Introduction

The aim of this paper is to explore the risks involved in Islamic banking and determine whether or not this leads an Islamic bank to hold more regulatory capital. A bank’s capital provides a cushion for firms to absorb losses and remain solvent. In addition, it provides ready access to financial markets and thus guards against liquidity problems caused by deposit outflows. At the same time, the bank’s capital limits risk taking and reduces the risk of the bank’s assets. Islamic finance instruments pose a unique set of risks and costs, which must be taken into account when determining the amount of regulatory capital a bank must hold. The amount of regulatory capital is determined by each financial intermediary in light of the regulator(s), the IFSB and Basel II capital adequacy standards (not less than 8%), liquidity risk, and the bank’s liquidity function, one of the key functions of the bank. (Haron and Lee Hin Hock 2007:97) The 2nd pillar of Basel II ensures that a bank’s capital position is consistent with its overall risk profile using market-based risk weights and enables early intervention by supervisors. Supervisors have the ability to require banks to hold capital in excess of the minimum regulatory requirement. Riskier products require higher capital charges (Ahmed 2011:156), therefore, Islamic banking is more expensive than its conventional counterpart and requires more regulatory capital. As the objective of financial institutions is to maximize profit and shareholder wealth (Ahmed 2001:25) while containing risk, true Shari’ah banking may be difficult to implement due to risk and cost.
In addition, the existing assets of Islamic banks are not as liquid as compared to conventional banks and due to slow development of financial instruments, Islamic banks are unable to quickly raise funds from the markets (Ahmed 2001:149) exacerbating liquidity risk. According to Vogel and Hayes, one means of obtaining liquidity is through the securitization of Islamic financial contracts, which requires the establishment of an Islamic secondary market. (1998: 238) This would increase liquidity and allow banks to start moving away from murabahah. Furthermore, since the existing lender of last resort (LLR) facilities are based on interest, Islamic banks cannot utilize LLR facilities and most Islamic banks do not have formal liquidity management systems in place. (Ahmed 2001:149) Hence, illiquidity and liquidity risk are major problems for Islamic banking, which also requires banks to hold more regulatory capital.

**Risks of Islamic Financing Instruments**

In *murabahah*, the IFI is exposed to credit risk in that the customer may default in payment (Haron and Lee Hin Hock 2007:96) and the bank is liable for any loss arising from damage of the goods prior to delivery. (Ahmed, 88: 2011) Also, the bank cannot charge anything in excess of the agreed upon price even due to late payment. (Ahmed 2001:54) Despite credit risk, *murabahah* has low liquidity and operational risk making it a preferred mode of short-term finance among banks promoting liquidity and allowing for lower levels of regulatory capital.

In *salam* financing, the IFI is exposed to credit/counterparty risk in the event that goods are not delivered or delivered on time according to specification after payment is made. The IFI is exposed to market (price) risk on the goods in that the spot price on delivery may be lower than the amount paid. (Haron and Lee Hin Hock 2007:98) Furthermore, the commodities require inventories exposing the banks to storage costs and other price risk. (Ahmed 2001:55) In the event of default, the IFI may not be able to recover its capital from customers and/or the financial guarantee may not cover the full amount of *salam* capital. (Haron and Lee Hin Hock 2007:96) With regard to parallel *salam*, if the supplier under the *salam* defaults on delivery, the IFI may have to purchase the goods in the open market in order to meet its delivery obligation under parallel *salam* for a price higher than the original.
(Haron and Lee Hin Hock 2007:98) However, parallel salam allows the IFI to sell the commodity for future delivery at a predetermined price, thus hedging the price risk on the original salam and protecting the IFI from having to take delivery of the commodity and warehousing it. (IFSB 2005: 25) Salam poses high credit, market, liquidity, and operational risk and has a high capital charge requiring high levels of capital, however, the risks may be mitigated by use of parallel salam.

In istisna'a, the IFI faces market risks if the costs of production rises and credit risk if the buyer either declines to accept the goods or defaults on payments. (Ahmed 2011:89) The counterparty risks include failure to meet the quality and time of delivery terms of contract and not receiving the selling price of the asset from the customer either in pre-agreed stages of completion or upon full completion of the manufacturing or construction process. (IFSB 2005: 28). In parallel istisna'a, the IFI assumes the completion risk associated with the failure to complete the project, delay in completion, cost overruns, force majeure and unavailability of qualified subcontractors. Istisna'a displays high credit, market, liquidity, and operational risk and has a high capital charge, which may require high levels of regulatory capital. Salam and istisna'a are expensive as they are risky and require Shari'ah mechanisms to hedge price risk, which are currently unavailable. However, these risks may be mitigated through use of parallel salam and istisna'a.

In operating ijarah and ijarah muntahia bittamleek (IMB), all risks pertaining to the leased asset are borne by the IFI, except for the residual value risk at the term of an IMB, which is borne by the lessee. The lessor is exposed to market (price) risk on the asset while it is in the lessor’s possession prior to the signature of the lease contract, except where the asset is acquired following a binding promise to lease. (IFSB 2005: 33) The lessor is exposed to credit risk of the lessee as counterparty in servicing the lease rentals and market (price) risk attaching to the residual value of the leased asset at the end of the ijarah contract or at the time of repossession upon default. (IFSB 2005: 33) Ijara has a high credit, market, and liquidity but low operational risk. However, off-balance sheet modes of finance such as ijara may mitigate risks by nature of off-balance reporting requirements and ratios effect. Furthermore, leases do not require the same level of investigation and audit of the lessee’s affairs as would an investment made in the lessee’s enterprise, making it an attractive form of finance.
In addition, financial *ijarah* actually produces financial leverage and operating leases can be used to gain capital structure leverage. (Vogel and Hayes 1998: 188) Therefore, *ijarah*, although risky and expensive, may not require high levels of capital.

