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Economic and Social Commission for Western Asia (ESCWA)

Methodological Study on Economic Statistics: Islamic Finance in the National Accounts

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Executive summary

Islamic finance does not operate in the same way as conventional finance, as it follows sharia law, principles and rules. Sharia law does not permit the receipt and payment of *riba* (interest), *gharar* (excessive uncertainty), *maysir* (gambling), and short sales or financing activities that it considers harmful to society. Instead, parties must share the risks and rewards of a business transaction, which should have a real economic purpose without undue speculation and not involve exploitation of either party.

A detailed description of how Islamic financial institutions operate under Islamic principles and how the instruments they use differ from conventional financial instruments is set out in Annex 4.3 of the Monetary and Financial Statistics Manual and Compilation Guide,[1] which describes the principal characteristics of financial assets and liabilities and their classification by type of financial instrument within the framework of monetary and financial statistics, in line with the 2008 System of National Accounts (SNA). However, issues regarding the implementation of the 2008 SNA recommendations for Islamic finance were raised at several meetings in the Arab region, organized by the United Nations Economic and Social Commission for Western Asia (ESCWA). The following two positions emerged:

- Position 1: Islamic banks produce financial intermediation services that should be indirectly measured, and should provide deposits and loans similar to conventional banks in line with the Monetary and Financial Statistics Manual and Compilation Guide. As such, research is needed on how to measure the input cost of trade arrangements in the case of markup (*murabahah*), and on how to interpret the management fees paid by depositors (investors) to the bank;
- Position 2: Islamic banks should not be seen as conventional banks, but rather as managers of mutual funds or non-money market funds. This would imply a different classification and recording of the financial instruments of Islamic banking.

Methodological work has been undertaken by the United Nations Statistics Division (UNSD) and ESCWA on implementing 2008 SNA. Recommendations on Islamic finance were raised at several meetings in the Arab region organized by ESCWA, which presented a paper to the Advisory Expert Group on National Accounts at its tenth meeting held in Paris from 13 to 15 April 2016.[2] The Advisory Expert Group agreed that further research on the statistical implications of Islamic finance for national accounts was required, and that practical guidance on the treatment of Islamic finance transactions needed to be developed. To this end, a task force on Islamic finance was established by UNSD and ESCWA to address the statistical treatment of Islamic finance in national accounts. A WebEx meeting of key stakeholders was held in June

2017 to identify principal areas of work. An Islamic finance website has been set up to consolidate relevant material and provide updates.[3]

A workshop on Islamic finance in national accounts was held in Beirut from 24 to 26 October 2017.[4] Experts and representatives from different regions presented several papers, which are available on the meeting website.

The present report contains the main papers presented at the workshop. The workshop's findings were presented at the 11th meeting of the Advisory Expert Group on National Accounts held in New York in December 2017.[5]

Contents

List of abbreviations

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ATM	automated teller machine
CPC	Central Product Classification
ESCWA	Economic and Social Commission for Western Asia
FISIM	financial intermediation services indirectly measured
FSI	Financial Soundness Indicator
GCC	Gulf Cooperation Council
GDP	gross domestic product
IAH	investment account holder
IAS	International Accounting Standard
IFE	Islamic finance entity
IFI	Islamic financial institution
IFP	Islamic financial product
IFRS	International Financial Reporting Standards
IFSB	Islamic Financial Services Board
IFSI	Islamic Financial Services Industry
IMF	International Monetary Fund
IRR	investment return reserve
ISIC	International Standard Industrial Classification of All Economic Activities
MENA	Middle East and North Africa

MMMF	money market mutual fund
NPL	non-performing loan
ODC	other depository corporation
OFI	other financial intermediary
PER	profit equalization reserve
PIFI	Prudential Islamic Financial Indicator
PLS	profit and loss sharing
PSIA	profit-sharing investment account (participation account)
PSIFI	Prudential and Structural Islamic Financial Indicator
SDMX	Statistical Data and Metadata eXchange
SDU	savings deficit unit
SIFI	Structural Islamic Financial Indicator
SNA	System of National Accounts
SPV	special purpose vehicle
SSU	savings surplus unit
TBP	traditional bank product
UNSD	United Nations Statistics Division

Paper One
Islamic Finance in National Accounts
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Abstract

The 2008 System of National Accounts (SNA) does not provide guidance on methods to compile national account statistics for Islamic banking and finance. The present paper explores how Islamic finance should be handled in the 2008 SNA and monetary statistics. Important differences exist between conventional and Islamic finance, which must follow certain sharia legal standards. Topics discussed include the differing structure of conventional and Islamic bank accounts, financial intermediation services indirectly measured (FISIM) for Islamic banks, profit distributions by Islamic banks, the classification of Islamic finance institutional units, and structural indicators of Islamic banking.

Introduction: Islamic finance

Islamic banking and other forms of Islamic finance have developed rapidly over the past 50 years. Today, Islamic banking is found mainly in the Middle East, Asia and Africa, where it provides banking services mostly to Muslims and to several governments and central banks in countries where Islamic finance has official or semi-official status. Several international and regional organizations have recently become increasingly supportive of Islamic finance, reflected in steps such as bolstering supervisory oversight, building legal and market infrastructure, and issuing Islamic financial instruments to create more liquid markets and tap additional sources of capital.

Islamic finance in some countries is large enough to affect the quality of their national accounts, monetary and financial statistics, and indicators of the structure and soundness of national financial systems. The 2008 SNA does not provide guidance to national compilers on methods to compile national account statistics for Islamic banking and finance. The present paper explores how Islamic finance should be handled in the 2008 SNA.

Important differences exist between conventional and Islamic finance. Islamic finance is intended to serve as an ethical framework for economic and social justice that must follow certain sharia legal standards; hence it is often called “sharia-compliant”. There are several schools of Islamic finance, but general principles include the following:

- Payment of interest or other fixed returns on investments is prohibited, which can also be interpreted as prohibition on financial techniques based on “time value of money”;

- Investment in real economic activities or trading in goods and services for profit is encouraged;
- Profiting from trading in financial assets or "using money to make money" should be avoided;
- Islamic banks have some types of deposit accounts, but they also are heavily funded by accounts in which returns or losses are shared between the bank and the depositor/investor that are called profit-sharing investment accounts (PSIAs) or "participation accounts". Those funding these accounts are described as investment account holders (IAHs);
- Excessive risk taking is discouraged, which is often interpreted as prohibiting many types of financial derivatives;
- Lending for certain activities, such as those involving alcohol or drugs, is prohibited;
- Sharing profits for charitable purposes (*zakat*) is a religious duty;
- Several methods exist to smooth returns to IAH that do not have equivalents in conventional banking;
- Sharia-compliant activities should be segregated from non-compliant activities and funds;
- Some Islamic financial instruments have names and financial flows that do not readily fit the standard SNA financial instrument classification.

Owing to those practices, the financial accounts of Islamic banks (income statements and balance sheets) differ significantly from those of conventional banks. Separate sets of standards have been developed for Islamic finance, including accounting standards promulgated by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) in Bahrain and bank supervisory standards by the Islamic Financial Services Board (IFSB) in Malaysia.

Significant questions arise on how to translate data for Islamic banks into national accounts and monetary statistics.[6] The present paper seeks to translate several key elements of Islamic banking into SNA accounts for use in national accounts, monetary statistics and balance of payments, among others. Moreover, certain macroprudential issues are compared between Islamic finance and conventional finance, as promulgated by the Basel Committee on Banking Supervision and by the International Monetary Fund (IMF) and other key international institutions in their Financial Soundness Indicators (FSIs).

1. Structure of conventional and Islamic bank accounts

This section compares the income statements and balance sheets of conventional and Islamic banks. There are important differences that affect the estimation of production of Islamic banks and FISIM, as will be discussed later.

