WHAT INFLUENCES BANK LENDING IN THE UAE? ...FINANCIAL STRUCTURE AND DETERMINATION OF LENDING CAPACITY

Sayed abbas Ahmed
College of Business Administration.Ajman University, s.abbas@ajman.ac.ae

Safiat Ali Saber Ali
College of Business Administration, Taibah University, KSA,
safiatt2005@yahoo.com

ABSTRACT

Banks as financial intermediaries play very important role in the economy by transferring funds from surplus units (savers) to investors who need funds to implement their projects. lending activity is the most important business of banks that contributes the largest income proportion to the banks. Therefore, thepurpose of this paper is to investigate empirically the effect of total financial resources components on the lending capacity of UAE banks. Eight commercial banks operating in the financial market was selected. Annual panel data covers the period from 2008 to 2018 was obtained from the financial statements of the selected commercial banks.In this study we employ random effect model which is generally estimated by using Generalized Least Squares method (GLS). The Hausman test (1978), which examines the consistency of the Generalized Least Square (GLS) (random effects) estimates, was used to select between fixed effect and random effect model. Our results indicate that bank borrowings (BB), equity (EQU) and total deposits (TOD) exert positive and significant effect on lending capacity while demand deposits (DD) and quasi deposits (QUD) exert positive but insignificant effect on lending capacity. The theoretical contribution embodied in the fact that the paper provides confirmation to the established contention in the body of knowledge and shows a variation on the degree of significance of the coefficients in the relationship between the total deposits and lending capacity as compared to the effect of the components of the total deposits taken on individual basis.

Keywords: Random Effect Model, Lending Capacity, Deposits, Equity, Bank Borrowings.

INTRODUCTION

The economics of the countrymembers of the Gulf cooperation council (GCC) share

a number of communalities in terms of economic structure, exchange rate schemes, the size of the capital market and the degree of vulnerabilities of the banking sectorwith changing economic conditions (Al-hassan, Khamis and Qulidi, (2010)).The financial sector in the GCC countries is generally dominated by the banking sector with a positive degree of banking density ratio (BDR) asper Goldsmith model (1965). In all the six countries, the largest five banks are domestic and account for more than 50% of the total banking assets. The UAE banking sector representsa topographical map of the GCC, as two type of the banks (Islamic and Conventional) are operating together in a very competitive environment and well-regulated financial sector.

The economic outlook of UAE remains expansionary in the foreseeable future to support the diversification programme which will continue to have a positive impact on the banking sector. The number of locally incorporated banks are 22(2020) with the total branches of 981, which could be classified into 359 branches in Abu Dhabi (37%), 375 branches in Dubai (38%). The remaining fiveEmirates account for 25% of bank branches. Based on the total population (residents, locals and on visit visa: 9000000), the BDR is around 1.09 in 2020. Underpopulation of 5000000which comprises local and residents, the BDR will soarto1.96.

In the UAE, one of the most notable trends in the last eight years is an inclination towards consolidation, with a prominent mergers including First Gulf Bank (FGB) and National Bank of Abu Dhabi (NBAD), Dubai Islamic bank (DIB) and Noor Bank as well as Abu Dhabi Commercial Bank (ADCB),Union National Bank and Al-HilalBank. Basedon the trends of consolidation and the over bankingprofilethere is expectation for the futuremerging (IMF, 2020). The large-scale economy within the UAE banking sector is likely to be prominent feature. This itself providesempirical justification for the paper on examining the probing effect of the components of the financial structure on lending capacity of the bank.

The performance of the UAE banking sector could be exemplified into 19.5% growth rate in the total assets, an average growth rate of profit margin of 13.9%, average capital adequacy of 17.6%, coverage ratioon loans of 60.6%, an average cost to income ratio of 36.5% for the last three years. Based on credit rating, we could observe that UAE banks are maintaining stability withan average of BBB+ under S and P ratings, an average of A3 under Moody's and A+ under Fitch rating. This profile provides strong incentive to examine the association between total financial resources of the UAE banks and determination of their lending capacity.

LITERATURE REVIEW

The review of the literature has been divided into two parts: The first partgives the details andoverview of the various studies conducted on the UAE banking sector and the second focuses on the knowledge gap on the degree of interaction between financial structure components and the lending capacity of banks.

Bank credit is one important element of the financial development, which enhances economic growth. A vast literature finds that greater financial development helps spur economic growth (Levine, 1997, 2005,and Kunt andLevine 2008). Sahy et al (2015) argues that many benefits in terms of growth and stability can be reaped from the future financial development in the most emerging market economies. A large volume of the literature focuses on determinants of bank credit. These studies find that banks specific characteristics, such as size, nature, liquidity, and lender's default probabilities have a large impact on the provision of credits. (For instance, ALtunbasa et al., 2010: Gambocorta and Ibanez, 2011).

