



Islamic banks (BI) Vs Conventional Banks (BC): Capital Structure and Profitability: An Empirical Study

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ABSTRACT:- In this paper we will develop a comparative study between Islamic and conventional banks. Our study will focus on an observation panel of 202 banks (Islamic and conventional banks) during the period of crisis " Supbrimes " (between 2007 and 2010).

We will proceed as follows: firstly, we display a reminder of our research hypotheses. In the secondly, we specify: variables, models, the methodology 'synthesis and data .Finally, we reveal and interpret the results.

I. THE MODEL ASSUMPTIONS

We have to test a duality hypothesis: First, we check empirically if differences exist really in profitability and capital structure between Islamic banks and conventional banks. Then we try reveal these differences if they reside. Then we try to reveal these differences if they reside.

Methodology, models, variables and sample.

In this section, we present selected variables emerged through the literature, models that we have adopted for our research and comparative study between Islamic banks and conventional will be presented.

1.1. Methodology

By adopting the "Stata 11" software, three econometric models are adopted in the empirical study. Each model highlighted, approves test our hypotheses and identify the interpretations.

1.2. Models' presentation

➤ Model on the determinants of capital structure

Capital structure = f (size, distribution of dividends, profitability, tangibility of assets)

$$CAP_{it} = c + \beta_1 SIZE_{it} + \beta_2 DIVPAYS_{it} + \beta_3 ROA_{it} + \beta_4 TANG_{it} + \varepsilon_{it}$$

➤ Model on profitability' determinants

Profitability = f (size, credit risk, liquidity of assets, capital ratio)

$$ROA_{it} = C + \beta_1 SIZE_{it} + \beta_2 LOSSERS_{it} + \beta_3 LAONS_{it} + \beta_4 CAP_{it} + \varepsilon_{it}$$

$$ROE_{it} = C + \beta_1 SIZE_{it} + \beta_2 LOSSERS_{it} + \beta_3 LAONS_{it} + \beta_4 CAP_{it} + \varepsilon_{it}$$

$$NIM_{it} = C + \beta_1 SIZE_{it} + \beta_2 LOSSERS_{it} + \beta_3 LAONS_{it} + \beta_4 CAP_{it} + \varepsilon_{it}$$

With:

□ □ c: Constant;

□ □ β_i : The coefficients of the explanatory variables (i = 1, ..., 4);

□ □ ε : The error term;

□ □ i: The individual (the bank);

□ □ t: period.

We will use the binary logistic regression and discriminated analysis to test the first and second hypothesis of our research; we try to find the real determinants contributing to discrimination between classical Islamic banks and their counterparts in terms of capital structure and profitability.

a. The binary logistic regression (logit model)

Logistic regression is defined as "a technique for fitting a regression surface to data when the dependent variable is dichotomous. This technique is used for studies to determine whether the independent variables can predict a dichotomous dependent variable¹."

In other words, the regression logistic² described as a technique to determine whether the independent variables can predict a dependent variable. The binary categorical dependent variable Y takes only two values (0 or 1) indicating the category membership.

b. The discriminant analysis (discriminant factor analysis)

The discriminant analysis is to distinguish between two or more groups on the basis of a set of variables. It is known as a technique of "scoring" which tries to determine the contribution of variables that explain the membership of individuals to groups. Two or more groups are compared on several variables to determine if they are different and in order to understand the nature of these differences. Discriminant function is:

$$L = \alpha + \sum_{j=1}^n \beta_j X_j + C \quad (4)$$

With:

- L: The best linear combination;
- α : constant;
- β_j : The regression coefficients for the variables n;
- X_j : Predictors.

$$Y_{it} = \alpha_{it} + \beta_{it} X_{it} + \epsilon_{it} \quad (5)$$

With:

- $i = 1 \dots$;
- N: referring to the country in a given period;
- $t = 1 \dots$;
- T: the year of observation

1.3. Variable's specifications

¹DESJARDINS (2005) "tutorial in Quantitive methods", University of Montreal, vol (1), p.35, 41.

²Logistic regression is widely used in many different areas in finance firms (predictive failure) medicine (characterization of patients compared to healthy example in bank assurance (detection risk groups) subjects political science (explanation of voting intentions), marketing (customer loyalty).

The following table summarizes the ratios 'profitability and capital structure mobilized for the comparison of Islamic and conventional banks. It presents the banks' profitability's determinants and the determinants of capital structure. We note that the type of bank is measured by the variable BANKTYPE; it is a categorical variable that takes the value 1 if the bank is Islamic and 0 otherwise.

1.4. The Sample

The sample (see Appendix 1)

Now we will develop the criteria that we used to determine the extras banks in our analysis:

- First, we gathered all the banks operating in the MENA extras on " Bankscope " region;
- Then We reduced this sample by removing all banks which their financial statements do not contain " commercial bank" or " Islamic banking ";

Table 1: Specification of variables

Variables à expliquer	Notations
Variables de profitabilité	
Rentabilité des capitaux propres	ROE^{09}
Rentabilité des actifs	ROA^{100}
La marge nette	NIM^{101}
Variable de structure de capital	
Ratio de capital	CAP^{102}
Variables explicatives	
Déterminant de profitabilité	
Taille	$SIZE^{103}$
Risque de crédit	$LOSSERS^{104}$
Liquidité des actifs	$LOANS^{103}$
Ratio de capital	CAP
Déterminants de structure de capital	
Taille	$SIZE$
Distribution de dividendes	$DIVPAY^{100}$
Profitabilité	ROA
Tangibilité des actifs	$TANG^{107}$

□ □ We sort the banks, not according to their activities, but based on available data. Thus, we eliminated all banks for which we do not have the ROE , ROA and NIM for the years 2007, 2008, 2009 and 2010.

