

Title :

Do Islamic banks use loan loss provisions to smooth their results?

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Abstract

The purpose of this research is to examine issues about income smoothing practices in Islamic banking sector. Islamic banks offers a unique environment to test income smoothing, compared to conventional banks actives in many other countries, since they perform under Sharia laws and they adopt the dynamic provisioning policy. This study, explores first income smoothing practices on a sample of 66 Islamic banks over the period (2001-2006) using Beidleman and Eckel coefficients. Second, it focuses on detecting artificial smoothing practices by loss provision for loans and investment in Murabaha, Musharka, and Mudarabah. Results confirm the income smoothing practices by Islamic banks. 75% of the banks for the sample have a determination coefficient between 0.5 and 1 and 44% have a variation coefficient less than 0.5. However, this smoothing is not practiced through LLP. The variable earnings before taxes and provisions is not significant in all specifications. These findings reveal the Islamic specificity of income smoothing in banking sector and the importance of the dynamic provision policy which requires special attention from supervisors and regulators as a tool to improve financial stability.

Keywords: Islamic banks, income smoothing, loss provision for loans and investment in Murabaha, Musharka, and Mudarabah.

1. INTRODUCTION

Many studies investigate income smoothing practices¹ conducted by industrial and commercial firms. Few of them are devoted to income smoothing in banking industry and are generally interested in American banks to identify these practices while emphasizing the relation between provisions policy and net income. The use of loan loss provisions for income smoothing purposes by bank was first explored for the USA by Scheiner (1981). A large empirical evidence supporting this hypothesis has been accumulated in the literature (Greenawalt and Sinkey, 1988; Scholes *et al.*, 1990; Collins and Shackelford, 1995; Bhat, 1996; Niswander and Swanson, 2000; Anandarajan and Hasan, 2003; Anandarajan *et al.*, 2005). Some studies, however, fail to find evidence of income smoothing through loan loss provisions (Wetmore and Brick, 1994; Beatty *et al.*, 1995; Ahmed *et al.* 1999).

Especially, those related to Islamic banks are nonexistent and report mixed results. Ismail and Be Lay (2004) find evidence about earnings and capital management by Malaysian banks using loan loss provision over the period (1997-1999). Zoubi and Al-Khazali (2007) confirm this finding on a sample comprised from 65 conventional and Islamic banks operating in GCC. Managers use loan loss provisions to smooth earnings over the period (2002-2003). However, Ismail *et al.* (2004) show that bank managers of 10 commercial banks in Malaysia, which offer the Islamic banking services from 1998 to 2001, use realized security gains rather than loan loss provision to manage earnings.

Islamic banks offers a unique environment to test income smoothing, compared to conventional banks operating in many other countries such as US, since they adopt the dynamic provisioning policy. Moreover, Islamic banks should set up an allowance for loss provision to absorb any future losses, because they operate under Islamic law principles (the Sharia) leading risk sharing. Our contribution lies in testing the hypothesis of income smoothing in the context of Islamic banks for a large group of countries.

This study examines, first, income smoothing practices on a sample of 66 Islamic banks from Bankscope database over the period (2001-2006) using Beidleman and Eckel coefficients. Then, it focuses on detecting artificial smoothing practices by loss provision for loans and investment in Murabaha, Musharka, and Mudarabah. Results show that 49 banks (75%) have a determination coefficient between 0.5 and 1 and 44% banks have a variation coefficient less than 0.5 (29 from 66). These results confirm the income smoothing practices by Islamic banks. However, this smoothing is not practiced through LLP. The variable earnings before taxes and provisions is not significant in all specifications.

¹ Income smoothing practices “is described as a common form of earnings management that uses accounting techniques to reduce the fluctuations in net income over time” (Richard et al., 2003).

The rest of the paper is organized as follows. Section 2 presents the characteristics of Islamic banks mainly the regulation of loan loss provisions. Section 3 presents a literature review of banking income smoothing practices. Section 4 explains the research design used to test income smoothing as well as the database. We present the results of the empirical analysis in section 5. Section 6 concludes the paper.

