CAPITAL REGULATION ON ISAMIC BANKING

Priyonggo Suseno*

Abstrak

Regulasi terhadap rasio kecukupan modal (CAR) pada bank syariah akan mendorong perbankan syariah untuk menerapkan strategi keuangan dan pemasaran yang berbeda. Adanya rekening investasi bagi-hasil membuat bank syariah memiliki struktur permodalan yang berbeda dengan bank konvensional.Jika rekening investasi bagi-hasil tidak diperlakukan sebagai bagian dari modal, Tier 1 ataupun Tier 2, akan mendorong perbankan syariah yang memiliki modal relatif kecil untuk meningkatkan pembiayaan jenis non-bagi hasil. Disisi lain, keharusan bank syariah untuk mematuhi hukum (syariah) Islam juga menuntut bank syariah untuk memiliki kinerja bisnis yang bukan hanya melindungi ekonomi nasabah, namun juga menjaga nasabah dari pelanggaran syariah Islam dan hal ini harus diadopsi oleh regulasi perbankan syariah..

Kata-kata kunci: Perbankan syariah, modal, investasi bagi-hasil, regulasi permodalan

A. Introduction

The development of Islamic banking during past three decades has invited Islamic scholars to scrutiny the best financial system, roles of market players and regulatory agencies. The far-reaching influence of conventional

* The author is the head of the programme on Islamic Economics and the director of the Centre for Islamic Economics and Development Studies (CIEDS), Islamic University of Indonesia, Yogyakarta.

banks in the world has forces most Islamic banks to comply both with international conventional bank standards – mainly Basle Committee Standards and Islamic law principles (*shariah*).

However, Islamic banks differ in nature from conventional banks. Islamic banking should comply with Islamic Law (*shariah*), which means adopting moral filters into its strategic and operational decisions. Islamic ethics, such as honesty, trust, earnest effort, fair profit, become importance factors distinguishing Islamic from conventional banking.

Thus, as a consequence, Islamic banking needs more complex regulations and supervision. However, broadly speaking, in the majority of countries where Islamic banks operate the same regulatory framework applies to both conventional and Islamic banks. They follow and adjust the guideline established by the Basle Committee on Banking Supervision.[1] However, the adoption of Basle principles on Supervision could bring some questionable issues, for example, what standards used in conventional banks should apply to Islamic banks, what the effects of the adoption on the soundness and competitiveness of Islamic banks, and should regulation and supervision is separated from *shariah* supervision.

This paper focuses on those aspects of Islamic banking that need to be recognised and addressed to help make the conduct of banking supervision more effective in an Islamic framework. Greater stress on these issues is likely to strengthen financial system surveillance in countries where Islamic banking principles are followed.

The organisation of this paper is as follows. Section II provides the basic understanding of regulation and supervision in banking in conventional framework. Section III discusses the different features of Islamic banks relative from conventional banks and emphasises on those that influence banking regulation and supervision.[2] Based on this understanding, section IV discusses how the regulatory framework should be designed to address the effective in an manner that characterise banks operating according to a paradigm version of Islamic banking. This section emphasises on prudential

[1] The Basle Committee on Banking Supervision has issued a consultative paper, *Core Principles for Effective Banking Supervision (September 1997), which provides a comprehensive analysis.*

[2] The detail features of Islamic banking which comprise of types of products, methods of financing, and empirical features can be seen in many articles or books. The first discussion presented by Nora Bali, February 20, 2002.

regulation and need of capital in Islamic banking. Finally, concluding remarks resume the capital and prudential regulation of Islamic banking.

B. General Views on Banking Regulation

The banking industry cannot be rid for regulation interventions, whatever reasons were justified and to what extent the regulation interference the markets. The relevant issues regarding to banking regulation are whether regulation increases social welfare benefit and what is the rational for consumers to demand regulation of financial services. However, the answers could vary from country to country and basically depend on several factors: [3]

1. How financial institution and markets work
2. The incentive structures for financial firms
3. The extent of market imperfection and failure and the power of regulation
4. The extent to which financial product and contract are different from other commodities are not regulated to the same degree as financial institutions