A. Income statements

1. Conventional banks

The income statements of conventional banks (table 1) differ from those of non-financial corporations by highlighting banks' traditional core function as deposit-taking financial intermediaries – in particular, income accounts are headlined by net interest income (interest receipts less interest payments). That is, the bank receives interest on its funds lent and pays interest on funds received from depositors. By lending funds, the bank acquires a claim (asset) on the borrower for repayment of the amount lent plus interest. By receiving funds from the depositor, the bank incurs an obligation (liability) to repay the deposited funds plus interest.

The income statement of a conventional bank typically shows net interest as a separate line item at the top of the accounts. That is, the top lines separately list interest receipts, interest payments, and net interest receipts less payments (which is core information for FISIM accounts).[7] Other revenue for banks (typically called non-interest income) is shown below the net interest line. The sum of net interest and non-interest income is the gross income of the bank.

Other expenses are subtracted from gross income to derive income before income taxes, which can also be thought of as net operating income. Expenses consist of non-interest expenses (salaries, office expenses, utilities, and others) and provisions for loan losses. Taxes on income are subtracted from net operating income to derive net income.

Dividends are paid from net income, leaving retained earnings which are then carried over to the balance sheet as part of equity.

Table 1. Representative income statement of a conventional bank

Revenue
Total revenues
Net interest income
Interest income
Interest expenses
Non-interest income
Expense
Total expense
Non-interest expense
Provisions for loan loss
Income
Income before income tax (operating income)
Income tax
Net income
Dividends
Retained earnings

2. Islamic bank

The income accounts of Islamic banks (table 2)[8] differ in the following ways from those of conventional banks:

- Islamic banks raise funds through deposits and through funding from depositors/investors (IAHs).[9] Islamic banks have quasi-equity obligations to IAHs in contrast to the liability of conventional banks to repay depositors;[10]
- Islamic banks manage funds received to produce returns through investments or financing of transactions for customers:
    - o "Unrestricted" funds received by Islamic banks from IAHs are commingled with other bank funds in the same way as deposits in conventional banks;
    - o "Restricted" funds are managed separately by the bank and segregated from funds received from other IAHs. They have some characteristics of asset management accounts that, due to recent changes in accounting standards, might or might not be treated off balance sheet;
- The returns to Islamic banks on their financing and investment are not guaranteed, but depend on the success or failure of their ventures. Returns (and sometimes losses) are divided between the bank and IAHs based on the specific types of Islamic financial instruments used;
- Diverse financial instruments are used that earn revenues in different ways, such as financing of sales, leasing, fees, equity participation, or investment. Some instruments do not have conventional bank equivalents. Unlike conventional banking, there is no common interest rate (nor interest rate ladder) applicable to deposits that determines depositors' returns;
- Since Islamic banks do not receive or pay interest, the net interest section in the accounts of conventional banks is replaced by "revenue from jointly funded assets",[11] which is a rather complex calculation of net revenues (revenues less associated costs)[12] earned on funds managed by the bank (which can be commingled with the bank's own funds), and the distribution of the net revenues between the bank and IAH.
  In essence, it is a self-contained income statement covering the funds and returns of the bank vis-à-vis IAH.

Funding accounts can be unrestricted or restricted. Unrestricted funds are commingled with funds of other investors and the bank in much the same way as conventional banks commingle depositors' funds with their own. Restricted funds are managed separately based on agreements between the investor and the bank. The working assumption is that the assets are managed off balance sheet[13] and only the bank's net income is reported in the income statement as "bank share in restricted investment income". A profit equalization reserve (PER) can be used to smooth returns paid to IAHs. PER is treated as income of IAHs, but held back by the bank to make future payments to IAHs.

In table 2, "other revenues" covers items such as fees, commissions, revenues for services provided, currency trading and holding gains/losses, among others. Total gross income is the sum of revenue on jointly funded assets and other revenues. Expenses are subtracted from gross income to calculate net income before taxes and *zakat*. Net income after taxes and *zakat* are calculated and divided between dividends to owners of the bank and retained earnings. At its discretion, an Islamic bank may create an investment return reserve (IRR) that sets aside some of the owners' profits to cover possible losses experienced by IAHs.

Table 2. Representative income statement of an Islamic bank

1	**Revenue from jointly funded assets (net financing and investment income)**
2	**Income**
2i	Income from financing
	less financing costs
2ii	Income from investments
	less investment costs
2iii	less provisions for accrued income on non-performing assets
3	Other costs
	of which: transfer to profit equalization reserve (PER)
4=2-3	Income available to unrestricted depositors/investors and bank
	less income distributed to unrestricted depositors/investors
	Bank share in restricted investment income
	Other income
	Fee-based income
	Other income
	Total gross income
	Expenses
	Salaries and other operating expenses
	Depreciation and other provisions
	Net income before taxes and *zakat*
	Taxes
	Zakat
	Net income after taxes and *zakat*
	Dividends
	Retained earnings

B. Balance sheets

The balance sheet of an Islamic bank closely parallels conventional balance sheets, but with the following three notable changes.

Non-financial assets

Without a concept of interest earnings, Islamic financial instruments often generate income through sale or lease of underlying goods or services. The Islamic bank must have legal ownership of the underlying assets even if for only an instant, during which period the bank incurs all the risks and rewards of holding the asset.

Those assets are reflected on the balance sheet as "non-financial assets related to sales, lease and equity financing". These assets are directly linked to financial contracts with customers and thus could be volatile and different in behaviour from other non-financial assets, which should be shown separately on the balance sheet as "other non-financial assets". Those two items sum to "non-financial assets" as reported in the SNA framework, but it is recommended that an "of which" line be added for "non-financial assets related to sales, lease and equity financing".

The treatment of non-financial assets under contract has potential implications for SNA flow accounts, which are as follows:

(a) Holding gains and losses: While under possession by the bank, the assets could experience holding gains or losses that should be recorded in the SNA revaluation account;

(b) Regular income on the contract: A contract might specify the price for an underlying good creating a net profit for the bank. Under the IFRS 15 regulating revenue from contracts with customers, the gain or loss on non-financial assets would be recorded as income using a five-step model as the conditions of the contract are met. Unfortunately, as a practical matter, it could be difficult to disentangle types of flows (trading gains, fees and holding gains) for SNA purposes;

(c) AAOIFI recently launched a project to re-examine whether financial contracts with customers involving delivery of goods should go through an IFRS 15 review before being treated as a financial instrument – there is no current information on which way the decision might go and the implications for the bank income statement and balance sheet. The present paper does not propose a solution for this situation until after this review is completed and more experience is gained.

C. Profit equalization reserve allocated to shareholders

Under a profit-sharing model, an Islamic bank can withhold part of the net profits of IAHs as part of a PER, which will be shown in equity as "PER allocated to shareholders". Under SNA accrual rules, the net profits for IAHs (including the component transferred in PER) should be treated as distributed. The PER component is subsequently treated as a separate transaction to reinvest funds into the reserve. IAHs have equity ownership in the PER held by the bank, to be treated in SNA as a component of the bank's equity.

Quasi-equity

As per AAOIFI, returns to IAHs can be presented in a separate quasi-equity section shown below bank liabilities, but before equity. In contrast, IFRS treats such positions as "puttable financial instruments" that must be classified based on their substance either as a liability or as equity, which is the recommended treatment for SNA. Whenever a country allocates quasi-equity for statistical purposes as either a liability or as equity, it should be clearly noted in metadata along with the rationale used for the allocation. This is informative for users of the statistics, and will also affect prudential ratios such as the degree of leverage.

