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Table of Contents

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Islamic vs. Conventional Banks in Syria: Analysis on Financial Performances

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Abstract
Doubtful finance is the worst nightmare for banks, but this can be avoided if a bank follows a proper strategy to avoid such kind of finance. Due to the violent political crisis in the country, most of the contemporary studies have excluded Syria from their samples. The present study aims to evaluate the performances of Islamic and conventional banks in Syria through a comparative analysis. A secondary aim of this study is to shed some light on the main factors influencing non-performing finance in both Islamic and conventional banks. This study addressed the entire private banking sector in Syria consisting of 11 conventional banks and 3 full-fledged Islamic banks over the period of 2011-2017. To this end, several financial ratios and macroeconomic variables along with independent sample t-test and panel data regression were employed. The results indicated that the Islamic banks were better in terms of assets quality. Panel data regression manifested that gross domestic product growth, exchange rate, finance to deposit ratio, and operating expenses ratio had a significant impact on non-performing finance. This study provides an alluded picture of Syrian private banking sectors that enables authorities to deliberate on the pertinent macroeconomic NPF determinants such as exchange rate and GDP growth.

Keywords: Islamic Banks (IBs), Conventional Banks (CBs), Financial Performance, Non-Financial Performance (NPF), Syria

Introduction

Economies which have a healthy banking sector are able to confront negative financial shocks and contribute positively to the stability of the financial system as a whole (Anbar & Alper, 2011). Hence, it is crucial to seek for deep understanding for factor might affect bank performance. Banks are financial institutions having authority to collect deposits and give credits. Banks may also provide further financial services, for instance, wealth management, currency exchange and safe deposit boxes. According to Anbar and Alper (2011) banks mainly can be divided into two main categories Islamic banks (henceforth IBs) and conventional banks (henceforth CBs).

IBs operate the same basic functions as banks working under the conventional system. However, Islamic banking refers to banking system that works according to Shariah principles that prohibits charging any extra for money that is borrowed (Kamarulzaman & Madun, 2013; Belanès, 2015). It is built on profit loss sharing where all financial transactions must be assets-backed. Furthermore, IBs do not permit investments in any prohibited products, for instance, pork and alcohol as Quran stated. As a matter of fact, IBs are younger and have not experienced compared to CBs' (Ahmed et al., 2018). Notwithstanding the fact, Islamic finance industry has achieved significant progress of having wider acceptance in global level, particularly in the last four decades (Aldeen, Ali Shah, & Herianingrum, 2019).

Studies concerning on IBs performance implied that it is not an inferior system to conventional one (Nevine & Abdel, 2017). Islamic banking, similar with any other banking system, should be seen as an evolving system that has shown great progress. Lately, researches have also depicted that Islamic banking is an effective way of financial intermediation (Nevine & Abdel, 2017). Besides, its

performance shows that Islamic banking is an attractive way of financing (Nevine & Abdel, 2017). Recently, many researches have focused on IBs and CBs performance comparison in many countries to evaluate their performance thoroughly, i.e. Pakistan (Khan, Khan, & Tahir, 2017; Akhtar, Ali, & Sadaqat, 2011), Egypt (Sobhy & Megeid, 2017); Indonesia (Sukmana & Febriyati, 2016); and Malaysia (Rosly and Bakar, 2003). However, there is dearth of researches focusing on Syrian context. Some studies focusing on Middle East and North Africa (MENA) region have excluded Syria from their sample, for instance, El-Chaarani (2019). Moreover, Ghenimi and Omri (2015) and Mahdi and Abbes (2018) excluded Syiria due to the vilonet coflict impact on the banking sector. To the best of our knowledge, this topic has yet to be explored. It remains unclear of how IBs and CBs function in the country. Therefore, this study tries to offer an alluded picture of IBs and CBs performance in Syria. Moreover, it indicates the macro and micro factors impact asset quality in the Syrian commercial banks, as it has generally been agreed that macroeconomic and microeconomic conditions affect the credit risk.

In Syrian banking system, the IBs consist of 21.43% and the CBs are equal to 78.57%. The total number of IBs is 30 branches, while the number of CBs is 205 in Syria (see table 1). Nowadays, Syria has been successful in performing a dual banking system and has appeared as a nation having three full-fledged Islamic banks which function hand in hand with the conventional banks. Due to inability of national banks to meet the financial needs, in 2001 private banks allowed to operate in Syria. This was followed by another announcement allowing IBs to start up in 2005, assuming that the IBs will build an effective monetary policy to maintain the stability of the Syrian pound's exchange rate, contributing to the creation of proper environment for investment low and stable inflation rate, and supporting economic growth (Central bank of Syria, 2019).