Based on the performance map analysis, Ahmed, Ahmed, and Khan (2020), examined the UAE banking behaviour towards small business financing. They reached a conclusion that the availability of financial resources and deposits of the banks comes in the top-rankinginfluence onlending to SMES. Zaki and Rao(2011) exploretheprobability distresses predictionsof the UAE financial institutions.

Al-Tamami (2012) examined the relationship between corporate governance practises of the financial institution. Tabash and Hassan (2017) examined liquidity, profitability, and solvency of the UAE banks as a comparative study of the conventional an Islamic bank. Banerjee (2018) investigated the performance of 21 national commercial bank operating in UAE, between 2014 and 2017. Based on the multiple regression and correlation,the research results showed that all the independent variable including thestructure of the financial resources except the size of the bank have a positive impact on the profitability indicators. The review of infrastructure on the UAE banking industry provides evidence on the persistent knowledge gap and real need to examine the determinants of the lending capacity and its association with the bank financial structure.

Another strand of literature most directly focuses on determinants of bank lending in emerging markets, including the GCC countries. Chen andWu (2014) confirmed the strong relationship of the financial structure of the bank and the credit growth. Barajas et al.(2010) found that bank characteristic (loan quality and capitalization) help explain bank credit slow down among MENA Countries in the aftermath of the global financial crisis in 2008. Studies zooming in the GCC banksidentify a range of determinants affecting bank credit (Ghosh 2013,Gani and Al-Muharrami(2016). In examining the bank lending behaviour in the Ghana Ladime, Kumankana and Osei (2013) found that there werethree kinds of characteristic including capital structure, bank size and microeconomics characters. In examining the lending behaviour in Nigeria, Olokoya (2011) revealed that the lending behaviour of the commercial banks were influenced by their deposits.Inexamining the lending behaviour Ayieyo(2016), he foundimpact on lending behaviour was positive in the relation to the volume of the total deposit and negative in the relation to the interest rate. On cointegration analysis Olusanya, Oyebo and Ohadebeure(2012) investigated thefactors that influences the lending behaviour of commercial banks

in the Nigeria during 1975-2010 using almost the same variables used inAyieyo study (2016) leading to the same conclusion.By using a descriptive statistical tool and regression analysis, Khangalah(2016), tried to investigate the impact of liquidity,capital adequacy, and interest rate on the lending behaviour of commercial banks in Kenya. He found a positive association between capital adequacy,liquidity, and lending behaviour. On the on the other hand,interest rate and asset quality negatively associated with the lending behaviour.

Building on the literature, this paper analyses the determination of lending behaviour and bank credit in the emerging markets.The paper complements the literature which primarily relies on cross country panel data by single country estimates that account for a country specific characteristic. The paper does not consider difference between the Islamic and conventional finance in the UAE.

RESEARCH METHODOLOGY

In this paper we determine the effect of total financial resources components on lending capacity of UAE banks. For this purpose, eight commercial banks, namely Abu Dhabi Commercial Bank, Emirates NBD, Abu Dhabi Islamic Bank, National Bank of Umm AlQaiwain, Dubai Islamic Bank, Sharjah Islamic Bank, National Bank of Abu Dhabi and Mashreq Bank were selected. Annual panel data covers the period from 2008 to 2018 was obtained from the mentioned banks financial statements.

Total financial resources (TFR) components are equity, total deposits, and bank borrowings from central bank or other commercial banks. Deposits is the most important components.The primary function of banks is to attract deposits from customers and give time depositors interest in return. Banks also take deposits, either lend them to investors or buy securities with them. The type of deposits are demand deposits, time / investment deposits and saving deposits.

Lending capacity is total financial resources (TFR) less Reserves, then any increase in total financial resources will increase bank's lending capacity which mean that any increase in equity, total deposits, and bank borrowings will increase bank's Lending capacity. Accordingly, we expect positive relationship between lending capacity and equity, total deposits, and bank borrowings.

To determine the effect of TFR components on lending capacity of UAE banks the estimable model formed as shown below:

$$LC = f(BB, EQU, DD, QUD, TOD) \quad (1)$$

Where LC is lending capacity as a ratio of TFR; BB is bank borrowings/TFR ratio; EQU is equity/TFR ratio; DD is demand deposits/TFR ratio; QUD is sum of time (or investment) deposits and saving deposits/TFR ratio; TOD is total deposits/TFR ratio.

Generally, panel data equation is as follow:

$$Z_{it} = \propto + \beta\, Y_{it} + \mu_{it} \qquad (2)$$

where Z is the dependent variable, Y is the explanatory variable, $\propto$ and β are coefficients, "i" denoting cross sections and "t" is the time while "μ_{it}" reflect the unobservable factors affect in the panel data modelling stated above.