However, banking industry undeniably has special features because of its fiduciary role and bank hold unmarketable assets. Incomplete contract, as a special character of financial transaction, could bring banks face higher risk after dealing the contract due to moral hazard problem.[4] On the other hand, this also makes consumers cannot judge the safety and soundness of financial institution where they put their fund at the time of purchases. There is also a potential claim for customers on a compensation scheme because the cost of bad behaviour of individual banks can be passed on the others, thus they may require certain minimum standard of behaviours. In this circumstance, it is naïf to expect that banks can manage their business, the risk and information, prudently by themselves. That is why *prudential*

[3] See Llewellyn, D.T. (1999)

[4] Moral hazard problem is the principals cannot observe the probability of actions of individual agents after the contract was agreed. This problem arises when individual engages in risk sharing under condition such that their privately taken actions affect the probability distribution of the outcome. See Bengt Holmstrom, (1977): "Moral Hazard and Observability", *The Bell Journal of Economics*, pp. 74-91.

regulation is necessary to ensure the soundness and safety of individual banks as well as the financial system.

Moreover, because banks hold the consumer's fund and could generate a return from it, the banks might use this fund on their own interest, which could be riskier for consumers. Therefore, consumers need to ensure that the bank does share the risk fairly, so they require bank's honesty and integrity, competence, fair in business practices, disclose useful information, and so on, in order to assure that bank performs on their behalf. Thus regulation, later called as *a conduct of business regulation*, comes to help consumers in increasing their bargaining power in financial markets.

The objectives of banking regulation could be varied between countries and influenced by the empirical financial problems faced by each of them. It will be more useful to simplify those objectives, thus regulatory authorities and market players can clearly see what are the ultimate goals of such regulations. In summary, objectives of banking regulation could be divided into three, which are to ensure systemic stability, the safety and soundness of financial institution, and to protect consumer from market exploitation. Regulations do not care with individual bank failures, as well as non-bank industries, rather than they fear with systemic failure as an adverse effect of an individual failure. This is because of special features of banking industry and fragility of banking industry to runs. Even though no systemic risk exists in banking, consumers still need protection from bank failure and unsatisfactory conduct of business. The former reason is because banks hold their funds, in which consumers are not in position to judge the safety and soundness of banks, thus prudential regulation focuses on it. On the other hand, conduct of business regulation concern with how banks deal with consumer. The third reason for regulation is protecting customers *against losses resulting a bank failure and misconduct and bad business*. Due to depositor deals with an incomplete contact and banks hold unmarketable assets, consumers are not in position to judge the safety and soundness of banks. Thus if a bank failure occurred, it may have adverse effect on systemic stability and cause losses to depositors, who are less informed and/or incapable of looking after their own interests. Prudential regulation is to ensure the safety and soundness of banks, vis-à-vis consumer protection form bank failures.[5] On the other h and, regulator also should ensure that the financial institutions take and

[5] See Goodhart, C. et. al. (1998), p 5.

manage any type of risk appropriately, including liquidity risk, credit, earning, investment or operational risk.[6]

C. Capital Structure of Islamic Banks

As consequence of prohibition of interest, Islamic banks adopt profit/loss sharing (PLS) system, which influences both sources and uses of funds. According to the balance sheet report, it can be clearly seen that capital structures of Islamic banks differs from conventional banks (see table 1).

The sources of funds in Islamic banks currently depend on four main sources of funds. These are shareholders' equity, current account, savings account, and investments account. The sources of Islamic banks do not include bonds or other interest-bearing securities.

In the uses of funds, Islamic banks mainly focus on nine financial instruments, as shown in table 1, which comprise of equity financing and debt-like financing.[7] In an equity financing, the bank acts as a partial (*musharaka*) or full equity holders (*mudaraba*), hence, the bank bears with any loss of business with respect to the contracts. In debt-like financing, the bank acts as a seller or a leasing agent, who has the right to receive a full amount of the principle after maturity plus a certain fixed amount agreed at time of the contracts. This fixed additional fund is not interest, rather than could be a mark-up or a fee basis. In the absence of regulations, the bank can utilise any sources of fund to any types of financing mode, except for restricted deposit accounts[8] that should be utilised as mentioned in the contracts.

