inaccessible capital reserves, which represents about \$500 million. Of that, \$225 million has been invested in VC funds, support organizations, and direct investments. Amendments to Circular 331 increased available funds to over \$600 million by allowing banks to invest up to 4% of their

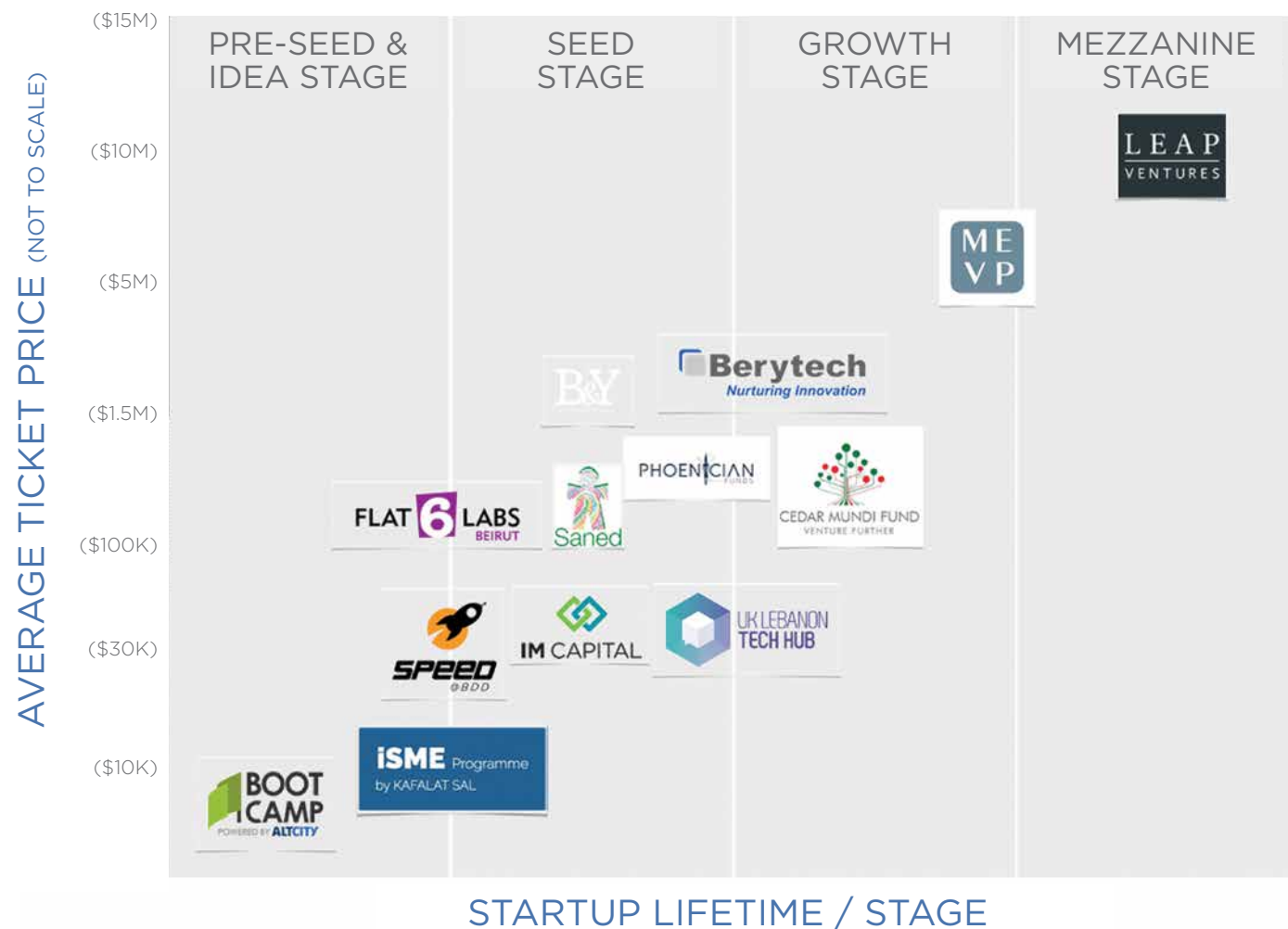
capital reserves. In comparison, funds pre-Circular 331 for the ecosystem were \$20 million, according to the Executive Director of BdL's Executive Office.²⁸

Increased bank participation has translated into larger VC funds, worth tens of millions of dollars, including Berytech Fund II, Division 1, Impact Fund, and Leap Ventures. At least 18 commercial banks and one non-affiliated investment bank have invested in Berytech Fund II, worth \$51 million. The pre-Circular 331, Berytech Fund I was worth \$6 million with five banks invested through their investment banking arms. Average ticket sizes have increased

ten-fold from 2012, estimated the Senior Program Manager at ArabNet, perhaps also caused by a maturing tech sector.²⁹

Filling the gaps in the financial system and support structures:

Circular 331 may have filled gaps. Lebanon now has many post-seed stages, and "if a company is doing well, there is money here up to Series B," said a partner from B&Y Venture Partners.³⁰ Angel investors have more structured opportunities to invest. But assessing the influence Circular 331 had on VC funds starting in Lebanon is difficult. Circular 331 requires the VC funds to be based in



Lebanon, but some, such as Flat6 Labs, an Egyptian VC fund, intended to come to Lebanon even without Circular 331. More certain is that some VC funds would have different structures, particularly their fund size and geographical focus. For example, B&Y Venture Partners and Leap Ventures may have been smaller and focused on investing in the broader MENA region.

Financing gaps still exist at the pre-seed and seed stages, in particular the \$5,000 to \$500,000 range, according to the CFO and Co-founder of AltCity.³¹ Without early-stage investors, later-stage investors may have few investment opportunities. The VC funds have started to take action. For example, Leap Ventures, which concentrates on Series B financing, may provide funding at the seed stage to alleviate pipeline problems. Follow-on funding after Series B, however, remains a question. BdL and the Capital Markets

Authority believe that the proposed SME stock exchange, which will be part of the Beirut Stock Exchange and provide a platform for start-ups and SMEs to issue their IPOs, will help, but it is still unsure when the SME exchange will open.

Complementary financing cycles:

BdL has encouraged the creation of support structures for start-ups. Seven new support organizations have emerged since BdL issued Circular 331 (see Table 1).

More entrepreneurship-related events have followed. They include the yearly BdL Accelerate conference and workshops to develop entrepreneurs' skills, such as investment readiness and pitch preparation. Consequently, the "terminology of entrepreneurs has evolved tremendously," said the Managing Director of Berytech Fund II.³²

Increased knowledge may even the playing field between investors and entrepreneurs.

