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# Financial Sector Development in Brunei Darussalam: Depth, Access, and Efficiency: A Comparative Analysis

## Abstract

Financial sector development plays an important role in promoting economic growth and welfare of the citizen of a country. On the other hand, financial sector instability or vulnerability, can adversely affect the economic growth and cause major disruptions in the country. This paper examines the financial sector development of Brunei Darussalam in terms of depth, access and efficiency during 2014-2018 based on 24 indicators. This paper starts with the examination of the role of the financial sector in the economic development and financial sector stability and reviews the major literature in this area. A discussion on the policies and strategies for the financial sector development and its regulator, Brunei Darussalam Central Bank (BDCB) and the structure of the financial sector of Brunei Darussalam are presented. Lastly, the paper discusses the major prospects and challenges faced by the banking sector as well as the recommendations. The analysis of the aforementioned indicators shows that the performance of Brunei Darussalam in terms of access to banks and financial inclusion had been, on an average, significantly better than its most peers among Association of Southeast Asian Nations (ASEAN) and Gulf Cooperation Council (GCC) countries. In terms of depth and intermediation, the country, however, remained lower throughout the study period compared to its most ASEAN and GCC countries. The efficiency of banking sector, on an average, remained at a moderate level with most indicators lower compared to several ASEAN and GCC peers. There is a scope for further financial sector development through enhancing depth and efficiency of the banking sector and the development of efficient bond and stock markets. This could bring significant benefits for Brunei Darussalam including enhanced growth.

JEL-Codes: G200, D530, O160, E440, G210, G320.

Keywords: banking and financial sector development and indicators, economic growth, financial stability, financial depth, access and efficiency, Brunei Darussalam, ASEAN and GCC countries, fintech companies.

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## 1. Introduction

During the past three decades, Asia, including Brunei Darussalam had been significantly integrated with the major world markets through the formation of greater trade and investment linkages, which have been driven by market-led integration. Most Asian economies, particularly East Asian economies integrated themselves with the world markets, particularly markets of advanced economies through a strategy of economic development based on export orientation, and integration into Asian and International value chains and production network. Consequently, the financial sectors of Asia have also witnessed increased integration and flow of cross-border funds. This rapid economic and financial sector integration produced enormous benefits as well as caused economic and financial instability and even crises through the contagion effect from the crisis and instability originating in other regions.

Financial sector development plays a major and critical role in facilitating economic growth and welfare of the citizen of a country. Financial sector instability or vulnerability, however, can significantly deter growth and cause major disruptions.

Brunei Darussalam is a small, relatively open economy and has one of the highest standards of living amongst its ASEAN partners (next to Singapore) with an estimated per capita income of over US$31,437 in 2018. The main challenge to Brunei's economy arises from its continuing high dependence on oil and natural gas which may cause volatile government revenues arising out of the energy price instability. Brunei Darussalam needs to prepare for the depletion of oil and gas resources through achieving sustained growth in the non-oil and gas and private sector, especially financial sector with rapid economic diversification. ` `

Brunei Darussalam, is an open economy with a small geographic area (with a total area of 5,765 square kilometres, around 80% of it forested) and a small size of population (with an estimated 2018 population of 434,076) faces Consequently, its financial sector is small in size. However, its financial sector is strong with presence of both Islamic and conventional banks, insurance companies; investment management and advisory companies as well as foreign financial institutions. The Islamic bank and the Islamic trust fund accounted for 65.1% of total banking sector's assets, 65.6% of deposits, and 60.8% of loans/financing in 2019 (AMBD, 2020). This is a distinguishing feature that makes its banking sector unique in Asian banking. The banking sector has been going through some significant changes in recent times, such as consolidation of banks since 2005 leading to fewer strong banks and exit of some international banks. At present, the banking sector is sound and resilient with high levels of liquidity, adequate capital adequacy ratios (CAR) and manageable levels of non-performing loans (NPLs).

Households and businesses are highly dependent on the banking sector for financing and hence the sector accounted for 83.3% of the financial sector's assets.

There is a need for developing a bond or stock market for alternative financing. Brunei Darussalam is also developing a securities or stock market. This will promote regional integration with other ASEAN economies and financial markets as well as facilitate more local and foreign investment opportunities.

The Brunei Currency Board was established on June 12, 1967 for the supervision of the financial sector and management of the Brunei Dollar as the new currency replacing the Malaya and British Borneo dollar. Subsequently, on 1 February, 2004, the Brunei Currency Board was dissolved and rechartered under the new name the Brunei Currency and Monetary Board. In 2011, the Monetary Authority of Brunei Darussalam (*Autoriti* Monetari Brunei Darussalam) to replace the Brunei Currency and Monetary Board.

In 2016, the monetary authority of Brunei Darussalam, namely Autoriti Monetari Brunei Darussalam (AMBD) developed the Financial Sector Blueprint (FSBP), 2016-2025, a roadmap and strategic framework to develop Brunei Darussalam's financial services sector into one of

Asia's most competitive and innovative hubs. The successful implementation of the above roadmap will facilitate the achievement of the objectives of long-term development plan, better known as Wawasan Brunei 2035 which aims to diversify its economy away from the oil and gas sector by placing greater emphasis on the development of local businesses. This FSBP, in particular, supports Brunei Vision 2035's third goal of transforming Brunei Darussalam into a dynamic and sustainable economy which delivers a level of income per capita within the top 10 nations in the world.

In recent years, the world economy and financial markets faced several major risks, such as: (i) volatile and low oil and gas prices; (ii) trade war between the United States (US) and China; (iii) elevated risks for emerging markets economies and their financial markets; (iv) a disorderly Brexit deal; (v) continuous tightening of US interest rates; (vi) a slowdown in global economic growth, particularly in China; Germany and Italy. (vii) vulnerability in the banking sector in Europe, (viii) weak global stock markets; and continued geopolitical tensions, particularly in the Middle East. These risks made the global economy and financial markets, including Brunei Darussalam vulnerable.

Effective 26 June, 2021, AMBD is renamed as Brunei Darussalam Central Bank (BDCB).

In 2020, world economies have been severely affected as a result of rapid spread of the ongoing COVID-19 pandemic. As a result of this crisis, the global economy is expected to contract by 4.9% in 2020, compared to just a 0.1% decline in 2009 during 2008-2009 global financial crisis. The GDP of emerging and developing Asia is expected to decline by 2.2% in 2020, compared to the 7.6% expansion in 2009 and average annual growth of 7.0% in the previous decade[1]. Asian economies (including Brunei Darussalam) and their financial sectors are facing downside risk, particularly increased credit default risk, decreased credit demand and low profitability in near future.

On 14 Nov 2020, 15 Asian nations, including Australia, New Zealand, China, Japan and Korea and the 10 members of the Association of Southeast Asian Nations (ASEAN) signed the Regional Comprehensive Economic Partnership (RCEP). This agreement is so far the largest trade pact covering 2.2 billion people with a combined GDP of USD 26.2 trillion. It is expected to boost pandemic-weakened economies by reducing tariffs, strengthening supply chains with common rules of origin, and codifying new e-commerce rules. The major benefits of this agreement include a tariff elimination of at least 92% on traded goods among participating member countries, as well as stronger provisions to address non-tariff measures, and enhancements in areas which include online consumer and personal information protection,

[1] International Monetary Fund, 2020, World Economic Outlook, sourced from Haver Analytics on July 13.

transparency and paperless trading[2]. This agreement is expected to enhance economic integration and growth of this region which will cause increased integration among the financial sectors of the participating member countries, including Brunei Darussalam. This will bring more opportunities and benefits for the economy and the financial sector of Brunei Darussalam. At the same time, as the financial sectors will be more integrated in this region, this may create challenges such as increased vulnerability and instability and transmission of the instability from one-member country to another through the contagion effect.

In view of the above, it is of utmost importance to examine at this juncture the trends in the financial sector development in Brunei Darussalam, and the emerging prospects and challenges faced by the sector. This paper examines the financial sector development of Brunei Darussalam in terms of depth, access and efficiency during 2014-2018 based on 24 indicators and discusses the major prospects and challenges faced by the banking sector and provide recommendations. This article will mainly focus on the banking sector as it accounts for the major portion (82.5%) of total financial system's assets of Brunei Darussalam.

The section 2 examines the role of the financial sector in the economic development and financial stability and summarizes findings of the literature on the relationship between financial sector development and economic growth. The section 3 discusses policies and strategies for financial sector development in Brunei Darussalam**.** The fourth section presents the structure of the financial sector of Brunei Darussalam. The banking sector development during 2014-2018 is analysed in the section 5 in terms of depth, access and efficiency. The section 6 presents the major prospects and challenges faced by the banking sector and provide recommendations to utilize the prospects and address the challenges. The last section presents the concluding remarks.

## 2. Role of Financial Sector in the Economic Development and Financial Stability

The major goals of the financial sector, particularly the banking sector include the promotion of monetary and financial stability conducive to the sustainable growth of the economy. In this regard, banks can play an important role to create a progressive, efficient and inclusive financial sector. By ensuring continuous financial stability, providing adequate finance to businesses and households through effective, inclusive and efficient financial intermediation, banks can promote economic growth and development.

For assessing financial stability of a country, there is a need to define financial stability or instability or stress. However, there is no universally accepted definition of what constitutes financial vulnerability or stress. Financial stress occurs when the financial sector is under strain and its ability to intermediate may be impaired. The stress is usually associated with internal and external imbalances and is characterized typically by:

i. Large shifts in asset prices; for example, some financial institutions or assets suddenly lose a large part of their value;
ii. An abrupt increase in financial risk/uncertainty;

[2] Heijmans, Philip and Nguyen Xuan Quynh, 2020, Asia Pacific Nations Sign the World's Biggest Trade Deal**,** 14 November, https://www.bloomberg.com/news/articles/2020-11-15/asia-pacific-nations-sign-the-world-s-biggest-trade-deal

iii. Abrupt shifts in liquidity situation such as increased liquidity risk;
iv. Sudden weakness in the health of the banking system or in major banks such as increased credit risks and capital adequacy risk; and
v. Associated with internal and external imbalances (Bhattacharyay, 2009).