Ultimately, our sample consists of Islamic banks and conventional commercial banks operating in the MENA region. Data were extracted from the database " Bankscope " over the period 2007 to 2010. Our sample contains 202 banks that are distributed among 61 141

Islamic banks and conventional banks (see Annex). Distribution by type and region échantillonnées108 banks is described in the following table:

Table 2: Bank by category and region

	Banques Islamiques	Banques Conventionnelles	Nombre total des banques
Le Moyen Orient	50	97	147
L'Afrique du Nord	11	44	55
Nombre total des banques	61	141	202
Nombre total des observations	244	564	808

108 sampled banks operating in:

Middle East : Iran , Egypt , Lebanon, Syria , Qatar , UAE, Bahrain , Saudi Arabia, Kuwait , Jordan, Oman , Yemen , Iraq, Palestine , North Africa : Tunisia, Soudan , Morocco , Algeria , Libya , Mauritania.

Table 3: Overall descriptive statistics of the sampled banks

Variables	Moyenne	Ecart type	Minimum	Maximum
ROA	9.117	18.363	-259.93	98.401
ROE	5.107	11.794	-104.04	92.39
NIM	4.625	17.501	-6.4	479
CAP	15.871	16.704	-47.4	99.639
SIZE	9.162	2.165	2.493	16.880
LOSSERS	114.543	96.829	0	844.068
LOANS	45.618	20.734	0	98.917
DIVPAY	40.362	35.766	-26.88	438.46
TANG	3.592	36.580	0	1029.72

Table 4: Descriptive statistics of conventional banks sampled

Variables	Moyenne	Ecart type	Minimum	Maximum
ROA	12.295	20.844	-259.93	98.401
ROE	2.733	5.097	-9.92	54.58
NIM	4.431	20.270	-2.08	479
CAP	12.681	10.379	-1.03	99.2
SIZE	9.444	2.025	3.797	16.880
LOSSERS	115.954	90.526	.181	844.068
LOANS	45.331	19.684	1.38	80.32
DIVPAY	39.842	36.812	-19.42	438.46
TANG	3.256	43.505	.001	1029.72

Table 5: Descriptive statistics of Islamic banks sampled

Variables	Moyenne	Ecart type	Minimum	Maximum
ROA	1.799	6.075	-28.41	35.102
ROE	10.565	18.906	-104.04	92.39
NIM	5.087	7.608	-6.4	70.711
CAP	23.245	24.470	-47.4	99.639
SIZE	8.509	2.337	2.493	13.245
LOSSERS	108.959	118.937	0	764.706
LOANS	46.319	23.128	0	98.917
DIVPAY	42.559	31.114	-26.88	148.064
TANG	3.730	4.714	0	52.3146

Table 6: Descriptive statistics by type of bank and the equality test averages

	Type de banque	Moyenne	Ecart-type	BC= BI		BC<BI		BC>BI	
				Sig.	t	Sig.	t	Sig.	T
ROA	BC	12.295	20.844	0	7.7216	1	7.7216	0	7.7216
	BI	1.799	6.075						
ROE	BC	2.733	5.097	0	-9.088	0	-9.088	1	-9.088
	BI	10.565	18.906						
NIM	BC	4.431	20.270	0	-0.482	0	-0.482	1	-0.482
	BI	5.087	7.608						
CAP	BC	12.681	10.379	0	-8.620	0	-8.620	1	-8.620
	BI	23.245	24.470						
SIZE	BC	8.509	2.025	0	5.744	1	5.744	0	5.744
	BI	9.444	2.337						
LOSSERS	BC	115.954	90.526	0.525	0.635	0.737	0.635	0.262	0.635
	BI	108.959	118.937						
LOANS	BC	45.331	19.684	0.543	-0.607	0.271	-0.607	0.728	-0.607
	BI	46.319	23.128						
DIVPAY	BC	39.842	36.812	0.576	-0.558	0.288	-0.558	0.711	-0.558
	BI	42.559	31.114						
TANG	BC	3.256	43.505	0	5.171	0	5.171	1	5.171
	BI	3.730	4.714						

Table 7: Summary of descriptive statistics by type of bank and the equality test averages

	Type de banque	Moyenne	Ecart type	Sig.	t
ROA	BC	12.295	20.844	0*	7.7216
	BI	1.799	6.075		
ROE	BC	2.733	5.097	0*	-9.088
	BI	10.565	18.906		
NIM	BC	4.431	20.270	0*	-0.482
	BI	5.087	7.608		
CAP	BC	12.681	10.379	0*	-8.620
	BI	23.245	24.470		
SIZE	BC	9.444	2.025	0*	5.744
	BI	8.509	2.337		
LOSSERS	BC	115.954	90.526	0.525 ^{ns}	0.635
	BI	108.959	118.937		
LOANS	BC	45.331	19.684	0.543 ^{ns}	-0.607
	BI	46.319	23.128		
DIVPAY	BC	39.842	36.812	0.567 ^{ns}	-0.558
	BI	42.559	31.114		
TANG	BC	3.256	43.505	0*	5.171
	BI	3.730	4.714		

(*) Significatif au seuil de 1% (**) Significatif au seuil de 5% (***) Significatif au seuil de 10% (n.s) Non significatif

1.5. Descriptive statistics and the equality test averages

The following tables outline the descriptive of the overall sample and categories of banks and the results of the test for equality of means of two samples of banks for each variable statistics.