Crowding-in vs. crowding-out investment:

Circular 331 may also have crowded in investments. Deal flow in Lebanon has increased since 2013. ArabNet reports 10 investments (\$6,260,000) in 2013, 21 investments in 2014 (\$28,540,666), and 34 investments (\$31,495,000) in 2015.³³ ArabNet describes Circular 331 as guaranteeing money for "investment in tech start-ups." Assuming that ArabNet considers all Circular 331-guaranteed investments by VCs and accelerators, which only began in mid-2014, as technology investments, VCs and accelerators invested about \$13.5 million³⁴ in non-Circular 331 technology start-ups, not including direct bank

Table 1: Support Organizations Since Circular 331

Circular 331 Investment	Accelerator/ Incubator	Description
Yes	Bootcamp by AltCity	Pre-accelerator academy that helps entrepreneurs develop their idea. AltCity existed pre-331 and developed its Bootcamp program because of Circular 331's guarantees.
	Smart ESA	When open, Smart ESA, developed by Ecole Supérieure des Affaires and based on the French tech expertise, will be an accelerator and incubator.
	Speed@BDD	Seed stage accelerator set up by a coalition of VC funds and other institutions, which means that bank participation in the funds receive a 75% guarantee.
	Torch	A coding and technical bootcamp, business platform, and training hub.
	UK Lebanon Tech Hub	Provides mentoring, training, business development, acceleration, and access to international markets to Lebanon's start-ups.
No	Le Wagon	The international coding school, founded in 2013, has an office in Beirut which hosts a nine-week coding bootcamp.
	Software Engineering (SE) Factory	SE Factory runs a three-month intensive coding bootcamp.

investments. But the lack of data hinders statistical analysis, making it hard to say if Circular 331 crowded in the \$13.5 million. Moreover, VC investment in MENA increased during the same period.³⁵

Measuring whether Circular 331 has diverted bank money from other investments is similarly challenging. The Secretary General of the ABL said that compared with total bank activity, 3% of capital is not large enough to cause banks to put on hold other investment opportunities.³⁶ The Chairman of Al-Mawarid Bank reported the bank diverted human resources to work on Circular 331 investments—though bank staff may be better able to manage other bank investments.³⁷

Anecdotal evidence for both effects is also ambiguous (see Table 2).

Sustainability

Summary: Circular 331 is structured to help create a venture capital industry. This may ensure that the ecosystem will have access to finance after Circular 331 ends.

By allowing the banks to decide on investments, Circular 331 uses market mechanisms to determine the financial viability of investments and to allocate capital. This has helped to create a VC industry. The commercial banks, which are the limited partners (LPs), have channeled 80% of the Circular 331-guaranteed capital that has been committed to VC funds, which are the general partners (GPs). Though Lebanon does not have a GP/LP law,³⁸ this has created a GP/LP-type system in which BdL guarantees 75% of the banks' investments. Since the guarantee is not transferred to the VCs, VC fund managers

have an incentive to make market-driven investment decisions. The VC fund managers' chances of raising subsequent funds, potentially from LPs that do not have BdL guarantees, is closely tied with their performance (in terms of returns generated for investors) for previous funds. This further incentivizes the VC fund managers to seek out potential high growth and profit-generating start-ups.

VC funds complement their equity investments with technical and management expertise, which is why venture capital is called "smart money." They may advise on governance, participate in the start-up's management, and facilitate access to domestic and international networks and markets. Further, VC funds are more likely to invest large sums than investors such as banks, ensuring the start-up will have sufficient resources to survive and grow. Start-ups

Table 2: Does Circular 331 Crowd-In or Crowd-Out Funding For the Ecosystem?

Effect on Non-Circular 331 Funding	Evidence	Description
Crowd-In	New fund structures, with new funding sources	Hybrid funds, such as B&Y Venture Partners, can combine Circular 331 money with non-Circular 331 investors. Without Circular 331, the fund would have been smaller and “there would have been less deal flow, so yes we would have invested less” in Lebanon, said a partner from B&Y Venture Partners. ³⁹
	New investors	The availability of follow-on funding through Circular 331 may incentivize earlier-stage investors to invest. For example, angel investors have entered the pre-seed/seed stage through funds such as B&Y Venture Partners. Further, IM Capital has started its Angel Investors Masterclass to encourage and train more people to become angel investors.
Crowd-Out	Increased Lebanese bank investment may crowd out foreign investment	One entrepreneur said foreign investors may be discouraged because they perceive that the guarantees have made an excess of capital available—though given the example of B&Y Venture Partners, there are creative ways to encourage foreigners to invest in Lebanon. Conversely, foreign investors may know more about Lebanese start-ups because of the publicity around Circular 331.
Unknown	Adjust fund target to fill finance gaps	Lebanese matching capital VC funds, iSME and IM Capital, bring in non-Circular 331 money by co-investing with Circular 331 funds. Had Circular 331 not existed, IM Capital’s general manager said the fund would differ, perhaps not in structure, “but we would have perhaps asked for more funding [from USAID], with more focus on being a fund-of-funds; but because of the availability of growth capital through 331, this would have been redundant, hence our focus on early-stage.” ⁴⁰
	Guaranteeing activities that may have happened anyway	Saned Partners, which is a non-Circular 331-compliant VC fund, is considering to fully or partially seek compliance. Fund size may increase, but it may dissuade non-Circular 331-funders from investing. Similarly, Speed@BDD may switch its ownership structure, so its investors receive a 100% guarantee.
	Reduced value of disbursed Kafalat loans	Though teasing out the cause is difficult, this may signal that start-ups have more equity investment options, particularly as the VC funds may concentrate on providing growth equity, drawing away attention from the seed funds. Kafalat will adjust within the system to provide financing for the remaining gaps, according to Kafalat’s Chairman. ⁴¹

are therefore more likely to succeed, and VC funds are more likely to make commercially viable investments.

For investments into start-ups, Circular 331 requires that investors divest (exit) after seven to nine years, which BdL claims will “generate new funds.” Though some estimates of VC investment cycles reflect this time period, there may be pressure for exits to happen before the

start-ups are ready. Moreover, it is unclear how the requirement will apply. Investors, and sometimes the same investor, may invest in a start-up at different financing stages. Would early stage investors exit after seven to nine years, while later stage investors remain? Would staggered exits ensue? Conversely, for incubators and accelerators, two-year limits (with a

possibility of extension) on the 100% guarantees should encourage these support institutions to build a revenue- and profit-generating business model rather than relying on subsidized funding. Of perhaps more concern is that BdL has not set an end day for Circular 331. The downside is that initiatives have inertia, and, without an end date, may lead to subsidizing failure.

Lessons for a Sustainable Private Equity (PE) Model ⁴²

The Private Equity Model consists of venture capitalists who raise funds from institutions and high net worth individuals and seek to invest those funds in high-risk/high-return start-ups. Venture capitalists act as GPs and entities from which they raise funds are LPs. The sustainability of the PE model depends on the GPs’ ability to raise capital and invest in companies consistent with long-term expected returns. The same can be applied to building a sustainable venture capital ecosystem.