2. Financial intermediation services indirectly measured for Islamic banks

The concept of FISIM for Islamic banks parallels that of conventional banks. FISIM is a component of the national account measure of the production of banks. Banks are viewed as intervening between parties with surplus funds and those needing funding. In a perfect market, with an economy-wide prevailing rate of return, those with surplus funds could deal directly with borrowers. Surplus units would be able to invest funds at the economy's prevailing rate of return for investments; conversely, those needing funds could borrow funds at the same rate.

However, banks can offer services to both sides that they cannot do themselves. The services are the production of the banking sector. Both surplus units and borrowing units pay for the services provided by banks in various ways. Some services are purchased directly through fees or sales of services, but total production includes payments for services provided that they are embedded in interest rates and thus are not in the form of fees.

FISIM focuses on the implicit non-fee payments for bank services. For conventional banks, these payments are viewed as embodied in interest flows. However, FISIM as a measure of production is not limited to interest, thus services provided by conventional or Islamic banks that are not explicitly charged also are included.

In a conventional bank, the borrower pays an interest rate greater than the prevailing market rate of return, with the difference representing the borrower's implicit payment for services provided by the bank. For depositors, receipts of interest less than the prevailing market rate of return (foregone interest) are implicit payments for services provided by the bank. For an Islamic bank, the rationale is fully equivalent, but returns on jointly-funded assets take the place of interest receipts and distributions of profits to depositor/investors take the place of payments of interest to depositors. Unlike conventional banks, the receipts and payments are not guaranteed, but depend on the results of the various ventures and investments made by the bank.

Consequently, the FISIM core concept as expressed in the 2008 SNA applies to both conventional and Islamic banks.

In 2008 SNA, FISIM is calculated only on loan and deposit-like instruments handled by banks and similar financial institutions. For Islamic banks, the equivalent terms are financing and funding. It cannot be assumed that the amount of financing offered directly corresponds to an equivalent amount of funding; therefore, the FISIM formula is applied independently to each side of the ledger then summed to obtain the total production of the banks.

A. Conventional banks

Production on the lending side is measured as interest receipts in excess of the market rate of return, which is referred to as the "reference rate" in SNA.

Implicit services to borrowers = (rL – rr) × Loans
rL = interest rate charged on loans
rr = reference rate

Similarly, on the deposit side, production is measured as interest foregone; that is, interest paid less than the reference rate.

Implicit services to depositors = (rr – rD) × Deposits
rr = reference rate
rD = interest rate paid on deposits

FISIM = Implicit services to borrowers + Implicit services to depositors
= (rL – rr) × Loans + (rr – rD) × Deposits

B. Islamic banks

A parallel formula can be constructed for Islamic banks. "Returns on financing" substitutes for interest rate charged on loans, and "distribution of profits to depositor/investors" substitutes for interest paid to depositors. The market rate of return, rr, is the same.[14]

Implicit services embedded in financings = (rFin – rr) × Financing

Implicit services to IAH = (rr – rFund) × Funding
rr = reference rate
rFin = return on financings
rFund = profit distributions on fundings

Once total FISIM is estimated, purchases of the services by each sector must be calculated based on the amount of loans and deposits by each sector.[15] The distribution can change gross domestic product (GDP) and intermediate costs of each sector. For example, an interest payment by a corporation to a bank is an intermediate cost to the corporation, but a payment for implicit services by a non-resident is a final purchase that directly increases GDP.

The application of the formula to Islamic banks is more complex than for conventional banks because of the diversity of instruments used. However, this might be mitigated because in Islamic banking the bank and the unit providing funds typically co-invest in the profit making venture, and thus must document the profits earned and the distributions paid.

Two strategies can be employed, namely, a broad approach that parallels the calculations for conventional banks, and an instrument-by-instrument approach.

1. Broad approach

A broad approach recognizes that for many Islamic bank customers, the bank serves as a straightforward depository institution in which funds of many customers are placed in a common deposit account and may or may not pay returns depending on the type of account chosen (namely, return generating, or non-return generating current accounts or for safekeeping). The Beirut workshop revealed that something similar to the broad approach is used in most participating countries.

Under the broad approach, total FISIM equals the difference between revenue on jointly-funded assets and payments to IAHs (sum of funds transferred to PER and distributions available to IAHs from jointly funded accounts). In table 3, FISIM equals line 1 less the sum of lines 7 and 9.

Table 3. Islamic bank income distributable to IAH

1	**Revenue from jointly funded assets**
2	By type of income
3	*less* provisions for accrued income on non-performing assets
4	Financing and non-financing costs
5	Provisions for substandard or bad financing
6	Other costs
7	Transfer to PER
8	Income available to unrestricted IAHs and bank
9	Income distributable to IAHs

Line 1 represents the income received on financing, broadly equivalent to interest earnings of conventional banks. Lines 2 through 6 represent costs to banks to administer the financing operations, but do not include an equivalent for interest expenses.

Income payable to depositors/IAHs (equivalent to interest expense of conventional banks) equals the sum of lines 7 (transfer to PER) and 9 (income distributable to IAHs). Line 7 represents current earnings of IAHs withheld from immediate payment by placing them in a reserve used to smooth future payments to IAHs if future revenues fall. On the SNA accrual basis, the current transfers of earnings into PER are treated as an income payment followed by reinvestment into PER, creating an IAH financial claim on the bank.[16] Line 9 represents the actual payments to IAHs.

The distribution of FISIM by economic sector is based on the sectoral distribution of financing provided by the bank and funding of the bank, parallel to the calculation for conventional banks. There is no direct information from this calculation about the reference rate (rr) to be used in the calculation, and thus an economy-wide rate would need to be applied. Absent any more specific information, the midpoint between the average rate of return on financings and average rate of payments on funding might be used, which was found to be a common practice in countries attending the Beirut workshop.[17]

2. Instrument-by-instrument approach

This approach recognizes that there is no simple interest-rate-type calculation to estimate income earned by a bank's customers – the type of returns paid to bank customers and the distribution of returns between the bank and customers can vary greatly depending on the type of Islamic financial instrument used. In lieu of interest, Islamic financial instruments earn returns based on various investment strategies, namely, financing of sales, leases, fees, equities or investment. Moreover, the distribution of returns between a bank and its customers varies by instrument and the negotiated distribution of shares between a bank and its customers.

This approach can be more precise in identifying service-like payments on Islamic financial instruments versus returns-on-investment vehicles for which a bank takes a management fee. It also allows construction of more accurate rate-of-return information.

Islamic banks must track the returns for depositors and investors by instrument to remunerate their funders.[18] How much of this detail is available to supervisors or statisticians is unknown and could vary greatly by country – it might not be a feasible approach in some countries. This approach will become more feasible as standardization of instruments and terminology increases across countries – something that is beginning to be seriously addressed, and which is likely to be included among the recommendations from the Beirut workshop.

3. Profit distribution to investment account holders

This section discusses the financial instruments used by Islamic banks to make payments to IAHs. Information on types of Islamic financial instruments is provided as guidance on how they might be used in the instrument-by-instrument approach described above. The remuneration situation is complex and statistical calculations of rates of payment can be challenging, but is has been concluded that remuneration on some instruments (especially instruments based on financing of sales) has parallels to interest payments by conventional banks that allows estimation of rate-of-return type calculations suitable for FISIM calculations, but some instruments offer investment-like returns or generate explicit fee returns for banks that should be excluded from FISIM calculations.

This section concludes that a nuanced treatment is possible, in which some types of Islamic bank payments to IAHs could have parallel treatment to interest flows, but a broader concept than interest is tentatively needed called "interest and similar investment returns". The term "interest and similar investment returns" is intended to be a distinctly broader concept than "interest", which is an unsatisfactory description of the returns to Islamic financial instruments.