Many studies have concluded that the financial sector development can play an important role in enhancing the economic growth, strengthen resilience, and promote monetary and financial stability. The literature on the above subject have well-established that there is a two-way relationship between financial sector development and economic growth as measured by the level of per capita income. Increased financial sector development may cause higher economic growth. On the other hand, the growth of real economy can also lead to the growth of the financial sector as demand for financial services grow from the real sector.

Sahay et. al (2015) provided a detailed literature review of theoretical and empirical studies on the captioned subject. The conclusions of selected major studies on the above are presented in the Table 1.

**Table 1. Main Findings of the Literature Review on the Relationship between the Development of the Financial Sector and Economic Growth**

| Author/Date | Objective of the Paper | Main Conclusions/Findings |
|---|---|---|
| 1. Sahay et. al. (2015) | -To explores the effects of finance or financial sector development on economic growth.<br><br>-To examine if growth and stability can be obtained from further financial sector development in most emerging market economies using a new, and broad measure of financial sector development.<br><br>- To conduct an empirical analysis on the relationship between financial sector development and economic growth based on a sample of 128 countries. | -Sizeable impacts of improved financial intermediation on aggregate productivity and income.<br><br>-Effect of financial development on economic growth is bell-shaped as it reduces at higher levels of financial sector development. This reduction effect originates from financial deepening, rather than from greater access or higher efficiency and reflects mainly the impact of financial deepening on total factor productivity growth, instead of on capital accumulation.<br><br>-When the pace of financial development progresses rapidly, deepening financial institutions may create economic and financial instability. It promotes greater risk-taking and high leverage, in case of poor regulation and supervision.<br><br>-There is a small subset of existing large number of regulatory principles which is critical for the financial development as well as for the financial stability. This implies that there is very little or no conflict between promoting financial stability and financial development. |
| Aizenman, Jinjarak, and Park (2015) | To study relationship between the financial sector development and growth using the sector-level data for 41 economies. | This study found that financial sector development caused a rise in growth, but only up to a point, beyond which additional financial deepening could actually reduce growth. |
| Barajas, Chami, and Yousefi (2013) Nili and Rastad (2007); | To study the empirical relationship between development of financial sector | These studies found that the contribution of financial development to growth differs across regions, countries, and income levels. This indicates that general results can not applied to any country, including Brunei Darussalam. |

| | | |
|---|---|---|
| and Khan, Senhadji, and Smith (2001) | and economic growth across countries in various regions. | |
| Levine (2005) | To review theoretical models explaining the impact of financial sector development on economic growth based on endogenous growth and the various functions of the financial sector. | Theoretical models showed that major channels through which finance is expected to impact economic growth include: producing information; allocating capital to productive uses; monitoring investments and exerting corporate control; facilitating trading, diversification, and management of risk; mobilizing and pooling savings; and easing the exchange of goods and services. |
| King and Levine (1993) | To undertake the first cross-country regression analysis to test the causality from the initial level of the financial depth (size of the assets of the banking sector relative to GDP) to economic growth controlling for other explanatory variables. | -Found empirical evidence that financial deepening enhances economic growth whereas financial institutions and markets assist in better financial intermediation and resource allocation.<br>-The diversification and management of risk enhances the financial stability to the extent that deep and liquid financial systems with diverse financial instruments facilitate the mitigation of the impact of shocks. |
| McKinnon (1973) and Shaw (1973) | To study the role of the financial sector in promoting economic growth. | -Argued that obstacles to financial development (e.g. financial repression) are expected to adversely impact growth by limiting the amount of savings that could be mobilized for investment purposes, and by preventing financial intermediation from channeling these resources into the most productive activities in the economy. |
| Gole and Sun (2013) | To empirically examine the potential relationships between financial structures and economic outcomes. | -Certain financial intermediation structures are expected to be more closely related to positive economic outcomes than others.<br>-Protective financial buffers within financial institutions are associated with improved economic performance, and a financial sector dominated by nontraditional bank intermediation or by foreign banks has in some cases been associated with adverse economic outcomes, especially during the financial crisis.<br>-Positive relationship between financial buffers and economic growth may weaken above a certain, relatively high, threshold—a too-safe system may limit the available funds for credit and hence reduce economic growth. |

Source: Author and the above articles

Financial sector development usually enhances a country's resilience and stability and economic growth. However, trade-offs between economic growth and financial stability can arise. A large number of theoretical and empirical studies found that financial sector development can produce benefits through mobilizing savings, facilitate increased information sharing and better resource allocation, and promoting diversification and management of various risks. A deep and liquid financial sector can strengthen financial stability with diverse financial instruments and assist in strengthening countries' resilience to external and internal shocks. However, at the high levels of financial sector development, there could be situations when there is "too much easy finance". In this situation, the costs are more significant than the benefits of the financial sector development (Sahay et. al. 2015).

If financial instability prolongs for a long period, it can cause a financial crisis as evidenced in the financial crises of the 1982 and 1994 (Mexican and Latin American crises) and 1990s (Asian and Russian crises) and 2008 Global Financial Crisis (Bhattacharyay, 2009). The ongoing COVID-19 pandemic which started in early 2020, is causing serious instability in the financial sectors worldwide. It is, therefore, of utmost importance to examine the resilience and stability of a country at this juncture.

In order to examine the resilience and stability of a country against domestic and external shocks, it is necessary to assess its financial sector. There is a need for a comprehensive and in-depth assessment of a country's financial sector, particularly in terms of the development of the financial sector in terms of depth, access and financial inclusion and efficiency,

## 3. Policies and Strategies for Financial Sector Development in Brunei Darussalam

In recent years, the government of Brunei Darussalam has adopted several policies, strategies and reforms to develop the financial sector through long-term economic and financial sector development plans.

### 3.1 Long-term Economic Plan

Brunei's Government has developed a long-term vision up to 2035, which is known as the Wawasan Brunei 2035 or Brunei Vision 2035. Wawasan Brunei 2035 aims to turn Brunei Darussalam into a nation widely recognized for:

I. the accomplishments of its well-educated and highly-skilled people as measured by the highest international standard;
II. quality of life that is among the top 10 nations in the world; and
III. dynamic and sustainable economy with income per capita within the top countries in the world.

"The thirteen (13) strategies that have been identified under Wawasan Brunei 2035 to ensure all aspects of development are implemented accordingly and effectively are: (i) education, (ii) economy, (iii) security, (iv) institutional development, (v) local business development, (vi) infrastructure development, (vii) social security, (viii) environment, (ix) health, (x) religion, (xi) land use, (xii) infrastructure and info-communication technology, and (xiii) manpower planning"[3].

### 3.2 Long-term Financial Sector Development Plan

In 2016, Brunei Darussalam has developed a long-term 10-year financial sector development strategy, namely the Brunei Darussalam Financial Sector Blueprint (FSBP), 2016-2025. The successful implementation of the above roadmap will facilitate the achievement of the objectives of Wawasan 2035.

The FSBP is a roadmap and strategic framework to develop Brunei Darussalam's financial services sector into one of Asia's most competitive and innovative hubs. Utilizing the large

[3] Source: https://www.gov.bn/SitePages/Wawasan%20Brunei%202035.aspx

opportunities and based on the strength of Asia (the world's fastest growing region), the financial sector's contribution to GDP is expected to increase to 8% of GDP in 2025 from 6% of GDP in 2015 (AMBD, 2017).

The five pillars of the FSBP is as follows:

Pillar I: Monetary and Financial Stability;
Pillar II: Competitive and Innovative Financial Institutions and Services;
Pillar III: Robust and Modern Infrastructure;
Pillar IV: Enhanced International Integration; and
Pillar V: Human Capital Development.

According to FSBP, the long-term vision of the role of financial sector includes:

- Financial services – an enabler for growth;
- Provider of niche financial services;
- Competitive and innovative financial institutions and services;
- Development of a supportive 'eco-system'; and
- Shift from 'government dependence' to 'self-reliance.

The specific targets of FSBP include:

1. Creation of a Brunei Association of Bank's (BAB) Business Forum,
2. Bank Association of Brunei's (BAB) participation in the ASEAN Banking Council,
3. Development of the SME sector,
4. Enabling and increasing financial literacy in the country and increasing public awareness on important issues.

One of the recommendations of the FSBP is in the area of Macro-Prudential Policy: "AMBD will continue to monitor international practices in the use of macro-prudential policy, with a view, judiciously, to use macro-prudential tools to influence the rate of expansion in the financial sector, where that is considered necessary to maintain macro financial and monetary stability" (AMBD, 2016).

In order to achieve the above goals, it is necessary to maintain the stability and resilience of the financial sector of Brunei Darussalam as well as continuous development and modernization of the sector. In view of the above, AMBD is developing and implementing an effective framework for the monitoring the financial stability.

### 3.3 Monetary and Exchange Rate Policy

In addition to regulating the financial sector, the AMBD also manages the monetary policy, including the inter-changeability agreement with Singapore, under which the Bruneian dollar is inter-changeable at par with the Singapore dollar. Brunei Darussalam has a Currency Interchangeability Agreement (CIA) in place with the Republic of Singapore that was signed in 1967 (AMBD, 2017). Singapore dollars are accepted as currency in Brunei Darussalam and vice-versa, with the AMBD charged with maintaining parity between the two currencies. The monetary policy framework in Brunei Darussalam is based on a currency board system with the Brunei dollar pegged to the Singapore dollar at par.

