

-RESEARCH ARTICLE-

THE IMPACT OF THE BASEL III COMMITTEE DECISIONS ON THE PERFORMANCE OF BANKS IN IRAQ

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—Abstract—

This study investigates the impact of the Basel III Committee decisions on bank performance in Iraq. This study utilizes quantitative correlational and multiple regression analysis using an SPSS program (Version 28) was used in data to identify the relationship between the impact of the Basel III Committee decisions on the performance of banks in Iraq through sampling five banks listed on the Iraq stock exchange over the period 2013 to 2019. This study found that the Liquidity Coverage Ratio (LCR) positively influences Return on Asset and Return on Equity, respectively. Meanwhile, Net Stable Funding Ratios (NSFR) positively influences Return on Asset and Return on Equity. In addition, the Basel III Committee decisions (leverage ratio (LR)) negatively affect the Return on Asset and Return on Equity. Among the three variables examined, the liquidity coverage ratio, net stable funding ratio, and leverage ratio, in all models, the Liquidity Coverage Ratio has a statistically significant relationship with the profitability ratios.

Keywords: LCR, NSFR, LR, Bank Performance.

JEL Classification Code: G20, G24, G39

1. INTRODUCTION

A new global banking regulatory framework is being pushed forward by the Basel Committee on Banking Supervision (BCBS) ([Supervision, 2010a](#)). According to the Basel Committee on Banking Supervision, national regulators and regional supervisory bodies are now analyzing Basel III recommendations to see if they are appropriate for the current financial environment. Additional factors contributing to the financial crisis

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should be addressed in this context, including the development of a credit bubble, continual innovation in economic goods and technology, and fair value accounting, according to [Banking \(2010b\)](#). On the other hand, the financial crisis has been attributed to inadequate banking regulation ([Calice, 2010](#); [Supervision, 2010a](#)).

This study is significant to the banking industry in Iraq because it provides evidence of the importance of instituting vital Basel III Committee decisions in improving the currently weak performance of the Iraq commercial banks; liquidity coverage ratio, net stable funding ratios, and leverage ratio are brought together in earning due to diligence and compliance to standards as required by the regulators, policymaker and the international institutions.

The Basel Committee on Banking Supervision has reduced liquidity risk by establishing two criteria. They must keep an eye on these dangers, notwithstanding their divergent objectives ([Afolabi, 2019](#)). Banks can use the liquidity coverage ratio (LCR) to improve their capacity to tolerate short-term fluctuations in liquidity by ensuring that their liquid resources are enough for at least 30 days. The second criterion increases flexibility over a more extended period by encouraging banks to use more stable financing sources. One year is the time horizon for the Net Stable Financing Ratio (NSFR), which was designed to offer a stable asset-liability maturity structure ([Liliana Rojas-Suarez, 2011](#)).

Additional capital adequacy standards were established by Basel III (including the new financial leverage ratio and capital buffers). Internal structural and organizational issues plague the Iraqi banking sector. Since the country's investment climate is unstable and its regulations aren't as straightforward as they should be, the Iraqi banking industry hasn't developed. Its ties to the global financial system aren't strong ([Javadev, 2013](#)). Improved banking sector safety and stability is a fundamental objective of this document, emphasizing increased quality and quantity in capital components, leverage ratios, liquidity norms, and disclosures. This paper is a significant step in that direction. Therefore, the Basel III accord aims to manage the recent crisis's causes. In the past, regulations of this kind have had a significant impact ([Supervision, 2010c](#)). In the long run, Basel III might significantly influence the financial sector. Increased liquidity and capital expenses will pressure banks' return on equity.

The study problem statement despite Iraqi banks being open to the world and growth in the number of private banks, the limited adoption of international organizations' guidelines, particularly the Basel III Agreement, results in their financial banking performance still trailing behind foreign banks. A significant issue may be raised based on the above: (The influence of the Basel III Committee's decisions on Iraqi banks' performance) where the banking sector plays a vital role in the process of economic growth. Because of this, the economic situation may worsen, which might lead to the outbreak of a financial crisis that would spread to him. Basel III committee's concerns

about liquidity coverage ratio, stable funding ratios, and leverage ratio effect on bank performance need an inquiry into these issues in Iraq's banking sector.

The main objective of this research is to examine the decisions of the Basel III Committee and the performance of the bank, as well as the statement of the impact of banks in Iraq with the decisions of the Basel III Committee, in addition to determining and explaining the implications of the findings of the Basel III Committee on the performance of banks. That affects the bank's performance in terms of return on assets and equity as determined by the Basel III Committee (liquidity coverage ratio, net stable funding ratio, leverage ratio).

Basel III, in particular, provides banks with incentives to enhance their operations to satisfy regulatory standards, improve efficiency, and save costs. Basel III ([Supervision, 2010a](#)). The Basel Committee's requirements for Iraqi banks have been met in part by several banking system reforms, including those approved on September 12, 2010, as represented in the decisions of the Basel III Committee, to improve the effectiveness of supervisory supervision and better to detect declines in bank performance at an earlier stage. It monitors and executes strategies to prevent the occurrence of crises that eventually lead to bankruptcy and the loss of assets ([Jaime, 2010](#)). Basel III committee decisions were examined in this study to see how they affected the performance of banks in Iraq.

The following is a breakdown of the paper's structure. The second part follows a review of prior studies on liquidity and leverage. There are ideas about the Basel III Committee's decisions, Iraqi banks' performance, and empirical facts. Second, this part describes how to do hypothesis testing about the third Basel decision and how it would affect Iraqi banks' performance. The results and comments are presented in the fourth part. Conclusions and recommendations are found in the fifth part.

2. LITERATURE REVIEW

2.1 Underpinning Theory

The Basel III Committee's judgments and the performance of Iraqi private banks are examined in this theoretical research. The shareholders' interests must be safeguarded against the opportunistic behaviour of management by the principles of agency theory ([Jensen & Meckling, 1976](#)). The board of directors can oversee financial, marketing, and IT skills. Agency theory explains why the primary actor has difficulty dealing with incomplete and asymmetric knowledge. The current study's research framework is built on the factors examined in this article, both independent and dependent.

