

Islamic Banking Regulations in Light of Basel II

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Abstract

This paper seeks to determine whether the existing regulatory standards and supervisory framework are adequate to ensure the viability, strength, and continued expansion of Islamic financial institutions. The reemergence of Islamic banking and the attention given to it by regulators around the globe as to the implications of a recently issued Basel II banking regulation makes this article timely. The Basel II framework, which is based on minimum capital requirements, a supervisory review process, and the effective use of market discipline, aligns capital adequacy with banking risks and provides an incentive for financial institutions to enhance risk management and their system of internal controls. Like conventional banks, Islamic banks operate under different regulatory regimes. The still diverse views held by the regulatory agencies of different countries on Islamic banking and finance operations make it harder to assess the overall performance of international Islamic banks.

In light of the increased financial innovation and diversity of instruments offered in Islamic finance, the need to improve the transparency of bank operations is particularly relevant for Islamic banks. While product diversity is important in maintain-

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ing their competitiveness, it also requires increased transparency and disclosure to improve the understanding of markets and regulatory agencies. The governance of Islamic banks is made even more complex by the need for these banks to meet a set of ethical and financial standards defined by the Shari'ah and the nature of the financial contracts banks use to mobilize deposits. Effective transparency in this area will greatly enhance their credibility and reinforce their depositors and investors' level of confidence.

Introduction

Basel II, the capital accord adopted by the Basel Committee on banking supervision in 2003 and implemented in member countries by the end of 2006, seeks to encourage market discipline by developing a set of disclosure requirements that will enable market participants to assess fundamental information on a given bank's capital risk exposure, risk assessment and management processes, and capital adequacy. It is based on three mutually reinforcing pillars: capital requirements, supervisory review, and market discipline. But its major focus is on the risk-based capital requirement. The accord is designed to allow some banks to determine capital costs using their advanced internal risk management models, which would help establish proper risk management guidelines and assessment capabilities.

Nevertheless, the accord has been received with mixed reactions. A few quantitative impact studies have already revealed the waiting regulatory nightmare even for industrialized countries. Its overly prescriptive and complex approach may stifle market-based innovation in risk management practices, as exemplified by the preference of most national regulatory regimes for a competitive approach. If government-sponsored deposit insurance systems require minimum capital standards, then a simple capital leverage rule with no risk weights may be sufficient, especially if there is an emphasis on market discipline through a subordinated debt requirement and disclosure framework. It is also argued that countries without a public deposit insurance system should move toward a system of financial deregulation.

In Basel II, the committee continues the twenty-five core principles (adopted from Basel I) related to five major areas, namely, bank chartering and licensing; risk identification and measurement; asset quality and provisioning; cross-border banking, relationship, and control; and supervisory capacity development between home and host. These principles, which have been reviewed biannually since October 1998, were intended to serve as a

basic guideline for supervisory authorities worldwide, ensure financial stability, and bolster the investors' confidence level.

Countries are encouraged to review deficiencies in their existing supervisory arrangements in light of these principles and to make the changes needed to meet the emerging challenges facing their financial institutions and systems. The committee is expected to monitor their progress as regards principle implementation. It is proposed that such international organizations as the International Monetary Fund and the World Bank should use these principles to help countries strengthen their supervisory arrangements for promoting macroeconomic and financial stability. Islamic financial institutions (IFIs) have been facing immense challenges for the last two decades due to increased competition from conventional financial institutions (CFIs) offering universal financial services and Islamic financial institutions offering non-banking services (e.g., Islamic leasing and insurance); the manic utilization of complex financial instruments in a technologically driven financial market; and the atypical asset-liability structure of Islamic banks as compared to CFIs. The establishment of Islamic investment banks and mutual funds that operate alongside Islamic banks has gained currency and complicated the stability of the financial system and inter-relationships among these institutions.

IFIs differ from CFIs in four main dimensions: the mix of contracts on the liabilities side of the balance sheet, the quasi-equity nature of investment deposits/risk sharing between the depositor and the bank, a wider variety of modes of financing and asset mix, and the contracts' risk-sharing characteristics and the absence of interest in Islamic financial transactions.¹ The major systemic characteristics of Islamic banks are enumerated below.

The liabilities of IFIs in the balance sheet are shareholder equity, demand deposits, and investment deposits. These latter deposits, however, are managed according to profit-and-loss sharing (PLS) principles. The repayment of investment deposits is not guaranteed, and the deposits do not yield any fixed returns/interest. Demand deposits are guaranteed (except in the event of insolvency) and holders, therefore, do not share in the bank's profits and losses. In addition, they are assumed to be placed as *amanah* (i.e., safekeeping), and thus all of the central bank's reserves are held against them.

All Islamic banks have the following major systemic characteristics in common:

- (a) They offer a full range of banking services and keep both a banking and a trading book.

- (b) On the balance sheet's asset side, they have a variety of assets based on either PLS principles or mark-up pricing; equity-based PLS modes of *mudarabah* (venture capital and partnership); holdings of company equity and various "sales-based" assets through *murabahah* (resale with specification of gain), *ijarah* (lease assets), *salam* (forward buying), and *istisna`* (contract of exchange with deferred delivery). In addition, it is subject to a different structure of risks due to its wider range of financing modes. For instance, under *mudarabah* and *salam* contracts, it faces a risk that the counterparty will fail to deliver the goods as promised.
- (c) A substantial proportion of their financing is conducted through *murabahah*, in which the bank purchases a good and then sells it at a pre-determined mark-up.
- (d) They cannot trade in debt, which must be held until maturity.
- (e) There are limits on how much they can depend upon the collateral offered against a loan. Incidentally, this creates problems for the "lender of last resort" role.
- (f) Their access to credit derivatives to mitigate risk is restricted when compared to that of a conventional bank.²

The guarantee on demand deposits, which is naturally temporal, is not part of the spirit of Islamic finance *per se*; however, it is done to maintain the depositors' confidence in the system. Although these contribute less to the liability risk matrix, demand deposits are crucial if banks, in the unlikely event, suffer considerable losses on their PLS advances and capital reserves if their investment deposits are not sufficient to cover losses.

The rest of this paper is divided into the following sections: regulating Islamic banks, shedding light on Islamic banking regulations within the context of Basel II, analyzing Basel II's capital adequacy requirement and risk-weight issues related to these regulations, examining risk management practices in Islamic banking, discussing the corporate governance of Islamic banks, analyzing the transparency of Islamic banks within the Basel II framework, examining the causes of the current global financial crisis and how Islamic finance could have prevented it, and a conclusion.

The Case for Regulating Islamic Banks

There are many differing opinions on regulation and deregulation. Proponents of regulation constantly point to the moral hazards resulting from safety-net arrangements (a regulatory problem) as the root cause of bank

failure.³ Other proponents opine that regulation cannot solve the problems of market failure and imperfections without imposing costs on consumers that exceed the cost of the original problem; still others maintain that financial systems are prone to periods of instability coupled with painful and pricey bank failures. The Asian banking crisis of 1996-97, which was due to poor regulation and weak management, strengthens the case for prudential regulation in order to achieve enhanced economic cooperation, performance, stability, control, and customer safety.⁴ Financial regulation for IFIs should seek to determine if their contracts and operations are consistent with the Shari`ah.