Panel data analysed using the following methods:

Fixed Effect Model (FEM)

In this model, the unobserved variables correlated with observed variables and it is control for, the effects of time-constant variables with time-constant effects. (Baltagi, 2008) arguedthat when our deduction is about individual behaviour of a group of firms, the fixed effect model is a suitablemodel to be used in the prediction of the relationship between dependent and explanatory variables in a panel data model.
Accordingly, the econometric model forfixed effect is as follow:

$$Z_{it} = (\propto + \mu_i) + Y_{it}^{\cdot}\beta + v_{it} \qquad (3)$$

where $\propto$ and β are constant parameters; "μi" is also a fixed parameter whichhas been estimated for the aim of inferencein the panel data; "v_{it}" are stochastic terms which are normally distributed with zero mean and variance σv^2. Also, it is assumed that under this model and for all "i" and "t", and for the aim of inference, the explanatory variable ("Y_{it}") and "v_{it}" does not related to each other.

Accordingly, the econometric model for fixed effect is as follow:

$$LC_{it} = (\beta_o + \mu_i) + \beta_1 BB_{it} + \beta_2 EQU_{it} + \beta_3 DD_{it} + \beta_4 QUD_{it} + \beta_5 TOD_{it} + v_{it} \quad (4)$$

Random Effect Model (REM)

In this model, it is assumed that there isnot any relationship between unobserved variables and the observed variables. This model is estimated using Generalized Least Squares methodwhich is an appropriate method in the case of autocorrelation or heteroskedasticity problems. Under this method the results will be better and highly significance.

According to Baltagi (2008) this model issuitable in a case where the individuals randomly drawn from a large population.

Then the random effect model is as follow:

$$Z_{it} = \propto + Y_{it}^{\cdot}\beta + (\mu_{it} + v_{it}) \qquad (5)$$

Where μ_{it} is distributed identically as IID $(0, \sigma_{\mu}^2)$, v_{it} also distributed identically as IID$(0,\sigma_{v}^2)$ and that the values of μ_{it} and v_{it} are independent.Also, there is not any relationship between the values of Y_{it} and the values of μ_{it} and v_{it}.

Our model can be converted into random effect as follows:

$$LC_{it} = \beta_{\circ} + \beta_1 BB_{it} + \beta_2 EQU_{it} + \beta_3 DD_{it} + \beta_4 QUD_{it} + \beta_5 TOD_{it} + (\mu_{it} + v_{it}) \quad (6)$$

To choose between a fixed effect model and a random effect model, the Hausman test (1978) is used. The Hausman test examines the consistency of the Generalized Least Square (GLS) (random effects) estimates. The null hypothesis of Hausman test is that the random effect estimated parameters are consistent, that is, that the error terms and explanatory variables are independent. If the null hypothesis is accepted, random effect model will be chosen due to its high efficiency. Otherwise, fixed effect model was chosen and will be consistent and thus preferred.

After estimating the above fixed effect model in (4) and random effect model in (6), we shall have to decide which model is good to accept using the Hausman test. If the value of chi- square statistic is significant, fixed effect model will be used, otherwise we shall use the random effect model.

EMPIRICAL RESULTS

Thedescriptive statistics of the variables used in the study is given in Table (1) below which reports their statistical means, median, and standard deviation.

Table 1. Descriptive Statistics of Study variables

	LC	BB	EQU	DD	QUD	TOD
Mean	0.955	0.193	0.155	0.187	0.440	0.648
Median	0.960	0.188	0.129	0.178	0.445	0.631
Maximum	0.966	0.342	0.306	0.367	0.610	0.811
Minimum	0.894	0.026	0.089	0.026	0.251	0.504
Std. Dev.	0.024	0.071	0.058	0.071	0.084	0.071
Observations	88	88	88	88	88	88

Source:Authors' calculations.

explaining the variations in lending capacity, but when they are combined as total deposits it has an important effect on it.

There are many studies that support the positive and significant effects of total deposits and equity on bank lending. Olokoyo (2011) argued that total deposits of banks, and the level of investment portfolio affect banks' lending performance and lending behaviour in Nigeria. The same result obtained by John (2014) who argued that deposit volume and bank lending in Nigeria was related positively. Alhassan, Brobbey and Asamoah (2013) found that total deposits and equity affect bank lending behaviour in Ghana. Vohra and Sehgal (2012) observed that total deposits influence lending performance of Indian private banks.

CONCLUSION AND RECOMMENDATION

The current paper aims to investigate the relationship between total financial resources components and lending capacity of commercial banks operating in competitive emerging financial market of the UAE during 2008-2018. We applied one of the most important panel data models (REM) which is estimated by using Generalized Least Squares (GLS) method**.** All variables coefficients have the expected signs.Furthermore, the coefficients of borrowings (BB), equity (EQU) and total deposits (TOD) are highly statistically significantwhilethe coefficients of demand deposits (DD) and quasi deposits (QUD) are statistically insignificant.

The paper provides confirmation to the established contention in the body of knowledge on the determinant factors of lending behaviour. The study reveals that the lending behaviour of commercial banks regardless of nature or size was significantly influenced by their total deposits. The empirical findings of this investigation have policy implications, bearing in mind that banks and their customers are under the hazard risk of COVID 19.This calls for collective measures to be taken by banks on improving the relationship between banks resources and ability to provide advances under high degree of uncertainty in the post COVID era.

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