Table 1. Private Banking Sector in Syria

No	Banks' Name	Acronym	Started	Number of Branches
Islamic banks				
1	Chan Bank	CHB	23-May.-2007	8
2	Syrian Islamic International Bank	SIIB	15-Oct.-2007	23
3	AL-Baraka Bank	BBSY	06-Jun.-2010	9
Conventional banks				
4	Banque Bemo Saudi Fransi	BBSF	04-Jan.-2004	41
5	Bank of Syria and Overseas	BSO	06-Jan.-2004	27
6	International Bank for Trade and Finance	IBTF	06-Jun.-2004	30
7	Bank Audi Syria	BASY	28-Oct.-2005	27
8	Byblos Bank Syria	BBS	05-Dec.-2005	11
9	Arab Bank Syria	ARBS	02-Jan.-2006	17
10	Syria Gulf Bank	SGB	13-june.-2007	12
11	Sharq Bank Syria	SHRQ	3-May.-2008	4
12	Bank of Jordan Syria	BOJS	28-Nov.-2008	13
13	Fransa bank Syria	FSBS	15-Jan.-2010	8
14	Qatar National Bank	QNB	15-Nov.-2010	15

Source: Syrian Bank Websites (2019)

The present research extends previous studies by analyzing and comparing the performance of Islamic and conventional banks during Syrian conflict. Private banking sectors have been established since 2004. Thus, it is the proper time to examine and evaluate performance and coexistence of these banks in the country, particularly in the violent political crisis which was erupted a decade ago. As this is one of the pioneer studies in the Syrian context, this study reveals vital information for both private banking sector and central banking by providing a remarkable information to set future prospects in the country. Moreover, depositors and investors might have not only interested in Shariah compliant

banking system, but also in comparing its profitability and performance to evaluate the opportunity cost. Furthermore, the study develops the exist literature concerning on IBs and CBs. Finally yet importantly, the in-hand study will enhance the stockholder and central bank awareness about long-term financial and economic stability in Syria. To ensure the objectives, the present study shall address the following research questions: (1) does any difference exist between IBs and CBs performance in Syria? (2) What are the major factors influencing non-performing finance (NPF) in both Syrian Islamic and conventional banks?

Review of Literature

Syria has an important standing in the Middle East. It has been under conflict over the last decade until recently when it has started to resolve. Since financial institutions are the backbone of any economic system, it is the right time to take a review of its solvency position after being in existence from almost two decades in the country. In order to achieve the objective of this study, we take an extensive review of various studies related to performance analysis to establish criteria to assess the financial strengths of Syrian financial sector against international standards.

IBs vs. CBs Performances

Studies on the performances of Islamic and Conventional Banks have been conducted for years. In terms of Capital Adequacy Ratio (CAR), Sukmana and Febriyati (2016) revealed that CBs were better than IBs because CBs have been existed longer compared to the IBs. Sukmana and Febriyati (2016) further stated that bank experiences play a pivotal role in accumulating capital since Islamic banks have less experience in Indonesia. Hashem and Sujud (2019), in their research on Lebanon banking performance, reported that Islamic banks in Pakistan relayed on the debt to finance their

operations. In a similar direction, Wasiuzzaman and Gunasegavan (2013) addressed the case of Malaysia. Their results showed that IBs were better than CBs in terms of capital adequacy. They attributed their findings to the ability of IBs management, which was better in managing the capital acts as a buffer against the losses as compared to CBs.

Having a high profitability ratio indicates that a bank is capable to use its resources to generate revenues in excess of its expenses (Sukmana & Febriyati, 2016). Sukmana and Febriyati (2016) further found that IBs were less profitable than CBs in Indonesia due to the IBs' contracts and the limited contract approved by the central bank in Indonesia. Moreover, Hashem and Sujud (2019) reported that CBs were more profitable because they have more working experience in Lebanon. Further study conducted by Masruki et al. (2010) revealed that CBs were more profitable than IBs in Malaysia. This high profitability was attributed to high assets quality and net financing in CBs. In another study, Abbas, Azid, and Besar (2016) addressed Pakistani context and the result reported that IBs were relatively less profitable than the CBs due to some factors, i.e. ethical obligations, shortage, and small size comparing to CBs. However, a contrary result revealed by Rosly and Bakar (2003). In the case of Malaysia, it was found that IBs were more profitable than CBs. They attributed their findings to the ability of IBs to use the exciting overheads capital carried by the traditional banks. In the context of MENA region, González, Razia, Búa, and Sestayo (2019) concluded that banks with higher market share tended to experience higher profitability ratio.

