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Zaheer, S.

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2 Islamic Banking and Finance: Principles and Practice

2.1 Introduction

Islamic banking and finance (IBF) has been integrating into the global financial system with unprecedented growth in the last few decades. Its presence can also be observed in some western states, with United Kingdom playing a leading role. In the immediate aftermath of the current financial crisis, the importance of this segment of the financial industry has been re-emphasized by Islamic economists, who also highlight some reasons for crisis (Chapra (2008); Usmani (2010)). The main purpose of this study is to review the theoretical foundations of Islamic banking and the contemporary structure of Islamic banks. The chapter also points out important issues currently faced by the Islamic banking industry. Moreover, the study examines monetary policy in an interest-free system proposed by Islamic economists in theory and how it is practically implemented by the central banks of some Muslim countries.

Stylized theoretical basis of Islamic banking and the structure of Islamic banks in practice render certain issues from the perspective of conventional banking theory. The interest-free nature of Islamic banking requires distinguished products that can be employed both on the asset and the liability sides of an Islamic bank (IB). Although the instruments used by Islamic banks have a long historical perspective, typical contracts have been tailored to make these products applicable to current banking practices. We show that these medieval era contracts may have different implications when applied to the current Islamic banking industry. The profit and loss sharing saving and investment accounts (PSIAs) entail more transparency and prudential regulations. In addition, to comply with the directives of regulatory authorities and central banks, Islamic Banks also accord to the tenets of *shariah* (Islamic jurisprudence), and thus are exposed *shariah* compliance risk. Difficulties related to the financial structure, standardization of products and supervisory laws may hinder the future prospects of IBF globally.

Implementation of monetary policy under an interest-free financial system has not been fully implemented in the countries that host Islamic banking, except Iran and Sudan. Direct instruments of monetary policy, like credit controls and administered liquidity reserve requirements, can be used in an Islamic system without any change. However, indirect

instruments namely open market operations and discount rate policy under an interest-free monetary policy, need to be altered. The current structure of IBF shows that a lack of interest-free liquidity and monetary management instruments hampered implementation of interest-free monetary policy, the growth of liquid and efficient interbank and money markets. In this respect two main jobs need to be done. The first is to devise interest-free monetary instruments, like government treasury bills that can be used for liquidity management and open market operations. The second is to establish a framework in which standing credit facilities could be provided to Islamic banks free of interest (see appendix 1).

The rest of this paper is organized as follows. Section 2.2 provides a basis for Islamic banking. Section 2.3 discusses a brief history and evolution of contemporary Islamic banking in Pakistan and in other countries, and section 2.4 describes the structure of Islamic banking. Section 2.5 explains monetary policy instruments proposed by Islamic economists and section 2.6 notes the practice of monetary policy under an Islamic framework in various jurisdictions. Finally section 2.6 concludes the paper.

2.2 Origin of Islamic Banking

The word '*Islam*' in Arabic means 'submission'. In the context of religion it means submission to God, the Creator, in all matters of life. Thus, Islam is a divine religion and its principles encompass every aspect of human life. *Shariah* (Islamic jurisprudence), derived from the Quran (the holy book) and Hadith (the sayings and actions of the Prophet Muhammad), directs all matters of life, private, social and economic.

Islamic banking mainly originated from the prohibition of *riba* (usury and interest) in various verdicts of the *Quran*.⁴ Originally, interest was also opposed in some other religions, namely Hinduism and the Abrahamic religions i.e., Judaism and Christianity (Lewis (2007)). *Riba* literally means any 'growth', 'addition' or an 'increase' to an object or value over and above its original size or amount. In *Quranic* view, Asad (1980) notes that it signifies any unlawful addition by way of interest to a sum of money or goods lent by one person to another. He defines interest as any income '*...obtained through interest-bearing loans involving an exploitation of the economically weak by the strong and resourceful: an exploitation characterized by the fact that the lender, while retaining full ownership of the*

⁴ For details see Appendix 2.

capital loaned and having no legal concern with the purpose for which it is to be used or with the manner of its use, remains contractually assured of gain irrespective of any losses which the borrower may suffer in consequence of this transaction'. *Quran* declares charging anything extra on a loan amount as unjust by saying '*deal not unjustly*'.⁵ The holy book describes charity, trade and interest in the context of simultaneous contrast. While trade is allowed, interest is prohibited: '*God has made buying and selling lawful and usury unlawful*'.⁶ Moreover, write-offs (charity) are encouraged if the borrower is in strained circumstances: '*if you waive it by way of charity that is better for you*'.⁷ Maududi (1940)) contrasts characteristics of interest and trade with respect to the risks attached in both the transactions. In his view, interest is exploitative as risks and rewards are not distributed evenly between the borrower and the lender. Islamic economists also argue that interest has undesirable behavioral effects on society because it instills selfishness and materialism in human character and converts a person into a personality like 'Shylock', always asking for a pound of flesh of his own fellow, no matter how distressed his friend may be (Kuran (1989)).

While charging interest on consumer loans is considered unfair, demanding it on corporate loans is also not allowed because the return on the amount lent for a project or business is not known ex-ante. Therefore, charging predetermined interest against an uncertain profit is considered as injustice to the borrower. It is thus, emphasized that risk should be borne by the lender as well if (s)he wants to have a share in the profit (Kahf (2007); Maududi (1961)). This rule is generally referred as 'gains should always be linked to the risk' (*al-kharaj-bid-daman*). In Islam money is treated a factor of production similar to entrepreneur, whereas in capitalism it is considered at par with labor and land (Ahmad (2000)). To see the results of interest-based debt financing, assume that an entrepreneur takes a loan of USD100 from a bank for commercial purpose at an annual interest rate of 10 percent. The borrower is contractually bound to repay USD110 after one year. The banks' return is then predetermined and equals USD10 after one year. The return of the entrepreneur, however, is not certain. (S)he can only expect some profit if the net income (before interest payment) exceeds

⁵ Al-Quran verse 279 chapter 2.

⁶ Al-Quran verse 275 chapter 2.

⁷ Al-Quran verse 276 chapter 2.

USD110. However, if the net income (before interest expenses) is less than USD110 (s)he would incur a loss. If we assume that there is 10 percent probability that the net income (before interest expense) of the borrower remains less than USD110, then 10 out of 100 times the business would face financial distress. On the other hand, equity financing firms are immune to the aforesaid financial problem because the banks share the profit and loss of the business and the interest expenses are zero. Interest-based transaction, therefore, places the risk of uncertainty entirely on the borrower and the bank receives a fixed return irrespective of the outcome. This unjust distribution of risk and return is declared as exploitation in *shariah*, and therefore interest charging is not allowed (Maududi (1961)). Some Islamic economists explain advantages of equity financing over interest based debt financing. Zaman and Zaman (2001) argue that in comparison with equity financing, '*probability of bankruptcy and financial distress are increased when debt-based financing is used*'. The authors also mention other advantages of a profit and loss sharing (PLS) financial system, such as financing for superior investment projects, better utilization of information and more opportunities for poor and better income distribution.

Besides banning *riba*, *Quran* also proscribes *maisir* (gambling) and *gharar* (excessive uncertainty in a contract about the rights and responsibilities of the parties involved, the subject matter and the price).⁸ Apart from no indulgence in *haram* (prohibited) industries (such as pork products, alcoholic beverages, pornography etc.), practitioners and supervisors must also follow other principles of Islamic jurisprudence (Solé (2007)), including best market practices.

Importance of financial intermediation itself is not denied by Islamic Economists but due to the involvement of interest, conventional banking is not permissible in Islam. Hence, as an alternative to conventional banking, the idea of Islamic banking was presented during 1940s. Maududi (1903-79) is considered to be the pioneer of presenting the idea of Islamic Economics (Kuran (2004); Visser (2009)). He presented Islamic banking as part of his ideology of Islamic renaissance, i.e., to change the economic and political system according

⁸ The instruments which are rendered void because of *gharar* are forwards, futures, insurance, options, and other derivative securities (El-Gamal (2001)).

to the principles of Islam. Most of the Islamic economists are inspired by his writings on Islamic economics (Kuran (2004)). Sayyid Qutb (1906–66), from Egypt, and Muhammad Baqir al-Sadr (1935–80), from Iraq have also made seminal contributions to Islamic Economics.

Opposite to conventional banking, the *theory* of Islamic banking distributes risks and rewards equally between the borrower and the lender. The current model of Islamic banking envisaged by Uzair (1955) is based on *mudarabah* (silent-partnership), a business technique that was also practiced in the pre-Islamic Arab peninsula and also by the Prophet Muhammad himself during the medieval period (Hassan and Lewis (2007)). *Mudarabah* refers to a contract between two parties for a commercial venture wherein one party (*rabb-ul-maal*), invests capital in the business, and the other party (*mudarib*) exerts skills and efforts in the business. It is the exclusive responsibility of *mudarib* to manage the business without any involvement of the investor. The two parties share the profit according to a pre-agreed ratio. In case of loss, all the financial loss is borne by the investor. The loss of *mudarib* is in terms of sacrifice of the time and effort that he exerts. Uzair (1955) proposes two tiers of *mudarabah* in Islamic Banking, one between depositors and bankers (liability side) and the other between bankers and firms/entrepreneurs (asset side). Siddiqi (1983) and Chapra (1987) also endorse the two tier *mudarabah* model for Islamic banking. Mutual fund banking model presented by Cowen and Kroszner (1990) have similarities with this Islamic banking model.