2.2 Bank Performance

The Basel III Committee's decisions significantly influence the Bank's financial results. The bank will maximize earnings if the Basel III Committee's recommendations outline

the responsibilities. The bank's assets will grow, its foundations will be strengthened, and its performance will inevitably improve. The First Class Basel III Committee's judgment shields the bank from the risk of financial difficulty. The Basel III Committee must play an essential role in achieving considerable expansion. According to new research, the Basel III Committee's choices may affect bank performance. (Trad, Trabelsi, & Goux, 2017):

Financial success may be gauged by looking at how a firm uses its resources, according to (Almajali, 2012). An increase in the company's financial performance indicates that it is getting more productive. Using the financial statements as a source of information, management may obtain information about the company's financial performance, including data on how money is being spent, where it is going, and how efficiently it is being used.

Financial performance is one of the most critical indicators of a company's success, according to (Nasir, 2017). The research uses profitability ratios to gauge a company's financial success. Profitability increases linearly with an organization's level of performance. ROI and RE are two indicators that may be used to evaluate a company's financial success (ROE). In the (Zelalem, 2020) study, ROA and ROE agents are employed to assess bank financial performance.

According to (Menicucci & Paolucci, 2016), returns on assets are bank management's capacity to employ financial resources to produce revenue. Return on Assets (ROA) is a metric used by banks to evaluate the profitability of bank management. By dividing net income by total assets, (Batchimeg, 2017), who studied Mongolia, calculates the return on assets (ROA)."

Return on equity (ROE) is a metric used to assess the profitability of a company's investors (Singh & Bagga, 2019). The authors of Pointer and (Costache et al., 2020) discuss how return on equity (ROE) is calculated analytically to show how well a company does financially when its stock is put to use. Suggest that return on equity (ROE) measures profitability by demonstrating each unit of shareholder stock (Farooq, 2013). Traditionally, return on equity is calculated by dividing net income by total shareholders' equity. Additionally, (Costache et al., 2020) go through how to figure out the return on equity by dividing net income by those above-average total equity. A return on equity (ROE) estimate was made using net profit before taxes as the dependent variable in (Farooq, 2013) study.

Businesses have long recognized the Basel Committee's conclusion across the world. An earlier study (O. M. Al-Hares, & Saleem, K, 2017; Bitar, Pukthuanthong, & Walker, 2018; Petria, Capraru, & Ihnatov, 2015) related Basel III Committee decisions to bank performance; however, the results were equivocal (O. M. Al-Hares, AbuGhazaleh, N. M., & El-Galfy, A. M, 2013). Several more studies, like those by (M. Maria, Shahbodin,

& Pee, 2018) and (Said, 2018), have demonstrated that banks with sound governance perform better (Gavalas, 2014).

2.3 (O. M. Al-Hares, & Saleem, K, 2017)2.3 Basel III Committee

There are worldwide criteria for capital adequacy and liquidity based on Basel III. Following the Basel Committee on Banking Supervision (BCBS) findings, banking regulation was adopted in 2010. In the wake of economic and banking crises, financial regulation. In other words, it is a comprehensive set of reform initiatives designed to improve global financial stability, increase risk management, and improve the ability of banks to adhere to openness and disclosure norms. But this isn't something anyone would have predicted. New rules should be implemented entirely by the end of 2018. (Gavalas, 2014). Under Basel III, the risk-weighted asset capital requirement for banks was increased from 2% to 4.5 percent in common stocks. In addition, the reserve capital requirement has been raised by 2.5%, bringing the real minimum need up to 7.0%. Using the buffer may be an option for banks experiencing financial difficulties, but doing so may lead to further financial restrictions on dividend payments (Jaradat, 2018).

In 2015, Basel 3 increased the Tier 1 capital requirement to 6%, comprised of 4.5 percent regular Tier 1 capital and 1.5 percent excess equity capital. The regulations were intended to take effect in 2013, but the date was repeatedly put back, and banks now have until January 1, 2022, to comply. On the other hand, liquidity Coverage and Net Stable Funding Ratios were established under Basel III. The Liquidity Coverage Ratio (LCR) requires banks to maintain sufficient highly liquid assets to survive a 30-day financing stress scenario shown by regulators. In 2015, the Liquidity Coverage Ratio regulation was enacted, with barely 60% of the declared requirements met. It is planned to rise by 10% per year until 2019 when fully implemented (Janda, 2019).

On the other hand, the Net Stable Funding Ratio (NSFR) requires banks to hold stable funding above the amount needed for one year of extended stress (Said, 2018). The NSFR, which will start operations in 2018, will start operations in 2018 to address the liquidity gap. Under Basel III, the leverage ratio (LR) was added as a cornerstone of risk-based capital requirements. Banks must maintain a leverage ratio of at least 3% at all times. By dividing the bank's total consolidated assets by its capital at level 1, the non-risk leverage ratio is calculated (Cosimano, 2011).

To meet the requirements, the Federal Reserve of the United States set the leverage ratio (LR) for holding corporations for insured banks at 5% and for Systematically Important Financial Institutions at 6%. (SIFI). Commentary on Islamic banks' financial performance and capital quality vs. conventional banks now functioning in the GCC region, by Al-Hares et al. Furthermore, in addition to examining the financial performance of a group of banks across the GCC, this study takes a prominent position in comparing traditional and Islamic Gulf banks in light of Basel III's new capital stability requirements. This study used data from 75 banks in Kuwait, the United Arab

Emirates, Saudi Arabia, Oman, Qatar, and Bahrain (55 traditional and 20 Islamic). Financial ratios are used to compare and contrast the performance of Islamic and conventional banks. The findings show that between 2003 and 2011, Islamic banks were more lucrative but less efficient, more liquid, and had more excellent internal growth rates than conventional banks. The findings also revealed statistically significant differences in profitability, solvency, and inner growth rate ratios between the two types of banks. According to the study's findings, there are no significant variations in fluidity and efficiency. Furthermore, it appears that banks generally have sufficient capitalization to meet the Basel III rules to a great extent.