The descriptive statistics 'analysis and test equality of means is a priori the following highlights:

The differences for variables NIM, ROA, ROE, SIZE, TANG and CAP are significant at the 1% level. Notwithstanding, the variables (DIVPAY, LOANS and LOSSRES), according to the test of equality of means are not significant. The NIM variable is significant at the 1% level (Rösly and BAKA, 2003; Olson and Zoubi, 2008).

The return 'measures on assets (ROA) and the return on equity (ROE) reflect a significant difference in returns between these two existing conventional and Islamic banks. Taking into account only descriptive statistics and test of equality, Islamic banks are more profitable (based on ROE) than their conventional counterparts (IQBAL, 2001; Olson and Zoubi, 2008). Return on assets (ROA), the value of 1.799 % for Islamic banks is significantly lower than conventional banks (12.295 %) (Rösly and BAKER, 2003). Also, the return on equity (ROE) is higher in Islamic banks (10.565 % compared to 2.733 %) , and KADER ASARPOTA (2007) invalidated this finding.

Size is significant at the 1% level, Islamic banks are significantly and relatively smaller size compared to conventional banks (8.509 % against 9.444 %). Thus, Islamic banks have fewer assets . In general, Islamic banking is a new industry and banks are recent institutions , which partly explains their small size. According to IQBAL (2007), over 60 % of Islamic banks have less than 500 million dollars in terms of assets.

This problem exposes Islamic banks to a very high level of risk, because they do not yet have sufficient means to diversify geographically. For example, Al Rajhi Bank one of the largest Islamic banks in the world had 49 billion of assets in 2010 against 2.67 trillion dollars for BNP Paribas (for example). As a result, Islamic banks do not have a high level of economies of scale and thus the cost reported profit is higher which reduces their competitiveness (CHATTI A. , 2010).

Also, the value of fixed assets over the asset (TANG) is significant in these banks. As well as the value of fixed assets in Islamic banks is higher. Now The "Asset Backing" or backing of a tangible asset is emerging as one of the principles of Islamic finance are recognized for its potential in terms of stability and risk management finance. To require that any contract is attached to a "palpable" activity, particularly with regard to issues reassures disconnect the financial sector to the real economy.

Premium, the ratio of capital structure (CAP) is significant at the 1% level, which confirms the hypothesis of the existence of differences between Islamic banks and conventional banks in terms of capital

structure. Thus, and according to the equality of the means test, Islamic banks have a higher proportion of equity (23.245 %) in comparison with their conventional counterparts (12.681 %). Consequently, we can conclude from this observation that capital is a source of funding for the most important assets in Islamic banks (IQBAL, 2001).

The mean difference in the ratio of liquid assets (LOANS) is not significant, and the dividend payout ratio (DIVPAY) for conventional and Islamic banks is insignificant as well there is no significant difference in the exposure to credit risk (LOSSRES) Islamic banks and conventional banks.

II. RESULTS AND INTERPRETATIONS

2.1. Comparison of profitability and capital structure of Islamic banks and conventional

2.1.1. Results

a. Results 1 binary logistic regression (see Appendix 4)

The dependent variable is to predict a categorical variable taking the value "1" for an Islamic bank and "0" for a conventional bank.

The independent variables are: ROA , ROE , and NIM CAP . The explanatory model is:

$$\text{Ln} \frac{P1}{1-P1} = -1.414 -0.073 \text{ ROA} + 0.73 \text{ ROE} + 0.4 \text{ CAP} \quad (6)$$

Regression reveals that the return 'ratio on assets (ROA) , the ratio of return on equity (ROE) and the ratio of capital CAP are significant and therefore possible to distinguish Islamic banks to conventional banks.

Capital ratio (CAP) has a positive sign. This result suggests that the higher the value of CAP , the higher the probability that the bank is Islamic is high. Return on assets (ROA) and return on equity (ROE) carry a negative sign, suggesting that the more return on assets, the lower the probability that the bank belongs to the category of Islamic banks is high. For cons, the explanatory variable net margin (NIM) is not significant.

b. Result of discriminant analysis 1

Ratios of profitability and capital structure are good discriminators between the two categories of banks. The following table provides indices that reflect the importance of each predictor. The idea is similar to normal regression coefficients. Plus the value of standardized coefficients, the greater the respective variable contributes to discriminate between Islamic banks and conventional banks.

Discriminant function is as follows:

$$L = -0.601 \text{ ROE} \text{ ROA} + 0.640 + 0.694 + 0.14 \text{ NIM CAP} \quad (7)$$

These results show that the existence of differences between Islamic and conventional banks in terms of capital structure and profitability. Thus, the ratio of capital (CAP) is the best predictor that discriminates between Islamic banks to conventional banks, the ratio (ROE) is the second strongest predictor followed by the return on assets (ROA) and the ratio of net margin (NIM) .

The hypotheses H1 and H4 are validated.

Table 8: Summary of the binary logistic regression' results and the discriminant analysis 1

	Sig.	Variables	Analyse logistique binaire	Analyse discriminante
Capital	s.	CAP	(+) CAP	CAP
	n.s			
Profitabilité	s.	ROA	(-) ROA	1- ROE
		ROE	(+) ROE	2- ROA
	n.s	NIM	NIM	3- NIM

(-) Impact négatif (+) Impact positif (n.s) Non significatif (s.) significatif

c. Results 'interpretation

Overview and following binary logistic regression, Islamic banks tend to have a higher equity ratio (ROE) representing the second and also good discriminator, a ratio of return on assets (ROA) lower. Against by the ratio of net margin (NIM) does not predict membership in one of two categories of banks.