1. ISLAMIC BANKS CHARACTERISTICS

1.1 Shari'a principles

Islamic banks are governed by Shari'a laws which make their functioning different from conventional banks. Firstly, Shari'a law applied by Islamic banks prohibits paying or receiving interest in all transactions (Riba). These laws also forbid trading in speculative activities (Gharar), dealing with derivatives products and investment in sectors such as tobacco, alcohol and pork products.

The prohibition of interest makes the investment approach adopted by Islamic banks specific since they operate on profit/loss sharing arrangements. Bank provides funds needed for a project while the entrepreneur offers labor and expertise. The profits (or losses) from the project are shared between the bank and the entrepreneur at a fixed ratio. Such a rule is also applicable to deposits, depositors receive dividends when the bank records positive results or lose part of their savings if the bank makes losses. Investing their funds jointly with customers through mainly three instruments, Murabah, Musharaka, and Mudarabah, Islamic banks become partners and they share risk with both depositors and entrepreneurs. This requirement of risk sharing makes return on equity of Islamic banks higher than for conventional banks (Karim and Ali, 1989).

Profit and loss sharing principle gives also the ability of the Islamic bank to absorb shocks on assets' returns. Such a smoothing effect makes Islamic bank's returns less volatile than those of conventional banks. So, this principle plays the role of an insurance against cyclicity in returns (Hassoune, 2002).

"The balance between moral and material requirement" is another principle adopted by Islamic banks. It encourages them to finance their investments using mainly equity financing and customers' deposit account while conventional banks use both debt and equity to finance their investments (Karim and Ali; 1989).

1.2 Provisioning practice

A fundamental difference between conventional and Islamic banks consists on their provisioning policy². The AAOIFO recommend Islamic banks to adopt dynamic provision that allows them to anticipate their credit risk. Dynamic provisioning sets provisions for loans to take account for expected losses rather than actual losses.

This practice implies, from one hand, a natural smoothing of banks resulting through manipulating the expected loss estimatesd (Jaudoin, 2002). On the other hand, dynamic provisions policy helping to anticipate and coverage credit losses in loans along the lending cycle, enable banks to have a safety funds that can be used during periods of economic distress. Such a practice, by strengthening the soundness of the bank, contribute to restrict procyclicality in lending and produces smoother loan loss provision ratios (Pérez et al., 2006 ; Laeven and Majnoni, 2003).

The standard Financial Accounting Standard (Number 11) related to provisions and contingent liabilities is flexible and entail a degree of uncertainty. Islamic Banks must preserve an adequate level of provisioning against the impairment of assets and problem exposures by recognizing a general and specific provision. The former, is based on a percentage of the financing portfolio, allows the bank to cover eventual losses which are not specifically identified. The second is the amount needed to write the assets down to cash equivalent value if this is lower than cost (FAS 11³). Sheikh Nizam Yaquby provides that “The AAOIFI's activities are considered a fundamental groundwork that underpins Islamic banking activities by keeping them away from individual, personal reasoning. The collective personal reasoning (ijtihad) of the AAOIFI is highly important in this vital aspect of Islamic economic life. Therefore, these standards deserve strict adherence, avoid confusion, misunderstanding, ambiguity, and to seek clarity and sound business activities”.

This paper is investigating whether such a dynamic provision practice affects the behavior of Islamic banks in earnings management.

2. LITERATURE REVIEW

An extensive literature was devoted to studying motivations of earnings management. Those observed in the unregulated sectors may also be encountered in the banking industry; they include i) minimizing

² Islamic Banks adopted the financial accounting rules established by the International Accounting Standards Board, previously International Accounting Standards Committee (IASC).

³ FAS 11: “Specific Provision which is the amount set aside to reflect devaluation of a certain asset i.e., write it down to its current cash equivalent value. General Provision which is the amount set aside to reflect a potential loss that may occur of current unidentifiable risks in relation to Total of Assets “Receivables and Investment and Financing”.

political costs, ii) minimizing financing costs and iii) the maximization of wealth managers (Cormier, Magnan and Morad (1998); Stolyow and Breton, 2000).