Under the CIA arrangement, the currency board under AMBD backs up the total amount of currency issued in the economy with an equivalent amount held in reserves of the currency board. As per the Currency Order, 2004, only AMBD can issue Brunei notes and coins. Furthermore, under the Currency Order, 2004, AMBD needs to back up every note and coin issued with foreign exchange reserves to maintain confidence and stability in the Brunei dollars, and thus promote trade and investment. Due to the CIA arrangement, the monetary policy of the monetary Authority of Singapore determines monetary conditions in Brunei Darussalam. Instead of interest rate policy, Singapore uses the management of the exchange rate as its monetary policy tool. Singapore's monetary policy has been effective for the macroeconomic stability of Brunei Darussalam because its inflation has been low and stable, averaging 1.1% over during 1983–2018[4].

In view of the above, the Brunei dollar is effectively managed by the Monetary Authority of Singapore, through the management of Singapore dollar. The Brunei dollar's peg to the Singapore dollar is an appropriate, providing a credible monetary anchor and stability to the financial sector. There are no exchange controls and no forward market for foreign exchange in Brunei Darussalam.

## 4. Structure of the Financial Sector of Brunei Darussalam

Financial sector includes banks, non-banks financial institutions, stock and bond markets. The financial sector of Brunei Darussalam consists of a dual financial system, namely domestic Islamic and conventional financial institutions as well as foreign/international financial institutions. There are both Islamic and conventional banks, insurance and financing companies. The Islamic financing institutions are dominant players accounting for a major portion (61%) of total financial assets as of 2017. In 2019, the Islamic bank and the Islamic trust fund continued to account for a major portion of total banking sector's assets (65.1%), deposits (65.6%), and loans/financing (60.8%) (AMBD, 2020). This is a unique feature of Brunei's financial sector.

The main professional body of banks is the Brunei Association of Banks (BAB). "The BAB provides for the orderly conduct of banking business and activities in Brunei Darussalam. This is to protect and serve the best interest of its customers with improved and more transparent services and regulations through:

- Acting as a platform for discussion with timely framing of rules to guide member banks.
- Supporting the policies and initiatives set out by Autoriti Monetari Brunei Darussalam and other best practices.
- Collaboration with similar bodies and other related stakeholders, both locally and internationally"[5].

[4] Borneo Bulletin (2020), Shaping the future of the financial sector, January 16 https://borneobulletin.com.bn/2020/01/shaping-future-financial-sector/
[5] https://bab.org.bn/about-us/

The main professional body for the Takaful/Insurance sector is the Brunei Insurance and Takaful Association (BITA), which has both Islamic and conventional members. The objective of BITA is to:

I. lobby on behalf of the sector's takaful and insurance companies,
II. promote the industry to the public, and
III. work to ensure best practices and common standards among members.

### 4.1 Financial Sector Supervisory Authority

The central regulatory authority for the financial sector is the Monetary Authority of Brunei Darussalam, namely Autoriti Monetari Brunei Darussalam (AMBD) which is a relatively new organization, commencing its operations at the beginning of 2011. As per the decree in 2010, it was established as a statutory corporate body.

The major objectives of AMBD under the Autoriti Monetari Brunei Darussalam Order, 2010 are:

1. To achieve and maintain domestic price stability;
2. To ensure the stability of the financial system, in particular by formulating financial regulations and prudential standards;
3. To assist in the establishment and functioning of efficient payment systems and to oversee them; and
4. To foster and develop a sound and progressive financial services sector[6].

### 4.2 Brunei Deposit Protection Corporation

In addition to AMBD, under Deposit Protection Order, 2010 (DPO, 2010), a statutory body, namely Brunei Deposit Protection Corporation (BDPC) was established in 2011 to administer the deposit protection scheme. The objective of BDPC is to protect depositors against the loss of their deposit in the unlikely event the member institution (banks/finance companies) unable to meet its obligations to depositors. The major functions of BDPC are:

I. To administer a deposit protection scheme for the member institutions;
II. To provide protection against the loss of part or all of the deposits of a member institution;
III. To provide incentives for sound risk management in the financial system; and
IV. To promote or contribute to the stability of the financial system[7].

### 4.3 Sharia Financial Supervisory Board

Furthermore, since 2006, Brunei had a Sharia Financial Supervisory Board which oversee the issues of sharia compliance across the Islamic financial institutions. Centre for Islamic Banking, Finance and Management (CIBFM) was also established as an education and training arm of the AMBD for improving the standards of professionalism and innovation in the Islamic financial sector.

[6] https://www.ambd.gov.bn/SitePages/FAQs.aspx
[7] http://www.mof.gov.bn/Divisions/brunei-darussalam-deposit-protection-corporation-bdpc.aspx

### 4.4 Credit Bureau

For better access to credit information, a credit bureau was established in 2012 under AMBD to collate information on the credit-worthiness of loan applicants. The statistics provided by the bureau facilitates AMBD to monitor health of the borrower and the amount of credit being extended. The objective of the bureau is to collect and aggregate credit information from various sources and provides member banks and other institutions with references for each borrower. In 2018, AMBD introduced a credit scoring system which can promote better financing conditions in the country, through assisting lenders to better price credit risk. The provision of consumer and commercial credit scores to banks and other financial institutions can assist banks to better assess the credit risk of corporate and household borrowers and thus enhance financial stability of the sector (AMBD, 2018).

### 4.5 Financial Sector of Brunei

The components of the financial sector are as follows:

1. Banking Sector

- Conventional Commercial Banks
- Islamic Bank
- Islamic Trust operating as an Islamic bank,

2. Nonbank Financial Sectors.

- Insurance Sector-Conventional and Islamic Insurance Companies
- Conventional Financing Companies
- Islamic Financing Companies,

3. Investment Managements and Advisory Companies, and

4. Money Changer and Money Remittance Businesses.

At present, the Bruneian financial sector consists of:

a. Seven conventional commercial banks—out of which four regional/foreign banks, one international bank and two local or domestic banks (one with restricted licence);

b. One Islamic bank;

c. One Islamic Trust Fund undertaking banking activities;

d. One Islamic SME bank.

e**.** Two financing companies-out of which one conventional and one Islamic company; These two finance companies are wholly owned subsidiaries of two domestic banks;

f. Twelve Insurance Companies—out of which four Islamic companies and eight conventional companies;

g. Six offices of regional and international banks and other companies for the asset/investment management, investment advisory and corporate banking purposes only; In addition, there are other foreign banks have local offices for asset management and corporate banking activities. These include Malaysia's CIMB, France's BNP and Singapore's UOB Asset Management; and

h. There are 22 money changers and 19 money remittance businesses.

### 4.6 Bond and Stock Markets

At present, Brunei Darussalam does not have a stock and a bond market. BDCB is spearheading the project on the establishment of a stock exchange. The work is under way to establish the stock exchange, including drafting of listing and trading rules; and identifying companies that are ready to be listed in the exchange. These preparations include improving existing legislation such as the companies act, securities market order and securities market regulation, as well as disseminating information on the capital markets to various stakeholders In 2019, a budget BND 414 million for the development of the stock exchange was allocated, and this will be disbursed over the next few years to finance infrastructure, technology and socio-economic studies related to its implementation (Haris, 2020). The regulatory foundations for Brunei's first stock market are expected to be completed in near future. At present, no timeline for the launch of the stock market is available.

In March 2020, at the 15th Legislative Council Session, the second finance and economic minister informed the Legislative Council members of Brunei Darussalam that work is going on to establish Brunei's stock exchange, including the identification of companies that to be listed initially. The minster affirmed that the establishment of the stock exchange would facilitate economic growth and business development by facilitating and diversifying access to alternative financing (other than the bank loan) available for businesses in Brunei Darussalam. An active and developed stock market would promote more business opportunities with other stock exchanges in the ASEAN region. He mentioned that the stock market will adopt best practices and international standards to facilitate interconnectivity with the global financial markets with a goal to bring in international investors and businesses. The following activities are being pursued by relevant agencies in order to implement the stock exchange include:

- Strengthening existing legislation such as the Companies Act, Securities Market Order and Securities Market Regulation,
- Disseminating information on the capital market ecosystem to stakeholders.
- Preparations of listing and trading rules; and
- BND 414 million budget has been allocated for the formation of the stock exchange for , the next few years to fund infrastructure, technology and socio-economic studies related to its implementation (Haris, 2020).

### 4.7 Changes in the Structure of the Banking Sector and Non-Bank Financing Sector

The major changes in the structure of the financial sector of Brunei Darussalam since 2005 are as follows:

(i) Merger of two domestic Islamic banks in 2005, namely the Islamic Bank of Brunei, and the Islamic Development Bank of Brunei to form the largest bank, namely Bank Islam Brunei Darussalam (BIBD);

(ii) Exit of two international banks, namely Citibank in 2014 and Hong Kong and Shanghai Banking Corporation (HSBC) in 2017;

- In March 2014, the US-based Citibank exited Brunei after 41 years of banking in the country.
- After a 70-year presence since 1947, the HSBC Brunei exited Brunei Darussalam together with the closure of HSBC Finance (Brunei) Berhad, a subsidiary of HSBC Holdings plc for car hire purchase in 2017. HSBC had nine branches and 500 employees;

(iii) Closure of the retail division of one regional bank, namely United Overseas Bank Limited (UOB) in 2015. UOB sold its retail banking segment to the local Baiduri Bank on 20th October, 2015. This acquisition also includes acquiring of all assets and all retail banking services of UOB; and

(iv) Closing of international offshore activities in 2017. In the offshore sector, there are no banks licensed under the International Banking Order, 2000. Royal Bank of Canada surrendered its restricted banking license in October 2016. The last international offshore bank, Sun Hung Kai International (Brunei) Limited had exited in July 2017.