2.4 Liquidity Coverage Ratio (LCR)

The ratio of liquid assets to expected cash flows is known as the Liquidity Coverage Ratio under stress. According to the standard, this ratio must never fall below 100%, and banks must meet these criteria constantly. The purpose is to strengthen banks' resilience in the face of shocks to which they are exposed. As a result, he ensures that banks have enough high-quality liquid assets to meet their short-term liquidity needs for at least 30 days. , Before Basel III, no liquidity limitations were compatible with the interplay between liquidity and bank profitability. As a result, few studies have looked at the impact of liquidity regulations on bank profitability. (Banerjee & Mio, 2018) Researchers analyzed how UK banks respond to the Single Liquidity Guidance Rule (ILG), based on the same concept as the Liquidity Coverage Ratio, using Gorda's regional projection motivation response analysis (2005). They discovered that ILG harmed bank profits by expanding low-yielding liquid asset holdings and shifting to expensive non-bank deposit financing. Giordana and Schumacher (2017) are interested in the impact of Basel III capital and liquidity requirements on the possibility of default and bank profitability in Luxembourg (2017). They developed a historical record of capital and liquidity ratios for banks to comply with Basel III standards from 2003 to 2011. They then did an empirical analysis to evaluate if historical banks' NSFR and LCR impact default risk and profitability. Since the survey examined the interrelationships between profit, capital, and liquidity systems (NSFR and LCR), as well as features of other banks, the GMM system was used for estimation. Basel III liquidity restrictions, according to the research, minimize the likelihood of a bank collapsing.

Furthermore, the impact of liquidity regulations on bank profitability was less pronounced, showing that a bank's funding structure, rather than asset composition, is more crucial for profitability. This study also looks into the relationship between liquidity mechanisms and bank profitability. A recent survey (P. Maria, & Eleftheria, G, 2016) investigates the influence of Basel III's new liquidity and leverage rules (CRDIV/CRR) on Greek banks' performance. It was used on a secondary data set spanning 2004 to 2013. The liquidity coverage ratio was positively related to performance indicators (ROA and ROE) during the financial crisis. According to the (Fekkas , 2014) analysis, implementing Basel III regulations will reduce a bank's

performance by more than 20% due to a liquidity shortage. Stockholders do not receive a dividend as a result, but Gaston and Schumacher (2012) discovered that Basel III reduces the credit risk of bank portfolios. Profits will suffer as a result. Basel III's Liquidity Coverage Ratio (LCR) was investigated for US bank holding corporations, according to (Cen & Doukas, 2017). The marginal impact of the LCR on a firm's systemic risk is examined in this study. Ex-ante, it predicts which banks will be the most vulnerable to catastrophic losses in the event of a systemic disaster. The results are also displayed. According to panel regressions from 2002 to 2015, the LCR reduced relative systemic risk. In terms of research, (Abdul-Rahman, 2017) looked into the factors that influence liquidity risk as measured by the Liquidity Coverage Ratio and Net Stable Funding Ratios, as well as two groups of variables: Microeconomics (bank size, capital adequacy ratio, profitability, asset quality, and bank specialization) and macroeconomics (bank size, capital adequacy ratio, profitability, asset quality, and bank specialization) are two different types of economics (GDP and inflation rate). The study sample consisted of 17 Malaysian Islamic banks, with secondary data spanning 2000 to 2013. According to the research, a bank's feature significantly impacts liquidity risk. Macroeconomic variables like GDP and inflation, on the other hand, play a significant role in Basel III liquidity evaluations.

2.5 Net Stable Funding Ratios (NSFR)

Banks must now maintain a constant net funding ratio, which means they must keep enough liquid funds on hand. The Net Stable Funding Ratio is the available traditional bank financing ratio to desired traditional bank financing. Traditional finance is defined as the types and amounts of equity and liability financing that are thought to be reliable for at least a year in difficult times. The ASF is calculated by multiplying the amount available in each category by a value between 0 and 100 percent for each form of equity and liability. The ASF value is the sum of the weighted quantities. Banks must now maintain a constant net funding ratio, which means they must keep enough liquid funds on hand. The Net Stable Funding Ratio is the available traditional bank financing ratio to desired traditional bank financing. Traditional finance is defined as the types and amounts of equity and liability financing that are thought to be reliable for at least a year in difficult times. The ASF is calculated by multiplying the amount available in each category by a value between 0 and 100 percent for each form of equity and liability. The ASF value is the sum of the weighted quantities.

When examining the discrete effects on banks of asset liquidity (such as the inverse relationship between liquid assets and total assets, or the percentage of deposits to total assets), most empirical studies have used simple asset-liability accounting indicators rather than the mismatch between bank assets and liabilities' liquidity about Liquidity requirements NSFR were calculated and their implications on banks were examined following the implementation of Basel III guidelines, which included a precise breakdown of both on and off-balance sheet data. His most recent study (Said, 2018)

looked at the influence of NSFR on the profitability of Malaysian commercial banks. From 2005 to 2011, eight Malaysian commercial banks were included in the study sample based on secondary data. This study made use of statistical panel data. The number of banks that provide accurate results increased from three to four. Our reference bank's return on assets is higher for three of the four. Five banks diverge significantly from the reference bank regarding return on equity (ROE). The new liquidity ratio of our reference bank is a critical aspect in determining the profitability of the sample banks, and these five banks all have profitability above this new ratio. While this study sheds light on NSFR, further research is needed to understand the consequences of Basel III's proposed new liquidity regulations.

Data from sample banks (2000-2015) and Federal Financial Institutions Examination Board Liaison Reports from that period were used to compute the Net Stable Funding Ratio and Profit Efficiency of US commercial banks, according to a study by (Le, Hoang, Wilson, & Managi, 2020). (2000-2013). Small condensing of the Net Stable Funding Ratios (NSFR) can aid in reducing the efficiency of banks, but excessive liquidity can lead to a rise in the efficiency of banks. (Yan, Hall, & Turner, 2012) Verify whether UK banks meet the NSFR 100% long-term liquidity rule by looking at net interest. They conclude that NSFR contributes to macro issues such as preventing banking crises and economic downturns and that the new liquidity rules help strengthen the financial stability of the banking sector. Yan et al. (2012) (Supervision, 2010a) provide an in-depth look at the widespread impact of Basel III recommendations on selected economies, as well as NSFR liquidity requirements' net benefits.

2.6 Leverage Ratio (LR)

It measures a bank's capital adequacy and divides its tier 1 capital by its total exposures, including average consolidated assets, derivative risk, and other off-line items. Figures on a balance sheet were first published in 2009. A bank's capital can only be used so much before it starts to lose its ability to withstand shocks to its balance sheet. Tier 1 leverage for banks has to be at least 3 percent per Basel guidelines. In December 2017, the Basel Committee agreed to introduce a new leverage ratio for banks of global systemic importance, which was set at 50% of risk-weighted hedge capital.

