Accounting Conservatism in Islamic Banking

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Abstract: This study explores the nature of Islamic banks' financial reporting incentives created by *Shariah* with respect to accounting conservatism. With adherence to *Shariah* rules, an Islamic bank, as a separate entity, is obligated to pay an Islamic tax or *Zakah* in order to maintain social justice and alleviate poverty. This indicates that the financial reporting of Islamic banks would be influenced by such an obligation. Many Islamic accounting scholars cast doubt on the relevance of a conservatism concept. Some scholars claim that the conservatism concept is not relevant to Islamic accounting reporting because it leads to understating assets that could be subject to *Zakah* (Adnan and Gaffikin, 1997). Others argue, however, that what is meant by a conservatism concept in Islamic accounting is the selection of the accounting techniques that have the most favorable impact on society not the owner. For instance, it is better to overestimate earnings "anti-conservative" for *Zakah* purposes (Haniffa and Hudaib, 2001). I test the hypothesis that Islamic banks apply an anti-conservatism practice in financial reporting to be consistent with *Shariah* rules. Using Ball and Shivakumar's (2005) model, I find that Islamic banks recognize an earnings decrease on a timely basis while recognizing an earnings increase with delay. This would suggest that Islamic banks take the same accounting conservatism approach as conventional banks, and that *Shariah* does not play a significant role on Islamic banks' financial reporting practices. In further analysis, I find that Islamic banks report more conservatively than conventional banks due to higher litigation risk and Islamic banks in addition having the obligation for *Zakah* payment.

Keywords: Islamic banks, *Shariah* law, Islamic tax, conservatism

JEL: F30, G21, G28, N25, O53

1. Introduction

In this paper, I explore how reported accounting numbers are shaped by Islamic or *Shariah* rules that govern Islamic banks. Under *Shariah* law, all activities of Islamic banks, at least in theory, have to be based on a profit-loss sharing arrangement or PLS. Major funding of Islamic banks comes from PLS where profits are shared at a predetermined ratio while the losses are born exclusively by the depositors, or investment account holders. Therefore, reporting is very important in Islamic banks, as investment account holders require greater information to monitor their investment.

I seek a deeper understanding for the nature of financial reporting incentives created by *Shariah* in Islamic banks. I mainly focus on financial reporting incentives related to accounting conservatism, which is an important and widely studied property of a firm's financial reporting. To this end, I investigate the concept of accounting conservatism in Islamic finance and empirically analyze relations between key characteristics of bank-, country-, and economy-level institutions and one dimension of accounting conservatism, the asymmetric recognition of economic gains and losses into earnings.

Islamic banks are placed in a position where they are expected to play a significant role in equitable redistribution of wealth in society and attaining social justice. One of the most important tools for many Muslims for ensuring wealth redistribution and transfer of wealth from rich to poor is *Zakah* or Islamic tax (Badawi, 1979). In fact, *Zakah* is one of the major "Pillars" in Islam that all Muslims are obligated to pay. Islamic banks are not an exception. Islamic banks, as separate legal entities, are also obligated to pay *Zakah* in order to maintain social justice and fair distribution of wealth, which in turns indicates that financial reporting is correspondingly more likely to be influenced by such payment. Due to *Zakah* obligations, many Islamic accounting scholars cast doubt on the relevance of a conservatism concept to Islamic banks' financial reporting. Gambling and Karim (1991) state that the key motivation for financial reporting is the provision of information relevant to *Zakah*, and argue that adherence to the concept of conservatism would lead to an understatement of earnings that could be subject to *Zakah*. Thus, they conclude that this concept is not relevant to Islamic financial reporting. Moreover, Khan (1994) supports the view that conservatism is inappropriate for the purposes of *Zakah* computation and its objectives.

From a regulatory perspective, the Accounting and Auditing Organization for Islamic Financial Institutions (hereafter AAOIFI), which is the regulatory body that sets accounting, auditing, ethics, as well as *Shariah* standards for Islamic financial institutions, including banks, keeps silent as to the definition of a conservatism concept and does not mention it in the AAOIFI standards.

To overcome the dilemma of conservatism and its relevance to Islamic finance, some researchers view conservatism for Islamic business differently. Haniffa and Hudaib (2001) argue that what is meant by conservatism in Islamic accounting is not the selection of the

accounting techniques that has the least favorable impact on owners, but more towards the selection of accounting techniques with the most favorable impact on society. They believe that it is better to overestimate earnings " anti-conservative" to pay higher *Zakah* in order to benefit society.

Following the banking literature on testing conservatism, I utilize Ball and Shivakumar's (2005) model on a sample of 35 purely Islamic banks that adopted AAOIFI financial reporting guidelines across 11 countries over 2005-2013. I find, contrary to my prediction, that Islamic banks recognize losses on a timely basis, while recognizing gains with delay. This would suggest that accounting conservatism is the same under Islamic finance as well as under a conventional counterpart.

In further analysis, I address whether an Islamic bank is less or more conservative than a conventional bank. Prior literature argues that firms have incentives to use conservative accounting to defer income and reduce the present value of taxes. This incentive, on average, leads to understatement of net assets (Shackelford and Shevlin (2001); Watts, 2003). Together with corporate taxes, Islamic banks are required to pay *Zakah*. This would suggest that Islamic banks have a stronger incentive to report conservatively than conventional banks. Moreover, religious individuals are commonly viewed as more risk averse than non-religious individuals (Miller, 2000; Diaz, 2000; and Miller and Hoffman, 1995), and managers of religious influenced firms are less likely to be the target of a class action lawsuit (McGuire, Omer, and Sharp, 2012; and Grullon, Kanatas, and Weston, 2010). To avoid the asymmetric penalties that accompany litigation (Watts, 2003), I propose that one mechanism available to managers for avoiding litigation is to conservatively report accruals so as to understate income and net assets. Given that Islamic banks are governed by *Shariah* rules, I hypothesize that Islamic banks would be more conservative than conventional banks. Consistent with this predication, I document, using Ball and Shivakumer's (2005) model, that Islamic banks recognize bad news faster and recognize good news slower relative to conventional banks. This would suggest that Islamic banks report more conservatively compared to conventional counterparts.