Efficiency is the ability of a bank to generate maximum income using its resources (Hassan, Mohamad, & Bader, 2009). Sukmana and Febriyati (2016) stated that IBs possessed high efficiency due the fact that IBs in Indonesia have a high demand for financing. Similarly, Wasiuzzaman and Gunasegavan (2013) concluded that

IBs in Malaysia were more efficient because they have higher liquid assets over customers' short-term funding ratio. In Pakistan, CBs were more efficient because they suffered from misallocation of resources (Khan,. I., Khan, M., & Tahir, M., 2017). Notwithstanding the fact, a contrary result was found by Beck, Demirgüç-Kunt, and Merrouche (2013) who revealed that IBs were less efficient compared to the CBs because CBs have more experiences and longer history. Concerning on Middle East context, Hassan, Mohamad, and Bader (2009) could not find any difference between the two types of banks in term of efficiency. With regard to risk factor, risk in IBs was higher than CBs because they first have to make their products based on Shariah compliant, and they are also lack of product standardization (Hassan, 2009). Conversely, Khalid and Amjad (2012) and Tariq et al. (2012) in the case of Pakistan disclosed that CBs were exposed to higher risk comparing to IBs, because IBs used different contracts and limited range of products while the CBs did not.

In regard to liquidity, Mahdi and Abbes (2018) divulged that CBs were better than IBs in term of liquidity in the MENA region. Their result indicated that the difficulties that IBs faced was to liquidate their assets since IBs had different characteristic from CBs. Another study conducted by Sobhy and Megeid (2017) analyzed liquidity effectiveness for both CBs and IBs in Egypt. The result showed that CBs were better in liquidity management. Moreover, Egyptian Central Bank regulations on capital and liquidity requirements for IBs affect its performance negatively. Instead, Sukmana and Febriyati (2016) reported that IBs performed better liquidity ratio than CBs. This result contributes to the reserve requirement imposed by the central banks of Indonesia that IBs are higher than CBs. Whereas, Moin (2008) and Adewole and Patrick (2019) could not find any difference between IBs and CBs in in terms of liquidity in the case of Pakistan and Nigeria respectively.

Determinants of Non-Performing Finance (NPF)

Banks' assets quality and macroeconomic circumstances are highly correlated in a phase of business cycle. If an economy in the growth phase, it is favorable to a decrease in financial stress and an increase in financial distress. Furthermore, an increase in GDP growth is usually closely related with decreasing levels of NPLs and vice versa (Badar & Javid, 2013; Beck & Piloiu, 2013; Jimenez, 2006; Khemraj & Pasha, 2009; Dash & Kabra, 2010; Haniifah, 2015; Messai & Jouini, 2013; Das & Dey, 2019). The empirical literature of this correlation is that the strong positive growth in real GDP results in more income and revenues attained by consumers and companies. As a result, it improves their debt-servicing capacity, which contributes to the lower NPLs and vice versa. Moreover, a drop in economics activity is considered as an important risk affecting banks' assets quality.

The previous studies conducted by Das and Dey (2019), Khemraj and Pasha (2009), Badar and Javid (2013), and Beck, Jakubik, and Piloiu (2013) reported that a decrease in the nation's currency would result in high-priced imported goods which put pressure on finance letter of credits issued by banks to traders. Jimenez (2006), in the case of Spanish, revealed that NPF could be explained by real interest rates, GDP growth, and credit conditions. Moreover, Khemraj and Pasha (2009) used the same variables in the case of Guyanese and found that exchange rate had a positive effect on impaired loans. The findings implicate that when currency is appreciated, the NPF ratio tends to be high. Moreover, their result demonstrated that GDP growth was negatively associated with the NPF ratio. It indicates that an improvement in GDP will lead to a decrease in NPF. Thus, macroeconomics event such as the low performance of an economy, decreased production level, failure of several sectors, and unexpected event (e.g. terrorist attacks) will

reduce individuals' income and companies, and lead to an increase of doubtful finance.