A. Background

The rationale to exclude payments by Islamic banks as interest stems from a religious prohibition of interest, based on a dictum that money is only a means of exchange that does not have value except when used productively in investment. Money should not be hoarded nor used to gain more money. In contrast, productive use of money benefits investors and society as a whole. Thus, the use of money in a loan or deposit to earn more money with the passage of time is prohibited. By extension, any fixed obligatory payment of income on a deposit or loan is forbidden. Moreover, if only productive investments are permitted, returns on investments take the form of profits rather than interest. For such reasons, it can be argued that payments for investment account-like deposits at Islamic banks do not constitute interest.

In contrast, it is argued that by applying economic definitions, there are conditions in which payments by Islamic banks on some funding accounts have parallel treatment to interest within an expanded concept of returns on deposits. Moreover, the specific characteristics of certain Islamic financial instruments result in payments flows very similar to interest payments on deposits – for analytical and statistical purposes it is useful to treat these flows as similar to interest paid by conventional banks.

B. Bank funding instruments

Since Islamic banks are prohibited from accepting interest-paying deposits, they raise funds through a variety of methods. Depositors/funders of Islamic banks participate in specific Islamic financial instruments that generate income in diverse ways – the remuneration paid to funders is affected by the interplay between the type of funding account chosen and the specific financing instruments used by the bank.

Funders have the following choices: use pure deposit accounts that are not permitted to pay any return; use PSIAs that share income and losses between depositors and the bank; participate in various sales-based or lease-based financing instruments that can provide fixed repayment flows in the future; or participate in equity ventures. Some Islamic financial instruments have payment flows and characteristics similar to deposits and interest payments in conventional banks.

1. True deposits

Amanah deposits (*Wadiah* in Malaysia) are safe-keeping or current-account deposits that may not remunerate the depositor. They are based on the principle of safekeeping in trust. The bank is obligated to repay the deposit and cannot promise to pay any profit return.[19] The bank treats the deposit as an obligation and thus has an unambiguous liability for statistical purposes.

Since repayment is guaranteed, *amanah* deposits are often used for savings, operating accounts and current accounts. They are therefore similar to non-compensated demand deposits placed at banks for safekeeping and for other banking services, such as checking and accounting. Without question, they constitute FISIM-type services provided by the bank.

2. Profit-sharing investment accounts

PSIAs commingle funds of investors/depositors (IAHs) with the Islamic bank's own funds to earn income by making productive investments.[20] The income is shared between IAHs and IFIs as agreed when the investment is made. IAH investments are not guaranteed and losses can result. The two most commonly used instruments for PSIAs are *mudarabah* and *musharakah*.

Restricted PSIAs segregate accounts of individual IAHs. An IFI provides asset management investment services, might co-invest as an independent partner, and receives fee income in exchange for its services and expertise. The investor in the restricted PSIAs receives returns based on the type of financial instrument used.

Unrestricted PSIAs commingle IAH funds with each other and with IFI funds, in the same way as conventional banks handle deposits. Returns paid to IAHs come from the general earnings of the bank (shareholders' equity).

Islamic banks, like any financial institution, must offer competitive returns to attract funds. This applies both to the initial offer of a return to attract new funds, but also to actual payments experience over time that can provide confidence to future investors that the bank can produce adequate returns. It is generally held that Islamic banks must offer at least the general market deposit interest rate plus a small premium because of the risk of loss with PSIA.

The initial offer rate for an unrestricted PSIA must meet multiple conditions: a competitive rate, inability to make promises of specific returns, and legal/ethical requirements to not misrepresent likely returns. This is done by citing an “indicative rate” that describes a rate that might be achieved but cannot be promised.[21]

The income generated and eligible for distribution to depositors is more complex. In a conventional bank, the overall rate of return of the enterprise can be calculated, with interest paid on deposits treated as an expense. In an Islamic bank, the returns to IAHs and the bank are a form of profits.

- The share earned by depositors needs to be calculated. A variety of financial instruments with different returns, obligations, and fees can be involved, each of which can affect the division of returns between IAH and IFI. In cases where funds are effectively fully commingled, a rate of profit might be attributed each month to all IAHs outstanding;
- The distribution of income can be affected by several alternative methods to smooth the flow of payments back to depositors, as follows:
    - For competitive reasons, IFI owners can forgo part of their own share of profits to smooth returns to IAHs. This is called “displaced commercial risk”. This can be done directly out of profits (which has been found to be a common form of smoothing) or might be mitigated by drawing funds from special types of reserves created for smoothing purposes;
    - The PER sets aside profits for distribution to IAHs to smooth the returns paid. Funds are set aside from investment profits prior to calculating a bank’s share of profits and the distribution between IAHs and shareholders (IFSB, 2010).[22] Because PER is allocated before deducting the IFI share, it in effect has a superior status;
    - The IRR is set up from the net income of IAHs to avoid investment losses to IAHs. Funding for IRR is calculated after deducting IFI profit share, and thus it is solely owned by IAHs. It is typically used to cover losses to IAH capital and not to smooth profits.

Sundararajan (2006) found that the degree of profit sharing is actually quite limited – that is, returns to depositors are quite stable, as if they emulated payments of interest. His evidence supporting this view included: lack of correlation between returns paid to IAHs and overall IFI profits; and a significant positive correlation between returns to IAHs and the general market rate of return on deposits.

Islamic banks therefore appear to extensively use the smoothing techniques available to even out payments to IAHs. Effectively, this results, in most cases, in a pattern of profit payments back to IAHs similar to payments of interest on deposits by conventional banks.[23] It should be possible to empirically test how closely profit payments to IAHs correlate with interest payments on conventional deposits.

3. Other types of deposits

(a) Wakalah

In *wakalah*, a bank acts as an agent for investment of depositors’ funds in exchange for a fee, usually in the 1.5 to 2 per cent range. Potential depositors are offered an indicative return, but if the actual return is lower, the depositor receives only the actual return. Conversely, if the actual return is higher, the bank pays only the indicative return and keeps any excess as an "incentive fee". Given the possibility of the bank earning this incentive, it will often not charge a fee.

For potential depositors, there is a prospect of receiving an advertised return without paying fees because the bank presumably has incentives to earn more than the advertised return. There is also the possibility that depositors might receive returns less than advertised, but in this case the bank can voluntarily choose to make up the difference out of its own profits.

In this case of *wakalah*, the returns actually paid to depositors have the essential characteristics parallel to interest paid by conventional banks. The returns should be based on the actual payments, including contributions from PER and IRR, among others.

(b) Murabahah

Murabahah is a sales contract in which an underlying commodity or service is sold against instalment payments on a "cost-plus" basis that includes the cost of the underlying item plus a pre-agreed profit. *Murabahah* was originally designed as a trade instrument, but has been adapted to substitute a bank for the trading partner selling the underlying goods. *Murabahah* is the most common financing instrument, but is also used on the funding side. Instalment payments include an "embedded profit" considered as a payment for services, such as certifying, holding, transporting or delivering the underlying item; the embedded profit is not considered as a form of interest payment as a return for the monetary value of the underlying item. However, for statistical purposes, the embedded profit has an implicit rate of return that can be treated similar to interest in conventional banks and is suitable for FISIM estimates.

(c) Commodity murabahah

Commodity *murabahah* is a variation of the basic *murabahah* instrument in which IAHs deposit funds at a bank for purchase and resale of commodities,[24] but with cash flows that fund the bank, with funds to be repaid to IAHs in instalments with an additional embedded profit for IAHs. In particular, the purchase and resale of a commodity is included in the transaction, but this is handled instantaneously which allows IAH funds to be retained by the bank and used for its own purposes. That funding will be repaid to IAHs in instalments that include embedded profit payments.

The deferred payment of profit has an implicit rate of return similar to interest in conventional banks. A bank has use of the funds during the life of the contract, thus funding the bank. Since it is a sale-based transaction, the deposit and the return can be promised up-front and guaranteed – that is, they constitute bank liabilities.

