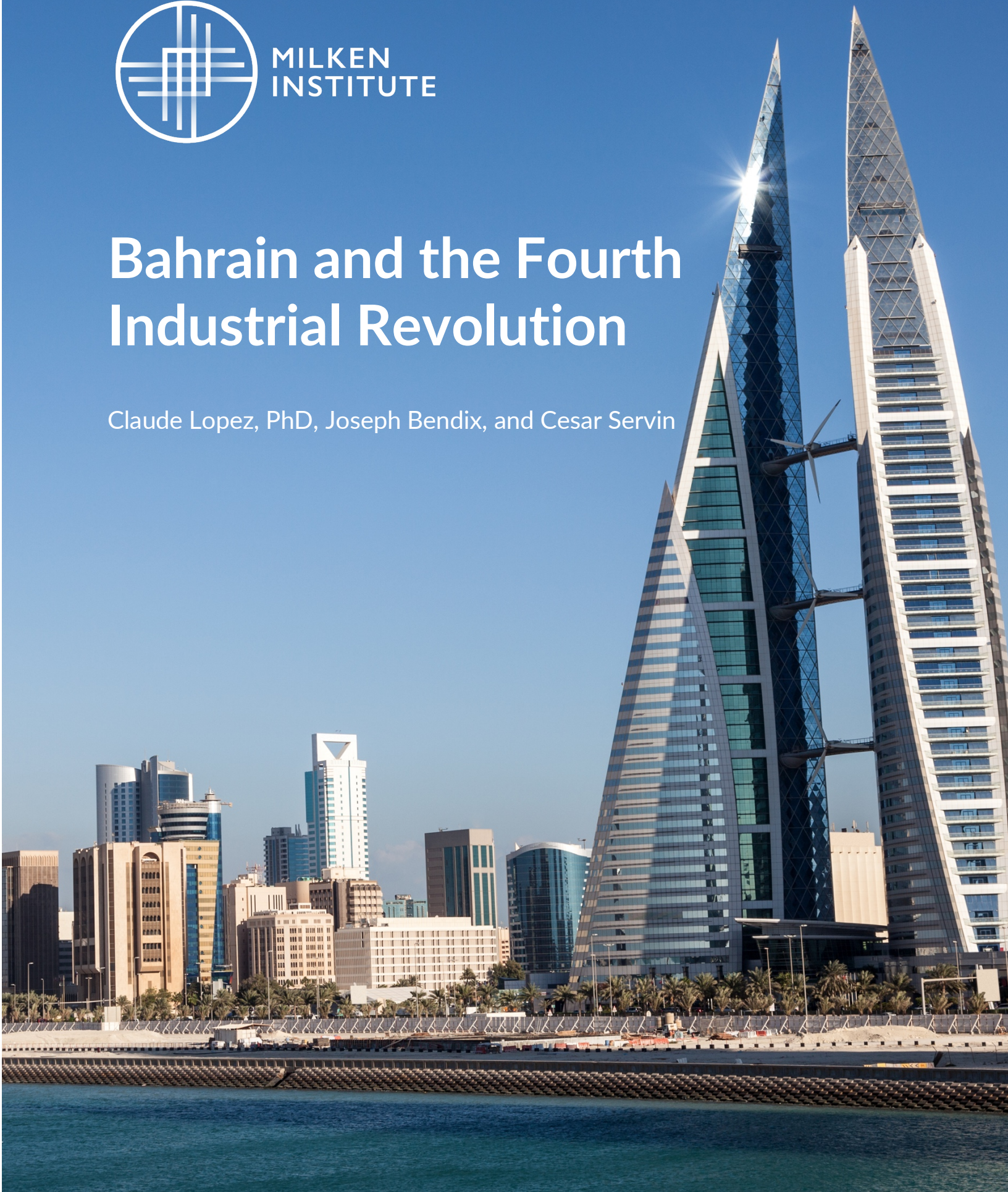


MILKEN  
INSTITUTE

# Bahrain and the Fourth Industrial Revolution

Claude Lopez, PhD, Joseph Bendix, and Cesar Servin



## ABOUT THE MILKEN INSTITUTE

The Milken Institute is a nonprofit, nonpartisan think tank. For the past three decades, the Milken Institute has served as a catalyst for practical, scalable solutions to global challenges by connecting human, financial, and educational resources to those who need them. Guided by a conviction that the best ideas, under-resourced, cannot succeed, we conduct research and analysis and convene top experts, innovators, and influencers from different backgrounds and competing viewpoints. We leverage this expertise and insight to construct programs and policy initiatives. These activities are designed to help people build meaningful lives, in which they can experience health and well-being, pursue effective education and gainful employment, and access the resources required to create ever-expanding opportunities for themselves and their broader communities.

©2020 Milken Institute

This work is made available under the terms of the Creative Commons AttributionNonCommercialNoDerivs 3.0 Unported License, available at [creativecommons.org/licenses/by-nc-nd/3.0/](https://creativecommons.org/licenses/by-nc-nd/3.0/).



# BAHRAIN AND THE FOURTH INDUSTRIAL REVOLUTION

Claude Lopez, PhD, Joseph Bendix, and Cesar Servin

## ABSTRACT

The launch of the Bahrain FinTech Bay in 2018 was a significant step for Bahrain toward becoming a technology and innovation hub. It continues to develop its infrastructure to enable the developments using Fourth Industrial Revolution-relevant technology while updating the corporate governance framework in an attempt to curtail investor uncertainty and exposure in the region.

Bahrain differentiates itself from its larger neighbors by highlighting its well-trained population and low cost of living and running a business. This report shows that these factors, combined with an innovative regulatory environment, attract a more diversified pool of foreign investors, especially venture capital and other alternative financial investors in sectors such as information and technology or tourism.

However, the recent emphasis on startups and technology brings challenges that could threaten the resilience of the new Bahraini economic model. First, most of the firms created have fewer than 10 employees, while Bahrain needs more medium-sized companies to reach its economic goals. Second, the size of Bahrain's labor market will not be able to accommodate the increasing demand for highly skilled workers. Third, the transition to a digitalized economy and its new requirements can be costly for existing firms, especially the smaller ones, which are the majority.

Moving forward, these challenges could be alleviated by:

- Helping micro firms grow.
- Removing the remaining obstacles in hiring foreign workers in sectors where the qualified local labor supply is weak.
- Ensuring that wages in the private sector are competitive.
- Educating smaller firms on existing services that can help them transition to the digitalization of the economy.



Finally, Bahrain's ambition to become a technology, innovation, and talent hub could play a significant role in the region if the Gulf Cooperation Council (GCC) countries were to strengthen their economic coordination.



## INTRODUCTION

Following the regional trend, Bahrain has a strategic plan that lays out how it will diversify its economy away from oil. Launched in 2008, Vision 2030 relies on developing cutting-edge infrastructures to attract private investment and support entrepreneurship in sectors such as banking and financial services, real estate, tourism, logistics, and information and communication technologies.

To thrive in the private sector, firms need to possess efficient and correctly priced capital markets and to have access to (domestic) markets, funding opportunities, and adequate and capable human capital. Bahrain addressed these requirements by opening its markets to competition, starting with the telecommunication sector in 2002. Furthermore, it has shifted its legal and regulatory system towards international standards to promote a corporate culture and financial regulations that would facilitate domestic and international private investment.

Bahrain's continued growth strategy combines attracting global corporate powerhouses, startups, and other innovative firms. To do so, it developed a business-friendly environment with effective administration, reactive regulatory framework, and support structures tailored to individual businesses' needs, providing services ranging from entrepreneurial assistance and funding opportunities to incubator and acceleration facilities and expert legal/regulatory/strategic advice.

The last cycle of changes, defined by the 2015-2018 Government Action Plan, concluded with some of the most visible initiatives to date, among them the launch of a FinTech hub and the implementation of laws on competition and bankruptcy, which position Bahrain as an attractive destination for global companies, investors, and bright entrepreneurs.

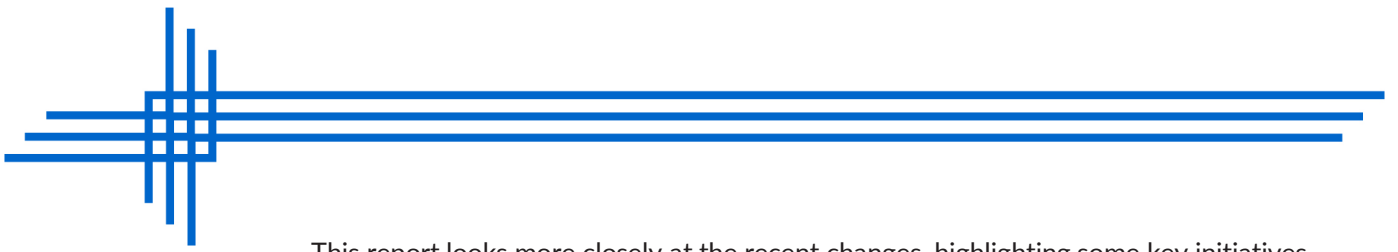
The numbers are encouraging. Foreign direct investment in Bahrain has increased from 0.2 percent of GDP in 2015 to 4 percent in 2018 with major non-oil related global investors such as Amazon (US, data hubs), Ariston Thermo (Italian, manufacturing), Mondeléz International (US, food), and Wonder News Technology (China, technology) having chosen Bahrain as their regional base.<sup>1, 2</sup> The number of firms has increased by 50 percent, and the number of jobs in the private sector by 30 percent, according to the Labour Market Regulatory Authority.<sup>3</sup> Finally, micro, small, and medium-sized enterprises account for 30 percent of the GDP and capture close to 75 percent of the job opportunities of the private sector.

---

1. CEIC Global Economic Data—Bahrain Foreign Direct Investment. Percentage of GDP.

2. Andrew England, "Foreign Investment Rebounds for Bahrain, State Touts Five Sectors," *Financial Times*, October 3, 2018.