One motivation for income smoothing practices in banks stems from the market stakeholders (financial analysts, investors, bankers, supervision agencies) perception of business risk assigned essentially to income variability. Indeed, investors' decisions are usually based on a set of ratios such as return on equity, return on assets, the capitalization rate of earnings and changes in the results. The need to comply with reasonable levels of these ratios could lead banks to manage their results as investor's associate high volatility of returns with a higher risk (Ma 1988).

Moreover, banks are more subject to constant attention of governments, especially for which their results are fluctuating. Significant declines may signal a crisis and therefore encourage regulators to intervene. In addition, banks subject to special supervision by the central banks use to manage earnings because it contributes to the financial stability of the economy. Such monitoring involves changing their accounting results, considered as an important indicator in evaluating the overall financial strength of the sector. The regulatory capital requirement under the Basel Accord (1988) has also created incentives for bank managers to manage their earnings and to adjust their results as a component of equity to meet this minimum requirement. This can be achieved via managing the biggest discretionary accruals in banks' expense account, the loan loss provisions (Kim et Kross, 1998 and Shrieves et Dahl, 2003).

Prior literature is unanimous on the use of loan loss provisions by banks as the main tool of smoothing income since the bank business activity is based on credits (Gonzalez 2008; Hasan and Wall 2004, Bhat 1996). Managers can easily manipulate these provisions upward (downward) when the result is lower (higher) than desired since they have private information regarding the default risk (Wahlen, 1994). Empirically, the results of previous researches are controversial about the use of such a technique. Wall and Koch (2000) explain these differences through the diversity of selected samples and the study periods. This practice is especially pronounced before the banking reforms of 1990 when the provisions were included in full among the regulatory capital (Collins et al. 1995; Moyer 1990).

For U.S. banks, earnings management through provisioning policy has been confirmed in several studies (e.g. Greenwalt and Sinkey (1988) on a sample of 106 banks (1976-1984), Ma (1988) on a panel of 900 observations (1980-1984), Bhat (1996) on a sample of the 148 largest banks during the period 1981-1991). However, U.S. banks will also engage more aggressively in such practices since the adoption of new reforms on capital adequacy that limit the inclusion of provisions in the solvency ratio to 1.25% (Ahmed et al. 1999).

Other studies have addressed the use of provisions to manage earnings in different countries. Naciri (2002) shows that the implementation of the Basel Accord in Canada had no effect on performance management as the Canadian banks continue to manage the provision for doubtful debts before and after adoption (1980-1996). In Japan, Shrieves et Dahl (2003) and Agarwal et al. (2006) demonstrate the use of this technique in times of financial distress. Anandarajan *et al.* (2003) and Pérez *et al.* (2006) show that Spanish banks, despite regulatory requirements on provisioning leaving little discretion for managers, use reserves to manage their results.

Results of the previous literature are mixed on the use of loan loss provisions by banks' to manage earnings in different countries. The question now arises to know whether this practice is also applied in Islamic banks.

Zoubi and Al-Khazali (2007), using a sample of 55 conventional and 10 Islamic banks for the period 2000-2003, support the income smoothing hypothesis. They show that managers of conventional and Islamic banks in the GCC region smooth income by loss provision. Managers will recognize provisions only if the current result is enough. Similarly, Sundararajan (2005) find, from a sample of 14 Islamic Banks in 8 countries, a considerable smoothing of returns paid to profit sharing investment accounts, despite wide divergences in risk. Ismail and Be Lay (2004) also find evidence of earnings by Malaysian banks using loan loss provision over the period (1997-1999). These results are closed to Shahimi *et al.* (2005). They have highlighted that the Islamic banks in Malaysia do exercise income smoothing through loan loss provisioning as well as their conventional counterparts on a panel of 15 commercial banks providing Islamic banking products and services over the period 1996-2003.