This study contributes to the growing literature in Islamic banking and finance. Prior research in Islamic banking mainly focuses on exploring key differences between Islamic and conventional banks in term of stability, efficiency, and profitability. For instance, a recent study by Beck, Demirgüç-Kunt, and Merrouche (2013) find few significant differences in business orientation between Islamic and conventional banks. Also, they find some evidence that Islamic banks are less cost-effective, but have a higher intermediation ratio, higher asset quality, and are better capitalized. This study is different in that I focus on the issue of financial reporting as it is of particular concern to regulators and practitioners especially after the global financial crisis. The rest of the paper is organized as follows. Section 2 describes the conceptual framework of the paper, including a discussion of alternative explanations for

conservatism, Islamic tax obligation, and the conceptual justification for an anti-conservatism approach within Islamic finance. Section 3 develops hypotheses. Section 4 describes research design, and Section 5 presents the sample collection. Section 6 discusses the empirical results and further analysis, while Section 7 summarizes the findings.

2. Literature review

This section first discusses the underlying structure of accounting conservatism mainly from the perspective of its determinants to provide an understanding of accounting conservatism. A discussion of the Islamic tax obligation and Islamic view of conservatism follows.

2.1. Underlying structure of accounting conservatism

The concept of conservatism is viewed as requiring higher verification standards for recognizing good news than for recognizing bad news (Basu 1997; Watts 2003; Nichols, Wahlen, and Wieland, 2009), i.e., asymmetric timeliness of recognition of earnings decreases versus earnings increases in accounting income. Timely recognition of earnings decreases and delays in recognizing earnings increases will directly impact profitability and capital ratios, which, in turn, could determine the intensity of monitoring by regulators because these measures are used by regulators to identify troubled banks.

Watts (2003) provides four explanations for the existence of accounting conservatism, which offer significant benefits to the users of financial information. These benefits include improving contracting efficiency, minimizing firms' litigation and tax costs, and enabling accounting and industry regulators to minimize economic instability and avoid criticism.

Under a contracting explanation, accounting conservatism is an efficient contracting mechanism for reducing agency costs. The use of conservative accounting numbers in contracts among different parties for the firm reduces information asymmetries and moral hazard problems derived from agency conflicts. Conservatism imposes a higher standard of verification to recognize good news in earnings rather than bad news, which in turn reduces the managers' opportunity to overstate earnings. These restrictions reduce the probability of managerial expropriation of shareholders' resources or the excessive distribution of resources to shareholders at the expense of debt holders (Khan and Watts, 2009). Previous empirical studies support these arguments. For instance, Ahmed, Morton, and Schaefer (2002) document that accounting conservatism plays an important role in mitigating the bondholder-shareholder conflicts over dividend policy by reducing the risk to bondholders that the firm will pay excessive dividends to shareholders.

The litigation hypothesis claims that firms use conservative reporting to avoid or minimize litigation risks. Firms, and their auditors, are more likely to be sued for overstatements of earnings and net assets than for understatements. Thus, as conservatism understates a firm's net assets, the firm's litigation risk is reduced. Prior studies document

that litigation risks are associated with more conservative accounting (Basu, 1997; Zhou and Lobo, 2006). Basu (1997) presents some of the strongest evidence of this association by showing that in periods of high auditor litigation, firms report more conservatively. The converse was also found to be true. The results suggest that periods of higher litigation risk generally exhibit greater accounting conservatism, as firms pre-emptively attempt to reduce future litigation costs.

Furthermore, Watts (2003) contends that the links between taxation and reporting can generate conservative reporting. Generally, firms report lower financial earnings to reduce their income tax liabilities. When there is a high correlation between book and tax earnings, a firm will be more likely to report conservative financial earnings to reduce tax obligations. Finally, Watts (2003) notes that conservative accounting enables standard setters and regulators to minimize economic instability and avoid criticism. These bodies are likely to face more criticism if firms overstate their net assets than if they understate them.

2.2 Islamic tax and conservatism in Islamic banks

Zakah or Islamic tax is one of the major "Pillars" in Islam that all Muslims are obligated to pay in order to maintain social justice and fair distribution of wealth. Islamic banks, as separate legal entities, are also required to pay *Zakah* on its earnings. According to the tax explanation of conservatism indicated above, this indicates that financial reporting in Islamic banks is correspondingly more likely to be influenced by such payment. This link between accounting financial reporting and *Zakah* has stimulated wide-range discussion among Islamic scholars as well as academics.

Due to *Zakah* obligation, many Islamic accounting scholars cast doubt on the relevance of a conservatism concept to Islamic banks' financial reporting. Gambling and Karim (1991) state that the key motivation of financial reporting is the provision of information relevant to *Zakah*, and argue that adherence to the concept of conservatism would lead to understatement of earnings that are subject to the payment of *Zakah*. Thus, they conclude that this concept is not relevant to Islamic financial reporting. Khan (1994) also supports the view that conservatism is inappropriate for the purposes of *Zakah* computation and its objectives.

The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), which is an independent, non-profit organization that prepares accounting, auditing, governance, ethics, and *Shariah* standards for Islamic financial institutions, keeps silent on what conservatism concept means in Islamic finance and such concept is not mentioned in the AAOIFI standards as well.

3. Hypotheses development

Islamic banks are placed in a position where they are expected to play a significant role in

equitable redistribution of wealth in society and attaining social justice. One of the most important tools for many Muslims for ensuring wealth redistribution and transfer for wealth from rich to poor is *Zakah* (Badawi, 1979). As indicated above, this religious duty influences the financial reporting practices of Islamic banks and creates some doubts on the relevance of conservatism in Islamic finance. To overcome this dilemma, some researchers view conservatism for Islamic business differently. For instance, Haniffa and Hudaib (2001) argue that what is meant in Islamic accounting by the conservatism principle is not the selection of the accounting techniques that has the least favorable impact on owners but more towards the selection of accounting techniques with the most favorable impact on society i.e. better to overestimate earnings "anti-conservative" for *Zakah* purposes. Therefore, I conjecture that Islamic banks recognize earning increases (gain) on a timely basis while recognizing earnings decreases (loss) with delays. The hypothesis will be stated as follows:

H1: Islamic banks recognize earning increase (gain) on timely basis while recognizing

earnings decrease (loss) with delays.

