

Asset Securitization and Bank risk: Do Religiosity or Ownership Structure Matter?

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Abstract

We test the impact of religiosity and ownership structure on the risk profile of banks, which issued securitisation. We employ GMM estimation using unique database on asset securitization of 672 commercial banks (4889 year-observations) in 22 countries (from 2003-2012), which have dual banking system. We find that banks with higher securitisation activity have consistently shown a riskier profile by being significantly less adequately capitalised and offering higher ratio of net loans to total assets. Controlling for bank type (Islamic and conventional banks), we find that although Islamic banks, in general, show a conservative approach towards risk by keeping higher reserves and more liquidity, banks involved in new issuance of asset securitization as still exposed to a higher risk profile. Controlling for a country religiosity shows different risk profile of banks in countries with different religiosity thresholds. Controlling for different types of bank ownership highlights an additional exposure to credit risk in addition to capital adequacy and liquidity risks. Our results emphasize the importance of identifying the impact of bank type and the religiosity / culture factors in global banking studies. Our results are of importance to both local and international regulators as well as different stakeholders in banks.

Keywords: Securitisation, Islamic banks, Conventional banks, Bank Risk, Capitalization

JEL Classification: C23, G01, G21, G28, L50, M41

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1. Introduction:

Over the last two decades and until the financial crisis of 2008, securitization² has gained momentum reaching volumes of \$10.24 trillion in the United States and \$2.25 trillion in Europe as of the 2nd quarter of 2008. Prior literature has indicated multiple benefits of securitization for both issuers and investors, such as lower capital requirements, efficient transfer of risks, improved performance, liquidity and credit ratings (Alkhan, 2006; Jobst, 2007; AbdulAziz and Gintzburger, 2009; Nadauld and Weisbach, 2012; Lemmon et al. 2014). However, prior literature has also indicated negative effects such as reduced incentives to appropriately screen borrowers (Loutskina and Strahan, 2009; Keys et al. 2010), incentives to securitize low quality assets (Downing, Jaffee, and Wallace, 2009), and increased impediments to renegotiating distress loans (Piskorski, Seru, and Vig, 2010). Additionally, critics suggest that the inherent complexity and limited monitoring ability of this method lead to a major decline in underwriting standards which brought about the severe subprime crisis, the beginning of a bitter financial crisis (Kiff and Kisser, 2014). Since then, there has been much questioning of the effectiveness of such innovative tools on several dimensions (Wilson, 2009). Therefore, it became a crucial contemporary issue in the research of financial institutions and markets to foster the understanding of banks' securitization activities and their impact on bank risk, identifying financial system implications.

Major international conventional banks have been weakened by the 2008 global financial crisis. Since then, there has been much questioning of the effectiveness of such innovative tools (Wilson, 2009). Although Islamic financial institutions have not emerged from the 2008 financial crisis intact, Islamic banks were less adversely affected than their conventional counterparts (Chapra, 2009). It has also been argued that the constraints observed by the Islamic finance system could have provided a potential alternative to the conventional securitized products, which contributed to the crisis (Totaro, 2009)³.

² Securitization is the financial practice of pooling types of contractual debt (or non-debt assets which generate receivables) and selling consolidated debt (or receivables) to third party investors as [securities](#). The principal and interest on the debt, underlying the security, is paid back to the various investors regularly. Securitization has been applied mainly by financial institutions to expand their loan portfolios to offer new loans to lower income groups, accessible to subprime consumers (DeLorenzo, 2007; Totaro, 2009). In the United States the market for securitizations counted on two important assets; Asset backed securities (ABS) and Mortgage backed securities (MBS). Both types of debt contracts have played a crucial role in integrating securitization markets. MBS are securities created from the pooling of mortgages, which is then sold to investors. They have been developed by means of government-sponsored agencies (such as the Federal National Mortgage Association, known as Fannie Mae, and the Federal Home Loan Mortgage Corporation or Freddie Mac). The demand for these types of securities grew rapidly for institutional investors who were more willing to invest in credit risk (Bowden and Lorimer, 2009; Campbell et al., 2011; Casu et al. 2011). These types of securities are prohibited in Islamic banks as it involves paying interest and the sale of debt.

³ Islamic finance is based on Shariah principles including the risk-sharing principle, the requirement of business ethical conduct; the provision of credit is primarily for the purchase of real goods and services. These principles also involve restrictions on all of the following; (i) the sale of debt, (ii) short sales, (iii) excessive uncertainty

Islamic banking and finance has grown exponentially over the last 20 years, so much that it is now a notable feature in the global finance of the 21st century (Pollard & Samers, 2007). Over 500 Islamic financial institutions (IFIs) are now in existence, with estimated global Islamic banking assets of US\$ 1.3 trillion in 2011 (E&Y, 2012). Many international financial players (such as HSBC, CITI group, Dow Jones, FTSE and S&P) across the globe entered the IBF sector to tap into new markets, and enlarge their client base (Pollard & Samers, 2007). Asset securitization has been one of the most active Islamic debt market instruments, and one of the fastest growing industries in Islamic financial markets; it has been growing at a steady pace both in terms of size and number of issuances since the 2000s⁴ (Bassens et al. 2013). The global sukuk market reached the USD100bln mark in terms of new issuances in 2013, with total issuances amounting to USD119.7bln as at end-2013 (MIFC, 2014).

According to the social norm theory, previous research has emphasised on how religious adherence plays a determining role in financial and business decisions (Maltby, 1999; Waite and Lehrer, 2003; and Lehrer, 2004; Hilary and Hu, 2009; Dyreng et al., 2012; McGuire et al., 2012). Religion has a substantial role in shaping and enforcing ethical behaviour, including honesty and justice. Religiosity induces social norms that foster sound moral judgement and ethical behaviour in corporations (Weaver and Agle, 2002). Similar to people, religious organisations are likely to be risk averse (Osoba, 2003; Hilary and Hu, 2009). Ethics research studies argue that individuals with stronger religious beliefs are less likely to accept morally questionable and risky decisions in a business environment (Longenecker et al., 2004; McCullough and Willoughby, 2009; and Vitell, 2009). IBs, as religiously oriented institutions, are expected to be more conservative when dealing with risk taking and capital adequacy.

Furthermore, it is not only the cultural factor that is expected to influence bank risk for new issuers of asset securitization. The type of bank ownership tend to have a direct impact on securitization activity in banks either IBs or CBs. Empirical literature on ownership structure broadly covers four ownership types (e.g. government, private (individual or families), foreign, and institutional ownership) identifying its impact on capitalization, risk-taking and bank liquidity (see Lee and Hsieh, 2014; Iannotta, Nocera, and Sironi, 2013; Barry, Lepetit, and Tarazi, 2011; Brown and Dinc, 2011; Farazi et al. 2011; Angkinand and Wihlborg, 2010; Iannotta, Nocera, and Sironi, 2007; Micco et al. 2007; Mian, 2006; Berger et al., 2005;

and (iv) prohibitions to sell assets not owned. Islamic finance represents a distinct set of contractual and product structures that aim to achieve equivalent economic benefits as those offered by the conventional financial system.

⁴From Malaysia, Sukuk securitization found its way to the Gulf Islamic markets, and was gradually introduced from 2001 onward via sovereign issuances in Bahrain and Qatar, later followed by sovereign and corporate issuances in the UAE and Saudi Arabia (Wilson, 2004). Investment in sukuk has been gaining popularity, not only by Muslim investors, but also by non-Muslim investors who seek to diversify their investment portfolios. However, the sukuk market was withheld briefly during the 2008–2009 crises. This shock itself illustrates the highly globalized nature of Islamic capital markets, as issuers have been suffering from low investment appetites at the time. This dip in sukuk issuance was also related to more ‘local’ events such as the Dubai debt crisis in 2009 (Bassens et al., 2010).

Bonin et al., 2005; Khwaja and Mian, 2005; Dinç, 2005; Aker and Athanassakos, 2003; Demirguc-Kunt and Detragiache, 2002; Claessens et al. 2001; Dages et al. 2000; Laeven, 1999; Pound, 1988). Due to better bailout guarantees, government ownership induce higher risk-taking given the fact that capital regulation restraint the lending ability, which eventually help them to enhance liquidity (Demirguc-Kunt and Detragiache, 2002; Iannotta, Nocera, & Sironi, 2007; Angkinand and Wihlborg, 2010; Brown and Dinc, 2011; Iannotta, Nocera, and Sironi, 2013; and Dong et al. 2014). Berger et al. (2005) and Iannotta et al. (2007) also argue that banks with higher government ownership have higher default risk and hence, they anticipate poorer loan quality. However, Aker and Athanassakos (2003) stress that institutional investors (financial institutions and corporations) have a diversified portfolio of investments and they may have lower incentives to exercise control. Contrary to previous findings, Barry, Lepetit, and Tarazi (2011) argue that institutional investors impose the riskiest strategies when they hold higher stakes.

The increasing volume of securitization activity in both banking sectors before the financial crisis raised the concerns of researchers, as well as those of investors and regulators over the potential for an increase in bank risk. Proponents argued that banks with constrained banking model were better shielded than their conventional counterparts from the impact of the financial crisis (Chapra, 2008; Ahmed, 2009; Ahmad, 2010) due to the constraints imposed on their activity securitisation process. Such claims need to be empirically tested both pre and post the financial crises identifying the impact of important institutional and cultural factors, religiosity and ownership⁵, given that the other counter claims that many Islamic banking products mimic (i.e. Murabahah) their conventional counterparts. In particular, this research investigates whether controlling for different religiosity indicators alongside block ownerships for banks involved in new issuance of asset securitization would promote lower risk and better capital adequacy on average and during periods of financial distress

While empirical work has been undertaken in providing cross-country evidence on the relative financial stability of CBs and IBs (see Čihák and Hesse, 2010; Abedifar et al. 2012; Beck et al. 2013), these tests cover certain aspects of the bank performance including the business model, efficiency and asset quality. However, none of the studies, to the best of our knowledge, has tested the impact of asset securitizations activity on bank risk for both banking sectors. An additional contribution of this study includes identifying the imperative impacts of the cultural and institutional factors on both banking industries' asset securitization activities, showing their significant impact on banks' risk taking behaviour. Our study updates the existing evidence on asset securitization by employing unique and comprehensive data for global asset securitization.

. Tests compare between banks involved in asset securitizations (representing constrained Islamic asset securitization as well as CBs) versus banks that do not issue asset securitization in 22 countries. Empirical tests employ the two-step GMM estimation for the panel data of 672 global banks (4889 year-observations) for the pooled sample period (2003-2012). We believe that both constraints imposed on

⁵Allen and Wood (2006) define financial stability as state of affairs in which exogenous shocks are unlikely to occur.

Islamic Finance product structures as well as the crises period provide a unique setting for our testing for both types of banks; given that bankers are more likely to deviate from accounting standards and regulatory requirements during periods of financial distress (Hofmann, 2012). . We use accounting-based information to identify measures which capture each of (a) capital adequacy (*Capital adequacy ratio hereafter, CAR*) (b) credit risk (*non-performing loans to gross loans and loan loss reserves to gross loans ratios*) and (c) liquidity management risk (*liquid assets total deposit and borrowings and net loans to total assets ratios*). Two proxies are employed for religiosity. The first is bank type (Islamic or conventional) and the second is country religiosity (the ratio of Muslim population to total population). Testing for the ownership hypothesis analyses for the bank's largest block owner (holding 10% or more) for of each type of bank ownership (Financial institution, corporate, family, government and foreign). Our results show that on average banks with higher securitisation activity have low capital adequacy ratio and higher net loans to total assets indicating poor liquidity position. Controlling for the financial crisis period (2008-2009), we find consistent negative association between securitisation activity and both CAR and net loans to total assets indicating that banks with higher securitisation activity persistently report poor capital adequacy and a higher liquidity risk. Securitization activity is negatively associated with capital adequacy and positivity associated with liquidity risk (net loans to total deposits ratio) after controlling for both religiosity proxies. Examining the risk profile of banks with high securitisation activity comparing Muslim majority countries and Non-Muslim majority countries. Tests within Muslim majority country indicate that bank securitization activity are involved in lower credit risk (lower loan loss reserves to gross loans ratio). No significant association was found with capital adequacy or liquidity risks. However, within the subsample of non-Muslim majority countries, banks with higher securitization activity have significantly lower capital adequacy and significantly higher liquidity risk (net loans to total assets ratio), implying a different risk profile for countries with higher concentration of Muslim majority. In line with predictions, IBs reported a more conservative approach by keeping higher loan loss reserves to gross loans ratio and higher ratio of liquid assets to total deposit ratios, as compared to their conventional counterparts. These findings are consistent with prior studies claims (Chapra, 2008; Ahmed, 2009; Ahmed, 2010) that IBs appear to have a more prudent approach as compared with their conventional counterparts by holding a significantly higher reserves ratio for impaired assets. These overall, findings imply that the risk exposure of banks with higher securitization activity in the pooled sample is driven by risk profile of securitised banks in non-Muslim majority countries. These findings also previous research which has emphasised on how religiosity is an important determinant in financial decisions and how it mitigates risk (Maltby, 1999; Waite and Lehrer, 2003; and Lehrer, 2004; Hilary and Hu, 2009; Dyreng et al., 2012; McGuire et al., 2012).