In addition to the macroeconomic variables, several studies have examined crucial determinants of NPF. In the case of India, Rajan and Dhal (2003) found that financial variables had a significant impact on NPF of banks. Using a panel of 129 banks during 1993-2000 in Spain, Godlewski's (2004) results showed that profitability has a negative impact on the NPF level. On the other hand, Messai and Jouini (2013), in the case of Italy, Greece, and Spain, found a positive relationship between the two variables. They further argued that high profit target is accompanied by high levels of risk. In terms of the size, Ahmad (2013), Rajan and Dhal (2003), Lis and Pages (2000) revealed that the banks' size was negatively related to the NPF. They attributed these results to the fact that bigger banks had better risk management procedures. Size of the bank opens the doors for diversification opportunity in financing. Hence, banks investments will be dispersed among different sectors, which reduces the chance of NPF compared to the lower size banks which concentrate on financing particular sectors (Ahmad, 2013).

Ahmad (2013) and Havidz and Setiawan (2015) found a contradictory relationship between management performance and NPF. A possible reason for such relationship could be the high cost inefficiency increases the doubtful loans which is similar to bad management. On the other hand, such a study conducted by Louzis, Vouldis, and Metaxas (2012) depicted a positive relationship between banks' efficiency and NPF. The argument for such results is that managers of banks influence the potential investors and market concerning the profitability of their lending and prospects of the economy and financial sector. They adopt lenient credit policy to increase the current earnings, which result in the current cost efficiency and future growth of NPLs. In a further study, Louzis and

Metaxas (2012) and Ahmad (2013) found that NPF was significantly and positively associated with the finance to deposit ratio. An increase in finance to total deposits ratio expands the chance of doubtful loans, because of mismanagement of assets in the long run. Mismanagement of assets indicates that there is extensive lending by banks when they have an excess of time deposits.

Research Gap

The role of IBs and CBs is crucial for depositors, investors, bank as a business institution, and economic policymakers. After two decades of IBs and CBs in Syria, it is time to examine and evaluate their coexistence in the country and to stay aware which performed efficiently during the economic and social changes particularly during the conflict in Syria. Both types of banks experienced losses and tried to polish their returns through revaluation of foreign currencies. Therefore, this study stresses on portraying a real picture of Syrian banks during the conflict, and gives recommendations based on research results.

Research Method

Sample Selection and Data Sources

The sample employed in this study consisted of 11 conventional banks and 3 Islamic banks, which represented the entire private banking sector in the country, over the period of 2011-2017. The data were obtained from annual reports within the period. The secondary sources of data were collected from the official websites of each bank, the Syrian Commission on Financial Markets and Securities, Damascus security exchange, Central Bank of Syria, and official website of World Bank. The choice of this period was not randomly selected, instead it represented the banking sector in Syria during the crisis. Moreover, it was not possible to consider the

years before 2011 since private banks freshly existed in the country. It was advisable to make meaningful performance comparisons across CBs and IBs by using particular financial ratios. Thus, it would help us to critically evaluate the performance of each bank, as they had been used commonly and extensively applied in the previous studies (Olson & Zoubi, 2008; Rosly & Bakar, 2003; Sukmana & Febriyati, 2016).

Variable Measurements

This study looks at particular financial ratios of both IBs and CBs. We have employed Return on Assets (ROA) and Capital Adequacy Ratio (CAR) to measure bank's available capital against risk weighted assets, Total Operating Expense-Depreciation/Gross Revenue (OER) to evaluate the efficiency; Finance to Deposit Ratio (FDR) to measure the liquidity; and Non-Performing Loans in CBs and Non-Performing Finance in IBs, both referred as NPF, to assess the assets quality.