4. Research design

The common conservatism measure that is widely used in the literature is Basu's (1997) earnings-return model, which regresses earnings on returns and allows the return coefficient to vary with the sign of the return. However, Prior studies argue a Basu-type measure of conservatism is noisy (Dietrich et al. 2007). Such an approach may be appropriate if stock returns capture true economic income equally well across countries over a one-year window, and if good and bad economic news is reflected to the same degree in stock returns within the one-year window. Therefore, Givoly and Hayn (2000) suggest using accounting data to measure conditional conservatism instead of relying on stock market price that is not influenced by different processes that contribute to determine the stock price in different countries, including different levels of market efficiency. The alternative measure of conservatism is based on Ball and Shivakumar's (2005) model that examines earnings increases and decreases, as proposed by Nichols, Wahlen, and Wieland (2009).

Following Ball and Shivakumar's (2005) model, the following equation will be estimated:

$$\Delta NI_{i,t} = \alpha_0 + \alpha_1 D\Delta NI_{i,t-1} + \alpha_2 \Delta NI_{i,t-1} + \alpha_3 \Delta NI_{i,t-1} * D\Delta NI_{i,t-1} + \alpha_4 Size_i + \alpha_5 Size_i * D\Delta NI_{i,t-1} + \alpha_6 Size_i * \Delta NI_{i,t-1} + \alpha_7 Size_i * \Delta NI_{i,t-1} * D\Delta NI_{i,t-1} + \gamma_1 DI_{k,t\ t} + \gamma_2 CRights_{k,t} + \gamma_3 InfSharing_{k,t} + \gamma_4 Rlaw_{k,t} + \gamma_5 Culture_{k,t} + \gamma_6 LegalSystem_{k,t} + \gamma_7 LogGdp_{k,t} + \varepsilon_{i,k}$$

$$(1)$$

where i denotes bank i, k denotes country k and t denotes the time period.

ΔNI_t denotes the change in net income from year t - 1 to t, scaled by total assets at the end of t - 1, and $D\Delta NI_{t-1}$ denotes an indicator variable that equals 1 if ΔNI_t is negative and 0 otherwise. In essence, model (1) is an auto-regression of earnings changes, which is a regression of the current period change in earnings ΔNI_t on prior period change in earnings, ΔNI_{t-1} that is augmented by permitting the auto-regressive relation to differ for positive and negative values of ΔNI_{t-1}. The model also controls for the effects of differences in *Size*, which is measured as the natural logarithm of total assets at the end of year t, on the estimated auto-regressive relations. Additionally, equation (2) includes several country-level variables, country and year indicators to control for country and time fixed effects, respectively. I also estimate the model with robust standard errors clustered by bank and country level.

Under conditional conservatism, as discussed in Nichols, Wahlen, and Wieland (2009), there is an asymmetry in the timeliness of recognizing earnings decreases versus increases in accounting income. Economic gains must meet a higher verification threshold to be recognized in accounting income, so earnings increases are likely to be less timely and more persistent, implying $\boldsymbol{\alpha_2}$ should be positive. As for loss, there is a lower verification threshold, and therefore more timely recognition of earnings declines than gains. Consequently, $\boldsymbol{\alpha_3}$ should be negative in equation 2·

However, the basic prediction in this paper is that Islamic banks maintain an anticonservative financial reporting practice where the banks recognize an earnings increase on a more timely basis than an earnings decrease. This implies a positive value for $\boldsymbol{\alpha_3}$ across the sample of Islamic banks, which indicates that negative earnings changes are less transitory than positive changes, consistent with accounting income incorporating losses more slowly than gains. This is the opposite of what accounting conservatism predicts.

As for country-control variables, I follow Kanagaretnam, Lim, Lobo (2014) and employ a number of country level variables to control for country characteristics that may influence bank financial reporting. Demirguc-Kunt and Detragiache (2002) argue that banks in countries with explicit deposit insurance have higher risk-taking incentives, which in turn have higher accounting performance, particularly in the short- run during a growth period. Thus, I control for explicit deposit insurance (*DI*) in a country using data from Demirguc-Kunt, Kane, and Laeven (2008). I control for creditor rights (*CRights*) and information sharing (*InfSharing*), because Houston, Lin, C., Lin, P., and Mae (2010) show that stronger creditor rights (*CRights*) promote greater bank risk-taking and higher accounting performance, and greater information sharing (*InfSharing*) among creditors reduces information asymmetries and enhances transparency.

I also control for the influence of national culture on accounting conservatism.

Kanagaretnam, Lim, and Lobo (2014) document that banks in a country with high uncertainty avoidance cultures tend to report more conservatively than banks in a country with high individualism type of culture. Using Hofstede's (2001) classification of culture, the countries in the sample fall into two dimensions, power distance and uncertainty avoidance. In high power distance societies, decisions are more centralized and managers have greater influence, which may result in higher risk taking and lower reporting conservatism while banks in high uncertainty-avoidance societies have a preference for less risk and are more likely to have higher accounting conservatism. I add *Culture* as a dummy variable that is set to one if a country has higher uncertainty avoidance type of cultures and zero otherwise, using data from Hofstede (2001).