Testing for the second hypothesis related to the impact of ownership structure on bank risk, we find that banks with higher securitisation activity have consistently shown lower capital adequacy and higher liquidity ratio. Controlling for the largest block for financial institutions ownership, highlighted an additional type of risk which is credit risk as shown by the significantly low loan loss reserves to gross loans. However, specific inferences are drawn from additional sub-sampling analyses for each type of

ownership indicating changed risk profile for banks with new issuance of asset securitizations. Our results highlight the importance of identifying the impact of both culture factors, such as religiosity, and ownership type in global banking studies. (e.g. Abedifar et al. 2013; Beck et al., 2014).

The next section discusses the study background followed by hypotheses development in section 3. The methodology and data are covered in sections 4 and 5 respectively followed by the results and conclusion in sections 6 and 7.

2. Background:

Conventional asset securitization reflects a flexible structured finance technique of liquidity, which involves risk transfer and the conversions of present or future asset claims of varying maturity and quality into tradable debt securities (DeLorenzo, 2007; Totaro, 2009). In a typical transaction, the originating bank transfers a pool of financial assets with fixed or nearly fixed cash flows to an SPV. This represents a legal entity that in turn finances the purchase through the issuance of securities backed by the pool. These securities must also be grouped in one of the top two ratings as determined by an accredited credit rating agency, and usually pay periodic payments that are similar to coupon payments. (Bowden and Lorimer, 2009).

Conventional securitization has become popular for some reasons, among them are; first, it allowed financial institutions to have a direct and quick alternative to access the capital markets (Leyshon and Thrift, 2007). Second, securitization provides more diversified product portfolios for large institutional investors. Third, securitization enables banks to better satisfy capital adequacy requirements by Basel II, through a preoccupation transfer of liabilities to become an off-balance item. Hence, banks can circumvent the adequacy capital ratio imposed by Basel, which limited the size of outstanding loans vis-a-vis equity capital (Aalbers et al., 2011).

With the financial crisis in 2008 being originated from the US subprime and extended worldwide, the world had a housing boom which led to financial turmoil in the United States and many other countries (Taylor, 2009). Dissipating of liquidity has been caused by the consecutive contamination of the different classes of financing products in the credit market alongside the freezing of non-government credit markets, such as commercial papers and bonds (Kiff and Kisser, 2010). The inflated capital costs led to the occurrence of the credit crisis and to the failure of financial institutions with poor credit profiles and a weak liquidity position. Both the large injection of money from banks into the mortgage bond market as well as the high volume of lending practices by the mortgage brokers, banks and others accelerated the subprime crisis. This in fact has exposed the global banking system to high vulnerability to both insolvency and credit risks. Economists have asserted that the crisis revealed the weaknesses of conventional finance to mitigate exogenous finance shocks (Parashar and Venkatesh, 2010; Alasrag, 2010).

Rising competition and continuing efforts to provide innovative products have together contributed to a growing interest in Islamic banking. IBs as religious-oriented type of banks enjoy a higher trust

premium in predominantly Muslim countries like Malaysia, Pakistan, Egypt, and the Gulf Cooperation Council (GCC). In the economic realm, for instance, Islamic religion plays a catalytic role in shaping risk taking for financial institutions. This is justified by the principles of assuring the economic well-being of the whole community protecting minorities as well as equitable distribution of wealth (Slahudin, 2008). Moreover, financial practices and accompanying legal instruments are affected by Shariah compliant finance framework which conforms to Islamic law (Elasrag, 2014; Lewis, 2005).

As such, in principle, Islamic banking differs significantly from conventional finance, given the prohibition both of interest and speculation, in addition to the assumed dominance of the profit and risk sharing principle. These in fact are likely to pose substantial differences with respect to product and activity structures between IBs and CBs. In line with the imperative claims made about the added protection for Islamic finance against excessive risk-taking, the Islamic banking sector attracted more attention during and after the financial crisis. The peculiar nature of IBs that all financial transactions, must be either trade-based or asset-linked in addition to the extra governance layer (Shariah supervisory board), encourage more resilience in the system (Chapra, 2008; Ahmed, 2010). Islamic banking contractual arrangements are likely to bring greater scrutiny and stricter oversight by depositors and investors alike. Hence, Islamic banking does not allow the provision of credit to subprime borrowers (Desai, 2008).

Comparative studies between IBs and CBs, on bases of general banking system and product structures, provide mixed results. While Yudistira (2003) find that IBs suffered from inefficiencies during 1998-1999, Iqbal (2001), Hussein (2004) and Siddiqui (2008) found that IBs outperformed their conventional counterparts using different performance measures and different research methodologies. This was clearer during the recent global financial crisis of 2008 (Khamis et al., 2010; Hassan and Dridi, 2010). On the other hand, Čihák and Hesse, (2010) report that small IBs tend to be financially stronger than small commercial banks, while large commercial banks tend to be financially stronger than large IBs. They also show that small IBs tend to be financially stronger than large IBs. Abedifar et al. (2012) find no significant difference between the two banking sectors, with respect to the insolvency risk. Their finding on credit risk is mixed, varying according to which proxy for credit risk is used. Beck et al. (2013) show insignificant differences between IBs and CBs in their business orientation. However, they find that IBs are less cost-effective, but have a higher intermediation ratio, higher asset quality and are better capitalized. They find no significant evidence for the financial stability of both IBs and CBs during the recent financial crisis.

3. Hypotheses Development:

3.1 Hypothesis 1: Religiosity:

In spite of enabling banks to convert illiquid assets into liquid funds, it has been argued that securitization is likely to increase the expansion of credit and cause banks to hold riskier assets. Existing conventional banking literature on the former issue shows that securitization impairs a bank's financial condition and increases risk (Calomiris and Mason 2004; Cebenoyan and Strahan 2004; Loutskina and Strahan 2006; Purnanandam 2009; Casu et al. 2011). Dionne and Harchaoui (2003) find a positive association between securitization and bank credit risk. Franke and Krahnen (2005) and Haensel and Krahnen (2007) report that collateralized debt obligations (CDOs) increase the systematic risk of the issuing bank. Dell'Ariccia et al. (2009), Mian and Sufi (2009), and Keys et al. (2010) suggest that banks securitized their worst mortgage loans to pass on their credit risks to new investors. In line with Cantor and Rouyer (2000), credit risk for the issuer improves if the riskiness of the securities sold to investors is higher than that of the issuer prior to the securitization. However, it might be the case that the transaction intensifies the issuer's net exposure to the default risk of its assets. Affinito and Tagliaferri (2010) reveal that securitization allows the bank to decrease the weight of bad loans to operate with lower capital, or to invest the capital into new businesses. Cebenoyan and Strahan (2004) also find evidence to suggest that securitization reduces bank risk, but banks use the achieved risk reduction to undertake new risks. Purnanandam (2009) stresses that banks use the proceeds from securitizations to issue new loans with higher-than-average default risk. In terms of profitability and returns, as securitization provides banks with an additional source of loan financing and liquidity, banks are likely to be motivated to shift their portfolios toward higher risk to obtain higher return assets (Cebenoyan and Strahan 2004; Purnanandam 2009). However, issuing banks will still retain the first-loss of contractual interests in order to provide implicit recourse in securitizations. This indicates that the risks inherent in the securitized assets have not been fully transferred to investors and are, in effect, still held by the issuing bank, but off-balance sheet (Calomiris and Mason 2004; Higgins and Mason 2004; Niu and Richardson 2006; Chen, Liu, and Ryan 2008; Vermilyea, Webb, and Kish 2008).

With the above extant evidence suggesting that banks securitize their riskier loans while retaining safer ones on their balance sheets, religiosity tend to operate as an important cultural control mechanism which has an impact on financial reporting and risk (Callen and Fang 2013). A well-established branch of literature has identified impact of religiosity on corporate economic attitudes (Barro and McCleary 2003, Stulz and Williamson 2003). On the other hand, the constrained model of Islamic securitisation might expose them to specific types of risks such as liquidity. Managing liquidity is more challenging in IBs than CBs given the limited capacity of IBs to attract Shariah compliant instruments (since the returns on these accounts are uncertain) alongside the expected high operational costs and lower profitability under debt-

based contract arrangements (Olson and Zoubi, 2008; Hasan and Dridi, 2010). Olson and Zoubi (2008) indicate that IBs recently operate within new and unfamiliar structures of finance which tend to cause long-term liquidity challenges. They suggest that IBs should hold more cash relative to deposits than conventional banks due to the high risk of deposits withdrawal by existing clients.

Both the religiosity orientations as well as the extra layer of governance (Shariah supervisory board), drive expectations for IBs to be more conservative and lower risk taking (Lewis, 2005)⁶. Islamic finance principles are based on the concepts of equality and justice in communities through financing real economic activities (Ahmed, 1991). These concepts represent the base of a comprehensive framework for financial reporting and risk taking (Baydoun and Willett, 1994; Lewis, 2001). In addition, the asset-backing model is one of the fundamental criterion in IBs since all contracts must be attached to the nature of the contracts and should be based on real economic activities (Jobst, 2007). In this regard, Shari'ah in IBs primarily prohibits arbitrage in transactions through requiring a clear link between assets and securitization transactions (Bashir, 1999) and hence, IBs have restricted access to market sources to meet liquidity requirements, which are relatively more expensive due to the Shariah compliance condition. Therefore, predictions reflect a negative association between risk taking and religiosity which is expected to have a direct influence for risk taking for banks issuing asset securitizations.

Further, compliance with Basel II requirements for capitalization by IBs since December 2005 implies that the composition of eligible capital and risk weighted assets is strictly determined by the nature of the market and credit risk for IBs (IFSB, 2005)⁷. With the relative short history of Islamic banking and the small niche in many countries for Sukuk issuance, IBs is expected to be better capitalised than securitized (SEC) in CBs. This is attributable to their limited access to market resources to cover unexpected losses and their needs to protect investment accountholders and depositors' wealth alongside the need to comply with strict capital adequacy requirements of Basel II⁸. The existing literature comparing IBs and CBs also provide evidence that IBs are better capitalized than CBs (Beck et al., 2013). Particularly, Iqbal (2001) demonstrates that IBs are well capitalized and make effective use of the resources at their disposal. Nevertheless, Ariss (2010) argues that IBs are better capitalized and hold significantly higher equity to assets ratios than CBs.

⁶ Islamic banks (IBs) must adhere to both regulations set by regulators as well as the principles of Shariah (Archer et al. 1998). The purpose of Shariah compliant finance is to shape financial practices and accompanying legal instruments that conform to Islamic law (Elasrag, 2014). Shariah prohibits interest and speculation and it calls for alternative modes of trading where the underlying products are real assets or services. Capital providers including investors are usually concerned that their funds should be invested in a Shariah compliant manner (Chapra and Ahmed, 2002).

⁷The capital adequacy standard for IBs addresses the different risks faced by this sector, and assigns a different set of risk weights to different Islamic financing modes.

⁸Large banks are likely exploit more finance arbitrage transactions such as securitizations or rephrase agreements than small banks, which might cause less diversified portfolios. Well capitalized banks are likely to have access to cheaper and less risky sources of funds (Bourke, 1989).

IBs are predominantly viewed as risk-averse institutions (Mills and Presley, 1999; Zaher and Hassan, 2001; and Iqbal and Molyneux, 2005) and are likely to entail lower credit risk, and thus to deliver better asset quality than CBs. This may be attributable to the added corporate governance layer of the Shari'ah Supervisory Board (SSB) in Islamic banking system. The restricted contractual arrangements and the rigorous governance supervision are associated with lower risk in IBs and lower level of adverse selection and/or moral hazard (Iqbal and Molyneux, 2005; Beck et al., 2013). Khan (2010a) also stresses that IBs have a higher deposit base and lower credit defaults. In addition, Abedifar et al. (2012) demonstrate that IBs are characterized by lower credit risk than CBs.

Further, managing liquidity is more challenging in IBs than CBs given the limited capacity of IBs to attract Shariah compliant instruments (Hasan and Dridi, 2010). Olson and Zoubi (2008) indicate that IBs recently operate within new and unfamiliar structures of finance, which tend to cause long-term liquidity challenges. Islam and Chowdhury (2009) find that IBs reflect comparatively weak liquidity management than CBs. The infrastructure and constrained tools for liquidity risk management for IBs is in its infancy in many jurisdictions and Sukuk issuance for IBs might not be the magic tool for resolving liquidity challenge for this particular banking sector.