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[6] Excessive in taking risk of liquidity may arise when bank holds inefficient liquidity portfolios or unmatched liquid assets. Investment risk refers to risk of investment losses due to changes in foreign exchange rate, interest rates or asset prices. Credit risk refers to bad debts or delay in payment when due. Earning risk refers to risk or decreasing earning and operational risk refers to internal inefficiency and poor management control. The influences of any types of risks may be amalgamated to others. For example, hedging instrument such as swaps and options could reduce liquidity risk but also increase investment risk as well.

[7] To simplify, equity financing here refers to any type of PLS financing (*mudarabah and musyarakah),* while debt-like financing refers to mark-up or fee based financing (*murabahah* and *ijarah).* See Aggarwal R K and Yousef T (2000):"Islamic Banks and Investment Financing", *Journal of Money, Credit and Banking*, 32, 1, pp 93-120 for using these terms.

[8] Restricted deposit accounts could be either restricted *mudarabah or musyarakah* accounts.

The unique capital structure in Islamic banks is deposit accounts,[9] which are not a liability nor can they be considered as equity capitals, instead they have a maturity and give Islamic banks the right to invest funds deposited in these accounts for their holders on the basis of profit sharing. However, deposit account holders bear the full risk of loss if the results of the aggregate portfolio investment were negative, hence deposit accounts do not constitute a financial risk to the bank. Therefore, shareholders would be interested to replace as much equity capital with deposit accounts financing.

Unlike conventional bank, deposit accounts in Islamic bank can be considered as a substitute for equity. But deposit accounts do not commit their funds on a permanent basis, hence, the bank still keeps an optimum level of equity capital as a source of fund of a permanent nature to finance the infrastructure of the bank.

Table 1. Sources and Uses of Funds in Islamic Banking

Accounts	Specific Characteristics in Islamic Banks
Sources of funds:	
Current accounts	✓ No fixed/predetermined return for depositors. Shareholders have exclusive right to generate the return will be given to depositors
Saving Accounts (PSIA1) Investment Accounts (PSIA2)	• Banks are free of contractual obligations • PSIAs are redeemable at maturity or at the initiative of their holders. Suspension of convertibility can be applied • PSIAs are not a liability nor can they be considered as equity capital
Shareholder's equity (common stock, capital and revenue reserve)	✓ No preferred shares are issued ✓ Shareholders have **sole control** over the bank's management
Uses of funds:	
PLS Investments Account (PLSIAs)	
Musharaka (joint venture)	Banks can exercise the voting rights corresponding to their share of the firm's equity capital All parties invest in varying proportions and have the right to participate in the management of the enterprise
Mudaraba (full funding of project)	The entrepreneur has the absolute freedom to manage the business (what is the effect to the risk faced by the bank? All debt-like financing has a predetermined or fixed rate of return and is associated with collateral.

[9] Deposit account in this term refers top both saving and investment accounts but does not include current account. Hence, the formula of the balance sheet of an Islamic bank should be: assets = liabilities + investment account + owner's equity.

Debt-like Account: *Murabaha* *Salam* *Iistisna'* *Ijara* (operating lease) *Ijara-wa-iqtina* (lease with optional ownership).	These instruments do not substantially differ from those used in conventional banks other than their terminology and legal technicalities.

Sources: Karim, R.A.A(1996) pp33-34, Errico L (1998) pp 7-8, and Al_Deehani, et. al. (1999) pp.6-9.

Therefore, the capability of shareholder's equity (or equity capital) to cover any losses still larger than that of PSIAs accounts. As well as in conventional banks, financial participation by bank shareholders provide incentive to them to more actively monitor the banks. On the other hand, it provides a higher level of confidence by the investors because the risk of banks' default would be lower (Dar, 2001). For that reason, Islamic banks are necessary to hold an optimum equity capital even though most of their sources of funds are PLS basis or they conduct two-tier *mudarabah* operation.

The Optimum Capital Structure on Islamic Banks

In order to absorb losses and reduce probability of insolvency, Dar et. al. (2001) argue that Islamic bank should hold the equity based capital greater than the expected loss generated by the earning assets. This is because in the case of an adverse condition, or negative expected return of the assets, the banks can distribute this loss only to the investment-committed depositors or PLSIA(2) holders.