Commodity *murabahat* are linked to an underlying commodity transaction, which precludes its use for current accounts, operating accounts or savings accounts.[25] Therefore, they are not suitable for small deposits and withdrawals, or for partial withdrawals through ATMs or web-based transactions.

It is possible to convert the payment flows into a fixed rate equivalent. For example, if cash of $5,000 placed at the bank is repaid to depositors after one year for $5,200, the profit of $200 is equivalent to a 4 per cent return. Since the deposit amount and profit are effectively guaranteed, it has the same liability-based payment flows as interest-paying deposits at conventional banks.

C. Treatment in the System of National Accounts and monetary statistics

1. Restricted profit-sharing investment accounts

Restricted PSIAs appear to be primarily investment vehicles, with returns linked to specific investment agreements between IAHs and Islamic banks. Restricted accounts are often used by sophisticated investors (such as Islamic insurance companies or mutual funds) that understand and accept the inherent investment-type risks.

Until the recent past, according to AAOIFI accounting standards, assets within restricted PSIAs were treated as off-balance sheet, and only the net bank share of the returns on the investment was reported on the bank income statement.[26] It is recommended that returns to restricted PSIAs that are not consolidated into a bank's financial accounts should be treated as investment profits, and not parallel to interest.[27]

However, in 2015, the AAOIFI *Financial Accounting Statement 27 – Investment Accounts* ruled that *mudarabah* accounts in restricted PSIAs can be consolidated into a bank's financial accounts based on the bank's effective control of the accounts.[28] The profit returns on these restricted PSIAs can be treated as parallel to interest, as can be done with profits on unrestricted PSIAs, as described below.

2. Unrestricted profit-sharing investment accounts

(a) New deposits

For sales-based transactions, data on the actual rate of return for new deposits can be used. This rate is pre-agreed between the bank and IAH at the time of the contract. For new PSIA deposits, the indicative rate offered can be used as a measure of the expected return on deposits, parallel to treatment of interest by conventional banks. A change in terminology is recommended. In countries where relevant, a formal term "interest and other returns offered on new deposits" might be used in lieu of simply "interest".[29]

(b) Existing deposits

For sales based transactions, the actual rate of return paid on deposits can be used. For existing PSIA deposits, a measure of actual payments is needed, calculated by actual payments divided by total deposits, or by weighting rates of payments by type of deposit by their outstanding amounts.

With reference to table 3, the payment streams are measured by line 9 “distributable returns to IAH” (which, on an accrual basis, are treated as distributed to IAHs, subject to reinvestment in a separate transaction) and line 7 “transfer to PER” (which shows amounts out of current accrued IAH income transferred into reserves).

In contrast, on a cash basis, actual payments to IAH can be increased by drawing on PER or IRR reserves built up from earlier returns. The funds withdrawn were previously recorded in the SNA as part of current income, and thus withdrawals should be recorded as transaction in financial assets that make payment, which reduces the IAH claim on the bank.

3. Terminology

The discussion above has identified several types of Islamic financial instruments that produce financial flows analogous to interest flows on bank deposits, but it is misleading to refer to the flows as interest for the numerous reasons covered above. It is suggested to use the term “interest and similar investment returns” in the SNA and monetary statistics.

4. Financing instruments

Similar rationales can be applied to financing instruments used by Islamic banks. Table 4 lists major types of financing instruments used by Islamic banks, drawn from the PSIFI survey entitled “Indicator ST07 – Value of financing by type of sharia-compliant contract”.[30]

Table 4. Types of financing instruments used by Islamic banks

	Instrument	Type of income generated
1	*Murabahah*	Sales contract, embedded profit
2	Commodity *murabahah/tawwaruq*	Sales contract, embedded profit
3	*Salam*	Sales contract, embedded profit
4	*Istisna*	Sales contract, embedded profit
5	*Ijarah/ijarah muntahia bittamleek*	Leasing/leasing with delivery
6	*Mudarabah*	Profit/loss sharing
7	*Musharakah*	Partnership
8	Diminishing *musharakah*	Partnership
9	*Wakalah*	Fee
10	*Qard al hasan*	Non-remunerated benevolent loan

Source: Indicator ST07 – Value of financing by type of sharia-compliant contract.

Among these instruments, items 1 through 4 are sales-based instruments in which predefined profits are embedded in instalment payments. Item 5 is a leasing instrument with predefined profits built into the lease payments. For all these instruments, rates of return can be calculated and treated as similar to interest returns.

Item 6 shares gains/losses between the bank and its customer. As noted above in the discussion on unrestricted PSIAs, these are investment contracts that often provide smoothed profit returns to investors similar to interest earnings. It is an empirical question as to what type of return will be experienced in any particular country.

Items 7 and 8 are true partnership instruments where investors are fully exposed to volatile investment-like returns.

Item 9 is a fee-based instrument, in which the party providing funds to a bank pays a fee for the bank to manage the funds. A fee of 2 per cent of managed funds is typical. The fee provides direct information on production of the bank.

Item 10 is a benevolent loan made for social, welfare, or religious purposes that cannot receive any profit or other return.

5. Conclusion

Many Islamic financial instruments have returns with explicit embedded profits, or that make smoothed payments that are functionally indistinguishable from interest payments by conventional banks. It is proposed that certain Islamic bank payments to IAHs could have parallel treatment to interest flows, but should have a broader construct termed "interest and similar investment returns", which is intended to be a related but distinctly broader concept than "interest", which is an unsatisfactory description of the returns on Islamic financial instruments.

Estimates of flows and rates on interest and similar investment returns can be commingled within the SNA and monetary statistics.[31] But given their special nature, separate information should be provided on applicable returns on Islamic financial instruments, with notes regarding their distinctive nature.

4. Classification of Islamic finance institutional units

This section looks into types of Islamic finance institutional units and their sectoral classification. The 2008 SNA rules remain broadly applicable. This section focusses on how the SNA framework could specifically apply to Islamic financial units.

A. Islamic institutional units

Institutional units are the basic building blocks of the SNA system. They are entities capable in their own right of owning assets, incurring liabilities, making decisions, engaging in economic activities with other parties, and having financial accounts. They can engage in a range of activities. Each institutional unit has a primary activity which is its most important activity. In addition, they can have one or more secondary activities. For example, an Islamic bank with primary activity in retail banking and secondary activities in insurance or selling information technology and bookkeeping services is classified as a bank based on the primary activity.

Common types of Islamic banking units include the following:

- Islamic banks domiciled in a country: An Islamic bank can be organized as a standalone bank, a subsidiary of a foreign bank, a branch of a foreign bank, an Islamic window of a conventional bank, or a microfinance operation. In principle, each of these should prepare a single consolidated report of its domestic economic activity;

- Islamic windows of a conventional bank: Conventional banks often organize their Islamic financial activities in a separate sub-unit (subsidiary, branch, division, office, or others). For sharia-compliance reasons, different types of economic flows, customer preferences, different regulatory and policy regimes, and different financial accounting standards motivate segregation of the conventional and Islamic banking activities as materially different entities. Ideally, windows should be treated as virtual separate institutional units deconsolidated from their parent banks for various statistical purposes. For example, the PSIFI programme requests separate reporting of windows deconsolidated from the parent conventional bank;[32]
- Islamic microfinance units: Given their small size and limited record-keeping, treatment of individual microfinance operations as separate institutional units might be impractical, and thus consideration should be given to using surveys or statistical estimates to impute a "virtual" microfinance institutional subsector covering all operations in a country;
- Various other financial institutions such as holding companies, ancillary corporations, or special purpose vehicles (structured entities) captive to a foreign Islamic bank: As per 2008 SNA, which created several new financial institution subsectors, such units might be separated from their parent and treated in their own right as financial institutional units.