Prior literature argues that the quality of law enforcement, legal, and economic institutions affect financial reporting incentives and thus the level of conservatism applied to financial statements in different countries (Ball, Robin, and Sadka, 2008; Bushman and Piotroski 2006). In a country where the enforcement law is strong, investor protection laws and the ability to enforce laws are high. Strong protection for investors' rights is associated with greater transparency, higher quality disclosure of firm specific information, and more developed accounting standards, which make earnings more value relevant (Ali and Hwang 2000; Ball, Kothari, and Robin, 2000; Hung 2001), the extent of earnings management lower (Leuz, Nanda, and Wysocki, 2003), and more firm-specific information incorporated into stock prices (Kim and Shi 2010; Morck, Yeung, and Yu, 2000).

Prior evidence also documents that common law countries generally have stronger legal protection of investors than do civil law countries (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998). Bushman and Piotroski (2006) empirically analyze the relation between a country-legal system and the asymmetric recognition of economic gains and losses into earnings. They find that common law countries may be more inclined toward conservative accounting. From the above discussion, I, therefore, conjecture that banks in countries with strong investor protections reflect bad news in reported earnings numbers in a more timely fashion than firms in countries characterized by weak investor protections. Lastly, I control for economic well-being of the country, measured as the natural log of Gross Domestic Product per capita in constant 2000 U.S. dollars, denoted as *LogGdp*, because countries with different income levels are subject to different economic shocks and sources of volatility, which likely affect bank financial reporting. Details on variable definition are reported in Appendix A.

5. Sample and descriptive statistics

5.1 Sample selection

I utilize data from the BankScope database, which is a global database with data on both

listed and non-listed banks, to obtain bank financial information on both Islamic and conventional banks over 2005-2013. For all banks in the sample, I only retain banks that adopt IFRS in their financial reports practices. As for Islamic banks, I only select banks that are explicitly stated in their annual report that they adopt AAOIFI financial reporting. Then, I eliminate banks with missing control variables and missing macroeconomic data that obtain from World Banks Survey.

The sample comprises only countries with both conventional and Islamic banks, which allows me to control for any unobserved time-variant effect by introducing country-year dummies. I also double-check the categorization of Islamic banks in Bankscope with information from the Islamic Banking Associations and country-specific sources. The main analysis over the period 2005–2013 includes 143 banks across 13 countries, out of which 35 are Islamic banks (see Appendix B), and the final sample consists of 1,235 observations, out of which 267 observations are for Islamic banks. Appendix C provides details on the sample selection.

5.2. Descriptive statistics

Table 1 describes all variables for the sample of Islamic, conventional, and both sets of banks. I provide descriptive statistics for conventional banks as I test for the difference of conservatism between Islamic and conventional banks in a further analysis section. All continuous variables are winsorized at 1% and 99%. Panel A presents the descriptive statistics for variables used in the Ball and Shivakumar (2005) model. The mean (median) change in income is 0.5% (0.2%) of total assets and, on average, 32% of the whole sample banks report a decline in earnings. Islamic banks have, on average, a change in Income of 1% to total assets, while conventional banks have a 3% average change in income to total assets. In terms of *Size*, the average size for the sample is 8.5, the natural logarithm of total assets (in millions) with conventional banks being significantly larger than Islamic banks, which is consistent with a prior study (Beck, Dermiguc-Kunt, and Merrouche, 2013). Islamic banks are small as compared to conventional banks because most of Islamic banks have started their operations recently.

In panel B, I report descriptive statistics for country level variables utilized in Ball and Shivakumar (2005). *Rlaw*, *LegalSystem*, and *LogGdp* are significantly higher for the sample of Islamic banks in comparison to the conventional bans sample. These figures reveal that Islamic banks, on average, are located in countries with higher tradition for law, countries with civil legal law, and countries with higher economic growth for the 13 countries examined in the sample of Middle Eastern countries and the U.K.

Table 1: Descriptive statistics

Panel A: Bank- level data for Ball and Shivakumar (2005) model

Variable	Bank type	No. Obs.	Mean	S.d.	Min	P5	P25	P50	P75	P90	P95	Max
ΔNIt	Islamic	267	0.010	0.061	-0.293	-0.038	-0.004	0.002	0.014	0.051	0.082	0.509
	Conventional	968	0.003	0.020	-0.173	-0.017	-0.002	0.002	0.007	0.014	0.023	0.193
	All	1235	0.005	0.033	-0.293	-0.020	-0.002	0.002	0.008	0.018	0.035	0.509
$\Delta NIt\text{-}1$	Islamic	267	0.010	0.061	-0.293	-0.040	-0.004	0.003	0.015	0.047	0.082	0.509
	Conventional	968	0.004	0.020	-0.150	-0.017	-0.002	0.002	0.007	0.015	0.027	0.193
	All	1235	0.005	0.033	-0.293	-0.022	-0.002	0.002	0.008	0.019	0.038	0.509
$D\Delta NIt\text{-}1$	Islamic	267	0.315	0.465	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
	Conventional	968	0.318	0.466	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
	All	1235	0.317	0.466	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
Size	Islamic	267	7.774	1.726	3.721	4.187	6.812	7.873	8.987	9.951	10.381	11.220
	Conventional	968	8.644*	1.556	0.867	6.181	7.455	8.674	9.933	10.743	11.072	11.710
	All	1235	8.456	1.634	0.867	5.819	7.296	8.464	9.785	10.627	10.995	11.710