Muthalib *et al.* (2005) hypothesize that managers habitually practice earnings management for opportunistic reasons (Watts and Zimmerman, 1978). They argue that Islamic principles “discourage opportunistic behaviors” then Muslim managers are expected to practice less earnings management than non-Muslim managers. Using data for 99 Malaysian firms from 1980-1996, Muthalib *et al.* (2005) find no statistical evidence of differences between the earnings management practices of the Muslim managed firms and the non-Muslim managed firms listed on the Kuala Lumpur Stock Exchange in Malaysia. However, Ismail *et al.* (2003), using data covering ten commercial banks in Malaysia, which offer the Islamic banking services from 1998 to 2001, show that managers did not use loan loss provision to manage capital and earnings. They use rather realized security gains and losses to manage earnings.

Therefore, we expect that Islamic banks will behave in the same way as conventional banks with earnings management i.e. they smooth their results using the loan loss provisions.

3. METHODOLOGY

3.1 Sample selection

To test the income smoothing, our main criteria of selection from the international database "Bankscope" consists in establishing a homogeneous sample of Islamic banks, that is 156 banks. Then, to benefit from a long horizon, we selected banks for which financial informations (loan loss provision for loans and investment in Murabaha, Musharka, and Mudarabah⁴), are available in three successive years. This constraint reduces the sample to 66 banks operating in 19 countries over the period (2001-2006)⁵. 65.2% of banks including in the sample come from Bahrain, Iran, United Arab Emirates, Turkey, Kuwait, Sudan and Yemen. So, our sample is fairly representative of Islamic banking sector because GCC countries, especially Bahrain, Kuwait, and the UAE capture about 13% of the total assets of Islamic banks in the world. Indeed, the highest spread of the industry has taken place in the GCC countries followed by Malaysia, Iran and Sudan (Mazhar M. Islam, 2003).

3.2 Research design

To test income smoothing practices through loan loss provisions (LLP) by Islamic banks, we use an approach in two stages.

Firstly, we are interested in studying the variability of the object of smoothing (net income before taxes and Zakat). We identify the group of smoothing banks by using Beidleman's coefficient (1973) and Eckel's coefficient (1981). Beidleman's coefficients (called coefficient of determination) assumes a steady growth of the net income overtime; it measures the correlation of the object of smoothing over time. Eckel's coefficients (called coefficient of variation) measure the variability of the object of smoothing with its average over time; it's calculated as the ratio between the standard deviation of the changes in the net income over the sample period for each bank and the mean of the net income.

Smoothing is supposed to be perfect when the variation coefficient is nil or/and the determination coefficient is equal to the unit. Despite the various techniques available, smoothing can never be

⁴ Investments in Mudaraba, Murabaha, and Musharka equivalent to total credit, net income for Islamic banks includes conventional net income before taxes and Zakat, non performing loans or overdue.

⁵ The distribution of 66 Islamic banks by 19 countries is: Bahrain(11) UAE(7) Turkey(6)Iran(6) Sudan(5) Pakistan(5) Kuwait (4)Yemen(4) Brunei(2) Qatar (2)Malaysia(2) Bangladesh(2) Arabia saudia(2) Egypt(2) Jordan(2) Russia(1) Indonesia (1)Mauritania(1) Tunisia(1).

practically perfect. So, to select the smoothing banks, we adopt the threshold of 1 to distinguish between smoothing and non smoothing banks for the determination coefficient and 0.5 for the coefficients of variation (Chalayer and Dumontier, 1995).

Secondly, we have to examine whether Islamic banks use LLP to smooth their results. We focused only on the artificial form of income smoothing resulting from managing loan loss provision for loans and investment in Murabaha, Musharka, and Mudarabah. The econometric model used in this research is based on the study of Pérez et al. (2006) which is interested on the dynamic provision on a sample of 142 Spanish⁶ banks over a period 1986-2002. It is the same provisioning policy practiced by Islamic banks.

The empirical literature shows that there are numerous variables which can explain the banks' loss provision. Some of them are non-performing loans (NPL), total loans (TL) and GDP growth as variables to control the credit risk on the non-discretionary component.