In practice, IBs follow *mudarabah* model mainly for funding purposes i.e. for the liability side of their balance sheet. On the asset side, IBs employ *murabahah* (sale on credit with declared markup), *ijarah* (leasing) and *ijarah wa iqtina* (hire purchase) which resemble much of the asset-structure of conventional banks. Humoud (1974) presented the idea of these types of products (El-Gamal (2007)). Currently, most of the financing of IBs are comprised of *ijarah* and *murabahah* in Pakistan and throughout the world.

IBs are not charity organizations (Usmani (1998)), but profit maximizing firms that are meant to do banking in compliance with shariah (Imam and Kpodar (2010)). However, some Islamic economists argue that since IBs mobilize transaction accounts from depositors as interest-free loans (*Qard*) that generate revenues (seigniorage), a portion of these deposits

should also be used for interest-free financing directly or through purchasing interest-free government securities to achieve distributive justice (Chapra (1996)).

2.3 History and Evolution of Contemporary Islamic Banking

The first financial institution was established in 1962, called the Pilgrimage Fund (*Tabung Haji*), in Malaysia to accept saving deposits from the persons intending to make the Hajj pilgrimage to Saudi Arabia. These savings were invested according to the basis of PLS principles. The institution observed high growth and became one of the largest banks in Malaysia. Another example is of *Mitgamr* from Egypt which started its operations in 1963, and followed the German model of saving banks'. The bank employed PLS contracts both for deposits and financing. The objective was to provide interest-free financing to the poor people of rural Egypt (Akacem and Lynde (2002)). It was closed by the government in 1968 due to suspicion of religion (Kuran (2004)). Islamic commercial banking, however, started in 1970's with the inception of Dubai Islamic Bank as the first Islamic commercial bank. Later, Kuwait Finance house, *Albaraka* Bank and Faisal Islamic Banks in Egypt and Sudan started their operations. Islamic banking in 1970s was initiated as an outcome of windfall wealth after the significant increase in oil prices in 1973 (El-Gamal (2007)). The establishment of Islamic Development Bank in 1975 was the first official attempt towards Islamic banking on the part of the governments of Muslim countries.

In Pakistan, the need for Islamic banking emerged as a result of constitutional and legal obligations rather than as a financial and economic phenomenon (FSA, SBP 2004). The Objective Resolution passed by the first constituent assembly in 1949 clearly states that no law should be enacted that is contrary to the Islamic principles (Hussain (2004)). However, early efforts for Islamizing the entire banking system were made very late in 1979. The State Bank of Pakistan (SBP), in collaboration with the Government of Pakistan, issued directives for banks to transform the entire conventional banking system into an interest-free system. This process of transformation continued till 1985 when all banking companies were asked to provide finance only under 12 interest-free modes identified by the SBP.⁹ These modes also included buy-back agreement (repo backed by real assets), which refers to purchase of an

⁹ See 'BCD Circular No. 13 dated 30th June 1984' of SBP.

asset by a bank on cash basis from the customer and resale of the same asset to him on credit basis with some mark-up (i.e., purchase price plus some markup). From July 1 1985, banks were stopped to run any interest bearing deposits except foreign currency deposits and loans. However, 'buy-back with mark-up' contracts were declared un-Islamic by the Federal Shariat Court (FSC) in November 1991, because the nature of the contract is a two-in-one contract which is not allowed in Islamic law. On December 23, 1999, the Supreme Court of Pakistan (SCP) upheld the FSC ruling and issued directives that interest based operations would cease to have effect by June 30, 2002 and that the financial system be changed accordingly. As the last date was about to approach, the case was remanded to FSC for reconsideration by the SCP (Lobo and Bonello (2005); Tahir (2007)). In December 2001, on parallel basis, SBP issued detailed criteria for the establishment of IBs in the private sector, following the precedents of Bahrain and Malaysia. Later, a three-pronged strategy for the promotion of Islamic Banking in Pakistan was devised on January 1, 2003, which gave the financial industry three choices. It could establish either full-fledged IBs in the private sector, or Islamic banking subsidiaries, or stand-alone Islamic banking branches of existing commercial banks. This approach was contrary to the initial attempt, where all banks were directed to Islamize their *entire* operations by the central bank within some timeframe. Currently, Islamic banking is working on parallel lines with the conventional banks according to this new strategy. So far, the approach has been successful and Islamic banking at present is flourishing with a fast growth rate, reaching up to 7 percent in commercial banking. Currently, there are 5 exclusive IBs and 12 conventional banks with Islamic branches in Pakistan, with a market share of around 7 percent.

2.4 Regulatory Framework for Islamic Banking in Pakistan

To promote Islamic Banking in Pakistan, the SBP is following a three-pronged strategy as under:

2.4.1 Establishment of a Full-Fledged Islamic bank

The proposed Islamic bank (IB) should be a public limited company, listed on the stock exchange with a minimum of 50% of shares to be offered to the general public. All financial transactions should be in accordance with the injunctions of *shariah*. IBs are required to indicate the modes of finance to be used for raising funds and extending financing. The human resources and expertise should be provided for ensuring compliance of banking

business with *shariah*. Minimum paid up capital of PKR 1000 million is required along with maintaining capital adequacy ratio (CAR) of 8% based on risk weighted assets.¹⁰ At least 15% of the total paid up capital shall be subscribed personally by the sponsor directors. Fit and proper tests are also applied to the directors. Sponsor directors need to keep their shares for a minimum period of 3 years. Thereafter, central bank approval is required to dispose of those shares. The IBs are subject to the banking and other laws, rules and directives issued by the SBP.

2.4.2 Subsidiaries for Islamic Banking by Existing Commercial Banks

In order to promote Islamic banking in Pakistan, new clause was introduced in the Banking Companies Ordinance (BCO) 1962, through an ordinance in November 2002 as follows “*the carrying on of banking business strictly in conformity with the Injunctions of Islam as laid down in the Holy Quran and Sunnah*”. Pursuant to this clause the existing commercial banks are also permitted to open subsidiaries for Islamic Banking operations. The broad criteria for establishing a subsidiary are following: i) the proposed subsidiary should be a public limited company and listed on the stock exchange. A maximum of 49% of shares can be offered to the general public and at least 51% of the total paid up capital shall be subscribed by the parent banking company. The parent banking company is required to keep its shares at least for 3 years and thereafter can dispose of its shares with a prior approval of SBP; ii) The subsidiary then gets a license from SBP to conduct the banking business strictly in accordance with Shariah and would be considered as an Islamic Commercial Bank; iii) The requirements for minimum capital are same as required by Islamic banks. Similarly human resources and expertise are also required by the subsidiaries to conduct the business according to banking laws as well as shariah; iv) Fit and proper tests are also applied to the sponsors and/or directors of the subsidiary.

2.4.3 Stand-Alone Branches for Islamic banking in the Existing Commercial Banks

The bank willing to offer Islamic financial services through Islamic banking branches (IBBs) is required to establish an Islamic banking division in its head office to supervise and

¹⁰ It is pertinent to note that the saving and investment deposits of Islamic banking institutions have equity-like nature as neither the return nor the principle amount of these assets is guaranteed. However, these deposits are not considered as capital of the bank while calculating CAR. Thus, IBIs follow the Basel accords for the capital requirements as conventional banks do.

regulate all matters relating to IBBs as well as to set up an Islamic banking fund (IBF) to finance the operations of these IBBs. The applying bank is also required to, i) submit a proposal about IBBs, including products and services to be offered by the IBBs, namely deposits, financing, investment, etc. ii) put in place the infrastructure and logistic requirements, including manpower and training programs; iii) provide the name, qualification and experience of shariah adviser(s); iv) prepare accounting policies, including mechanisms with respect to PLS with the saving and investment depositors, etc.

The bank is also required to maintain a minimum fund of PKR 50 million or 8% of the risk weighted assets of IBB(s), whichever is higher. The IBF is funded by way of an allocation of funds by the head/country office of the bank. The bank with both conventional and Islamic operations has to ensure that proper systems and controls are put in place in order to confirm separation of Islamic funds from others to protect the interest of depositors. The bank is also required to keep separate books of accounts for Islamic banking operations and ensure maintenance of separate records for all transactions. In order to maintain the minimum requirement with respect to IBB operations, the bank will open a separate current account with the SBP. For the weekly statement of position submitted to the SBP, the bank shall submit separately the position of IBB operations.