The Bank for International Settlements' leverage ratio (Afolabi, 2019). An additional component of the bank's financial stability is being implemented to keep up with the bank's cyclical fluctuations, which are seen in periods of the economic downturn following excessive credit expansion based on leverage. This is expected to keep up with the bank's financial stability at first" (Afolabi, 2019). According to Kizildag (2015), Leverage is a combination of loans and equity. Companies' ability to obtain loans that increase shareholder value is measured by leverage. The company's capital structure is strengthened as a result of this borrowing. The ultimate objective is to raise the market value of the company and the wealth of its shareholders. Afolabi (2019) The ability of a

corporation to employ debt to fund future development is measured by the financial leverage indicator.

A company's market value is significant because it indicates its ability to boost shareholder returns by utilizing fixed-cost assets or financial resources, such as loans (Varsha, 2010). It is crucial, according to Ojo, to examine the authority's decision in the organization's uncertain future of risk management because states influence Ojo (2012). the authors Gatsi (Gatsi, 2013). They contend that effective corporate financial management will be enabled through the wise use of borrowed capital in the future. The value of economic performance is predicted to rise due to achieving this efficiency level. Basel III leverage requirements were analyzed in the Czech Republic and compared to the Central and Eastern European (CEE) region, according to (Janda, 2019). When business cycles alter, empirical research looks for patterns of correlation between leverage and capital ratios.

From 2007 to 2016, the study sample included financial information on 320 significant banks in seven countries in Central and Eastern Europe. In regular times, the Basel 3 leverage ratio is more tightly linked and procyclical to the Tier 1 capital ratio, as shown by the "regression analysis results." Contrary to popular belief, it shows anti-cyclical solid characteristics throughout the crisis. Restrictive laws on leverage are supported by empirical evidence showing active balance sheet management in response to cyclical shifts. Commercial banks' leverage ratio, lending expansion, and credit risk are all regulated, according to a study by (Li, 2020). From 2013 to 2018, it used data from 16 Chinese commercial banks listed on the Shanghai Stock Exchange. Leverage ratio regulation would limit the expansion of commercial banks' loans, but it would also raise their credit risk. It impacts a variety of commercial banks in various ways, depending on the type.

2.7 Hypothesis

2.7.1 Hypothesis Liquidity Coverage Ratio (LCR)

The Liquidity Coverage Ratio mandates that banks have enough highly liquid assets to withstand a 30-day financing pinch as determined by regulators. According to (P. Maria, & Eleftheria, G, 2016), there is a positive correlation between the liquidity coverage ratio and the return on assets (ROA). Findings from (Abdul-Rahman, 2017) show that Liquidity Coverage Ratio and bank performance are linked (ROE).

Based on these theoretical perspectives, the hypotheses regarding Liquidity Coverage Ratio (LCR) is thus:

H1: *Liquidity Coverage Ratio (LCR) has a positive relationship with return on asset.*

H2: *Liquidity Coverage Ratio (LCR) has a significant relationship with return on equity.*

2.7.2 Net Stable Funding Ratios (NSFR)

The Net Stable Funding Ratio (NSFR) requires banks to maintain stable financing above the amount needed for stable funding for one year of extended stress (Said, 2018). (Le et al., 2020) indicate that Net stable funding ratios (NSFR) modest intensification in liquidity helps to reduce bank profit inefficiency.

Based on these theoretical perspectives, the hypotheses regarding Net stable funding ratios (NSFR) is thus:

H3: Net Stable Funding Ratios (NSFR) negatively relationship with return on assets.

H4: Net Stable Funding Ratios (NSFR) negatively relationship with return on equity.

2.7.3 Leverage Ratio (LR)

As part of Basel III's risk-based capital requirement, the non-risk-based leverage ratio was introduced. As a result, banks are obligated to keep their leverage above 3%. It is computed by dividing the bank's total consolidated assets at level 1 by its level 1 capital (Cosimano, 2011). Leverage ratio (LR) has a positive correlation with bank performance (ROA) as well, according to Janda (2019). (Gavalas, 2014) study found a clear correlation between the leverage ratio and bank performance (ROE).

Based on these theoretical perspectives, the hypotheses regarding leverage ratio (LR) is thus:

H5: leverage ratio (LR) positively correlates with return on assets.

H6: leverage ratio (LR) has a positive relationship with return on equity.

3. RESEARCH METHODOLOGY

3.1 Research Design

Any correlations between the Basel III Committee's decisions and the performance of Iraqi banks were examined in this study. This information can be gained by conducting a quantitative correlational study that analyses the influence of the Basel III Committee decisions on Iraqi banks' performance.

3.2 Population and Sampling

The population of the current study involves companies listed on Iraq Stock Exchange. The sample of the present quantitative analysis includes only those banks listed on the Iraq Stock Exchange. The research has collected data during 2013 -2019 for the five banks listed on the Iraq Stock Exchange.

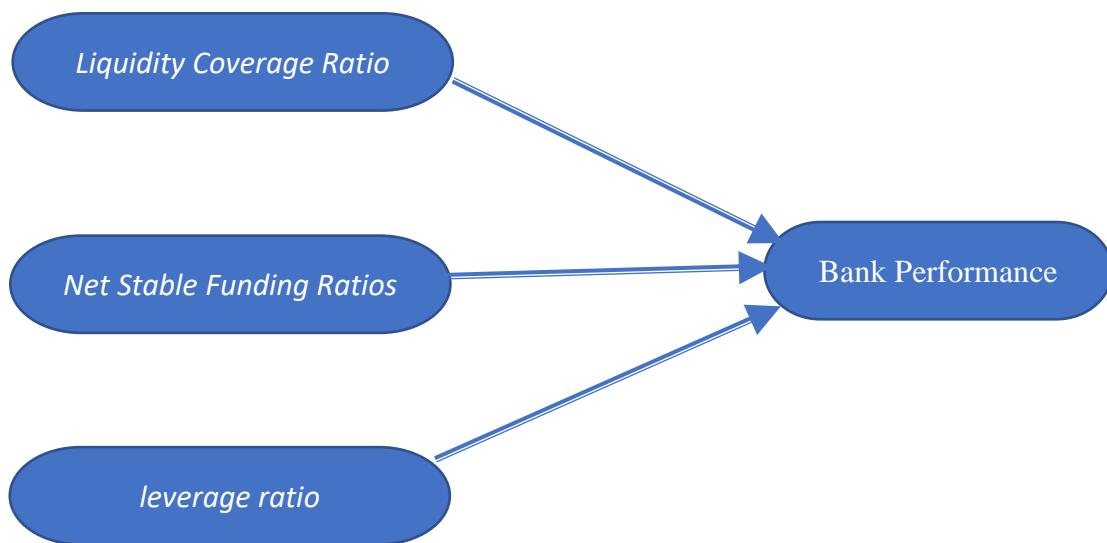


Figure 1. Research Framework

3.3 Scope of the Study

The current study focuses on the banks listed in the Iraq stock exchange, meaning that this research will cover the five banks listed and traded on the main board of the Iraq stock exchange in 2019. The current study results will be limited to the banks operating in Iraq. The scope of Basel III Committee decisions variables consists of liquidity coverage ratio (LCR), net stable funding ratios (NSFR), and leverage ratio (LR). This study focuses on two accounting performance measures in bank performance, namely, return on asset (ROA) and return on equity (ROE).