According to the results of the equality test, the test by the method of binary regression revealed that more capital ratio represents method of discriminant analysis the first good discriminator, the higher the probability that the bank is Islamic is high. This confirms the hypothesis that Islamic banks have escaped the crisis under their best banking capabilities to absorb financial shocks by holding a higher level of capital " safety cushion " (K. Toumi , L. BELKACEM and VIVIANI JL, 2011) promoting financial strength (Jawadi F., 2011). According to Wilson (2009), Islamic financial institutions are significant sources of capital and contribute to the development of the global Islamic finance.

The high ROE of Islamic banks compared to their conventional counterparts is due in particular to their business model. Our analysis shows that conflicts of interest between managers and holders of investment accounts generate additional agency costs, and thus promote equity in relation to the equity investment accounts. Costs resulting additional branches of this relationship are the costs related to the control exercised by the shareholders and the «Compliance Committee of Sharia " to safeguard the interests of the holders of investment accounts , since the latter have no right to manifest itself by withdrawing their funds. "The importance of agency costs this relationship makes the equity financing less expensive "(K. Toumi , L. and BELKACEM VIVIANI JL, 2011).

Theoretically and in accordance with the equality of means tests, we saw in the first chapter of the second part that the ratio of assets (ROA) is smaller for Islamic banks. Islamic finance has defined a set of extra-financial criteria that must comply with these banks to be in full compliance. These requirements may significantly affect the strategies applied by Islamic banks and encourage them to adopt a particular strategy. However, Islamic banks do not venture into speculation (Principle 2: Prohibition «Maysir» and "Gharar ") , its assets are backed by tangible assets. The risk of the portfolio of Islamic banks compared to the portfolio of conventional banks, Practically , the assets of Islamic banks is concentrated in active CT (concentration risk) and some return (CHATTI A. , 2010).

However, several researchers in Islamic finance believe that the combination of funding, as it is practiced today by the Islamic banking industry is weak (AL Jarhi and IQBAL, 2002).

Nevertheless, in practice, the lack of funding and participatory modes of domination fixed income , particularly the " Murabaha " in the portfolios of Islamic banks are widespread phenomena. Indeed, Islamic banks operate largely the technique of " murabaha " (70 % on average) for their funding (IQBAL et al. , 1997). This is actually validated by binaire1 logistque regression.

2.2. Comparison of profitability ‘determinants and capital structure of Islamic banks and conventional

2.2.1. Results

Similarly, we have adopted a model of binary logistic regression and discriminant analysis in order to assimilate the determinants of profitability and capital structure.

a. Results of binary logistic regression 2 (see Appendix 4)

Dependent variable to be predicted is a categorical variable taking the value "1" for an Islamic bank and "0" for a conventional bank independent variables are :

- The determinants of profitability : SIZE, LOSSRES, LAONS ;
- The determinants of capital structure : SIZE, DIVPAY, ROA and TANG.

The results of the binary logistic regression model leads to the following explanation:

$$\text{Ln} \frac{P1}{1-P1} = 0.001 \text{ DIVPAY} + 0.37 \text{ CAP} + 0.037 \text{ LOANS} + 0.221 \text{ TANG} \quad (8)$$

Method of binaire2 logistic regression , the ratio of capital CAP , the ratio of guarantees (TANG) are statistically significant and have a positive sign while DIVPAY ratio are statistically significant and carry a negative sign (Sanussi and MOHAMED , 2007) . In contrast, the ratio of size (SIZE) ROA ratio, liquidity ratio (LOANS) and LOSSERS ratio are not significant .

b. Result of discriminant analysis 2

$$L = -0.641 \text{ ROA} + 0.508 \text{ CAP} - 0.441 \text{ SIZE} - 0.040 \text{ LOSSERS} + 0.370 \text{ LOANS} + 0.320 \text{ DIVPAY} + 0.641 \text{ TANG} \quad (9)$$

These results show that the TANG ratio is the best predictor that can distinguish Islamic banks from conventional banks. The capital ratio is the second CAP good predictor followed by DIVPAY ratios, ROA and LOSSERS.

Sub- validated assumptions:

H2c : There is a difference in terms of volume of dividend (DIVPAY) distributed between Islamic and conventional banks.

H2d: There is a difference in terms of volume of guarantees (TANG) between Islamic banks and conventional banks.

H5b: There is a difference in terms of capital structure (CAP) between Islamic banks and conventional banks.

H5c: There is a difference in terms of liquid assets (LOANS) between Islamic banks and conventional banks.

The following sub-hypotheses uncommitted:

H2a: There is a difference in terms of profitability (ROA) between Islamic and Conventional banks.

H5a: There is a difference in terms of size (SIZE) between Islamic and conventional banks between Islamic and conventional banks.

H5D: There is a difference in terms of exposure to credit risk (LOSSERS) between Islamic and conventional banks.

Table 9: Summary of the results of the binary logistic regression and discriminant analysis

	Sig	Variables	Analyse logistique binaire	Analyse discriminante
Les déterminants de la structure de capital	s.	ROA	(-) ROA	1- ROA
	s.	TANG	(+) TANG	2- SIZE
	n.s.	SIZE	SIZE	3- TANG
	n.s.	DIVPAY	DIVPAY	4- DIVPAY
Les déterminants de la profitabilité	s.	LOANS	(+) LOANS	1- SIZE
	s.	CAP	(+) CAP	2- LOANS
	n.s.	SIZE	SIZE	3- CAP
	n.s.	LOSSERS	LOSSERS	4- LOSSERS

(-) Impact négatif (+) Impact positif (n.s) Non significatif (s.) significatif

c. Interpretation of results

c. 1. The determinants of capital structure

Consolidation of real and sustainable economy is the basic mission of the Islamic finance (WALNUT, 2009). This is embodied in the requirement traceability of the money that is reflected by the tangibility of assets, expanding not backed by real assets is excluded banks and credit can not initiate or enhance a speculative process. This reflects the high level of variable TANG Islamic banks compared to their conventional counterparts (according to the results of binary regression 2). We note that, according to several theorists , bank failures can be explained by their speculative behavior derived from liberalization and financial globalization (MIOTTI et al. , 1998). However, this is prohibited by Islamic banks . We note here the very important role of the «Advisory Committee Sharia " it plays in the compliance of the range of products and services offered by Islamic banks in Muslim ethical standards (Ghayad , 2008).