Panel B: Country- level data

Variable	Bank type	No. Obs.	Mean	S.d.	Min	P5	P25	P50	P75	P90	P95	Max
DI	Islamic	267	0.273	0.447	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
	Conventional	968	0.461*	0.499	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
	All	1235	0.420	0.494	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
CRights	Islamic	267	1.906	1.187	0.000	0.000	1.000	2.000	3.000	3.000	3.000	4.000
	Conventional	968	1.767	1.061	0.000	0.000	1.000	2.000	3.000	3.000	3.000	4.000
	All	1235	1.797	1.091	0.000	0.000	1.000	2.000	3.000	3.000	3.000	4.000
InfSharing	Islamic	267	0.614	0.488	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000
	Conventional	968	0.723*	0.448	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000
	All	1235	0.700	0.459	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000
Rlaw	Islamic	267	7.094*	1.704	2.500	3.030	6.780	8.330	8.330	8.330	8.330	8.570
	Conventional	968	6.560	1.679	2.500	3.700	5.180	6.780	8.330	8.330	8.330	8.570
	All	1235	6.676	1.698	2.500	3.700	5.180	6.780	8.330	8.330	8.330	8.570
Culture	Islamic	267	0.286*	0.485	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
	Conventional	968	0.303	0.433	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000
	All	1235	0.230	0.447	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
LegalSystem	Islamic	267	0.625*	0.485	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000
	Conventional	968	0.249	0.433	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000
	All	1235	0.276	0.447	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
LogGdp	Islamic	267	9.855*	1.184	6.543	6.927	9.681	10.281	10.646	10.847	10.907	11.444
	Conventional	968	9.342	1.249	5.995	7.401	8.383	9.484	10.448	10.712	10.907	11.444
	All	1235	9.453	1.252	5.995	7.136	8.448	9.807	10.523	10.727	10.907	11.444

Panel A reports descriptive statistics for bank- level variables used in Ball and Shivakumar's (2005) model for the Islamic sample of 267 yearly observations, the conventional banks sample of 968 yearly observations, and the entire sample of 1235 observations over the period 2005-2013. Data as follows are from the BankScope database. ΔNIt is change in net income from year t-1 to year t divided by total assets at the end of year t-1. $\Delta NIt\text{-}1$ is change in net income from year t-2 to year t-1 divided by total assets at the end of year t- 2. $D\Delta NIt\text{-}1$ equals one if $\Delta NIt\text{-}1$ is negative and zero otherwise. Size is natural logarithm of total assets at the end of year t. Panel B reports descriptive statistics for country-level data used in this model. DI is an indicator variable that equals one if the country has explicit deposit insurance, zero otherwise. CRights is an index aggregating the following creditor rights: absence of automatic stay in reorganization, requirement for creditors' consent or minimum dividend for a debtor to file for reorganization, secured creditors are ranked first in reorganization, and removal of incumbent management upon filing for reorganization The index ranges from 0 to 4 (La Porta et. al. (1998)). InfSharing is Information sharing index that equals one if either a public registry or a private bureau operates in the country, zero otherwise (Djankov et al. (2007)). Rlaw is an index that ranges from 0 to 10, with higher values indicating greater law enforcement, data from La Porta et. al. (1998). Culture is an indicator that equals one if a country has higher uncertainty avoidance cultures and zero otherwise (Hofstede (2001)). LegalSystem is an indicator that equals one if the legal origin is code law, zero otherwise (La Porta et. al. (1998)). LogGdp is natural logarithm of GDP per capita, in constant to US dollars (WorldBank). * denotes significance at the 5% level for the difference on mean value.

Table 2 provides correlations between key variables for the pooled sample. It provides Pearson correlations for variables used in the model. *Islamicdummy* is positively correlated with *ΔNIt, ΔNIt-1, Rlaw, LegalSystem,* and *LogGdp,* while it is negatively correlated with *Size, DI*, and *InfSharing*. These correlations highlight the importance of controlling for bank and country level variables when testing the conservatism in a cross country setting.

Table 2: Correlation

	ΔNIt	*ΔNIt-1*	*DΔNIt-1*	*Islamic dummy*	*Size*	*DI*	*CRights*	*InfSharing*	*Rlaw*	*Legal System*	*Log Gdp*
ΔNIt	1										
ΔNIt-1	-0.032	1									
DΔNIt-1	-0.002	**-0.384**	1								
Islamicdummy	**0.082**	**0.077**	-0.003	1							
Size	**-0.083**	-0.042	**-0.061**	**-0.219**	1						
DI	-0.016	-0.004	**0.131**	**-0.156**	-0.085	1					
Crights	-0.022	-0.034	-0.005	0.053	**0.200**	**-0.448**	1				
InfSharing	-0.034	-0.032	0.048	**-0.098**	0.035	**0.225**	**0.156**	1			
Rlaw	0.031	0.019	**-0.113**	**0.129**	**0.264**	**-0.599**	**0.376**	**-0.572**	1		
LegalSystem	0.031	0.018	0.007	**0.116**	-0.004	**0.069**	**-0.091**	0.002	**0.219**	1	
LogGdp	0.047	**0.057**	**-0.172**	**0.169**	**0.350**	**-0.572**	**0.228**	**-0.271**	**0.682**	**-0.152**	1

Bold text indicates significance at the 0.05 level or better.
This table presents Pearson correlations between the main variables. All correlations are computed with entire sample of 1235 observations. Data are from the BankScope database. *ΔNIt* is change in net income from year t-1 to year t divided by total assets at the end of year t-1. *ΔNIt-1* is change in net income from year t-2 to year t-1 divided by total assets at the end of year t- 2. *DΔNIt-1* is an indicator that equals one if *ΔNIt-1* is negative and zero otherwise. *Islamicdummy* is an indicator variable that set to one if a bank is an Islamic bank and zero otherwise. *Size* is natural logarithm of total assets at the end of year t. *DI* is an indicator variable that equals one if the country has explicit deposit insurance, zero otherwise. *CRights* is an index aggregating the following creditor rights: absence of automatic stay in reorganization, requirement for creditors' consent or minimum dividend for a debtor to file for reorganization, secured creditors are ranked first in reorganization, and removal of incumbent management upon filing for reorganization The index ranges from 0 to 4 (La Porta et. al. (1998)). *InfSharing* is Information sharing index that equals one if either a public registry or a private bureau operates in the country, zero otherwise (Djankov et al. (2007)). *Rlaw* is an index that ranges from 0 to 10, with higher values indicating greater law enforcement, data from La Porta et. al. (1998). *Culture* is an indicator that equals one if a country has higher uncertainty avoidance cultures and zero otherwise (Hofstede (2001)). *LegalSystem* is an indicator that equals one if the legal origin is code law, zero otherwise (La Porta et. al. (1998)). *LogGdp* is natural logarithm of GDP per capita, in constant to US dollars (WorldBank). All models include country fixed effects and year fixed effects. Robust t-statistics adjusted for firm and country level clustering are reported in brackets. [***], [**], and [*] denote significance at the 1%, 5%, and 10% level respectively.