The variable (NPL) measures the non performing loans of bank i in period t , according to its balance sheet data; this variable is normalized by the total assets of the bank. (TL) is the ratio of total loans to total assets and represents a proxy for the risk profile of the bank. NPL and TL coefficients are expected to be positive. (GDP) is the rate of Gross Domestic Product growth in year t . It is intended to capture the effect of macroeconomic conditions (business cycle) on loan loss provisions. The GDP coefficient is expected to be negative.

The variable (EBTP) is the net operating income before provisions and taxes of bank i in period t , normalized by its total assets. This variable is usually used in prior literature as a proxy for earnings management practices. Under the inter-temporal income smoothing hypothesis, as suggested by Moyer (1990), Beatty et al. (1995), Collins et al. (1995) and Ahmed et al. (1999), we would expect a positive relation between earnings (before taxes and provisions) and loan loss provisions.

Previous studies control also for the capital adequacy ratio effect on the loan loss provisions. Kim and Kross (1998) and Ahmed et al. (1999) found that banks with low capital declined significantly LLPs. The variable CAR is approximated by the total capital ratio of the bank in period t to its total assets.

Bank size (measured by the log of total assets) and consolidation (a dummy variable takes 1 if data comes from accounting statements of consolidated banking groups and 0 otherwise) are included in the model as control variables. For consolidation variable, any expected sign is provided.

⁶ Spain offers a unique environment that has developed and started to apply from July 2000 the dynamic provision.

Once the credit risk and control variables were selected, the following regression model was used to examine how managers use LLPs to smooth income:

$$LLP_{it} = \alpha + \beta_1 TL_{it} + \beta_2 NPL_{it} + \beta_3 EBTP_{it} + \beta_4 CAR_{it} + \beta_5 SIZE_{it} + \beta_6 CONS + \beta_7 GDP_{it} + \varepsilon_{it} \quad (1)$$

Where:

LLP_{it}: Specific and general loan loss provisions of bank i in year t normalized by the total assets

TL_{it}: Ratio of total loans normalized by the total assets

NPL_{it}: Non Performing Loans normalized by the total assets

EBTP_{it}: Earnings before taxes and provisions normalized by the total assets

CAR_{it}: Capital Adequacy Ratio approximated by total funds to total assets

SIZE_{it}: Logarithm of Total Assets

CONS_{it}: Dummy variable takes 1 if data comes from accounting statements of consolidated banking groups and 0 otherwise

GDP_{it}: The rate of growth Gross Domestic Product in year t

We estimate model (1) using bank-specific random effects corrected for heteroscedasticity. Our empirical specification follows closely the models used in the literature to test the income-smoothing hypothesis (see, for example, Greenwald and Sinkey, 1988).

4. EMPIRICAL ANALYSIS AND RESULTS

4.1 Descriptive statistics

Table 1 presents descriptive statistics for all the variables used in our estimation. The ratio of loan loss provisions to total assets equals 0.54 percent on average with a maximum of 8.9% percent. Based on a standard deviation of 0.88 percent, we advance differences between banks in loan losses provisioning practices. Our results are closed to those found out by Pérez *et al.*(2006) who found, on a Spanish sample, the ratio of loan loss provisions to lagged total assets is about 0.65 percent on average (with a standard deviation of 0.88 percent). Indeed, Zoubi and Al-Khazali (2007), report that conventional and Islamic banks in the GCC region make a low estimate of loss provision; they allocate on average only 1.31% of their total loans and investment to the loan loss provision with a maximum of 25.68 per cent. On average, NPL to total assets is 4.23 percent with a maximum of 20.98 percent, which is similar to the level of 7.53 per cent founded by Zoubi and Al-Khazali (2007). As shown in the table 1, total credits is 53.4 per cent of assets for Islamic banks including in our sample. Varying between 0 and

100% with a standard deviation at 21.33 percent, this indicates a large dispersion in the level of credits collected by Islamic banks. The average of benefit before taxes and provisions to total assets is 2.29 percent with a maximum of 26.11 percent (ROA before tax and loss provision reported by Zoubi and Al-Khazali is at 2.23 percent). Total funds are high, they represent 20.04 times the total loans and investments for our sample. On average, the natural logarithm of total assets is at 13.73 percent and the standard deviation is 1.66 percent, which shows a little deviation of the size from their mean.