Accordingly,, we conjecture that religiosity in general terms will positively affect the credit profile and risk taking behaviour in banks involves in new issuances of asset securitization. The religiosity factor exposes banks, in principle, to better capitalization and lower risk taking . This leads us to the first hypothesis stated in the alternative form:.

3.2 Hypothesis 2: Bank Ownership, Capital Regulation, Risk-taking, and Liquidity:

Agency problem related to separation of ownership and control is come to spotlight while bank type is the prime issue of discussion. Theoretically, publicly held banks ensure greater dispersion of ownership, which enhance separation between shareholder and manager and increase information asymmetry and consequently create divergence in incentives, whereas privately held banks drive less separation between shareholder and manager and hence, their incentive are closely aligned to those of shareholders (Bliss and Flannery, 2002; Flannery, 2001). However, the incentive mechanism is seen different in nationalized and state-owned banks. Particularly, political or social mission drives incentive mechanism in nationalized and state-owned banks (Iannotta, Nocera, and Sironi, 2013). In addition, the ownership and control either in foreign or domestic banks implies differences in terms of market discipline and their access to capital markets. Market discipline is one of the three pillars in Basel accord, along with capital regulation and banking supervision. Thus, market discipline plays an important role on bank type, which is considered as a useful instrument to enhance banking supervision or to mitigate shareholders' risk-taking incentives. Nevertheless, given the fact that the market is expected to monitor and/or influence banks' risk behavior, and therefore, the impact of ownership changes on risk cannot be assessed without considering incentives driven by financial markets in terms of discipline (Bliss and Flannery, 2002; Flannery, 2001).

Further, private or family ownership might have different objectives in terms of growth and risk-return strategies. Private equity is less liquid than other ownership type (e.g. public), which restraint their faster growth opportunities and more risk-taking. Barry, Lepetit, and Tarazi (2011) demonstrate that a higher

equity stake of either individuals/ families is associated with a decrease in asset risk and default risk. However, Laeven (1999) has quite opposite findings. He finds that family-owned banks were among the most risky banks. The empirical evidence on foreign ownership is mixed. Laeven (1999) finds foreign-owned banks took little risk relative to other banks. But Angkinand and Wihlborg (2010) indicate that foreign ownership is associated with greater risk-taking and consequently less financial stability. On the other hand, Lee and Hsieh (2014) offer a U-shaped relation between foreign ownership and stability is supported. But, Dages et al. (2000) document that foreign ownership appear to contribute to greater stability since it is considered as a key good governance.

H2: The ownership structure of banks positively affect their risk-taking behaviour and capital adequacy.

Data and Model:

We employ an unbalanced panel dataset and a country variable criterion, reflecting countries with at least four banks and having at least two observations for each bank, following Beck et al. (2013). Based on this sample identification process, our final sample includes banks operating within 22 countries where IBs have presence.⁹ Our sample comprises 672 banks (4889 bank-year observations) including 136 IBs (865 year-observations) and 536 CBs (4024 year-observations) for the period of 2003-2012. We collect bank-level data from “Bankscope” and the “Banker” databases. Country-level variables and macroeconomic data are collected from the World Bank and IMF websites. Our unique comprehensive asset securitization data set is hand collected from securities’ prospectuses and banks’ annual reports. Financial data are collected from Bankscope and Zawya.

The description of the sample is included in Table 1. This Table reports the sample composition by country and bank type. We find that banks with SEC represent 14% of the total sample composition. For IBs, the highest concentration of SEC banks is located in Malaysia, UAE, and Bahrain.

Insert Table 1 about here

Measures of endogenous variables

We include three measures of endogenous variables for capitalization, credit risk and liquidity. Following Demirgüç-Kunt and Huizinga (2010) and Beck et al. (2013), we employ bank capital adequacy measure, the capital adequacy ratio (CAR), calculated as $(\text{Tier 1} + \text{Tier 2}) / \text{total Risk weighted assets}$. CAR reflects the legal regulatory requirements for capitalization that measures adequacy level and buffers maintained (Fonseca and González, 2010; Buch and Prieto, 2014; Ebrahim et al., 2014). Following prior literature we measure credit risk by loan loss reserves to gross loans and non-performing loans to gross loans ratios (Gonzalez et al., 2005; Lepetit et al., 2008; Abedifar et al., 2013; Beck et al., 2013)¹⁰. The loan loss reserve represents an estimate of credit losses inherent in a bank’s loan portfolio. Finally, the liquidity indicator

⁹ The countries are Algeria, Bangladesh, Brunei, Mauritania, Iraq, Jordan, Kuwait, Bahrain, Egypt Lebanon, Malaysia, Mauritania, Pakistan, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Turkey, United kingdom and Yemen.

¹⁰ Non-performing loans are defined as loans in the bank’s portfolio overdue for more than 90 days on interest or principal payments. They are disclosed as supplemental financial statement information (Wahlen, 1994).

reflects a bank's ability to repay short-term obligations. We use the liquid assets to total deposits and borrowings ratio, as well as the net loans to total assets ratio to measure bank liquidity management (Beck et al., 2013).

Measures of Explanatory Variables:

The key explanatory variable in this study is asset securitization activity. This variable is measured as the total securitization for bank *i* at time *t* issuance deflated by total assets (Barth et al., Casu et al., 2011) Following prior literature (Dusuki and Mokhtar, 2008; AAOIFI, 2008; Casu et al. 2011; Campbell et al., 2011), we restrict the definition of asset securitization to represent banks involved only in a first-year issuance, either through SPV or the bank itself, for asset securitization (Sukuk vs. conventional securities) backed by underlying assets. We find that sukuk issuance is referred to as asset securitization in Islamic banking, and IBs usually use the two terms interchangeably to report about their securitization process. Additional criteria for Islamic securitization include a non-conditional sukuk asset structure that involves a separate issuance at market price (AAOIFI, 2008). We control for two religiosity indicators (1) a bank type indicator dummy (IBs) equal 1 if it is an Islamic bank and 0 if it a conventional bank (2) the ratio of Muslim population to the total population of a country. We used five ownership ratios (Financial institution, corporate, family, government and foreign) all expressed as total shares owned to the total disclosed shares. The **financial institutions** ratio includes all shareholders classified by either ORBIS or Zawya as financial institutions, mutual funds, Insurance companies; Banks etc. **Corporate** ownership ratio includes all firms that are not part of financial institutions or private owners. **Family** ownership ratio includes individual shareholders or their families. Also in this category fall privately owned firms, in other words firms that are wholly owned by ether a single private investor or a group of private investors.

We control for size using the natural logarithm of total bank assets. Size accounts for big banks that might have smaller capital buffers and hence, are more risky, which according to the "too-big-to-fail" hypothesis suggests that large banks will receive regulatory support during financial distress, or when they have lower risk as a consequence of the enhanced diversification of their asset portfolio (Olson and Zoubi, 2008; Parashar and Venkatesh, 2010; Fonseca and González, 2010; Abedifar et al., 2013; Beck et al., 2013). We control for bank age to proxy bank's capability and informational advantages to control for risks (DeYoung and Hasan, 1998). We also consider the bank's non-interest income as an indicator for the bank inefficiency. An increase in the share of non-interest income in total operating income is expected to lower bank financial performance and stability, since an increased reliance on non-interest income raises the volatility of bank loan portfolios without a direct link to increased profits (DeYoung and Roland, 2001; Stiroh 2010). Banks with a high share of non-operating income have high insolvency risk (Lepetit et al., 2008). We also include equity to total assets as an independent variable in both the credit risk and insolvency models to control for leverage.

We control for a set of macroeconomic variables including market power through a proxy for the market share of deposits measures, as the total banks deposits over total banking sector deposits (Berger, 1995; Hasan et al., 2013). We also control for country governance factors including the rule of law and regulatory quality as intuitional measures for the both the enforcement mechanisms and legal systems (La Porta et al. 1997; Djankov et al., 2007; Fang et al. 2014). The country's prevailing inflation rate is included, and the growth in the prosperity of the population is also controlled for by including the growth in GDP per capita (Fang et al. 2014; Mili et al. 2014). According to Demirgüç-Kunt and Detragiache (1998) bank crises are more prevalent in countries having low GDP growth, and high inflation and real interest rates. In periods with high economic growth, demands on loans and financial services provided by both IBs and CBs are likely to increase. This is expected to increase bank cash flow, interest earnings and profits. As our study period falls within the crisis, we predict the growth variable, GDP to be a negative determinant of bank performance (Subramanian et al., 2013). Regarding the inflation variable, in conventional banking high inflation rates should lead to higher loan rates which in turn would lead to higher revenues (Bashir, 2000; Haron, 2004). As for IBs, inflation is likely to be positively associated with performance only, if a large portion of IBs profits accrues from debt-based contracts (i.e. Murabaha) (Subramanian et al., 2013). In our study, with the assumption that Islamic banking is currently mostly based on debt rather than equity-based contracts, we expect inflation to have a positive effect on IB performance. In addition, because IBs are prohibited from charging fixed interest rates, profitability is likely to be positively associated with the domestic inflation rate.

Empirical models and estimation methods:

Our main models are developed as follows:

$$CAP_{i,t} = \beta_0 + \beta_1 CAP_{i,t-1} + \beta_2 SEC_{i,t} + \beta_3 IBs_i + \beta_4 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 NON_INT_{it} + \beta_9 MACRO_{i,j,t} + \varepsilon_{i,t} \dots (1)$$

$$CR_{i,t} = \beta_0 + \beta_1 CR_{i,t-1} + \beta_2 SEC_{i,t} + \beta_3 IBs_i + \beta_4 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 NON_INT_{it} + \beta_9 MACRO_{i,j,t} + \varepsilon_{i,t} \dots (2)$$

$$LIQ_{i,t} = \beta_0 + \beta_1 LIQ_{i,t-1} + \beta_2 SEC_{i,t} + \beta_3 IBs_i + \beta_4 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 NON_INT_{it} + \beta_9 MACRO_{i,j,t} + \varepsilon_{i,t} \dots (3)$$

$CAP_{i,t}$ = Bank capital adequacy ratio for bank i in time t.

$CR_{i,t}$ = Credit risk indicators for bank i in time t.

$LIQ_{i,t}$ = Liquidity indicators for bank i in time t.

$CAP_{i,t-1}$ = The first lag of bank capital adequacy indicator for bank i in time t.

$CR_{i,t-1}$ = The first lag of credit risk indicators for bank i in time t.

$LIQ_{i,t-1}$ = The first lag of liquidity indicators for bank i in time t.

$SEC_{i,t}$ = asset securitization activity measured as the total securitization for bank i at time t issuance deflated by total assets at time t.

IBs_i = Dummy variable equal 1 for an IB and 0 for CB.

$Size_{it}$ = Natural logarithm of the total bank assets for bank i at time t .

AGE_{it} = Age of bank i at time t since the year of its establishment,

NON_INT_{it} = Total Non-Interest Operating Income for bank i at time t ,

$MACRO_{i,j,t}$ = A set of Country level macroeconomic variables for country j at time t ,

ε_{it} = White-noise error term.

4

The definition of variables is included in Table 2.

Insert Table 2 about here

Estimation method:

We employ a two-step generalized method of moments (GMM) estimator, developed for dynamic models of panel data to examine the impact of bank asset securitization on the capitalization, credit risk and liquidity of both IBs and CBs. This model is developed by Arellano and Bond (1991) and has been modified by Arellano and Bover (1995), and Blundell and Bond (1998). The model incorporates both difference GMM and system GMM. The in-difference GMM takes the first-difference equation to eliminate the country-specific effects, through using lagged level of dependent variable as instruments. To overcome the problem of weak instruments, Arellano and Bover (1995) and Blundell and Bond (1998) developed system GMM to combine the level regression and difference equations, using lagged differences as instruments. Therefore, this two-step estimator functions efficiently to control for time-invariant fixed effects, which we eliminate by taking first-differences of all variables, and the autoregressive process in the data for each financial performance indicator. We include lagged dependent variables model to capture the dynamic nature of these variables and the potential presence of endogeneity of the explanatory variables, using instrumental variables based on three period lagged values of the explanatory variables (Blundell and Bond, 1998). We checked the model specification using Sargan test for over-identifying restrictions. We also employ the Arellano and Bond's test for zero autocorrelation which determines if the first differenced residuals are free from second order serial correlation. The existing studies in banking research employ similar approach (e.g. Fonseca and González, 2010; Wintoki et al. 2012; and Flannery and Hankins, 2013). Using GMM estimations, 11 Models are specified and separately estimated using the above mentioned risk indicators.