The following are the selected ratios for financial performance measurement as they have been used commonly and extensively employed in the previous studies (Olson & Zoubi, 2008; Sukmana & Febriyati, 2016):

1. *Capital Adequacy Ratio (CAR) = (Tier 1 capital + Tier 2 capital) / risk weighted assets*
2. *Return on Assets (ROA) = Net income/Average total assets.*
3. *Operating Expense to Revenue (OER) = Total operating expenses/Total operating revenues.*
4. *Assets quality NPF = Non-performing (loans or finance)/Total (loans or finance).*
5. *Finance to Deposits Ratio (FDR) = Average total loans/Average total customer deposits.*

To depict if there is any differences between IBs and CBs, we employed independent sample t-test. Additionally, two macroeconomics variables were employed for the purpose of

determining factors influencing NPF/NPL, namely, exchange rate and gross domestic products growth. We built our panel data regression model which has been used in previous studies (see Badar & Javid, 2013; Khemraj & Pasha, 2009; Jimenez, 2006). In this study, NPF was the dependent variable while CAR, ROA, FDR, exchange rate, and gross domestic product growth were the independent variables.

Results

Test of Homogeneity of Variances was administered to choose between two assumptions (equal variances and unequal variances). As depicted in table 2, assuming that the alpha (α) adopted is 5%, the Levene's outcomes show that the variables being observed did not have the same variances. This means that for the variances of CAR, LDR\FDR and OER and reveal homogeneity while other variables show otherwise. Therefore, t-test assuming equal variances will be used for CAR, LDR\FDR and OER while unequal variance will be used for rest of the variables.

Table 2**.** Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
CAR	4.747	1	96	.032**
ROA	6.879	1	96	.010*
OER	1.353	1	96	.248
NPL/NPF	15.556	1	96	.160
LDR/FDR	.702	1	96	.404

Source: data analysis

Descriptive Statistics

In the case of the Syrian Arab Republic, all the banks operating in Syria must achieve Basel II at 8%. The descriptive statistics presented in table 3 shows that the mean value of CAR in IBs is (0.2543) and it is (0.3588) in CBs. The mean value for ROA in CBs is

0.0379 and in IBs is 0.0287. This indicates that ROA of CBs in Syria higher than IBs. When it comes to OER, the results show that IBs are more efficient than CBs with mean value 0.3800 and 0.4241 respectively. It implies that the lower the OER is, the more efficient the banks will be. When it comes to NPF, Islamic banks assets quality is higher than the CBs since the means 0.2274 and 3483 respectively. Lastly, CBs hold higher liquid assets comparing to the IBs with means 0.3345 and 0.3061 respectively.

Table 3. Descriptive Statistics

		Mean	Std. Deviation
CAR	CAR IBs	.3588	.1108
	CAR CBs	.2543	.0538
ROA	ROA IBs	.0287	.0246
	ROA CBs	.0379	.0534
OER	OER IBs	.3801	.0651
	OER CBs	.4241	.1256
NPL/NBF	NPF IBs	.2274	.1336
	NPF CBs	.3483	.1414
LDR/FDR	FDR IBs	.3061	.1820
	FDR CBs	.3345	.1455

Source: data analysis

Independent Sample t-test Result

The independent sample t-test was conducted to depict whether any significant differences between the selected variables exist. As shown in table 4, t-test revealed an insignificant difference in between IBs and CBs in terms of CAR, ROA, OER, FDR since the Sig. (2-tailed) value are (0.41, 0.396, 0.445 and 0.551) respectively. However, there is a significant difference when it comes to NPL/NPF at 0.004.

Table 4. t-test for Equality of Means

		t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
					Lower	Upper
CAR	Equal assumed	-.724	96	.471	-.432181	.201203
	Equal not assumed	-1.302	92.824	.196	-.291571	.060593
ROA	Equal assumed	-.519	96	.605	-.044399	.025995
	Equal not assumed	-.853	92.315	.396	-.030626	.012222
OER	Equal assumed	-.767	96	.445	-.157910	.069904
	Equal not assumed	-1.005	52.707	.319	-.131833	.043827
NPF	Equal assumed	-2.628	96	0.10	-.191473	4.830585
	Equal not assumed	-3.079	41.163	*0.004	-2.802017	7.441130
FDR	Equal assumed	-.599	96	.551	-.122687	.065797
	Equal not assumed	-.504	26.233	.618	-.144314	.087425

Significant at 1% *
Source: data analysis

Panel Data Regression Result

Panel data is a combination of time series data and cross section. There are several methods that used to estimate the regression model using panel data, including pooling least square (common effect) known as common effect estimation, which is the simplest method for estimating panel data by simply combining time-series data with cross-sections. This model only combines the two data without seeing the difference between time and individuals. To decide the best between the fixed effect approach (on the ice effect) and the random effect approach, we relied on

Hausman test.