As a consequence, every Islamic bank does not necessary to hold the same capital because of its different capital structure. The bank with high proportion of current accounts (in the liability side) should hold more equity capital than that with lower current accounts. Moreover, the capital structure of an Islamic bank could change through times, therefore the optimum equity capital also alters. The standardised capital requirement as imposed by Basle Committee, is not relevant in Islamic banking. So, what is the optimum capital adequacy of Islamic banks?

D. Islamic Framework on Banking Regulation

As a part of financial system, Islamic banks also bear with the identical nature of transaction as conventional banks. The important characters of

financial transaction are the fiduciary role of banks that look after the consumer's wealth; need for public confidence to sustainability of financial system; and especially bank and deposit institutions, are vulnerable to run that could be contagious. Moreover, Islamic banks differ from conventional banks because of their reliance to religious principles.

In Islamic framework, regulation and supervision can be seen not only as a mains to minimise market failures, but also as a driver of market participants in enhancing higher social welfare, *maqasid shariah*. Therefore, as a consequence, there are four main objectives of regulation of Islamic banking. First, *systemic regulation* is necessary to avoid the contagion effect of individual bank failures and ensure the public confidence in financial system. Even though investment depositors in Islamic banks participate in the risk of losses, they do not put their wealth in the permanent basis, especially when they lost their confidence in financial system. Moreover, Islamic jurists allow *mudarabah* depositors to withdraw their deposits at any time, subject to the contracts. Then they could withdraw their deposits from the bank in the case of lack confidence in financial system. Second, *conduct of business regulation* should ensure that Islamic banks deal with consumers sufficiently. Third, *prudential regulation* is needed to encourage the safety and soundness of banking system, mainly to avoid individual bank failures. Forth, *shariah compliance regulation* needs to guide and ensure all market players (bank owners, bank managers, consumers, dealers and brokers) comply with *shariah* rules. Khan and Chapra (2000) also emphasise that Islamic bank should be internationally accepted; therefore they need to comply with international standards. Meanwhile the systemic regulation is not much different from those of regulation in conventional banking, the other regulations could be special in Islamic banking.

E. Prudential Regulation of Islamic Banking

1. Identifying the Sources of Risk in Islamic Banking

Beside Islamic bank face the same risks as conventional banks, Islamic bank deals with other risks which are new and not taken by conventional banks. Regulatory authorities should ascertain that Islamic banks manage the risk prudently as well as comply with *shariah* principles. Thus, identifying any source of risks could enable banks to deal the risks with adequate information and regulatory authorities to mitigate the risks banks taken.

Table 2. Source of Risk faced by in Islamic Banks

Types of Risk	Sources of risks
Credit Risk General risk	- the main cause are the inadequate contract and bad creditworthiness of financed agents.[10]
PLS financing	- Unsophisticated infrastructure of PLS financing basis (accounting, legal ownership, delivery access, etc.) - Lack of Islamic permissible credit derivatives which could mitigate credit risk - Islamic moral hazard: (Non-negotiable higher mark-up contract in the case of delayed payment, thus agents are wilfully to default. However, imposing marketable collateral can mitigate this risk) * *inadequate accounting standard, the bad moral attitude of counter-parties of the contract and less accessibility of information could bring PLS contracts generate worse outcome. Adverse selection and moral hazard problem could be very high.*[11]
Murabahah financing	*Murabahah* is binding to sellers (banks). Buyers (consumers) are responsible for all losses incurred. Thus the risk to banks is as low as debt contracts prevail in conventional banking.
Bai Salam financing	- The possibility of time failure of delivery or payment to the banks. - The high influences of exogenous factors on risk of failure, especially for agriculture financing.
Bai Istisna financing	If banks are lack of knowledge on idiosyncratic risk, adverse selection problem will arise. (Banks finance the bad projects). However, banks could employ a professional agent, by sub-contracting, to this job. But, the risk will shift to the sub-contract default
Leasing (pure and purchase-leasing)	- *the lack of legal structure of leasing financing in Muslim countries*
Market Risk[12]	Because Islamic benchmark does not exist, most Islamic banks use interest-like benchmark as a substitute, such as LIBOR. Therefore, volatility of such benchmark will affect *murabahah* mark-up and profit share should be paid by bank (unrestricted *mudharabah*). But, in asset side, the mark-up as well as profit sharing are non-adjustable, thus it increase the risk to the bank. Lack of risk mitigating instruments, which are permissible in Islam.[13]

[10] The detail analysis of the nature of risk of Islamic financial contract can be seen in Aggarwal and Joesef (2000) and Dar, et. Al (1999)

[11] See Muljawan Dadang (2001), for detail analysis of the problems of profit loss sharing based contracts.