3.4 Data Collection Procedures

The data for the Basel III committee and the bank's performance was obtained from the bank's annual reports on the Iraq Stock Exchange. Annual notifications published on banks' websites by the Iraq Stock Exchange were used to gather data for Basel III. It was possible to determine how well a bank was doing by looking at its annual reports made public online by banks, the Iraqi stock exchange, and the Iraqi Securities Commission. The information gathered is of no importance.

Obtaining data is made more accessible and less expensive by relying on secondary sources. Various research and problem-solving applications can benefit from secondary data sources (Sekaran, Foster, Lucas, & Hankins, 2003).

3.5 Measurement Variables

The Basel III Committee and financial data (ROA, ROE) were “collected from the annual reports of 5 banks listed on the stock exchange in Iraq.” Table 1 summarizes the measurement for each of the variables used.

Table 1: Summary of The Operation of The Research Variable

	DEPENDENT VARIABLES (BANK PERFORMANCE)	ACRONYM	Measurement	SOURCE
1	Return on asset %	ROA	Net income / total assets	(Bebchuk & Ferrell, 2004) (Kyereboah & Biekpe, 2008). Demirgüç-Kunt & Huizinga (2010)
2	Return on equity %	ROE	Net income / total equity	Chakravarthy & Zajac (1984) Yermack (1996) Moussu & Romec (2014)
	INDEPENDENT VARIABLES	ACRONYM	Measurement	SOURCE
1	liquidity coverage ratio	LCR	Stock of HQLA / Total net cash out flows over the next 30 calendar days	BIS. (2013) Angelini P, Clerc L, Cúrdia V, Gambacorta L, Gerali A, Locarno A, Motto R, Roeger W, Van den Heuvel S, and Vlček J. (2011)
2	Net stable funding ratios	NSFR	Available amount of stable funding / Required amount of stable funding	Cosimano T., Hakura D., (2011)) BIS (2014 b)
3	leverage ratio	LR	Total loans / total equity	BIS (2014) Gavalas D., Syriopoulos Th. (2014)

3.6 Data Analysis Techniques

Data were analyzed with the SPSS program (Version 28). To make a statistical comparison between the two groups, this study uses the T-test. A regression analysis was used to determine the link between one or more independent variables and a dependent variable. The research uses multiple regressions. The following is the model which will be used in this study:

$$BP = \alpha + \beta_1 LCR + \beta_2 NSFR + \beta_3 LR + \varepsilon_{it}$$

Where;

BP = Bank Performance.

LCR = liquidity Coverage Ratio.

NSFR = Net Stable Funding Ratios.

LR = Leverage Ratio.

$\beta_1, \beta_2, \beta_3$ = The Coefficients of the Variable.

α = Constant.

ε_{it} = Random Error of variable i in time t

4. RESULTS AND DISCUSSION

4.1 Mean and Standard Deviation of the Variables

Table 2 shows the factors for the Iraq Stock Exchange. It has a mean of 3.623, with a maximum of 10.73 and a low of 1.13. According to (AR Admati, 2010), the liquidity coverage ratio is helpful for bank performance since it requires banks to retain enough high-quality liquid assets on hand to cover cash outflows for 30 days. Like the LCR, liquidity ratios examine a company's ability to meet short-term financial obligations. The mean net stable funding ratio is 1.55, with a high of 1.81 and a minimum of 1.05; the mean leverage ratio is 4.221, with a maximum of 8.23 and a minimum of 89 percent. A high leverage ratio indicates firm capital reserves. Less money to lend implies less profit for the bank (Janda, 2019). ROA is 3.56 percent while ROE is 5.37 percent. There are five observations and no missing data.

4.2 Correlation

Table 3 shows the correlation between the independent variables and dependent variables. The table presents that ROA positively correlates with Net stable funding ratios but negatively correlates with the other independent variables. ROE negatively correlates with liquidity coverage and leverage ratios and positively correlates with

stable funding ratios. The correlation between ROE and ROA is positive, indicating that Return on equity is high if ROA is high and vice versa. All the variables show that the hypotheses value is less than 0.5, thus indicating no variable is strongly correlated to another variable or the independent variable in the model. No multicollinearity problem is indicated by the lower variance inflation factor (VIF) in [Tables 5 and 7](#).

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	5	1.83	6.73	3.5603	1.85520
ROE	5	4.29	6.07	5.3714	.71993
LRC	5	1.13	10.73	3.6237	3.99189
NSFR	5	1.05	1.81	1.5594	.31287
LR	5	.89	8.23	4.2217	2.78304
Valid N (listwise)	5				

Table 3: Pearson Correlations

		ROA	ROE	LCR	NSFR	LR
ROA	Pearson Correlation	1				
	Sig. (1-tailed)					
	N	5				
ROE	Pearson Correlation	.716	1			
	Sig. (1-tailed)	.087				
	N	5	5			
LCR	Pearson Correlation	-.476	-.862*	1		
	Sig. (1-tailed)	.209	.030			
	N	5	5	5		
NSFR	Pearson Correlation	.688	.751	-.878*	1	
	Sig. (1-tailed)	.099	.072	.025		
	N	5	5	5	5	
LR	Pearson Correlation	-.250	-.578	.316	.032	1
	Sig. (1-tailed)	.342	.154	.302	.479	
	N	5	5	5	5	5

*Correlation is significant at the 0.05 level (1-tailed)

5. RESULTS ON TESTED HYPOTHESES

5.1 Tested Hypotheses Related To ROA

Hypotheses H1, H3, H5 were about the influence of Basel III Committee decisions variable (liquidity coverage ratio, net stable funding ratios, and leverage ratio) on the bank performance (Return on Asset). Ordinary least square regression was used to test them. Table 4 shows the variability between independent variables and dependent variables as indicated by the adjusted R square is 0.965. The findings suggest that the independent variables influence 96.5 % of the ROA in this study, while 3.5% of ROA is influenced by other variables not captured in the model.