Macro factors that drive deal availability for PE:

- Availability & cost of debt
- Access to capital markets
- Availability of equity financing

Micro factors that drive deal availability for PE:

- Need for capital
- Need for growth or restructuring skills through partnerships
- Need for extended networks of expertise
- Volume of enterprises at stages along growth curve
- Scale of innovation in geography or sector

Alternative Ways to Increase Access to Finance

Circular 331 may have increased access to finance; however, “from a purely technical perspective, 331 is not the best approach,” according to an ex-Minister of Finance.⁴³ Other models exist, including:

- Development bank
- Direct subsidies to firms
- Fund of funds
- Loan or credit guarantee schemes, such as expanding Kafalat
- Matching capital: government or central bank directly matching capital of VC funds
- Public-private co-investment
- SME exchanges
- Sovereign wealth funds
- Targeted direct loans

While comparing the effectiveness of Circular 331 with other financing mechanisms may be useful, the political situation may preclude any mechanism that requires parliamentary or ministerial approval or action. Further, BdL is constrained by law, which may prevent it from effectively adopting and implementing different models than Circular 331 and other existing schemes.

Evidence of Success

Circular 331 will be sustainable if there are “a few success stories and exits,” according to the ex-Minister of Telecommunications.⁴⁴ An increase in overall start-up valuation⁴⁵ and a zero percent failure of Circular 331-funded start-ups⁴⁶ have been highlighted. But a shortage of investable start-ups (dry pipeline) and increased competition among VC funds for the few quality start-ups may drive high valuations—though one start-up, Band Industries, said it received a lower valuation in Lebanon than in Silicon Valley. Further, investors might be throwing good money after bad—a plausible scenario for which the BdL guarantee may be a cause. An intangible claim is that more young Lebanese have decided to stay in Lebanon. The two founders of Next Automated Robots would have accelerated their start-up in Europe—and two of their Lebanese employees may have stayed abroad.⁴⁷ The CFO of AltCity said he would “probably” have left Lebanon without Circular 331.⁴⁸ But measuring this systematically, beyond anecdotes, is challenging.

For the local and international investment community, exits will be the ultimate judge of Circular 331. But there have been “no serious exits with Circular 331,” according to the Executive General Manager from MedSecurities Investment, and only three recent exits, including Shahiyah’s pre-Circular 331 \$13.5 million exit.⁴⁹ Assuming the VC funds, worth an estimated \$197.3 million at the end of 2015, last seven years and deliver a conservative 20% compounded annual return, they should return at least \$700 million. If banks invest 88% of the \$600 million of the available capital made available by amendments to Circular 331 in VC funds (as per the ratio at the end of 2015), the expected return for the \$528 million in VC funds would reach over \$1.8 billion—far above the returns to date.

ENTREPRENEUR SPOTLIGHT

Band Industries



Bassam Jalgha (left) and Hassane Slaibi (right) pictured at Endeavor's International Selection Panel in Boston Sept. 2016. They were selected as Endeavor Entrepreneurs (Hassane Slaibi, Facebook)

Bassam is a mechanical engineer, hardware specialist and talented oud player with a passion for music, electronics and robotics. He handles manufacturing and designs the product's control system.

Hassane is a software engineer and signal processing expert with an intricate musical ear. He plays the flute and designs the product's audio processing capability.

2007

Idea explored @AUB

2009

Bassam wins Stars of Science with Dozan

2012

Bassam and Hassane team up to start Band Industries

2013

Band apply and get accepted into HAX, China and develop a market ready prototype and launch a kickstarter campaign

2014

2000 people pledge \$180,000 on Kickstarter Production starts and two new team members are recruited. Band is accelerated at UK Lebanon Tech Hub

2016

Band successfully run series A and recruit seven new team members. They are incubated at the Innovation Factory Beirut and working on Roadie 2

Band Industries is a Lebanese music hardware start-up. Its flagship product, the Roadie Tuner, is an automatic guitar tuner for stringed musical instruments such as electric, acoustic guitars and ukulele. Roadie is designed in Lebanon.

It all started with music.

The Oud, a pear-shaped and slightly ballooned version of a guitar, is a staple of oriental music. Mechatronics is where mechanical, electronic, control, and software engineering all meet. For Bassam Jalgha, *Dozan*—Arabic word for tuning and precursor for the name "Roadie Tuner"—is where Oud meets Mechatronics. He first came up with this automated tuner in 2007 while studying Mechanical Engineering at the American University of Beirut (AUB).

A talented Oud player himself, he wanted to avoid having to manually tune 12 strings before each performance. In 2009, Bassam went on to win the Stars of Science, a Pan-Arab reality show innovation contest, with Dozan. "That's when I started thinking that this can actually become a real product". A small

financial reward and brief incubation period in Qatar helped him bring this idea to a first concept.

In 2012, Bassam met Hassane through a music band in college. While keeping their full-time jobs, they decided to start Band Industries and develop Roadie Tuner. They are now one of the few faces of success of the ecosystem—although they would tell you their work starts now.

Support in the Lebanese ecosystem was practically inexistent.

"Between 2009 and 2012, there was a lot of confusion. Support was practically nonexistent" especially for hardware start-ups, Bassam explained.

For hardware start-ups, challenges they faced were not particular to the Lebanese ecosystem: the technology was not as available; smartphones penetration was not as wide. Hardware open source resources that exist today were nowhere to be found, and Kickstarter was not there. "Developing hardware was 100 times harder six years ago."

The breakthrough for the Lebanese entrepreneurs happened when they were accepted to HAX, a top hardware accelerator, in Schenzen, China. They quit their jobs and moved to China for 4 months, during which they developed the product and got a Minimum Viable Product (MVP) that they could start selling. This eventually allowed them to launch a Kickstarter campaign.

In Jan 2014, 2002 backers pledged \$178,613 to help bring this project to life on Kickstarter.

Hardware was not (and still is not) a priority within the Lebanese ecosystem. But the ecosystem was in its very early stages. There were only a few organizations such as Bader and Berytech and it was rare to find adequate and relevant support—someone who had entrepreneurial experience, and someone with hardware experience. "There was a dissociation between understanding the needs of the entrepreneurs and what was provided."

This was particularly true for the investment climate. Between 2009 and 2012, Bassam had pitched in Lebanon in front of one angel investor and two banks, to no avail: "I was made to believe that the first requirement was to get investment. So, I wasted time working on a business plan and pitch presentations. I later realized that I should have focused on the product and the user." But things are changing.

With 331, the ecosystem took a leap forward.

Real fundraising started at the beginning of 2015. "Back then we did not know where to be based. We wanted to be in

Lebanon but we were conflicted. We had received conflicting recommendations" said Slaibi. He went to Silicon Valley for one month after Roadie graduated from HAX and could secure funds.

