

## Conference Paper

# Banking on Start-ups: The Changing Role of Lebanon's Central Bank

Elie Akhrass, Hana Barakat, and Steve Hill

UK Lebanon TechHub, Beirut Digital District, BeryTech Digital Park, Beirut, Lebanon

## Abstract

Although there is a long global tradition of Central Bank support for economic development, the early years of the twenty-first century saw Central Banks increasingly focussed on a single objective – price stability, typically targeted by interest rate policy. However, the global financial crisis saw a rapid shift to policies to promote employment and economic growth, including for a number of European Central Banks, (France, Italy and Belgium; see [1; The Role of Central Banks, Briefing Paper 8/2015, German Development Institution (DIE)]), pursuing innovative policies such as prioritized lending to specific sectors via variable reserve asset requirements. At least one Central Bank has gone further – in incentivizing commercial banks to invest in high-technology start-ups, as well as to incubators and accelerators. This article focuses on the entrepreneurship-support role of Lebanon's Central Bank (Banque du Liban or BdL) for years regarded as deeply conservative in imposing cash reserve requirements well in excess of international norms and prohibiting banks from speculating in risky packages of bundled debts. BdL has been credited with ameliorating the impacts of the global financial crisis on the Lebanese economy and has for some years facilitated loans to specific sectors at low interest rates. However, BdL took a more radical step in August 2013 by issuing Circular 331, providing significant incentives to commercial banks to invest in technology start-ups, either directly or through Venture Capital funds, by facilitating the banks to then access a seven-year interest-free loan invested in Lebanese Treasury Bonds. Investments in approved start-ups were guaranteed up to 75% by BdL and 100% for investments in accelerators or incubators. This article will seek to develop an impact framework for 331 and make some early assessment of its potential economic development consequences.

Received: 10 March 2018

Accepted: 10 April 2018

Published: 2 August 2018

Publishing services provided by  
Knowledge E

© Elie Akhrass et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the International Applied Research Symposium Conference Committee.

## 1. Introduction

The Lebanese economy has a resilient, sound and durable financial sector, despite continuing political instability, an on-going migrant crisis and rising public debt. The sector is under the jurisdiction of an active and independent Central Bank (Banque du

 OPEN ACCESS

Liban or BdL). BdL supervises all banks, other financial institutions, money dealers and leasing companies, defines the financial sector code of practice and controls the entry into the sector.

The stated objective of BdL policy is to maintain the value of the Lebanese pound, supported by foreign currency reserves of more than \$40 billion in September 2016 [2], aided by inflows of expatriate remittances by Lebanese abroad that reached almost \$9 billion in 2014 [3]. BdL uses market intervention to stabilize interest rates, buying, when necessary, government Treasury bills and Eurobonds at a fixed rate. It also imposes minimum cash reserve ratios on commercial banks that are well above international norms, prohibits speculation in risky packages of bundled-up debts and encourages small banks to merge with larger ones. BdL claims that, as a result, Lebanon was mostly immune to the global financial crisis and its impacts on the region [4].

Alongside its financial and monetary policies, BdL has taken a series of less conventional measures to help business in general, and more recently, new start-ups and young companies in particular. At the turn of the Millennium, BdL introduced regulations that encouraged banks to provide subsidized loans to business by releasing a variable percentage (depending on the purpose of the loan) of the mandatory reserve that banks are obliged to deposit at the Central Bank at zero interest (BdL decision 6116). By doing so, BdL was able to encourage entrepreneurial finance from a conservative banking sector that had previously often required collateral of up to 200 percent of the loan amount.

Over time, take-up of the scheme has increased substantially. Between 2011 and early 2013, the total value of subsidized loans was \$1.75 billion [5]. More than a tenth of total loans were to the Agricultural sector, more than a third to businesses in the Tourism sector and just over half to the Industry. BdL concluded, after a review, that whilst it had been effective in developing investment funding for established, usually large, businesses, new loans were not reaching high-technology sectors. There was significant under-funding and a lack of other support for entrepreneurial start-ups, especially in the knowledge economy.

In August 2013, BdL introduced Circular 331, which set out a policy to encourage growth of the knowledge economy by promoting equity, rather than debt, funding to high-technology start-ups. The policy allowed commercial banks to apply for a seven-year interest-free loan that could be invested in Lebanese Treasury Bonds if the bank invested the funds in high-technology start-ups, either through direct equity investment or by partnering with Venture Capital providers. Any such investments made by banks have to be approved and validated by BdL, which in return provides a 75 percent

guarantee on these investments, rising to 100 percent for funding to support boot camps, incubators and accelerators. Ultimately, any profits from the investment are to be split equally between the bank and BdL. The policy set limits to the investment for any individual start-up (0.3% of total bank capital); and a maximum investment limit of 3 percent of the banks total capital [6].