Table 4: Model Summary

Model	R	R Squares	Adjusted Square	Std. Error of the Estimate
1	.996 ^(a)	.991	.965	.34582

a. Predictors:(Constant), LR, NSFR, LCR

Table 5 shows that ROA has a positive relationship with liquidity coverage ratio and net stable funding ratios with a standardized coefficient of 1.999, 2.474 respectively. ROA negatively correlates with leverage ratio with standardized coefficients of -.962. Therefore, the equation model summary for the return on an asset will become as below:

$$\text{ROA} = -19.978 + 1.999 \text{ LR} + 2.474 \text{ NSFR} - .962 \text{ LR}$$

Table 5: Regression Coefficients ^(a)

Model	UN Standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-19.978	2.659		-7.512	.084
LCR	.929	.130	1.999	7.143	.089
NSFR	14.670	1.575	2.474	9.313	.068
LR	-.641	.089	-.962	-7.168	.088

a. Dependent Variable: ROA

5.2 Testing Hypotheses Related To ROE

Hypotheses H2, H4, H6 were about the influence of Basel III Committee decisions variable (liquidity coverage ratio, net stable funding ratios, and leverage ratio) on the bank performance (Return on Equity); linear regression was used to test it. The variability of ROE is 70.6%. Therefore, the independent variables are influenced by 70.6% on ROE, while 29.4% comes from other variables, as shown in Table 6.

Table 6: Model Summary

Model	R	R Squares	Adjusted R Square	Std. Error of the Estimate
1	.963a	.927	.706	.39016

b. Predictors:(Constant), LR, NSFR, LCR

The regression coefficients show that ROE has a significant positive relationship with liquidity coverage ratio and net stable funding ratios with a standardized coefficient of 0.043, 0.808 respectively, and an at-value of 2.647. On the other hand, ROE has a negative leverage ratio with a standardized coefficient of -0.618 and a t-value of -1.584. Therefore, the equation model summary for the operating cash flow is as below in [Table 7](#):

$$\text{ROE} = 3.118 + .043 \text{ LCR} + .8080 \text{ NSFR} - .618 \text{ LR}$$

Table 7: Regression Coefficients ^(a)

Model	UN Standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.118	3.000		1.039	.488
LCR	.008	.147	.043	.053	.966
NSFR	1.860	1.777	.808	1.046	.486
LR	-.160	.101	-.618	-1.584	.359

b. Dependent Variable: ROE

5.3 Finding of all The Hypotheses

[Table 8](#) shows these findings of the Basel III Committee decisions and bank performance in Iraq. The results showed that the “Liquidity Coverage Ratio (LCR) has a positive and significant effect on Return on Asset and Return on Equity, respectively; meanwhile, Net Stable Funding Ratios (NSFR) positively impacts Return on Asset and Return on Equity.” In addition, the Basel III Committee decisions (leverage ratio (LR)) negatively influence the Return on Asset and Return on Equity.

6. CONCLUSION

Basel III Committee decisions and bank performance are examined in this study by examining the relationship between three variables (liquidity coverage ratio, net stable funding ratios, and leverage ratio) as the independent variable and bank performance (ROA and ROE) as the dependent variables in publicly listed Iraqi stock exchange. The Basel III Committee's choices and Iraqi bank performance were both found to be influenced by these findings. The Liquidity Coverage Ratio (LCR) had a positive and significant influence on Return on Assets and Return on Equity. Return on Asset (ROA) and ROE are favorably influenced by the Net Stable Funding Ratio (NSFR). Basel III

Committee decisions harm return on Assets and Return on Equity (leverage ratio (LR)). Banks and financial institutions should seek a liquidity coverage ratio of at least 3% to have a statistically meaningful correlation with profitability ratios. It is common for banks to have a larger amount of cash on hand to ensure their financial stability. Under the new Basel III rules, the minimum liquidity coverage ratio banks must keep begins at 70% in 2016 and rises to 100% by 2019. The annual LCR requirement is 70%, 80%, 90%, and 100% for the following years: 2016, 2017, 2018, and 2019. As a result, banks with larger leverage ratios utilize more private equity to finance their assets and hence have greater incentives to make excellent decisions. Additionally, Basel III specifies a "leverage ratio" that must be met. Basel III mandated that banks maintain a leverage ratio of more than 3%, a high level of debt compared to their Tier 1 capital.

Table 8: Summary of Finding

No	Hypotheses	Results
H1	Liquidity Coverage Ratio (LCR) has a positive relationship with return on asset	Support
H2	Liquidity Coverage Ratio (LCR) has a significant relationship with return on equity.	Support
H3	Net Stable Funding Ratios (NSFR) has a negative relationship with return on asset.	Not Support
H4	Net Stable Funding Ratios (NSFR) has a negative relationship with return on equity.	Not Support
H5	leverage ratio (LR) has a positive relationship with return on asset.	Not Support
H6	leverage ratio (LR) has a positive relationship with return on equity.	Not Support

7. RECOMMENDATION

Iraqi commercial banks are directing the Iraqi Central Bank (CBI) to implement Basel III decisions and commit to applying the capital-adequacy criterion to protect themselves from the risks they face in their operations. All those interested in banking work, including researchers, shareholders, depositors, and others whose work is related to banking data and information, will benefit if Iraqi banks fully disclose transparent financial data and information related to banking activity. This includes transparency in the content of the annual report. Information about the company's internal and external risks, its financial position, the level of capital required for investments, and the terms of any loans it may have received are all critical. Iraqi banks should adopt the liquidity coverage ratio, which requires them to maintain assets with a high degree of liquidity to cover their cash flow for up to 30 days, and the stable net financing ratio to measure medium and long-term liquidity to provide banks with sound funding sources for all their operations.