2.5 Structure of the Islamic Banks

In contemporary practice, IBs are different from investment companies such as mutual funds in that the latter generate funds from investors through selling stocks. Therefore, shareholders in an investment company are the owners of the company and have rights to a regular flow of information about the performance of the company. In addition, shareholders also exercise their voting rights in proportion to their ownership in the company regarding important policy and decision making. On the other hand, although *mudarabah* account holders (MAHs) share the profit and loss of the IB, they are not treated at par with shareholders of the banks with respect to voting rights and corporate governance (Errico and Farahbaksh (1998)). IBs, in the current structure, also face regulatory problems in European countries, such that these banks have to make changes in their main principles to get access to these markets. For these reasons, some Islamic economists have suggested alternative models of Islamic banking. Archer and Karim (2009) propose a universal banking model instead of commercial banking to make Islamic banking acceptable by western banking

regulations. An important distinction between IBs and ‘universal’ banks is that the latter perform fund management activities through subsidiaries. Alternatively, for IBs, El-Gamal (2007) suggests “a process of mutualization which puts investment account holders on par with shareholders, and affords them the same corporate governance protections, through internal representation on the board of directors and external market discipline”. The model he suggests resembles mutual saving banks.

Currently, IBs depict a unique structure that is different from commercial banks and investment companies (see Table 1). This can be better understood by looking at the sources and uses of their funds.

2.5.1 The Liability Side of Islamic Banks’ Balance Sheet: Sources of Funds

The liability side of an Islamic bank mainly consists of current accounts (transaction deposits), profit and loss sharing saving and investment accounts (PSIA),¹¹ and equity.

Current accounts of IBs are the same as those of conventional banks that can be withdrawn on demand at any time by the deposit holders. These accounts are mainly held for transaction demand for money. IBs raise these deposits on the basis of interest-free debt contract (*Qard*) and invest the amount in short term assets.

The main difference between Islamic and conventional banks on liability side is the unique PSIA. Since IBs cannot mobilize funds on the basis of interest, they primarily use *mudarabah* contract to raise funds in the form of PSIA. On the liability side an IB,

Mudarabah is a contract between *mudarabah* account holders (MAHs)¹² and the IB, in which MAHs act as fund providers (*rab-ul-mal*) and share in the profit or loss of the bank. There is no financial loss to the bank as a *mudarib*. However, if negligence, misconduct, fraud or breach of contract can be proven, IB is responsible for the entire loss (IFSB (2011)). Investment accounts are of two types, unrestricted investment accounts and restricted investment accounts. In former case, a bank has discretion to invest the funds wherever it

¹¹ PSIA generally refer to Profit Sharing Investment Account, which does not include saving accounts. But, since saving accounts are also mobilized on *mudarabah* basis by IBs, we refer PSIA to profit and loss sharing saving and investment. In our view, since the saving deposits are demand deposits they are more sensitive to any change in rate of return, especially when it becomes negative (i.e. loss).

¹² IFSB names it as IAH (investment account holder), but due to change in our definition of PSIA we introduce this terminology.

Table 1. Simplified Version of Balance Sheet of a Hypothetical a Conventional bank and an Islamic bank	
Conventional Bank	
Assets (i) Cash & Balances with other Banks (ii) Investments Government treasury bills Long term government bonds (iii)Advances Interest based loans of short term and long term maturities	Liabilities (i) current accounts (ii) Interest-based deposits a. saving accounts b. time deposits (iv)) Equity
Islamic Bank	
Assets (i) Cash and Balances with other Banks (ii) Investments (<i>Sukuk</i>) (iii) Financing Debt instruments <i>Murabahah</i> (sale of merchandise with markup) <i>Salam</i> (advance payment with deferred delivery) <i>Istisna</i> (Manufacture/purchase order) <i>Qard al-Hasana</i> (interest-free loan) Quasi-debt instruments <i>Ijarah</i> (operating lease) Profit-and-loss-sharing instruments <i>Musharakah</i> (an equity participation contract). <i>Mudarabah</i> (a trustee-type finance contract).	Liabilities (i) <i>Qard</i> (current accounts) (ii) Profit and loss sharing deposits a. Saving Accounts b. Investment accounts (iii) Equity

wants to, whereas in latter case MAHs restrict the bank to invest the amount in some specific project. Generally, IBs create an asset pool financed by PSIA, shareholders' funds and other sources including current accounts. Typically, IBs do not put a firewall between shareholders' equity and unrestricted PSIAs. MAHs, like shareholders, are contractually bound to share profit or loss, subject to the actual outcome of the banking operations in proportion to their investments. Therefore, neither the return nor the principal amount of PSIA is guaranteed.

2.5.1.1 Accounting treatment of PSIAs

There are certain issues regarding the accounting treatment of PSIAs which in turn have implications for the minimum capital requirement calculations. Since PSIAs are not mobilized through a debt contract, the same cannot be treated as a liability of the bank and, hence, MAHs are not considered creditors and first claimants on the banks' assets. To the

contrary, these accounts are not normal equity as capital is invested for a fixed time period and even premature withdrawals may be allowed from these accounts as prescribed in the contract, with or without some penalty subject to the Islamic banks' policies. In this sense, these PSIAs are limited-duration equity investments (Archer, Abdel Karim and Al-Deehani (1998)).¹³ According to the instructions of Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and Islamic Financial Services Board (IFSB), PSIA should not be treated as liabilities of the banks due to their equity-like nature.¹⁴ In practice, however, IBs treat them as a liability of the bank in Pakistan and in other countries such as Iran, Malaysia, Sudan, Turkey, UAE and Yemen, taking into account the economic substance of the transaction rather than the legal form of the *mudarabah* contract (Karim (2001)).

2.5.1.2 Nature of the *Mudarabah* contract in Islamic banking

As mentioned before, in Islamic banking *mudarabah* is a contract between an IB and MAHs.¹⁵ An IB plays the role of *mudarib* (fund manager) whereas MAHs act as investors. *Mudarabah* contract in Islamic banking is not the classical contract discussed by early jurists because the bank, acting as a *mudarib*, is not a physical person but a legal entity/person. Therefore, it is important to determine that in case of a negative return to the *mudarabah business*, who suffers the loss as a *mudarib* in the form of uncompensated efforts. Bank management and board members cannot be considered as *mudarib* as they get fixed compensation for their services. Similarly, shareholders are also not *mudarib* since they, like MAHs, get return on their investments. Conventionally an IB, as a legal entity, is considered *mudarib* which provides the entire services infrastructure, including technology and management (as well as employees). Therefore, an IB is considered to be responsible for bearing the costs incurred in providing these services as a legal entity for its existence. That is, all the cost incurred by the Islamic bank to perform its role as a *mudarib* should not be deducted from the income of the Islamic bank. In this scenario, MAHs (*rab-ul-mal*) share in

¹³ PSIA can be regarded as puttable equity instrument that gives MAHs the right to put it back to the bank. IAS 32 classifies any puttable instrument as a financial instrument. In Pakistan a portion of demand deposits (saving deposits) are also mobilized on *mudarabah* basis, and can be withdrawn at any time.

¹⁴ In Financial Accounting Standard No.6, it is described that '*equity of unrestricted investment account holders shall be presented as an independent category in the statement of financial position of the Islamic bank between liabilities and owners' equity*' as on balance sheet item. Restricted PSIA should be treated as off balance sheet item (AAOIFI 1998).

¹⁵ All discussion here is with respect to liability side of the Islamic bank.

the gross income/revenue (not net profit) of the bank before deducting any administrative costs. Gross income is defined as the income from banking operations. This is why one of the main IB in Pakistan mentions about the investment account that '*Gross income of the deposit pool is shared between the Bank (mudarib) and customers (rab-ul-mal) on the basis of a predetermined profit-sharing ratio announced at the beginning of the month.*'¹⁶ Accounts holders receive their shares in profits on the basis of predetermined weights, announced at the beginning of each month. The Islamic Bank also receives its share proportional to the shareholders' capital into the deposit pool.

2.5.1.3 Agency Problem, Moral Hazard and PSIAs

Due to the typical nature of Islamic banking, it can be exposed to different problems mentioned in financial intermediation literature. Since MAHs are subject to PLS arrangement, like shareholders, they need disclosure of sufficient information about their investments to protect their interests. Conversely, due to the nature of a *mudarabah* contract, MAHs not have any access to that information, which leads to an asymmetric information problem between a principal (MAHs) and an agent (Islamic bank). In addition, MAHs are not informed about the projects their funds will be used in. Likewise, they have no role in the corporate governance of a bank since they do not have any voting rights to elect the board of governors of the Islamic bank. Therefore, to discipline bank management MAHs have to rely only on monitoring of the board on behalf of the shareholders. MAHs can gain some benefit out of monitoring if interests of the shareholders and MAHs coincide. These issues may give rise to complex agency problems (Archer, Abdel Karim and Al-Deehani (1998); El-Gamal (2003)) as well as it may lead to moral hazard on the part of bank management (Khan (1986); Mudawi (1985); Sadr and Iqbal (2001)). Management of an IB may protect its own interest or the interests of its shareholders instead of those of MAHs.