According to the Governor of the Central Bank, "The formula of Circular 331 has been very successful. Lebanese banks have already invested more than \$250m in the technology sector, which is more than we expected after only two years of the initiative being in place" (Salame, reported in [7]).

Accelerator programmes, designed to speed the growth of early-stage high-technology start-ups, have grown quickly in Lebanon, as elsewhere. According to Forbes, an accelerator is a "fixed-term, cohort based programme including educational and mentoring components, culminating in a public pitch event" [8]. The Lebanese programmes are expected to deliver a flow of growth-hungry high-technology start-ups, that at some point will be reflected in the data for entrepreneurial activity and will surely provide a platform for future analysis and empirical research. However, it is too early to be anticipating measurable impact from current data.

## 2. Evaluation

Evaluation is the process of assessing the full impacts of an activity, policy or process. In a competitive market economy, impacts are usually expressed in terms of market outcomes, such as profits, market shares or capitalization. However, there are some areas, most typically in terms of public policy, where market outcomes may not reflect the objectives of policy. In this Central Bank policy example, there are theoretical and empirical reasons for anticipating a positive relationship between the level of high-technology start-ups and future prosperity, although the direction of this relationship could go both ways. A growing economy provides new opportunities for the start-up, including rising levels of income, and therefore consumer demand, as well as growing confidence to take advantage of these opportunities. At the same time, today's start-up can be tomorrow's driver of prosperity. Decker et al. [9] demonstrate the close relationship between high-growth start-ups and subsequent jobs growth, although the relationship between start-ups and economic growth may be dependent on an economies level of development.

The Global Entrepreneurship Monitor is a long-term research project that reports large-scale country surveys of the level of Total early-stage Entrepreneurial Activity

(TEA), conducted in a consistent manner that allows comparability. Empirically, successive GEM Global Reports have demonstrated an inverse relationship between Gross Domestic Product and the level of early-stage entrepreneurial activity, largely because in poorer countries, levels of enterprise are likely to be driven more by necessity (the lack of income alternatives) than by the desire to seize good business opportunities. As a country's level of prosperity increases, the ratio of opportunity to necessity entrepreneurship is likely to rise. For example, in the 2016–2017 GEM Global Report [10], 72 percent of early-stage entrepreneurship in participating countries in Asia/Oceania was driven by opportunity compared to 24 percent by necessity. In North American participants, the proportions were 84 and 13 percent, respectively.

The empirical relationship between levels of entrepreneurial activity and subsequent economic growth was tested by Stel, Corree and Thurik [11], using GEM data on early-stage entrepreneurial activity for 2002, and country growth rates for Gross National Income per capita for 1999–2003. Their results suggest that the impact of entrepreneurial activity depend on a country's level of development, and that poorer countries have the potential to grow fastest (catch-up). In particular, for innovation-driven or efficiency driven economies, levels of entrepreneurship were positively associated with growth in national income per capita; but for poorer, factor-driven economies, levels of entrepreneurial activity were negatively related to economic growth. In the GEM 2016–2017 Global Report, Lebanon is identified as a transition economy, shifting from efficiency to innovation-driven. Then, increasing the level of start-ups is likely to be associated with greater future prosperity.

This then leads to the questions of what determines the level of start-ups and can this be influenced by the provision of entrepreneurial finance? Bosma [12] outlines four key determinants of the level of start-ups in a particular economy – demographics (including age, gender, location, etc.), access to human and financial capital (level of education, ease and cost of loans), economic influences (such as exchange rates, level of employment) and institutional factors (including levels of trust, the development of financial institutions, etc.). However, there are also recognized market failures, particularly in the provision of entrepreneurial finance, which may limit the level of start-ups [13]. The same report showed that those new businesses anticipating fastest job growth requires at least twice as much capital to start as those expecting slower job growth.

Access to capital is a fundamental barrier to the entry of new firms, typically adding to the absolute cost advantages of incumbent firms operating beyond minimum efficient scale. Note that Fagerberg, Srholec and Verspagen [14] posit that

high-technology start-ups may be the main drivers of innovation in the knowledge economies of richer nations. Ho and Wong [15] tested the association between levels of early-stage entrepreneurial activity and the availability of entrepreneurial finance to show that higher levels of investment increase entrepreneurial activity. There is then both theoretical and practical rationale for policy intervention to boost entrepreneurial investment in high-technology start-ups.