Llewellyn lists several economic rationales for regulating and supervising banking and financial services: potential systemic problems associated with externalities; the correction of market imperfections and failures; the need for monitoring financial firms and the economies of scale that exist in this activity; the need for consumer confidence, especially if consumer demand for banking services may be reduced by the known existence of asymmetric information; the potential for gridlock with associated adverse selection and moral hazard problems. One role for regulation, therefore, is to ensure the common minimum standards that all firms know will be applied equally to all competitors without any firm acting to follow the behavior of the competitors; the moral hazard associated with a government's clear preference for creating safety net arrangements: the "lender of last resort," deposit insurance, and compensation schemes; and consumer demand for regulation to gain a degree of revealed preference for assurance and lower transaction costs.⁵

Usually, two generic types of regulation and supervision in the banking arena can be identified: prudential regulation, which focuses on the financial institutions' solvency, safety, and soundness; and the conduct of business regulation, which focuses on how financial firms conduct business. As a bank's failure may have an adverse contagion effect, regulators are almost inevitably bound to have a prudential concern for the financial institutions' liquidity, solvency, and riskiness. The conduct of business regulation, however, focuses upon these functions irrespective of the type of firm.⁶ Regulation for systemic reasons is warranted when the social costs of a bank's failure exceed the private costs and such potential social costs are not incorporated into the firm's decision-making process. In such a case, banks may be induced to engage in more risky behavior than they would be if all risks, including those for the system as a whole, were incorporated into their pricing.⁷

Systemic issues have traditionally been central to bank regulation based on four main considerations: the banks' pivotal position in the financial system, especially in the clearing and payment systems; the potential systemic dangers resulting from bank runs; the nature of a bank's debt contracts on both sides of the Islamic bank's balance sheet; and the adverse selection and moral hazard associated with safety-net arrangements. Prudential regulation and supervision enable consumers to judge the financial firm's safety and soundness before and after the execution of a contract, provide perfect information, and guard against moral hazard.⁸

From the foregoing, it is evident that any financial regulation superstructure is premised on CFIs. The key regulatory questions for IFIs are: do Islamic banks need to be regulated; if so, is a different type of regulation needed; and is less reliance to be placed on formal regulation and more on market discipline?

Islamic banks have a different set of contracts and range of risks than conventional banks. In extreme cases, it is argued that Islamic banks will have only equity capital and investment deposits on the liabilities side of the balance sheet. Therefore they would not need to hold regulatory capital, because while the value of assets remains uncertain there is no conflict of contracts, since the banks are not required to guarantee the nominal value of their liabilities. In this extreme model and unlike CFIs, depositors share in the banks' profits and losses, which makes such banks analogous to mutual funds. The problem of money-uncertain assets being funded by money-certain liabilities is thereby entirely avoided. This amounts to pure Islamic banks being less susceptible to any risk of insolvency.⁹ Yet this extreme version does not exist, and thus there are many reasons for the prudential, solvency, and capital adequacy regulation of Islamic banks, among them the following:

- (a) Demand deposit holders face a risk to the extent that the bank's losses on PLS contracts may be substantial and greater than the value of the investment deposits.
- (b) While investment deposit holders are not legally entitled to repayment, it is unlikely that they will supply funds on the basis of this contract if the bank's capital is very low and if the bank is not regulated for prudential reasons.
- (c) As investment deposits can be withdrawn, runs on Islamic banks and systemic instability are possible, just as they are with CFIs.

- (d) If Islamic banks exist alongside conventional banks, they may be at a competitive disadvantage if they are viewed as being insufficiently capitalized and supervised.
- (e) If Islamic banks are to work in a non-Islamic money market and depend on the inter-bank market for funding, they are required to demonstrate that they are regulated just as effectively as conventional banks, which have to meet the internationally agreed-upon standards established for them. Host country regulators will demand effective and transparent home-country regulation and supervision.
- (f) Systemic stability issues associated with the externalities of individual bank failure still apply in Islamic banking, even in cases where investment deposits form a high proportion of the bank's total liabilities. In fact, the lesser ability of Islamic banks to trade assets makes the potential systemic cost of individual bank failure even higher than for conventional banks.
- (g) The centralized supervision by an official agency is likely to raise the overall efficiency of the powerful mechanisms of market discipline and monitoring process.
- (h) The consumer confidence argument is equally applicable to Islamic banks. If there is a consumer demand for minimum standards of capital adequacy and supervision, it is rational to meet this demand.
- (i) The adverse selection and moral hazard problems associated with gridlock also apply to Islamic banks.
- (j) Conventional banks can transfer asset or business risks to shareholders, since such risks are not borne by lenders. Islamic banks cannot do this, however, for they fully recognize the risks generated by financial and commercial factors and elements extrinsic to the formation of the business transaction, given that the freedom of contracts and prohibition of *gharar* (deception) should be consistent with the Shari'ah.
- (k) Unlike conventional banks, credit and liquidity risks are higher in IFIs since they cannot hold cash equivalents (liquid assets) like conventional banks. Once a debt has been created, it can be transferred to someone else only at par value. Depositor funds are either callable on demand or require very short withdrawal notice periods. Credit risk is expected to be high under *mudarabah* and *musharakah* contracts due to the high level of moral hazard, adverse selection, and limited bank competencies in project evaluation.

- (l) The Shari`ah prohibits Islamic banks from borrowing at short notice by discounting debt obligation receivables (e.g., through a central bank discount window). In addition, central banks do not offer a “lender of last resort” facility and offer no deposit insurance schemes to guarantee depositor capital. This means that Islamic banks cannot tie up their cash in illiquid long-term assets (e.g., *ijarah*, *mudarabah*, or *musharakah* arrangements). However, some Islamic banks in Bahrain do take into consideration the level of liquidity on each type of account (e.g., investment, savings, and current) in order to meet the investor’s withdrawal needs.¹⁰
- (m) Islamic banks also face fiduciary and displaced commercial risks.¹¹ Fiduciary risk is an operational risk that refers to a breach of the *mudarabah* contract, or to misconduct or negligence on the part of the bank (the *mudarib*), as a result of which the *mudarabah* fund becomes a liability for the bank. On the other hand, a displaced commercial risk is a market risk that arises from transferring the risk associated with deposits to the equity holder. This occurs when banks forgo part of the *mudarib*’s share of profit and transfer it to the depositors, under commercial pressure, to prevent withdrawals due to a non-competitive return. The rate of return risk has been found to be the most critical risk for Islamic banks since, for example, a *murabahah* contract cannot be repriced and hedged through swaps.¹²
- (n) The lack of instruments like short-term financial assets and derivatives and a money market, except in Malaysia and some in Bahrain, hampers risk management in IFIs.¹³
- (o) Demand deposits that do not share in the return should be protected from risk. Islamic banks should, therefore, ensure prudent risk management to prevent mismanagement and inefficient investment decisions.
- (p) Islamic banks must ensure their faithful compliance with the Shari`ah, a requirement that is difficult in the absence of legal definitions and effective supervision.
- (q) The differences between IFIs and CFIs do not lessen the need for appropriate regulation and supervision. Measures like macro-managing the economy, as well as building adequate loss-offsetting reserves and the efficient micro-management of banks under an umbrella of proper regulation and supervision, are required to safeguard both demand and investment deposits. To reinforce these measures, the insuring of demand deposits should be required.