The impact of asset tangibility on capital structure was basically discussed (GROPP and Heider , 2010; CAGLAYAN , 2010 OCTAVIA & Brown , 2008). Thus, the theory suggests that pecking a firm has more tangible assets, it will be less sensitive to informational asymmetries and therefore more easily it will have access to equity (contrary to what advanced the theory of " Trade Off ") . Islamic banks tend to be more capitalized and have a higher property and equipment assets, this proportion is validated our results (CAP and TANG are significantly positive).

We note that Islamic banks adopt various contracts of sale and lease ("Murabaha ", " Ijara ", " Istisnaa " and " Salam "). For all contracts, the bank must have the property prior to lease or sell to customers, hence the importance of tangible assets ratio relative to bank assets. Now there are two different phases in the implementation of Islamic Contracts: A first step is to acquire the property by the Islamic bank (thus

becoming owner), the second phase is to transfer the property to the client. The positive sign of the variable TANG brand "Islamic» nature of Islamic banks.

One principal axiom of Islamic finance is the requirement of traceability of the money that is embodied by the tangibility of assets in financial transactions. The backing of any financing tangible assets (Pillar # 5 : The backing of the financial transactions of tangible assets) returns Islamic finance diligently participates in the financing of the real economy.

As we have seen previously that one of the elements that led to the crisis of capitalism is the dematerialization of money. It must be understood that a return to finance the service of man is the philosophical principle of Islamic finance. Thus, speculation is prohibited. The latter is one of the most hotly contested elements of a moral point of view. He is also a regular engine crises (ROSSIER, 2010). Indeed, today , we know that the models predict about a financial crisis every seven years (RICOL R., 2008). This corresponds to the definition of market cycles.

At each cycle we perceive the same symptoms: A progressive swelling of a speculative bubble (fueled by speculators), and the bursting of the latter. And Islamic finance advocates a systematic backing a real asset to a product which can also confirm the hypothesis of his escape from the crisis «subprime "(van den Broek , 2011). Islamic financial products, the implementation of the basis of sharing profit and loss (Chapra , 2008) avoid creating a hollow in the real economy financial economy , with all the risks of speculative bubbles that entails (GONZALEZ- HERMOSILLO , 1999) . It should also be noted that avoids the waste of scarce resources (van den Broek , 2011) "The Islamic finance instruments has to face the problem of Subprime " (Chapra , 2008). Islamic banks tend to be more capitalized and have higher tangible assets in proportion. The structure of the asset would increase the level of capital of Islamic banks (GROPP and Heider (2010).

Financial and extra- financial screening for the selection of assets / financial projects is a cornerstone of Islamic finance. Thus, Islamic banks may hunt a glaring number of investment opportunities sectors (diversification problem) (VIRGINIA MARTIN, 2012). This strengthens a distribution rate of higher dividends in Islamic banks, which consolidates ours results.

In the same vein, financial firms that distribute dividends have on average a higher level of capital. Thus, dividends endow an informational role and thus provide a good signal on the financial strength of the firm (FRANK and GOYAL, 2005; OCTAVIA and BROWN, 2008). This positive relationship between the capitalization of Islamic banks and the distribution of dividends is already strengthened by the regression model logistique².

c.2. Determinants of profitability

The ratio of CAP discriminates Islamic banks conventional ones. Capital is an important determinant of bank profitability (Islamic and conventional). Our results show that Islamic banks are more profitable under a capital ratio higher CAP, as shown in binary logistic regression (IQBAL, 2001).

Also, our results show that Islamic banks tend to have a higher ratio of return on equity ROE and capital ratio higher WTP. We note that the most profitable banks (Based on ROE) are strongly capitalized (the case of Islamic banks) (NACEUR and GOAIED , 2003; SANUSI and ISMAIL , 2005).

The positive sign of the ratio LOANS in binary logistic regression 2 reflects that the more this ratio is , the higher the probability that the bank is Islamic is high. This stipulates that Islamic banks have a greater ability to transform deposits of income generating assets (Metwally, 1997; SAMAD and Hassan , 2000; KADER and ASPORTA 2007; SAMAD , 2004; SUFIAN and Muhd - ZULKHIBRI , 2007 DIETRICH and WANZENRIED , 2011).

Regardless, the results show that credit risk (LOSSRES) , the ratio of liquid assets and the size (SIZE) are not statistically significant according to the model of binary logistic regression and not having a good discriminators by discriminant analysis.

III. COMPARISON OF THE IMPACT OF TRADITIONAL DETERMINANTS OF CAPITAL STRUCTURE: ISLAMIC BANKING VS CONVENTIONAL BANKS (SEE ANNEX 5)

Table 20 provides the results for the panel data regression whose dependent variable is the ratio of capital CAP. The independent variables are the traditional determinants of capital structure for Islamic banks and conventional banks (ROA DIVPAY , SIZE , TANG) . Our goal is to compare the impact of these determinants on the classical capital structure of the two categories of banks.