3. Bahrain Labour Market Indicators 2019 Q2.



This report looks more closely at the recent changes, highlighting some key initiatives and regulatory or legislative reforms, before providing some perspectives on how they fit into Bahrain's broader, longer-term strategy of economic diversification based on technology. It then describes how investors have responded and how the financial landscape has changed since 2015.

The analysis shows that Bahrain is on the right trajectory to become a technology and innovation hub. It highlights significant steps that help differentiate the kingdom from its GCC neighbors. Namely, more sectors have opened to 100 percent foreign ownership, enacted a bankruptcy law, developed a financial system oversight that is independent and forward-looking, and launched a FinTech hub. The new regulatory and legal framework attracted significant global firms, as stated earlier. It also increased the number of new financial participants, especially among the alternative financial investors funding startups. Recent years saw a fast progression in the development of infrastructure on information and communication technology. The latest success is the Amazon regional data hub, launched in 2019.

However, the strong emphasis on startups and technology brings new challenges that may threaten the resilience of the new Bahraini economic model if not addressed. Our analysis of data from the Labour Market Regulatory Authority highlights three challenges:

**Transitioning to firms that create enough jobs:** The growth of firms is skewed toward micro firms (i.e., with fewer than 10 employees). However, a new micro firm creates, on average, three jobs, while a larger enterprise creates, on average, 130 jobs. Helping micro firms grow through the implementation of small business-friendly policies should be part of the next set of priorities for Bahraini authorities to ensure that they meet their ultimate target of providing jobs for their young population.

**Access to tech-savvy workers:** Bahrainis capture 21 percent of the labor force, and 66 percent are in the private sector. The private sector will have a growing need for highly skilled workers to a level that the local population, assuming it has the required set of skills, could not meet. The Bahraini authorities are investing in training programs. While they need to invest in more programs, they will also have to rely on foreign workers to satisfy the demand. Furthermore, wages in the private sector need to be competitive. As of now, wages in the public sector are 70 percent higher than in the private sector.

**Cost of transition for existing local firms:** Most of the existing firms in Bahrain are small. Opening a new business in a digital economy is cost-effective and provides technical options that would not be available to smaller firms in a traditional environment. But the transition for an existing firm can be costly and, depending on its size, can threaten its survival. Depending on the industry, consolidation via merger and acquisition may be the solution (as seen in financial services), but for other industries, there can be social benefits in keeping smaller businesses open. A



framework to facilitate such a transition is necessary, but the most immediate step should be to educate smaller firms on the already existing help.

Finally, this report confirms Bahrain's strengthened reliance on GCC investors. As a result, the success of its economic transition is strongly intertwined with these countries' ability to successfully diversify their economy and break their dependence on the oil-price cycle. Beyond that, Bahrain's ambition to become a hub of innovation and talents for the region emphasizes the collaborative aspect of its strategy and how the GCC countries could leverage each other's strength to achieve the regional economic transition.

This report is organized as follows: Section 1 describes the Bahraini support system to small to medium-sized enterprises (SMEs) created in the past decade and the latest legislative and regulatory changes implemented during the 2015–2018 period. Section 2 focuses on Bahrain's longer-term strategy of economic diversification based on technology while Section 3 provides some insights on how these changes have impacted private investment in Bahrain, especially its diversification across the type of investors and sectors of interest. Finally, Section 4 concludes by highlighting some of the challenges Bahrain may encounter moving forward and provides some suggestions on how to address them.



## SECTION 1: A COLLABORATIVE AND SIMPLIFIED ENVIRONMENT

When it comes to supporting SMEs, Bahrain is trying to differentiate itself from its neighboring countries by providing a highly supportive and administratively effective environment.<sup>4, 5</sup> The services range from help on how to run a business to a well-adjusted and business-friendly regulatory framework.

### A Network of Agencies and Institutions

Over the past decade, the government has developed new institutions as well as initiatives across different agencies to create support structures for SMEs, especially startups. By leveraging institutions' individual strengths, the resulting system/network provides tailored services to the SMEs. Many of these initiatives focus on connecting government agencies, investors, entrepreneurs, and all relevant stakeholders to help SMEs in all stages of growth.

The collaboration among the main actors forms an ecosystem that offers a range of services.

The collaboration among the main actors, some of them listed in Table 1 and Appendix 1, forms an ecosystem that offers a range of services from general training and grants provided by Tamkeen, the Bahraini Labor Fund, and more specialized support via incubators.<sup>6</sup> Angel investors, such as Tenmou and Angivest Ventures, offer various funding schemes, and Space 340 and Corporate Hub 9 offer workspace, training, and various advisory services. Finally, the recent creation of the US\$100 million fund of funds, Al Waha, will further facilitate access to capital via venture capital.

---

4. Richie Santosdiaz, "Seven Gulf Cities That Aspire To Be Tech Hubs," *Arabian Gazette*, January 2019.

<sup>5</sup> The SME Development Board was established in 2017. It aims to coordinate the efforts of the Ministry of Industry, Commerce & Tourism, EDB, Tamkeen, Bahrain Development Bank (BDB) and the Bahrain Chamber of Commerce and Industry (BCCI) to foster the growth of the micro enterprises, develop SMEs to create more jobs for the citizens and increase its contribution to GDP.

<sup>6</sup> Tamkeen provides financial support for all companies (local and foreign), including wage subsidies.





**Table 1: Government and Semi-government Institutions**

Institution	Founded In	Website
Bahrain Chamber of Commerce and Industry	1967	www.bcci.bh/en
Bahrain Development Bank	1991	www.bdb-bh.com
Bahrain Investment Market	2017	www.bahraininvestmentmarket.com
Central Bank of Bahrain	2006	www.cbb.gov.bh
Economic Development Board	2010	www.bahrainedb.com
Export Bahrain	2019	www.export.bh
Ministry of Industry, Commerce, and Tourism	1971	www.moic.gov.bh/en
Startup Bahrain	2016	www.startupbahrain.com
Tamkeen	2006	www.tamkeen.bh

Source: Milken Institute.

These efforts have led to tangible results, with three Bahraini firms listed among the top 100 startups from Forbes Middle East in 2018: OneGCC, an online recruitment platform for GCC nationals; Skiplino, a multilingual cloud-based queue management system; and CTM360, a cybersecurity company. Furthermore, Bahrain ranks in the top 10 ecosystems, with the largest share of female founders in the Middle East and North Africa (MENA) in the 2019 Global Startup Ecosystem Report.<sup>7</sup>

7. Global Entrepreneurship Conference, "Member Spotlight: Small, Mighty, Global Bahrain by Startup Genome," February 2019.



**Table 2: Share of Women-Founded Startups**

Ecosystems	% of female founders
Chicago	25%+
Mid-East Region, Ireland	25%+
New York City	22-24%
Shanghai	22-24%
Houston	20%
Sydney	19%
Miami	19%
Los Angeles	18%
Bahrain	18%
Busan	18%

*Source: Global Startup Ecosystem Report 2019.*

### **A Regulatory Framework**

At the same time, Bahrain continues to develop its regulatory and legislative framework. Over the past five years, the government has focused its efforts on enhancing transparency and fairness of the system, protecting investors, meeting international standards (especially in the corporate environment), and modernizing accessibility of its capital markets. Ultimately, the goal is to increase and diversify the pool of international investors it attracts.



Recent amendments to the legal framework, especially on commercial companies, and competition confirm a continued commitment in facilitating both local and foreign investments. They strengthen Bahrain’s convergence toward international standards, requirements, and expectations.

The most noticeable changes implemented in 2018 were:

- **Commercial Companies Law (ongoing):** More sectors have been open to the 100 percent foreign ownership rule, the latest being oil and gas drilling activities in June 2019. Furthermore, sanctions against companies that persistently violate the provisions of the law have been strengthened while all companies are now subject to a corporate governance code as well as audited financial statements.<sup>8,9</sup>
- **Competition Law (2018):** As the primary legislation that governs competition in Bahrain, it aims to ensure there is fair competition between businesses by making the Consumer Protection Directorate responsible for its implementation. Ultimately, it will make it easier for new companies to enter existing markets and compete with significant players while ensuring high-quality service and fair prices for consumers.
- **Personal Data Protection Law (2018):** This law supports the digitalization of the economy by giving individuals and entities in Bahrain rights on how their personal data can be collected, processed, and stored.
- **Bankruptcy Law (2018):** Following the model of the US’ Chapter 11 law, this law provides a transparent insolvency regime, which emphasizes the restructuring of the debtor while allowing the continuation of its business during the administration of a case. The Bankruptcy Law also includes provisions for cross-border insolvency and SMEs.

In addition to these economy-wide and fundamental reforms, the financial sector continues to employ strategic reforms to modernize its accessibility and expand opportunities for the capital markets, reinforcing Bahrain’s position as a regional FinTech hub.

The goal is to increase and diversify the pool of international investors.

8. Kallanish Energy, “Bahrain to Allow 100% Foreign Ownership,” June 2019.

9. Ministry of Industry, Commerce, and Tourism—Kingdom of Bahrain, Corporate Governance. Bank for International Settlements, Committee of Payments and Markets, “Payment, Clearing and Settlement Systems in the Kingdom of Bahrain,” January 2017.