- (r) If the outstanding legal (*fiqhi*) issues related to finance are addressed satisfactorily, compliance with the Shari`ah can be ensured. To resolve these issues a legal framework must be prepared, one that can remove obstacles that hinder the development of standardized products for Islamic institutions, penalize defaulters, compensate banks for the loss of income, and manage risk more effectively by adopting certain standard techniques used by conventional banks internationally.
- (s) The issue of transparency also demands the regulation of Islamic banks. Several developments underlie the call for improved transparency, among them: (i) banks are operating in a multidimensional regulatory framework at home and abroad; (ii) cross-pillar activity has increased substantially; (iii) customer expectation and diversification benefits will compel the banks to formulate new services, for the existing ones have given way to the rise of a highly dynamic and complex banking governance structure. Most of the above characteristics of banking development are also inherent in Islamic banking. For historical reasons, most Islamic banks maintain large international operations, have wide range of financial products and services, and operate under somewhat complex governance structures¹⁴; (iv) Islamic banks also finance large projects through such faceted financial arrangements as debt, equity, and lease components. The rise of securitizing the assets of Islamic banks has also increased product diversity, a development that may increase their competitiveness. This requires increased transparency and disclosure to improve the regulatory agencies' understanding of markets. The concerned financial institutions may be penalized by markets and regulators through lower ratings and/or a stricter enforcement of regulations in the absence of such an understanding¹⁵; and (v) the banks' operations need to meet a set of ethical and financing standards defined by the Shari`ah and the financial contracts used by banks to mobilize deposits, both of which lead depositors to take a direct financial stake in the bank. This makes the governance of Islamic banks more complex, since these require a clear definition of related governance issues.

The Islamic financial system exposes depositors to risks that traditional bank depositors do not face. Proper regulation and supervision, capital adequacy, risk assessment, and internal controls will bolster public confidence in the financial system – and all of them are critical to the success and growth of Islamic financial intermediation. Of course there is a trade-off to consider. As Llewellyn says: “While regulation and capital adequacy arrangements

must be robust and effective, they should not be too prescriptive to stifle financial innovation and development of Islamic banking.”¹⁶ Therefore, regulation is a wider contextualization by a regulatory regime for the following reasons: prescriptive regulation is invariably not effective in reducing the probability of bank failure and the resultant costs; regulation may be costly due to the direct costs and unwarranted distortions associated with the inaccurate risk weight applied in capital adequacy arrangements; alternative routes to regulation may achieve the desired success at a lower cost; regulation may be inflexible and inadequately differentiated; a monopolist dictator may be dangerous; and regulation may impair the effectiveness and efficiency of other mechanisms for achieving financial stability.

Based on the above brief discussion, we can safely conclude that any regulatory regime should aggressively pursue the main objective: an optimum mix of components combined with the careful choice of regulatory instruments within each one. Regulation should contribute directly to achieving the objectives and impacting other components of the regime, such as incentive structures within banks and the role played by market discipline and monitoring. In current conditions, there needs to be a shift within the regime in five dimensions: less reliance placed on detailed and prescriptive rules, more emphasis given to prudential regulation and official supervision, a greater focus on incentive structures, an enhanced and strengthened role for market discipline and monitoring, and a more central role for corporate governance arrangements within banks.¹⁷ This is more applicable to IFIs.

Regulation, which can never be an alternative to market discipline, should, in fact, reinforce it. Market and regulatory agencies, even with all of their imperfections, should be utilized in such a way that neither of them enjoys a monopoly on wisdom and judgment. Therefore, more systematic research into the predictive power of market data and how market information can be incorporated into the supervisory process both by regulators and the market is required.

Islamic Banking Regulation in Light of Basel II

Basel II emphasizes various issues related to the Islamic financial system’s stability, including capital adequacy, policies and procedures related to lending and investing, risk management techniques, effective internal controls, and external audits. It also requires Islamic banks to meet specific legal and regulatory standards, as specified in Basel II. Some contend that IFIs should not be subject to all regulatory measures specified therein; rather, they

should be subject to corporate regulations due to risk sharing between investment depositors and Islamic banks. But this argument is invalidated by the fact that a corporation's failure directly affects its shareholders, while a financial institution's failure affects the health and stability of the entire financial system and the economy at large. Besides, Islamic banks will face difficulty in securing international recognition until they adhere to international standards. So as members of the international community, they should comply with Basel II's provisions in so far as they are consistent with the Shari`ah.

Basel II's framework is based on minimum capital requirements, a supervisory review process, and the effective use of market discipline. The capital adequacy requirement is regarded as one of the most important standards in developing the necessary regulations for bank supervision. This accord aligns capital adequacy with banking risks and provides an incentive for financial institutions to boost risk management and internal controls. Risk is defined primarily as the probability of default to the third party as well as the volatility of unexpected outcomes (usually the value of assets or liabilities). It is commonly measured by the standard deviation of historic outcomes. While the definition of capital adequacy in Basel I and II is the same, Basel II emphasizes the risk-weighting of assets using the Standardized Approach (determining credit risk via external rating, which depends upon the provision of complete information regarding the relevant asset group), the IRB Approach (measuring each asset's risk internally by using qualitative judgments), and the Model-based Approach (measuring risk on the basis of portfolios using models and qualitative data).¹⁸

How do we apply international standards to Islamic banks while enabling them to operate in conformity with the Shari`ah? The special nature of investment deposits and the various risks faced by the assets of Islamic banks makes the application of Basel II's international capital adequacy requirement a daunting task. But fulfilling this requirement will ameliorate Islamic banking's credibility and growth because capital adequacy is internationally recognized to be the core of systemic safety. The capital of IFIs is due to the absence of hybrid instruments. Of course, the investment deposits held by Islamic banks differ in nature from those of CFIs. Applying Basel II's capital adequacy standard may encourage them to keep investment deposits off the balance sheet, a trend that could weaken the capital position. The Accounting and Auditing Organization for Islamic Financial Institution's (AAOIFI) requirement that Islamic banks report risk-sharing investment deposits on the balance sheet may also check that particular trend.

This, in turn, raises the issue of capital adequacy requirements. As per the AAOIFI's suggested standards,¹⁹ the risk of assets financed by investment deposits should be shared equally by the depositors and investors. Thus, investment deposits are assigned a weight of only 50% when determining capital requirements. This weight should be raised to 100% percent to determine capital adequacy, as per Basel II, in view of the following reasons: a higher capital requirement would increase their acceptability within the domain of international financial markets, where systemic ability is a primary concern; since demand deposits in Islamic banks are proportionally higher than in CFIs, capital will safeguard the depositors' investments; since the typically smaller Islamic banks are unable to diversify their assets effectively like larger institutions, more capital will promote confidence in their viability; since there is a greater allocation of investments to the typically riskier PLS modes of *mudarabah* and *musharakah* in the portfolio, the need for capital may be still higher in order to protect demand and investment deposits. Accordingly, the capital requirements should vary based on the risk of the institutions' portfolios; and an adequate amount of capital is also required to ensure the availability of collateral and legal facility for its hypothecation, shared institutions, and efficient courts for settling default cases promptly.