Table 1 : Descriptive Statistics

Variables	Mean	Median	S.D.	Min.	Max.
LLP	0.0054	0.0042	0.0088	-0.0170	0.0899
NPL	0.0423	0.0262	0.0435	0.0000	0.2098
TL	0.5340	0.5701	0.2133	0.0000	1.0000
EBTP	0.0229	0.0205	0.0349	-0.2967	0.2611
CAR	20.0482	11.4100	23.0057	-7.3200	100.00
SIZE	13.7306	13.7298	1.6671	10.2579	17.1510

Where LLP_{it}: The value of net specific and general loan loss provisions of bank *i* in year *t* normalized by the total assets; NPL_{it}: Non Performing Loans normalized by the total assets; TL_{it} : ratio of total loans normalized by the total assets; EBTP_{it}: Earnings before taxes and provisions normalized by the total assets; CAR_{it}: Capital Adequacy Ratio approximated by total funds to total assets; SIZE_{it}: Logarithm of Total Assets.

Table 2 presents the correlation matrix of the regression variables. The correlation coefficients among the independent variables are low suggesting the absence of multicollinearity problem. The correlation between loan loss provisions and profit before tax and loan loss provisions is negative, suggesting that banks do not exercise income smoothing on average. The correlation between loan loss provisions and loan growth on the one hand and loan loss provisions and non performing loans on the other hand are positive confirming the dynamic provision practice by Islamic banks. The correlation between loan loss provisions and GDP growth is also negative, suggesting an anti-business cyclical behavior of bank's loan loss provisioning (Perez *et al.*, 2006).

Table 2: Correlation matrix

	LLP	NPL	TL	EBTP	CAR	SIZE	GDP	CONS
LLP	1							
NPL	0.513	1						
TL	0.0464	-0.0085	1					
EBTP	-0.0007	-0.0365	0.3487	1				
CAR	-0.2997	-0.218	-0.0099	-0.0071	1			
SIZE	0.1975	0.0615	0.0237	0.2998	0.034	1		
GDP	-0.0597	-0.3236	-0.0616	0.2104	0.1042	0.1206	1	
CONS	0.0286	0.2193	0.21	0.2773	-0.0067	0.3134	0.0793	1

Where LLP_{it} : The value of net specific and general loan loss provisions of bank i in year t normalized by the total assets; NPL_{it} : Non Performing Loans normalized by the total assets; TL_{it} : ratio of total loans normalized by the total assets; $EBTP_{it}$: Earnings before taxes and provisions normalized by the total assets; CAR_{it} : Capital Adequacy Ratio approximated by total funds to total assets; $SIZE_{it}$: Logarithm of Total Assets; GDP_{it} : The rate of growth Gross Domestic Product in year t ; $CONS_{it}$: Dummy variable takes 1 if data comes from accounting statements of consolidated banking groups and 0 otherwise

4.2 Regression results

Table 3 shows the number of smoother and non-smoother firms that were determined according to the Beidleman's and Eckel coefficients. Results show that 29 from 66 banks have a variation coefficient less than 0.5 and 49 banks have a determination coefficient between 0.5 and 1. To overcome these arbitrary thresholds, we cross the results from the variation coefficients with those from the determination coefficients. This allows to identify 26 smoother banks (39,4% of the sample).

This finding confirms that Islamic banks manage their results to reduce the fluctuations in net income over time. The table shows that determination coefficients can detect a number higher for smoother banks (75%) than the Eckel coefficient (only 44%). Over the study period (2001-2006), Islamic banks have experienced a growth phase and an expansion of their credits. So, they are likely to increase their results displayed from one year to another and not reproducing the same result.