However, as a bootstrapped company, it made financial sense for Band Industries to consider Lebanon. Talent was also a consideration. "The talent pool we had access to in Lebanon also played a part. In Silicon Valley, we would have had access to left over talent," said Hassane. At the same time, things back home in Lebanon were picking up with Circular 331. So, they decided to try fundraising there.

Band Industries was and still is a revenue generating company with a product in the market and a growth outlook. In one month, they raised money from Berytech. They did not take money from Silicon Valley. "We were even offered more money from investors in Lebanon but settled for what we needed," said Hassane.

"Our valuation in the valley was higher than in Lebanon"
-Hassane Slaibi

Whatever the case, the founders think Circular 331 has been great for the ecosystem, shifting focus to start-ups that serve the regional and global market. "We need experience in building global businesses. Maybe the circular money will create this experience," said Bassam.

Band Industries' benefit from Circular 331 went beyond funding. They were part of the UK Lebanon Tech Hub's (UKLTH) first accelerated batch. Hassane recognized the value and is grateful the mentorship received at the UKLTH. He agreed that 331's value is not only in bringing more startups to the country, but in making money available to attract experienced and talented expatriates to become mentors, program directors, and accelerator managers in Lebanon.



3D printed prototypes for the new Roadie. All prototypes were produced at the Innovation Factory Beirut, a new space for hardware entrepreneurs. (Photo credit: Nadim Choucair)

FOSTERING A KBE



By ensuring that investments through Circular 331 are contingent on a “knowledge economy and support of creative intellectual skills,” BdL expects that the KBE should have a “1% growth impact on GDP” in the upcoming three to five years and create 25,000 jobs in ICT by 2025.⁵⁰ But while BdL can decide that an investment is noncompliant with a KBE, Circular 331 allows “the market to define” KBE, according to BdL.⁵¹

This approach has benefits: BdL does not restrict the sectors that constitute a KBE, allowing the private sector to invest in start-ups in any sector. However, since

the banks prefer to use VC funds to deploy the guaranteed money, “the market” often means the VC funds. The limitation is the VC funds typically invest in start-ups, such as software development, mobile application, and Internet platforms, which have low capital requirements and can grow exponentially. Almost 40% of global VC investment in 2013 and 2014 went to sectors classified as “Internet” and “software and related.”⁵² In comparison, 60% of Circular 331 start-ups can be reasonably classified as “Internet” or “software and related.”⁵³ Therefore, agribusiness, hardware technology, or start-ups from other

sectors that require more capital to start and time to grow may receive less VC investment.

The next step: An entrepreneurial ecosystem.

To expand the definition of a KBE and to provide a way forward, BdL could further emphasize developing Lebanon’s nascent entrepreneurial ecosystem.⁵⁴ Entrepreneurs can “reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility.”⁵⁵ This process creates “new combinations” from which

new goods, means of production, and markets, among others, arise, according to Joseph Schumpeter.⁵⁶ This process produces knowledge. The ecosystem allows entrepreneurs to commercialize their knowledge allowing it to be distributed and used. Producing, distributing, and using knowledge is at the core of a KBE. Therefore, developing Lebanon’s nascent ecosystem is a way to frame developing a KBE.^{57,58}

This framework emphasizes that providing access to finance is not sufficient. It addresses only one of the ecosystem’s six domains, and there is “no policy silver bullet” to develop an ecosystem.⁵⁹ Moving forward requires identifying, prioritizing, and resolving constraints on the ecosystem’s development.

Transitioning out of the nascent ecosystem: What is BdL’s role?

Most interviewees said that BdL has done all that it can and others need to contribute. But BdL has not relinquished its central role in the ecosystem. It continues to host its yearly BdL Accelerate conference. Middle East Airline’s flights show feature-length documentaries about BdL. Even more relevant, BdL has taken on responsibilities beyond promotion. BdL reviews all loan activity related to Circular 331, whereas for other loan programs the responsible line ministry reviews the loans, such as the Ministry of Agriculture for agriculture-related loans. The rationale is “there is no Ministry of Technology,” as one BdL official put it,⁶⁰ and BdL “didn’t want to wait for government,” according to the Executive Director of BdL’s Executive Office.⁶¹ But it wasn’t just impatience; BdL also declined requests from government institutions to collaborate.

Of course, this may be logical since the government’s dysfunction may slow the implementation of Circular 331. But it also gives credence to an alternative view which considers BdL “the owner of the ecosystem.”⁶² In this view, BdL should work with others, including the government, to identify and solve problems hindering the ecosystem’s development beyond providing access to finance and promoting the ecosystem. Inaction can be justified because central banks often do not undertake these roles, but, as the founder of Lebanon for Entrepreneurs said, “If BdL doesn’t want to go beyond facilitating access to finance, why did they ‘buy’ the ecosystem in the first place?”⁶³



RECOMMENDATIONS FOR BDL

Orientation

Ensure the KBE remains broadly defined to increase deal flow.

- *Circular 331 should remain open to all sectors. Limiting the KBE to specific sectors, as some seem to suggest, may reduce the impact of Circular 331.⁶⁴ It would put Bdl, rather than the market, in a position of picking sectors. Instead, a broadly defined KBE encourages entrepreneurs in a variety of sectors to create start-ups. This may help resolve pipeline problems and therefore increase exits.*

- *Allow Circular 331 guarantees for investments into other enterprises which contribute to the KBE. Start-ups are not the only enterprises that want to grow, and limiting Circular 331 to start-ups may restrict potential investment opportunities. Bdl has allowed start-ups older than one year to receive guaranteed funding and allows established enterprises to spin off joint-venture enterprises (SALs) to acquire Circular 331-guaranteed investments. Additionally, Circular 331 could support the creation of new programs and organizations, such as incubators, for established enterprises that want to grow.*

Take a systematic approach to Circular 331's development.

- *Create and disseminate a monitoring and evaluation plan with clear and measurable objectives. The development of Circular 331 has seemed ad hoc. While a flexible approach has benefits, evaluating performance and improving Circular 331 is challenging without objectives and indicators. Bdl can then design and implement targeted reforms and/or amendments to ensure Circular 331 adapts to the ecosystem's transformation. This will also ensure that the banks, VC funds, and start-ups continue to benefit.*

Communication

Educate the Lebanese ecosystem about Circular 331 and provide basic information, which may be hard to access.