There are, however, two things which may protect MAHs from a moral hazard problem despite asymmetric information and lack of voting rights. The first, and foremost, is that PSIAs have a limited duration. Due to the redeemable nature of PSIAs an IB faces commercial pressure to pay competitive return sufficient to retain the existing funds (AAOIFI (1999a)). MAHs can withdraw funds and invest elsewhere if they feel that the

¹⁶ <http://www.meezanbank.com/pages.aspx?iPageId=260>

return on their investment is lower than the market rate. This pressure of deposit withdrawal may discipline IBs and make them more efficient and prudent. In addition, Al-Deehani, Abdel Karim and Murinde (1999) show that ‘*an increase in investment accounts financing enables the IB to increase both its market value and its shareholders' rates of return at no extra financial risk to the bank*’. Similarly, Archer, Abdel Karim and Al-Deehani (1998) demonstrates that both shareholders and MAHs are subject to the same portfolio investment risk to the extent that the funds of both parties are commingled as done in almost all IBs. As the interests of MAHs and shareholders are aligned agency cost, moral hazard problem and corporate governance issues may be of less concern in IBs.

2.5.2 The Asset Side of The Balance Sheet: Uses of Funds

The approach adopted by IBs on assets is quite different from what they follow on the liability side. They prefer instruments which are less risky and generate fixed streams of income to the Islamic bank on a regular basis. The most popular products are *murabahah* and *ijarah*, followed by *Musharaka-wal-Iqtina*, *Istasna* and *Salam* (see below for details). *Mudarabah* and *musharakah* which are PLS products, are least practiced on the asset side by IBs, although these are considered the most preferred instruments in Islamic banking literature. Below we briefly explain all of these products.

2.5.2.1 Murabahah (Sale with deferred payments)

Literally, Arabic origin of this word is ‘*rubh*’ which means profit. In Islamic banking, *murabahah* refers to a transaction in which a bank buys an asset and sells the same on credit with an agreed markup on its purchase price. The banks declare the original cost and the markup to the customer. Timelines of the transaction are generally as follows.

- (i) A customer makes a promise to purchase a certain asset from the IB.
- (ii) The IB buys that asset from a vendor in anticipation of selling it to the customer.¹⁷
- (iii) The IB sells the asset to the customer on credit basis for a specific time period,¹⁸ with complete disclosure about cost and markup. The IB determines the markup using the

¹⁷ The IB may already acquire the same asset in its warehouse and sell it to the customer, but it is not practiced generally for certain reasons. The IB can also appoint the same customer as its agent to buy the asset from the vender.

¹⁸ The transaction can be on cash basis. However, most of the time it is on credit basis, as the reason for a customer to buy it from bank on cash is that if the asset costs the customer less than the retail market price, which is unlikely to happen.

interbank rate as a benchmark (IBD, SBP (2008)). In Pakistan, Karachi Interbank Offer Rate (KIBOR) is mostly used for asset pricing of IBs.¹⁹

(iv) The customer pays price of the underlying asset in periodic installments after taking possession of the item.

According to the most Islamic economists, *murabahah* arrangement is not akin to charging interest as it is considered a trading activities and not a lending one (Ariff (1988)). According to scholars, the risk which justifies the return on the transaction is that IBs possess the asset and bear all the risk pertaining to that possession (wear, tear and maintenance) between purchase and resale time, which is not present if a transaction is financed through interest based financing (Usmani (1998)). The services rendered by an IB are, therefore, considered different from those of conventional banks that simply lend money to the client for the purchase of an asset (Ariff 1988). However, the time of buying and selling of the asset by the bank may be reduced to a minimum such that the risk to the bank for possessing the asset becomes negligible. Several risk mitigation techniques are also adopted by the bank. Promise to purchase the asset by the customer can also be made binding and legally enforceable. Moreover, security deposit held as collateral (*Hamesh Jadiyah*) may also be required from the customer which can be resourced if the customer does not honor his/her promise. A transaction is usually collateralized with the underlying asset and sometimes a third party guarantee may also be taken (see IFSB 2005).

An IB can also penalize the customer on account of late payment of an installment. However, the condition is that the penalty amount would not be taken to the income statement of the bank because that would be considered as interest. The only use of that amount is that it would be distributed as charity according to Islamic principles. On the other hand, early payments by a customer would not reduce the price of the underlying asset as it is considered as interest as well (similar to increase in price for a delayed payment).

During the different timelines, an IB is exposed to various risks. In timeline (ii) IBs are exposed to market risk which is due to the change in the market price of an underlying item if the bank holds equipment of sale in its warehouses (if prices go down). They are also

¹⁹ Though interest rate is prohibited, according to scholars, interbank market rate can be used to determine the markup on *murabahah* sale (Usmani (1998)).

exposed to counter party risk which arises due to breaking the unilateral promise of the customer. After (iv) IBs face credit risk because of the default by a customer on bank's receivables.

2.5.2.2 *Ijarah and Ijarah Muntahia Bittamleek (IMB)*

Ijarah is akin to operating lease in conventional banking and finance. It refers to the sale of usufruct of an asset. In IMB, the bank promises in a separate statement to transfer the ownership of the leased asset to the customer at the end of the lease period as a sale or as a gift. The transaction works along the following timeline:

(i) The customer (lessee) selects an asset (automobile, building, aircraft etc.) and requests the IB for lease. The IB (lessor) buys that asset and transfers the right to use (usufruct) the asset to the customer according to a lease contract. The customer uses that asset during the lease and pays installments. The IB recovers the cost of the asset as well as earns a markup from the installments paid by the lessee.

(ii) In IMB, the customer has a call option to acquire ownership of the asset (e.g. paying the residual price) or banks give it as gift to the customer.

The bank remains the legal owner of the asset during lease period and '*all liabilities and risks pertaining to the leased asset are to be borne by the IIFS [IBs] including obligations to restore any impairment and damage to the leased asset arising from wear and tear and natural causes which are not due to the lessee's misconduct or negligence*' (IFSB 2005). Most of the risks and risk mitigation techniques are similar to those in *murabahah*.

2.5.2.3 *Musharakah and diminishing musharakah*

The word *musharakah* is originated from *sharikah*, which means partnership. *Musharakah* refers to a partnership between IB and a customer in a commercial venture, where both parties invest capital in a business in various proportions. Profit of the venture is divided according to a pre-agreed ratio, while loss is distributed among parties in proportion to their investment. Return on investment, for both the parties, depends upon the actual performance of the enterprise and is, therefore, not fixed.

In *diminishing musharakah*, one partner, typically the IB sells its shares in business or asset to the customer over time and decreases its stake in the enterprise/asset. The customer also provides an undertaking to purchase the shares of IBs in the underlying asset.

Both types of instruments can be used to invest in real estate or moveable assets. IBs typically prefer diminishing *musharakah* with the following mechanism.

(i) An IB buys an asset, normally a house, jointly with its customer, in various proportions of capital.

(ii) In a separate agreement, they make a lease agreement of that asset which produces rental income for the IB according to its share.

(iii) Along with lease clauses, the customer also buys the bank's shares in the house on monthly basis, and the rent for the house is adjusted accordingly.

(iv) Risks and rewards of the underlying asset are distributed according to the ownership of the partners.

(v) The contract ends up with complete transfer of ownership to the customer.

IB is mainly exposed to the same risks which exist in *ijarah*. These risks are mitigated through collateralization of the underlying asset.

2.5.2.4 *Mudarabah Financing*

On the asset side of IBs, *mudarabah* is a joint venture between IB as a capital provider and customer as manager/entrepreneur who uses his skills and efforts. The role of the IB is changed from *mudarib* to investor on the asset side of the bank. Financing is usually provided to some skilled worker who wants to start his/her enterprise. Profit made by the enterprise is distributed between customer and the bank on pre-agreed ratio. On the other hand, all the financial loss has to be borne by the bank exclusively if the loss is not due to the negligence or misconduct or any violation of the contract. The bank is exposed to 'capital impairment risk' which is the risk of losing the capital upon failure of the venture.

Contrary to the liabilities side, this product is practiced least by the IBs as they consider it riskier than other modes because of asymmetric information, agency cost and moral hazard problems related to this contract, discussed earlier. The stance of IBs seems reasonable in developing countries as principal-agent problems are substantial in the unregulated small and medium enterprises in comparison to banking sector which is regulated by the central banks.