6. Empirical results and further analysis

6.1 Conservatism in Islamic banking

Table 3 presents the results for the hypothesis. It presents the results for Ball and Shivakumar's (2005) model controlling for country and time fixed effects. Columns 1 and 2

examine the timelier recognition in earnings decrease or increase across Islamic banks, controlling for bank-level and country-level variables, respectively. The main predication is that Islamic banks report earnings increases faster than earnings decreases. Contrary to my expectation, the coefficients on $\Delta NI_{t-1} * D\Delta NI_{t-1}$ (α_3) is negative and significant, at a 5 % level, indicating that Islamic banks are timelier in reporting earnings declines compared with reporting earnings increases. These results indicating that Islamic banks report lower earnings to decrease their tax burden, or *Zakah*, which contradicting their main objective of helping social welfare.

Table 3: Conservatism in Islamic banks

Panel A: Ball and Shivakumar (2005) model

Dependent variable	ΔNIt	ΔNIt
ΔNIt-1	0.216	0.216
	[1.80]*	[1.80]*
DΔNIt-1	-0.039	-0.039
	[-1.50]a	[-1.49]a
ΔNIt-1*DΔNIt-1	-0.414	-0.414
	[-2.17]**	[-2.17]**
Size	-0.004	-0.004
	[-0.99]	[-1.00]
Size*DΔNIt-1	0.004	0.004
	[1.35]	[1.34]
Size*NIt-1	-0.294	-0.294
	[-1.79]*	[-1.79]*
Size*ΔNIt-1*DΔNIt-1	0.497	0.497
	[1.98]*	[1.99]*
DI		0.004
		[0.40]
CRights		-0.010
		[-1.89]*
InfSharing		0.012
		[0.40]
Rlaw		0.006
		[1.57]a
Culture		0.008
		[1.35]
legalSystem		0.019
		[0.84]
logGdp		0.001
		[0.06]
Country fixed effects	Yes	Yes
Time fixed effects	Yes	Yes
Constant	0.020	-0.040
	[0.74]	[-0.52]
Observations	267	267
Adjusted R-squared	0.166	0.162

Regression results for a sample of Islamic banks. Data are from the BankScope database. The dependent variable *ΔNIt* is change in net income from year t-1 to year t divided by total assets end of year t-1. *ΔNIt-1* is change in net income from year t-2 to year t-1 divided by total assets at the end of year t- 2. *DΔNIt-1* is equals one if *ΔNIt-1* is negative and zero otherwise. *Size* is natural logarithm of total assets at the end of year t. *DI* is an indicator variable that equals one if the country has explicit deposit insurance, zero otherwise. *CRights* is an index aggregating the following creditor rights: absence of automatic stay in reorganization, requirement for

creditors' consent or minimum dividend for a debtor to file for reorganization, secured creditors are ranked first in reorganization, and removal of incumbent management upon filing for reorganization The index ranges from 0 to 4 (La Porta et. al. (1998)). *InfSharing* is Information sharing index that equals one if either a public registry or a private bureau operates in the country, zero otherwise (Djankov et al. (2007)). *Rlaw* is an index that ranges from 0 to 10, with higher values indicating greater law enforcement, data from La Porta et. al. (1998). *Culture* equals 1,if a country has higher uncertainty avoidance cultures; 0, otherwise (Hofstede (2001)). *LegalSystem* equals 1 if the legal origin is code law; 0 otherwise (La Porta et. al. (1998)). *LogGdp* is natural logarithm of GDP per capita, in constant to US dollars (WorldBank). All models include country fixed effects and year fixed effects. Robust t-statistics adjusted for firm and country level clustering are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% level respectively.

6.2 Conservatism in Islamic vs. conventional banks

From the above analysis, I find that accounting conservatism in Islamic accounting is defined as what it is under conventional accounting, which is viewed as recognizing earnings decreases on a timely basis while recognizing earnings increases with delay. Existing studies on Islamic banks investigate the difference between Islamic banks and conventional counterparts from different perspectives. It will be interesting to see whether Islamic banks report more or less conservatively compared to conventional banks.

In this section, I address whether Islamic banks are on average less or more conservative than conventional banks. Prior literature argues that firms have incentives to use conservative accounting to defer income and reduce the present value of tax. This incentive, on average, leads to understatement of net asset (Shackelford and Shevlin (2001); Watts, 2003). Together with corporate taxes, Islamic banks are required to pay *Zakah*. This would suggest that Islamic banks have more incentive to report conservatively than conventional banks. Moreover, religious individuals are commonly viewed as more risk averse than non-religious individuals (Miller, 2000; Diaz, 2000; and Miller and Hoffman, 1995), and managers of religious influenced firms are less likely to be the target of a class action lawsuit (McGuire et al., 2012; and Grullon et al., 2010). To avoid the asymmetric penalties that accompany litigation (Watts, 2003), I propose that one mechanism available to managers for avoiding litigation is to conservatively report accruals so as to understate income and net assets. Given that Islamic banks are governed by *Shariah* rules, I predict that Islamic banks would be more conservative than conventional banks. I therefore formulated the second hypothesis as follows:

H2: Due to the Zakah obligation, Islamic banks tend to be more conservative than

conventional counterparts.