- Create a “Start-up Interphone” to promote Circular 331 within Lebanon. While Start-up Megaphone promotes Lebanon’s ecosystem abroad, often people within the ecosystem, including entrepreneurs, are ill-informed about Circular 331. This has affected people’s willingness and ability to evaluate Circular 331 objectively and may even make some entrepreneurs reluctant to consider funding through Circular 331. It is worth noting that at the time this report was being drafted, BdL released a 100-page document entitled “Startup Guide Lebanon” to help entrepreneurs launch their venture in Lebanon.
- Increase outreach efforts to areas outside of Beirut. Much of the “buzz” generated by Circular 331 seems to be restricted to Beirut. However, successful Lebanese start-ups also have origins outside of Beirut. Therefore, while Beirut may continue to be the ecosystem hub, BdL should ensure that entrepreneurs and start-ups outside of Beirut can access funding and support opportunities.
- Engage in a two-way conversation with those internal and external to the ecosystem. To receive feedback, BdL now relies on BdL Accelerate and meetings with VC funds and accelerators, as well as feedback from those who directly contact the executive office. This can be expanded to involve surveys, interviews, and focus groups. Publishing objectives and indicators for Circular 331, even in a redacted form, would widen the conversation. This may encourage

iterative assessment cycles in which people internal and external to the ecosystem could provide feedback on agreed-upon indicators.

Increase transparency about Circular 331.

- Release basic information about Circular 331. While BdL may have internal safeguards, people outside of BdL do not know where Circular 331 money has gone. Improving Circular 331 requires evaluation based on facts instead of speculation. A public database could include aggregate figures about money flows to the ecosystem, including into the “companies;” VC investment in start-ups and sectors; and average ticket sizes, valuations by sector, and exits. Further, BdL could publish macro indicators, such as the size of KBE and jobs created.

Coordination

Work with others to identify, prioritize, and remove constraints on the development of the ecosystem.

- Identify, prioritize, and remove constraints. Circular 331 may have resolved access to finance, but other problems hinder the ecosystem’s development. Therefore, Circular 331 should be the start of a wider reform process. While BdL may need to take a leading role, solving the remaining gaps in the Lebanese ecosystem cannot be done without involving others. BdL can work with business associations, NGOs, and others to propose a legislations and action items to the Ministries of Economy and Trade, Justice, Labor, Finance, and Telecommunications.

These recommendations could be based on the ecosystem domains, with activities falling under the support domain most likely. They may include:

- Updating bankruptcy laws and proposing a GP/LP Law.
- Updating the telecommunications law to remove hurdles for the installation high-speed Internet to make it available to more people.

Alternative Ways to Increase Access to Finance

Despite being Lebanon’s second largest city, entrepreneurship in Tripoli seems to be ignored; Lebanon’s *Start-up Ecosystem Roadmap* does not even mention it. However, Tripoli has an emerging entrepreneurship scene. For example, CardioDiagnostics and Traggio have Tripoli origins. The Tripoli Entrepreneurs Club (TEC) and Al-Kindy provide support to entrepreneurs, and the Theemar Tripoli Investment Fund was set up to invest in start-ups, among other enterprises.

While people in Beirut’s ecosystem may be generally unaware about entrepreneurship in Tripoli, things have “changed a lot” from one year ago, according to the cofounder of TEC.⁶⁵ For example, in March 2016, TEC hosted a start-up seeds program attended by over 250 people, including fund managers and accelerator program managers from Beirut. Now, AltCity wants to hold an event in Tripoli.

People in Tripoli are “trying to reach the point where start-ups don’t have to go to Beirut,” according to the co-Founder of TEC.⁶⁶ But Beirut has more opportunities, talent, support organizations, and capital, and entrepreneurs from Tripoli naturally gravitate there. In the meantime, increased connections between Beirut and Tripoli may benefit both cities. Entrepreneurs in Tripoli could more easily access Beirut’s support organizations and—if they found successful start-ups—help expand the pipeline. More jobs could benefit Tripoli’s unemployed educated youth.

Options to increase connections between the cities include:

- Holding more entrepreneurship events in Tripoli
- Mapping Tripoli’s entrepreneurship scene and constraints to its development
- Highlighting Tripoli’s strength as a provider of programmers and tech talent along with the advantage of cheaper living costs
- Forming partnerships with Tripoli’s authorities to create incentives for physical spaces to be used by start-ups and entrepreneurs, including a co-working space for entrepreneurs in Tripoli
- Play on Tripoli’s position as a port city to lure start-ups connected with the shipping industry
- Reframe Tripoli’s status from a “poor city” to a city for opportunities for start-ups with a social impact mission



RISKS TO CIRCULAR 331

Circular 331 faces risks, with consequences beyond paying out guarantees. Private investment will only follow if the ecosystem becomes credible and “if we fail, the private sector will not follow and there will not be another 331,” according to a partner of Leap Ventures.⁶⁷

A number of people interviewed criticized Circular 331; one going so far as to say that:

“Given the very small pipeline of high-quality start-ups in Lebanon, we are witnessing a situation where too much capital is chasing too few opportunities, akin to opening the floodgates to irrigate a small garden that contains only a few seeds, and risk turning it into muddy waters in the process.”

However, most critics declined to be identified in the report. This may indicate that while people within the ecosystem have concerns about Circular 331, many of their jobs depend on maintaining good relationships with BDL. This may preclude

honest and open discussion about the risks of Circular 331. Therefore, it is crucial that BDL actively identify and engage with critics to gain a better sense of how Circular 331 is succeeding and where it needs to be improved.

APPENDIX

List of Acronyms and Abbreviations

ABL	Association of Banks in Lebanon
BdL	Banque du Liban
GP/LP	general partners/limited partners
KBE	knowledge-based economy
MENA	Middle East and North Africa
OECD	Organization for Economic Cooperation and Development
PE	private equity
SME	small and medium enterprise
SAL	Société anonyme libanaise (Lebanese joint-stock enterprise)
TEC	Tripoli Entrepreneurs Club
UNIDO	United Nations Industrial Development Organization
VC	venture capital

Interviews

Interviewee	Title	Company/Organization
Marwan Kheireddine	Chairman and General Manager	Al-Mawarid Bank
Samer Azar	Cofounder and CFO	AltCity
Racha Ghamlouch	Senior Program Manager	ArabNet
Makram Sader	Secretary General	Association of Banks in Lebanon
Fadi Bizri	Partner	B&Y Venture Partners
Mazen Soueid	Chief Economist	BankMed
Khaled Bohsali	Executive Director, Foreign Affairs Department	Banque du Liban
Marianne Hoayek	Executive Director, Executive Office	Banque du Liban
John Chehaibar	Cluster Manager	Beirut Creative Cluster
Paul Chucrallah	Managing Director	Berytech II
Fadi Bishara	Founder and CEO	Blackbox
Tarek Zebian	Director of Communication and Research	Capital Markets Authority
Ziad Sankari	Founder	CardioDiagnostics
Hadi Al-Assaad	Coordinator for the Institute for Finance and Governance	Ecole Supérieure des Affaires, Lebanon
Abdel-Maoula Charar	Director of Research	
Tamim Akiki	Founder	Economena Analytics
Tarek Sadi	Managing Director	Endeavor Lebanon
Kareem Chehayeb	Ex-reporter	Entrepreneur
Matt Nash	Economics and Policy Editor	Executive Magazine
Ramez Mohamed	CEO	Flat6Labs
Ibrahim Warde	Adjunct Professor of International Business	Fletcher School of Law and Diplomacy
Jihad Azour	Ex-Minister of Finance	Government of Lebanon
Nicolas Sehnaoui	Ex-Minister of Telecommunications, Chairman of UK Lebanon Tech Hub	
Manal Yassine	Ministry of Industry	
Nicolas Rouhana	General Manager	IM Capital