8. LIMITATION OF THE STUDY

The study focused solely on the influence of Basel III Committee decisions on the performance of Iraqi banks. Even though this paper was prepared with the utmost sincerity, it nevertheless has problems and limitations. Insufficient data in the Bank Scope database meant that just five banks could be included in the study, putting the conclusions at risk. These findings suggest that they may not apply outside of the pooled component in this study's findings. Despite this, management can manipulate the stated economic views, affecting the integrity of the information in the financial statements and thereby modifying the results extracted. Administrations are often wary of releasing too much information for fear that rivals could use it to their advantage (Linsley & Shrides, 2005). To focus on the period from January 2013 to December 2019, the current study was limited to the Basel III timeframe.

REFERENCE

- Abdul-Rahman, A., Said, N. L. H. M., & Sulaiman, A. A. (2017). Financing structure and liquidity risk: Lesson from Malaysian experience. *Journal of Central Banking Theory and Practice*, 6(2), 125-148. doi:<http://dx.doi.org/10.1515/jcbtp-2017-0016>
- Afolabi, A., Olabisi, J., Kajola, S. O., & Asaolu, T. O. (2019). Does leverage affect the financial performance of Nigerian firms? *Journal of Economics & Management*, 37, 5-22. Retrieved from <https://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.cejsh-ce301b4d-e24e-482e-9caf-fd1e68b61ddb>
- Al-Hares, O. M., & Saleem, K. (2017). Islamic banks financial performance and implications of Basel III standards in the GCC: An empirical analysis. *Review of Economics & Finance*, 7(1), 80-97. Retrieved from <https://www.researchgate.net/profile/Osama-Al-Hares/publication/313881937>
- Al-Hares, O. M., AbuGhazaleh, N. M., & El-Galfy, A. M. (2013). Financial performance and compliance with Basel III capital standards: Conventional vs. Islamic banks. *Journal of Applied Business Research (JABR)*, 29(4), 1031-1048. doi:<https://doi.org/10.19030/jabr.v29i4.7914>
- Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed on the Amman Stock Exchange. *Journal of Management Research*, 4(2), 266. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.993.1287&rep=rep1&type=pdf>
- AR Admati, P. D., M Hellwig, P Pfleiderer. (2010). Fallacies, irrelevant facts, and myths in the discussion of capital regulation: Why bank equity is not expensive. Retrieved from <https://www.econstor.eu/handle/10419/57505>

- Banerjee, R. N., & Mio, H. (2018). The impact of liquidity regulation on banks. *Journal of Financial Intermediation*, 35, 30-44. doi:<https://doi.org/10.1016/j.jfi.2017.05.008>
- Banking, B. C. o. (2010b). Basel III: International framework for liquidity risk measurement, standards, and monitoring. *Basel, Switzerland: Bank for International Settlements*.
- Batchimeg, B. (2017). Financial performance determinants of organizations: The case of Mongolian companies. *Journal of Competitiveness*, 9(3), 22-33. Retrieved from <https://pdfs.semanticscholar.org/33c2/638bc774f1c214f405f8ef8bd62f9b297476.pdf>
- Bitar, M., Pukthuanthong, K., & Walker, T. (2018). The effect of capital ratios on the risk, efficiency and profitability of banks: Evidence from OECD countries. *Journal of International Financial Markets, Institutions and Money*, 53, 227-262. doi:<https://doi.org/10.1016/j.intfin.2017.12.002>
- Calice, P. (2010). A Preliminary Assessment of the Implications of Financial Regulatory Reform for Africa. *African Development Bank*. Retrieved from <https://www.afdb.org/sites/default/files/documents/publications>
- Cen, W., & Doukas, J. A. (2017). CEO personal investment decisions and firm risk. *European Financial Management*, 23(5), 920-950. doi:<https://doi.org/10.1111/eufm.12117>
- Cosimano, T., & Hakura, D. (2011). Bank behavior in response to Basel III: A cross country analysis. *IMF Working Paper*. doi:<https://dx.doi.org/10.2139/ssrn.1860182>
- Costache, R., Pham, Q. B., Sharifi, E., Linh, N. T. T., Abba, S. I., Vojtek, M., . . . Khoi, D. N. (2020). Flash-Flood Susceptibility Assessment Using Multi-Criteria Decision Making and Machine Learning Supported by Remote Sensing and GIS Techniques. *Remote Sensing*, 12(1), 106.
- Farooq, K., & Manzoor, A. (2013). Role of ownership in corporate governance and its impact on firm performance: A case of companies listed in Pakistan Stock exchange. *Gmijacs*, 9(2), 23-23. Retrieved from <http://gmjacs.bahria.edu.pk/index.php/ojs/article/view/101>
- Gatsi, J. G., Gadzo, S. G., & Akoto, R. K. (2013). Degree of financial and operating leverage and profitability of insurance firms in Ghana. *International Business and Management*, 7(2), 57-65. doi:<https://doi.org/10.3968/j.ibm.1923842820130702.1060>
- Gavalas, D., & Syriopoulos, T. (2014). Basel III and its Effects on Banking Performance: Investigating Lending Rates and Loan Quantity. *Journal of Finance and Bank Management*, 2(3 & 4), 17-52. doi:<http://dx.doi.org/10.15640/jfbm.v2n3-4a2>
- Jaime, C. (2010). B le III: vers un Syst me financier plus s re Paper presented in the 3 Ebanking International Conference, Santander, Madrid. 2-4.