2.5.2.5 *Salam (advance payment with deferred delivery) and Istisna (order to manufacture)*

For any Islamic transaction to be valid, the commodity being sold should exist at the time of sale, be in the ownership and physical or constructive possession of the seller. There are

only two exceptions to these conditions namely, *Salam* and *Istisna*. *Salam* is a specific transaction allowed in Islamic law initially to provide liquidity to poor farmers who require financing between harvesting and cultivating seasons (Usmani (1998)). The sale products include agriculture products and minerals (IFSB 2005). In *salam* contract, the sale item is not present at the time of transaction. However, quantity, quality and delivery date is fixed at the time of transaction.²⁰ Advance payment is made in full by the IB at the time (or within three working days) of the transaction. Thus, *salam* is a sale contract at an agreed price with immediate payment for a certain sale object, to be delivered in the future on a predetermined date (Nawawi (1999)). IBs buy the product in anticipation to sell it in future to get profit due to the positive spread between future price and spot price. They also hedge their long position in commodity through creating a short position in the same commodity with a parallel *salam* in which banks sell the same commodity in forward to another client. But, the parallel *salam* should not be conditional to the first one, that is, if original *salam* is not fulfilled due to inability of the borrower to deliver the product, the parallel *salam* has to be honored by the IB. So, in the original *salam* the IB is exposed to a credit risk followed by a market risk if there are worse movements in the price of the underlying commodity. Third party guarantees can also be acquired by the bank to ensure the delivery and mitigate the risks of default by the vender.

Istisna literally means ‘put an order for manufacturing a particular commodity’. In Islamic banking it refers to a financial product whereby the client requests a bank to manufacture some product (building, furniture etc.) for the client through a purchase order. Generally, the timeline of transaction is the following. The customer approaches an IB and asks the bank, for example, to construct a house on his/her land with certain specifications and at an agreed upon price. The bank then make an agreement with some construction company for the construction of the house. There is flexibility in paying the price of the house in the process of manufacturing which varies from full advance payment to full payment at the time of delivery of the house on both sides. Conventionally, the payments are made in installments first from the bank to the constructor and then from the customer to the bank. However, both

²⁰ Narrated Ibn 'Abbas: The Prophet came to Medina and the people used to pay in advance the price of dates to be delivered within two or three years. He said (to them), ‘whoever pays in advance the price of a thing to be delivered later should pay it for a specified measure at specified weight for a specified period.’ (Bukhari, Sahih, Book #35, Hadith #443).

transactions are independent of each other like in parallel *salam*. This instrument of financing is very useful in manufacturing sector.

2.5.2.6 *Investments in Sukuk*

Islamic banks also hold *sukuk* (Islamic bonds) on the asset side of their balance sheet. *Sukuk*, a plural term, literally means certificates or legal instruments. In Islamic finance, *sukuk* refers to interest-free securities backed by real assets. *Sukuk* are designed in accordance with Islamic law. These securities are issued using various modes of financing described earlier, namely *murabahah*, *ijarah*, *istisna* and *musharakah* or *mudarabah*. *Sukuk* issuance based on these modes, shows proportionate ownership of the *sukuk* holders in debt, underlying asset, project and business respectively. Since sale of the debt is not allowed (except at par) in Islam *murabahah sukuk* cannot be traded in secondary markets. Therefore, the most popular *sukuk* among investors is *ijarah sukuk* which pays rentals stream over the *sukuk* maturity period and can be traded in the secondary market. There are few requisites stipulated in Islamic finance for a security to be eligible for *sukuk*. These conditions, according to Usmani (2007), are that:

1. *Sukuk* must show ownership in assets or commercial or industrial ventures that generate profits or revenues;
2. Returns to *Sukuk*-holders should be the share of profits (or costs) of the enterprise or return on the underlying assets in shape of rentals, for instance;
3. Existing market price of the assets or price of shares of enterprise should be paid to the *sukuk* holders at maturity, instead of the principal amount invested in the beginning by the *sukuk*-holders.

Sukuk are generally listed on stock exchanges, for instance London Stock exchange. The return paid on *sukuk* is benchmarked against interbank market rate e.g. LIBOR.

2.5.3 *Profit calculation of an Islamic bank*

Most of the IBs comingle their current accounts, PSIAs and equity of shareholders in a pool of funds. An IB is initially entitled to a profit from this pool in proportion to the amount of current accounts plus shareholders equity. Moreover, the IB also takes its share, generally fifty percent, as *mudarib* (fund manager) out of the return on PSIAs. IBs are *not* required to give any return to current account holders. Profit distribution methodology can be understood through a simple hypothetical example. Suppose that an IB invests USD100 in an asset using

USD15 shareholders' equity, USD35 current accounts and USD50 PSIA's. Further assume that the asset gives payoff equal to USD30. Assuming that pre-agreed ratio in *mudarabah* contract is 50:50; return on the PSIA's would be USD7.5 ($=0.5*0.5*30$). Total return of the IB would be USD22.5 that is USD7.5 from IB's role as *mudarib*, USD10.5 from return to current accounts investments and USD4.5 as return proportion to equity.

IBs follow various practices to secure MAHs not only from losses and but also from lower returns than contemporary market average rate. Firstly, an IB sets aside part of profits attributable to MAHs, as an investment risk reserve (IRR) and uses it to cover the losses attributable to MAHs. In our example, IRR would be funded out of USD7.5. Secondly, some amount is reserved as profit equalization reserve (PER), to smooth the profit payouts in all time periods and to match it with market rate of return, from *mudarabah* profit attributable to both MAHs and IB as *mudarib* (USD15 in aforesaid example). Finally, IB donates unilaterally (known as *hibah*) part or the entire of its share as *mudarib* (USD7.5) to MAH to enhance the profit on PSIA's. Case three is similar to treating PSIA's as a conventional time deposit, case one is treating PSIA as pure investment and case two is in-between case of both. In a situation where PSIA's are considered as substitute for conventional deposits (case three), there will be some risk that is basically supposed to be borne by the MAHs, but is transferred to shareholders because the IB needs to forgo some part of its share as *mudarib* (USD7.5). This risk of transferring IB's share in profit to MAH is called *displaced commercial risk* (IFSB 2011).

2.6 Central Banking and Monetary Policy in an Islamic Financial System

The importance of the central banking and monetary policy can hardly be overlooked in any financial system. Relatively little, however, has been written about the role of central banks in an Islamic financial system (Khan (1982); Siddiqi (1982)). Generally, more emphasis has been given on Islamic commercial banking and product development for this sector. But Islamic financial system, in absence of interest-free central banking, is inconsistent with *shariah* due to the strong relationship between central and commercial banking.

Monetary policy refers to '*the actions undertaken by a central bank to influence the availability and cost of money and credit to help promote national economic goals*' (Federal

Reserve Board).²¹ In IBF context these goals are arguably described by the Islamic economists as preservation of the value of money through ensuring price stability, economic well-being with full employment and optimum rate of economic growth, and promotion of distributive justice (Ahmad (2000); Ahmed, Iqbal and Khan (1983); Al-Jarhi (1983)). Al-Jarhi (1983) emphasizes on saving the value of money and proposes expansion of money supply only if it contributes to real growth. Chapra (1996) also points out that stability in the value of currency should be maintained to avoid the harmful effects of inflation. Ariff (1982) comments that the number of objectives should be equal to the number of policy tools available (Meade-Tinbergen principle), and distributive justice should be addressed through fiscal policy.

Most of Islamic economists agree that central banks in an Islamic framework need to perform all the functions which are carried out in the conventional system (Ahmad (2000); Ariff (1982)). In this regard, the role of the central bank related to regulation and supervision of financial sector in an Islamic financial system is performed mostly in the same way as it is done in conventional banking (Khan and Mirakhor (1989)). Central banks use various monetary policy tools to achieve its goals. Direct tools include credit ceiling and moral suasion, whereas indirect instrument consists of reserve requirement, open market operations and discount rate policy. These tools are essential for the transmission of monetary impulses. It is, therefore, important to have alternative tools in an interest-free system. Direct tools of monetary policy can also be used effectively in an Islamic financial system in the manner that it is done in the conventional system (Ahmad (2000); Ahmed, Iqbal and Khan (1983)). Some modifications, however, are needed in the contemporary system of open market operations and discount rate policy as these are incompatible with *shariah* due to the involvement of interest.

Next, we discuss three main monetary policy tools.