Descriptive Statistics:

Table 3 presents the descriptive statistics of our data. We report the descriptive statistics for full sample in Panel A, IBs sub-sample in Panel B and CBs sub-sample in Panel C.

Table 3 shows statistics for banks involved in asset securitization activity, both SEC IBs sub-sample (Panel A) and SEC CBs sub-sample (Panel B). SEC IBs appear to be more adequately capitalized than SEC CBs, with higher average for both CAR and EtoTA CBs. Ratios for asset quality indicate poorer quality for SEC IBs as compared to SEC CBs, implying higher credit risk though the results show more prudence by SEC IBs holding more loan loss reserves to gross loans as a safety cushion against expected risk. SEC IBs report a higher average of operational efficiency than SEC CBs; with lower means for both the costs to income ratio and overheads to total assets ratio. Comparison on the basis of earnings ability shows that SEC IBs have higher ROAA and higher ROAE, on average, than SEC CBs. SEC IBs report higher liquidity management with higher mean (median) for the liquid assets/total deposits and borrowing ratio as well as higher net loans to total assets ratio than SEC CBs. On average, SEC IBs are smaller in size, younger and appear to be less vulnerable to insolvency risk (lower mean for non-interest income) as compared to SEC CBs.

Empirical Results and Robustness Checks:

In this section we present the results of testing the impact of securitisation activity on bank risk on average and during the financial crisis. We then present the results of testing the impact of religiosity and ownership type on the risk profile of banks with high securitisation

Securitisation Activity and Bank Risk

We start the analysis by examining the impact of asset securitization activity (ratio of bank securitised assets to total assets) on bank risk (capital adequacy as well as credit and liquidity risks). The analysis (Table 4) shows that on average banks with higher securitisation activity have low capital adequacy ratio and higher net loans to total assets indicating poor liquidity position. These results support prior claims and are consistent with predictions that securitization activity is positively associated with more risk taking. This initial analysis indicates that in our sample (countries with dual banking systems), securitisation activity, on average, has not helped banks to manage their liquidity or their capital adequacy.

We then control for the financial crisis period (2008-2009), to explore changes in these banks risk exposure during the crisis. As shown in (Table 5), we find that the negative association between securitisation activity and capital adequacy continues during the crisis implying that banks with higher securitisation activity persistently scored low in capital adequacy during the whole period of study. Additionally, the results showed a significant negative association between higher securitisation activity and net loans to total assets implying a higher liquidity risk. These results indicate, consistent with predictions that banks involved in higher asset securitization activity exhibit higher risk. Our findings conform to results presented in previous studies (Dionne and Harchaoui, 2003; Uzun and Webb, 2007;

Jiangli and Pritsker, 2008; Altunbas et al. 2009; Cardone-Riportella et al. 2010; Casu et al. 2011; and Barth et al. 2012).

Testing the impact of religiosity on securitised banks' risk

As explained earlier, Islamic banks, as religiously oriented institutions, are expected to be more conservative when dealing with risk. On the other hand, their constrained model of securitisation might expose them to specific types of risks such as liquidity. Under this set of analyses we further test the impact of bank type on securitised banks' risk profile in countries with a dual banking system (Islamic and conventional banks) using two proxies for religiosity. The first is bank type (Islamic or conventional) and the second is country religiosity (the ratio of Muslim population to total population).

Controlling for bank type (Table 6), we find that banks with higher securitisation activity have significantly lower capital adequacy and offer higher ratio of net loans to total assets confirming their higher risk exposure. On the other hand, Islamic banks showed, as expected, a more conservative approach by keeping higher loan loss reserves to gross loans ratio and higher ratio of liquid assets to total deposit ratios, as compared to their conventional counterparts. Our findings provide additional empirical evidence to that presented to by Čihák and Hesse, 2010) Hasan and Dridi (2010); Abedifar et al. (2013) and Beck et al. (2013) to support prior studies' claims (Chapra, 2008; Ahmed, 2009; Ahmed, 2010), on the conservative behaviour and resilience of Islamic banks in general.

Additional tests are constructed for the impact of religiosity on securitised banks' risk exposure, we control for the second religiosity proxy (the ratio of the Muslim population to the total population). Results (Table 7) show a similar high-risk profile for banks with higher securitisation activity to the results of the pooled sample. Securitization activity is negatively associated with capital adequacy and positivity associated with liquidity risk (net loans to total deposits ratio) after controlling for both religiosity proxies. These results are also consistent during the financial crisis (Table 8).

We then conduct analyses examining the risk profile of banks with high securitisation activity within each of the subsamples of; Muslim majority countries and Non-Muslim majority countries. Tests within Muslim majority country indicate that bank securitization activity is marginally associated with lower loan loss reserve to gross loans ratio (Table 9) implying a lower credit risk. No significant association was found with capital adequacy or liquidity risks. We also find that Islamic banks continue in maintaining significantly higher ratio of loan loss reserves to gross loans and marginally lower net loans to total assets, confirming their conservative risk profile as compared with their conventional counterparts. Further tests within the subsample of non-Muslim majority countries (Table 10), show that banks with higher securitization activity had significantly lower capital adequacy and significantly higher liquidity risk (net

loans to total assets ratio), implying a similar risk profile of these banks to the profile of the pooled sample. In addition, we find in the subsample of non-majority Muslim countries, that the Islamic banks' dummy is no longer significant implying no significant difference between the risk profile of Islamic and conventional banks in non-Muslim majority countries.

In summary, these particular set of tests show that the risk exposure of banks with higher securitization activity in the pooled sample is driven by the risk exposure of securitised banks in non-Muslim majority countries. Our results highlight the importance of identifying the impact of culture factors (such as religiosity) in global banking studies. (e.g. Abedifar et al. 2013; Beck et al., 2014).

Testing the impact of ownership type on securitised Banks' risk

Testing for the second hypothesis related to the impact of ownership structure on bank risk, we test the impact of various types of bank ownerships and also conduct additional analyses within the subsamples of each type of bank ownership (Financial institution, corporate, private employee, government and foreign). Due to possible collinearity between various types of ownership, we run separate models for each type of ownership. The various models for the ownership are presented in Tables 10, 11, 12, 13 and 14¹¹. Results, in the three tables show that those banks with higher securitisation activity have consistently shown lower capital adequacy and higher liquidity ratio (higher ratio of net loans to total assets). In addition, controlling for bank financial institutions ownership, in the pooled sample, highlighted an additional type of risk that these banks faced which is credit risk as shown by the significantly low loan loss reserves to gross loans. The Islamic banks conservative risk profile has not changed in these models from the previous results.

For further insights on the impact of ownership on securitised banks risk profile we clustered our sample according to the bank's largest block owner (holding 10% or more). We then conduct the analysis within each subsample. Testing, in Table 15, within the subsample of the largest block of financial institutions ownership, results show that banks with higher securitization activity report higher liquid assets to total deposits ratio and have lower net loans to total assets ratio, implying better liquidity position. No evidence on capital adequacy was found. IBs show a marginal positive evidence for loan loss reserve to gross loans ratio.

Table 16, shows the results of tests within the subsample of the largest block corporate ownership. We find banks with higher securitization activity have significantly higher capital adequacy with no evidence for other risk indicators while Islamic banks report lower capital adequacy. These results are also similar to tests (Table 17) within the subsample of majority of family ownership. However, within this

¹¹ Unreported results controlling for government ownership type show no significant evidence on bank risk and asset securitization.

subsample Islamic banks report significantly positive loan loss reserve to gross loans implying the robustness of their conservative risk behaviour.

Tests within the majority of employee ownership show no significant evidence for bank asset securitization. Tests within the subsample with of the largest block of government ownership (Table 18) indicate that banks with higher securitization activity show poor capital adequacy as well as weak liquidity position given the high net loans to total asset ratio. IBs report significantly high non-performing loans to gross loans and higher loan loss reserve to gross loans. The results imply a higher risk profile for securitised banks that are majority government owned. In Table 19, tests within majority of foreign ownership subsample show no significant evidence on bank securitization activity.

Our results further confirm the importance of identifying the impact of bank ownership structure on the risk profile of banks in global banking studies.

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References:

- Abedifar, P., Molyneux, P., & Tarazi, A. (2013). Risk in Islamic banking. *Review of Finance* 17, 2035-2096.
- Altunbas, Y., Gambacorto, L., and Marques-Ibanez, D. (2009). Securitisation and Bank Lending Channel. *European Economic Review* 53, 996-1009.
- Barth, M. E., Ormazabal, G., & Taylor, D. J. (2011). Asset securitizations and credit risk. *The Accounting Review*, 87, 423-448.
- Beck, T., Demirgüç-Kunt, A. & Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of Banking & Finance* 37, 433-447.
- Cardone-Riportella, C., Samaniego-Medina, R., and Trujillo-Ponce, A. (2010). What Drives Bank Securitisation? The Spanish Experience. *Journal of Banking and Finance* 34, 2639-2651.
- Casu, B. Clare, A. Sarkisyan, A., and Thomas, S. (2011). Does securitization reduce credit risk taking? Empirical evidence from US bank holding companies. *The European Journal of Finance*, 17, 769-788.
- Čihák, M., & Hesse, H. (2010). Islamic banks and financial stability: An empirical analysis. *Journal of Financial Services Research* 38, 95-113.
- Dionne, G., & Harchaoui, T.M. (2003). Banks' capital, securitization and credit risk: An empirical evidence for Canada. HEC Working Paper No. 03-01.
- Hasan, M., Dridi, J., 2010. The effect of global crisis on Islamic and conventional banks: A comparative study. IMF Working Paper, WP/10/201.
- Jiangli, W., and Pritsker, M.G. (2008). The impacts of securitization on US bank holding companies. *Proceedings (Federal Reserve Bank of Chicago)* May, 377-93.

Uzun, H., and Webb, E. (2007). Securitization and Risk: Empirical Evidence on US Banks. *The Journal of Risk Finance* 8, 11-23.

Lemmon, M., Liu, L.X., Mao M.Q., and Nini, G., (2014), Securitization and Capital Structure in Nonfinancial Firms: An Empirical Investigation, *Journal of Finance*, 64(4), 1787- 1825.

Nadauld, Taylor, and Michael S. Weisbach, 2012, Did securitization affect the cost of corporate debt? *Journal of Financial Economics* 105, 332–352.

Loutskina, Elena, and Philip Strahan, 2009, Securitization and the declining impact of bank finance on loan supply: Evidence from mortgage originations, *Journal of Finance* 64, 861–889.

Piskorski, Tomasz, Amit Seru, and Vikrant Vig, 2010, Securitization and distressed loan renegotiation: Evidence from the subprime mortgage crisis, *Journal of Financial Economics* 97, 369–397.

Keys, Benjamin, Tanmoy Mukherjee, Amit Seru, and Vikrant Vig, 2010, Did securitization lead to lax screening? Evidence from subprime loans, *Quarterly Journal of Economics* 125, 307–362.

Downing, Christopher, Dwight Jaffee, and Nancy Wallace, 2009, Is the market for mortgage-backed securities a market for lemons? *Review of Financial Studies* 22, 2457–2494.

Aalbers, M. Engelen, E. Glasmacher, A. (2011) Mortgage securitization and the state: ‘Cognitive Closure’ in the Netherlands. *Environment and Planning A*, 43, 1179–1795.

AAOIFI. (2008). *Accounting and Auditing Organization for Islamic Financial Institutions's Shari'a Standards*. Bahrain: AAOIFI.

Abdul Aziz, A. Pahlavi, R., & Gintzburger, A. S. (2009). Equity- Based, Asset- Based and Asset- Backed Transactional Structures in Shari'a- Compliant Financing: Reflections on the Current Financial Crisis. *Economic Papers: A journal of applied economics and policy*, 28(3), 270-278.

Abedifar, P. Molyneux, P. & Tarazi, A. (2012). Risk in Islamic banking, LAPE Working Paper.

Affinito, M., & Tagliaferri E. (2010). Why do (or did?) banks securitize their loans? Evidence from Italy. Bank of Italy Discussion Paper No. 741.

Ahmed, A. (2010). Global financial crisis: An Islamic finance perspective, *International Journal of Islamic and Middle Eastern Finance and Management*, 3(4), 306-320.

Ahmed, H. (2009). Financial Crisis: Risks and Lessons for Islamic Finance, *International Journal of Islamic Finance*, 1(1), 7-32.

Alasrag, H. (2010). Global Financial Crisis and Islamic Finance, MPRA Paper No. 22167, (April): available at: http://mpra.ub.uni-muenchen.de/22167/1/MPRA_paper_22167.pdf

Ali, S. S. (2011). Islamic Banking in MENA region, Financial Flagship, *Islamic Research and Training Institute*, World Bank.

Alkhan, R. K. (2006). Islamic Securitization: A Revolution in the Banking Industry. Miracle.