Table 3: Number of smoother and non-smoother banks

	CV \leq 0.5	0.5 \leq CD \leq 1	CV \leq 0.5 & 0.5 \leq CD \leq 1
Smoother Banks	29 (44 %)	49 (75 %)	26 (40 %)
Non smoother Banks	37	17	40
TOTAL	66	66	66

Once income smoothing practices are highlighted by Islamic banks, then we investigate if they use loan loss provisions to smooth their results. Table 4 contains the main results of our econometric investigation. It reports four regressions using:

- The full sample
- The panel that includes only observations for which the determination coefficient is between 0.5 and 1.
- The panel that includes only observations for which the variation coefficient is less than 0.5.
- The panel that includes only observations for which the determination coefficient is between 0.5 and 1 and the variation coefficient is less than 0.5.

For these four regressions, we test two specifications: the first one includes all the explicative variables defined in our model. In the second specification, we replace the GDP variable by its lagged (Salas and Saurina, 2002)

Table 4: Results of the regression model

	Whole sample		Sub-Sample 0.5 <=CD <=1		Sub-Sample CV <= 0.5		Sub-Sample CV <= 0.5 & 0.5 <=CD <=1	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
	LLP	LLP	LLP	LLP	LLP	LLP	LLP	LLP
NPL	0.144** (2.26)	0.138** (1.82)	0.144*** (2.27)	0.139** (1.82)	0.0257 (0.64)	0.0558** (1.76)	0.0257 (0.64)	0.0558** (1.76)
TL	0.00873** (1.89)	0.00528* (1.28)	0.00707 (1.42)	0.00149 (0.26)	0.00645 (0.88)	0.00315 (0.47)	0.00645 (0.88)	0.00315 (0.47)
EBTP	- 0.0168 (-0.81)	- 0.00626 (-0.35)	-0.0148 (-0.69)	-0.00148 (-0.08)	- 0.0171 (-0.54)	0.00112 (0.02)	- 0.0171 (-0.54)	0.00112 (0.02)
CAR	-0.00012*** (-3.50)	-0.00010** (-3.03)	-0.00012*** (-3.35)	-0.000110*** (-2.87)	-0.000087** (-2.30)	-0.00009*** (-2.99)	-0.000087** (-2.30)	-0.00009*** (-2.99)
SIZE	0.00188*** (2.44)	0.00175*** (2.37)	0.00195* (2.34)	0.00188** (2.24)	0.00118** (2.02)	0.00119** (2.22)	0.00118** (2.02)	0.00119** (2.22)
CONS	-0.00373 (-1.25)	-0.00444 (-1.48)	-0.00383 (-1.24)	-0.00468 (-1.48)	0.00264 (1.21)	0.000903 (0.56)	0.00264 (1.21)	0.000903 (0.56)
GDP	0.000398 (1.26)		0.000391 (1.24)		-0.000313 (-1.51)		-0.000313 (-1.51)	
LGDP		-0.0000551 (-0.20)		-0.000103 (-0.39)		-0.000191 (-0.94)		-0.000191 (-0.94)
cons	-0.0296** (-2.17)	-0.0231* (-2.04)	-0.0295* (-2.20)	-0.0222* (-2.04)	-0.0153 (-1.66)	-0.0145 (-1.76)	-0.0153 (-1.66)	-0.0145 (-1.76)
N	109	95	101	88	40	36	40	36
R ²	37.51%	34.60%	37.65%	35.08%	44.96%	43.02%	44.96%	43.02%

Where LLP_{it} : The value of net specific and general loan loss provisions of bank i in year t normalized by the total assets; NPL_{it} : Non Performing Loans normalized by the total assets; TL_{it} : ratio of total loans normalized by the total assets; $EBTP_{it}$: Earnings before taxes and provisions normalized by the total assets; CAR_{it} : Capital Adequacy Ratio approximated by total funds to total assets; $SIZE_{it}$: Logarithm of Total Assets; GDP_{it} : The rate of growth Gross Domestic Product in year t ; $CONS_{it}$: Dummy variable takes 1 if data comes from accounting statements of consolidated banking groups and 0 otherwise.