- Janda, K., & Kravtsov, O. (2019). Basel III leverage and capital ratio over the economic cycle in the Czech Republic and its comparison with the CEE Region. *European Financial and Accounting Journal*, 13(4), 5-24. doi:<http://dx.doi.org/10.18267/j.efaj.216>
- Jaradat, H. M. (2018). Evaluation of Jordanian Islamic Banks Compliance with the requirements of Basel III. *International Research Journal of Applied Finance and Banking*, 9(11), 483-490. Retrieved from <https://www.proquest.com/openview/a31f00f8f9f005bb3cbd18dc066f031>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. doi:[https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kizildag, M. (2015). Financial leverage phenomenon in hospitality industry sub-sector portfolios. *International Journal of Contemporary Hospitality Management*, 27(8), 1949-1978. doi:<https://doi.org/10.1108/IJCHM-07-2014-0347>
- Le, M., Hoang, V.-N., Wilson, C., & Managi, S. (2020). Net stable funding ratio and profit efficiency of commercial banks in the US. *Economic Analysis and Policy*, 67, 55-66. doi:<https://doi.org/10.1016/j.eap.2020.05.008>
- Li, L. (2020). Regulation of Leverage Ratio, Credit Expansion and Credit Risk of Commercial Banks. *Open Journal of Social Sciences*, 8, 376-396. doi:<https://doi.org/10.4236/jss.2020.84027>
- Liliana Rojas-Suarez, C. f. G. D. (2011). The New Approach to Financial Regulation: Is It Relevant for Developing Countries?
- Linsley, P. M., & Shrivs, P. J. (2005). Examining risk reporting in UK public companies. *The Journal of Risk Finance*, 6(4), 292-305. doi:<https://doi.org/10.1108/15265940510613633>
- Maria, M., Shahbodin, F., & Pee, N. C. (2018). Malaysian higher education system towards industry 4.0 – Current trends overview. *AIP Conference Proceedings*, 2016(1), 020081. doi:<https://doi.org/10.1063/1.5055483>
- Maria, P., & Eleftheria, G. (2016). The Impact of Basel III Indexes of Leverage and Liquidity CRDIV/CRR on Bank Performance: Evidence from Greek Banks, Spoudai. *Journal of Economics and Business University of Piraeus, Piraeus* 66(1/2), 79-107. Retrieved from <https://spoudai.unipi.gr/index.php/spoudai/article/viewFile/2541/2615>
- Menicucci, E., & Paolucci, G. (2016). The determinants of bank profitability: empirical evidence from European banking sector. *Journal of Financial Reporting and Accounting*, 14(1), 86-115. doi:<https://doi.org/10.1108/JFRA-05-2015-0060>
- Nasir, A. M., Ahmed, A., & Barkat, W. (2017). Operational performance and financial performance of Malaysia Airlines. *Paradigms*, 11(1). Retrieved from <https://go.gale.com/ps/i.do?id=GALE%7CA533410301&sid=googleScholar&v=2.1&it=r&linkaccess=abs&iss>

- Ojo, A. S. (2012). The effect of financial leverage on corporate performance of some selected companies in Nigeria. *Canadian Social Science*, 8(1), 85-91. doi:<http://dx.doi.org/10.3968/j.css.1923669720120801.700>
- Petria, N., Capraru, B., & Ilnatov, I. (2015). Determinants of Banks' Profitability: Evidence from EU 27 Banking Systems. *Procedia Economics and Finance*, 20, 518-524. doi:[https://doi.org/10.1016/S2212-5671\(15\)00104-5](https://doi.org/10.1016/S2212-5671(15)00104-5)
- Said, R. M. (2018). Basel III New Liquidity Framework and Malaysian Commercial Banks Profitability. *Jurnal Pengurusan (UKM Journal of Management)*, 52. Retrieved from <https://web.s.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl>
- Sekaran, S., Foster, R. G., Lucas, R. J., & Hankins, M. W. (2003). Calcium Imaging Reveals a Network of Intrinsically Light-Sensitive Inner-Retinal Neurons. *Current Biology*, 13(15), 1290-1298. doi:[https://doi.org/10.1016/S0960-9822\(03\)00510-4](https://doi.org/10.1016/S0960-9822(03)00510-4)
- Singh, N. P., & Bagga, M. (2019). The Effect of Capital Structure on Profitability: An Empirical Panel Data Study. *Jindal Journal of Business Research*, 8(1), 65-77. doi:<https://doi.org/10.1177%2F2278682118823312>
- Supervision, B. C. o. B. (2010a). Basel III: A global regulatory framework for more resilient banks and banking systems. *Basel, Switzerland: Bank for International Settlements*. Retrieved from <https://www.econstor.eu/handle/10419/94477>
- Supervision, B. C. o. B. (2010c). Results of the Comprehensive Quantitative Impact Study. *Basel, Switzerland: Bank for International Settlements*.
- Trad, N., Trabelsi, M. A., & Goux, J. F. (2017). Risk and profitability of Islamic banks: A religious deception or an alternative solution? *European Research on Management and Business Economics*, 23(1), 40-45. doi:<https://doi.org/10.1016/j.iedeen.2016.09.001>
- Varsha, V. (2010). Impact of leverage on the profitability of pantaloon retail India Ltd. *Advances in Management*. Retrieved from <https://ideas.repec.org/a/mgn/journal/v3y2010i1a8.html>
- Yan, M., Hall, M. J. B., & Turner, P. (2012). A cost-benefit analysis of Basel III: Some evidence from the UK. *International Review of Financial Analysis*, 25, 73-82. doi:<https://doi.org/10.1016/j.irfa.2012.06.009>
- Zelalem, D. (2020). The impact of financial leverage on the performance of commercial banks: Evidence from selected commercial banks in Ethiopia. *International Journal of Accounting, Finance and Risk Management*, 5(1), 62-68. doi:<https://doi.org/10.11648/j.ijafmr.20200501.16>

- Javadev, M. (2013). "Basel III implementation: Issues and challenges for Indian banks," IIMB Management Review, 25, 115-130,
- Giordana, G. A., & Schumacher, I. (2017). An empirical study on the impact of Basel III standards on banks' default risk: The case of Luxembourg. Journal of Risk and Financial Management, 10(2), 8.
- Fekkas, M. (2014). "Next stop Basel III," (in greek) <http://www.capital.gr/News.asp?id=2140716> from EU 27 Banking Systems", *Procedia Economics and Finance*, 20, 518-524.

APPENDIX

No.	BANKS	ROA						
		2013	2014	2015	2016	2017	2018	2019
1	Bank of Baghdad	1.81	1.52	0.43	1.68	5.59	3.68	6.44
2	National Bank of Iraq	3.8	1.6	0.7	4.7	1.0	-1.0	2.0
3	Investment Bank of Iraq	5.14	5.16	3.18	1.76	6.96	0.63	0.03
4	Mansour Bank	3.20	1.91	1.85	8.49	10.04	11.39	10.21
5	Kurdistan international bank for investment & development	3.37	3.55	4.26	4.91	3.91	0.55	0.16

No	BANKS	ROE						
		2013	2014	2015	2016	2017	2018	2019
1	Bank of Baghdad	11.00	9.50	2.45	7.15	2.29	1.54	2.70
2	National Bank of Iraq	10.3	4.2	1.6	9.6	2.0	-2.1	4.4
3	Investment Bank of Iraq	14.38	10.17	6.25	3.51	1.41	1.19	0.06
4	Mansour Bank	9.02	6.00	6.93	5.00	5.11	5.21	5.22
5	Kurdistan international bank for investment & development	8.52	8.12	8.36	8.48	6.95	1.15	0.33