In *musharakah*, the IFI is exposed to credit risk in respect of the customer’s purchase payments as well as to the risk attaching to the IFI’s share of the underlying asset in the transaction. (IFSB 2005: 38) The IFI is further exposed to entrepreneurial risk of the managing partner (IFSB 2005: 38) and the risk that the manager may not report actual profits generated. (Ahmed 2011:93) The IFI may face a risk when a withdrawing partner owes money and if a venture enters bankruptcy, the IFI may be exposed to the risk of losing its entire invested capital, as this capital ranks lower than debt instruments upon liquidation. In the case of diminishing *musharakah*, the amounts due from the partner to purchase the agreed shares of the asset on the agreed dates are subject to credit risk in respect of the partner’s ability and willingness to pay, with the shares of the partner in the asset providing credit risk mitigation as collateral. The capital invested by the IFI is also subject to risk that the amounts recoverable from the partner may be less than the amount invested because the value of the *musharakah* assets has decreased. (IFSB 2005: 39) *Musharakah* has high credit, market, liquidity, and operational risk and high capital charge making it one of the costliest Islamic modes of finance to implement and requires high levels of regulatory capital.

In *mudharabah*, the IFI is exposed to capital impairment risk if the venture incurs losses or if the mudarib defaults on payments due to the *mudharabah*. Furthermore, if a customer cancels the agreement to purchase, the IFI has to sell the goods in the open market at a possibly lower selling price than the purchase price. Alternatively, the IFI may have to hold the goods and incur storage costs. (Haron and Lee Hin Hock 2007:98) *Mudharabah* has a high credit and market risk, but low liquidity and operational risk rendering it more feasible for implementing than *musharakah* at this time in terms of cost and required regulatory capital.

**Conclusion**

Islamic banking is less liquid and more expensive requiring higher levels of capital as Islamic modes of finance are riskier and are based on undertaking real transactions. Furthermore, banks are expected to take a degree of ownership in risks.
Therefore, Islamic banks may need to keep additional capital for the moment while developing internal control and Shari'ah products, risk management techniques, and measures to enhance liquidity such as a secondary market. However, the amount of regulatory capital held by each IFI is the regulators and management’s decision based on risk, regulation, and liquidity taking into account the capital charge of the particular mode of finance.

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Islamic banking and finance have become increasingly widespread over the past two decades, particularly in Muslim-majority countries in the Middle East, North Africa, and Southeast Asia. This paper uses country-level data to examine how growing Islamic banking and finance have been developed. One group of stakeholders provides capital, in this case a bank, while another group, an entrepreneur or business, provides management of the project and profits are shared according to a predetermined formula. In the event of a loss, the financiers assume the financial loss and the managers stand to lose their time and effort. Monetary and Capital Markets Dept. Introducing Islamic Banks into Conventional Banking Systems. The Capital Adequacy and Risk. 8 See Subbarao (2009), pp. 4-8. Interest-rate-type risk is very limited, but hedging instruments are also largely unavailable. Managing liquidity is more challenging in IBs, given the limited capacity of many IBs to attract PSIAs since the return on these accounts is uncertain and the infrastructure and tools for liquidity risk management by IBs is still in its infancy in many jurisdictions. Similarly, the dependence on bank deposits is limited due to a less active market and the absence of an interbank rate, except under the limited reverse Murabahah. There are also Islamic banks and asset managers in key international financial centres of the United Kingdom and the United States. The growth in Islamic finance is also visible in the expanding range of services and products that comply with the basic precepts of Sharia law. One example is the burgeoning global market interest in Islamic bonds - Sukuks - many of which are increasingly being issued and bought outside the Islamic world. The issuance of the revised Basel II framework for bank capital adequacy not only improves the risk sensitivity and accuracy of the criteria for assessing capital adequacy, but it is fundamentally about stronger and more effective risk management grounded in sound corporate governance and enhanced financial disclosure. This research analyzes the determinants of liquidity risk in Islamic banks by using a comprehensive model that incorporates several variables that impact the liquidity of Islamic banks. A panel data analysis is conducted on a sample of 42 Islamic banks from 15 countries between 2007 and 2014. The results show a negative correlation between liquidity risk and cash ratio, as the cash balance can be used to meet any demands for liquidity from the bank's customers. Capital Adequacy, Liquidity, and Risk: Is Islamic Banking Too Expensive? Journal of Islamic Banking and Finance, 2(1), 407-411. Rose, P., & Hudgins, S. (2013). Islamic Development Bank Group (IDB, ICD, IRTI, ICIEC, ITFC) Islamic Financial Services Board (IFSB) Accounting and Auditing Organization of Islamic Financial Institutions (AAOIFI) Multilaterals (The World Bank Group, IMF, Asian Development Bank) International Islamic Financial Markets (IIFM) International Islamic Rating Agency (IIRA). Determination of Alpha in the Capital Adequacy Ratio (GN-4) 5. Guidance Note On Quantitative Measures For Liquidity Risk Management In Institutions Offering Islamic Financial Services [Excluding Islamic Insurance (Takful) Institutions And Islamic Collective Investment Schemes (GN-6). Basel III implications on IFIs.