I therefore extend equation (2) by introducing a dummy variable *Islamicdummy* that takes a value of one if a bank is an Islamic bank and zero otherwise. Thus, the following model will be estimated:

$$\Delta NI_{i,t} = \alpha_0 + \alpha_1 D\Delta NI_{i,t-1} + \alpha_2 \Delta NI_{i,t-1} + \alpha_3 \Delta NI_{i,t-1} * D\Delta NI_{i,t-1} + \alpha_4 Islamicdummy + \alpha_5$$
$$Islamicdummy * D\Delta NI_{i,t-1} + \alpha_6 Islamicdummy * \Delta NI_{i,t-1} + \alpha_7 Islamicdummy * \Delta NI_{i,t-1} * D\Delta NI_{i,t-1} + \alpha_8 Size_i + \alpha_9 Size_i * D\Delta NI_{i,t-1} + \alpha_{10} Size_i * \Delta NI_{i,t-1} + \alpha_{11} Size_i * \Delta NI_{i,t-1} * D\Delta NI_{i,t-1} + \gamma_1 DI_{k,t} + \gamma_2 CRights_{k,t} + \gamma_3 InfSharing_{k,t} + \gamma_4 Rlaw_{k,t} + \gamma_5 Culture_{k,t} + \gamma_6 LegalSystem_{k,t} + \gamma_7 LogGdp_{k,t} + \varepsilon_{i,k}$$

(3)

where i denotes bank i, k denotes country k and t denotes the time period. A variable definition is shown in Appendix A. I would expect that Islamic banks recognize earnings decreases faster than conventional banks do. Consequently, I predict a negative value for α_7, the coefficient on $\Delta NI_{i,t-1} * D\Delta NI_{i,t-1} * Islamicdummy$ in equation 3.

Panel B of Table 4 presents the results for H2. To have a comprehensive view on the results, I present the estimation results of Ball and Shivakumar (2005) for Islamic banks only in column (1) and (2) controlling for bank and country variables respectively. Columns 3 and 4 show the estimation results across conventional banks. Consistent with prior literature, the coefficients on $\Delta NI_{t-1} * D\Delta NI_{t-1}$ (α_3) is negative and significant, at a 5 % level, indicating that conventional banks are timelier in reporting earnings declines compared with reporting earnings increases. To test H2, I introduce a dummy variable, *Islamicdummy* and re-estimate Ball and Shivakumar's model across both type of banks using partially and fully interacted model. Columns 5 and 6 present the results. Consistent with my prediction, the fully interacted model reveals that Islamic banks report earnings more conservatively than conventional banks. The coefficient on *Islamicdummy* $* \Delta NI_{t-1} * D\Delta NI_{t-1}$ (α_3) is negative and significant, at a 5 % level, in the fully interacted model indicating that Islamic banks report earnings decreases faster than conventional banks, which means that Islamic banks are more conservative than their conventional counterparts.

Table 4: Conservatism in Islamic banks vs. conventional banks

Panel A: Ball and Shivakumar (2005) model

	Islamic banks	Islamic banks	Conventional banks	Conventional banks	Entire sample	Entire sample
Dependent variable	*ΔNIt*	*ΔNIt*	*ΔNIt*	*ΔNIt*	*ΔNIt*	*ΔNIt*
ΔNIt-1	0.216*	0.216*	0.351a	0.334	0.873	-0.281
	[1.80]	[1.80]	[1.45]	[1.35]	[1.16]	[-1.29]
DΔNIt-1	-0.039a	-0.039a	0.002	0.002	-0.005	0.001
	[-1.50]	[-1.49]	[0.14]	[0.16]	[-0.37]	[0.05]
ΔNIt-1*DΔNIt-1	**-0.414****	**-0.414****	**-0.350***	**-0.351***	-1.641a	0.337
	[-2.17]	**[-2.17]**	**[1.81]**	**[1.82]**	[-1.56]	[0.42]
Islamicdummy					0.004	-0.038
					[0.88]	[-1.24]
*Islamicdummy*DΔNIt-1*					-0.011	-0.047a
					[-1.24]	[-1.65]
*Islamicdummy*ΔNIt-1*					0.177	2.509**

	(1)	(2)	(3)	(4)	(5)	(6)
					[0.90]	[2.04]
*Islamicdummy*ΔNIt-1*DΔNIt-1*					**0.227**	**-0.452****
					[0.63]	**[-2.40]**
Size	-0.004	-0.004	0.001	0.001	0.001	0.000
	[-0.99]	[-1.00]	[1.08]	[1.30]	[0.83]	[0.06]
*Size*DΔNIt-1*	0.004	0.004	-0.001	-0.001	0.000	-0.001
	[1.35]	[1.34]	[-0.58]	[-0.60]	[0.02]	[-0.36]
*Size*NIt-1*	-0.294*	-0.294*	0.026	0.025	-0.127	0.016
	[-1.79]	[-1.79]	[0.85]	[0.78]	[-1.36]	[0.58]
*Size*ΔNIt-1*DΔNIt-1*	0.497*	0.497*	-0.139*	-0.141*	0.106	-0.138a
	[1.98]	[1.99]	[-1.70]	[-1.69]	[0.85]	[-1.64]
DI		0.004		-0.002	-0.004	-0.012
		[0.40]		[-0.42]	[-0.70]	[-1.41]
CRights		-0.010*		0.010***	0.004*	0.005*
		[-1.89]		[4.08]	[1.73]	[1.85]
InfSharing		0.012		-0.028***	-0.019*	-0.025**
		[0.40]		[-2.68]	[-1.83]	[-2.60]
Rlaw		0.006a		-0.010***	-0.003	-0.006**
		[1.57]		[-4.98]	[-0.79]	[-2.05]
Culture		0.008		-0.017	0.003	0.001
		[1.35]		[-0.62]	[0.54]	[0.01]
LegalSystem		0.019		-0.010***	-0.004	-0.009**
		[0.84]		[-3.52]	[-0.94]	[-2.57]
LogGdp		0.001		0.008**	0.007a	0.008**
		[0.06]		[2.06]	[1.60]	[2.11]
*Size*Islamicdummy*						-0.001
						[-0.37]
*Size*DΔNIt-1*Islamicdummy*						0.005a
						[1.56]
*Size*NIt-1*Islamicdummy*						-0.312*
						[-1.85]
*Size*ΔNIt-1*DΔNIt-1 *Islamicdummy*						0.635***
						[2.70]
*DI*Islamicdummy*						0.005
						[0.66]
*Crights*Islamicdummy*						-0.006**
						[-2.14]
*InfSharing*Islamicdummy*						0.014*
						[1.95]
*Rlaw*Islamicdummy*						0.009***
						[2.72]
*Cuture*Islamicdummy*						0.011
						[1.27]
*Legalsystem*Islamicdummy*						0.010a
						[1.59]
*LogGdp*Islamicdummy*						-0.002
						[-0.56]
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.020	-0.040	-0.005	-0.002	-0.038	-0.013
	[0.74]	[-0.52]	[-1.11]	[-0.05]	[-0.68]	[-0.32]
Observations	267	267	968	968	1235	1235
Adjusted R-squared	0.166	0.162	0.315	0.319	0.169	0.194