The notions and practices of evaluation have developed rapidly in recent years, boosted by the EU's insistence that evaluation be systematically built into its funded programmes. Good evaluation is open, objective and looks forward as well as back, distinguishing between activities, results and impacts [16]. For example, Circular 331 aims to promote prosperity in Lebanon by incentivizing equity investment in high-technology start-ups. The *activity* is then incentivizing investment, the *results* should be more high-tech start-ups and the intended *impact* is more prosperity. The evaluation challenge is in defining prosperity and then relating this to the activity and its results. For example, if prosperity is measured in terms of Gross Domestic Product (a likely, if contestable, notion), then a full evaluation of Circular 331 would relate the amount of new capital invested (*the activity*) to the number and level of new high-tech start-ups (*the results*), and then to changes in Gross Domestic Product (*the impacts*). Methodological issues abound, including displacement (does the investment displace other financing), additionality (would some of the start-ups have happened anyway) and the counterfactual (What would have been the levels of investment, start-ups and prosperity if Circular 331 had not happened?). Only by comparing the effects of a policy to its counterfactual can the full impacts of the policy be assessed.

### 3. Entrepreneurial Activity in Lebanon

The conjecture that BdL policies have impacted on the level of entrepreneurship in Lebanon is difficult to assess directly, given few years of comparable data and the welter of other influences on entrepreneurship activity alluded to earlier. It is incontrovertible that enterprise rates, as evidenced by the GEM Adult Population Survey, have risen substantially between 2009 and 2015. Table 1 sets out some more details, using GEM definitions including Nascent Entrepreneurship (those actively involved in starting a new business but have not yet been paying salaries for three months or more), New Firm Entrepreneurship (those running a new business that has paid wages and salaries for more than 3 months but less than 30 months), Total early-stage Entrepreneurial

Activity (TEA; or Nascent plus New Firm minus any double-counting), Established Business Ownership (running a business that has paid salaries for 30 months or more) and Discontinuance (those who have discontinued a business, for whatever reason, in the past 12 months).

TABLE 1: Entrepreneurial activity rates, Lebanon, percentage of working-age population, GEM APS data.

	2009	2015	2016
<b>Nascent</b>	6.7	10.8	9.5
<b>New Firm</b>	8.8	20.4	12.1
<b>TEA</b>	15.0	30.1	21.2
<b>Established Ownership</b>	16.0	18.0	20.1
<b>Discontinuance</b>	4.6	10.6	9.2

Source: GEM-MENA 2010, GEM National Reports Lebanon 2016 & 2017.

Table 1 makes it clear that whilst the level of Nascent entrepreneurship has increased since 2009, it is the New Firm entrepreneurship that has been most volatile, more than doubling between 2009 and 2015 and then almost halving in the difficult year of 2015–2016. As a consequence, the level of TEA increased rapidly before falling back in 2016. Meanwhile, the level of the Established Business Ownership has been increasing steadily throughout the period. By 2016, one in five of the Lebanese adult population reported running an established business. Given the increases in new and established business ownership, it is not surprising that the level of business discontinuance has also increased.

These increases cannot be attributed to a substantial rise in perceived opportunities and perceptions. Table 2 compares attitudes from the 2009, 2015 and 2016 GEM Adult Population Surveys. The proportion of the adult sample seeing good opportunities for starting a business fell from 54 to 46 percent, before rising again in 2016, whilst the percentage who saw themselves as having the capabilities to start a business fell from 78 percent in 2009 to 70 percent in 2015, and then again to 68 percent in 2016. However, the share perceiving fear of failure as an obstacle fell substantially between 2009 and 2015, before rising again in 2016. The proportion of adults in Lebanon who say they are intending to start a new business increased substantially from just over a quarter in 2009 to 4 in 10 in 2016.

Hence, the entrepreneurial activity rate has increased substantially in Lebanon, despite some deterioration in perceived opportunities and capabilities. Adding in continuing political and economic difficulties, and the expectation must be that levels of enterprise would decline. That they have in fact increased may point to some other, enterprise-inducing factor that has outweighed these negative influences.

TABLE 2: Entrepreneurial attitudes and perceptions in Lebanon.

Percentage who...	2009	2015	2016
see good opportunities to start a business	54.3	45.7	59.6
have the knowledge, skills and experience to start a business	77.7	69.8	68.0
fear that failure would prevent them starting a business	25.6	17.4	22.5
intend to start a business	27.0	44.0	40.5

Source: GEM-MENA 2010, GEM National Reports, Lebanon 2016 & 2017.