$$Y_{nt} = \alpha + \beta X_{it} + \varepsilon_{it}$$

a: intercept
β1,……Bi : regression coefficients for the selected explanatory variables.
X1 …… Xi : included explanatory variables in our model, in order to identify the determinants of NPF.
εit: unexplained residuals.

$$NPF_{it} = \alpha + \beta_1 GDPG_{it-1} + \beta_2 lnEX_{nt} + \beta_2 ROA_{it-1} + \beta_3 FDR_{it} + \beta_4 OER_{it} + \beta_5 lnSIZE_{it} + \varepsilon_{it}$$

NPF: non-performing finance for bank i in year t.
GDPGit-1: gross domestic product growth at period t-1.
Ln(EX): exchange rate in year t.
ROAit-1: the ratio of return on assets for bank i at period t-1.
FDRit: finance to deposit ratio for bank i at period t.
OERit: efficiency ratio for bank i at period t.
LnSIZEit: total assets for bank i at period t.

We employed the Person correlation matrix in order to depict whether any Multicollinearity exists among the selected model. That will help to ensure the validity of the explanatory variables. The correlation coefficient between the explanatory variables are low for all the included variables in our model.

Table 5. Person correlation matrix

	ROA	EX	GDP	DEP	OER	FDR
ROA	1					
EX	0.160229	1				
GDP	-0.01526	0.360395	1			
DEP	-0.19501	0.519859	0.168029	1		
OER	-0.01334	0.39035	0.226392	0.006745	1	
FDR	-0.15502	-0.58962	0.061802	-0.41833	-0.30161	1

Source: data analysis

Kennedy (2008) points out that Multicollinearity is an obstacle when the correlation is higher than 0.80, which is not the case in our

study. The result of Hausman test indicates that the random effect is preferred to the fix effect model.

To measure the fitness of our model, we relied on R-squared, F-statistics, and the number of significant relationships between the predictors and NPF. Having 64% of R-Squared (see table 6), it illustrates that 64% of the variance of NPF are explained by the selected variables. The significant of F-statistics suggests that all the independent variables have an impact on NPF.

Table 6. Total pool (balanced) observations: 98

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.956463	0.533587	1.792514	0.0764**
ROA	0.242032	0.170026	1.423501	0.1580
Ln(EX)	0.065502	0.023477	2.790084	0.0064*
GDP	-0.005161	0.001030	-5.010811	0.0000*
Ln(size)	-0.041091	0.024005	-1.711761	0.0903**
OER	0.001953	0.000657	2.974370	0.0038*
FDR	-0.382499	0.092180	-4.149488	0.0001*
Random Effects (Cross)				
BOJS--C	0.113382			
IBTF--C	0.010539			
SHRQ--C	-0.094155			
BASY--C	-0.066898			
FSBS--C	-0.124642			
QNBS--C	-0.010950			
BSO--C	0.071018			
SGB--C	0.081624			
BBS--C	0.104190			
BBSF--C	-0.039607			
ARBS--C	0.247240			
CHB--C	-0.116949			
SIIB--C	-0.001304			
BBSY--C	-0.173487			
R-squared	0.639076			
F-statistic	26.85515			
Prob(F-statistic)	0.000000			

*Significant at 1%.
**Significant at 5%.

Table 6 further illustrates that all of the included variables in our model has a significant impact on NPF, except ROA. GDP growth and FDR has a negative significant impact on NPF at the level of 1%. At the same level, EX and OER have positive impact. Through table 6, it is also revealed that bank size has a significant negative impact at the level of 10%. When it comes to the profitability, it is resulted in an insignificant relation between ROA and NPF.

Discussion

The Performances of Syrian IBs and CBs

To begin with CAR, central bank of Syria has set the capital for IBs at 15 billion SP while for CBs at 10 billion SP. To be noted, neither IBs nor CBs have achieved the required capital except Qatar National Bank (QNB), which its capital has been raised to reach 15 billion more than the required capital. However, the results of this study are not consistent with the previous study conducted by Sukmana and Febriyati (2016). Their results show that there is a significant difference among IBs and CBs in terms of CAR, which is not revealed by the in-hand study. They argued that the CBs' experience helps the bank to accumulate capital, while in this study both CBs and IBs relatively fresh in Syrian market.