In a 2017 report, the Bank of International Settlements, the central bank of central banks, stated that “over the past two decades, significant reforms have been undertaken to modernize the payment, clearing and settlement infrastructure in line with international standards and best practices. These modernization efforts were also considered vital to further developing the kingdom’s banking services and financial sector.”<sup>10</sup> Since then, Bahrain has pursued its transformation toward a more transparent and independent financial system oversight and a forward-looking regulatory framework. The most notable reforms are:

- **National Stock Exchange:** In 2017, the Bahrain Bourse (BHB) launched the Bahrain Clear Company, a fully owned subsidiary and a clearinghouse licensed by the Central Bank of Bahrain (CBB) with a disclosed capital of 5 million dinars (approximately US\$13.3 million) and a paid-up capital of 1 million dinars (approximately US\$2.6 million). Bahrain Clear provides services in the three core areas of settlement, depository of securities, and custodians. Appendix 3 provides further details on the changes in the capital markets.
- **FinTech:** The CBB introduced the Regulatory Sandbox in May 2017 to allow participants to test their innovative banking solutions in a safe environment under its supervision before launching the market.<sup>11</sup> In June 2019, it joined other financial hubs (such as the UK) in the implementation of Open Banking, making access to financial information easier, faster, and tailored to customers’ needs. Additionally, CBB issued new rules on regulating cryptocurrency/assets, addressing issues related to licensing, governance, capital requirements, control environment, and risk management.<sup>12</sup>

Bahrain also relaxed some of its immigration rules to facilitate access to labor force where it is needed (a flex-work permit was introduced in 2017) and facilitate international investor residency with the introduction of a 10-year investor visa. Furthermore, the Labour Market Regulatory Authority introduced in 2016 the “Parallel Bahrainization System” that gives the option of hiring foreigners in exchange for an extra fee.<sup>13</sup>

Appendix 2 provides a non-exhaustive list of the recent significant legislative amendments that may be relevant for private investors.

In short, Bahrain continues to build on its already business-friendly environment, and it is getting international recognition for it. Bahrain ranks fifth in the MENA region

---

10. Ibid.

11. As of June 2019, Bahrain Clear Company will be using Bahrain’s Electronic Network for Financial Transactions (Benefit).

12. Adrian Zmudzinski, “Bahrain’s Central Bank Issues New Cryptocurrency Regulation,” CoinTelegraph, February 25, 2019.

13. Labour Market Regulatory Authority, “What is the Parallel Bahrainisation System?”



and 35th among 134 countries according to the 2018 Global Entrepreneurship Development Institute Index.<sup>14</sup>

Bahrain's liberalization and ability to meet international standards are a work in progress, with further major regulatory reforms forthcoming. The next significant areas are health insurance and real estate, following the new laws on these sectors. Finance will also remain at the forefront with initiatives such as the launching of e-KYC (a blockchain-based know-your-customer and anti-money laundering platform) that will streamline doing business in Bahrain while complying with international requirements.

---

14. Ainsley Lloyd, Zoltán J. Ács, and László Szerb, "Global Entrepreneurship Index 2018," The Global Entrepreneurship and Development Institute, 2018.



## SECTION 2: GROWTH DRIVEN BY TECHNOLOGY AND INNOVATION

The network of agencies and initiatives and the regulatory framework described in the previous section are crucial elements of a broader strategy that will enable Bahrain to transition toward a technology-driven economy.

Leveraging ongoing reforms in the financial sector, its reputation, and the good international standing of the CBB, Bahrain made the emergence of a FinTech hub a priority of the 2015–2018 plan. The launch of the Bahrain FinTech Bay in 2018, a joint venture between the Economic Development Board and the international incubator FinTech Consortium, combined with the CBB innovative and forward-looking regulatory framework (regulatory sandbox, open banking, regulatory framework for crowdfunding and crypto-assets, etc.) are significant steps toward creating a sustainable domestic FinTech industry.<sup>15</sup>

The transformation of the financial sector, beyond the FinTech hub, is a necessary step for Bahrain to transition toward a private sector driven economy. The financial industry represents 16.5 percent of the GDP, and facilitating SMEs' access to funding is essential to ease their transition from the startup stage, as well as to enable their growth.<sup>16</sup>

Bahrain's FinTech hub is the first concrete step of a much broader strategy focusing on technology and innovation. The strategy started in 2002, with the Telecommunication Law that established an independent Telecommunication Regulatory Authority in charge of the liberalization of the sector, leading to the removal of all barriers of entry.<sup>17</sup> Since then, the government consistently focused on developing the information and communication technology (ICT) infrastructure so that it would support the emergence of a thriving ecosystem of SMEs.

The size of its domestic market and the level of regional competition when it comes to becoming a tech hub has led Bahrain to differentiate itself from its wealthier neighbors while advocating for regional cooperation. Its goal is to be an entry point to the regional market for international investors and a talent and innovation provider for the GCC countries.<sup>18</sup>

Besides its location, low cost of doing business, advanced regulations, and effective administration, Bahrain's current appeal to international investors is its continued commitment to technology infrastructure, making sure it has skin in the game with

The government consistently focused on developing the information and communication technology infrastructure.

15. Khalid Saad, "Bahrain FinTech Regulations Report 2019," Bahrain FinTech Bay, 2019.

16. Oil currently accounts for less than 20 percent of GDP.

17. The Telecommunications Law of the Kingdom of Bahrain.

18. Richie Santosdiaz, "Seven Gulf Cities That Aspire To Be Tech Hubs," *Arabian Gazette*, January 2019.



initiatives including digitalization of many of its services since 2010 and the Cloud First strategy launched in 2017.<sup>19, 20</sup>

Such a pledge is vital in attracting the global players whose presence is essential for Bahrain to become a Fourth Industrial Revolution-relevant technologies hub. The most significant success to date is Amazon Web Services (AWS) establishing its first data center in Manama: After opening an office in 2017, AWS launched in July 2019 a cluster of data centers in the AWS Middle East region.

So far, Bahrain's strategy seems to have paid off. Almost two decades after the opening of the telecommunication market to competition, it ranks 31st out of 176 countries in the 2017 UN International Telecommunication Union ICT Development Index and fourth out of 193 in the 2018 UN Department of Social and Economic Affairs Global Index for Telecommunication Infrastructure.

As discussed previously, besides developing infrastructure, Bahrain has been proactive in facilitating access to funding, especially for technology startups. The latest development to date is the US\$100 million AI Waha fund of funds. One year after inception, half its resources have been allocated to five regional venture funds that will establish a presence in Manama.<sup>21</sup>

All these reforms and initiatives are moving Bahrain in the right direction; however, the emergence of a strong technology hub relies heavily on the availability of an adequate supply of qualified labor. To date, several initiatives are supporting the development and acquisition of acceptable and sustainable levels of human capital. AWS has launched cloud-related training with the University of Bahrain and Bahrain Polytechnic.<sup>22</sup> Similarly, in April 2019, Bahrain Polytechnic, in cooperation with Microsoft and Tamkeen, launched the AI Academy.<sup>23</sup>

Several estimates confirm that more is needed to satisfy the expected future labor demand. AWS reports that there will be a need for "10,000 data solution architects in the next five years in the Middle East."<sup>24</sup> To produce such tech-savvy workers, Bahrain will need to consider more significant investments in science, engineering, and technology training and education.

---

19. Kingdom of Bahrain eGovernment–eGovernment Strategy Summary 2007-2019.

20. Kingdom of Bahrain eGovernment–Cloud First Policy, National Enterprise Architecture.

21. Chloe Domat, "Bahrain: Back on the Map," *Global Finance Magazine*, July 2019.

22. Trade Arabia, "AI Academy launched at Bahrain Polytechnic," April 2019.

23. Ibid.

24. Alicia Buller, "Bahrain plans to create a world-leading tech ecosystem," *Computer Weekly*, January 2019.



### SECTION 3: INVESTOR LANDSCAPE

The primary goal of the reforms and initiatives discussed in the previous sections is to increase private investment in a range of sectors. Foreign direct investment (FDI), according to the United Nations Conference on Trade and Development (UNCTAD), has increased from US\$243 million in 2016 to US\$1.515 billion in 2018 with the information, communication, and technology (ICT) sectors capturing 54 percent of the 2018 amount.<sup>25</sup>

Mergers and acquisitions (M&A) and greenfield investment represent the largest part of FDI. UNCTAD's 2019 report on international investment shows that, among the two categories, the dollars amount of M&A in Bahrain has shown the sharpest increases since 2016 with a staggering augmentation of 235 percent.<sup>26</sup>

Focusing on M&A activity in Bahrain, this section investigates the investors' landscape and the impact of the latest Bahraini authority's efforts to develop a supportive, resilient financial system. More specifically, it investigates how diversified the financial system is by looking at: (i) the geographic origin of the investors, (ii) the target sectors that attract investment, and (iii) the types of investors that are present in Bahrain.

#### Who Invests in Bahrain?

The domestic share of Bahrain's M&A market has been stable over the past nine years, capturing slightly less than 50 percent of the total number of deals. In contrast, the composition of the international share has changed since 2015, consolidating around the GCC countries. They capture 26 percent of the deals, compared to 14 percent for the 2010-2014 period (see Chart 1). The United Arab Emirates leads that trend (see Chart 2). The European participation increased to 8 percent, while deals with investors from the Middle East and Asia have reduced to 0 percent and 2 percent respectively, compared to 5 percent and 11 percent for 2010–2014.

Overall, Bahrain's reliance on domestic and GCC investors has strengthened over the past four years as they represent 75 percent of the M&A deals post-2015.

---

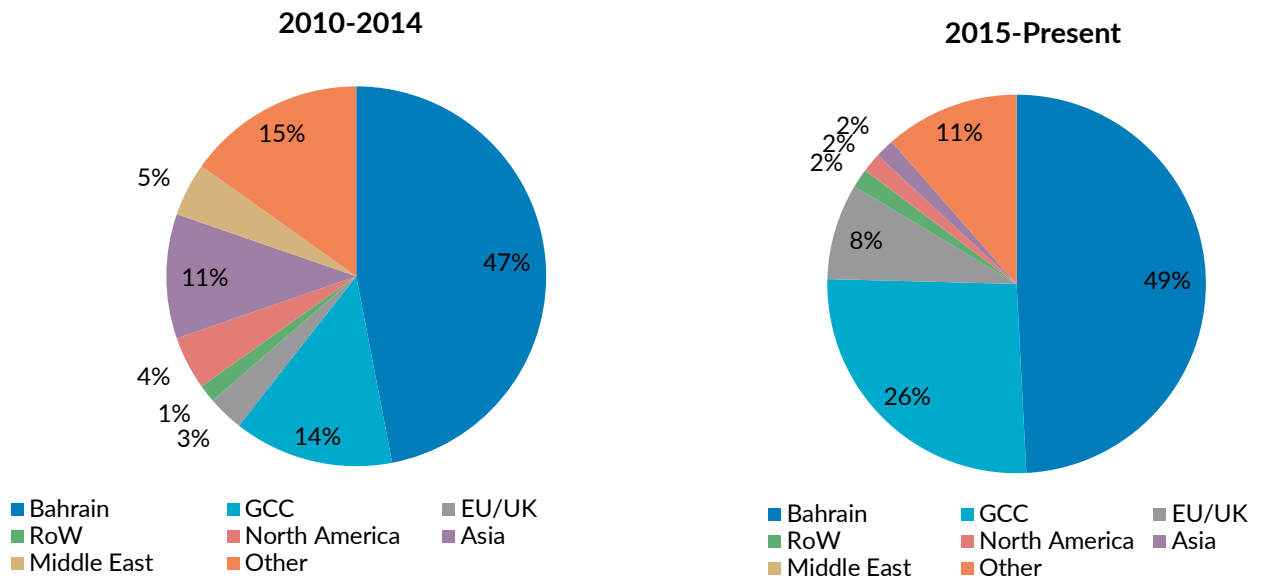
25. James X. Zahn, "World Investment Report 2019—Special Economic Zones," June 2019.