As per the notice issued on 22 December 2016, all offshore companies registered/licensed in Brunei Darussalam should wind-up and move to other jurisdictions not later than 24 December 2017. The main objective of this policy was to decrease the risk of "money laundering and financing terrorism".

(v) Several investments, asset management and advisory companies closed their business in Brunei Darussalam such as AmCapital and Amundi Asset Management; and

(v) Bank of China (Hong Kong) opened its first branch in December 2016.

The structure of the banking sector remained unchanged in 2019 with seven full-fledged banks, of which one is an Islamic bank, one Islamic trust fund, one restricted banking license and one Islamic SME bank.

Table 2 presents the structure of the financial sector in Brunei, namely banks, financing and insurance companies and investment managements and advisory companies as of 2018.

**Table 2: Structure of the Financial Sector in Brunei as of 2020**

| Name of Bank | Type of Financial Institutions | Date of Establishment | Country of Incorporation & Type of Entity | No of Branches |
|---|---|---|---|---|
| **Local/Domestic Banks** | | | | |
| 1. BAIDURI BANK BERHAD | Conventional commercial bank | January 1993 | Brunei Darussalam; (Incorporated under Companies Act) | 13 branches including headquarter |
| 2. BANK ISLAM BRUNEI DARUSSALAM (BIBD) BERHAD | Islamic Bank | February 2005 | Brunei Darussalam; (Body corporate) | 15 branches including headquarter |

| | | | | |
|---|---|---|---|---|
| 3. PERBADANAN TABUNG AMANAH ISLAM BRUNEI BERHAD (TAIB) | Islamic Trust Fund undertaking banking business | October 1991 | Brunei Darussalam; (Body corporate) | 8 branches including headquarter |
| **Regional and International Banks** | | | | |
| 4. RHB BANK BERHAD | Conventional commercial bank | 1964 | Malaysia; (Registered under Companies Act) | 1 headquarter/ branch |
| 5. STANDARD CHARTERED BANK | Conventional commercial bank | April 1958 | United Kingdom; (Registered under Companies Act) | 7 branches including headquarter |
| 6. STATE STREET (BRUNEI) SDN. BHD. (Restricted Banking License) | Conventional commercial bank undertaking Custodian Service in Brunei | 2011 | Brunei Darussalam; (Incorporated under Companies Act) | 1 headquarter / branch |
| 7. UNITED OVERSEAS BANK (UOB) LIMITED | Conventional commercial bank undertaking Corporate Banking in Brunei | 1974 | Singapore; (Registered under Companies Act) | 1 headquarter/ branch |
| 8. BANK OF CHINA (HONGKONG) LIMITED | Conventional commercial bank | April 2016 | Hong Kong; (Registered under Companies Act) | 1 headquarter/ branch |
| 9. MALAYAN BANKING BERHAD (MAYBANK) | Conventional commercial bank | 1960 | Malaysia; (Registered under Companies Act) | 2 branches including headquarter |
| 10. BANK USAHAWAN | Islamic Bank undertaking financing to MSME only | 2017 | Brunei Darussalam (incorporated under Companies Act) | 3 branches including headquarter |
| **Non-Bank Financing Companies** | | | | |
| 1. BAIDURI FINANCE BERHAD | Conventional Finance Companies | 1996 | Brunei Darussalam; (Incorporated under Companies Act) | 2 branches including headquarter |
| 2. BIBD AT-TAMWIL BERHAD | Islamic Finance Companies | 2005 | Brunei Darussalam; (Incorporated under Companies Act) | 2 branches including headquarter |
| **Investment Managements and Advisory Companies** | | | | |
| 1. CIMB Investment Bank | Investment Advisor | | Malaysia (Registered under Companies Act) | One Branch |
| 2. BNP Paribas Asset Management | Investment Advisor | | France (Registered under Companies Act) | One Branch |

| | | | | |
|---|---|---|---|---|
| 3. UOB Asset Management | Investment Management and Advisor | | Singapore; (Registered under Companies Act) | One Branch |
| 4. Lion Global Investors (A subsidiary of the Oversea-Chinese Banking Corporation Limited (OCBC) Group) | Investment Advisor –a Shariah-compliant private equity firm | 2008 | Singapore; (Registered under Companies Act) | One Branch |
| 5. SBI (B) Sdn Bhd | Investment Advisor | | Brunei Darussalam; (Incorporated under Companies Act) | One Branch |
| 6. Seri Venture Capital Management Sdn Bhd | Investment Advisor | | Brunei Darussalam; (Incorporated under Companies Act) | One Branch |
| **Insurance Sector** | | | | |
| Name of the Takaful/Insurance Company | Classification | Date of Establishment | Relation to other Companies | Country of Incorporation & Type of Entity |
| 1. AIA Company Limited | Life Insurer | 11/7/1923 (registered on 7/2/2007) | A branch of AIA Group Limited | Hong Kong |
| 2. Audley Insurance Company Sdn Bhd | General Insurer | 30/10/1996 (registered on 07/02/2007) | A subsidiary of Brunei Investment Agency (BIA) | Brunei |
| 3. The Great Eastern Life Assurance Company Limited | Life Insurer | 19/03/1975 (registered on 19/05/2009) | A subsidiary of Great Eastern Holdings Limited | Singapore |
| 4. Insurans Islam TAIB Family Takaful Sdn Bhd | Family Takaful Insurer | 30/07/2013 | A Subsidiary of TAIB | Brunei |
| 5. Insurans Islam TAIB General Takaful Sdn Bhd | General Takaful Insurer | 30/07/2013 | A Subsidiary of TAIB | Brunei |
| 6. MBA Insurance Company Sdn Bhd | General Insurer | 25/04/2007 | | Brunei |
| 7. National Insurance Company Berhad | General Insurer | 24/12/1969 (registered on 23/06/2007) | | Brunei |
| 8. Standard Insurance Sdn Bhd | General Insurer | 1995 (registered on 17/07/2010) | | Brunei |
| 9. Takaful Brunei Am Sdn Bhd | General Takaful Insurer | 22/02/2002 (registered on 18/10/2012) | A subsidiary of Takaful Brunei | Brunei |

| | | | | |
|---|---|---|---|---|
| 10. Takaful Brunei Keluarga Sdn Bhd | Family Takaful Insurer | 22/02/2002 (Registered on 18/10/2012) | A subsidiary of Takaful Brunei | Brunei |
| 11. Tokio Marine Insurance Singapore Ltd | General Insurer | 11/7/1923 (Registered on 11/3/2009) | A branch of Tokio Marine Singapore | Singapore |
| 12. Tokio Marine Life Insurance Singapore Ltd | Life Insurer | 21/05/1948 (Registered on 22/11/2010) | A branch of Tokio Marine Singapore | Singapore |

Source: AMBD (2017) and AMBD (2020)

## 5.0 Trends in the Development of the Banking Sector in Brunei Darussalam

This section examines the trends in the development of the banking sector in Brunei Darussalam during 2014-2018 using multiple indicators.

Financial development of a country can be defined as a combination of:

- Depth—the size and liquidity of financial markets,
- Access and financial inclusion –ability of individuals and companies to access financial services; and
- Efficiency— the ability of financial institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets (IMF, 2019).

As Brunei Darussalam does not have any bond or stock market and the banking sector accounted for 83.3% of the financial sector's assets, this section focuses on the banking sector development. However, analysis of the ratio of bond financing to GDP and stock market capitalization to GDP can reveal the adequacy of a country's bond market and stock market to the size of its economy.

Establishing a causality relation empirically from financial sector development to economic growth remained challenging**.** A majority of the empirical literature since the 1970s used the ratio of private credit to GDP, and to a lesser extent, stock market capitalization as a ratio to GDP as a proxy of financial sector development. However, in view of the diversity and heterogeneity of financial sectors across countries worldwide, there is a need to use multiple indicators to measure the level of the financial sector development (Sahay et. al., 2015).

A single indicator, such as private credit to GDP ratio as a proxy for banking sector development cannot adequately measure the various dimensions of the development of the banking sector of Brunei Darussalam.

Based on the availability of the time series data on the banking sector of Brunei Darussalam, the following 24 indicators are considered to examine the trends in the development of the banking sector in terms of depth, access and financial inclusions; and efficiency. These indicators are presented below in percentage (%) or percentage changes year to year (y-o-y).

**Depth of the Banking Sector**

Depth of the financial sector of Brunei Darussalam will be measured by the following nine indicators:

1. Asset and Its Percentage Change (y-o-y),
2. Assets/Nominal GDP (%),
3. Deposits and Its Percentage Change (y-o-y),
4. Deposits/ Nominal GDP (%),
5. Credit and Its Percentage Change (y-o-y),
6. Credit/ Nominal GDP (%),
7. Private Sector Credit and Its Percentage Change (y-o-y),
8. Private Sector Credit/Nominal GDP (%), and
9. Credit to Deposits Ratio (%).

Domestic credit/financing to private sector refers to financial resources provided to the private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable.

**Financial Access and Financial Inclusion of the Banking Sector**

Financial access and financial inclusion will be measured by the following 10 indicators:

1. Number of Deposit Accounts,
2. Number of Deposit accounts per 1000 Adults,
3. Number of Loans/Financing Accounts,
4. Number of Credit/Financing Accounts per 1000 Adults,
5. Number of Accounts per 1000 Adults,
6. Number of Banks,
7. Number of Bank Branches per 100,000 Adult Population,
8. Number of Bank Branches per 1000 KM Square,
9. Number of ATM, and
10. Number of ATM per 100,000 adult population.