According to the 2013 annual financial statements, all banks were profitable, after the profits were reserved as the re-evaluation of the structural foreign currency. In some private banks, the structural positions of foreign exchange and unrealized gains were revalued only in the exchange market due to the rise in foreign exchange rates against the Syrian pound to ten times since the outbreak of the Syrian conflict. Having these profitability results could be attributed to the working environment for both IBs and CBs in the country, which restricts banking sector flexibility, for

instance, the increase of banks' stress as a result of western sanctions against Syria. Moreover, Swift's sanctions against the money transfer system have made it difficult for Syrian banks to conduct foreign currency transfers. A greater number of Syrian banks' customers have turned to banks in Lebanon and Jordan to open letters of credit in US$ and to complete regular trade transfers with other parties in the world. This also influences the banks' profitability.

With regard to efficiency ratio, this study is in line with the results of previous studies (Hasan, Mohamad, & Bader., 2008; Hassan, 2009). Due to the fact that both IBs and CBs are freshly established in the market, both industries have not given enough time to prove their performance in term of efficiency. On the other hand, another previous study confirmed that CBs were better than IBs in term of efficiency (Beck, Demirgüç-Kunt, & Merrouche, 2013). It is because Beck, Demirgüç-Kunt, and Merrouche (2013) took some Banks that have been functioning relatively long enough in their market comparing to the Syrian ones.

Non-performing loans/non-performing finance simply means a given finance, which cannot be repaid by the borrower. A high NPL/NPF means that there is a considerable amount of loans/finance when a debtor has not made the scheduled payments for a specified period. Subsequently, the less the NPL/NPF is, the better risk management quality in a bank. Syrian banks have been benefited from a boom in lending after the country put an end to its monopoly on the banking sector 10 years ago. The banks have also taken advantage of poor access to banking services in the country of 20 million people. By that time, it was an excellent opportunity for the private banks to invest in the Syrian market, only to be stymied again by the crisis in 2011. The mean values indicate that CBs have more risk compared to the IBs. A better risk management quality of IBs could be attributed to Shariah rules in which pure speculation in

money terms is prohibited, and the investments need to be asset-backed (Khalid & Amjad, 2012; Tariq, Tahir, Momeneen & Hanif, 2012). Having this high percentage of NPF due to the current condition repercussions on business in various cities in Syria. Subsequently, the managers' decision to use various tools and legal and illegal procedures (dialogue and persuasion) have been worked intensively to encourage non-performing loans to carry out settlement and rescheduling of non-performing loans. In 2011, credit losses at CBs accounted for the second largest share of total expenses at 29%, and so does IBs at 26%. Furthermore, the ratio of these two banking systems grew exponentially after 2011 (Central bank of Syria, 2019).

Having an insignificant output in term of liquidity ratio is mainly resulted from having same liquidity requirement for both IBs and CBs. The liquidity ratio should not be less than 30%, calculated by dividing the ready and ready-made funds by deposits and other liabilities (Central bank of Syria, 2019). Liquidity ratio is calculated daily for both IBs and CBs and should be reported monthly to Central Bank of Syria to make sure that the entire bank system commits to liquidity requirements. In case a bank violates the liquidity ratio, it must send the forms on a daily basis until it is confirmed the Bank's commitment to the prescribed minimum limits. Moreover, a bank will be penalized to pay 1/3650 out of the total violated amount, with a minimum amount of 100,000 S. P (Central bank of Syria, 2019). On the other hand, our study seems to be consistent with the results of Moin (2008) and Adewole and Patrick (2019).

Overall, there is an insignificant difference among most of the variables except for NPF/NPL. This similarities resulted from the working environment and shouldering the same regulation from the central bank. As depitced in this study, a high NPF ratios is resulted from the violent political crisis in the country which has

been affected all the economics sectors including banking one. Moreover, the significant difference in NPF is caused by the risk tendency in each or to the higher integration of IBs in the market. Thus, the following section attempts to identify the determinants of the NPL/NPF.

The Determinants of Non-Performing Finance

The result manifested that the GDP growth has a significant negative impact on the NPL\NPF ratio in both IBs and CBs. This result seems to be consistent with the previous studies (Badar & Javid, 2013; Beck, Jakubik, & Piloiu, 2013; Jimenez, 2006; Khemraj & Pasha, 2009; Dash & Kabra, 2010; Haniifah, 2015; Messai, & Jouini, 2013; Das & Dey, 2019). They attributed their result to the income fluctuation and its correlation with GDP growth. In the case of Syria, GDP growth has been declined drastically in the country due to the conflict. For instance, the western sanction and the extension of the conflict to the industrial areas and big cities such as Aleppo and Homs were the major factors. The strong negative of GDP growth in the country has weakened the borrowers' ability to meet their obligations to the IBs and CBs which is significantly affected its performance.