3.1. Model specification a. Homogeneity' test

Based on the panel data models raise the problem of the correct specification. Firstly, it should specify the homogeneous or heterogeneous nature of the data generating process. This is to confirm or deny the existence of a specific effect of each individual. Econometrically, this amounts to testing the null hypothesis of equality constants. In the case where the probability of acceptance of the null hypothesis (Fisher statistic) is less than 5 %, is equal constants automatically rejected.

b . Hausman test

The Hausman' specification test to determine the type most appropriate for estimating the model specific fixed or random effect. This test allows to accept or reject the null hypothesis that the estimator MCG (if the effect is random) is better than the estimator Within (if the effect is fixed.) If the probability of the test is more than 5%.we accepts the null hypothesis.

3.1.1. The difference between the impact of various conventional determinants of capital structure of Islamic banks compared to conventional banks

3.1.2. Regression model on panel data, the dependent variable: CAP

a. results

Table 10: Regression model on panel data, the dependent variable: CAP

808 observations 202 unités de coupe transversale incluses Longueur des séries temporelles : minimum 1, maximum 4		
Variables explicatives	Effets fixe (EF)	Effets aléatoire (EA)
const	4.797 (0.135) ^{ns}	12.359 (0.000)
ROA_conv	.315 (0.002) [*]	.014 (0.259)
ROA_isl	.103 (0.001) [*]	-.030 (0.663)
DIVPAY_conv	-.002 (0.815) ^{ns}	-.001 (0.876)
DIVPAY_isl	.038 (0.560) ^{ns}	.045 (0.020)
SIZE_conv	-.129 (0.001) [*]	.019 (0.951)
SIZE_isl	-3.866 (0.000) [*]	-.186 (0.751)
TANG_conv	-.002 (0.659) ^{ns}	-.002 (0.634)
TANG_isl	.129 (0.216) ^{ns}	.083 (0.431)
BANKTYPE		11.729 (-.478)
R ²	0.049	
Test de différence de constante entre groupes Hypothèse nulle : Les groupes ont une ordonnée à l'origine commune Statistique de test: F (201, 598) = 31.75 avec p. critique = P (F (201, 598) > 31.75) = 0.000		
Test de Breusch-Pagan Hypothèse nulle : Variance de l'erreur individuelle = 0 Statistique asymptotique de test : Chi-deux(1) = 835.33 avec p. critique = 0.000		

(*) Significativité à 1% (**) Significativité à 5% (***) Significativité à 10% (n.s.) Non significatif

The test for the presence of individual effects allows us to reject the null hypothesis (constant difference test between groups). So we must include the individual effects in the model. The model is heterogeneous; the

application of MCP is not justified. The rejection of the homogeneity of the data leads to two types of models: models with fixed effects and random effects model. The Hausman test can reject the random effects model.

And we retain the fixed effect model. The goodness of fit is acceptable with 5% of the total variance explained.

Table 11: Summary table: The impact of the determinants of capital structure on the dependent variable of the capital structure (CAP)

Variabes dépendantes	CAP (EF)
Const	n.s
ROA Conv	+
ROA Isl	+
DIVPAY Conv	n.s
DIVPAY Isl	n.s
SIZE Conv	-
SIZE Isl	-
TANG Conv	n.s
TANG Isl	n.s
BANKTYPE	

(-) Impact négatif (+) Impact positif (n.s) Non significatif

b. Results 'interpretation

The fixed effects model does appear that the size and profitability of the assets are significant at 1%. Thus, the return on assets positively affects capital ratio of Islamic banks and conventional banks. There is no difference in the impact of profitability, measured by return on capital assets on the capital structure of Islamic banks and conventional banks. By against the impact is lower in Islamic banks.

The negative relationship profitability and debt in conventional banks is already confirmed by studies GROPP and Heider (2010), and CAGLAYAN SAK (2010) and OCTAVIA BROWN (2008). Our results show that this is true for Islamic banks also. The most profitable banks hold more equity. Profitability increases, and the internal resources of the bank. In addition, the most profitable banks face low costs of issuing equity as they are known by the market. A positive relationship between profitability and capital ratios support the theory of hierarchical financing (information asymmetries are lower in Islamic banks).

Thus, capital ratio is negatively related to the size for both types of banks. There is no difference in the impact of size on the capital structure of Islamic banks and conventional banks (GROPP and Heider , 2010; CAGLAYAN and SAK , 2010 OCTAVIA and BROWN, 2008). We find that the impact of size is higher in Islamic banks (information asymmetries are lower in these Islamic financial institutions). By against a big impact is lower in the capital structure of Islamic banks.

The explanatory variables, the rate of dividend distribution (DIVPAY) and tangibility of assets (TANG), are not statistically significant. These two variables do not determine the capital structure of the two categories of banks (according to binary logistic regression and discriminant analysis, and TANG DIVPAY are good discriminators).

In addition, the variable BANKTYPE was not taken into account by the fixed effects model by multicollinearity problem (fixed categorical variable in time).

3.2. Comparison of the impact of traditional determinants of profitability: Islamic Banks versus conventional banks

The tables provide the results for the panel data regression whose dependent variables are respectively the return on assets ROA, return on equity ROE and NIM ratio of net margin. The independent variables are the traditional determinants of profitability for Islamic banks and conventional banks (SIZE, LOANS, CAP, and LOSSRES).

Our goal is to compare the impact of these determinants on the traditional measures of profitability of the two categories of banks.