B. Residency

In national accounts, Islamic financial institutional units should be classified as resident or non-resident using the 2008 SNA standards.[33]

The SNA "national" statistical framework covers transactions and positions of "residents" of a country; transactions or positions of other countries are "non-resident" and part of the "rest of the world" and external to domestic economic activity. SNA defines the economic boundaries of countries (which can differ slightly from the political boundaries) to determine whether an economic activity is resident or non-resident.

The SNA-based "domestic consolidation" approach applies to all Islamic institutional units, whatever their legal organization. Transactions and financial positions of the domestic Islamic units with their foreign parents or with their own foreign subsidiaries or branches are treated as non-residents.

Islamic banks are residents of the country in which they are located, based on their "centre of economic interest", which is where they operate and intend to carry out economic activity for a year or more. For financial institutions, this is usually the country in which they register and are supervised. At this time, most Islamic banks operate in and are residents of only a single country and thus follow the domestic consolidation approach.

Box 1. Cross-border consolidations for soundness indicators for Islamic banks

For macroprudential indicators of the soundness or vulnerabilities of Islamic banks, a cross-border data consolidation is sometimes used. Prudential data is often drawn from supervisory reports that consolidate activities across countries based on the residency of the parent bank in a banking group. Countries compiling the Prudential and Structural Islamic Financial Indicators (PSIFIs) promulgated by the Islamic Financial Services Board use a variety of residency standards based on supervisory requirements.

Data consolidation based on international financial accounting standards and supervisory reports often use a cross-country (cross-border) consolidation basis. According to the Basel Committee on Banking Supervision, the parent bank of a multi-country banking group should prepare a single consolidated financial report covering itself and all its domestic and foreign subsidiaries and branches and other operations it might control. Moreover, in line with Basel II, “subconsolidated” financial reports can be required for each lower tier of subsidiaries, also on a cross-border basis.

In cases where information is sought on total Islamic financial activity, such as for PSIFIs, a unique collection of resident Islamic banks and windows might be used that can include some non-resident operations within the consolidated accounts. This can be defined as an Islamic bank cross-border approach, which is a unique statistical consolidation structured as follows:

- The first component uses a domestically-controlled cross-border consolidation of Islamic banks headquartered or incorporated in a country, including relevant cross-border consolidation of lower-level units. This set of data corresponds to Basel requirements and is deemed to capture relevant information on the strengths and risks of a banking group, including risks arising in its foreign operations;
- A second component includes subsidiaries of foreign banks using a foreign-controlled cross-border consolidation. These units are supervised by authorities of their parent banks’ home countries, but are also legally organized in the host country and affect local financial conditions (of the country in which they are domiciled), and thus are also monitored and supervised by host country authorities;
- A third component covers branches of foreign banks in the country. Supervisors are increasingly imposing local capital and liquidity requirements on branches of foreign banks operating in their country, and are collecting more data to allow them to monitor their activities within the country.

Source: Prepared by author.

C. Financial subsectors

Islamic banks are part of the financial sector, classified within the SNA subsector as “other depository corporations”. Other Islamic financial institutions are classified in the other financial subsectors (box 2).

Financial corporations engage in financial activities and financial services for the market. Traditionally, financial activity was defined as engaging in financial intermediation, which involves raising funds on own account then investing or lending of funds to earn income. The 2008 SNA expanded the definition to include financial risk management and liquidity transformation. This expanded financial activity in three ways: lending of funds on own account (which includes money lenders in developing economies) is recognized as a financial intermediation service; SPVs can be organized as financial entities classified as financial corporations; and ancillary (captive) financial corporations that provide financial services only to their parent corporation can be treated as financial entities classified based on the type of financial service provided.

The financial sector of 2008 SNA has nine subdivisions. The expanded classification recognizes that various financial units play different roles that should be recognized, and that financing is increasingly supplied by non-bank financial institutions.

The SNA "national" statistical framework covers transactions and positions of "residents" of a country; transactions or positions of other countries are "non-resident" and part of the "rest of the world" and external to domestic economic activity. SNA defines the economic boundaries of countries (which can differ slightly from the political boundaries) to determine whether an economic activity is resident or non-resident.

The SNA-based "domestic consolidation" approach applies to all Islamic institutional units, whatever their legal organization. Transactions and financial positions of the domestic Islamic units with their foreign parents or with their own foreign subsidiaries or branches are treated as non-residents.

Islamic banks are residents of the country in which they are located, based on their "centre of economic interest", which is where they operate and intend to carry out economic activity for a year or more. For financial institutions, this is usually the country in which they register and are supervised. At this time, most Islamic banks operate in and are residents of only a single country and thus follow the domestic consolidation approach.

D. Financial subsectors

Islamic banks are part of the financial sector, classified within the SNA subsector as "other depository corporations". Other Islamic financial institutions are classified in the other financial subsectors (box 2).

Box 2. Financial corporations sector

Depository corporations:

- Central bank;
- Other depository corporations.

Other financial corporations:

- Money market mutual funds;
- Other investment funds;
- Other financial intermediaries;
- Insurance;
- Pension funds;
- Captive financial institutions;
- Financial auxiliaries.

Source: 2008 System of National Accounts.

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Financial corporations are divided into depository corporations and other financial corporations.

1. Depository corporations

Depository corporations are the main monetary institutions in a country. They are divided into two subsectors, namely, the central bank, on the one hand, and other depository corporations (ODCs) that comprise banks and similar institutions, on the other.

(a) Central bank

The central bank is the official monetary institution of a country with functions such as issuing currency, holding international reserves, conducting international financial policy, conducting monetary policy, and regulating the national banking system. In some countries, central banking functions are split between several institutions, but are treated as a single institutional unit.

The 2008 SNA expanded the definition of the central bank to include supervisory organizations and financial supervisory authorities (including those of Islamic financial units) as core central bank functions. The central bank can also operate financial infrastructure for Islamic financial units (securities depositories, clearing operations, exchanges, and others), some of which could have significant financial assets.

(b) Other depository corporations

Banks (conventional and Islamic) are the core of the ODC subsector, which is central to a country's monetary and banking system. An ODC is a financial intermediary with deposit liabilities or close substitutes for deposits that are classified as part of the national definition of broad money.[34]

The Islamic banking subsector includes all Islamic banks and windows classified as ODCs under IMF definitions (which in effect treats unrestricted PSIAs as equivalent to retail deposits at conventional banks). Islamic banks can be central to a country's monetary system, issue current account and safe keeping deposits, provide PSIAs to the public that functionally compete with conventional deposits, and carry out basic banking services by acting as intermediaries to accept funds from the public and extend financing. Islamic banks might also be part of the official monetary policy system of a country and participate in interbank markets.

2. Investment funds

Many types of investment funds exist. Money market mutual funds (MMMFs) are those with liabilities included within the national definition of broad money (for example, liabilities similar to transferrable and sight deposits at banks). All investment funds not classified as MMMFs are labelled "other investment funds". IFSB has concluded that the best name for an Islamic investment fund is "Islamic collective investment scheme".

An investment fund receives and pools capital from investors who have equity shares in the common pool of assets, manages the funds to generate income (interest, trading profits and capital gains, among others), is compensated as the manager through service fees or portions of profits or other gains, and distributes the income or losses to the investors based on their shares. Investment funds can be an important alternative credit channel to banks, and are often called "shadow banks". Their investment strategies can parallel those of banks, some offer share accounts similar to regular bank deposit accounts, and in some countries they can participate in official payments and deposit insurance facilities. Although investment funds can perform many banking type functions, they are often more flexible than banks in investment strategy and might offer higher returns because they do not have the same strict capital and other regulatory restrictions as conventional banks.[35]

Investment funds are collective arrangements that differ from fiduciary or custodial arrangements in which a manager acts as agent for an individual investor. Investment funds can be established as separate legal entities or on a contractual basis, but always have a set of accounts separate from entities that manage them. A firm might offer many different investment funds to attract different types of investors, but each fund is treated as a separate institutional unit because they will have different investors, pools of assets, investment strategies, liquidity, fee structures, and methods of distribution to investors.