Rayann Koudaih	Project Manager	International Labour Organization
Andrea Kazan	Business Analyst	Investment Development Authority in Lebanon
Rana Moughabghab	Marketing and Communications Officer	
Bassel Aoun	Project Manager	iSME
Khater Abi Habib	Chairman	Kafalat
Henri Asseily	Founding Partner	Leap Ventures
Fouad Zmokhol	President	Lebanese Businessmen Association
Sami Atallah	Executive Director	Lebanese Center for Policy Studies
Ghassan Bejjani	Founder	Lebanon for Entrepreneurs
Abdallah Jabbour	Managing Director	
Sadika El Hariri	Analyst, MedSecurities Investment	MedSecurities Investment
Lana Sabayon	Acting Senior Analyst, Investment Products & Asset Management	
Khaled Zeidan	Executive General Manager	
Jad Boustani	Associate Director	MEVP
Charlie El Khoury	Cofounder	Next Automated Robots
Nicolas Zaatar	Cofounder	
Kris Boschmans	Administrator	OECD
Lucia Cusmano	Senior Economist, Secretary to the OECD Working Party on SMEs and Entrepreneurship	
Jorge Galvez-Mendez	Coordinator of MENA SME and Entrepreneurship Working Group	
Lora Pissareva	Analyst, Center for Entrepreneurship, SMEs, and Local Development	
Jihad Kawas	Founder	Saily
Sami Abou Saab	CEO	Speed@BDD
Fares Samara	CTO	
Nicole Braun	Chief Medical Doctor	Sympaticus
Joe Zaarour	Founder and CEO	
Karim Soueissi	Fund Manager	Theemar Tripoli Investment Fund
Jimmy Joumaa	Communication Director	Tragging
Jalal Yehya	CEO	
Fadi Mikati	President	Tripoli Entrepreneurs Club
Najwa Sahmarani	Cofounder and Programs Manager	
Elie Akhrass	Program Manager	UK Lebanon Tech Hub
Rana Helou	Economic Growth Specialist	USAID
Elias Boustani	Director of Research	Wamda
Jamil Wyne	Ex-Director of Research	
Marc Tabet	Founder	Waynakapp
Abdallah Absi	CEO	Zoomal
Christelle Abou Jaoude Kanj	Sales and Marketing Manager	ZRE
Mouhamad Rabah	General Manager	

WORKS CONSULTED

Association of Banks in Lebanon. Annual Reports. Beirut. 2014 and 2015.

ArabNet. *The State of Digital Investments in MENA: 2013 – 2015.* Dubai. 2016. <http://infive.ae/wp-content/uploads/2014/08/The-State-of-Digital-Investments-in-MENA-Report1.pdf>.

Atallah, Sami and Ilina Srouf. “Lebanon’s Industrial Policy Must Focus on Developing Highly Sophisticated Exports.” Lebanese Center for Policy Studies: Policy Brief. November 2014. http://www.lcps-lebanon.org/publications/1418727202-policy_brief_13.pdf.

Auerswald, Philip. *Enabling Entrepreneurial Ecosystems: Insights from Ecology to Inform Effective Entrepreneurship Policy.* Kansas City: Kauffman Foundation. October 2015. http://www.kauffman.org/-/media/kauffman_org/research%20reports%20and%20covers/2015/10/enabling_entrepreneurial_ecosystems.pdf.

Bank for International Settlements. *Issues in the Governance of Central Banks.* Basel, Switzerland. May 2009. <http://www.bis.org/publ/othp04.htm>.

Banque du Liban. *Lebanon’s Start-up Ecosystem Roadmap.* 2015. <http://fr.slideshare.net/TamaraZakharia/lebanons-start-up-ecosystem-roadmap-bdl-accelerate-2015-58464985>.

Bejjani, Ghassan. *Proposal for Launching the Hi-tech Industry in Lebanon.* Lebanese International Financial Executives. April 2012. <http://www.lifelebanon.com/asset/6A12C155-CD38-415A-9A695CF528B63645>.

Bouyamoum, Adam. “SME Profile: Start-up funding just the ticket for Presella.” *The National.* October 4, 2015.

Central Administration for Statistics, Government of Lebanon. *The Labour Market in Lebanon.* Beirut. October 2011.

Endeavor. *How to Improve Access to Finance in Lebanon.* November 2012. <https://issuu.com/endeavorglobal1/docs/accesstofinance>.

Endeavor. *Lebanon’s Fashion Design Ecosystem: Strengths and Weaknesses.* April 2015.

Epstein, Gerald. “Central Banks as Agents of Economic Development.” Amherst, MA. September 2005. http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1083&context=peri_workingpapers.

Executive Magazine. Numerous articles.

Fahed-Sreih, Josiane and David Pistru. “Motives for Entrepreneurship: The Case of Lebanese Family Businesses.” *Entrepreneurship – Gender, Geographies, and Social Context.* Croatia. 2012. http://cdn.intechopen.com/pdfs/31890/InTech-Motives_for_entrepreneurship_the_case_of_lebanese_family_businesses.pdf.

Hausmann, Ricardo and Dani Rodrik. *Economic Development as Self-Discovery.* National Bureau of Economic Research, May 2002. <http://www.nber.org/papers/w8952.pdf>.

Leone, Paola and Gianfranco Vento. *Credit Guarantee Institutions and SME Finance.* New York: Palgrave Macmillan. March 15, 2013.

International Financial Corporation. *IFC and Fransabank Supporting Job Creation in Lebanon.* Washington DC. February 2014. http://www.ifc.org/wps/wcm/connect/958ee1004349437db9fdb996db028caa/Final_Lebanon.pdf?MOD=AJPERES.

International Financial Corporation. *Lebanon: A Diagnostic Study on the Demand for Financial Services by Micro and Small Enterprises.* Washington DC. July 2008.

Inventis. *Lebanon SME Strategy.* Beirut: Ministry of Economy and Trade. December 16, 2014. http://www.economy.gov.lb/public/uploads/files/5910_8788_2242.pdf.

Investment Development Authority of Lebanon. *Information Technology Factbook 2015.* <http://investinlebanon.gov.lb/Content/uploads/SideBlock/131216041233891-IT%20fact%20book.pdf>.