Regression model on panel data, the dependent variable: ROA

A. results

Table 12: Regression models on panel data, the dependent variable: ROA

806 observations 202 unités de coupe transversale incluses Longueur des séries temporelles : minimum 1, maximum 4		
Variables explicatives	Effets fixe (EF)	Effets aléatoire (EA)
const	2.340 (0.836)	4.490 (0.264) ^{n.s}
SIZE_conv	.325 (0.779)	-.934 (0.001) [*]
SIZE_isl	2.147 (0.426)	-.038 (0.003)
LOANS_conv	-.353 (0.014)	-.069 (0.102) ^{n.s}
LOANS_isl	.134 (0.335)	.033 (0.556)
CAP_conv	.823 (0.007)	.045 (0.005)
CAP_isl	.000 (0.995)	.063 (0.001)
LOSSERS_conv	.022 (0.079)	-.019 (0.001)
LOSSERS_isl	-.001 (0.935)	-.050 (0.002)
BANKTYPE		-6.107 (0.403) ^{n.s}
R ²	0.030	
Test de différence de constante entre groupes Hypothèse nulle : les groupes ont une ordonnée à l'origine commune Statistique de test: $F(201, 596) = 1.57$ avec p. critique = $P(F(201, 596) > 1.57) = 0.000$		
Test de Breusch-Pagan Hypothèse nulle : Variance de l'erreur individuelle = 0 Statistique asymptotique de test : $\chi^2(1) = 14.36$ avec p. critique = 0.0002		
Test de Hausman Hypothèse nulle : Les estimateurs des MCG sont non biaisés Statistique asymptotique de test : $\chi^2(8) = 14.07$ avec p. critique = 0.080		

(*) Significativité à 1% (**) Significativité à 5% (***) Significativité à 10% (n.s.) Non significatif

The test for the presence of individual effects allows us to reject the null hypothesis (constant difference test between groups). The model is heterogeneous; the application of MCP is not justified. The Hausman test can reject the random effects model. And we retain the fixed effect model. The goodness of fit is acceptable with 3% of the total variance explained.

Table 13: Summary table: The impact of the determinants of profitability on the Dependent variable of profitability (ROA).

Variables dépendantes	ROA (EA)
Const	n.s
SIZE_conv	-
SIZE_Is	-
LOANS_conv	n.s
LOANS_Is	n.s
CAP_conv	+
CAP_Is	+
LOSSRES_conv	-
LOSSPROV_Is	-
BANKTYPE	n.s

(-) Impact négatif (+) Impact positif (n.s) Non significatif

b. Results' interpretation

Size negatively affects the ROA of Islamic banks as well as conventional banks: Studies show that if the size of the bank exceeds a certain level, the profitability tends to decrease. The probability that the failure of a large bank causes is higher (PASIOURAS and KOSMIDOU, 2007). In this way, Stiroh et al. (2006) show the negative effects of size and emphasize that the more a bank is, the more difficult it is to manage. In addition, the authors point out that the size may result from an aggressive growth strategy, achieved at the expense of margins and performance.

In the same vein, DE JONGHE (2010) shows that small banks are better able to withstand adverse economic conditions, while Barros et al. (2007) argue that small banks are more likely to get good performance and less chances of getting poor performance. We note that many other authors respond to the argument of economies of scale and argue that some costs can be reduced simply by increasing the size (Berger et al., 1987).

In contrast, the positive relationship between capital ratio and return on assets is the same for both categories of banks. Highly capitalized banks have more opportunities to take advantage of investment opportunities. And more highly capitalized banks are less exposed to the risk of bankruptcy, so bankruptcy costs are lower. The costs of external financing are also reduced. We also note that the Islamic side amplifies the impact of CAP on ROA. Capital ratio has a significant CAP harder on ROA for Islamic banks compared to conventional banks impact.

This is due to several factors related to Islamic banks such as costs reduced by more tangibility banking bankruptcy transaction costs and informational smaller by reducing information asymmetries and diversification of business and activities in Islamic banks, etc. This is confirmed in the results of the logistic regression and discriminant analysis revealed that Islamic banks are more strongly capitalized compared to their conventional counterparts (BASHIR, 2003; SANUSI and ISMAIL, 2005; PASIOURAS and KOSMIDOU 2007; Sraïri 2008, ROUISI et al, 2010. Olson and Zoubi, 2011).

In addition, the negative relationship between credit risk (LOSSERS), measured by the ratio of total provisions NPLs / loans and the return on assets is the same for both categories of banks. This ratio is an indicator of the quality of the assets of the two banks. A high value indicates poor asset quality and a high risk of default which negatively affects the profitability of banks. We note that the negative impact of credit risk on the profitability is higher in Islamic banks (ATHANASOGLU 2008; Sraïri 2008; ROUISI et al, 2010. WANZENRIED DIETRICH, 2011). By cons, for determining the "LOANS", the impact on bank profitability is not significant.

3.3.1. Regression model on panel data, the dependent variable: ROE

a. results Table 20: Regression models on panel data, Dependent Variable: ROE

806 observations 202 unités de coupe transversale incluses Longueur des séries temporelles : minimum 1, maximum 4		
Variables explicatives	Effets fixe (EF)	Effets aléatoire (EA)
const	-.003 (1.000)	.363 (0.901) ^{n.s}
SIZE_conv	.228 (0.723)	.188 (0.512) ^{n.s}
SIZE_isl	-.574 (0.701)	.405 (0.360) ^{n.s}
LOANS_conv	-.079 (0.317)	.013 (0.004)
LOANS_isl	.212 (0.006)	-.085 (0.003)
CAP_conv	.347 (0.040)	-.069 (0.008)
CAP_isl	.170 (0.053)	.060 (0.000)
LOSSERS_conv	.005 (0.426)	.004 (0.464) ^{n.s}
LOSSERS_isl	.015 (0.104)	.009 (0.243) ^{n.s}
BANKTYPE		3.961 (0.455) ^{n.s}
R ²	0.027	
Test de différence de constante entre groupes Hypothèse nulle : les groupes ont une ordonnée à l'origine commune Statistique de test: F (201, 595) = 2.84 avec p. critique = P (F (201, 595) > 2.84) = 0.000		
Test de Breusch-Pagan Hypothèse nulle : Variance de l'erreur individuelle = 0 Statistique asymptotique de test : chi-deux (1) = 110.69 avec p. critique = 0.000		
Test de Hausman Hypothèse nulle : Les estimateurs des MCG sont non biaisés Statistique asymptotique de test : Chi-deux (8) = 13.98 avec p. critique = 0.082		