Separate capital standards for demand and investments deposits would remove the interdependence of risks of both types of deposits. Since demand deposits are required to be guaranteed and need more protection than investment deposits, it would be wise to demand higher capital requirements against these deposits.

The two alternatives regarding capital adequacy are as follows: either keep demand deposits in the banking book and investment deposits in the trading book requiring separate capital adequacy requirements, or pool "investment" deposits into securities as subsidiary of the bank with separate capital adequacy requirements. Both alternatives enhance transparency and eliminate the number of legal objections to the nature and practices of Islamic banks. Besides, these alternatives will make it easier to treat investment deposits while applying the Basel II capital adequacy standards. Separating the depository function from the investments function will increase the credibility and acceptability of the Islamic financial system under almost all jurisdictions.

The IRB Approach of Basel II is preferable for risk weighting, because it evaluates assets individually when computing the overall capital requirements and due to differences in Islamic modes of financing. An index of the

assets can then be developed and used to determine the capital requirements for each asset. This approach will, however, require additional risk management and resources supervisory approval. Securing supervisory approval may not be easy, due to the Islamic banks' size and insufficient risk management capabilities. Therefore, most of them will have to be supervised initially within the framework of the Standardized Approach (based on an external credit assessment). The lack of ratings for most of the Islamic banks' clients has led to the assignment of 100 percent risk-weights to assets for which no external rating is available.

This is another disadvantage of this approach, one that stresses the need for Islamic banks to adopt the IRB Approach. Although it is too early for them to adopt the Model-based Approach, they should nevertheless become familiar with it and build up their infrastructure and capability to apply a computer-based model at some time in the future.

Regulating the Capital of Islamic Banks

The Islamic Financial Services Board (IFSB) has made a capital adequacy pronouncement for all IFIs²⁰ that allows the collection and utilization of deposits as credits in accordance with the Shari`ah. This revision is of critical importance to IFIs, due to the atypical nature of their financial structure, for it provides them with valuable guidelines on how to devise regulations, risk measurement and identification mechanisms, and adapt themselves to international rules and best practices to ensure strict Shari`ah compliance.²¹ The upshot is an incessant engagement in cross-border financial activities. The IFSB largely adopted a complex Basel II capital adequacy standard and then simplified it into a comprehensible and plausible standard based on the Shari`ah and with minor differences in methodology.²² The fundamental principles, however, are firmly engraved in the Shari`ah.

The IFSB deviated from Basel II's structured and sequential approach to capital adequacy by starting off with the standard approach as regards credit risk management, which it follows with an indicator approach for operational risk management.²³ This board also advocates the gradual adoption of an internal rating based (IRB) approach by regulatory authorities, for this approach has immediate implications with respect to coverage for risk mitigation techniques, collateral, derivatives instruments for hedging risk, benefits for a small and medium enterprise (SME), and retail lending and benefit for the equity participation procedures applied by IFIs.²⁴

Implementing the revised IFSB standard is not without its hurdles. For example, Islamic banks do not have sufficient expertise in this field, the existing legal framework was not designed to incorporate the necessary adjustments needed to reflect the country-specific features of the Islamic financial system, and the special attention that needs to be accorded to investment accounts where the direct absorption of all investment risk is debatable further complicates the matter.²⁵ The Islamic Development Bank and Shari`ah scholars representing central banks and monetary agencies have endorsed the board's regulatory guidelines on capital adequacy due to its systematic, plausible, and coherent structure; however, the Shari`ah's guidelines must be provided by the bank's Shari`ah board or the national Shari`ah council.²⁶

The alternative to the bank's computation of capital adequacy was provided but did not have much clout, since it was too much accounting-based as opposed to a systematic approach.²⁷ Moreover, the AAOIFI standard for capital adequacy ignored the agency role played by the bank, the separation of restricted and unrestricted PLS accounts, and the difference between PLS accounts and deposits with any potential claim.

The striking contrasts between the IFSB and the AAOIFI standards do not alter the minimum capital reserve requirement of 8%, as set according to Basel II guidelines. This suggests that 100% of this 8% should be wholly from Tier I/Primary Capital, while the risk weighted equivalent asset (RWA) will be 12.5 times the capital requirement for market risk and operational risk. The release of the AAOIFI standard generated heated debate among Chapra and Khan, Khan and Ahmed, and other scholars. The culmination of the debate was Karim's four suggested methods of calculating capital adequacy and the treatment of PLS accounts.²⁸ The most important of the four were pooling and separation.

How risk is treated varies across different Shari`ah-compliant instruments. Investment Account Holders (IAHs), who are fundamentally investment depositors, bear the credit and market risk to the limit of the funds they provide; Institutions Offering Islamic Financial Services (IIFS), which function as investment agents, only bear the operational risk. *Salam* contracts expose IIFS to counterparty risk, *murabahah* contracts to credit risk through receivables, and *istisna`* contracts to both types of risks through accounts receivables and counterparty arrangements.²⁹ The calculation of risk weights requires, among other inputs, supervisory discretion, counterparty credit risk rating, external assessment of the rating, and endorsement of the external credit rating agencies by the supervisors.³⁰

Risk Management in Islamic Banks

Credit risk, market risk, liquidity risk, and operational risk are all common to both the Islamic and the conventional banking systems. Islamic banks are exposed to credit risks through assets created by debt-based instruments (e.g., *murabahah*, *salam*, and *istisna'*), which should be disclosed for the purpose of transparency. But the underlying measurement of transparency is different from that used for CFIs, since there are certain differences in how credit risk arises and impacts Islamic banks. Credit risk refers to the volatility in a bank's net cash flow as a result of an unexpected decline in its total cash flow due to default by a counterparty. Since Islamic banking is asset-based, credit risk is linked to price risks to a degree that is unusual for conventional banks and thus warrants corresponding transparency.³¹

Market risk for Islamic banks arises from changes in the foreign exchange rate and prices (equity and commodities), which have a direct impact on the bank's earnings and the value of its assets and liabilities. Transparency standards for market risk disclosure should be modified for Islamic banks, however, to reflect the distinguishing features of their operations. It should be mentioned here that although Islamic banks operate on an interest-free basis, they are not shielded from the impact of interest rate changes.³² Foreign exchange risk also applies to Islamic banks, although this may be limited to the degree of the bank's international operations.

Under Islamic finance rules, only spot foreign exchange transactions are allowed; therefore, forward market risks can be avoided in a pure Islamic form of banking. Since all commodity markets do not conform to the Shari'ah, Islamic banks can neither hedge against these risks nor isolate the financing and price premiums mixed together in a *salam* contract. In the same way, any financing provided under equity-type contracts (e.g., *musharakah*) is not exposed to price risk in the conventional sense, since the bank is unable to operate these contracts independently, assume the power of a shareholder, or receive capital gains due to the absence of revaluation. In addition, no independent market exists for such contracts. Therefore, transparency standards should consider the particular market risk associated with these contracts.

Liquidity risk arises when the bank experiences an unexpected decline in its net cash flow and is unable to raise resources at a reasonable cost, either by selling its assets or borrowing through the issuance of new financial instruments, to meet its commitment, particularly those to its depositors.

This is a prevalent problem within the Islamic banking system, mainly due to deficiencies in the existing infrastructure to manage liquidity.³³ Given the growing complexity in the Islamic banks' asset-liability structure, liquidity management will be vital.