**Efficiency of the Banking Sector**

On the other hand, the efficiency will be measured by the following 5 indicators:

1. Return on assets,
2. Return on equity,
3. Non-Interest Expense to Gross Income (Efficiency Ratio),
4. Net interest margin, and
5. Lending-deposits spread.

## 5.1 Trends in the Depth of the Banking Sector: A Comparative Analysis

Brunei Darussalam witnessed significant contraction in the economy as measured by nominal GDP during 2014-2018 and moderate growth during 2017-2018. As a result, per capita GDP (at current prices) declined by 22.2 % from BND 53,149 in 2014 to BND 41,367 in 2018. These contractions affected the financial sector development. With the second-highest GDP per capita among all ASEAN countries, Brunei Darussalam still remains one of the most advanced economies in the south-east Asian region.

Table 3 presents the trends in the depth of the banking sector of Brunei Darussalam during 2014-2018. The major findings of the analysis of Table 3 are as follows:

- In terms of banking development, banking sector's depth and intermediation remained lower throughout the study period compared to most ASEAN and GCC countries as reflected in low asset, deposit and loans/financing as well as the credit to private sector ratio relative to nominal GDP and credit to deposit ratio.
- Bank asset to GDP ratio has been comparatively low hovering between 86.0% in 2014 to 114.0% in 2016 with contraction in total volume of assts in 2014, 2015, and 2017. In 2017, the indicator was 104.4% compared to Singapore (151.7%), Qatar (150.0%), Thailand (139.0%), Viet Nam (137.4%), Malaysia (131.9%), UAE (109.7%), and Kuwait (108.6%)[8].
- In terms of deposit mobilization, bank's performance has been modest as deposit to GDP ratio ranged between 74% in 2014 to 96% in 2016 with contraction in total volume of deposits in 2014, 2015, and 2017. This ratio was 83.8% in 2017 lower than Thailand (126.1%), Singapore (121.6%), Malaysia (113.4%), Kuwait (95.3%), and Qatar (88.5%).
- The performance of banks in Brunei Darussalam in terms of depth and intermediation has been poor and limited compared to peers in ASEAN economies and Gulf Cooperation Councill (GCC) member countries as reflected:
    - Very low credit/financing to GDP ratio (from 26.0% in 2014 to 34.0% in 2015) with contraction in volume of credit in 2016 and 2017;
    - Very low private credit/financing to GDP ratio (from 24.6% in 2014 to 32.7% in 2016) with contraction in volume of private credit in 2016, 2017 and 2018;
    - In 2018, private credit/financing to GDP ratio was 25.8% much lower than Viet Nam (133.1%), Malaysia (120.4%), Singapore (118.9%), Thailand (112.2%), Cambodia (99.4%), Kuwait (89.3%), Qatar (76.9%), UAE (73.3%), Oman (70.5%), Philippines (47.6%), and Indonesia (32.7%)[9];
    - Very low credit/financing to deposit ratio (from 34.0% in 2017 to 43.0% in 2015) and declining during 2015-2017 against the backdrop of declining credit/ financing growth to the private sector during 2016-2018.
    - For example, in 2017, the credit/financing to deposit ratio was much below the average of ASEAN 5, namely (Indonesia (91.6%), Malaysia (102.3%), the Philippines (67.0%), Singapore (105.4%), and Thailand (99.0%), as well as Cambodia (111.9%), and Vietnam (676.3%) and GCC countries, namely Oman (137.4%), Qatar (84.4%), Saudi Arabia (141.6%), Kuwait (102.0%), and United Arab Emirates (93.2%)[10].
    - This low ratio indicates that an excess of liquidity accumulated by the banking sector which could not be invested domestically and is invested in offshore

[8] https://www.theglobaleconomy.com/rankings/bank_assets_GDP/
[9] https://www.theglobaleconomy.com/rankings/Bank_credit_to_the_private_sector/
[10] https://www.theglobaleconomy.com/rankings/bank_credit_to_deposits/

assets in the form of placements and investments. Instead of investing abroad, this excess liquidity can be utilized to provide suitable lending products to MSMEs to support the Wawasan Brunei 2035 agenda of the government's plan in development of the local business. In addition, banks can lend to overseas customers for enhancing income and profitability.

- The offshore assets of the banking sector in the form of placements and investments abroad accounted for 55.8% of total assets and 66.7% of total deposits in 2018 respectively. The ratio of the total offshore assets to total deposits increased from 60.1% in 2016 to 66.7% in 2018. (AMBD, 2019).
- There is a need closely monitor risks associated with cross-border placements and investments, such as currency risk, country risk, counterparty risk and liquidity risk among others. For example, a significant loss of the net asset value of offshore assets may adversely affect the liquidity of banks.
- However, a major portion of offshore assets (76.8% of total offshore assets) were placements in reputed foreign banks abroad. This ensures adequate liquidity in the banking sector. The liquidity ratio of the banking sector as measured by the liquid assets to total assets and to total deposits were 51.7% and 61.8% in 2018 respectively.

**Table 3. Trends in the Development of the Depth of the Banking Sector in Brunei Darussalam: 2014-2018 (In BND Million)**

| Indicators | Units | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|
| **1. Nominal GDP** | BND billion | 21.7 | 17.8 | 15.7 | 16.7 | 18.3 |
| | Year-on-year % change | –4.3% | –18.0% | –11.4% | 6.4% | 9.3% |
| **2. Per Capita GDP[11] (at Current Price)** | USD | 53,149[12] | 43,109 | 37,741 | 38,993 | 41,367 |
| | Year-on-year % change | -5.3% | -18.9% | -12.5% | 3.3% | 6.0% |
| **3. Assets** | BND billion | 18.7 | 17.0 | 18.0 | 17.5 | 18.3 |
| | Year-on-year percentage change | –3.5% | -8.8% | 5.3% | –2.6% | 4.8% |
| **4. Assets/ Nominal GDP** | % | 86.2% | 95.9% | 114.0% | 104.4% | 100.2% |
| **5. Deposits** | BND billion | 16.0 | 14.2 | 15.1 | 14.9 | 15.3 |
| | Year-on-year % change | –4.3% | -11.0% | 6.0% | –1.6% | 3.2% |
| **6. Deposits/ Nominal GDP** | % | 73.9% | 80.1% | 95.8% | 88.7% | 83.8% |
| **7. Credits/** | BND billion | 5.7 | 6.1 | 5.4 | 5.1 | 5.5 |

[11] http://www.deps.gov.bn/SitePages/National%20Accounts.aspx
[12] Per capita GDP for 2013 was 56,134 (https://data.adb.org/dataset/brunei-darussalam-key-indicators)

| | | | | | | |
|---|---|---|---|---|---|---|
| **Financing** | Year-on-year % change | 1.6% | 7.0% | –11.6% | –5.1% | 6.3% |
| **8. Credit/ Financing to Nominal GDP** | % | 26.4% | 34.4% | 34.3% | 30.6% | 29.8% |
| **9. Private Sector Credit** | BND billion | 5.3 | 5.6 | 5.2 | 4.9 | 4.7 |
| | Year-on-year % change | 2.9% | 4.5% | –7.6% | –4.7% | –3.8% |
| **10. Private Sector Credit to Nominal GDP** | % | 24.6% | 31.4% | 32.7% | 29.3% | 25.8% |
| **11. Credit/ Financing to Deposits Ratio** | % | 35.7% | 42.9% | 35.8% | 34.5% | 35.6% |

Source: AMBD and various sources as explained in the footnotes

### 5.2 Trends in the Financial Access and Financial Inclusion of the Banking Sector A Comparative Analysis

The trends in the financial access and financial inclusion of the banking sector during 2014-2018 is exhibited in the Table 4. The major findings of the analysis of Table 4 are as follows:

- Access to banks and financial inclusion of Brunei Darussalam, on an average has been significantly higher than its most ASEAN and GCC peers due to of relatively high number of bank accounts, bank branches and ATMs compared to adult population and the geographical area.
- The trends in number of deposit and credit accounts can indicate the outreach or financial access to the banking sector. Number of deposit accounts maintained a moderate increasing trend except for a decline by 2.1% in 2017 compared to 2016 in spite of positive economic growth in 2017. After a small rise in 2015, number of deposit accounts with banks per 1000 adults, showed a decreasing trend from 2,011 in 2015 to 1,910 in 2017, rising slightly to 1,946 in 2018.
- Number of credit accounts declined significantly by 34.0% during 2014-2018 indicating a decrease in intermediation/outreach partially due to loos of existing client base, consolidation of multiples accounts by single borrower and exit of Citibank, and HSBC. The indicator shows a continuous decreasing trend throughout the study period except for a slight rise in 2017. Consequently, number of credit accounts per 1000 adults declined to 345 in 2018 from 628 in 2014— a decline 45.1%.
- Number of bank accounts per 1000 adults remained high during the study period but witnessed a declining trend reaching 1,501 in 2017 from 1,624 in 2014. In 2017, the indicator for Brunei Darussalam was second highest among ASEAN and GCC countries after Singapore (2,299) and much higher than Kuwait (1393.2), Thailand (1270.5), UAE (1065.4), Saudi Arabia (1046.0), Malaysia (846.3), Qatar (739.6), and Philippines (510.1)[13].