Allen, W. A., & Wood, G. (2006). Defining and achieving financial stability, *Journal of Financial Stability*, 2 (2), 152-172.

Ambrose, B.W., M. LaCour-Little, & Sanders, A. B. (2005). Does regulatory capital arbitrage, reputation, or asymmetric information drive securitization? *Journal of Financial Services Research*, 28 (1/2/3), 113–33.

Arellano, M., & Bond, S. (1991). Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations, *Review of Economic Studies*, 58 (2), 277-297.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models, *Journal of Econometrics*, 68 (1), 29-51.

Ariss, T. R. (2010). Competitive conditions in Islamic and conventional banking: a global perspective, *Review of Financial Economics*, 19 (3), 101–108.

Baele, L. Farooq, M. & Ongena, S. (2012). Of religion and redemption: Evidence from default on Islamic loans, Discussion Paper Series No. 2012-014: European Banking Centre Discussion Paper No. 2012-008.

Barbour, D. Norton, J. and Slover, T. (1998). Asset Securitization in Emerging Market Economies: Fundamental Considerations. *The London Institute of International Banking, Finance & Development Law*.

Barth, M. E., Ormazabal, G., & Taylor, D. J. (2011). Asset securitizations and credit risk. *The Accounting Review*, 87(2), 423-448.

Bashir, A. H. M. (1999). Risk and profitability measures in Islamic banks: The case of two Sudanese Banks, *Islamic Economic Studies*, 6 (2), 1–24.

Bassens, D. Derudder, B. Witlox, F. (2010) The making and breaking of Dubai: the end of a city-state? *Political Geography*, 32, 299–301.

Bassens, D. Engelen, E. Derudder, B., & Witlox, F. (2013). Securitization across borders: organizational mimicry in Islamic finance. *Journal of Economic Geography*, 13(1), 85-106.

Beck, T. Demirgüç-Kunt, A. & Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency and stability, *Journal of Banking and Finance*, 37(2), 433–447.

Berger, A.N. (1995). The relationship between capital and earnings in banking. *Journal of Money, Credit and Banking*, 27 (2), 432-456.

Blundella, R., & Bond, S. (1998). GMM Estimation with persistent panel data: an application to production functions, *Econometric Reviews*, 19 (3), 321-340.

Bongini, P.; Laeven, L. & Majnoni, G. (2002). How good is the market at assessing bank fragility? A horse race between different indicators, *Journal of Banking and Finance*, 26 (5), 1011–1028.

Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia, *Journal of Banking & Finance*, 13(1), 65-79.

Bowden, R., & Lorimer, D. (2009). Credit Securitization and System Stability. Working paper, Ulm University.

Boyd, J. H., & Gertler, M. (1994). The role of large banks in the recent US banking crisis, *Federal Reserve Bank of Minneapolis Quarterly Review*, 18(1), 2-21.

Buch, C. M., & Prieto, E. (2014). Do Better Capitalized Banks Lend Less? Long- Run Panel Evidence from Germany, *International Finance*, 17(1), 1-23.

Calomiris, C.W. & J.R. Mason. (2004). Credit card securitization and regulatory arbitrage. *Journal of Financial Services Research*, 26 (1) 5–27.

- Campbell, S. Covitz, D. Nelson, W., & Pence, K. (2011). Securitization markets and central banking: An evaluation of the term asset-backed securities loan facility. *Journal of Monetary Economics*, 58(5), 518-531.
- Cantor, R. M., & Rouyer, S. (2000). Another perspective on risk transference and securitization. *Journal of Risk Finance*, 1(2), 37-47.
- Casu, B. Clare, A. Sarkisyan, A., & Thomas, S. (2011). Does securitization reduce credit risk taking? Empirical evidence from US bank holding companies. *The European Journal of Finance*, 17(9-10), 769-788.
- Cebenoyan, S.A, & P.E. Strahan. (2004). Risk management, capital structure and lending at banks. *Journal of Banking and Finance*, 28 (1), 19-43.
- Chapra, U. (2008). The Global Financial Crisis: Can Islamic Finance Help Minimize the Severity and Frequency of Such a Crisis in the Future? Paper presented at the forum of Global Financial Crisis. Jeddah: Islamic Development Bank (IDB) Publication.
- Chen,W., Liu, C. C & Ryan, S.G. (2008). Characteristics of securitizations that determine issuers' retention of the risks of the securitized assets. *Accounting Review*, 83 (5), 1181-215.
- Chong, B. S., & Liu, M. (2009). Islamic banking: interest-free or interest-based?, *Pacific-Basin Finance Journal*, 17 (1), 125-144.
- Čihák, M., & Hesse, H. (2010). Islamic Banks and Financial Stability: An Empirical Analysis, *Journal of Financial Services Research*, 38 (2-3), 95-113.
- corporate governance. *Journal of Financial Economics* 105, 581-606.
- Davidson, A., Sanders, A., Wolff, L. L., & Ching, A. (2003). Securitization: Structuring and Investment Analysis. USA: John Wiley & Sons.
- De Nicrolo, G. (2000). Size, Charter Value, and Risk in Banking: An International Perspective. *International Finance Discussion Papers 689*. Washington, DC: Board of Governors of the Federal Reserve System.
- Dell'Ariccia, G. Igan D., & Laeven, L.A. (2009). Credit booms and lending standards: Evidence from the subprime mortgage market. European Banking Center Discussion Paper No. 2009-14S.
- DeLorenzo, S. Y. T. (2007). Shari'ah compliance risk. *Chi. J. Int'l L.*, 7, 397.
- Demirgüç-Kunt, A., & Detragiache, E. (1998). The Determinants of Banking Crises in Developing and Developed countries, IMF Staff papers : 81-109.
- Desai, U. (2008). Credit crisis gives Islamic finance a chance to Shine , *International Herald Tribune*.
- DeYoung, R., & Hasan, I. (1998). The performance of de novo commercial banks: A profit efficiency approach. *Journal of Banking & Finance*, 22(5), 565-587.
- DeYoung, R., & Roland, K. P. (2001). Product mix and earnings volatility at commercial banks: Evidence from a degree of total leverage model. *Journal of Financial Intermediation*, 10(1), 54-84.
- Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies*, 51(3), 393-414.
- Dionne, G., & Harchaoui, T.M. (2003). Banks' capital, securitization and credit risk: An empirical evidence for Canada. HEC Working Paper No. 03-01.
- Djankov, S. McLiesh, C. Shleifer, A. (2007). Private credit in 129 countries, *Journal of Financial Economics* 84, 299-329.

- Dusuki, A. W., & Mokhtar, S. (2010). Critical Appraisal of Shariah Issues on E&Y. (2012). World Islamic Banking Competitiveness Report 2012-2013: Earnst and Young.
- Ebrahim, M.; Girma, S., Shah, M., & Williams, J. (2014). Dynamic capital structure and political patronage: The case of Malaysia, *International Review of Financial Analysis*, 31, 117-128.
- El-Gamal, M. (2006). Islamic finance, law, economics, and practice, Cambridge: Cambridge University Press.
- Fang, Y. Hasan, I., & Marton, K. (2014). Institutional development and bank stability: Evidence from transition countries, *Journal of Banking & Finance*, 39, 160-176.
- Flakentien, E. Boral, A. & Carty, L.V. (2000). RiskCalc™ for private companies: Moody's default model rating methodology. www.moodyskmv.com
- Flannery M.J., & Hankins, K.W. (2013). Estimating dynamic panel models in corporate finance, *Journal of Corporate Finance*, 19, 1-19.
- Fonseca, A. R., & González, F. (2010). How bank capital buffers vary across countries: The influence of cost of deposits, market power and bank regulation. *Journal of banking & finance*, 34(4), 892-902.
- Franke, G., & Krahnen, J.P. (2005). Default risk sharing between banks and markets: The contribution of collateralized debt obligations. CFS Working Paper No. 2005/06.
- González, X. Jaumandreu, J., & Pazó, C. (2005). Barriers to innovation and subsidy effectiveness. *RAND Journal of Economics*, 36 (4), 930-950.
- Gorton, G.B., & Pennacchi, G.G. (1995). Banks and loan sales: Marketing nonmarketable assets, *Journal of Monetary Economics*, 35(3), 389-411.
- Hannan, T.H., & Hanweck, G.A. (1988). Bank Insolvency Risk and the Market for Large Certificates of Deposit, *Journal of Money, Credit, and Banking*, 20 (2), 203-11.
- Haron, S. (2004). Determinants of Islamic banks profitability, *Global Journal of Finance and Economics*, 1 (10), 49-64.
- Hasan, I. Jackowicz, K. Kowalewski, O., & Kozłowski, Ł. (2013). Market discipline during crisis: Evidence from bank depositors in transition countries. *Journal of Banking & Finance*, 37 (12), 5436-5451.
- Hasan, M, & Dridi, J. (2010). The Effects of Global Crisis on Islamic and Conventional Banks: A Comparative Study, IMF Working Paper 10/201.
- Higgins, E.J., & Mason, J.R. (2004). What is the value of recourse to asset backed securities? A clinical study of credit card banks. Federal Reserve Bank of Philadelphia Working Paper No. 03-6.
- Hofmann, R. K. (2012). Bank Regulatory Certification and Camel Framework-Related Accounting Signals in the Debt Market, Working Paper :University of Western Australia.
- Hussein, K. H. (2004). Banking efficiency in Bahrain: Islamic versus Conventional Banks. Islamic Development Bank, *Islamic Research and Training Institute*, Research Paper, No. 68.
- Iqbal & Molyneux P. (2006). Thirty years of Islamic banking: history, performance and prospects, J.KAU: *Islamic Econ.*, 19 (1), 37-39.
- Iqbal M. (2001). Islamic and conventional banking in the nineties: a comparative study, *Islamic Economic Studies*, 8 (2), 1-27.

Islam, M. M. & Chowdhury, H. A. (2009). A comparative Study of liquidity management of an Islamic bank and a conventional bank: The evidence from Bangladesh, *Journal of Islamic Economics, Banking and Finance*, 5 (1), 89-108.

Islamic Financial Services Board (IFSB). (2005). Capital Adequacy Standard for Institutions (Other than Insurance Institutions) offering only Islamic Financial Services. Available at: <http://www.ifsb.org/standard/ifsb2.pdf>.

Jiangli, W., & Pritsker, M.G. (2008). The impacts of securitization on US bank holding companies. Proceedings (Federal Reserve Bank of Chicago) May 2008, 377-93.

Jobst, A. (2007). The economics of Islamic finance and securitization. IMF Working Paper. International Monetary Fund.

Johnes, J. Izzeldin, M. & Pappas, V. (2013). A comparison of performance of Islamic and conventional banks 2004 to 2009, *Journal of Economic Behavior & Organization*, Accepted Manuscript.

Keys, B.J. Mukherjee, T.K. Seru, A., & Vig, V. (2010). Did securitization lead to lax screening? Evidence from subprime loans. EFA 2008 Athens Meetings Paper.

Khamis, M.; Senhadji, A., Hasan, M.; Kumah, F., Prasad, A. & Sensenbrenner, G. (2010). Impact of the Global Financial Crisis on the Gulf Cooperation Countries and Challenges Ahead. Washington: International Monetary Fund.

Khan, F. (2010a). How "Islamic" is Islamic banking?, *Journal of Economic Behavior & Organization*, 76 (3), 805-820.

Khan, F. (2010b). God, Government and Outsiders: The Influence of Religious Beliefs on Depositor Behavior in an Emerging Market, Cambridge MA: Harvard.

Khoutem, D.B.J. (2014). Islamic banks-Sukuk markets relationships and economic development: The case of the Tunisian post-revolution economy. *Journal of Islamic Accounting and Business Research*, 5(1), 47-60.

Kiff, J., & Kisser, M. (2014). A shot at regulating securitization. *Journal of Financial Stability*, 10, 32-49.

La Porta, R. Lopez-de-Silanes, F. Shleifer, A. Vishny, R. (1997). Legal determinants of external finance, *Journal of Finance* 52, 1131-1150.

Laeven, L., & Levine, R. (2009). Bank governance, regulation and risk taking, *Journal of Financial Economics*, 93(2), 259-275.

Lane, W. R. Looney, S.W. & Wansley, J.W. (1986). An application of the Cox proportional hazards model to bank failure, *Journal of Banking and Finance*, 10 (4), 511-31.

Lepetit, L.; Nys, E.; Rous, P., & Tarazi, A. (2008). Bank income structure and risk: An empirical analysis of European banks. *Journal of Banking & Finance*, 32 (8), 1452-1467.

Leyshon, A., Thrift, N. (2007). The capitalization of almost everything: the future of finance and capitalism. *Theory, Culture, and Society*, 24, 97-115.

Loutskina, E., & P.E. Strahan. (2006). Securitization and the declining impact of bank finance on loan supply: Evidence from mortgage acceptance rates. NBER Working Paper No. W11983.