26. For the same period, the Greenfield Investment Project has decreased by 56 percent, yet it has increased 20 percent since 2017.



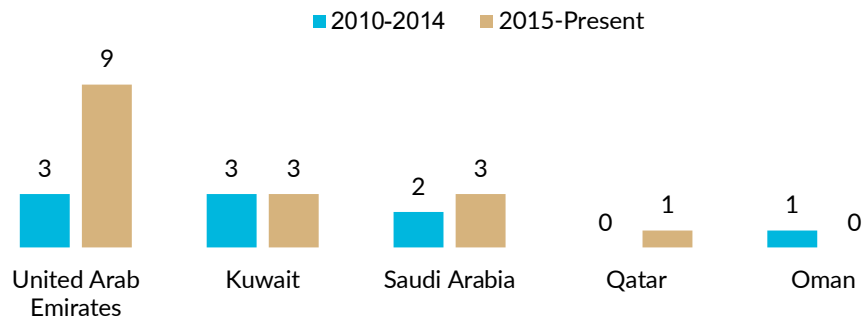


**Chart 1: Total Number of M&A Deals per Investor Origins**



Source: Refinitiv Eikon, authors' calculations. RoW stands for Rest of the World.

**Chart 2: Total Number of M&A Deals per GCC Acquirer Excluding Bahrain**



Source: Refinitiv Eikon, authors' calculations.



## Type of Transactions and Sectors

While the acquisition of partial interest and majority assets remains the most common type of deals for both domestic and international investors, mergers are becoming more popular among foreign investors, capturing 30 percent of the transactions post-2015, compared to 10 percent for the 2010–2014 period (see Charts 3a and 3b).

Bolstered by the emergence of the consumer and retail sector (which includes the food and beverage vertical) and the health sector, and coupled with the growing interest of global private equity funds, mergers have begun driving transaction deal value averages higher. Both recent strategic and financial acquisitions highlight this trend (see Charts 4a and 4b).

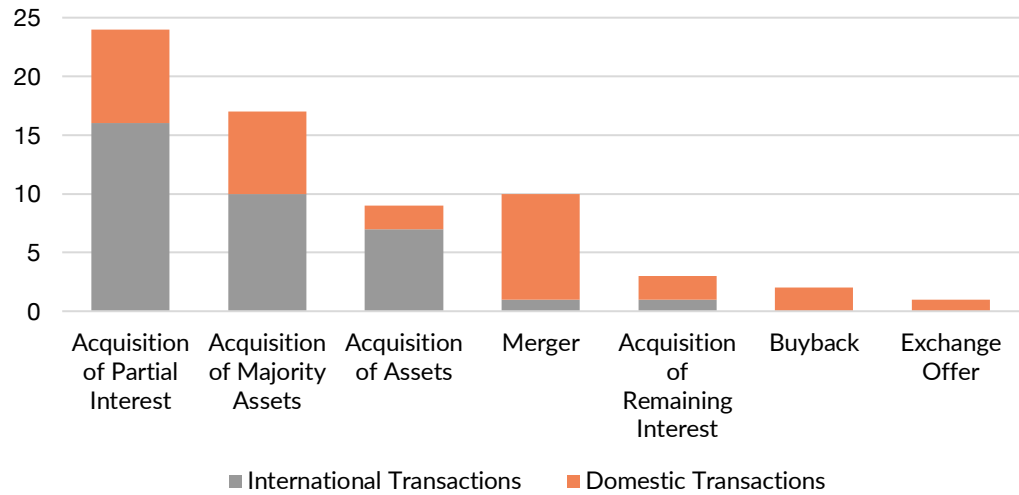
One of the latest acquisitions in the food and beverage industry is the Danish dairy cooperative Arla Foods, which finalized in June 2019 its acquisition of (US-based) Mondeléz International's processed cheese business in the Middle East region, currently licensed under the Kraft brand. Arla Foods will relocate product lines from Denmark and Saudi Arabia to the newly acquired site, further expanding the company's branded cheese production in the MENA region. This sale comes almost a year after Mondeléz International opened a US\$90 million, state-of-the-art manufacturing plant in Bahrain International Investment Park.

Outside of strategic divestitures, private equity funds and financial sponsors are beginning to give the burgeoning, cash-flow-stable industries (food, beverage, and retail) in Bahrain more attention. Among them, Venture Capital Bank BSC, a Bahraini Islamic investment bank, acquired a majority stake in the Caribou Coffee and Fuddruckers Restaurant franchises in Bahrain in May 2019.

Regarding the health sector, Amanat Holdings PJSC, a UAE integrated health-care and educational services-focused financial sponsor, acquired The Royal Hospital for Women and Children in August 2018 for just under \$40 million. Saudi Arabia private investors have also demonstrated interest in the educational sector of Bahrain, with United Gulf Industrial Consortia making a bid for Ahlia University, the first private university to be licensed under the Government of Bahrain. As of August 30, 2019, transaction discussions are still ongoing.

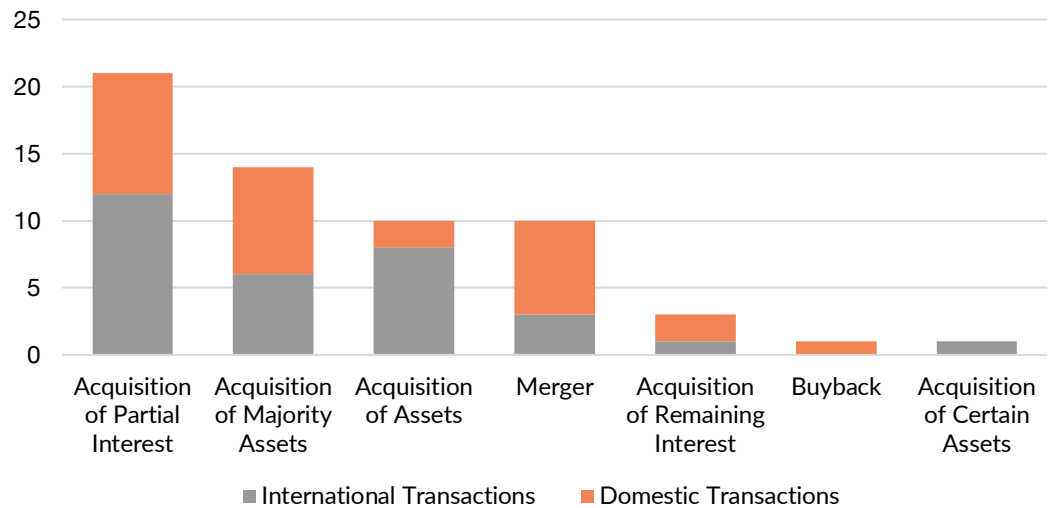


**Chart 3a: Total Number of M&A Deals per Types of Transactions, 2010-2014**



Source: Refinitiv Eikon, authors' calculations.

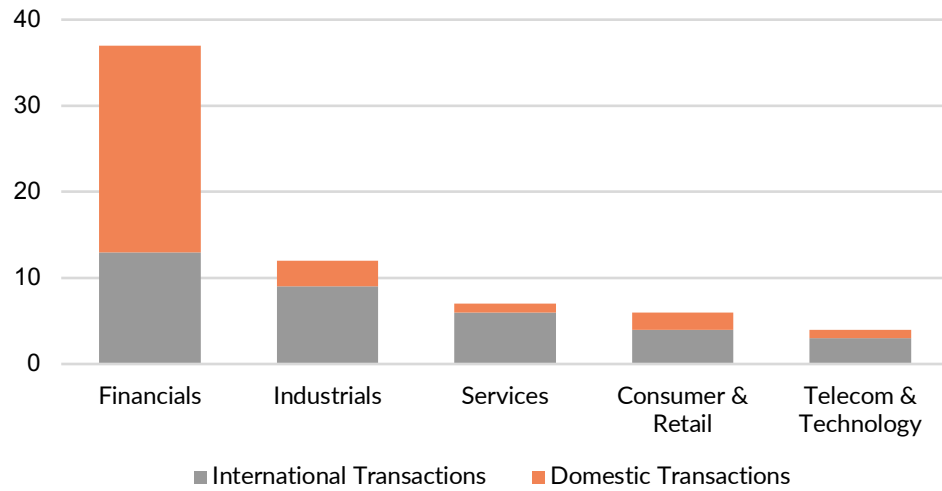
**Chart 3b: Total Number of M&A Deal per Types of Transactions, 2015-Present**



Source: Refinitiv Eikon, authors' calculations.