2.6.1 Statutory Reserve Requirement

Commercial banks are required to hold a certain fraction of their deposit as reserves at the central bank. Through this tool, a central bank ensures that banks have adequate liquidity to meet short term obligations. Supply of money can be affected through changing these reserve

²¹ <http://www.federalreserve.gov/monetarypolicy/fomc.htm>

requirements. There is a difference of opinion among Islamic economists regarding types of deposits that should be subject to the reserve requirement, and fraction of deposits that should be held as reserves. Siddiqi (1983) requires some fraction of both demand deposits and investment deposit to be kept as cash. This ratio can then be used by the central bank as a monetary policy tool. Chapra (1983) suggests that only demand deposits should be made subject to reserve requirement and investment deposits should be exempted from this requirement due the equity nature of these deposits. He suggests that higher capital requirement, liquidity ratios and other prudential regulations can be employed to ensure the liquidity soundness of IBs. Chapra (1983) also proposes controlling money through high powered money only. Ariff (1983) dissents with the argument because high powered money (M0) constitutes only a small proportion of total money and thus may be ineffective. Some Islamic economists, like the Chicago school of thought, also argue for a 100 percent reserve requirement on all types of deposits of the commercial bank because this creates stability in the economy and in the value of money due to the money multiplier effect (Al-Jarhi (1983)). Al-Jarhi (1983) opines that creation of additional money is only the prerogative of the central bank (being the representative of the public) and not of commercial banks through distributing credit. This stance is not appreciated by the majority because in such a case commercial banking is reduced to safe keeping (Uzair (1982)) which cripples the entire system (Ariff (1982)). Chapra (1983) proposes that a certain proportion (25 percent) of commercial bank demand deposits should be given to the government free of cost to be used in socially beneficial projects as it would benefit the whole society. Ariff (1983) also supports the idea as it would shift the benefits of public money to the public in a broader perspective. There are some reservations about this idea as the government may misuse these funds and may not be able to even return it (Yalcintas (1983)).

2.6.2 Open Market Operations

In interest based banking, open market operations by a central bank refers to the buying and selling of interest bearing government securities to affect the money supply. In case the market is liquid, a central bank sells the securities to absorb liquidity and in the event of a liquidity crunch it buys back the securities from the market to inject liquidity. In an interest-free framework, a central bank cannot use the option of open market operations as done in conventional central banking since the institution of interest is banned in IBF (Al-Jarhi

(1983); Chapra (1983)). Uzair (1982), therefore, proposes that this monetary policy tool needs to be transformed to be eligible for use in an interest-free central banking. He suggests that '*the central bank may resort to trading in the shares of public limited companies, state-owned enterprises or government-sponsored corporations.*' The idea is criticized on the account that this action would cause instability in the prices of the shares of relevant companies. Zangeneh and Salam (1993) present a similar idea with some modifications i.e., the central bank may use a 'composite stock' which represents its ownership in public enterprises and shares in public banks instead of trading in shares of individual companies. Trading in composite stock, in their view, does not affect the prices of individual enterprises or banks. However, the volume of these stocks may not be sufficient to meet the demand in open market operations. According to Uzair (1978) treasury bills may be continued only if 'normal service charges' or 'administrative costs' might be applied out of three components of interest, namely basic rate of interest, risk premium and administrative expenses. But it may be difficult to decompose the three elements and may render a time inconsistency problem as the central bank can manipulate the said composition of interest to have some discretion. The author also suggests weighted average of profitability of government enterprises for the rate of return on public debt (government bonds/Treasury bills). Siddiqi (1967) proposes the idea of issuing commercial shares (of public enterprises) by the government, which can be used in OMO. The holder of the stocks can either share profit/loss of the public enterprises or can sell the shares in secondary market. Chapra (1996) criticized this idea because of the limited depth of the commercial shares and significant movements in the prices of the commercial shares due to which holders of the shares may be affected. Haq and Mirakhor (1998) presents the idea of issuing National Participation Paper (NPP) by the government which can be used to finance government operations and to conduct open market operations. The rate of return on NPP is the approximated payoff on underlying assets of the government. Among others, it is also suggested to construct an index of return on NPP according to past growth of GDP and its components.

The main problem with respect to funding instruments for general government expenditure is the determination of an appropriate rate of return on securities. Some proposals are made in this regards i.e. to use shadow pricing and social rates of return (Choudry and Mirakhor (1997)). Al-Jarhi (1983) proposes issuance of central deposit

certificates by the central bank to attract savings from the public on a PLS basis. A central bank then invests these proceeds by opening deposit on a PLS basis in all commercial banks. Profits realized on these deposit would be shared with the holders of the certificates. Money supply can be controlled through variations in these PLS accounts of the central bank in commercial banks.

Sundararajan and Errico (2002) note that use of market based methods in primary issuance, existence of liquid markets, efficient discounting, repos, active secondary market, broad based distribution and redemption of securities at market prices could make Islamic securities more successful.

2.6.3 Discount Rate Policy

The discount rate is an important indicator of monetary stance of the central bank. Through the discount rate policy the central bank of a country performs its role as a lender of last resort. At this rate commercial banks get collateralized borrowing from the central bank on a relatively higher rate than the market. Developing an alternative to discount rate is a challenging task in Islamic financial system as it cannot use the discount rate for the aforesaid two objectives. Some alternatives are proposed by Islamic economists. Uzair (1982) suggests that a central bank may regulate profit sharing ratios to affect money supply, both between the IBs and the depositors (depositors' share ratio) and between IBs and the clients (investors' share ratio). He elaborates that changes in the depositors' share ratio would affect the supply of money and adjustments in investors' share ratio would affect economic activity. Credit can be reduced by decreasing the share in profit accruing to the businessmen and eased by increasing the share. Also, these ratios may differ across various sectors according to social preferences. Siddiqi (1982) and Khan (1982) also support this idea. In the current practice of Islamic banking, however, this suggestion is not practical as the share of *mudarabah* (profit/loss sharing instrument) financing is very little in the overall financing of Islamic banks. Chapra (1996) does not agree with the proposal as profit sharing ratios should be set by the bank and business enterprises bilaterally according to market conditions. Ariff (1983) favors the idea of employing profit sharing ratios if these are applied to only new deposits that are opened after the policy announcement. Zangeneh and Salam (1993) suggest charging a weighted average rate of return of various sectors of the economy with some discretionary premium to discourage borrowing from the central bank if the economy is

facing inflation. In case of easy monetary policy, they suggest, the central bank could provide a subsidy (discretionary discount) to the banks to boost the economy in a recession. They defend their argument for fixed policy rate as, '*even though the central bank and the borrowing commercial bank know exactly what the policy premium or discount is, since the profit rate of the economy is not known at the time, the overall rate is uncertain, therefore shari'ah is not violated.*' However, charging a fixed premium above the GDP growth may not be accepted by Islamic economists due to its similarity to interest rates. Also, since the frequency of calculating the rate of return in different sectors is longer (quarterly) than the period of borrowing, there must be some adjustments in the accounting treatments after every quarter. On the other hand, Ahmad (2000) suggests that loans may be provided to commercial banks to face a liquidity crises on *Qard-e-Hasana* (interest-free loans) basis with or without a service charge.

Uzair (1982) also proposes that the central bank may hold some equity share (25 percent) in commercial banks contrary to the Fed where '*the entire capital of Federal Reserves of Banks is subscribed to and owned by the commercial banks*'. He mentions three advantages of this proposal for a central bank, (i) it will have a permanent source of income to play its role as lender of last resort effectively, (ii) it will have its representation on the board of the commercial bank which increases their compliance to the regulations of a central bank, and (iii) it will have a stake in the development of commercial banks. Although he does not explain the link between this provision and central bank's role as lender of last resort, he might have a view that a central bank can provide interest-free loans with some service charges or increase equity stake in the banks if they need liquidity. Zangeneh and Salam (1993) criticize this idea because of the potential conflict of interest between a central banks role as a regulator and as an owner of commercial banks. Moreover, they argue that it may not be in the interest of the market economy as a central bank may exploit power of creating reserve money and the ownership of larger share of the economy. However, in Muslim countries, the problem of monetary expansion is more related to government budget deficit rather than to central bank (Wilson (1997)). Siddiqi (1982) proposes that the central bank may refinance some ratio of the interest-free loans given by the IBs. This ratio, called refinance ratio, can be used to affect the volume of short term loans. In case of expansionary monetary policy, the refinance ratio may be increased and the opposite may be done in case

of tight monetary policy. He further suggests that banks should be obliged to lend some ratio, called a lending ratio, of their demand deposits as interest-free loans. This ratio can be manipulated by the central bank to affect the credit supply in various circumstances. Similar ideas are presented by Ariff (1982) and Khan (1982). Chapra (1996) recommends mobilizing government deposits in banks to or from the banks to influence money supply and he quoted the example of Saudi Arabia. Moreover, he also proposes to make a 'common pool' for the commercial banks at the central bank level and using the same to meet the liquidity requirement of the banks on 'cooperative arrangements'. Net use of this facility by any bank over a given period is zero.

2.7 Practice with Regard to Interest-Free Central Banking

Like Islamic commercial banking, central banking practice is also different from what is suggested by Islamic economists.