Investment funds do not have the same financial structure as banks: the funds are owned by the pool of investors and managed as a pool. Fund managers charge fees which can be fixed or variable. Returns can vary depending on type of assets held by a fund (interest, dividends, commodity prices, capital gains, and exchange rates, among others), but distributions to investors will often be in the form of dividends. Repayment of capital contributions and earning is not a capital-certain liability, unlike the deposit and accrued interest liabilities of conventional banks.

The classification of investment funds as MMMFs or other investment funds is based on assets and financial flow characteristics of each fund. Data must be collected on each fund for this purpose.

(a) Money market mutual funds

MMMFs are a specific type of investment fund with monetary characteristics that justify their classification as a separate subsector. A survey undertaken for the IFSB concluded that about one third of known Islamic investment funds are money market funds, often established to provide a capital-certain harbour for placement of Islamic funds.

A high degree of capital certainty is a key feature of MMMFs, based on a strategy of the fund of investing in liquid instruments with nearly constant value. Funds without a high degree of capital certainty are not classified as MMMFs.[36]

MMMFs are considered monetary institutions because they meet several characteristics, as follows:

- Provide fund shares similar to bank deposits that the public treats as deposit substitutes;
- Offer "capital certainty", which means protection of the asset value of the shares;
- Offer interest-like returns similar to deposits (Islamic MMMFs typically provide unremunerated capital-certain accounts similar to zero-interest current accounts at conventional banks);
- Some offer transferrable deposits usable for payments to third parties;
- Funds might be available immediately, such as with sight deposits.

Islamic investment funds can be classified as MMMFs if the following applies: indicative returns (returns indicated by Islamic banks as likely but not guaranteed) are similar to conventional deposit rates; they offer investors high liquidity; and they have smoothed distributions to IAHs with rates similar to transferrable deposits or money market instruments.

(b) Other investment funds

This subsector includes all Islamic investment funds other than MMMFs. Other investment funds could be common in Islamic finance with its emphasis on investment in trading, commercial ventures, project development, and real estate, among others. Islamic investment funds must follow sharia investment standards and could invest directly in sharia-compliant ventures or purchase *sukuks* or other Islamic financial instruments.

Restricted PSIAs can be classified as "other investment funds" if they are organized as separate entities and not consolidated into the financial accounts of their managing Islamic bank.[37] Sharia-compliant hedge funds should be recorded in this subsector. Hedge funds are a special type of investment fund limited to sophisticated investors, and usually not subject to strict regulation because of that limitation. They invest in a wide range of assets, but tend to be speculative or are designed to "hedge" volatile price movements.

(i) *Other financial intermediaries*

"Other financial intermediaries" (OFIs) is a catch-all category of types of financial intermediaries, including Islamic firms, not otherwise enumerated (enumerated firms include ODCs, insurance firms, pension funds, financial captives, and financial auxiliaries). Many different types of OFIs exist that provide a diverse range of financial instruments or services, some for specialized niche markets. 2008 SNA narrowed the definition of this subsector by reclassifying some units into new subsectors for MMMFs, other investment funds, and captive financial intermediaries (including money lenders).

In contrast to ODCs that receive a certain portion of their funding from deposits that are part of broad money, OFIs receive funding from long-term or specialized deposits not part of broad money, securities, equity investments or shares, and funds provided by parents.

Common types of OFIs are investment banks, finance companies, financial leasing companies, specialized financial intermediaries such as factors or export finance companies, securities underwriters and dealers, venture capital firms, pawn shops and e-money corporations. Centralized clearing houses that take intervening positions in over-the-counter derivatives transactions are explicitly defined as financial intermediaries classified as OFIs.

Among Islamic OFI categories are finance companies that provide *murabahah* or *bai al-ajel* instalment sales, and investment banks or leasing companies that provide longer-term construction, *istisna*, or *ijara* financing funded through *sukuks* or longer-term deposits. Hajj funds that receive long-term deposits to finance future trips are OFIs.

Holding companies. 2008 SNA changed the treatment of holding companies to classify as OFI companies that only hold financial assets and do not exercise management control over subsidiaries. Prior to that, holding companies were classified according to the main activities of the group they owned. For bank holding companies, this change moves the SNA treatment away from the Basel supervisory consolidation that includes bank holding companies within the consolidation for capital adequacy purposes, because the parent holding company parent bears entrepreneurial risk for the banking group. Whether the new SNA treatment is applied to any Islamic bank holding companies is unknown, but this structure might be suitable for cross-border holdings of Islamic financial units.

Head offices. In contrast to holding companies, head offices actively manage units under their ownership or control. Head offices therefore produce services that should be recognized in SNA and allocated according to the principal activities of the group; they could therefore be classified within any of the financial subsectors. This structure might be suitable for cross-border holdings of Islamic financial units.

As per 2008 SNA, a head office managing a mix of financial corporations should be classified as a financial auxiliary, but the present paper recommends that, whenever feasible, they should be classified within specific financial subsectors, most importantly for banking or insurance. Head offices could have substantial own financial assets, and metadata should note how they are classified.

(ii) *Insurance*

This subsector includes corporations, quasi-corporations, and mutual organizations that provide life, accident, health, fire and other insurance services.[38] Insurance companies take premium payments from policyholders and agree to make benefits payments when an insured event occurs. Islamic insurance (*takaful*), which is growing fairly rapidly in some countries, is included in this subsector. Reinsurance companies (*retakaful*) and exchanges that insure the risks of other insurance companies are also included.

2008 SNA also includes standardized loan guarantees as a form of non-life insurance to cover expected defaults in a portfolio. It is unknown whether any standardized loan guarantee units exist in Islamic finance.

(iii) *Pension funds*

Pension funds provide benefits for retirement or disability. Pensions can be offered by separately organized firms or by employers. This subsector includes only units that are "autonomous", meaning that they are separate from the unit that creates them. "Non-autonomous" funds are classified as part of the employer who created them. For example, social security pension plans are part of the Government.

The finances of pension funds parallel those of life insurance companies, receiving funds to build reserves to make payments for future claims. As per 2008 SNA, an enforceable pension liability exists even if it has not been funded. As enforceable contracts, pensions are assets of households and liabilities of the pension fund or employer offering the pension.

Islamic pension funds are classified in this subsector, with many integrated into *takaful* companies. Currently, there are relatively few Islamic pension funds, partly because of a limited pool of long-term sharia-compliant investments, such as in *sukuks* or shares of companies engaged fully in sharia-compliant activities. However, several countries are working to build markets for the types of assets that can support growth of Islamic pension funds.

(iv) *Captive financial institutions and money lenders*

2008 SNA expands the definition of the financial sector to cover units that provide financial services as "captive" only to a single financial entity or closely related group of companies. Captives do not have market-based transactions with their parent; only their assets or liabilities are transacted with their parent. Prior to this, financial arms of parent corporations were called ancillary corporations and consolidated into the parent corporation, including into non-financial corporations. In the new definition, financial arms that operate as separate entities, including in foreign countries, can be classified within the financial sector.

Units that can be treated as captives include: trusts, estates and brass plate companies; holding companies as defined in 2008 SNA; SPVs (structured entities) that raise funds for their parent in open markets; money lenders; pawn shops; and firms lending funds received from a sponsor such as the Government or a non-profit institution.