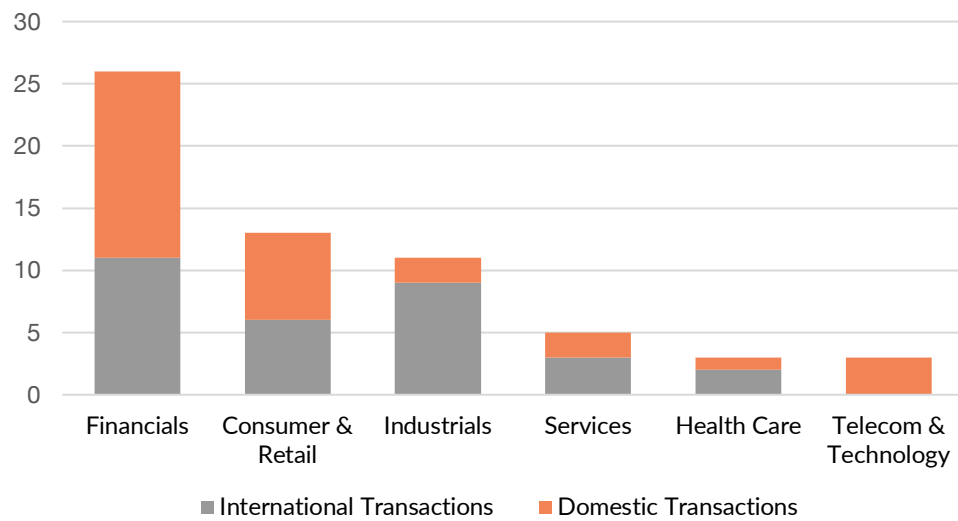


**Chart 4a : Total Number of M&A Deal per Target Sector, 2010-2014**



Source: Refinitiv Eikon, authors' calculations.

**Chart 4b: Total Number of M&A Deal per Target Sector, 2015-Current**



Source: Refinitiv Eikon, authors' calculations.



## M&A in the Financial Sector

The level of domestic M&A deals illustrates the trend of consolidation in the financial sector. Indeed, many of the smaller institutions cannot deal with the increasing cost of compliance to new regulations and the rising international competition in the sector.<sup>27</sup> This was especially true for the banking sector for the 2010–2014 period and to the insurance sector for the post-2015 period (see charts 5a and 5b).

The insurance industry has replaced traditional banking services as the finance vertical with the most M&A deals. Bahrain's insurance sector has been historically vibrant with a wide range of products for both Islamic (Sharia-compliant) and traditional insurance services. The recent M&A activity is part of an industry-wide strategy to establish more significant players, with greater economies of scale, stronger balance sheets, more extensive product reach, and increased revenue streams. The industry will then be better positioned for regional competition.

The expansion of the insurance joint venture giant, Bahrain Kuwait Insurance (BKI) Co., illustrates well that phenomenon. Beginning in 2015, it started buying up minority interest stakes in Takaful International Co. BSC. The acquisition occurred in four separate transactions over two years, amounting to majority ownership for a total transaction value of US\$16.87 million. BKI used to have three reportable segments: (i) Fire and general covers risks of fire, general accident, medical, group life, and special contingency; (ii) Motor covers risks of motor third party, motor comprehensive, and extended warranty, and (iii) Marine and aviation covers risks of marine cargo, marine hull, and marine aviation. The acquisition of Takaful International introduced a fourth revenue segment, which covers risks of group life, education, protection, and savings.

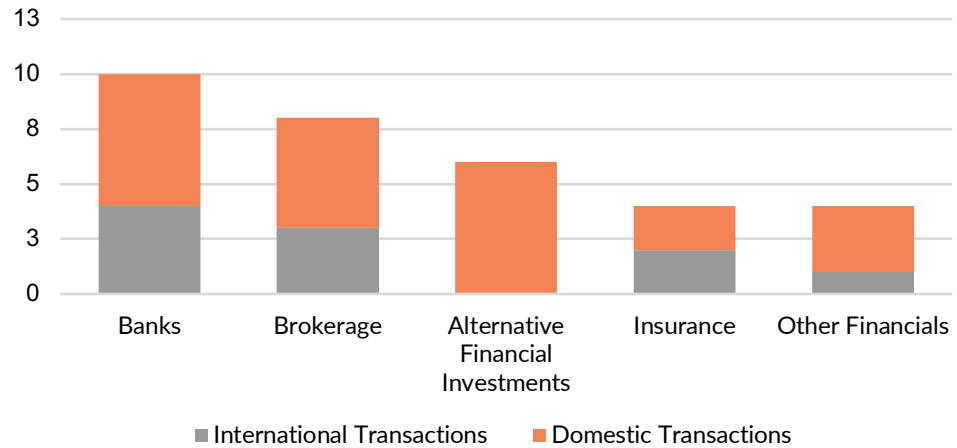
Finally, Alternative Financial Investments are in third place for both 2010–2014 and 2015–present periods, with an increasing share of international investors such as venture capital, private equity, and hedge funds.

---

27. Many of these regulations are directly linked to Basel III's requirements.

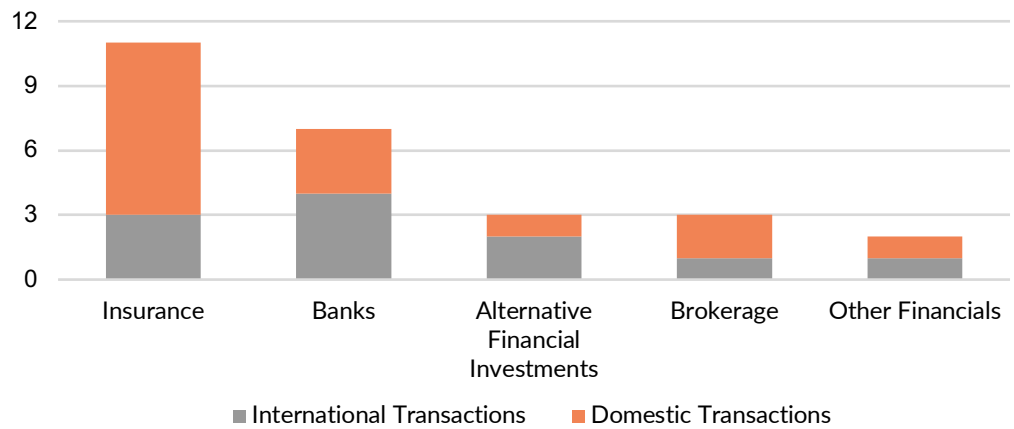


**Chart 5a : Total Number of M&A Deal per Target Industry, 2010–2014**



Source: Refinitiv Eikon, authors' calculations.

**Chart 5b: Total Number of M&A Deal per Target Industry, 2015–present**



Source: Refinitiv Eikon, authors' calculations.

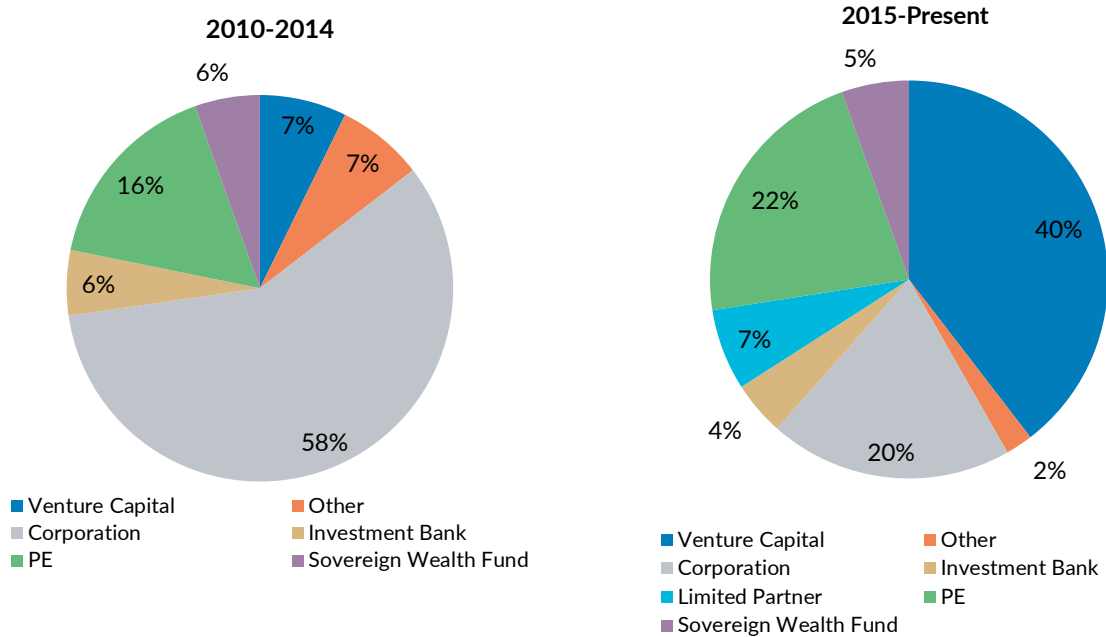


### A Closer Look at Venture Capital

The Alternative Financial Investments is the industry where foreign investors are the most active. International investors capture 67 percent of all M&A deals (see Chart 5b) and 73 percent of alternative financial investments after 2015, an increase of 10 percent when compared to the 2010–2014 period (see Chart 6).

Beyond an increase in international participation, the landscape of alternative investors gained in diversity. Corporations' share of deals decreased from 58 percent to 20 percent after 2015, while the venture capital share noticeably increased from 7 percent for 2010–2014 to 40 percent. All these deals are international, except one by the Bahrain-based accelerator Skiplino.