[12] In conventional term, market risk comprises of interest risk, exchange rate risk, and commodity and equity price risk.

[13] In conventional banks, risk-mitigating instruments are quite well developed such futures, forward, option and swap contracts. Thus, conventional banks can reduce or offset the market risk by performing efficient portfolios.

Liquidity Risk[14]	- Lack of Islamic permissible alternatives sources of liquidity, such as interbank money market, non-interest based lender of last resort, and securitisation - Non-availability of Islamic permissible investment opportunities - The current account tends to dominate Islamic bank liabilities, which mean bank should hold more liquid or marketable assets.
Operational Risk[15]	- Non-standardised nature of some Islamic bank products, which could be in conflict with *shariah* principle, because financial innovation and technology go faster than *shariah* adjustment. - Other operational risks related with corporate governance, internal control and management, as well as conventional banks do
Other risks (country risk, legal risk, reputation risk)	- Islamic banks could face high legal risk because they offer many new type of transactions which are not supported by a robust legal framework.

Source: Chapra (2000) and Warde Ibrahim (2002)

Following the Basle's way of thinking, banking regulation and supervision should concerns on capital adequacy regulation, asset quality, risk management, internal control, and ethical and professional standard.

2. Capital Adequacy of Islamic Banks

According to the Basle Committee approach, capital adequacy regulation strands on two folds: first, enhancing the soundness and safety of banking system; and second, compliance of the minimum international standard. Thus, it could be more effective to adjust the Basle principle on banking supervision with the nature of Islamic finance and *shariah* principles. For the former objectives, capital adequacy should be designed properly:[16]

a. reflect to the banks' true risks
b. take into account developments in the financial markets
c. reflect to developments in the area of measurement and control of risk and promote a culture of risk management by providing suitable incentives
d. promote non-standardised approaches based on internal rating and models used by different banks
e. strengthen market discipline by utilising external assessments of banks for determining asset quality

[14] Liquidity risk refers to risk of net cash in both side, assets and liabilities side, of banks to meet their immediate obligations

[15] Operational risk arises from bad internal control and corporate governance

[16] See Chapra (2000)

Based on the capability of capital to absorb the potential loss, the Basle capital standards differentiate between core capital or Tier-1, supplementary capital or Tier-2 and Tier-3.[17] It is required that tier-1 capital shall not be less than 50% of total (tier-1 plus tier-2) capital and tier-2 capital shall not more than 50% of total capital. It is also required that banks must maintain minimum tier-1 capital and total capital of 4% and 8% respectively of total risk-weight assets. Because of the zero risk-weight of some type of assets, it is required that banks maintain a core capital equivalent to a minimum of at least 3% of their total assets.

The unique features of investment account PSIAs (Profit Sharing Investment Account) in Islamic banks, which are not accommodated by Basle standards. Thus potential capital arbitrages could arises if capital requirement is not properly, reflect the true risk, designed.

The Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) requires Islamic banks to report investment deposits on their balance sheets. This requirement will strengthen the capital of those banks which kept these deposits off-balance sheet. However, the AAOIFI standards suggest capital as a common numerator for both demand and investment deposits. This prompts us to discuss what is our consideration to set such standards. However the effectiveness of standards depends on how Islamic banks invest PSIAs whether they invests in the same investment portfolio of shareholders or separate investments.

In the case of the same investment portfolio of shareholders, profits and losses are allocated according to the contributed funds of each source. This means that shareholders' total share of profit would consist of:

a. the profits generated from investing equity funds; and
b. their share in the profits of PSIAs (i.e. the *mudarib* share of profit).