_____. (2011). The role of securitization in bank liquidity and funding management. *Journal of Financial Economics*, 100(3), 663-684.

Malaysia International Financial Centre (MIFC). 2014. GLOBAL SUKUK BEGINS 2014 WITH MOMENTUM. Available at: <http://www.mifc.com/index.php?ch=28&pg=72&ac=65&bb=uploadpdf>

Mian, A.R., & Sufi, A. (2009). The consequences of mortgage credit expansion: Evidence from the 2007 mortgage default crisis. NBER Working Paper No. W13936.

Mili, M. Sahut, J. M., & Trimeche, H. (2014). Determinants of the Capital Adequacy Ratio of a Foreign Bank's Subsidiaries: The Role of the Interbank Market and Regulation of Multinational Banks, IPAG Working Paper, (No. 2014-366).

Mills, P. S. & Presley, J. R. (1999). Islamic finance: Theory and practice, *International Journal of Theoretical and Applied Finance*, 2 (3), 243 – 283.

Mohd Noor, L. (2008). Sukuk Rating - General Approach, Criteria and Methodology. In R. Ratings, Malaysian Sukuk Market Handbook - Your Guide to the Malaysian Islamic Capital Market (pp. 147-161). Kuala Lumpur: RAM Ratings.

Niu, F.F., & Richardson, G.D. (2006). Are securitizations in substance sales or secured borrowings? Capital-market evidence, *Contemporary Accounting Research*, 23(4), 1105–33.

Olson, D. & Zoubi, A. (2008). Using accounting ratios to distinguish between Islamic and conventional banks in the GCC region, *The International Journal of Accounting*, 43 (1), 45–65.

Parashar, S.P. & Venkatesh, J. (2010). How did Islamic banks do during global financial crisis, *Banks and Bank Systems*, 5 (4), 54-62.

Pellegrina, L.D. (2012). Does capitalization enhance efficient risk undertaking?: A comparison between Islamic and conventional banks, *Accounting Research Journal*, 25 (3), 185 – 207.

Pollard, J. & Samers, M. (2007). Islamic banking and finance: postcolonial political economy and the decentring of economic geography, *Transactions of the Institute of British Geographers*, 32 (3), 313-330.

Purnanandam, A.K. (2009). Originate-to-distribute model and the sub-prime mortgage crisis. AFA 2010 Atlanta Meetings Paper.

Samad, A., & Hassan, M.K. (1999). The performance of Malaysian Islamic bank during 1984-1997: An exploratory study, *International Journal of Islamic Financial Services*, 10 (1-2), 7-26.

Sarker, A. A. (2006). CAMELS rating system in the context of Islamic banking: A proposed 'S' for Shariah framework, *Journal of Islamic Economics, Banking and Finance*, 2 (2), 1–26.

Siddiqui, A. (2008). Financial contracts, risk and performance of Islamic banking, *Managerial Finance*, 34 (10), 680-694.

Srairi, S. A. (2009). Cost and profit efficiency of conventional and Islamic banks in GCC countries, *Journal of Productivity Analysis*, 34, 45-62.

Standard and Poor's (2006). 'Islamic Finance is Securitization's New Frontier'. Available at: <URL:http://www.securitization.net/pdf/sp/IslamicFinance_8Nov06.pdf>, Access Date: 30th July, 2008.

Stiroh, K. J. (2010). Diversification in banking, in Oxford Handbook of Banking (Eds) A. N. Berger, P. Molyneux and J. O. S. W

Subramanian, U., Wahidudin, A., & Kamaluddin, P. (2013). Determinants of Profitability—A Comparative Analysis of Islamic Banks and Conventional Banks in ASEAN Countries, Working paper. Mutalib Pg., Determinants of Profitability—A Comparative Analysis of Islamic Banks and Conventional Banks in ASEAN Countries (April 16, 2013).

- Taylor, J. B. (2009). The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong, In A Festschrift in Honor of David Dodge's Contributions to Canadian Public Policy, Proceedings of Bank of Canada Conference, *Critical Review*, 21, 341–64.
- Totaro, L. (2009). Vatican Says Islamic Finance May Help Western Banks in Crisis, Rome: Bloomberg.
- Vermilyea, T.A. Webb, E.R. & Kish, A.A. (2008). Implicit recourse and credit card securitizations: What do fraud losses reveal? *Journal of Banking and Finance*, 32 (7), 1198–208.
- Wahlen, J.M. (1994). The Nature of Information in Commercial Bank Loan Loss Disclosures, *The Accounting Review*, 69 (3), 455–478.
- Wilson, R. (2004) Overview of the sukuk market. In J. A. Nathif, T. Abdulkader (eds) *Islamic Bonds: Your Guide to Issuing, Structuring, and Investing in Sukuk*, 3–17. London: Euromoney Books.
- Wintoki, M.B.; Linck, J.S.; Netter, J.M. (2012). Endogeneity and the dynamics of corporate governance, *Journal of Financial Economics* 105, 581–606.
- Yudistira, D. (2003). Efficiency in Islamic banking: An empirical analysis of 18 banks, Working paper, Department of Economics, Loughborough University, U.K.
- Zaher, T., & Hassan, K. (2001). A comparative literature survey of Islamic finance and banking, *Financial Markets, Institutions & Instruments*, 10 (4), 155 – 199.
- Zöngür, Y. (2010). Comparison between Islamic and Conventional Securitization: A Survey, *Review of Islamic Economics*, 13 (2).
- Callen, J., Fang, X., 2013. Religion and stock price crash risk. *Journal of Financial and Quantitative Analysis*, forthcoming.
- Barro, R., McCleary, R. 2003. Religion and Economic Growth. *American Sociological Review* 68, 760–781.
- Stulz, R., Williamson, R. 2003. Culture, openness, and finance. *Journal of Financial Economics*, 70, 313–349.
- Olson, D. & Zoubi, T. (2008). “Using accounting ratios to distinguish between Islamic and conventional banks in the GCC region”, *International Journal of Accounting*, 43 (1), 45–65.
- Hasan, M, & Dridi, J. (2010). “The Effects of Global Crisis on Islamic and Conventional Banks: A Comparative Study”, *IMF Working Paper* 10/201.
- Maltby, J., 1999. Personality Dimensions of Religious Orientation. *Journal of Psychology* 133, 631-640.
- Waite, L. J., Lehrer, E. L., 2003. The Benefits from Marriage and Religion in the United States: A Comparative Analysis. *Population and Development Review* 29, 255-275.

- Lehrer, E. L., 2004. Religion as a Determinant of Economic and Demographic Behavior in the United States. *Population and Development Review* 30, 707–726.
- Hilary, G., Hui, K. W., 2009. Does religion matter in corporate decision making in America? *Journal of Financial Economics* 93(3), 455–473.
- Dyreng, S., Mayew, W. J., Williams, C. D., 2012. Religious social norms and corporate financial reporting. *Journal of Business Finance and Accounting* 39 (7-8), 845–875.
- McGuire, S., Omer, T. C., Sharp, N. Y., 2012. The impact of religion on financial reporting irregularities. *The Accounting Review* 87, 645–73.
- Weaver, G. R., Agle, B. R., 2002. Religiosity and Ethical Behavior in Organizations: A Symbolic Interactionist Perspective. *Academy of Management Review* 27, 77–97.
- Osoba, B., 2003. Risk preferences and the practice of religion: evidence from panel data. Unpublished Working Paper, West Virginia University.
- Longenecker, J. G., McKinney, J. A., Moore, C. W., 2004. Religious Intensity, Evangelical Christianity and Business Ethics: An Empirical Study. *Journal of Business Ethics* 55, 373–386.
- McCullough, M. E., Willoughby, B.L.B., 2009. Religion, Self-Regulation and Self-Control: Association, Explanation and Implications. *Psychological Bulletin* 135, 69–93.
- Vitell, S. J. 2009. The Role of religiosity in business and consumer ethics: A review of the literature. *Journal of Business Ethics*, 90, 155–167.

References:

Ashcraft, A.B. (2008). Are Bank Holding Companies a Source of Strength to Their Banking Subsidiaries? *Journal of Money, Credit and Banking*, 40(2–3): 273–294.

Claessens, S., Demirgui-Kunt, A., and Huizinga, H. (1998). How Does Foreign Entry Affect the Domestic Banking Market? Policy Research Working Paper No. 1918, The World Bank.

Dages, B.G., Goldberg, L., and Kinney, D. (2000). Foreign and Domestic Bank Participation in Emerging Markets: Lessons from Mexico and Argentina. NBER Working Paper No. 7714.

Dinc, I.S. (2005). Politicians and banks: Political influences on government-owned banks in emerging markets. *Journal of Financial Economics*, 77:453–479.

Duan, J.C., Moreau, A., and Sealey, C.W., 1992. Fixed-rate deposit insurance and risk shifting behavior at commercial banks. *Journal of Banking and Finance* 16, 715–742.

Farazi, S., Feyen, E., and Rocha, R. (2011). Bank Ownership and Performance in the Middle East and North Africa Region. Policy Research Working Paper 5620, The World Bank.

Gropp, R., Hakenes, H., and Schnabel, I., 2011. Competition, Risk-shifting, and Public Bailout Policies. *Review of Financial Studies* 24, 2084-2120.

Hovakimian, A., and Kane, E.J., 2000. Effectiveness of Capital Regulation at U.S. Commercial Banks, 1985 to 1994. *The Journal of Finance* 55, 451-468.

Khwaja, A., Mian, A. (2005). Do lenders favor politically connected firms? Rent provision in an emerging financial market. *Quarterly Journal of Economics*, 120 (4):1371–1411.

Mian, A. (2006). The limits of foreign lending in poor countries. *The Journal of Finance*, 61: 1465–1505.

Micco, A., Panizza, U., and Yanez, M. (2007). Bank ownership and performance. Does politics matter? *Journal of Banking & Finance*, 31: 219–241.

Srairi, S. (2013). Ownership structure and risk-taking behaviour in conventional and Islamic banks: Evidence for MENA countries. *Borsa Istanbul Review* 13: 115-127.

Table 2: Definition and Descriptions for the Test Variables:

This Table provides definitions and notations for test variables in the empirical models examined in this study.

Variables	Definitions
1. Capitalization Proxies: a) $CAR_{i,t}$ b) $EtoTA_{i,t}$	a) Capital Adequacy Ratio. b) Equity to total asset ratio.
2. Credit Risk: a) $NPLtoGR_{i,t}$ b) $LLRtoGR_{i,t}$	a) Non-Performing Loans to Gross Loans b) Loan Loss Reserves to Gross Loans
3. Liquidity Risk: a) $LAtoTD_{i,t}$ b) $NLtoTA_{i,t}$	a) Liquid Assets to Total deposits and borrowings b) Net loans to Total Assets
$SEC_{i,t}$	Asset securitization activity measured as the total securitization for bank i at time t issuance deflated by total assets at time t.
IBS_i	Dummy variable equal 1 for Islamic banks and 0 for Conventional banks.
$REGL_R_j$	The ratio of Muslim population in country j to the total population of the country.
$FINAN_{i,t}$	A ratio of all shareholders classified by either ORBIS or Zawya as financial institutions, mutual funds, Insurance companies; Banks etc.
$COR_{i,t}$	A ratio includes all firms that are not part of financial institutions or private owners.
$FAMILY_{i,t}$	A ratio of individual shareholders or their families. Also in this category fall privately owned firms, in other words firms that are wholly owned by ether a single private investor or a group of private investors.
$GOV_{i,t}$	
$FOR_{i,t}$	
$Size_{i,t}$	Natural logarithm of the total bank assets for bank i at time t.
$AGE_{i,t}$	Age of bank i at time t since the year of its establishment
$NON_INT_{i,t}$	Total Non-Interest Operating Income scaled by Total Assets for bank i at time t
$Crisis_t$	Time Dummy equal 1 for the financial periods of 2007-2009 and 0 otherwise.
$MACRO_{ij,t}$	A set of country level macroeconomic variables for bank i in country j at time t,
$MSD_{i,t}$	Bank i deposits at time t over total banking sector deposits at time t
$ROL_{i,t}$	Captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence
$RQ_{i,t}$	Captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development
$GDPGR_{i,t}$	Growth in GDP per capita in country j at time t
$INF_{i,t}$	Country-prevailing inflation rate for bank i in time t.