The regression results for the full sample are available only for 60 countries (Brunei, Egypt, Sudan, Iran, Mauritania and Tunisia were excluded because a lack of availability of data) which reduced the number of observations to 104.

*, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

The results presented in the table 4 lead us some conclusions.

i) The income smoothing hypothesis was not supported either in the whole sample or in the sub-samples. The benefits before tax and provisions scaled by total assets is a non significant factor in determining the amount of loss provision in all specifications. This result suggests that Islamic banks do not use loss provision to manage and smooth their results and confirms those found by Ismail *et al.* (2004) and Abdul Rahman *et al.* (2005). They find that firms directed by Muslim managers practice less earnings management than firms directed by non-Muslim managers. However, this finding is different from those obtained by Zoubi and Al-Khazali (2007) who report that Islamic banks operating in GCC countries manage their results like conventional banks. This result can be explained firstly, by the fact that Islam is against opportunism. As noted by Rahman *et al.* (2005), “Islam encourages its followers to acquire wealth but prohibits them from acquiring the wealth using oppression and forbidden means”. Secondly, dynamic provisions policy adopted by Islamic banks can naturally provide stable results without any intervention (Mann and Michael, 2002). So, this provision policy deserves attention from regulators and supervisors as a instrument to improve financial stability. Finally, the principle of the “Balance between Moral and Material Requirement” adopted by Islamic banks encourages them to acquire physical assets on their own; which usually become their ownership before resale. Doing so allow banks to reduce over extension of credit and hence their profitability. In contrast, conventional banks use excessively the credit and debt financing, which can lead to more financial risks problems.

ii) Significant and robust results of the proxy of the capital adequacy ratio on loan loss provision were found for all specifications in our regression. The negative sign of the CAR ratio indicates that, overall, the lower the capital ratio, the higher the loan loss provision. This finding supports the fact that Islamic banks well capitalized involve in less risky activities respecting profit and loss sharing principal in contrast with conventional banks. Banks with high levels of CARs might be encouraged to embark in riskier activities leading to riskier credit portfolios (Boudriga *et al.*, 2009). Further, this is consistent with the findings of Moyer (1990) and Beatty *et al.* (1995) who provide that loan loss provisions are used as a mechanism to increase loan loss reserves and hence the capital ratio.

iii) All the coefficients of the credit risk proxy variables have the expected sign. The coefficient of non-performing loans over total assets, NPL, is positive and significant. The coefficient of loans over total assets, TL, is also positive and significant but only for the whole sample (first model). So, we can advance that the dynamic provisioning is a practice followed by Islamic banks but this finding should be performed with care since the variable TL is not significant for the sub-sample specifications.

GDP and lagged GDP Growth have mixed results and they are not statistically significant in all specifications. After controlling for the rest of the variables, the business cycle does not affect bank's loan loss provisions,

iv) The variable CONS which control for the accounts consolidation does not have a significant effect on loan loss provisions. The log of total assets is another control variable, measuring the size of the bank, have a positive and significant effect for all specifications. This finding confirms those found by Zoubi and Al-Khazali (2007) who report that larger banks may have higher levels of business and may be expected to have higher loan loss provisions than smaller banks.

CONCLUSION

The aim of this study is to test income smoothing practices by loan loss provisions on a sample of 66 Islamic banks over the period (2001-2006). Data are collected from BANKSCOPE database. Beidleman and Eckel coefficients detect numerous Islamic banks resorting to income smoothing practices. 75% have a determination coefficient between 0.5 and 1 and 44% have a variation coefficient less than 0.5. However, a surprising result indicates that managers of Islamic banks do not use loan loss provisions to smooth their results. Adopting the dynamic provision policy and the profit/loss share principle may favor a flat provision and incomes. Results show also that the lower the capital ratio, the higher the loan loss provision. This result supports that Islamic banks well capitalized involve in less risky activities respecting profit and loss sharing principle in contrast with conventional banks. As far as, GDP is not statistically significant indicating that business cycle does not affect current loan loss provision decisions of banks.

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