Islamic banks can also use one of two profit sharing methods to govern the relationship between shareholders and PSIAs. These may be called the "pooling method" and the "separation method". The decision on which method to use is to a large extent influenced by the bank's in-house religious

[17] Tier-1 is defined as a)basic equity + b)disclosed reserves from post-tax bank earning *minus* goodwill and investment in subsidiaries. Tier-2 capital is defined as a) undisclosed reserves, + b)revaluation reserves +c) general loan loss reserves +d) hybrid debt instruments +e) subordinated term debt of 5 years' maturity (maximum limit: 50% of Tier-1 capital). Tier-3 capital is defined in some countries as subordinated debt having a maturity of less than 5 years with maximum limit of 2.5% o ftier-1 capital.

advisers. The two methods mainly differ over two issues:

a. should PSIAs share in all types of revenues and expenses of the bank; or
b. should PSIAs only participate in the revenues and expenses pertaining to their investments?

The latter expenses do not include the administrative expenses of the bank. According to the pooling method, all sources of funds made available to the bank should share in all forms of both revenue and expense. But this would not include revenues generated by subsidiary and affiliated companies or the remuneration of the bank's directors and auditors. KFH and Bahrain Islamic Bank are two of the Islamic banks which use this method of profit sharing.

On the other hand, the separation method calls for segregating the revenues and expenses of investments operations from those of other banking services, PSIAs only being allowed to share in the revenues and expenses related to the former type. Other revenues and expenses, including all administrative expenses and directors' and auditors' remuneration, are solely borne by the shareholders. JIB, FIBB, and Faisal Islamic Bank in Sudan (FIBS) are examples of banks that use this method.

Like the pooling method, some Islamic banks which use the separation method treat PSIAs as on-balance sheet items and (*incorrectly*) list them under liabilities. In addition, both PSIAs and equity funds are invested in the same investment portfolio and thereby run the same business risk. Other Islamic banks (e.g. FIBB and Arab Islamic Bank), which use the separation method, treat PSIAs as an off-balance sheet item and they may or may not be invested in the same investment portfolio of equity funds. In the next section, the Basle framework will be examined in the light of the above description of the financial system of Islamic banks.

The application of the Basle framework to Islamic banks

From the preceding description, although PSIAs are not permanently available, they bear risk in aspects similar to equity capital. Hence, it is arguable that since capital adequacy is about risk of the total portfolio position of a bank and since anything that reduces risk, or shifts risks away from the bank, or in any way protects against it, is a factor lessening the need for capital. Then PSIAs should play a major role in the calculation of the CAR for Islamic banks. However, if the Basle framework is to be applied to

Islamic banks in its present form, then regulatory authorities would face the problem of how to treat PSIAs. Based on the previous description of their characteristics, five possible scenarios can be developed for the treatment of PSIAs by regulatory authorities.

The choice of which scenario to adopt can be left to national discretion, as is the case with a number of items in the Basle framework. Those scenario will be explained next.

a. Scenario A: PSIAs are treated as core capital

This scenario suggests that since PSIAs share in the profits and losses of the bank, they possess two basic characteristics of capital. These are:

1) "to absorb operating losses while enabling the bank to stay in business"; and
2) "to enable the bank to absorb risks and sustain shocks"

However, it depends on which profit sharing method the bank is using. If it is the pooling method, then PSIAs share in all the losses of the bank except those which are the exclusive responsibility of shareholders. In this case, Islamic banks can argue that PSIAs would qualify to be added to the core capital elements (Tier-1).

However, one of the caveats of this scenario is that, since current accounts cannot be paid from PSIA funds (because only shareholders are entitled to receive the revenues generated from investing current accounts funds), then the treatment of PSIAs as one of the items of core capital may give a misleading picture of the bank's capital ability to absorb losses and still meet its obligations. Accordingly, regulatory authorities may consider setting a limit to the amount of PSIA that can be included in the Tier 1 items. If, however, an Islamic bank is using the separation method, then the share of PSIAs in the bank's losses is confined to the losses emanating from the investments into which their funds have been invested. Accordingly, they are neither compensated with equity funds nor do they act as a cushion for absorbing losses other than those which are attributed to their own investments. In other words, they bear their own risk. In this case, PSIAs may not qualify to be added to the capital elements.

b. Scenario B: PSIAs are deducted from total risk weighed assets

The idea is that PSIAs only bear their share of risk in the investments into which their funds were placed, then they (PSIAs) should be deducted

from the total risk-weighted assets. This treatment overcomes the caveat produced by the first scenario.

c. Scenario C: PSIA is treated as a complementary capital or tier-2 capital

This scenario, C1 maintains the view that, although PSIAs share in the profits and losses of the bank, they are not a perfect substitute to equity capital which is permanently avail-able. Rather, they are more akin to hybrid capital instruments. Although investment accounts are unsecured and are able to support losses on an ongoing basis without triggering liquidation, they are redeemable at maturity or at the initiative of the holder but not without the prior consent of the bank. Hence, it can be argued that PSIAs should be classified with Tier 2 capital elements.