Operational risk arises from the breakdown of internal controls. Islamic banks, like CFIs, should disclose sufficient information on standing legal contingencies, as well as their nature and estimated liability. Such contingencies arise from litigation involving the bank's clients, depositors, investors, shareholders, and staff members, as well as changes in the regulatory and legal regimes covering its activities.³⁴ Due to the non-Islamic legal and regulatory regimes in many countries, which oppose the virtues espoused by the Islamic financial system, it is difficult for Islamic banks to maintain standard operating procedures.

As regards legal risks, Islamic banks operating in non-Islamic financial environments face a twofold conundrum when confronted with abrupt changes in financial regulations: the regulations are made for conventional banks, and customizing them to accord with the Shari`ah requires expert knowledge. Equity participation principles and Shari`ah guidelines get complicated when an Islamic bank operates in a conventional legal environment.

The inimitable nature of the IFIs' financing modes and business contracts expose them to business, reputational, and legal risks that must adhere to the Shari`ah's guidelines. Any failure to do so will result in the loss of customers and, ultimately, liquidity risk. The IFSB provides scanty guidelines on such matters as risk assessment and implementation principles, matching the regulations with local laws to avoid legal risk, and strict matching with Shari`ah principles.³⁵ Establishing a risk management system in IFIs is an iterative process. The priority now is to call upon the International Organization for Standardization (ISO) to formulate detailed standardized risk management regulations for Islamic banks only including the pro-active role of derivative instruments.³⁶ Effective risk management requires an external audit, an internal audit and control system, a separate risk management division for all Islamic banks, and a vigilant board of directors to foresee the risk management condition and control the bank's functioning.³⁷ For transparency, an effective risk management culture must be cultivated in order to ensure competitiveness and the Islamic bank's survival. Of course this requires the active collaboration of bank supervisors, senior bank managers, and Shari`ah scholars.

Corporate Governance of Islamic Banks

Corporate governance, defined as enhancing wealth creation through increased accountability, is also a set of processes, customs, policies, laws, and institutions that affect how a corporation is directed, administered or controlled; a system through which the organization's step-by-step procedures achieve the bottom-line objective.³⁸ The thread of corporate governance for Islamic banking is that of having respect for a godly, ethical, human, balanced, and moderate system that establishes an Islamic way of life³⁹ – the Islamic way of banking, which successfully integrates the stakeholders for mutual cooperation and development.

Apart from prohibiting interest, corporate governance standards can uniquely differentiate IFIs from CFIs for banks. There are ten different types of stakeholders: shareholders, boards of directors, Shari`ah board, managers, employees, current account holders, investment account holders, partners through *mudarabah* and *musharakah*, regulators, and external auditors – all of whom operate with the economic, financial, legal, and accounting systems as well as banking associations.⁴⁰ The IFSB has proposed the development of a strategic and tailor-made corporate culture in order to build an effective corporate governance mechanism for Islamic banks operating in all countries.⁴¹ This document enumerates four broad principles: establishing a comprehensive governance framework that explains the stakeholders' role and accountability, exercising the rights of the investment account holders, obtaining Shari`ah rulings and then applying and controlling them effectively, and disclosing information pertinent to the investment account holders and the general public so they can make better investment decisions. The rating of Islamic banks, standardization, transparency, and disclosure can emerge as significant issues that must be addressed.

Auditing the banks' accountability and transparency should vouchsafe for the ethical provision of information. Internal supervisors are to intervene in any job that violates the suggested guidelines, while external auditors ensure tighter accountability and objectivity. Islamic banks need to understand the vital relationship among stakeholders and nurture the shared objective of wealth maximization. Establishing a corporate governance culture, a central Shari`ah council, and the Shari`ah's guidelines will become inexorable for achieving effective corporate governance.⁴²

Transparency of Islamic Banks in Light of Basel II

Basel II's third pillar envisages supervisors promoting market discipline through disclosure and transparency of relevant information on the bank's

risk exposure and measurement resulting from capital inadequacy. Market discipline refers to a market-based incentive scheme in which investors in bank liabilities (e.g., subordinated debt or uninsured deposits) punish banks for greater risk-taking by demanding higher yields on those liabilities.⁴³ This is meant to dissuade banks from taking arbitrage risks.

Transparency is defined as the public disclosure of reliable and timely information that enables those who are familiar with it to form an accurate assessment of a bank's financial condition and performance, business activities, risk profile, and risk management practices. Crockett suggests four prerequisites to make market discipline effective and ensure financial stability: market participants need to have sufficient information to reach informed judgments, the ability to process information correctly, the right incentives, and the right mechanism to exercise discipline.⁴⁴ Market discipline plays a vital role in mitigating a bank's risk of insolvency.⁴⁵ According to Basel II, the effectiveness of market discipline in controlling excessive risk-taking depends on three factors: the extent of the government's safety net, the degree to which the bank is financed by uninsured liabilities, and the degree of observability of bank risk choices. The lesser the degree of either an explicit or an implicit government guarantee of the bank's liability, the greater the amount of uninsured liabilities in the bank's balance sheet and the greater the market discipline. The considerable differences in market discipline across countries are attributable to technical aspects and interdependence among the existing accounting, legal, fiscal, and political considerations.

Policymakers require adequate information on the condition of the economy and the financial system so they can react appropriately and promptly to unforeseen events and eliminate any uncertainty regarding the financial market's stability. Greater transparency and better accountability can help reduce the frequency and severity of financial crises by encouraging macro-economic policy adjustments to begin earlier, occur more smoothly, and resolve crises by reducing uncertainty.

Transparency disclosure of accurate financial results by IFIs is even more relevant, since Islamic banking is based on the profit-and-loss system. Thus, financial results are essential.⁴⁶ Investors and shareholders should have access to all financial results that will promote openness and distribution of profits because, as we read in the Qur'an, "... and do not conceal testimony, and whoever conceals it, his heart is surely sinful" (2:283) The novelty of Islamic banking requires the development of an appropriate and relevant accounting system as well as disclosure and regulatory standards, all of which are prerequisites for effective transparency.

Basel II identifies six broad categories of detailed, timely, and regular information through which banks enhance the transparency of their operations: financial performance; financial position (including capital, solvency, and liquidity); risk management strategies and practices; risk exposure (including all credit, market, liquidity, operational, legal, and other risks); accounting policies; and basic business, management, and corporate governance information. The scope of information in these categories, however, will depend on the nature of the bank's operation and accounting standards.

Due to the PLS's inherent riskiness, depositors become direct stakeholders in the Islamic banking system, while regulators strengthen the relationship between the banks and their depositors and those banks that want to maximize the benefit to the society in which they operate. This triangular relationship serves as a better social development tool that has been established through transparency rules. Improved transparency is still pivotal, although Islamic banks have developed various mechanisms (e.g., an income smoothing fund) to stabilize the return on individual deposits and stem the depositor's perception of the bank's performance.⁴⁷

Due to structural differences in the Islamic banks' debt and equity structures, the risk weights given by Basel II are inappropriate. The AAOIFI's recommendations, although good, are only related to the liabilities side of the balance sheet. Therefore, a comprehensive assessment of the risk adjusted assets and related best risk management practice of Islamic banks are urgently required to ensure more transparency.