Chart 6: Number of Deals per Type of Investors



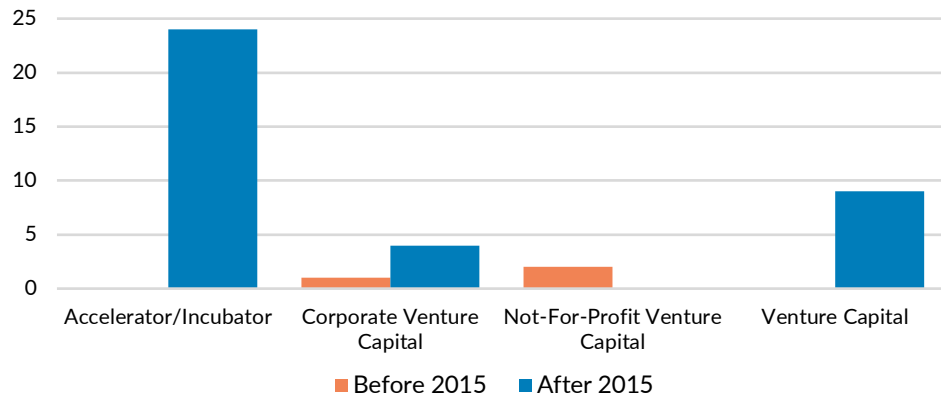
Source: Pitchbook, authors' calculations.

The post-2015 activity is also more diverse, occurring in industries such as consumer and retail, financials, health care, and services. But the majority of the venture capital activity is concentrated in the technology and telecom sector and predominantly via accelerators and incubators (see charts 7 and 8). These investors tend to focus on the early stages of entrepreneurship, providing support to founders of startups, and can be easily linked to the government efforts discussed earlier.



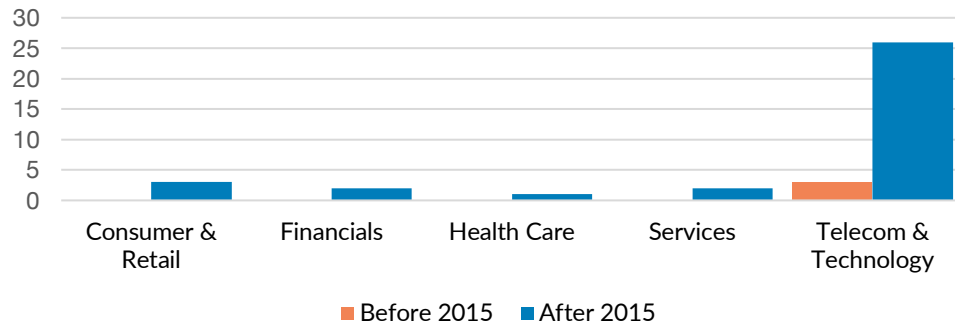
The two leading players, 500 Startups and Flat6labs, with a total of 17 deals in technology-related companies, provide a clear illustration. 500 Startups has been the most active in the MENA region by also participating in many other co-investments. Flat6Labs has previously received funds from the International Finance Corporation, a World Bank Group branch, and now has a partnership with Tamkeen to support investment in Bahrain for startups over the upcoming three years.

**Chart 7: Venture Capital Deals per Type of Investors**



Source: Pitchbook, authors' calculations.

**Chart 8: Venture Capital Deals per Industry**



Source: Pitchbook, authors' calculations.

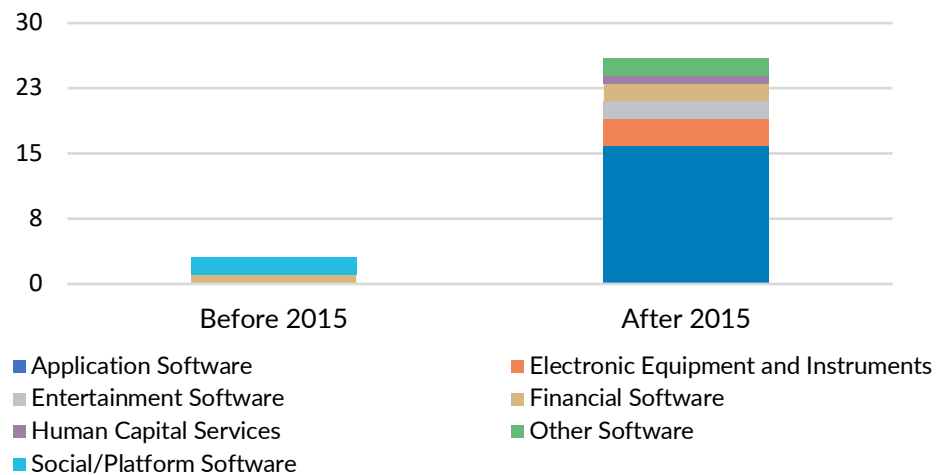




Other investors have been active in the telecom and technology industry (see Chart 10). Wa'ed Ventures, whose parent company is the oil giant Saudi Aramco, has completed three deals for a digital payment solution firm in Bahrain. Other venture capital firms, such as C5 Accelerate, BECO Capital, and Middle East Venture Partners, have received capital from the AI Waha Fund and are looking to invest in technology-related firms.

A majority of the deals in telecom and technology are related to the digitalization of industries (see Chart 9). Most VC investment focuses on firms that are providing an application or platform for restaurants, event bookings, human resources, productivity, and food ordering.

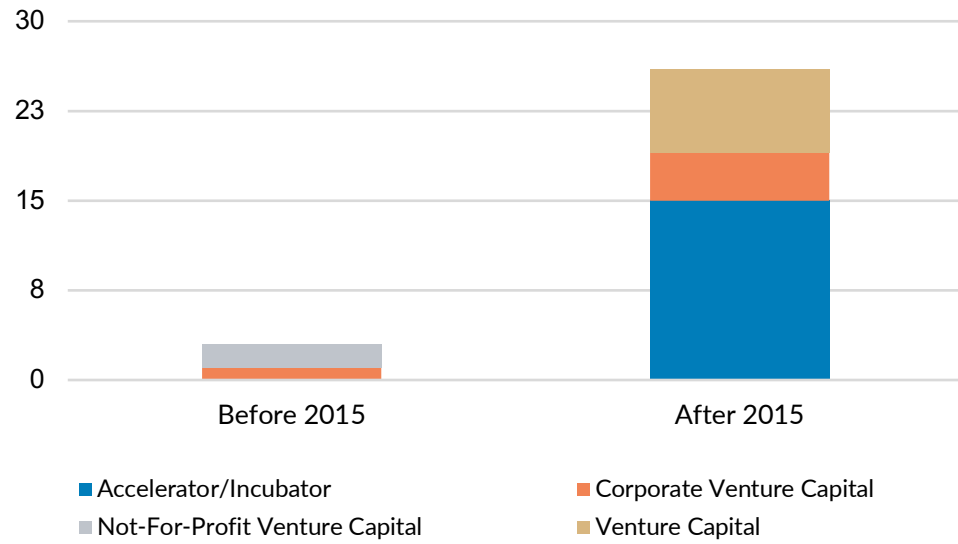
**Chart 9: Deals in the Telecom and Technology, per Sub-Categories**



Source: Pitchbook, authors' calculations.



Chart 10: Deals in Telecom and Technology, per Investor Type



Source: Pitchbook, authors' calculations.



## SECTION 4: MOVING FORWARD

Bahrain's efforts to reinforce its role in financial technology and innovation reached a significant benchmark in 2018 with the launch of the Bahrain FinTech Bay, a co-working space in Manama's distinctive Arcapita building. As a FinTech hub, it intends to attract entrepreneurs with advisory initiatives, substantial human capital, funding opportunities, and a favorable regulatory environment. Indeed, CBB has been supportive in adopting forward-looking policies with initiatives such as the implementation of a regulatory "sandbox." This framework allows FinTech firms to test products in a controlled environment and models itself on a laissez-faire regulatory environment akin to Singapore's. Since its launch in February, the hub has attracted 30 companies, with a target of 50 to 60.

Bahrain's ambition goes beyond FinTech, as it wants to become a technology and innovation hub. Hence, it continues to develop its infrastructure in technology to enable developments using Fourth Industrial Revolution-relevant technology such as artificial intelligence, 3D printing, and the internet of things.

In tandem, the government has implemented various regulatory changes to the corporate framework in an attempt to curtail investor uncertainty and exposure in the region. Some of the latest changes include a competition reform, a bankruptcy policy reform, a newly standardized 10-year investor visa, and relaxed multi-national sponsorship for skilled labor/human capital.

Bahrain's efforts to differentiate itself from its larger neighbors, highlighting its skilled population and low cost of living and running a business, plus an innovative regulatory environment, have led to positive outcomes. Some major corporations have made Bahrain their regional base. Additionally, more startups are moving there. Venture capital to support them is also on the rise. Overall, Bahrain's financial sector is becoming more diversified, especially when it comes to the type of investors.

Moving forward, the strong emphasis of the 2015-2018 Government Action Plan on startups and technology brings new challenges that may threaten the resilience of the new Bahraini economic model if not addressed.

A look at the latest data from the Labour Market Regulatory Authority helps to identify some of these potential concerns.

First, most of the firms' creation over the past eight years occurred in the micro-enterprise segment. The number of firms with fewer than 10 employees has increased by 54 percent compared to 8 percent for firms with 10 or more employees. But larger firms ended up creating significantly more jobs. For the same period, larger enterprises produced on average 130 jobs compared with three jobs for a micro firm.



Second, the public sector represents 10 percent of the jobs but offers wages that are 70 percent higher than in the private sector.<sup>28</sup> Bahrainis make up 85 percent of the public employment and 21 percent of the overall labor force. While there are active efforts to provide the local population with access to training and to increase the participation of women, Bahrain's size will not allow the country to satisfy the private sector's growing needs for highly skilled workers.<sup>29</sup>

The ongoing digitalization of the economy makes opening a new firm cost-effective and provides a set of technical options that would not be available to smaller firms in a traditional environment. But the transition for an existing firm can be costly and, depending on its size, can threaten its survival.

Most of the existing Bahraini firms are small and may find the transition to a digital economy with its new requirements challenging. Depending on the industry, consolidation via merger and acquisition may be the solution, as seen in the financial services, but for other industries, there may be a social benefit in keeping smaller businesses open.

Moving forward, the following steps may help to alleviate these challenges by:

- Assisting micro firms to grow in size
- Facilitating access to international talent
- Ensuring that wages in the private sector are competitive
- Educating smaller firms on the existing services that can help them transition to the digitalization of the economy

Finally, Bahrain's economic transition relies on GCC countries' ability to transition their economy away from oil. In the shorter term, the report shows that Bahrain depends on them for investment. On a longer-term perspective, its goal of becoming a hub of technology, innovation, and talent for the region will require a coordinated regional effort, leveraging each country's strengths.