[13] https://www.theglobaleconomy.com/rankings/bank_accounts/

- Number of bank branches per 100,000 adult population is the highest among most ASEAN and GCC countries. This indicator, however, declined continuously during 2015-2018 reaching 17.3 in 2018 from 21.0 in 2015. In 2017, the indicator was 18.5 higher compared to Indonesia (16.9), Oman (14.8), Kuwait (14.5), Thailand (11.9), UAE (11.3), Malaysia (10.1), Qatar (9.2), Philippines (9.1), Saudi Arabia (8.5), Singapore (8.5), Cambodia (7.5), and Viet Nam (3.4).
- Number of bank branches per 1000 km square is high but declined continuously during 2015-2018 reaching 10.8 in 2018 from 12.5 in 2015**.** This may be due to exit of Citibank and HSBC, lack of expansion of bank branches, and banks' strategy to reduce the fixed cost through the promotion of online banking.
- Number of ATM per 100,000 adult population followed the similar trend with high values but declined to 74.3 in 2018 compared to 81.0 in 2015. In 2008, the performance of Brunei Darussalam was better than its most peers, namely Saudi Arabia (73.4), Kuwait (73.0), Singapore (66.5), UAE (63.9), Qatar (55.8), Indonesia (54.7), Malaysia (46.6), Oman (34.8), Philippines (29.1), and Viet Nam (25.3). Thailand (115.1), however, performed much better than Brunei Darussalam[14].

**Table 4: Trends in the Development of the Financial Access and Financial Inclusion in the Banking Sector of Brunei Darussalam: 2014-2018**

| **Indicators** | **Units** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|---|
| **1. Total Number of Deposit Accounts** | Number | 616,206 | 633,406 | 633,912 | 620,350 | 642,717 |
| **2. Number of Deposit accounts with banks per 1000 Adults[15]** | **Number** | 1,991.16 | 2,011.06 | 1,983.85 | 1,910.30 | 1,946.52 |
| **3. Number of Loans/ Financing Accounts** | **Number** | 247,486 | 247,956 | 157,448 | 176,210 | 161,995 |
| **4. Number of Loans/ Financing per 1000 Adults[16]** | **Number** | 627.99 | 635.65 | 392.09 | 405.45 | 345.64 |
| **5. Number of Accounts per 1000 Adults** | Number | 1,623.5 | 1,579.2 | 1,547.5 | 1,500.5 | |
| **6. Number of Banks** | Number | 10 | 9 | 9 | 10 | 10 |
| **7. Number of Bank Branches** | Number | 20.36 | 20.95 | 19.72 | 18.48 | 17.26 |

[14] https://www.theglobaleconomy.com/rankings/ATM_machines/
[15] https://knoema.com/IMFFAS2019/imf-financial-access-survey-fas?tsId=1005760
[16] https://knoema.com/IMFFAS2019/imf-financial-access-survey-fas?tsId=1092800

| | | | | | | |
|---|---|---|---|---|---|---|
| **per 100,000 Adult Population**[17] | | | | | | |
| **8. Number of Bank Branches per 1000 KM Square**[18] | Number | 12.0 | 12.5 | 12.0 | 11.4 | 10.8 |
| **9. Number of ATM per 100,000 adult population**[19] | Number | 78.8 | 81.0 | 75.3 | 68.5 | 74.3 |
| **10. Number of ATM**[20] | Number | 253 | 251 | 244 | 226 | 226 |

Source. AMBD (2019) and various sources as explained in footnotes.

### 5.3 Trends in the Efficiency of the Banking Sector: A Comparative Analysis

Table 5 exhibits the trends in the efficiency of the banking sector during 2014-2018. The major findings on the analysis of Table 5 are presented below.

- The efficiency of banking sector of Brunei Darussalam, on an average, remained at a moderate level. In terms of most indicators in Table 5, the performance of the country is poor compared to several ASEAN and GCC peers.
- The banking sector remained profitable during the study period. As measured by Return on Assets (ROA), after falling to 1.0% in 2016 from 1.4% in 2014, the profitability rose moderately to 1.5% in 2018. Return on Equity (ROE) followed the similar trend declining to 6.4% in 2016 from 10.1% in 2014, and rising again to 11.4% in 2018. This may be due to the reduction in." Non-Interest Expense to Gross Income (Efficiency Ratio)", higher "Net Interest Margin" and high spread "Spread Between Reference Lending and Deposit Rates". The average deposit interest rate of the banking sector was 0.78% in 2018 whereas the average lending interest rate for the household and business sectors were 6.01% and 5.87% respectively[21].
- In 2017, ROA of the banking sector was 1.3% lower than Indonesia (2.5%), Saudi Arabia (2.0%), Malaysia (1.9%), Qatar (1.6%), Oman (1.6%), Thailand (1.5%), Philippines (1.5%), and equal to Singapore (1.3%), and Kuwait (1.3%)[22]. This may be due to low intermediation level compared to above countries as reflected very low credit to deposit ratio.
- ROE of the banking sector in 2017 was 8.9% much lower than to Viet Nam (17.6%), Indonesia (16.7%), Malaysia (15.0%), Qatar (14.2%), Philippines (13.9%) Singapore (13.2%), Saudi Arabia (12.6%), Thailand (11.5%), Oman (10.8%), UAE (10.3%), Bahrain (10.0%), and Kuwait (9.7%)[23]. This may be due to low intermediation level compared to above countries as reflected very low credit to deposit ratio.
- Expense to income ratio (non-interest expense to gross income) remained high from 53.4% in 2014 to 48.1% in 2018 during the study period compared to its GCC peers.

[17] https://knoema.com/data/brunei-darussalam+commercial-bank-branches
[18] https://knoema.com/IMFFAS2019/imf-financial-access-survey-fas?tsId=1010910
[19] Fred Economic Data, https://fred.stlouisfed.org/series/BRNFCAANUM
[20] Fred Economic Data, https://fred.stlouisfed.org/series/BRNFCACNUM
[21] Computed by the author based on the data of Table 11 and 12 of AMBD (2019)
[22] https://www.theglobaleconomy.com/rankings/bank_return_assets/
[23] https://www.theglobaleconomy.com/rankings/bank_return_equity/

For example, in 2017, the ratio for Brunei Darussalam was 52.4% higher compared to Qatar (33.1%), Kuwait (36.9%), and UAE (37.0%). There is a scope to improve the efficiency through reduction in non-interest expenses, particularly staff cost (the major portion of non-interest expenses) through reforms, such as increased automation and digitalisation.

- Net interest margin (NIM) is one indicator of a bank's profitability and efficiency. NIM is defined as the ratio (as a percentage) the earning of financial institution on loans/financing in a time period and other assets minus the interest/profit paid on borrowed funds to the average amount of the assets on which it earned income in that time period.
- Net interest margin of the banking sector remained high but witnessed a decreasing trend from 5.2% in 2014 to 3.7% in 2017. In 2017, NIM was lower compared to Indonesia (6.0%), Cambodia (5.5%), and Philippines (4.1%), but higher than Viet Nam (3.6%), Thailand (3.5%), Saudi Arabia (3.0%), Kuwait (2.6%), Qatar (2.5%), Bahrain (2.4%)., Malaysia (2.3%), and Singapore (1.9%)[24]. This trend may reflect both higher income and cost reduction.
- The banking sector, on an average, had a comfortable lending and deposit rates spread above 5.0 basis points during 2014-2018 contributing to the improved income and profitability. In 2017, the spread was 5.1 basis points much higher than Malaysia (1.7), Philippines (3.7), Thailand (3.1), Indonesia (4.6), Vietnam (2.6) Qatar (1.8), and Kuwait (3.1)[25]. This high spread may reflect efficiency of the banking sector in deposit mobilization at a low interest rate.
- The average deposit rate of the banking sector was 0.78% in 2018 whereas the average lending rate for the household and business sectors were 6.01% and 5.87% respectively[26]. In order to expand the borrowers base and business, there is a scope for banks to narrow the spread to attract more borrowers, particularly MSME and low-income households.

**Table 5. Trends in the Development of the Efficiency of the Banking Sector of Brunei Darussalam: 2014-2018 (in percentage)**

| Indicators | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| **1. Return on Assets (Before Tax)** | 1.4 | 1.3 | 1.0 | 1.3 | 1.5 |
| **2. Return on Equity (After Tax)** | 10.1 | 8.7 | 6.4 | 8.9 | 11.4 |
| **3. Non-Interest Expense to Gross Income (Efficiency Ratio)** | 50.0 | 52.4 | 53.6 | 51.5 | 48.1 |
| **4. Net Interest Margin** | 5.2 | 3.3 | 2.6 | 3.7 | NA |
| **5. Spread Between Reference Lending and Deposit Rates - Basic Points[27]** | 5.6 | 5.1 | 5.0 | 5.1 | 5.2 |

Source: AMBD (2019) and sources as explained in the footnote

## 6. Prospects, Challenges and Recommendations

[24] https://www.theglobaleconomy.com/rankings/net_interest_margin/
[25] https://www.theglobaleconomy.com/rankings/lending_deposit_spread/
[26] Computed by the author based on the data of Table 11 and 12 of AMBD (2019)
[27] https://knoema.com/search?query=Financial%20Soundness%20Indicators%20of%20Brunei

This section examines the major emerging prospects and challenges faced by the banking sector and provide recommendations to utilize the prospects and address the challenges.

### 6.1 Scope for Further Development in the Banking Sector

The analysis in the earlier section shows that Brunei's banking sector development in terms of depth and efficiency, on an average, has been somewhat stagnant or fluctuating for a majority of 15 indicators during 2014-2018. The depth and efficiency of the banking sector of Brunei Darussalam remained below most of ASEAN and GCC Countries. This indicates that there is a scope or prospect for further development in these areas.

In terms of financial access and financial inclusion, Brunei's banking sectors has performed better than its most ASEAN and GCC peers for most indicators.