Several changes are needed in the legal framework of a country to introduce IBF in their financial system. Practically, various *shariah*-compliant monetary policy instruments need to be developed by the central banks. IFSB (2012) and IIFM (2009) highlight that changes to structure monetary policy according to *shariah* are not yet well-developed. In fact, central banks could succeed only partially to modify their open market operations to account for IBF, since only insufficient volume of the products congruent with *shariah* is available. This may limit the monetary policy operations for the Islamic banking segment of the economies offering IBF. Also, in many of these countries there is no clear mechanism for interest-free standing credit facilities from the central bank. This situation creates difficulties regarding the liquidity management for Islamic banks. Consequently, Islamic banks have to keep excess reserves. Islamic banks in emerging economies, like their conventional counterparts, are required to maintain non-remunerative minimum reserves at the central bank.²²

To solve liquidity management issue one popular method that is employed by Islamic banks is commodity *murabahah* with *tawarruq* (monetization) in interbank transactions. This mechanism can be understood through a simple hypothetical example. Bank A needs, say, USD100 million and approaches bank B which has ample liquidity. Bank B buys a

²² In the past, Pakistan gave relaxations to Islamic banks in minimum liquidity requirements keeping in view the difficulties these banks face in liquidity management. But once there are ample government sukuk available of Islamic banks, there relaxation was removed.

commodity, platinum for instance, of USD100 million from the broker and sells it to Bank A with some profit (mark-up), at USD110 million on credit. The amount is generally paid by Bank A to Bank B in periodic installments. To liquefy the commodity, Bank A sells it to the broker at USD100. The net result is the creation of debt obligation of Bank A in favor of Bank B. However, the complex structure of the transaction makes it more costly than simple interest based lending in conventional banks. The practice has been condemned by various scholars who believe that commodity *murabahah* is a mere circumvention of *shariah* and that only the cash flows among the parties without any actual transfer of ownership of the commodities.

IBs also use interbank placement of funds on *mudarabah* basis to meet liquidity requirements. In this method, the liquidity abundant IB places its funds with the illiquid IB on the basis of a *mudarabah* contract. The latter acts as a manager (*mudarib*) of the funds of the investor (*rab-ul-mal*). Both the banks share in profit of the business of the latter bank depending upon the ratios of the profit that are set ex-ante. The loss is borne by the investors. The investing bank may ask for higher ratio in profit depending upon the credit rating of the illiquid bank and interbank liquidity situation.²³

In this respect, the emergence of *sukuk* in money markets has been an important innovation. Fixed return instruments like *ijarah*, *murabahah*, and *salam sukuk* are mainly issued by central banks and governments. In *ijarah sukuk*, government sells an identified asset to financial institutions and in another agreement takes the same asset back on lease. Rentals are paid to the *sukuk* holders periodically. On maturity of the *sukuk*, investors receive the amount equal to the face value of the *sukuk*.²⁴ In *salam* the central bank buys some commodity in forward (through advance payment and deferred delivery) and then sells the same commodity in forward to the IBs. As the maturity date approaches, the central bank

²³ However, there are practical difficulties to calculate overnight profit rates of the Islamic bank. since profits are generally not known when a short-term debt is repaid, some proxies for current returns would have to be found or the lenders could be compensated retroactively (Karsten (1982)).

²⁴ In principle, investors should get the market price of *sukuk* in accordance with the market price of the underlying *sukuk* assets. However, there is no pricing mechanism for the underlying assets. In fact, no market exists for the *sukuk* assets in which these assets are bought and sold. However, the value of the underlying assets can be determined only through valuation by a third party, which is not practiced for sovereign *sukuk* in which the underlying assets are public.

sells the same commodity on behalf of the banks with a promise to pay higher price than purchase price, which is an obligation on part of the central bank/ government.

Similarly, *murabahah sukuk* are also issued by few central banks. The mechanism is the same as described before for interbank transactions. As the sale of debt is prohibited in *shariah murabahah* and *salam sukuk* are not eligible for the secondary market as these *sukuk* represent debt. *Ijarah sukuk*, therefore, are gaining popularity. Since interbank borrowing and lending generally depends on collaterals, inadequate supply of *shariah* compliant products limit the efficient liquidity management by Islamic banks. This scenario also limits the transmission mechanism of monetary policy as Islamic banks keep excess reserves to avoid liquidity shortage in contractionary phase of monetary policy.

A distinction can be made among various countries on the base of approach they follow to adopt IBF in their financial systems. Sudan and Iran are the two countries which transformed their entire financial system according to Islamic principles, whereas South-East Asian and GCC states facilitated IBF to co-exist with the conventional system. The countries mentioned later opted a market based approach regarding IBF, i.e., they let the market forces to play a role in determining the future prospects of IBF through demonstration of their preferences.

Central Bank of Sudan (CBOS), introduced interest-free overdraft facility for banks in liquidity problems for 10 days, but after that period CBOS would share in the profit of the banks. In November 1997, the first Islamic security was approved in Sudan called Central Bank Musharakah Certificate (CMC) which is an equity instrument that is issued against central bank ownership in 9 commercial banks and public sector enterprises (Elhiraika 2004). Holders of the CMC share the profit of the central bank derived from its operations like clearance fees, foreign exchange operations, dividend income from its share in commercial banks, profits from credit to banks and public (Sundararajan and Marston (1998)). For its monetary operations CBOS currently uses Central Bank *Ijarah* Certificates (*Shihab*), Government *Musharaka* Certificates (*Shahama*) and Government Investment Sukuk (GIS) based on *ijarah*, *musharakah*, and *mudarabah* respectively. *Shahama sukuk* are based on *musharakah* contract, issued to investors against a financial pool that consists of government ownership in certain companies. These *sukuk* are also traded in Khartoum Stock Exchange. The CBOS also provides financial support to IBs facing temporary liquidity difficulties through purchasing of financial papers (*sukuk*). The holders of *shahama* are entitled to the

share in profit of the underlying corporations. Suggestions were also made to raise funds for the government through issuing *sukuk* that promise a return to the investor which is associated with the (tax) revenue of the government against providing public goods such as security, foreign relations, legal, and arbitration. (Sundararajan and Marston (1998)). It can also be stated that government securities in the conventional financial system also show claims to the future revenues of the government. However, the key difference lies in how claims are defined in the relevant documents of the instrument. GMC is currently not practiced in Sudan.

Central Bank of Iran (CBI) developed *Mudarabah* Participation Papers to finance the state expenditure to be used in open market operations (Sundararajan and Marston (1998)). Also, CBI controls the volume of money by issuing National Participation Paper (El-Gamal (2001)) backed by state funded projects. These papers are based on *musharakah* and their return is tied to the performance of a composite of stock market securities. Moreover, CBI is allowed to intervene in determining the profit rates of banks for investment projects or partnerships. The provisional profit rate of CBI's participation papers would be determined up to 2 percentage points higher than the provisional profit rate of other deposits. Regarding discount rate policy, banks are allowed to open a special deposit account (ODA) with the CBI, in which they deposit their excess liquidity for a specific profit determined by CBI.

In late 1983, Bank Negara Malaysia (BNM), Malaysia's central bank, took the initiative and issued the first *sukuk* called Government Investment Certificates (GIC). Holders of GIC give interest-free benevolent loan (*Qard-e-Hasana*) to the government. However, the government would give some return to them unilaterally as a gift or as an act of benevolence. In 2001 GII was issued on the basis of a sell and buy back technique (Siddiqi (2006)). According to this contract, Malaysian government sells its specific asset as pre-agreed cash price to the financial institutions and then buys back the same assets from them at a higher price to be paid in future. The purchase price is securitized in the form of GII issued to financial institutions. At maturity government pays the purchase price to GII holders in exchange for securities.²⁵ Further, to address the demand for Islamic instruments, BNM issued first asset-backed *ijarah sukuk* in February 2006 using a securitization type structure

²⁵ The scholars from GCC region consider buy-back contract prohibited in Islam as it is two contracts in one contract.

for the amount of about USD110 million (BNM 2006) . Moreover, to meet the liquidity requirements of IBs an Islamic Interbank Money Market (IIMM) was introduced in 1994. Deficit banks can get funds from surplus banks on the basis of *mudarabah*. The Bahrain Monetary Authority (BMA) is empowered to issue securities on behalf of the government through a special law called CBB Law 2006. Mainly two types of *sukuk* are issued, *salam sukuk* and *ijarah sukuk*. The former are issued on a monthly basis for a three month maturity period, whereas the latter are issued for maturity of 6 months or longer on a fixed return basis. In *salam* structure, the government of Bahrain, being a seller of the underlying commodity (aluminum), undertakes to deliver the commodity to the investors at the maturity of the *sukuk* period (three months). Since *sukuk* are issued on the basis of *salam* (advance payment) contract, the investors pay the *sukuk* amount in advance. As the maturity date arrives the government, being an agent of investors, sells the same commodity on behalf of the banks to some brokers in the market. As an agent, the government guarantees a purchase price plus some markup that is initially disclosed to the investors (Hassan and Lewis (2007)).