Governance and Disclosure of Islamic Banks and Transparency

The transparency of a bank's governance and management practices will help market participants and regulators understand its activities, assess its efficiency and strength, evaluate the appropriateness of its incentive structure, erect barriers to conflict-of-interest situations, and ensure the materialization of proper internal controls. The governance structure of Islamic banks is more complex than that of conventional banks, since it involves depositors who have a direct financial stake in the bank and have Shari'ah boards (SBs) as ensuring an additional regulatory layer. Gaps exist in this structure with regard to the SBs' role and that of depositors in assuring performance, given their direct financial stake in the bank. Therefore, special attention should be given to the role of both from the transparency point of view, as envisaged in Basel II.

Rating credit risk through an external credit assessment, as provided for in Basel II, will increase transparency by allowing for efficient operation and providing information to depositors so they can select the bank of their choice. As the transparent presentation of income is essential to making rational investment decisions, the disclosure of accounting practices and policies will enable market participants and regulators to make a reliable assessment of the bank's performance. Before the AAOIFI's Financial Accounting Standards (FAS) were developed, the financial standards produced by Islamic banks were rendered non-comparable, due to differences in their accounting policies, differences in interpreting the relevant Shari'ah guidelines by individual banks, and the inability of the International Accounting Standard (IAS) to capture the true features of some Islamic bank's contracts. A standardized accounting framework in line with Basel II is still needed to facilitate market discipline, make an objective comparison of financial institutions, and improve transparency.

Unresolved Legal Issues and the Question of Transparency

There are still some unresolved legal issues related to the late settlement of financial obligations (e.g., how to deal with the failure of a purchaser of goods and services under the *murabahah* mode of financing to settle the payment on time), the nature of a PLS partner's liability (limited or unlimited) with respect to third parties, the permissibility of financial leases, the sale of debts (securitization) except at face value, and the permissibility of hedging. Such issues have an important bearing on regulating and supervising the Islamic financial system. Since they must be resolved by interpreting the relevant guidelines mentioned in the Qur'an and the hadith, these interpretations were likely to be influenced by the rapidly changing socioeconomic and political situations prevailing at the time the jurists were formulating their rulings. Since it is not possible to establish an agreed-upon legal framework and capital adequacy standards for Islamic banks unless a consensus or near consensus has been reached on these fundamental issues, special attention is required from Islamic banks, the regulators, and the jurists.⁴⁸

The Current Financial Crisis and the Islamic Financial System

It has been strongly argued that if global banking practices had adhered to the principles of Islamic finance related to entrepreneurship and trans-

parency, the global crisis/subprime mortgage debacle would have been prevented because it is against the Shari`ah's guidelines to sell a debt against a debt. The fundamental rule here is that one cannot sell or lease an item unless he/she possesses real assets, since this is a risky speculative financial business transaction.⁴⁹ Given that Islamic finance is based on equity rather than debt, every lending transaction requires assets to be backed in order to safeguard the banking industry against possible loan defaults. The enormity of such defaults, should they occur, within an Islamic financial setting will not threaten the banking system's health and proper functioning.⁵⁰

Islam takes particular interest in fostering a close relationship, transparency, and trust between originators (financial institutions) of Islamic financial products and investors. Financiers loan only to worthy borrowers who have a genuine need and an identifiable business activity. In an astounding move, even the Vatican has recognized the implication of bringing banks closer to their clients and has accredited Islamic finance as the frontrunner in this regard.⁵¹

The Islamic regulatory control system stipulates that potential investors be well-versed in the prospects (opportunities and risks) to which their investments are subject when entering into new contracts. Risk must be explicitly communicated to all stakeholders, and financial institutions are under obligation to conform to comprehensive disclosure and transparency standards. Full disclosure and transparency in *mudarabah* and *musharakah* contracts in the spirit of the Shari`ah will enhance market discipline, control imprudent lending, avoid speculation and preventable uncertainty (*gharar*), and ensure the Islamic financial system's financial stability.⁵² *Mudarabah* and *musharakah* contracts are also seen as effective instruments for managing risk through risk sharing, as opposed to risk shifting.

The inclusiveness of the concept of risk sharing, as opposed to risk taking, is extended to include the prohibition of risk shifting, as in credit default swaps (CDS). Siddiqi strongly argues that "risk shifting is gambling."⁵³ Every loan made by a lending institution is subject to credit risk, and selling these risks to a third party ensures that only one party (viz., the seller or the buyer of risk) gains the losses incurred by the other parties; no additional wealth is created.⁵⁴

Unethical accounting, fraud, and corruption, all of which are ubiquitous in conventional banking, are mitigated in Islamic finance, since ethics are entrenched in Islamic institutions. The Islamic concept of ethics gains its legitimacy from being based on heavenly commands that establish opera-

tional guidelines, while western man-made trial-and-error business ethics lack any accepted authority of ethical ideals and the power of generalization.

In July 2009, the Basel Committee on Banking Supervision introduced new measures to enhance the three pillars of the Basel II framework. Such measures are part of the committee's program of enhancing the regulatory capital framework by introducing higher risk weights for the resecuritization exposures of complex derivative products (e.g., collateralized debt obligations [CDOs] of asset-backed securities [ABS]) to better reflect their risk exposure. It is also raising credit conversion factors for short-term liquidity facilities to off-balance sheet conduits and requiring that banks conduct a more thorough credit analysis of securitization risk conducted by external credit rating agencies. In addition, the Basel II package includes enhancements to the market discipline frameworks that are designed to boost disclosure requirements for securitizations, off-balance sheet exposures, and trading activities. Such additional requirements are expected to decrease the level of risk related to the banks' balance sheet as regards capital market exposure.⁵⁵

The conventional financial system's inherent frailty and faults has led Islamic scholars and economists to reaffirm that the root of the ongoing crisis was the inadequate market discipline that resulted from the lack of profit sharing models of financing, the expansion of derivatives, and the policy of "too big to fail."⁵⁶ Others argue that moral failure led to exploitation and corruption, as characterized by overextended leverage, complex products, and speculation through risk shifting. It should not be forgotten, however, that Islamic banks are susceptible to the same fate if they are not well monitored. There is a rapid growth of complex Shari`ah-compliant financial innovations such as tradable *sukuk* (financial certificates or bonds), which have features similar to those of CDOs and mortgage-backed securities (MBSs), and Islamic return swaps, where the underlying permissible assets can be swapped with returns on subprime CDOs.

The Islamic financial industry should avoid mimicking conventional financial products and understand the incentive structures and risks associated with different instruments. Shari`ah boards, being the custodians and gate-keepers of Islamic finance, should approve and monitor Islamic products in order to reduce the associated risk, including *sukuk*, and provide Shari`ah governance guidelines to reduce the Shari`ah compliance risk.⁵⁷ The IFSB has published various guidelines designed to reduce such risks. The most recent guideline, published in 2009, deals with the capital adequacy requirements of *sukuk*, securitization, and real estate investments.