Table 3: Descriptive Statistics														
Observations			Panel A: Descriptive Statistics (Full Sample)						Panel B: Mean Comparison			Panel C: Median Comparison		
Variables:	Full Sample	Islamic	Conventional	Mean	Median	St. Dev.	Minimum	Maximum	Islamic	Conventional	T-test (P-Value)	Islamic	Conventional	MW Z-test (P-Value)
CAR(%)				22.155	16.96	19.550			26.470	22.961		16.31	16.91	
NPLtoGR(%)				8.083	3.885	12.504			10.681	9.947		2.13	4.39	
LLRtoGR(%)				7.140	3.419	11.528			8.513	7.809		2.675	3.311	
NLtoTA(%)				45.334	47.143	22.048			50.543	42.642		59.428	41.635	
LAtotD(%)				41.310	31.232	47.168			46.214	44.002		27.407	37.256	
Size (%)				7.484	7.400	2.053			8.360	7.473		8.370	7.148	
NON_IN(%)				0.030	0.012	0.457			0.017	0.036		0.010	0.011	
AGE				36.821	27	43.051			17.536	49.235		12	31	
MSD				0.048	0.012	0.091			0.034	0.049		0.013	0.008	
ROL				55.190	57.895	26.242			61.368	60.102		62.856	57.895	
RQ				57.921	56.796	26.246			64.242	62.726		69.268	59.314	
GDPGR				8.319	7.845	11.028			8.265	9.142		7.990	8.509	
INF				5.533	4.484	4.816			4.887	5.011		3.2	3.613	

Notes: Table 3 presents the descriptive statistics for the test variables for the period of 2003-2012. The study pooled sample reflects banks operating in 22 crosscountries with 4889 bank-year observations (672 banks).

Table 4: Impact of Securitization on Capitalization, Credit and Liquidity Risks- Baseline Estimation

	-1	-2	-3	-4	-5
	CAR	NPLtoGR	LLRtoGR	LAtoTD	NLtoTA
CARt-1	0.378** (0.000)				
L.EtoTA					
NPLtoGRt-1		0.535** (0.000)			
LLRtoGR t-1			0.843** (0.000)		
LAtoTDt-1				0.395** (0.000)	
NLtoTAt-1					0.638** (0.000)
SEC	-0.114** (0.000)	-0.0671 (0.680)	-0.0194 (0.331)	1.501 (0.664)	0.176** (0.000)
ROL	0.0831 (0.332)	0.133 (0.239)	0.207* (0.021)	0.519 (0.298)	-0.00330 (0.997)
RQ	-0.114 (0.155)	-0.0946 (0.243)	0.00795 (0.826)	0.945+ (0.055)	0.0841 (0.268)
Size	-4.460* (0.003)	-2.674* (0.046)	-1.982 (0.152)	-17.64 (0.253)	-0.164 (0.889)
GDPGR	-0.00599 (0.692)	-0.0358+ (0.057)	-0.0373* (0.002)	0.0502 (0.487)	0.0196 (0.340)
MSD	-15.85 (0.299)	-17.95 (0.110)	-43.40* (0.018)	-84.62 (0.332)	-23.71 (0.181)
NON_IN	79.63* (0.012)	-4.720 (0.907)	-25.94 (0.192)	-181.1 (0.482)	5.377 (0.891)
AGE	0.0379 (0.774)	0.234+ (0.087)	0.00120 (0.995)	1.395 (0.542)	0.0102 (0.927)
INF	-0.198** (0.000)	0.101 (0.251)	-0.0157 (0.686)	-0.402 (0.186)	0.131 (0.130)
EtoTA		-0.0462 (0.785)	-0.0918 (0.362)	2.559* (0.029)	-0.174+ (0.081)
Cons	50.68** (0.000)	16.24+ (0.077)	9.095 (0.382)	0.314 (0.995)	16.14+ (0.070)
Wald Test	122.2	136.7	422.6	527.8	150.7
Sargan Test	24.51 (0.30)	62.29 (0.23)	38.80 (0.49)	45.91 (0.16)	35.12 (0.64)
Auto- correlation	0.53 (0.60)	0.13 (0.78)	0.58 (0.72)	0.67 (0.50)	0.47 (0.64)

Table 5: Impact of Securitization on Capitalization, Credit and Liquidity Risks during Crisis (2008-09)						
	-1	-2	-3	-4	-5	-6
	CAR	EtoTA	NPLtoGR	LLRtoGR	LAtoTD	NLtoTA
CARt-1	0.373** (0.000)					
L.EtoTA		0.336** (0.000)				
NPLtoGRt-1			0.533** (0.000)			
LLRtoGR t-1				0.845** (0.000)		
LAtoTDt-1					0.400** (0.000)	
NLtoTAt-1						0.627** (0.000)
SEC_C	-0.107* (0.043)	-0.0511 (0.996)	-0.492 (0.499)	-0.0164 (0.142)	-0.402 (0.679)	-0.289** (0.000)
ROL	0.0844 (0.325)	0.0240 (0.709)	0.130 (0.239)	0.207* (0.022)	0.443 (0.401)	-0.00991 (0.905)
RQ	-0.118 (0.140)	0.00840 (0.861)	-0.0918 (0.255)	0.00887 (0.806)	0.974* (0.045)	0.103 (0.175)
Size	-4.470* (0.003)	-5.516** (0.000)	-2.639+ (0.051)	-1.985 (0.157)	-17.72 (0.241)	-0.0837 (0.943)
GDPGR	-0.00729 (0.626)	0.000734 (0.945)	-0.0353+ (0.063)	-0.0373* (0.003)	0.0373 (0.606)	0.0143 (0.491)
MSD	-15.04 (0.328)	-33.59** (0.000)	-18.30 (0.102)	-43.38* (0.018)	-79.75 (0.393)	-27.85 (0.129)
SNON_IN	80.82* (0.011)	59.39* (0.039)	-4.443 (0.912)	-24.90 (0.217)	-196.8 (0.467)	4.542 (0.907)
AGE	0.0336 (0.799)	0.333+ (0.055)	0.230+ (0.093)	0.00103 (0.996)	1.338 (0.565)	-0.0247 (0.827)
INF	-0.188** (0.001)	-0.0645+ (0.065)	0.0958 (0.270)	-0.0120 (0.756)	-0.402 (0.188)	0.141 (0.100)
EtoTA			-0.0455 (0.789)	-0.0958 (0.342)	2.579* (0.028)	-0.164 (0.101)
Cons	51.05** (0.000)	40.60** (0.000)	16.11+ (0.084)	9.091 (0.391)	5.685 (0.907)	16.87+ (0.064)
Wald Test	127.7	136.2	137.5	462.6	519.3	111.6
Sargan Test						
Auto- correlation						

Table 6: SEC activity controlling for Bank Type for the period (2003-2012)

Panel A: Main Result						
	-1	-2	-3	-4	-5	-6
	CAR	EtoTA	NPLtoGR	LLRtoGR	LAtoTD	NLtoTA
L.CAR	0.379** (0.000)					
L.EtoTA		0.342** (0.000)				
L.NPLtoGR			0.530** (0.000)			
L.LLRtoGR				0.761** (0.000)		
L.LAtoTD					0.375** (0.000)	
L.NLtoTA						0.640** (0.000)
SEC	-0.115** (0.000)	0.00114 (0.977)	-0.266 (0.292)	0.0242 (0.277)	1.936 (0.571)	0.175** (0.000)
IB	-0.823 (0.958)	22.96 (0.144)	9.31 (0.713)	19.81* (0.037)	29.37* (0.013)	1.082 (0.878)
ROL	0.0785 (0.323)	0.0309 (0.688)	0.220* (0.037)	0.131 (0.103)	0.407 (0.362)	-0.00701 (0.938)
RQ	-0.117 (0.140)	0.0172 (0.753)	-0.118 (0.165)	-0.00151 (0.961)	0.951+ (0.054)	0.0820 (0.298)
LnTA	-4.413* (0.007)	6.288** (0.000)	-4.758* (0.004)	-2.529* (0.050)	-13.69 (0.354)	-0.183 (0.876)
GDPGR	-0.00757 (0.596)	0.00621 (0.572)	-0.0371+ (0.053)	-0.0308* (0.005)	0.0551 (0.446)	0.0205 (0.320)
MSD	-15.75 (0.298)	-25.73* (0.002)	-32.48* (0.025)	-34.53* (0.041)	-69.36 (0.369)	-24.91 (0.156)
SNON_IN	80.44* (0.011)	60.11* (0.041)	-19.26 (0.642)	-21.97 (0.251)	-152.5 (0.559)	4.900 (0.901)
AGE	0.0250 (0.899)	0.595* (0.001)	0.279 (0.104)	0.0681 (0.701)	0.765 (0.721)	0.0127 (0.909)
INF	-0.189** (0.000)	-0.0557 (0.122)	0.114 (0.189)	-0.0308 (0.374)	-0.442 (0.154)	0.125 (0.143)
EtoTA			-0.0516 (0.754)	-0.123 (0.207)	2.561* (0.025)	-0.174+ (0.085)
_cons	51.24** (0.000)	31.57* (0.001)	25.36* (0.010)	13.14 (0.168)	12.04 (0.775)	16.49+ (0.067)
chi2	123.3	105.7	168.9	353.5	473.7	138.9
Panel B: Marginal Results for Muslim Majority countries						
SEC	0.487 (0.400)		-0.254 (0.334)	-0.270+ (0.061)	-0.492 (0.717)	-0.346 (0.292)
IB	12.10 (0.425)		12.37 (0.432)	45.34* (0.007)	66.52 (0.260)	-13.64+ (0.067)
Cons	50.50** (0.000)		43.09** (0.001)	16.96+ (0.087)	37.89 (0.324)	17.88* (0.048)
Wald test	58.83		224.2	227.4	114.6	87.41
Panel C: Marginal Results for Non-Muslim Majority countries						
SEC	-0.139** (0.000)		1.060 (0.817)	-0.00856 (0.442)	-0.310 (0.951)	0.185* (0.002)
IB	-6.878 (0.451)		15.49 (0.523)	12.98 (0.379)	-58.15 (0.424)	11.05 (0.465)
Cons	47.00** (0.000)		8.848 (0.655)	25.54+ (0.071)	-388.9 (0.300)	41.71* (0.040)
Wald test	291.7		134.3	219.8	780.8	75.93

Table 7: SEC activity controlling for Religiosity for the period (2003-2012)						
	-1 CAR	-2 EtoTA	-3 NPLtoGR	-4 LLRtoGR	-5 LAtoTD	-6 NLtoTA
L.CAR	0.381** (0.000)					
L.EtoTA		0.336** (0.000)				
L.NPLtoGR			0.533** (0.000)			
L.LLRtoGR				0.845** (0.000)		
L.LAtoTD					0.400** (0.000)	
L.NLtoTA						0.627** (0.000)
SEC_C	-0.107** (0.000)	-0.0461 (0.911)	-0.255 (0.297)	-0.0251 (0.273)	1.689 (0.621)	0.179** (0.000)
REGL_R	16.77 (0.166)	-12.15 (0.225)	0.884 (0.930)	-10.35 (0.272)	-29.3* (0.019)	32.80* (0.009)
IB	-0.913 (0.956)	27.51+ (0.093)	15.35* (0.180)	29.25* (0.016)	-102.0 (0.342)	5.277 (0.505)
ROL	0.0810 (0.320)	-0.0148 (0.859)	0.222* (0.036)	0.110 (0.143)	0.0156 (0.974)	0.0589 (0.497)
RQ	-0.0677 (0.393)	-0.0183 (0.718)	-0.114 (0.143)	-0.0194 (0.524)	0.223 (0.337)	0.134+ (0.088)
LnTA	-4.248* (0.006)	-6.223** (0.000)	-4.795* (0.004)	-2.210+ (0.085)	-17.36 (0.286)	0.000900 (0.999)
GDPGR	-0.00440 (0.756)	0.0118 (0.253)	-0.0381* (0.042)	-0.0304* (0.004)	0.0951 (0.216)	0.0150 (0.426)
MSD	-23.98 (0.107)	-22.17* (0.002)	-32.71* (0.009)	-30.39+ (0.073)	54.18 (0.338)	-32.31+ (0.092)
SNON_IN	77.24* (0.014)	64.81* (0.024)	-19.57 (0.634)	-23.09 (0.224)	-148.8 (0.519)	4.077 (0.912)
AGE	0.0336 (0.799)	0.333+ (0.055)	0.230+ (0.093)	0.00103 (0.996)	1.338 (0.565)	-0.0247 (0.827)
INF	-0.188** (0.001)	-0.0645+ (0.065)	0.0958 (0.270)	-0.0120 (0.756)	-0.402 (0.188)	0.141 (0.100)
EtoTA			-0.0455 (0.789)	-0.0958 (0.342)	2.579* (0.028)	-0.164 (0.101)
Cons	51.05** (0.000)	40.60** (0.000)	16.11+ (0.084)	9.091 (0.391)	5.685 (0.907)	16.87+ (0.064)
Wald test	127.7	136.2	137.5	462.6	519.3	111.6