---

28. It is worth noting that many current jobs in the private sector are in the construction sector where the wages tend to be low requiring low skills employees.

29. According to the World Bank, 39 percent of the women work in Bahrain, which is relatively high for the Middle East and North Africa region, where an average of only 22 percent of women work.



## REFERENCES

- Bank for International Settlements. Committee of Payments and Markets. "Payment, Clearing and Settlement Systems in the Kingdom of Bahrain." January 2017.
- Bahrain Labour Market Indicators, 2019 Q2.
- Buller, Alicia. "Bahrain Plans to Create a World-leading Tech Ecosystem." *Computer Weekly*. January 2019.
- CEIC Global Economic Data—Bahrain Foreign Direct Investment. Percentage of GDP.
- Domat, Chloe. "Bahrain: Back on the Map." *Global Finance Magazine*. July 2019.
- England, Andrew. "Foreign Investment Rebounds for Bahrain, State Touts Five Sectors." *Financial Times*. October 2018.
- Global Entrepreneurship Conference. "Member Spotlight: Small, Mighty, Global Bahrain by Startup Genome." February 2019.
- Kallanish Energy. "Bahrain to Allow 100% Foreign Ownership." June 2019.
- Kingdom of Bahrain eGovernment. Cloud First Policy, National Enterprise Architecture.
- Kingdom of Bahrain eGovernment. eGovernment Strategy Summary. 2007-2019.
- Labour Market Regulatory Authority. "What is the Parallel Bahrainisation System?"
- Lloyd, Ainsley, Zoltán J. Ács, and László Szerb. "Global Entrepreneurship Index 2018." The Global Entrepreneurship and Development Institute. 2018.
- Ministry of Industry, Commerce, and Tourism—Kingdom of Bahrain. Corporate Governance.
- Saad, Khalid. "Bahrain FinTech Regulations Report 2019." Bahrain FinTech Bay. 2019.
- Santosdiaz, Richie. "Seven Gulf Cities That Aspire To Be Tech Hubs." *Arabian Gazette*. January 2019.
- The Telecommunications Law of the Kingdom of Bahrain—legislative decree no. 48 of 2002 promulgating the telecommunications law.
- Trade Arabia. "AI Academy Launched at Bahrain Polytechnic." April 2019.
- Zahn, James X. "World Investment Report 2019—Special Economic Zones." June 2019.
- Zmudzinski, Adrian. "Bahrain's Central Bank Issues New Cryptocurrency Regulation." *CoinTelegraph*. February 25, 2019.



## APPENDIX

### Appendix 1: Institutions Part of the Support System for SMEs and Startups<sup>30</sup>

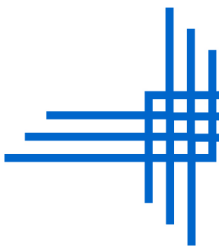
Start-up Incubators and Accelerators		
Institution	Founded in	Website
Bahrain Business Incubator Centre	2003	<a href="http://www.bbicbahrain.com/">www.bbicbahrain.com/</a>
Bahrain Fashion Incubator	2016	<a href="http://www.bahrainfashionincubator.com">www.bahrainfashionincubator.com</a>
C5 Accelerate	2014	<a href="http://www.c5accelerate.com">www.c5accelerate.com</a>
Family Bank	2009	<a href="http://www.familybankbh.com">www.familybankbh.com</a>
Riyadat	2010	<a href="http://www.riyadat.com.bh">www.riyadat.com.bh</a>
Rowad	2016	<a href="http://www.rowad.co">www.rowad.co</a>
Rukn.me	2013	<a href="http://www.rukn.me">www.rukn.me</a>
Other Initiatives		
Al Waha Fund of Funds	2019	<a href="http://www.alwahafund.com/">www.alwahafund.com/</a>
Anginvest Ventures	2017	<a href="http://www.anginvestventures.com/">www.anginvestventures.com/</a>
Bahrain FinTech Bay	2018	<a href="http://www.bahrainfintechbay.com/">www.bahrainfintechbay.com/</a>
Sijili (Virtual Commercial Registration)	2017	<a href="http://www.moic.gov.bh/en">www.moic.gov.bh/en</a>
Tenmou	2015	<a href="http://www.tenmou.me/">www.tenmou.me/</a>

<sup>30</sup>. Compiled by the authors.



## Appendix 2: Main Legislative and Regulatory Changes

Policy/Regulation Implementations	Date Enacted	Relevant Agencies	Policy Overview
e-KYC	September 2019	Central Bank of Bahrain, FENERGO, BENEFIT	Financial institutions are required to onboard corporate customers on BENEFIT and complete KYC and anti-money laundering compliance procedures.
Law No. 30 of 2018—Personal Data Protection Law	August 2019	Personal Data Protection Authority	Regulates transferring data outside Bahrain, personal data processing without consultation, and securing data properly.
Law No. 31 of 2018—Competition Law	February 2019	Ministry of Industry, Commerce, and Tourism	Prohibition of restricting competition, such as a market monopoly or manipulating prices in ways that are detrimental to other competitors.
Value Added Tax (VAT)	January 2019	Cooperation Council for the Arab Gulf States	A 5 percent standard effective VAT rate applied across all six GCC countries and imposed on imports and at different stages of rebates on exports.
Law No. 22 (2018)—Reorganization and Bankruptcy Law	December 2018	Judiciary of Bahrain—Civil Law Courts	A transparent insolvency regime, which emphasizes the restructuring of the debtor while allowing the continuation of its business during the administration of a case.



Policy/Regulation Implementations	Date Enacted	Relevant Agencies	Policy Overview
Edict 74/2007—Introduction of the 10-year investor (self-sponsorship) Visa	June 2018	Ministry of the Interior, Central Bank of Bahrain	Foreign investors will be able to obtain a 10-year, renewable residency permit on a self-sponsorship basis.
Law No. 23 (2018)—Health Insurance Law	June 2018	Supreme Council of Health, House of Representatives	Health insurance to people related to Bahrainis, spouses of Bahrainis, children of Bahraini mothers, GCC nationals, and domestic workers they employ.
IFRS 9	January 2018	Central Bank of Bahrain	International accounting standards 9 (IFRS 9) for financial statements for SMEs and banks.
Bahrain Trade Service Platform	October 2017	Bahrain Bourse, Central Bank of Bahrain	Online trading platform powered by Mubasher, endorsed by BHB and KHCB
Work Visa	July 2017	Labour Market Regulatory Authority	Two-year renewable work permits, Flexi Permit.
Bahrain Clear	July 2017	Bahrain Bourse, Central Bank of Bahrain	In charge of establishing and managing operations of systems of deposits, securities transactions, and derivatives.
Bahrain Investment Market	March 2017	Bahrain Bourse, Central Bank of Bahrain	Companies must coordinate with a sponsor in the listing process to implement global standards (IFRS and AAOIFI) and close the financial gap.





Policy/Regulation Implementations	Date Enacted	Relevant Agencies	Policy Overview
Law No. 23 (2016)—Trusts Law	November 2016	Central Bank of Bahrain	Provides protection in pension trusts, securitization trusts, investment vehicles, ensuring proper administration, and beneficiary protection.
Law No. 22 (2016)—Protected Cell Companies	November 2016	Central Bank of Bahrain	Strengthens investors' rights by introducing protection to each cell company and limited liability.
Law No. 18 (2016)—Investment Limited Partnership (ILP) Law	September 2016	Central Bank of Bahrain	ILP allows investments without taking an active role in management or exposure to liability exceeding the contribution to the investment fund.
Decree No. 21 (2001)—Commercial Companies Law	January 2002	Ministry of Industry, Commerce, and Tourism	Companies allowed 100 percent foreign ownership in selected sectors.



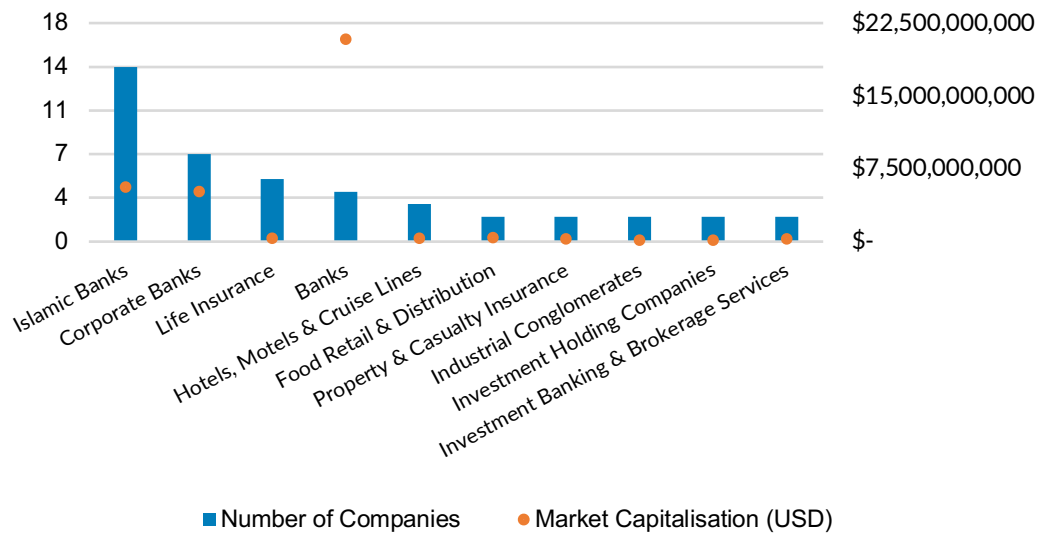
### Appendix 3: Capital Markets

Out of the 57 public companies operating in Bahrain, 43 trade domestically on the Bahraini Capital Markets stock exchange called the Bahrain Bourse. The Bahrain Bourse (BHB) was established as a shareholding company in 2010 to replace the antiquated equity dealer system Bahrain Stock Exchange established in 1987.