The problems of scenario C1, if PSIAs dominate the bank's capital, the bank, according to the Basle framework, could be required to keep higher capital (See table for example). Hence, the treatment of PSIAs as a Tier 2 capital item would not be of help in meeting the CAR requirements for regulatory purposes by Islamic banks which have high proportion of PSIAs accounts. It would tend to disadvantage those Islamic banks which attempt to achieve growth by pursuing a financial strategy that aims at mobilising funds mainly through PSIA financing.

However, based on this strand, PSIAs could be added to total risk-weighted assets (Scenario C2) and could reduce such problems. The AAOIFI standards suggest 50% of the risk of assets financed by investment deposits (PSIAs) should be assigned to investment depositors for the purpose of capital determinations, and the remaining 50% to shareholders. Thus the capital ratio = total capital / total average risk-weighted assets financed by bank and current account + 50% of total average risk-weighted assets financed by investment deposits. This means that the risk of assets financed by investment deposits will be assigned a weight of 50% for purpose of determining capital requirement. (What is the problem of this standard?)

d. Scenario D: PSIAs are not added to tier-1 nor tier 2 capital

This scenario depicts the present situation in which the characteristics of PSIAs are ignored and the Basle framework is applied without any adjustment to the capital elements or deductions from the total risk-weighted assets. Like scenario C, this could force the bank to keep higher capital, because Basle required the maximum amount or tier-2 not more than 50%, which

mean the bank should raise tier-1 capital to reach 4% per cent or reallocate its assets in favour of lower risk-weighted categories.

Table 3. Balance Sheet of a Hypothetic Bank at 31 December 2002

	Thousands $
Total Assets:	509,000
Investment and saving accounts (PSIA)	176,000
Miscellaneous provision (Tier-2)	300,000
Asset revaluation reserves (Tier-2)	11,500
Paid-up capital (Tier-1)	6,000
Statutory reserves (Tier-1)	4,700
General reserves (Tier-1)	5,300
Retained earning (Tier-1)	2,000

Source: Karim, R.A.A (1996)

Assuming that total weighted risk assets (TOWRA) is equal to $425,000, 000 then:

Scenario A (PSIAs added to Tier - 1 capital):
CAR = (Tier - 1 items + Tier - 2 items) / TOWRA = (315,500 + 17,500) / 425,000 = 78.4%

Scenario B (PSIAs deducted from TOWRA):
CAR = (Tier - 1 items + Tier - 2 items) / (TOWRA - PSIAs) = 33,000 / (425,000-300,000) = 26,4%

Scenario C1 (PSIAs added to Tier-2 capital):
CAR = (Tier - 1 items + Tier - 2 items) / TOWRA = [15,500 + (317,500 - 302,000)] / 425,000 = 7,3%

Scenario C2 (PSIAs added to TOWRA):
CAR = (Tier - 1 items + Tier - 2 items) / (TOWRA – weighted PSIAs) = 33,000 / (359,000) = 9.9%
Note: assuming that TOWRA= (50% x PSIAs + 100% x non - PSIA assets)

Scenario D (PSIAs not added to Tier - 1 nor Tier - 2):
CAR = (Tier - 1 items + Tier - 2 items) / TOWRA = [15,500 + (17,500 - 2000)] / 425,000 = 7.3%

The above calculation is only for simplification, however, the weight of every risk should reflect the true expected risk as noted in table 1. Different type of capital adequacy method conducted by the regulator will bring regulated Islamic banks to set different financial and marketing strategies. For example, if scenario D is applied, the banks which have CAR below minimum standard tend to raise non PSIAs financing, i.e. equity capital or

promoting products other than current accounts by maintaining their market share of PSIA.[18]

2. Risk Management

As well as conventional banking supervision, Islamic banking supervisor should have management information system that enable management to identify the high credit risk such as concentrated and connected lending. Therefore, supervisors also should ensure that Islamic bank can accurately measure, monitor, and adequately control market risk.