Concluding Discussions

The Islamic banking industry has grown astronomically over the past two decades and shows no sign of slowing down anytime soon. As Islamic banks are taking shape in a rapidly changing financial environment with diverse complications, stakeholders should adopt an active and influential role in molding the Islamic standard of banking business. The pressure exerted by cross-border operations and financial relationships will ensure that the Basel II regulations will play a focal role as Islamic regulatory agencies (viz., the IFSB, the Islamic Development Bank, the AAOIFI, and the Organization of the Islamic Conference) gradually develop guiding principles suited to Islamic banking. Effective corporate governance requires a code of Islamic ethics to which all Islamic banks and financial institutions should adhere, especially when dealing with complex financial innovations. The governance mechanism should lay a firm foundation for an ethical and social enterprise to handle property rights and the challenging task of devising effective risk management procedures for all types of Islamic financial products. Internal and external resources should be set aside to ensure that the regulators control and update the resulting code of ethics.

In Islamic banking, transparency in risk management and the bank's underlying soundness, particularly to investment account holders, plays a central role in bolstering participant confidence. Depositors and markets have a direct interest in the portfolio risks, since these affect depositors' returns and help them understand the institution's operations. Accounting disclosure should detail information regarding any risk faced by stakeholders and the mechanisms for mitigating such risk. Therefore, stakeholders in Islamic banks should engage in financial dealings in line with the Shari'ah's tenets.

Prudential regulations and supervision, internal controls, risk management, and external audits of Islamic banks are daunting challenges to the Islamic financial system's continued growth. All of these management paradigms are vital, due to the atypical nature of deposits, modes of financing, the need to strictly comply with the Shari'ah, exigent calls to stem a possible systemic crisis, and the all-important aspect of maintaining the system's credibility and stability.

If the Islamic banking system is to survive in a competitive market alongside CFIs, it needs to differentiate itself by promoting (in the non-Islamic world) a modified approach to bank capital adequacy assessment that outlines the distinctive features of its members' activities and balance sheets, minimum financial participation requirements vis-à-vis depositors to

improve the quality of PLS contracts, and introduce measures designed to ensure the prudent mix of PLS and non-PLS assets and liabilities and risk-sharing between banks and investment depositors.⁵⁸

This risk assessment framework should be based on the Standardized Approach envisaged in Basel II to promulgate the Islamic financial system's basic safety and soundness. Adopting the IRB approach would be justified if it reduces compliance costs, lowers capital requirements under Basel II, and fortifies the risk management practices of Islamic banks. The Supervisory Review Process, as stated under Pillar II of Basel II, may be acceptable as a stop-gap measure employed to advance efficiency in Islamic banking supervision while developing supervisory mechanisms that adhere to the Shari'ah.

Glossary of Terms⁵⁹

Murabahah: A *Murabahah* contract refers to a sale contract whereby the IIFS sell to a customer at an agreed profit margin plus cost (selling price), a specified kind of asset that is already in their possession.

Mudarabah: A *Mudarabah* is a contract between the capital provider and a skilled entrepreneur whereby the capital provider would contribute capital to an enterprise or activity, which is to be managed, by the entrepreneur as the *Mudarib* (or labor provider). Profits generated by that enterprise or activity are shared in accordance with the terms of the *Mudarabah* agreement whilst losses are borne solely by the capital provider unless the losses are due to the *Mudarib*'s misconduct, negligence or breach of contracted terms.

Musharakah: A *Musharakah* is a contract between the IIFS and a customer to contribute capital to an enterprise, whether existing or new, or to ownership of a real estate or moveable asset, either on a temporary or permanent basis. Profits generated by that enterprise or real estate/asset are shared in accordance with the terms of *Musharakah* agreement whilst losses are shared in proportion to each partner's share of capital.

Ijarah: An *Ijarah* contract refers to an agreement made by an Institutions offering only Islamic Financial Services (IIFS) to lease to a customer an asset specified by the customer for an agreed period against specified installments of lease rental. An *Ijarah* contract commences with a promise to lease that is binding on the part of the potential lessee prior to entering the *Ijarah* contract.

Salam: A *Salam* contract refers to an agreement to purchase, at a predetermined price, a specified kind of commodity not available with the seller, which is to be delivered on a specified future date in a specified quantity and quality. The IIFS as the buyers make full payment of the purchase price upon execution of a *Salam* contract. The commodity may or may not be traded over the counter or on an exchange.

Istisna: An *Istisna* contract refers to an agreement to sell to a customer a non-existent asset, which is to be manufactured or built according to the buyer's specifications and is to be delivered on a specified future date at a predetermined selling price.

Sukuk: *Sukuk* (certificates) represents the holder's proportionate ownership in an undivided part of an underlying asset where the holder assumes all rights and obligations.

Endnotes

1. D. T. Llewellyn, "A Regulatory Regime for Conventional and Islamic Banks" (paper presented at the Conference on Regulation and Supervision of Islamic Banks: Current Status and Prospective Developments, Khartoum, Sudan, 24-26 Apr. 2001).
2. Tarek Zaher and M. Kabir Hassan, "A Comparative Literature Survey of Islamic Finance and Banking," *Financial Markets, Institutions, and Instruments* 10, no. 4 (2001): 155-99.
3. G. Benston and G. Kaufman, "Is the Banking and Payment System Fragile?" *Journal of Financial Services Research* (Sept. 1995); A. Schwartz, "Coping with Financial Fragility: A Global Perspective," *Journal of Financial Services Research* (Sept. 1995); and Richard J. Herring and Robert E. Litan, *Financial Regulation in the Global Economy* (Washington DC: Brookings Institution, 1995).
4. S. C. Dow, "Why the Banking System Should Be Regulated," *Economic Journal* (1996); C. J. Lindgren, G. Garcia, and M. Saal, *Bank Soundness and Macroeconomic Policy* (Washington, DC: IMF, 1996); J. Drage et. al., "Some Issues for Policy Makers Arising from the International Financial Crisis," *Journal of Financial Regulation and Compliance* (Nov. 1998); D. T. Llewellyn, "The Economic Rationale of Financial Regulation," *Occasional Paper No. 1* (London: Financial Services Authority, 1999).
5. Ibid.
6. Llewellyn, *A Regulatory Regime*.
7. Ibid.
8. Ibid.
9. Ibid.
10. A. K. I. Al-Sadah, *Regulation of Financial Reporting by Islamic Banks* (Surrey, UK: University of Surrey, 1999).
11. Accounting and Auditing Organisation for Islamic Financial Institutions, "Statement on the Purpose and Calculation of the Capital Adequacy Ratio for Islamic Banks" (Bahrain: AAOIFI, 1999).
12. T. Khan and H. Ahmed, "Risk Management: An Analysis of Issues in Islamic Financial Industry," *Occasional Paper No. 5* (Jeddah: Islamic Research and Trading Institute, IBD, 2001).