(*) Significativité à 1% (**) Significativité à 5% (***) Significativité à 10% (n.s.) Non significatif

The test for the presence of individual effects allows us to reject the null hypothesis (constant Difference test between groups). The model is heterogeneous; the application of MCP is not justified. The Hausman test can reject the random effects model. And we retain the fixed effect model.

Table 14: Summary table: The impact of the determinants of Profitability on the dependent variable of profitability (ROE)

Variables dépendantes	ROE (EA)
Const	n.s
SIZE_conv	n.s
SIZE_Is	n.s
LOANS_conv	+
LOANS_Is	-
CAP_conv	-
CAP_Is	+
LOSSRES_conv	n.s
LOSSPROV_Is	n.s
BANKTYPE	n.s

(-) Impact négatif (+) Impact positif (n.s) Non significatif

b . Interpretation of results

Based on the panel regression, we find that the determinant LOANS positively affects ROE conventional banks (Olson and Zoubi, 2011; ROUISI et al, 2010 .) And negative ROE of Islamic banks (SANUSI and ISMAIL, 2005; BASHIR and HASSAN, 2003), a large volume of loans is the most important source of income of the bank and may positively affect profitability. In fact it is the result that the regression panel data relates. This is countered after the crisis "subprime" which questioned the flagrant volume of loans that caused the slump of lack of liquidity (SALT P., 2009).

We find a negative relation between ROE and CAP conventional banks, against , we observe a positive relationship between ROE and CAP Islamic banks. Now, the debt will increase the return on equity in conventional banks weakening the capital ratio, which explains the negative relationship between CAP and ROE and vice versa.

However, for the remaining determinants (SIZE, LOSSERS), the impact on bank profitability is not significant.

3.3.2. Regression model on panel data, the dependent variable: NIM

a. results

Table 22: Regression models on panel data, dependent variable: NIM

	794 observations 202 unités de coupe transversale incluses Longueur des séries temporelles : minimum 1, maximum 4	
Variables explicatives	Effets fixe (EF)	Effets aléatoire (EA)
const	-.433 (0.969)	6.419 (0.153) n.s
SIZE_conv	-.534 (0.640)	-.099 (0.824) n.s
SIZE_isl	.639 (0.813)	-.001 (0.999) n.s
LOANS_conv	.139 (0.326)	-.020 (0.665) n.s
LOANS_isl	.120 (0.406)	.008 (0.899) n.s
CAP_conv	.069 (0.817)	.055 (0.006)
CAP_isl	.050 (0.744)	.524 (0.524)
LOSSERS_conv	.000 (0.996)	-.008 (0.341) n.s
LOSSERS_isl	.000 (0.992)	-.003 (0.819) n.s
BANKTYPE		-2.767 (0.739) n.s
R ²	0.003	
Test de différence de constante entre groupes Hypothèse nulle : les groupes ont une ordonnée à l'origine commune Statistique de test: F (201, 584) = 1.68 avec p. critique = P (F (201, 584) > 1.68) = 0.000		
Test de Breusch-Pagan Hypothèse nulle : Variance de l'erreur individuelle = 0 Statistique asymptotique de test : chi- deux (1) = 2.58 avec p. critique = 0.108		
Test de Hausman Hypothèse nulle : Les estimateurs des MCG sont non biaisés Statistique asymptotique de test : Chi-deux (8) =4.10 avec p. critique = 0.8476		

(*) Significativité à 1% (**) Significativité à 5% (***) Significativité à 10% (n.s.) Non significatif

Table 15: Summary table: The impact of the determinants of profitability on the dependent variable profitability (NIM)

Variables dépendantes	NIM (EA)
Const	n.s
SIZE_conv	n.s
SIZE_Is	n.s
LOANS_conv	n.s
LOANS_Is	n.s
CAP_conv	+
CAP_Is	+
LOSSRES_conv	n.s
LOSSERS_Is	n.s
BANKTYPE	n.s

(-) Impact négatif (+) Impact positif (n.s) Non significatif

IV. CONCLUSION

In our empirical study, we used variables (ratios of capital structure and profitability) to explain the differences between Islamic and conventional banks.

In contrast, the binary logistic regression and discriminant analysis revealed the existence of differences in capital structure and profitability between the two categories of banks. We arrive at the conclusion that the return on equity ROE, the ratio of return on assets ROA and the ratio of capital CAP are good discriminators between Islamic banks and their conventional counterparts. In general, Islamic banks have a larger volume of equity and a lower volume of assets.

Regarding the determinants of capital structure ratios of tangible assets relative to total assets (TANG) and the dividend payout ratio (DIVPAY) seem good discriminators between Islamic banks and conventional banks. On the other determinants of capital structure: the size (SIZE) and the return on assets (ROA), there are no significant differences.

In addition, the determinants of profitability: the liquidity ratio (LOANS) and the ratio of capital (CAP) appear variables that discriminate Islamic banks.

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