Investment Development Authority of Lebanon. *Technology Factbook 2015.* <http://investinlebanon.gov.lb/Content/uploads/Publication/160714095120991-2016%20IT%20Factsheet.pdf>.

Isenberg, Daniel. “The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy: Principles for Cultivating Entrepreneurship.” May 11, 2011. <http://www.slideshare.net/DanIsenberg/the-entrepreneurship-ecosystem-strategy-for-economic-growth-policy-idea-dublin-2011-1>.

Kauffman Foundation. “Enabling Entrepreneurship Ecosystems.” October 2015. http://www.kauffman.org/-/media/kauffman_org/research%20reports%20and%20covers/2015/10/enabling_entrepreneurial_ecosystems.pdf.

Kauffman Foundation. “Guideline for Local and State Governments to Promote Entrepreneurship.” Kansas City. January 2015. http://www.kauffman.org/-/media/kauffman_org/research%20reports%20and%20covers/2015/03/government_guideline_report.pdf.

Ministry of Economy and Trade. *Lebanon SME Strategy: A Roadmap to 2020.* Beirut. December 2014. http://www.undp.org/content/dam/lebanon/docs/Governance/Publications/Lebanon-SME-Strategy_091214_2.pdf.

Ministry of Economy and Trade. *SME Guidebook: What’s in Lebanon for SMEs?* Beirut. 2014. http://www.economy.gov.lb/public/uploads/files/9622_2239_8969.pdf.

OECD. “The Knowledge-Based Economy.” Paris: OECD Publishing, 1996. <https://www.oecd.org/sti/sci-tech/1913021.pdf>.

OECD. *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes.* Paris: OECD Publishing. 2007. http://www.untag-smd.ac.id/files/Perpustakaan_Digital_1/ENTREPRENEURSHIP%20OECD%20Framework%20for%20the%20evaluation%20of%20SME%20and%20entrepreneurship%20policies%20and%20progr.pdf.

OECD. “New Entrepreneurs and High Performance Enterprises in the Middle East and North Africa.” Paris: OECD Publishing. February 2015. http://www.oecd-ilibrary.org/industry-and-services/new-entrepreneurs-and-high-performance-enterprises-in-the-middle-east-and-north-africa_9789264179196-en.

OECD. “OECD Science, Technology and Industry Scoreboard 2015: Innovation for growth and society.” Paris: OECD Publishing. 2015. http://dx.doi.org/10.1787/sti_scoreboard-2015-en.

Rodrik, Dani. *Industrial Policy for the Twenty-First Century.* September 2004. <https://www.sss.ias.edu/files/pdfs/Rodrik/Research/industrial-policy-twenty-first-century.pdf>.

Rouhana, Nicolas. Presentation. “Funding KBE: Lebanon Case.” ESCWA EGM On Innovation and Technology for Advancing Knowledge-based Economy. Amman. June 3-4, 2015.

Schena, Patrick. Presentation. “Deal Sourcing, Deal Flow, and the Investment Process.” Classroom Lecture. Medford, MA. March 10, 2016.

Schumpeter, Joseph. *Capitalism, Socialism & Democracy.* London: George Allen & Unwin. 1976.

Schumpeter, Joseph. *The Theory of Economic Development.* Piscataway, NJ: Transaction Publishers. 1982.

Stiglitz, Joseph E. and Andrew Weiss. “Credit Rationing in Markets with Imperfect Information.” *The American Economic Review.* Pittsburg. June 1981: 393-410. <http://www.jstor.org/stable/1802787>.

UK Lebanon Tech Hub. *The Future of Lebanon’s Knowledge Economy.* June 2016 <https://143b48ed8900968611fc49edd9df2a1936e98834.googleusercontent.com/host/OB0IRNtlywEJQRmRoQ2IKNTJwV1k/20160607-UKLTH-Flagship-Report-Final-Version.pdf>.

USAID. Middle East North Africa Investment Initiative. Lebanon Investment Landscape and Business Environment Assessment. Washington DC. March 2014.

Wamda Research Lab. *Country Insights: Exploring Trends and Challenges to Scale for Start-ups in Egypt, Jordan, Lebanon, and the UAE.* September 2015. <http://www.wamda.com/research/country-insights>.

World Bank Group. Presentation. Investment Funds for Development Program. Fin4Dev Investment Funds Group. December 2015.

World Economic Forum. “Accelerating Entrepreneurship in the Arab World.” October 2011. http://www3.weforum.org/docs/WEF_YGL_AcceleratingEntrepreneurshipArabWorld_Report_2011.pdf.

Wyne, Jamil. “The Next Step: Breaking Barriers to Scale for MENA’s Entrepreneurs.” Wamda Research Lab. March 2014.

REFERENCES + NOTES

1. This compares with an estimated \$20 million was available before. Note that all figures are for the end of the year 2015. Circular 419 was issued in April 2016, which increased available funding to at least \$600 million (4% of bank equity).
2. 50% of profits go to BdL and 50% to banks. BdL guarantees 75% of equity investment losses in venture capital funds and startups, and 100% of losses in accelerators and incubators.
3. **Hoayek, Marianne.** Interview by Choucair and Flynn. Beirut. 12 July 2016.
4. According to the Executive Director of BdL's Executive Office the KBE should have a "1% growth impact on GDP" in the upcoming three to five years and there should be 25,000 jobs in ICT by 2025.
5. At time of writing, in November 2016, BDL released "Startup Guide Lebanon" at BDL Accelerate 2016, their flagship conference to promote the Lebanese entrepreneurial ecosystem.
6. The issuance of Circular 419 in April 2016, amends Circular 331 to increase available funding from 3% to 4% of bank capital, which amounts to more than \$600 million. Researchers were able to verify money flows only until the end of 2015 and therefore decided to use only end-of-2015 figures.
7. **Association of Banks in Lebanon.** *2015 Annual Report.*
8. **Habib, Khater.** Interview by Choucair and Flynn. Beirut. 29 June 2016.
9. **Sader, Makram.** Interview by Choucair and Flynn. Beirut. 19 July 2016.
10. **Habib, Khater.** Interview by Choucair and Flynn. Beirut. 29 June 2016.
11. **International Financial Corporation.** *Lebanon: A Diagnostic Study on the Demand for Financial Services by Micro and Small Enterprises.* 2008.
12. **Ministry of Economy and Trade.** *Lebanon SME Strategy: A Roadmap to 2020.*
13. **OECD.** *SME Policy Index: The Mediterranean Middle East and North Africa 2014.*
14. **Kheireddeine, Marwan.** Interview by Choucair. Beirut. 16 August 2016.
15. Raw survey data taken from Wamda Research Lab's *Country Insights: Exploring Trends and Challenges to Scale for Startups in Egypt, Jordan, Lebanon, and the UAE.*
16. **Isenberg, Daniel.** *The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy.*
17. **Fahed-Sreih Fahed-Sreih, Josiane and David Pistrui.** "Motives for Entrepreneurship: The Case of Lebanese Family Businesses," *Entrepreneurship—Gender, Geographies, and Social Context.*
18. **Epstein, Gerald.** "Central Banks as Agents of Economic Development."
19. **Soueid, Mazen.** Interview by Choucair and Flynn. 9 June 2016.
20. **Sehnaoui, Nicolas.** Interview by Choucair and Flynn. Beirut. 20 July 2016.
21. **OECD officials.** Interview by Choucair and Flynn. Beirut. 17 June 2016.
22. **OECD.** *The Knowledge Based Economy.*
23. **BdL official.** Interview by Choucair and Flynn.
24. **Kheireddeine, Marwan.** Interview by Choucair. Beirut. 16 August 2016.
25. Circular 331 does not define a startup, but specifies that it must be a Lebanese joint-stock company (SAL—société anonyme libanaise).
26. **Founder of a startup.** Interview by Choucair and Flynn. 4 July 2016.
27. **Sader, Makram.** Interview by Choucair and Flynn. Beirut. 19 July 2016.
28. **Hoayek, Marianne.** Interview by Choucair and Flynn. Beirut. 12 July 2016.