As discussed in the section 2, an IMF study by Sahay et. al. (2015) found that effect of financial sector development on economic growth is bell-shaped as it reduces at higher levels of financial development. The study is based on a broad-based and comprehensive measure of financial sector development, called the FD index. The level of the financial sector development, including financial market development, had a positive impact on growth up to a certain point, namely between 0.45 and 0.7 on the FD index and between 0.4 and 0.6 on the market index. Beyond this point, further financial sector development has a negative impact on growth. The analysis shows that FD index of Brunei Darussalam is below the optimum index value for both financial sector and financial market developments. This indicates that further development of the financial sector of Brunei Darussalam is expected to have positive impact on growth (Sahay et. al, 2015).

The above analysis shows that further financial sector development through enhancing depth and efficiency of the banking sector and development of efficient bond and stock markets could bring significant benefits for Brunei Darussalam.

### 6.2 Enhancing Efficiency of the Banking Sector

The economy and the financial sector of Brunei Darussalam have unique characteristics which provide good opportunity and prospects for the financial sector as well pose significant challenges.

As explained earlier, Brunei Darussalam is a small and open ASEAN economy, highly dependent on oil and gas sector which accounted for 58.0% of GDP, 81.0% of government revenues, and 95% of exports in 2018. The country has a small geographic area with a total area of 5,765 square kilometres, around 80% of it forested and a small size of population with an estimated population of 434,076 in 2018.

The Economic Census of Enterprises 2016 (DEPD, 2016) of Brunei Darussalam showed that as of 2015, out of total 5,342 active enterprises, small enterprises with 2,294 enterprises accounted for 42.9% of total enterprises, followed by micro enterprises with 1,920 enterprises (35.9%), medium enterprises with 944 enterprises (17.7%), and large enterprises with 184 enterprises (3.5%). This shows that size of the private sector is small and dominated by MSME by number (96.5%).

The small size of the economy, population and the private sector make it difficult and challenging for domestic companies including banks to exploit economies of scale. Like other major small oil exporting countries, private sector activities remain weak, while the preference for public sector employment and lack of export-oriented businesses limit private sector's growth.

In 2018, the average yields on loans/financing, offshore placements and offshore investments of the baking sector in Brunei Darussalam were 5.8%, 1.8% and 3.4% respectively (AMBD, 2019). This clearly shows loans/financing provides the highest yield for the banking sector. Following the examples of banks in major economies in ASEAN and GCC counters, banks in Brunei Darussalam, particularly domestic banks can pursue overseas lending as well as overseas expansion as part of strategy to achieve higher income and profitability, faster growth, improved funding costs and funding diversification. The banks, however, need to build capacity to effectively monitor credit risk and country risk of the overseas lending and develop a framework to mitigate these risks.

As discussed in the section 5.3, the lending and deposit interest rates spread of the banking sector was much higher than several ASEAN and GCC countries. There is a scope to narrow the lending and deposit interest spread in order to attract more borrowers, particularly MSME and low-income households as well as overseas customers.

The section 5.3 also found that expense to income ratio (non-interest expense to gross income) remained higher than similar oil exporting countries such as Qatar, Kuwait, and UAE where bank staff cost is simiar to Brunei Darusslam. This shows that banks can improve the efficiency through further reduction in non-interest expenses, particularly staff cost (the major portion on non-interest expenses) through appropriate strategies, such as increased automation and digitalisation.

### 6.3 Development of Efficient Bond and Stock Markets

Major reasons behind the Asian financial crisis in 1997 included the excessive dependence of the Asian economies on commercial banks for domestic financing. The corporate financing relied mainly on banks since other types of available financing, namely stock and bond markets, were still underdeveloped and their sizes were quite small. During the crisis, Asian economies faced the ''double mismatch'' issue or the ''twin risk'' problem, namely currency and maturity mismatch risks. Corporate borrowers created these risks by borrowing short-term foreign currency loans from commercial banks, which they used for financing their long-term domestic investment in local currency. Furthermore, the 2008 global financial crisis and the subsequent European debt crisis created constraints in acquiring foreign currency liquidity in the corporate sector in Asia as foreign banks withdrew their investments from Asia. (Bhattacharyay, 2013).

This clearly shows that the presence of efficient stock market, secondary capital and bond markets can enhance the role of financial sector through diversifying the sources of business financing and cost-effective financial intermediation.

At present, the financial sector of Brunei Darussalam is dominated by banks with very low level of financial intermediation and depth as reflected by the low credit to GDP ratios compared to its peers such as ASEAN and GCC countries. At the same time, there are no stock exchange, secondary capital and bond market, or private sector sukuk market.

A stock exchange will promote transparency, accountability and good governance in the listed companies, including banks and other financial institutions. This will also have a positive domino impact to other non-listed companies. High level of transparency, accountability and governance will in the long-term promote further economic development of the country and enhance investors' confidence to attract capital and technology. In view of the above, there is a need to implement further financial sector reforms to develop a strong and an efficient financial sector in Brunei Darussalam, such as establishment of stock exchange, secondary capital and bond market, or private sector sukuk market.

As suggested by IMF (2019), there is a good prospect to further develop non-bank financial sector. In order to reduce the dependency of the business sector on the banking sector for long-term financing demand and addressing vulnerabilities arising out of maturity mismatch, an efficient capital market needs to be developed. In this regard, the following reforms should be undertaken for achieving the goal of further economic development and diversification:

- The development of an efficient interbank money market
- The development of a secondary bond market,
- Creation of a market benchmark for risk free interest rate,
- Strengthening the primary market issuance framework for corporate bond, and
- Creation of derivatives market.
-

As stated earlier, a efficient stock market could promote economic growth and business development by facilitating and diversifying access to alternative financing (other than the bank loan) available for businesses. An active and developed stock market would promote more business opportunities with other stock exchanges in the ASEAN region. There is a need to adopt best practices and international standards to facilitate interconnectivity with the global financial markets as well as with to attract international investors and businesses

There is also a need for establishing an appropriate legal and regulatory framework and building capacity for monitoring the capital markets such as bond, stock and money markets in order to maintain the stability of the financial sector.

### 6.4 Development of Islamic Digital Banks, Insurance/Takaful Companies and Capital Market Services or Wealth Management Fintech Companies

Ongoing Coronavirus pandemic has modified the operating and business models of banks, particularly in terms the provision of banking services to consumers worldwide including in the ASEAN region. In this situation, many banks utilized the digital channels to offer digital banking services to their customers.

The financial services industry is going through a large transformation due to digitalization, moving to the cloud, remote workplaces and entry of digital banks and fintech companies.

Recently, fintech companies have established strong presence through utilizing innovative technologies and business models to deliver unique and cost-effective financial services and products to customers. Some fintech companies has partnered with reputed banks. These companies can enhance financial inclusion, promote MSME development and job growth by providing consumers access to banking services and funds at a low cost.

With a high mobile internet penetration rate, the ASEAN region recently witnessed the increased presence of digital banks[28] and increased digital banking. For example, In the Philippines, two virtual banks, namely ING Group and CIMB Bank have entered in 2019. On the other hand, UOB Indonesia set up ASEAN's first digital bank, TMRW, in August 2020. The Monetary Authority of Singapore is expected to issue 3 digital wholesale banking licenses and 2 digital full banking licenses by 2020. Bank Negara Malaysia is expected to issue 5 digital banking licensing by 2021[29].

As highlighted by IMF (2019), as part of the Wawasan 2035 strategy for the economic diversification and bringing innovation to the different industry sectors, Brunei Darussalam plans to develop the country as one of the international Islamic finance hubs in niche areas. In addition, there is a plan to further strengthen and improve the financial infrastructures including through digitalization to promote financial sector development, and new financial linkages internationally.

The establishment of appropriate fintech companies, including digital banks and other financial services companies can position Brunei Darussalam as a centre for financial innovation in the southeast Asia. Furthermore, fintech companies can enhance financial inclusion, create jobs and economic growth.

Fintech companies can be defined as those financial services companies that use technology to transform or enable businesses in the financial sector. These companies can have the ability to provide many unique benefits, particularly cost-effective lending to small and medium businesses and ordinary or common users.

At this juncture, Brunei Darussalam is well placed to carve out a niche for itself as an international Islamic banking centre through establishing an Islamic digital bank; Islamic insurance/Takaful company and Islamic capital market services or wealth management fintech companies. In view of the small domestic market, these Islamic finance companies need to market their products to large neighbouring markets in addition to the local markets for the scale economy and sustainable profitability.

The major challenges in the development digital banks and fintech companies include:

- Establishment of a good framework regulations and guidelines;
- Appropriate and cost-effective payment infrastructure supporting fintech;
- Appropriate and cost-effective fintech supporting ICT infrastructure;
- Availability of appropriate talent; and

[28] a bank which mainly delivers retail banking services through the internet or other forms of electronic channels instead of physical brick and mortar branches

[29] https://www.chiangraitimes.com/asean/the-future-of-digital-banking-services-in-the-asean-region/#:~:text=In%20the%20Philippines%2C%20there%20are,digital%20bank%2C%20in%20August%202020.

- Establishment of rules and regulations on open banking, digital know-your-customer, e-money, digital wallets, and anti-money laundering among others.

### 6.5 Managing Non-financial Risk of the Banking Sector

One of the major emerging challenges facing the banking sector is managing non-financial risk**.** As a result of the ongoing pandemic, banks and other financial institutions moved services online, staff worked from home and more customers used online products or services. This caused an escalation of cyber-attacks. Banks need to strengthen their cyber security measures.