## 4. The Impacts of Circular 331

This article posits that an important factor in the development of new entrepreneurial activity in Lebanon is likely to have been the financial stability and bank-lending opportunities engendered by the policies and actions of the Central Bank in Lebanon (BdL). Of course, it is too early to assess the specific sectoral consequences of Circular 331 – this must be a task for the future, but the dimensions of an assessment framework are set out in the previous section.

*Executive Magazine* [17] was less circumspect. They report that in the six years to 2013, three Venture Capital funds in Lebanon had raised \$24 million investment capital, of which \$17 million was deployed, including one Accelerator programme and eight start-ups accelerated. In contrast, in the first three years, post 2013, nine Venture Capital funds had raised \$384 million, of which \$116 million had to be deployed, including three Accelerator programmes and 123 start-ups accelerated.

What is clear is that Circular 331 has transformed equity investment in high-technology start-ups from expensive and high risk to less expensive and low risk. In the meantime, whether BdL policies can continue to ameliorate the entrepreneurial ecosystem in Lebanon is a question of crucial importance to the future of the Lebanese economy.

## References

- [1] Dafe, F. and Volz, U. (2015). The Role of Central Banks (Briefing Paper 8/2015, German Development Institution (DIE).
- [2] *The Daily Star*. (2016). Salameh: Demand for Cash has More Than Doubled, *The Daily Star*, 7 September, p. 4, Beirut, Lebanon.



- [3] Byblos Bank. (2015). Lebanon this week: Issue 397, *Economic Research and Analysis Department*, 18 April, Beirut, Lebanon.
- [4] Abu-Nasr, D. (2015). Lebanon's economy copes with turmoil, Central Bank Chief says, *Bloomberg*, 15 April. Retrieved from [www.bloomberg.com](http://www.bloomberg.com)
- [5] BankMed. (2013). Lebanon economic outlook, Market and Economic Research, 1 June, Beirut.
- [6] Salame, R. (2013). Intermediate Circular 331 addressed to banks and financial institutions, Banque du Liban, 22 August, Beirut, Lebanon.
- [7] Fitzgeorge-Parker, L. (September 2015). Lebanon Special Report 2015: Building Lebanon's future, *Euromoney*.
- [8] [www.forbes.com](http://www.forbes.com)
- [9] Decker, R., Haltiwanger, J., Jarmin, R., et al. (2014). The role of entrepreneurship in U.S. job creation and economic dynamism. *Journal of Economic Perspectives*, vol. 28, no. 3, Summer, pp. 3-24.
- [10] Herrington, M. and Kew, P. (2017). Global Entrepreneurship Monitor 2016-2017 Global Report, Global Entrepreneurship Research Association. Retrieved from [www.gemconsortium.org](http://www.gemconsortium.org)
- [11] Stel, A., Corree, M., and Thurik, R. (2005). The effects of entrepreneurial activity on national economic growth. *Small Business Economics*, vol. 24, no. 3, pp. 311-321.
- [12] Bosma, N. (2013). The Global Entrepreneurship Monitor and its impact on entrepreneurial research, foundations and trends in entrepreneurship, *GEM Working Paper Series*.
- [13] Daniels, C., Herrington, M., and Kew, P. (2016). GEM 2015-2016: Special Report on Entrepreneurial Financing, Global Entrepreneurship Research Association. Retrieved from [www.gemconsortium.org](http://www.gemconsortium.org)
- [14] Fagerberg, J., Srholec, M., and Verspagen, B. (2009). Innovation and Economic Development University of Oslo (Centre for Technology, Innovation and Culture (TIK) Working Papers on Innovation Studies, No 20090723).
- [15] Ho, Y. and Wong, P. (2007). Financing, regulatory costs and entrepreneurial propensity, *Small Business Economics*, vol. 28, no. 2, pp. 187-204.
- [16] Batterbury, S, and Hill, S. (2005). Assessing the impact of higher education on regional development: Using a realist approach for policy enhancement, *Higher Education Management and Policy*, vol. 22, no. 16, pp. 35-52.
- [17] Akkaoui Y. (2016). Enough brand confusion, *Executive*, 6 May. Retrieved from [www.executive-magazine.com](http://www.executive-magazine.com)



- [18] Kelley, D., Singer, S., and Herrington, M. (2016). Global Entrepreneurship Monitor 2015–2016 Global Report, Global Entrepreneurship Research Association. Retrieved from [www.gemconsortium.org](http://www.gemconsortium.org)
- [19] Reilly, C., Ackrass, E., Solorzana, M., et al. (2016). Global Entrepreneurship Monitor, 2015 National Report Lebanon, UKLTH, Beirut, Lebanon.