29. **Ghamlouch, Racha.** Interview by Choucair and Flynn. Beirut. 25 July 2016.
30. **Biziri, Fadi.** Interview by Choucair and Flynn. 25 July 2016.
31. **Azar, Samer.** Interview by Choucair and Flynn. 30 June 2016.
32. **Chucrallah, Paul.** Interview by Choucair and Flynn. 1 August 2016.
33. 2015 publication on technology investments by VC funds and accelerators.
34. ArabNet estimated about \$60 million in technology investments in 2014 and 2015. This total subtracted by \$46.5 million in Circular 331 VC investments (accelerator investments are unknown) equals \$13.5 million.
35. The MENA Private Equity Association 2014 annual reports states that "venture capital investment activity in 2014 was led by Lebanon, consistent with the trend seen in 2011-2013." ArabNet estimates that VC funding increased in MENA from 2013 to 2014: the United Arab Emirates from \$33 to \$114 million, Jordan from \$5 to \$17 million, the Kingdom of Saudi Arabia from \$36 to \$56 million, and Egypt from \$77 to \$152 million.
36. **Sader, Makram.** Interview by Choucair and Flynn. Beirut. 19 July 2016.
37. **Kheireddeine, Marwan.** Interview by Choucair. Beirut. 16 August 2016.
38. **Biziri, Fadi.** Interview by Choucair and Flynn. 25 July 2016.
39. **Rouhana, Nicolas.** Interview by Choucair and Flynn. 20 July 2016.
40. **Bou Habib, Khater.** Interview by Choucair and Flynn. Beirut. 29 June 2016.
41. The VC funds are therefore organized as holding companies.
42. **Schena, Patrick.** Presentation. "Deal Sourcing, Deal Flow, and the Investment Process."
43. **Azour, Jihad.** Interview by Choucair and Flynn. Beirut. 13 June 2016.
44. **Sehnaoui, Nicolas.** Interview by Choucair and Flynn. Beirut. 20 July 2016.
45. The Chairman of Al-Mawarid and an official at BdL reported that the UK Lebanon Tech Hub has accelerated startups with an estimated aggregate value of \$600 million.
46. ArabNet reported that none of 53 Lebanese technology startups – and these are not "zombie startups," according to the Senior Program Manager from ArabNet—from 2013 to 2015 closed. The MENA regional closure rate was 20%. Circular 331 may have helped: Startups are better funded and therefore can operate longer while working to become profitable.
47. **El Khoury, Charlie.** Interview by Choucair and Flynn. Beirut. 28 June 2016.
48. **Azar, Samer.** Interview by Choucair and Flynn. Beirut. 30 June 2016.
49. **Zeidan, Khaled.** Interview by Choucair and Flynn. Beirut. 14 June 2016.
50. According to the Executive Director of BdL's Executive Office.
51. **BdL official.** Interview by Choucair and Flynn. Beirut.
52. **World Bank Presentation.** "Investment Funds for Development Survey." December 2015, and MENA PEA Annual Report 2015.
53. Based on publicly listed startups in AltCity Bootcamp, UK Lebanon Tech Hub, Speed@BDD, Berytech II, MEVP, and Leap Ventures. As the World Bank cited in its "Investment Funds for Development Survey" presentation, researchers used the Preqin Global Equity Report to group the sectors of startups. 53 startups were classified as internet/software and related, and 35 as belonging to other sectors.
54. BdL has funded the publication, Startup Ecosystem Roadmap, and sponsored workshops on ecosystem development at BDL Accelerate.
55. **Schumpeter, Joseph.** *Capitalism, Socialism & Democracy.* 132.

56. **Schumpeter, Joseph.** *The Theory of Economic Development.* 78.

57. The Ministry of Economy and Trade's *Lebanon SME Strategy: A Roadmap to 2020*, Startup Ecosystem Think Tank's *Lebanon's Startup Ecosystem Roadmap*, Endeavor's *How to Improve Access to Finance in Lebanon*, and Wamda's *Country Insights: Exploring Trends and Challenges to Scale for Startups in Egypt, Jordan, Lebanon, and the UAE* provide analysis about Lebanon's ecosystem development, needs, and detailed recommendations for its development.

58. **Isenberg, Daniel.** *Entrepreneurship Ecosystem Strategy for Economic Development.*

59. **Isenberg, Daniel.** *The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy: Principles for Cultivating Entrepreneurship.*

60. **BdL official.** Interview by Choucair and Flynn. Beirut.

61. **Hoayek, Marianne.** Interview by Choucair and Flynn. Beirut. 12 July 2016.

62. **Bejjani, Ghassan.** Interview by Choucair and Flynn. Beirut. 20 July 2016.

63. **Bejjani, Ghassan.** Interview by Choucair and Flynn. Beirut. 20 July 2016.

64. In the January 2016 "Future of Lebanon's Knowledge Economy," The UK Lebanon Tech Hub defined a KBE as referring "to the increasing contemporary significance of information and communication technologies (ICTs) applied to multiple sectors," going on to recommend that Lebanon focus on the "fintech, wellbeing, and retail visualisation" sectors.

65. **Sahmarani, Najwa.** Interview by Choucair and Flynn. Tripoli. 8 August 2016.

66. **Sahmarani, Najwa.** Interview by Choucair and Flynn. Tripoli. 8 August 2016.

67. **Executive Magazine.** "The Startup State," (18 November 2015), <http://www.executive-magazine.com/special-report/the-startup-state>.

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