State Bank of Pakistan held first auction of long awaited government *ijarah sukuk* in 2008 to cater the demand for liquidity instrument by the Islamic banking sector. *Sukuk* was sold through an auction to the primary dealers of SBP. To date, *ijarah sukuk* has been proven a successful alternative to interest based government securities. During the first phase of Islamic banking in 1980, SBP was allowed to buy and sell Partnership Term Certificates (PTA) issued by Investment Corporation of Pakistan, a public enterprise, and Banker's equity limited. References are also made that a loan was provided to commercial banks facing liquidity shortage at the rate of return that IBs pay to their investment account holders. Although there is some *sukuk* issuance from private sector in Saudi Arabia and UAE, we could not find any instance where central banks issue a *sukuk* for monetary management. Alternative to discount rate policy has yet to be developed for Islamic banking.

The use of *sukuk* has its own limitations regarding liquidity and monetary management and efficient interbank operations. *Murabahah* and *salam sukuk* are not eligible to be traded in the secondary markets as the sale of debt is prohibited in *shariah*. Moreover, in case of *mudarabah* and *musharakah sukuk* the moral hazard problem is high because of difficulties in determination and verification of the actual rate of return of the underlying businesses.

Therefore, the most common *sukuk* which pays fixed return and is also tradable in the secondary market is *ijarah sukuk*. In this case too, the main problem is insufficient issuance of the *ijarah sukuk* relative to the market appetite. It is, therefore, suggested to increase the volume and frequency of issuance of *ijarah sukuk*. Interbank money markets would also become efficient as the *ijarah sukuk* can also be used as reliable collateral. For this, the main task is to identify certain assets by individual states which can be used for a leasing purpose. Since every *ijarah sukuk* should be backed by specific underlying asset, there is a maximum limit to the assets to be used for *sukuk* issuance.

In an IMF study on 'Islam and financial intermediation', Karsten (1982) proposed GDP-indexed rate of return on government securities. The rate paid on government securities is equal to the growth rate of nominal GDP. Thus, these securities would in fact be GDP-linked *mudarabah sukuk* in which the government acts as a *mudarib*(manager) and investors are *rab-ul-mal* (investor). The rate of return depends upon the performance of the overall economy and thus is not fixed. The return on these bonds, which is a cost of financing for the government, increases in the expansionary phase of the business cycle and decreases in recession. GDP-indexed debt thus have a counter-cyclical impact through funding counter-cyclical fiscal policy and automatic stabilizers such as unemployment benefit which increase in the recession period (Hatchondo and Martinez (2012)). Therefore, the probability of financial distress in *mudarabah sukuk* is less than in that of conventional bond. The idea is that the government has to pay less in case the economy performs poorly and debt as a percentage of GDP remains in affordable limits. However, as is the case of *mudarabah* financing, *mudarabah sukuk* may create a moral hazard problem on the part of the government. The government may not be willing to give higher returns and thus, may under report GDP growth. Therefore, a requisite for these *sukuk* is high level of accuracy and transparency in determination of the GDP growth rate. Since *mudarabah sukuk* have equity-like features the same can be traded in the secondary market and can be used for open market operations and collateral purpose.

2.8 Conclusion

Despite rapid growth of Islamic banking and finance, the emerging industry faces several challenges which are hampering its future prospects. These problems are related to liquidity management, monetary policy instruments, standardization of financial products, supervisory

and regulatory framework, cost efficiencies, *shariah*-compliance and development of interbank and money markets.

The most important job to be done is the issuance of suitable interest-free government securities (*sukuk*) in which IBs can invest their excess liquidity. Secondly, there is demand for developing a mechanism for standing credit facilities by the central bank which can be drawn upon in a distress situation. Absence of these facilities along with inefficient Islamic interbank and money markets creates liquidity management problems for Islamic banks. Thus, to meet any unforeseen liquidity shock these banks hold costly excess reserves increasing their inefficiencies. IBs, in turn, include these costs while pricing their financing products. Therefore, a higher markup rate on Islamic financing may render IBs less competitive than other market players.

Standardization of products, differences in accounting treatment of various products, issues in minimum capital requirement, difference in *shariah* ruling in various regions and regulatory issues must be resolved for the future expansion of the Islamic banking.

Some countries like Malaysia and Bahrain have addressed the issue of liquidity management of the bank by developing an Islamic interbank money market. However, their main instruments are not accepted in other regions from the *shariah* viewpoint. Establishments of Account and Auditing Organization for Islamic Financial Institutions (AAOIFI), Islamic Financial Services Board (IFSB), and International Islamic Financial Market (IIFM) are significant developments to address the issues about standardization of accounting practices, issuance of prudential regulations and development of Islamic financial markets.

The problems related to liquidity management and monetary instruments can be resolved by issuance of *ijarah sukuk* in sufficient volume to match the demand for these instruments. Since these *sukuk* are also eligible for trading in the secondary market, these would help in the development of efficient interbank market and open market operation mechanism. We suggest that GDP-linked *mudarabah sukuk* should also be used by the central bank to resolve the liquidity and monetary management problems in IBF. To develop an alternative to discount rate policy needs thorough deliberations of *shariah* scholars and economists alike.

Appendix 1. Salient Features, issues and implications in Islamic Banking and Monetary Policy.

Features	Challenges and Implications
Prohibition of interest charging, resale of debt contracts, gambling and excessive speculation in all operations of the bank;	Interest based transactions, bonds, discount sale of debt instrument in secondary markets, and other derivative securities are banned;
Introduction of profit and loss sharing accounts;	Need for standardized accounting treatment of quasi equity nature of profit and loss investment PSIA's;
	Implications for minimum capital requirements ;
	Asymmetric information, agency and moral hazard problems;
	Lack of proper disclosures of information to <i>mudarabah</i> account holders (MAHs);
Interest based government securities are not allowed in primary and secondary markets;	Absence of corporate governance structure and monitoring rights for MAHs;
	Inefficient liquidity management; high excess reserves costs to Islamic banks; high loan pricing;
Leasing and trade related modes of financing;	Disintermediation due to inefficient liquidity management;
Profit and loss share financing;	Complex product structure; increased number of contracts, additional risks;
Monetary Policy under Interest-Free Financial System	Asymmetric information, agency problems and moral hazard problems, lack of monitoring structure;
Challenges to monetary policy operations	
Dominance of direct instruments of monetary policy;	Disintermediation and inflationary pressures due to applying direct instruments of monetary policy;
Lack of Islamic money market instrument like government treasury bills;	Problems in monetary management; issues in conducting open market operations due to limited availability of Islamic instruments, collateralized lending becomes limited;
	Issues in developing market oriented interest-free instruments for monetary management and government deficit financing;
	Challenges in setting appropriate rate of return for general purpose profit and loss securities;
	Weak monetary control due to limited liquidity absorption choices;
Insufficient and underdeveloped Islamic money markets;	Slow monetary transmission mechanism through Islamic banks due to high liquidity in these banks;
	Liquidity management problems for the Islamic banks;
Inefficient central bank lending facilities;	Limited scope for efficient mechanism for monetary policy;
Equity-based securities;	Liquidity management problems for the Islamic banks; Weak monetary policy signals;
Fixed return <i>ijarah</i> securities;	Difficulties in setting appropriate rate of return;
	Transparent pricing mechanism, Limited volume and depth for transmission of monetary policy indications;

Appendix 2

Prohibition of *Riba* in Quran

The prohibition of interest is found in four different revelations of the Qur'an. (30:39, 4:160-161, 3:130-131, 2:275, 278-280) revealed below in chronological order of revelation

First: Verse 39, Surah 30

And [remember:] whatever you may give out in usury so that it might increase through [other] people's possessions will bring [you] no increase in the sight of God – whereas all that you give out in charity, seeking God's countenance, [will be blessed by Him:] for it is they, they [who thus seek His countenance] that shall have their recompense multiplied.'

Second: Verses 160-161, Surah 4

O you who have attained to faith! Do not gorge yourself on usury, doubling and re-doubling it – but remain conscious of God, so that you might attain to a happy state; and beware of the fire which awaits those who deny the truth!'

Third: Verses 130-131, Surah 3

'So, then, for the wickedness committed by those who followed the Jewish faith did We deny unto them certain of the good things of life which [aforetime] had been allowed to them; and [We did this] for their having so often turned away from the path of God, and [for] their taking usury although it had been forbidden to them, and their wrongful devouring of other people's possessions.'

Fourth: Verses 275, 278-280, Surah 2

Those who gorge themselves on usury behave but as he might behave whom Satan has confounded with this touch; for they say, "Buying and selling is but a kind of usury" – the while God has made buying and selling lawful and usury unlawful. Hence, whoever becomes aware of his Sustainer's admonition, and thereupon desists [from usury], may keep his past gains, and it will be for God to judge him; but as for those who return to it – they are destined for the fire, therein to abide! O you who have attained to faith! Remain conscious of God, and give up all outstanding gains from usury, if you are [truly] believers; for if you do it not, then know that you are at war with God and his Apostle. But if you repent, then you shall be entitled to [the return of] your principal: you will do no wrong, and neither will you be wronged. If, however, [the debtor] is in straitened circumstances [grant him] a delay until a time of ease; and it should be of your own good – if you but knew it – to remit [the debt entirely] by way of charity.'