According to a Deloitte Insights (2018) study of international banks, respondents found their institutions very effective in managing traditional financial risk such as market risk (92%), credit risk (89%), asset and liability risk (87%) and liquidity risk (87%). However, these banks are not very effective in managing non-financial risks, such as reputation (57%), operational (56%), business resilience (54%), cybersecurity (52%), business model (51%), conduct and culture (50%), strategic (46%), third-party (40%), geopolitical (35%) and data integrity (34%).

Effective management of above non-financial risks by the banks and other financial institutions and their regulators in Brunei Darussalam is of utmost importance. The top priority will be managing cyber security risk and data and IT system risk.

## 7.0 Conclusions

Even though Brunei Darussalam has one of the highest standards of living amongst its ASEAN partners (next to Singapore), the county faces a major challenge arising from its high dependence on oil and natural gas resulting in volatile government revenues, and economic growth and unemployment arising out of the energy price instability. The country needs to diversify its economy from oil and gas sector to non-oil and gas sector. In this regard, the financial sector can play an important role in this diversification process through enhancing finance to the non-oil and gas sector in a cost-effective manner. In view of the above and recent vulnerability, particularly due to ongoing COVID-19 pandemic in the economies and financial markets worldwide, including Brunei Darussalam, it is important to examine the trends in the development of financial sector in recent years in terms of depth, access and efficiency, as well as its prospects and challenges.

The literature review on the role of the financial sector in the economic development and financial stability, shows that the financial sector development can play an important role in enhancing the economic growth, strengthen resilience, and promote monetary and financial stability. It can produce benefits through mobilizing savings, facilitate increased information sharing and better resource allocation, and promoting diversification and management of various risks. A deep and liquid financial sector can strengthen financial stability with diverse financial instruments and assist in strengthening countries' resilience to external and internal shocks. However, at the high levels of financial sector development, there could be situations when there is "too much easy finance" causing more costs than the benefits.

In terms of policies and strategies, Brunei's Government has developed and implementing a long-term vision up to 2035, which is known as the Wawasan Brunei 2035 which aims to turn Brunei Darussalam into a dynamic and sustainable economy with income per capita within the top countries in the world together with well-educated and highly-skilled people and quality of life among the top 10 nations in the world. The financial sector development can play a significant role in achieving this vision. In addition, in 2016, AMBD has developed a long-term 10-year financial sector development strategy, namely the Brunei Darussalam Financial Sector Blueprint (FSBP), 2016-2025 which is roadmap and strategic framework to develop Brunei Darussalam's financial sector into one of Asia's most competitive and innovative hubs The newly named AMBD, namely BDCB can play an important role in achieving FSBP targets.

Households and businesses are highly dependent on the banking sector for financing and hence the sector accounted for 83.3% of the financial sector's assets. This paper examined the trends in the financial sector in Brunei Darussalam in terms of depth, access and efficiency during 2014-2018. The paper proposed 24 indicators and analysed the performance of the financial sector of Brunei Darussalam in comparison with its ASEAN and GCC peers. The analysis of the aforementioned indicators shows that the performance of Brunei Darussalam in terms of access to banks and financial inclusion was, on an average, significantly better than its most peers among Association of Southeast Asian Nations (ASEAN) and Gulf Cooperation Council (GCC) countries. On the other hand, with respect to depth and intermediation, the performance of Brunei Darussalam, was lower throughout the study period compared to its most ASEAN and GCC countries. The banking sector development in terms of depth and efficiency, on an average, has been somewhat stagnant or fluctuating for a majority of 15 indicators during 2014-2018. The efficiency of banking sector, on an average, remained at a moderate level with most indicators lower compared to several ASEAN and GCC peers.

This analysis indicates that there is an opportunity for further development of the financial sector. This can be achieved through enhancing depth and efficiency of the banking sector as well as the development of efficient bond and stock markets. This could bring significant benefits for the business sector of Brunei Darussalam which in turn can enhance growth. In this regard, it will be useful to examine the trends in the financial sector development of Qatar which is a similar small, open and oil and natural gas -dependent country.

With the respect prospects and challenges facing the financial sector, an IMF study by Sahay et. al. (2015) concluded that effect of financial sector development on economic growth is bell-shaped as it reduces at higher levels of financial development. A broad-based and comprehensive measure of financial sector development (the FD index) of Brunei Darussalam is below the optimum index value for both financial sector and financial market developments. This shows that further development of the financial sector of Brunei Darussalam is expected to have positive impact on its economic growth.

As suggested by IMF (2019), Brunei Darussalam needs to further develop its non-bank financial sector by developing an efficient capital market (such as bond and stock market) in order to reduce the dependency of the business sector on the banking sector for long-term financing demand as well as addressing vulnerabilities arising out of maturity mismatch between loans. In this regard, an appropriate legal and regulatory framework should be developed and proper capacity for monitoring the capital markets such as bond, stock and money markets should be built in order to maintain the stability of the financial sector.

Furthermore, at this juncture, Brunei Darussalam could carve out a niche for itself as an international Islamic banking centre through developing innovative financial services, such as, establishing an Islamic digital bank and fintech companies; Islamic insurance/Takaful company and Islamic capital market services or wealth management fintech companies. In view of the small domestic market, these Islamic finance companies need to market their products to large neighbouring markets, particularly to ASEAN countries in addition to the local markets for the scale economy and sustainable profitability.

Lastly, one of the major emerging challenges facing the banking sector is managing non-financial risk. Therefore, there is an urgent need for effective management of non-financial risks by the banks and other financial institutions and their regulators in Brunei Darussalam. The top priority should be managing cyber security risk and data and IT system risk.

## References


Aizenman, Joshua, Yothin Jinjarak, and Donghyun Park, 2015 "Financial Development and Output Growth in Developing Asia and Latin America: A Comparative Sectoral Analysis." NBER Working Paper 20917 National Bureau of Economic Research, Cambridge, Massachusetts

Autoriti Monetari Brunei (AMBD), 2017, Annual Report of Autoriti Monetari Brunei Darussalam: 2017, Bandar Sheri Begawan.

AMBD, 2018, Annual Report of Autoriti Monetari Brunei Darussalam: 2018, Bandar Sheri Begawan.

AMBD, 2019, 2018 Financial Stability Report, Autoriti Monetari Brunei Darussalam, Bandar Sheri Begawan.

AMBD, 2020, 2019 Financial Stability Report, Autoriti Monetari Brunei Darussalam, Bandar Sheri Begawan.

Barajas Adolfo, Ralph Chami, and Seyed Reza Yousefi, 2013, "The Finance and Growth Nexus Re-examined: Do All Countries Benefit Equally?" IMF Working Paper 13/130, International Monetary Fund, Washington, D.C.

Bhattacharyay, Biswa Nath, 2013, Determinants of bond market development in Asia, Journal of Asian Economics, Volume 24, February

Bhattacharyay Biswa N, 2009, Towards a Macroprudential Surveillance and Remedial Policy Formulation System for Monitoring Financial Crisis, CESIFO WORKING PAPER NO. 2803, September.

Deloitte Insights, 2018, Global Risk Management Survey, 11th Edition, Reimagining Risk Management to Mitigate Looming Economic Dangers and Nonfinacial Risks.

Department of Economic Planning and Development (DEPD), Ministry of Finance and Economy, 2016, the Economic Census of Enterprises (ECE) 2016, Bandar Seri Begawan.

Gole Tom and Sun Tao, 2013, Financial Structures and Economic Outcomes: An Empirical Analysis, IMF Working Paper, WP/13/121, IMF, Washington D.C.

Haris Nabilah, 2020, Brunei stock exchange a work in progress, The Scoop, 14 March, https://thescoop.co/2020/03/14/brunei-stock-exchange-a-work-in-progress/

IMF, 2019, BRUNEI DARUSSALAM 2019 ARTICLE IV CONSULTATION—PRESS RELEASE AND STAFF REPORT, IMF Country Report No. 19/310, October.

IMF, 2017, Conclusion of 2017 IMF Article IV Consultation with Brunei Darussalam (https://www.imf.org/en/News/Articles/2017/05/19/pr17185-imf-executive-board-concludes-2017-article-iv-consultation-with-brunei-darussalam), Washington, D.C..

Khan Mohsin, Senhadji Abdelhak, and Smith Bruce, 2001, “Inflation and Financial Depth” Working Paper 01/44, International Monetary Fund, Washington, D.C.

King, Robert, and Ross Levine, 1993, “Finance and Growth: Schumpeter Might Be Right,” The Quarterly Journal of Economics, 108 (3).

Levine, Ross, 2005, "Finance and Growth: Theory and Evidence," Handbook of Economic Growth, in: Philippe Aghion & Steven Durlauf (ed.), Handbook of Economic Growth, edition 1, volume 1, chapter 12, Elsevier.

Nili, M., and M. Rastad, 2007, “Addressing the Growth Failure of the Oil Economies: The Role of Financial Development.” Quarterly Journal of Economics and Finance 46 (5): 726–40.

McKinnon, Ronald, 1973. Money and Capital in Economic Development. Washington: The Brookings Institution.

Ministry of Finance, Brunei Darussalam, 2018, http://www.mof.gov.bn/Divisions/brunei-darussalam-deposit-protection-corporation-bdpc.aspx

Sahay, Ratna, Martin Cihák, Papa N’Diaye, Adolfo Barajas, Ran Bi, Diana Ayala, Yuan Gao, Annette Kyobe, Lam Nguyen, Christian Saborowski, Katsiaryna Svirydzenka, and Seyed Reza Yousefi, 2015, Rethinking Financial Deepening: Stability and Growth in Emerging Markets, IMF Staff Discussion Note 15/08, May, Washington: International Monetary Fund.

Shaw, Edward, 1973, Financial Deepening in Economic Development. New York: Oxford University Press.