It has grown in the number of listed securities with 43 equities at a US\$26 billion market capitalization, 21 bonds (both conventional and Islamic) and treasury bills, and 17 mutual funds currently listed. Trading is carried out through 11 securities brokers active in the market, and day-to-day trading takes place through the Automated Trading System and the Bahrain Clear (BHC).

BHC is a fully owned subsidiary of Bahrain Bourse, which was incorporated in Bahrain on July 17, 2017, and licensed by the CBB as a Clearing, Settlement, and Central Depository System. BHC is engaged in managing the shareholder's share book of listed companies and registering members to the Central Depository System for the purpose of trading, as well as providing securities services to the custodian.

**Chart 11: Bahraini Public Companies**



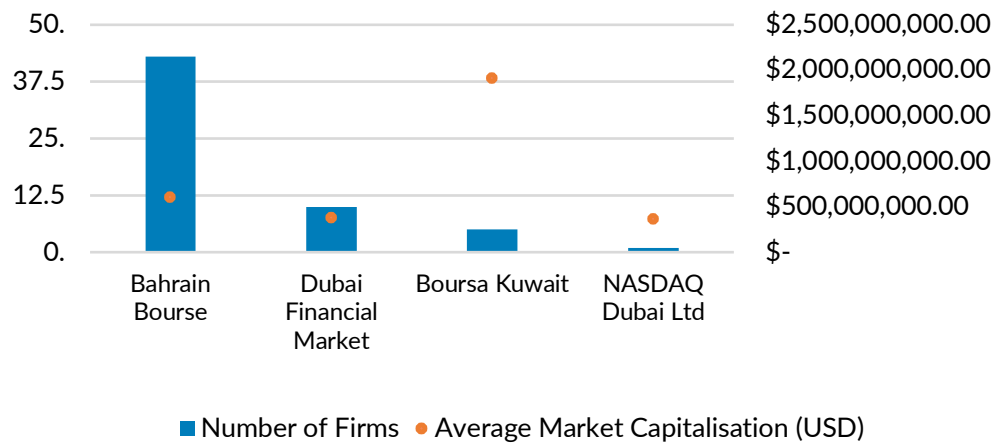
Source: Refinitiv Eikon, Pitchbook, authors' calculations.

The companies not listed locally are listed on competing exchanges Dubai Financial Market or the Boursa Kuwait. There are 10 Bahraini companies listed on the Dubai Financial Market, all within the financial services sector either in insurance or banking, with an average market cap of US\$370 million.



There are five Bahraini companies listed on the Boursa Kuwait, all within the financial services sector, and boasting an average market cap of almost US\$2 billion. While it seems to be that larger companies by market cap choose to list on larger and more active stock exchanges in the GCC region, the Bahrain Bourse has taken active measures to entice Bahrain companies to list locally.

**Chart 12: Exchange Listings of Bahrain Companies**



Source: Refinitiv Eikon, Pitchbook, authors' calculations.

The Bahrain Bourse has launched several initiatives since 2015 aimed at boosting local capital markets, including the Bahrain Islamic Index (the GCC's first Sharia-compliant index), Real Estate Investment Trusts rules, and the offering of Bahraini government bonds and treasury bills.

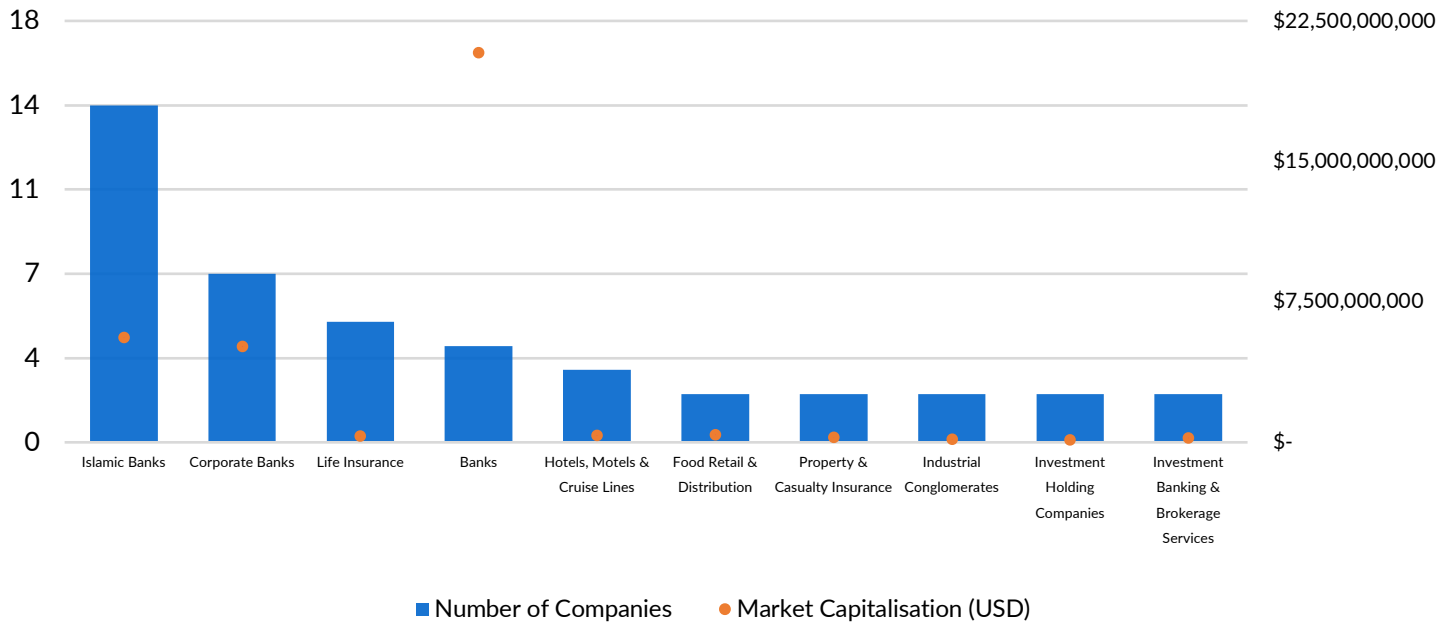
In June 2016, The Bahrain Liquidity Fund, a US\$100 million fund, was launched to inject greater liquidity into the country's stock exchange. Managed by the Securities & Investment Company investment bank, it is publicly listed on the Bahrain Bourse and is supported by several market participants. The fund acts as a "market maker" providing two-way quotes on listed equities with a reasonable spread to elicit greater trade. Restricted liquidity causes securities to trade at a discount to their underlying value and regional peers, and the Bahrain Liquidity Fund aims to help reduce that discount. By improving liquidity, the fund seeks to address one of the primary concerns that has made investing in stocks listed on Bahrain Bourse less attractive.



In March 2017, BHB and Tamkeen created the Bahrain Investment Market (BIM), an alternative equity market operated by the Bahrain Bourse that offers developing companies access to growth capital without the requirements or level of regulatory burden associated with a listing on the mainboard market. The BIM is an innovative equity market launched to enable fast-growing companies in Bahrain, the GCC countries, and the MENA region to obtain capital via direct offering. The BIM offers a more relaxed regulatory framework with more accessible admission and less stringent financial disclosure rules. It also offers access for global investors, guidance services through specialized professional advisory firms, a dedicated Tamkeen support program, and several other unique value-added benefits and features. Companies interested in listing on the BIM are required to appoint and retain the services of an authorized sponsor at all times. The authorized sponsor will be responsible for providing companies with the necessary support and guidance to fulfill the listing criteria of BIM and the financial disclosure requirements.

Predictably, financial service firms dominate the list by both companies listed and combined market capitalization.

**Chart 13: Bahraini Public Companies**



Source: Refinitiv Eikon, Pitchbook, authors' calculations.



#### Appendix 4: List of Foreign Venture Capital Companies in Bahrain

Investor Name	Investor Country HQ	Primary Investor Type
Vostok New Ventures	Bermuda	Venture Capital
Flat6labs	Egypt	Accelerator/Incubator
Brinc	Hong Kong	Accelerator/Incubator
Middle East Venture Partners	Lebanon	Venture Capital
Wa'ed Ventures	Saudi Arabia	Corporate Venture Capital
Inspire Ventures (Riyadh)	Saudi Arabia	Venture Capital
Raed Ventures	Saudi Arabia	Venture Capital
Vision Ventures (Dammam)	Saudi Arabia	Corporate Venture Capital
FasterCapital	United Arab Emirates	Accelerator/Incubator
BECO Capital	United Arab Emirates	Venture Capital
C5 Accelerate	United Kingdom	Accelerator/Incubator
John S. and James L. Knight Foundation	United States	Not-For-Profit Venture Capital
500 Startups	United States	Accelerator/Incubator



## ACKNOWLEDGMENTS

Claude Lopez wants to thank the representatives from the following authorities and organizations for insightful discussions that helped framing this report: Bahrain Development Bank, the Central Bank of Bahrain, the Bahrain Economic Development Board, the Information and eGovernment Authority, the Labor Market Regulatory Authority, the Ministry of Finance and National Economy, the Ministry of Industry, Commerce and Tourism, the Ministry of Transportation & Telecommunications, Tamkeen, Action Global Communication, Almoayed Technologies, Bahrain Polytechnic, BFG International, Fintech Bay, Harbour Investment Holding, and SICO. The authors would like to thank Nada Azmi, Keith Savard, Jonathon Adams-Kane, Jakob Wilhelmus and Bill Lee for their useful comments.

Although this report is partially funded by the Bahrain Economic Development Board, the funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

## ABOUT THE AUTHORS

Claude Lopez is director of the international finance and macroeconomics research at the Milken Institute. Joseph Bendix and Cesar Servin are research analysts in Dr. Lopez's team.

All views expressed here are those of the authors and do not necessarily reflect those of the Milken Institute or its affiliates.