Ever since the conflict has been broken out, the exchange have not been stable. This fluctuation of exchange rate affected banks assets quality in the country. A deterioration in a currency value will cause an increase of the doubtful loans. With regard to the exchange rate, the results are consistent with what have been reported by previous studies (Das, & Dey, 2019; Khemraj & Pasha, 2009; Badar & Javid, 2013; Beck, Jakubik, & Piloiu, 2013). Decreasing the value of the currency will result in an increase of imported goods. In the case of Syria, the merchants suspend their businesses until the exchange rate takes an obvious position. Many merchants tried to suspend their business during the high increase in the exchange rate, but still

not enough as a protective since the exchange rate occurs within a moment. The central bank of Syria tries to protect the currency against foreign currency through open market operations, but this solution is not efficient during the conflict. It is worth noting that the impact caused by this intervention was working as "paracetamol" to maintain Syrian's currency value against other currencies.

Furthermore, the given ROA outputs seem not to be consistent with the previous studies. The results show positive but insignificant influence on NPF. Thus, it could be concluded that banks' profitability dose not result in the growth of NPF, due to the insignificant statistical results. When it comes to bank size, bigger banks possess better assets quality which is supported by the previous studies (Ahmad, 2013; Rajan & Dhal, 2003; Lis & Pages, 2000). Bigger banks have a better experience that will affect their lending strategies positively. Moreover, bigger banks experience better diversification comparing to the smaller ones, thus, the first reduce of the defaulter percentage is due to the proper diversification, rather than concentrated finance in a specific sector.

Banks' efficiency influences the NPF significantly. The more efficient the bank is, the non-performing finance will be faced. These outputs go hand in hand with the previous results attained by Ahmad (2013); Havidz, and Setiawan (2015). High-cost efficiency will reflect bad management, and a bad management decreases the quality of the asset. In the case of Syria, recovering bad loans will lead banks to incur extra operating expenses. It may take the form of additional monitoring costs, managing to dispose of collateral, negotiation with the defaulters, etc. As a result of growing NPF efficiency, cost will be shouldered by the banks in the form of growing recovering and monitoring cost. In terms of FDR, the results are similar with the results obtained by Louzis, Vouldis, and Metaxas (2012) and Ahmad (2013), that attribute their results to the mismanagement of time funds.

The results of this study suggest that commercial banks in Syria should pay attention to several particular variables before giving a finance, in order to reduce the percentage of doubtful loans. The process for managing NPF can be simplified by using the proper guidelines. The results of this study further are significant in that no other studies on this specific topic exist in literature and the analysis demonstrates bank position in Syria in terms of NPF. It is every bank's worst nightmare to have high doubtful finance. Fortunately, this nightmare does not have to happen to a bank if the right steps are implemented to reinforce risk management planning and practices. Islamic banks should increase their integration in the market to assure a proper profitability ratio. Holding a sufficient amount of liquid assets seems to be advisable, but when this amount is extra, a bank will be exposed to lose the opportunity of channeling the money to potential investors. Subsequently, accelerating economic growth in a country is a way to suffer from a violent crisis for a decade. Moreover, the central bank of Syria should consider a different liquidity requirement for Islamic banks. It is due to the facts that they have different working mechanism, thus it leads to different liquidity requirements.

Conclusion

Drawing on the data analysis, the independent sample *t*-test results manifested that IBs were better in term of assets quality (NPF) while there are not any significant differences with the rest of the selected variables. The panel regression depicts that exchange rate, GDP, banks' size, OER and FDR have a significant impact on the NPF. Whereas, ROA does not affect the assets quality. The results obtained from this study are significant in that no other studies on this specific topic exist in literature and the analysis demonstrates bank position in Syria in terms of NPF. As any research, the in-hand study has some limitations. We could use

variables specific to bank (size, profitability etc.) and macroeconomics variables. Therefore, further researches should focus on the banking distress taking NPF as an indicator and use the framework of macro stress testing, so that the macroeconomic circumstances on the level of the NPF can be estimated.

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