There hence, information disclosure rule is very important to accelerate prudent risk management. Because Islamic cannot efficiently diversify the idiosyncratic risks, regulatory authorities should ensure that banks do not expose the risk excessively. The disclosure of all above risks, internal rating system and risk management model is absolutely necessary. The AAOIFI has addresses the detail required information should be disclosed, both on and off balance sheet statement.[19]

3. Market Discipline

Islamic bank needs more market discipline because shareholders and depositors can monitor the bank in equity contract basis. Market discipline means there is a timely release of information about all risks, thus all market players use well and adequate information in every decision. Therefore, as in conventional bank, market discipline must be supported by adequate information disclosures, capital quality, accounting standard, capital adequacy, and risk exposures. However, in fact, Islamic bank could face either higher or lower risk because Islamic bank bears with many new products which could be riskier, while lack of Islamic permissible derivative instruments lower the risk.

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[18] See Karim (1996) for detail explanation for the effects of these schemes.

[19] AAOIFI suggests Islamic banks to disclose at least seven statement: 1) the statement of financial position, 2) the income statement, 3) statement of cash flow, 4) the statement of changes in owners' equity or the statement of retained earning, 5) statement of changes in restricted investment, 6) statement of sources and uses of funds in the zakah and charity fund, and 7) statement of sources and uses of funds in *Qurd* fund. See AAOIFI, (1997) for detail such statements.

F. Concluding Remarks

The demand for regulation of Islamic banking is not only because of the role of *shariah* principle in the whole banking operation, but also Islamic banks have different features compared to conventional banks have. The main characteristics of Islamic bank is the existence investment accounts, i.e. profit loss sharing accounts (PSIA). The PSIA can not be viewed purely the same as equity capital nor it is the same as debt capital, because PSIA can contribute to absorb losses until some extents, but PSIA holders have the right to withdraw their funds before maturity.

The unique features of PSIA could bring into the worse adverse selection and principal-agent problems and put Islamic banks to own different capital structures.[20] These problem, of course, could lead Islamic bank to manage the risks inappropriately (in term of excessive risk-taking behaviour or information exploitation) given prevailing banking regulation and supervision. However, adopting the international banking regulation and supervision into Islamic banking is not relevance. However, AAOIFI has adjust the Basle standards into Islamic banking supervision, even though some questions emerge. It could be because AAOIFI sees Islamic bank in accounting point of view rather than in term of banking safety or financial systemic stability. However, most bank regulators see capital adequacy regulation as a means of strengthening the safety and soundness of the banking system.

Moreover, even if Islamic bank regulators can identify the Islamic banks' risks, the precise and applicable risk mitigating should be proposed and applied. Reliance to market discipline is a good alternatives if every market participants have the reliable information and capability to deal the risk, because the survivability of Islamic banks are not only influence by their soundness and safety, but also their compliance to international standard and *shariah* principles. Thus, so many things should be done: what kind of regulatory approach is more suitable, e.g. rule v incentive basis, the optimum organisation structure of regulation, the legal framework of regulation, etc.

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[20] See Muljawan (2001) or Aggarwal and Joesef (2000) for rigorous analysis of the nature of profit loss sharing contract.

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APPENDIX 1

Theoretical Taxonomy of the Balance Sheet and Profit and Loss Account of a Prototype Islamic Bank and a Prototype Conventional Bank

CONVENTIONAL BANK	ISLAMIC BANK
Balance Sheet **Assets** Cash and cash equivalent Marketable securities Advances* (to n customers): Standard loans	**Balance Sheet** **Assets** Cash and cash equivalent Investment using financial instrument (by n investors): Musharaka financing Mudaraba financing Ijara Ijara wa iqtina
Overdrafts Other Total Physical capital **Total assets** ----------	Sales receivables: Murabaha Others Physical capital **Total assets** ----------
Liabilities and shareholders' equity Deposits** (by n customers) Current accounts Saving accounts Time accounts Total Other borrowings Shareholders' equity **Total liabilities and shareholders' equity**	**Liabilities, investment accounts & shareholders' equity** Deposits** (by n customers) Current accounts Saving accounts Investment accounts Limited period Unlimited period Total Shareholders' equity **Total liabilities, investment accounts and shareholders' equity**