Table 8a: Control for Ownership

	Panel A: Financial Institutions Ownership						Panel B: Corporate Ownership					
	-1 CAR	-2 EtoTA	-3 NPLtoGR	-4 LLRtoGR	-5 LAtoTD	-6 NLtoTA	-1 CAR	-2 EtoTA	-3 NPLtoGR	-4 LLRtoGR	-5 LAtoTD	-6 NLtoTA
L.CAR	0.326** (0.000)						0.325** (0.000)					
L.EtoTA		0.385** (0.000)						0.386** (0.000)				
L.NPLtoGR			0.443** (0.000)						0.438** (0.000)			
L.LLRtoGR				0.846** (0.000)						0.842** (0.000)		
L.LAtoTD					0.250 (0.128)						0.245 (0.155)	
L.NLtoTA						0.658** (0.000)						0.660** (0.000)
SEC	-0.113** (0.000)	0.0188 (0.397)	-0.480* (0.040)	-0.0119 (0.286)	1.011 (0.199)	0.171** (0.000)	-0.113** (0.000)	0.0189 (0.396)	-0.359 (0.145)	-0.0119 (0.287)	0.854 (0.250)	0.173** (0.000)
FINANL	-0.534 (0.721)	0.447 (0.759)	1.953 (0.144)	0.416 (0.672)	-11.24 (0.145)	0.994 (0.527)						
COR							-1.555 (0.568)	1.259 (0.503)	-3.208 (0.218)	-1.763+ (0.097)	1.211 (0.849)	-0.841 (0.815)
IB	-1.949 (0.888)	1.363 (0.916)	13.06* (0.352)	24.39* (0.010)	22.64* (0.022)	2.724 (0.691)	-1.580 (0.909)	1.383 (0.915)	10.86* (0.333)	24.63* (0.009)	22.84* (0.023)	2.199 (0.744)
ROL	0.0857 (0.282)	0.0383 (0.548)	0.132 (0.183)	0.0975 (0.172)	0.0986 (0.813)	-0.0690 (0.546)	0.0841 (0.292)	0.0400 (0.529)	0.125 (0.212)	0.0960 (0.182)	0.109 (0.787)	-0.0661 (0.564)
RQ	-0.0682 (0.430)	0.0495 (0.315)	-0.0714 (0.350)	0.0154 (0.684)	0.597+ (0.061)	0.0944 (0.300)	-0.0660 (0.430)	0.0498 (0.309)	-0.0559 (0.452)	0.0196 (0.610)	0.579+ (0.070)	0.0969 (0.291)
LnTA	-5.569* (0.010)	-3.952** (0.001)	-5.518** (0.001)	-1.768+ (0.073)	-4.396 (0.244)	-0.580 (0.636)	-5.625* (0.009)	-3.945** (0.001)	-5.625** (0.001)	-1.841+ (0.057)	-5.141 (0.198)	-0.546 (0.661)
GDPGR	-0.0106 (0.477)	-0.00602 (0.544)	-0.0522* (0.006)	-0.0427* (0.001)	-0.00219 (0.958)	0.0214 (0.333)	-0.00955 (0.524)	-0.00680 (0.517)	-0.0534* (0.006)	-0.0426* (0.001)	0.00565 (0.888)	0.0204 (0.354)
MSD	4.163 (0.795)	-21.51* (0.010)	-44.87* (0.011)	-27.94* (0.046)	9.640 (0.736)	-0.266 (0.989)	4.558 (0.780)	-21.70* (0.010)	-46.07* (0.010)	-28.35+ (0.050)	23.26 (0.417)	-0.763 (0.968)
SNON_IN	71.58* (0.003)	97.66* (0.001)	-6.768 (0.855)	1.758 (0.923)	60.02 (0.753)	-42.36 (0.156)	71.09* (0.003)	97.71* (0.001)	-7.654 (0.839)	1.229 (0.946)	71.49 (0.721)	-43.48 (0.155)
AGE	0.133 (0.570)	0.277+ (0.091)	0.248 (0.200)	0.0363 (0.816)	-0.635 (0.388)	0.0499 (0.640)	0.140 (0.552)	0.280+ (0.083)	0.289 (0.127)	0.0510 (0.734)	-0.609 (0.412)	0.0501 (0.639)
INF	-0.168** (0.001)	-0.0659* (0.050)	0.163* (0.049)	0.00801 (0.843)	0.0758 (0.717)	0.110 (0.286)	-0.168** (0.001)	0.0655* (0.047)	0.166* (0.045)	0.00848 (0.833)	0.0530 (0.793)	0.113 (0.272)
EtoTA			-0.222 (0.153)	-0.265* (0.008)	1.445* (0.030)	-0.143 (0.215)			-0.220 (0.149)	-0.267* (0.006)	1.442* (0.035)	-0.143 (0.212)
Cons	54.34** (0.000)	25.07* (0.001)	38.59** (0.000)	8.519 (0.163)	27.20 (0.606)	19.18* (0.048)	54.29** (0.000)	24.92* (0.001)	38.53** (0.001)	8.748 (0.152)	25.96 (0.625)	19.13* (0.049)
Wald test	159.7	76.45	105.1	234.9	86.14	147.6	148.1	81.82	83.90	212.1	83.34	150.2

Table 8b: Control for Ownership											
	Panel A: Private Ownership						Panel B: Foreign Ownership				
	-1	-2	-3	-4	-5	-6	-1	-2	-3	-4	-5
	CAR	EtoTA	NPLtoGR	LLRtoGR	LAtoTD	NLtoTA	CAR	NPLtoGR	LLRtoGR	LAtoTD	NLtoTA
L.CAR	0.328** (0.000)						0.325** (0.000)				
L.EtoTA		0.387** (0.000)									
L.NPLtoGR			0.440** (0.000)					0.441** (0.000)			
L.LLRtoGR				0.845** (0.000)					0.846** (0.000)		
L.LAtoTD					0.244 (0.160)					0.260 (0.106)	
L.NLtoTA						0.659** (0.000)					0.660** (0.000)
SEC	-0.111** (0.000)	0.0190 (0.392)	-0.367 (0.142)	-0.0117 (0.293)	0.856 (0.251)	0.171** (0.000)	-0.114** (0.000)	-0.394 (0.157)	-0.0118 (0.288)	1.215 (0.163)	0.171** (0.000)
PRIV	-1.840* (0.008)	-1.042 (0.297)	-2.392 (0.101)	-1.169 (0.275)	-0.743 (0.882)	-1.609 (0.349)					
FOREIGN							-1.024 (0.477)	0.211 (0.897)	-0.0228 (0.981)	-21.79+ (0.064)	2.698 (0.189)
IB	-1.332 (0.922)	0.955 (0.941)	10.02 (0.154)	24.19* (0.011)	22.25* (0.023)	2.235 (0.741)	-2.298 (0.869)	0.597 (0.424)	24.44* (0.009)	22.71* (0.024)	4.210 (0.546)
ROL	0.0839 (0.287)	0.0357 (0.578)	0.144 (0.149)	0.0979 (0.172)	0.104 (0.797)	-0.0679 (0.556)	0.0805 (0.320)	0.134 (0.188)	0.0992 (0.171)	0.0229 (0.957)	-0.0756 (0.511)
RQ	-0.0692 (0.416)	0.0509 (0.295)	-0.0626 (0.410)	0.0151 (0.693)	0.584+ (0.066)	0.0974 (0.285)	-0.0658 (0.440)	-0.0642 (0.397)	0.0166 (0.662)	0.644+ (0.055)	0.0875 (0.346)
LnTA	-5.551* (0.010)	-3.948** (0.001)	-5.476** (0.001)	-1.758+ (0.069)	-5.165 (0.191)	-0.590 (0.633)	-5.574* (0.010)	-5.586** (0.001)	-1.801+ (0.064)	-3.853 (0.316)	-0.583 (0.634)
GDPGR	-0.00873 (0.556)	-0.00641 (0.539)	-0.0513* (0.006)	-0.0426* (0.001)	0.00590 (0.883)	0.0210 (0.341)	-0.0106 (0.487)	-0.0537* (0.006)	-0.0429* (0.001)	-0.00616 (0.885)	0.0228 (0.304)
MSD	3.751 (0.822)	-21.86* (0.012)	-46.35* (0.005)	-28.05* (0.047)	22.89 (0.431)	-0.707 (0.971)	4.300 (0.792)	-46.51* (0.010)	-28.42* (0.046)	3.584 (0.910)	-1.938 (0.918)
SNON_IN	72.50* (0.003)	97.56* (0.001)	-3.906 (0.917)	1.741 (0.924)	70.59 (0.725)	-42.51 (0.164)	71.10* (0.004)	-6.597 (0.859)	1.607 (0.929)	40.51 (0.825)	-40.45 (0.167)
AGE	0.130 (0.581)	0.274+ (0.093)	0.248 (0.179)	0.0299 (0.843)	-0.613 (0.428)	0.0481 (0.653)	0.131 (0.579)	0.284 (0.132)	0.0472 (0.755)	-0.762 (0.321)	0.0486 (0.644)
INF	-0.166** (0.001)	-0.0636+ (0.052)	0.166* (0.047)	0.00924 (0.819)	0.0557 (0.786)	0.114 (0.268)	-0.169** (0.001)	0.167* (0.045)	0.00885 (0.826)	0.0309 (0.870)	0.112 (0.283)
EtoTA			-0.219 (0.154)	-0.265* (0.007)	1.444* (0.035)	-0.145 (0.205)		-0.220 (0.151)	-0.266* (0.007)	1.471* (0.028)	-0.145 (0.200)
Cons	54.28** (0.000)	25.59* (0.001)	38.29** (0.000)	9.029 (0.142)	26.53 (0.628)	19.83* (0.044)	54.78** (0.000)	38.12** (0.001)	8.458 (0.169)	33.52 (0.533)	19.18* (0.047)
Wald test	157.6	75.70	84.48	210.8	81.19	149.8	149.4	84.24	221.5	79.06	144.4

Table 9: Marginal Results (block ownership and Securitization)**Panel A: Block Ownership of Financial Institutions**

	-1	-2	-3	-4	-5
	CAR	NPLtoGR	LLRtoGR	LAtotD	NLtoTA
SEC	0.0769*	-1.784+	0.00760	0.456	0.179**
	(0.028)	(0.060)	(0.712)	(0.424)	(0.000)
IB	5.828	9.943	12.31	-35.02	-2.725
	(0.687)	(0.177)	(0.230)	(0.159)	(0.775)
Cons	61.17**	31.58*	11.66+	23.92	20.14+
	(0.000)	(0.003)	(0.058)	(0.174)	(0.100)
N	1084	929	1132	977	1282
Wald test	373.6	158.8	159.3	159.0	118.3

Panel B: block owners of corporations

SEC	0.132**	35.36	-0.0124	-0.0376	0.0309
	(0.000)	(0.116)	(0.228)	(0.828)	(0.453)
IB	(-12.86*	3.359	3.719	-0.890	-3.549
	(0.002)	(0.736)	(0.178)	(0.966)	(0.803)
Cons	32.40*	15.86*	11.25+	51.37	7.258
	(0.002)	(0.018)	(0.078)	(0.236)	(0.734)
N	74	58	67	61	71
Wald test	3779.1	5243.1	1973.0	11019.4	1881.7

Panel C: block owners of private

SEC	15.3*	17.00	1.504	-9.105 (0.859)	18.61
	(0.008)	(0.493)	(0.888)		(0.624)
IB	-2.305	18.84	11.07*	-41.74	-11.97+
	(0.583)	(0.152)	(0.022)	(0.249)	(0.081)
Cons	26.01+	33.16+	16.46*	36.09	-36.71
	(0.093)	(0.100)	(0.009)	(0.451)	(0.248)
N	125	122	127	96	134
Wald test	1217.9	140.7	215.9	59.15	72.74

Panel D: block owners of government

SEC	-0.141*	-0.247	-0.0265	0.996	0.164**
	(0.008)	(0.322)	(0.226)	(0.774)	(0.000)
IB	-4.675	31.00*	29.32*	123.2	-0.315
	(0.763)	(0.017)	(0.014)	(0.489)	(0.964)
Cons	50.16**	21.56*	12.54	-26.13	16.10+
	(0.000)	(0.017)	(0.135)	(0.645)	(0.076)
Wald test	116.4	166.4	347.9	692.1	145.8

Panel E: Block Owners of foreign

SEC	1.050	-0.914	-0.742	4.444	0.108
	(0.113)	(0.472)	(0.252)	(0.433)	(0.737)
IB	-9.249	-2.269	4.678	-211.0	-13.90
	(0.610)	(0.859)	(0.801)	(0.279)	(0.441)
Cons	77.99*	10.04	31.93+	-298.4	23.51+
	(0.007)	(0.505)	(0.057)	(0.322)	(0.096)
N	603	529	722	614	905
Wald test	73.85	50.76	368.9	200.7	80.28