Regression results for a sample of Islamic banks. Data are from the BankScope database. The dependent variable *ΔNIt* is change in net income from year t-1 to year t divided by total assets end of year t-1. *ΔNIt-1* is change in net income from year t-2 to year t-1 divided by total assets at the end of year t-2. *DΔNIt-1* is equals one if *ΔNIt-1* is negative and zero otherwise. *Islamicdummy* is an indicator variable that set to one if a bank is an Islamic bank and zero otherwise. *Size* is natural logarithm of total assets at the end of year t. *DI* is an indicator variable that equals one if the country has explicit deposit insurance, zero otherwise. *CRights* is an index aggregating the following creditor rights: absence of automatic stay in reorganization, requirement for creditors' consent or minimum dividend for a debtor to file for reorganization, secured creditors are ranked first in reorganization, and removal of incumbent management upon filing for reorganization The index ranges from 0

to 4 (La Porta et. al. (1998)). *InfSharing* is Information sharing index that equals one if either a public registry or a private bureau operates in the country, zero otherwise (Djankov et al. (2007)). *Rlaw* is an index that ranges from 0 to 10, with higher values indicating greater law enforcement, data from La Porta et. al. (1998). *Culture* equals 1, if a country has higher uncertainty avoidance cultures; 0, otherwise (Hofstede (2001)). *LegalSystem* equals 1 if the legal origin is code law; 0 otherwise (La Porta et. al. (1998)). *LogGdp* is natural logarithm of GDP per capita, in constant to US dollars (WorldBank). All models include country fixed effects and year fixed effects. Robust t-statistics adjusted for firm and country level clustering are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% level respectively.

7. Summary and Conclusions

This paper explores how Islamic law or *Shariah* shapes reported accounting numbers in Islamic banks. The main objective of this study is to gain a deeper understanding into the nature of financial reporting incentives created by *Shariah* with respect to accounting conservatism. In this paper, I focus on one dimension of revealed accounting conservatism— the asymmetric recognition of economic gains and losses into reported earnings (i.e., conditional conservatism).

Summarizing, I find that Islamic banks reflect bad news in reported earnings faster than good news, after controlling for bank and country levels. This indicates that Islamic banks take the same accounting conservatism approach as conventional banks. This would also suggest that *Shariah* does not play a significant role in term of financial reporting. In further analysis, I find that Islamic banks report more conservatively than conventional banks. I claim that Islamic banks use conservatism in reporting income to lower taxes as the banks have Islamic tax obligations in addition to corporate tax. This finding also relates to a litigation explanation of conservatism as managers in Islamic banks would be more Islamic influenced, more risk- averse, and have more incentives to underestimate earnings by reporting more conservatively.

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Appendix A: Variable definitions

Variable	Definition	Data Source
Ball and Shivakumar (2005) model		
ΔNIt	Change in net income from year t-1 to year t divided by total assets at the end of year t-1.	BankScope
ΔNIt-1	Change in net income from year t-2 to year t-1 divided by total assets at the end of year t- 2.	BankScope
DΔNIt-1	An indicator that equals one if ΔNIt-1 is negative and zero otherwise.	
Size	Natural logarithm of total assets at the end of year t.	BankScope
Country-level control variables		
DI	An indicator variable that equals one if the country has explicit deposit insurance and zero otherwise.	Demirguc-Kunt et. al (2008)
CRights	Index aggregating the following creditor rights: absence of automatic stay in reorganization, requirement for creditors' consent or minimum dividend for a debtor to file for reorganization, secured creditors are ranked first in reorganization, and removal of incumbent management upon filing for reorganization. The index ranges from 0 to 4.	La Porta et. al. (1998)
InfSharing	Information sharing index that equals 1 if either a public registry or a private bureau operates in the country, 0 otherwise	Djankov et. al. (2007)
Rlaw	An index that ranges from 0 to 10, with higher values indicating greater law enforcement.	La Porta et. al. (1998)
Culture	An indicator that equals one if a country has higher uncertainty avoidance cultures and zero otherwise	Hofstede (2001)
LegalSystem	An indicator that equals one if the legal origin is code law, zero otherwise.	La Porta et. al. (1998)
LogGdp	Natural logarithm of GDP per capita, in constant to US dollars.	WorldBank

Appendix B: Banking sector type in sample countries

Country	Islamic banks	Conventional banks
Bahrain	4	5
Bangladesh	4	23
Iraq	1	1
Jordan	1	10
Kuwait	6	6
Pakistan	2	16
Qatar	1	5
Saudi Arabia	4	7
Sudan	1	0
Syria	1	7
Turkey	2	12
United Arab Emirates	7	14
United Kingdom	1	2
Total	35	108

Appendix C: Sample Selection Criteria

	Data source	Firm-years
Ball and Shivakumar (2005) model		
Firm-years with data for earnings	BankScope	1555
Firm-years with data for firm-level control variables	BankScope	1390
Firm-years with data for country-level control variables:		
Contracting environment	Demirguc-Kunt et. al. (2008)& La Porta et. al. (1998) & Djankov et al. (2007) Hofstede (2001)	1235
Macroeconomic factors	World Bank	1235
Final Sample:		1235
Final Sample - Islamic Banks Only		267
Final Sample - Conventional Banks Only		968