13. Ibid.
14. Ghiath Shabsigh, "Issues in Transparency in Islamic Banking" (paper presented at the conference on Regulation and Supervision of Islamic Banks: Current Status and Prospective Developments, Khartoum, Sudan, 24-26 April 2001).
15. Ibid.
16. Llewellyn, *A Regulatory Regime*.
17. Ibid.
18. M. Kabir Hassan, "Summary of Consultative Document: The New Basel Accord," Mimeo (2003).
19. Statement on the Purpose and Calculation of the Capital Adequacy Ratio for Islamic Banks (English and Arabic), Bahrain (1999).
20. IFSB, "Capital Adequacy Standard for Institutions (other than insurance institutions) Offering only Islamic Financial Services (IIFS)," 2005. Online at www.ifsb.org.
21. M. K. Hassan and M. F. Dicle, "Basel II and Capital Requirements for Islamic Banks," in Proceedings (Volume 2) of the International Conference on Islamic Economics and Finance, Islamic Economics and Banking in the 21st Century, held in Jakarta, Indonesia, 21-24 November 2005.
22. Basel Committee on Banking Supervision, "The New Basel Capital Accord: Third Consultative Paper," Basel, April 2003.
23. Basel Committee on Banking Supervision, "Amendment to the Capital Accord to Incorporate Market Risk," Basel, January 1996.
24. Hassan and Dicle, "Basel II and Capital Requirements."
25. Ibid.
26. IFSB, "Capital Adequacy Standard for IIFS," 2005.
27. Accounting and Auditing Organisation for Islamic Financial Institutions, Statement on Capital Adequacy Ratio; M. U. Chapra and T. Khan, "Regulation and Supervision of Islamic Banks," Islamic Development Bank, Islamic Research and Training Institute Occasional Paper, No. 3, Jeddah, 2000.
28. R. A. A. Karim, "International Accounting Harmonization, Banking Regulation, and Islamic Banks," *International Journal of Accounting* 36 (2001).
29. IFSB (2005a), "Capital Adequacy Standard for Institutions (other than insurance institutions) offering only Islamic Financial Services (IIFS)." Available at www.ifsb.org.
30. M. K. Hassan and M. F. Dicle, "Basel II and Regulatory Framework for Islamic Banks," *Journal of Islamic Economics and Finance* 1, no. 1 (2005): 17-36.
31. Shabsigh, *Issues in Transparency in Islamic Banking*.
32. Ibid.
33. Chapra and Khan, *Regulation and Supervision of Islamic Banks*.
34. Shabsigh, *Issues in Transparency in Islamic Banking*.
35. IFSB, "Guiding Principles of Risk Management for Institutions (other than Insurance Institutions) offering only Islamic Financial Services (IIFS)," 2005. Online at www.ifsb.org.

36. Zaher and Hassan, *A Comparative Literature Survey of Islamic Finance*.
37. J. Ahmed, "Handbook of Corporate Governance," State Bank of Pakistan, 2003.
38. Ibid.; Andrei Shleifer and Robert W. Vishny "A Survey of Corporate Governance," *Journal of Finance* 52, no. 2 (1997).
39. M. K. Lewis, "Islamic Corporate Governance," *Review of Islamic Economics* 9, no. 1 (2005): 5-29; and A. S. Khalifa, "The Multidimensional Nature and Purpose of Business in Islam: Accounting, Commerce, and Finance," *Islamic Perspective Journal* 7, nos. 1/2 (2003): 1-25.
40. M. K. Hassan and M. F. Dicle, "Basel II and Corporate Governance of Islamic Banks," in *Integrating Islamic Finance into the Mainstream: Regulation, Standardization and Transparency*, ed. Nazim Ali, Islamic Finance Project, Islamic Legal Studies Program, Harvard Law School 2007; M. U. Chapra and H. Ahmed, *Corporate Governance in Islamic Financial Institutions* (Jeddah: IRTI, 2002).
41. IFSB, "Guiding Principles on Corporate Governance for Institutions Offering Only Islamic Financial Services (Excluding Islamic Insurance (*Takaful*) Institutions and Islamic Mutual Funds," 2006. Online at www.ifsb.org; and M. K. Hassan, D. R. Wolfe, and N. C. Maroney, "Corporate Control and Governance in Banking," *Development of Economics and Finance* (USA: University of New Orleans, 2004).
42. Ibid.
43. A. N. Berger, "Market Discipline in Banking," Federal Reserve Bank of Chicago, May 1991; AND R. R. Bliss and M. J. Flanners, "Market Discipline in the Government of the U.S. Bank Holding Companies Monitoring Versus Influence," *European Finance Review*, vol. 5 (2001) and vol. 6 (2002).
44. A. Crockett, "Market Discipline and Financial Stability." (speech delivered on Banks and Systemic Risk at the Bank of England Conference, London, May 2001).
45. A. Sironi, "Testing for Market Discipline in the European Banking Industry: Evidence from Subordinated Debt Issues," Board of Governors of Federal Reserve System, *Finance and Economics Discussion Paper*, no. 40 (2000); M. S. Peria and S. L. Schmukler, "Do Depositors Punish Banks for 'Bad' Behavior?: Market Discipline, Deposit Insurance, and Banking Crisis" (working paper, World Bank, Washington, DC: 1999); D. Klinger and O. Sarig, "The Information Value of Bond Ratings," *Journal of Finance* 55, no. 6 (2000); U. Baumann and E. Nier, "Market Discipline and Financial Stability: Some Empirical Evidence," *Financial Stability Review* (June 2003); U. W. Birchler and M. Maechler, "Do Depositors Discipline Swiss Banks?" in *Research in Financial Services*, ed., G. Kaufman, vol. 14 (2002); J. Blum, "Subordinated Debt, Market Discipline, and Bank Risk Taking," *Journal of Banking and Finance* 26, no. 7 (2002); T. Cordella and E. L. Yeyatti, "Public Disclosure and Bank Failures," *IMF Staff Paper* 45, no. 1 (March 1998).

46. M. Bahrami, "Risk Management in Compliance with the New Basel Accord" (paper presented at the World Islamic Banking Conference, 2002).
47. Shabsigh, *Issues in Transparency in Islamic Banking*.
48. Chapra and Khan, *Regulation and Supervision of Islamic Banks*.
49. Rasem N. Kayed and M. Kabir Hassan. "The Global Financial Crisis and the Islamic Finance Solution" (working paper, University of New Orleans: 2009).
50. Ibid.
51. L. Totaro, "Vatican says Islamic finance may help Western banks in crisis." Retrieved 26 March 2009 from www.bloomberg.com/apps/news.
52. I Öztürk, "Global financial crisis highlights benefits of Islamic finance." Retrieved 23 November 2008 from www.todayszaman.com/tz-web/yazar/Detay.do?haberno.
53. M. N. Siddiqi, "Current financial crisis and Islamic economics," 2008. Retrieved 7 January 2009 from: www.siddiqi.com/mns.
54. Ibid.
55. John M. Pachkowski, "Improvements to Basel II approved." Available at www.financialcrisisupdate.com/2009/07/improvements-to-basel-ii-approved.html. Accessed 1 December 2009.
56. H. Ahmed, "Financial crisis, risks and lessons for Islamic finance" (paper presented at the Harvard-LSE Workshop on Risk Management [Islamic Economics and Islamic Ethico-Legal Perspectives on Current Financial Crisis], London School of Economics, 26 February 2009).
57. Ibid.
58. M. J. B. Hall, "Basel II: Latest Developments and Implications for Bank Risk Management" (paper presented at the International Conference on Islamic Banking: Risk Management, Regulation and Supervision, Jakarta, Indonesia, September 2003).
59. These definitions are taken directly from "Capital Adequacy Requirements from Sukuk, Securitizations and Real Estate Investment," Islamic Financial Services Board, January 2009, 18-19. Available at www.ifsb.org.