SPVs are of special interest in this group. 2008 SNA defines SPVs as financial entities without employees or non-financial assets owned by or affiliated with other units, and which are often set up in different countries for tax or legal reasons. SPVs have been used to securitize assets off of a bank's books, shift credit risk by bundling assets with derivatives or guarantees, or shift insurance or reinsurance obligations. An SPV potentially relevant for Islamic finance securitizes banks' holdings of sharia-compliant financing by issuing securities to fund purchase of the financings. Moreover, a type of Islamic financial unit that might fall into this classification is separate financing arms set up in offshore centres or international finance centres to issue sukuks in the name of their parent. SPVs have also been set up in conjunction with sovereign or official infrastructure sukuks, but they should be classified as separate financial captive units only if they are effectively separate from their parent.

Money lenders, which are important in many developing countries, could provide sharia-compliant funds. It has not yet been decided whether sovereign wealth funds funded by Governments, central banks, or extractive industries are to hold and invest financial assets, including sharia-compliant assets, since future beneficiaries are separate entities that can be treated as financial captives.

(v) *Financial auxiliaries*

Financial auxiliaries are units that are not directly engaged in financial intermediation, but which provide closely related services. Many are financial infrastructure companies including brokerages, exchanges, clearing houses, securities depositories, collateral agents, and asset management companies resolving financial crisis situations. Non-profit institutions serving the financial sector are classified here.

Several countries (including some non-Muslim countries) are seeking to establish themselves as centres for Islamic finance, either as part of their general financial markets or in separately established international financial centres. Financial infrastructure specifically designed for Islamic financial instruments (exchanges, depositories and credit bureaus, among others) set up in such centres should be classified here. However, units that act as intermediaries (such as centralized clearing houses that take intervening positions in over-the-counter derivatives) are not financial auxiliaries and should be classified in other financial subsectors.

5. Structural indicators of Islamic banking

In sharp contrast to the decades-long compilation of national accounts and monetary statistics data on conventional banks, systematic compilation of statistics on Islamic banking is only a few years old and is still evolving. Data were previously unavailable because Islamic banks where indistinguishably intermixed within data covering the entire banking sector.

In 2014, IFSB, headquartered in Kuala Lumpur, began compiling PSIFIs that cover the following:[39]

- Prudential Islamic Financial Indicators (PIFIs) are measures of the strengths or vulnerabilities of Islamic banking systems (as opposed to individual banks). PIFIs are mostly supervisory ratios[40] that largely parallel the IMF FSIs but with customization to the specific instruments and methods used in Islamic finance. PIFIs and FSIs generally have a financial supervisory focus and apply some concepts (definitions of capital, liquidity, statistical consolidations, residency, and others) that differ from those used in SNA;
- Structural indicators that cover the size and structure of the Islamic banking sector, including balance sheet, income statements, and types of financial instruments used by Islamic banks to fund themselves and extend financing. These data track the growth of Islamic banking and its evolution. Such data often draw on features of the SNA.

Box 3. Structural indicators for Islamic banks

Number of Islamic banks
Number of domestic branch offices
Number of automated teller machines (ATMs)
Number of employees
Total assets
Total sharia-compliant financing (excluding interbank financing)
Sukuk holdings
Other sharia-compliant securities
Interbank financing
All other assets
Total funding/liabilities and equities
Profit-sharing investment accounts (PSIAs)
Other remunerative funding *(murabahah,* commodity *murabahah*, and more)
Non-remunerative funding (current account and *wadiah*)
Sukuk issued
Other sharia-compliant securities issued
Interbank funding/liabilities
All other liabilities
Capital and reserves
Total revenues
Financing-based
Investment-based *(sukuk,* other sharia-compliant securities, and more)
Fee-based
Other
Earnings before taxes and *zakat*
Value (or percentage) of financing by type of sharia-compliant contract

In addition, the Structural Islamic Financial Indicator (SIFI) ratios provide some supplementary data about the structure of Islamic banks and their funding and financing patterns. The data include: net income, operating costs, sharia-compliant financing by the International Standard Industrial Classification of All Economic Activities (ISIC) code, non-performing financing, non-performing financing by ISIC code, provisions for non-performing financing, foreign exchange funding and financing, returns by type of sharia-compliant financing, and income distributed to investment account holders (IAHs).

Source: Islamic Financial Services Board, Compilation Guide on Prudential and Structural Indicators for Islamic Financial Institutions, 2017.

Both PIFIs and SIFIs are separately compiled for Islamic banks and for Islamic windows of conventional banks (which are treated like institutional units deconsolidated from their parent bank). However, in some cases, the windows data is not available or incomplete.

As seen in box 3, structural data covers basic information about the size and structure of the Islamic banking sector. This data is sufficient to understand the development of the sector and its role within the banking system of a country. Furthermore, by translating structural data into a common currency (US dollars or special drawing rights, for instance), data for countries can be added to estimate the global size and growth of Islamic banking.

Structural indicators are based on financial accounts data, such as balance sheets or income statements, such as those used for compilation of national accounts statistics. As such, there is potential to compare the Islamic banking sector against the full national banking sector, or make direct comparisons by constructing separate peer groups for Islamic banks and conventional banks.

Complicating such comparisons is that IFSB data use a supervisory consolidation that can be cross-country, in contrast to the domestic consolidation used by SNA. However, at this point, because most Islamic banks operate only within their headquarters' country, they are de facto on the SNA domestic consolidation basis, and thus direct comparisons (and aggregation to national totals) are feasible. There are exceptions, and multi-country Islamic banking organizations will increase in the future, which might ultimately require a shift to formally adopt the SNA type consolidation, but in most countries with Islamic banking that step is not yet needed.

IFSB has just begun collecting full balance sheets and income statements for the Islamic banking systems, following the practice of the FSI programme of IMF. The statements themselves will be diverse because countries follow different accounting standards (IFRS, national generally-accepted accounting principles and AAOIFI, each at different stages of adoption), which is an endemic problem in compiling data on Islamic banking. However, the detailed accounts within each country will provide a good presentation of the structure of the sector, and provide a basis for systematic extraction of information usable in SNA.

Over time, it is hoped that the IMF monetary statistics and FSI data sets will compile separate peer group data for Islamic banks in view of their material differences from conventional banks and increased systemic importance in many countries.

6. Conclusion

The present paper provides insight into how to represent Islamic banking within SNA. Islamic banking has grown rapidly over the past two decades, and it is time to address how SNA should handle its unique features. Without specific compilation guidance, countries are, for the most part, treating Islamic banks as if they were conventional banks, creating dangers of biased results and lack of comparability between countries. Information on important structural features of the financial systems of many emerging and developing countries is not being compiled.

The paper explores how several Islamic banking activities might be treated in SNA. The topics are complex, and the following actions can be undertaken to move forward:

- Information on national practices in compiling statistics on Islamic banks should be gathered. This can guide future research, reveal gaps, identify feasible approaches, and build a database of what is known about Islamic banking. This information will also support future consultations and institution-building efforts of IMF, World Bank, Islamic Development Bank and regional organizations, such as the Statistical Centre of the Gulf Cooperation Council (GCC) for the Arab Gulf States;
- To support development of high-quality, internationally comparable statistical systems, and support their oversight functions, IMF, Gulf Monetary Council and GCC-STAT can initiate statistical methodology work on Islamic banking and finance. IFSB has a similar role to play in enhancing the quality and comparability of its structural indicators;
- More work is needed to standardize the names of Islamic financial instruments and define their economic flows. IFSB has advanced this work in conjunction with its PSIFI data collection. The Malaysian Financial Reporting Standards use an instrument-by-instrument approach to construct financial reports that might be useful. Regional bodies (GCC, the Arab Committee on Banking Supervision, and others) should promote such standardization to facilitate their oversight. However, since countries use different instruments (or similar instruments with different names), this part of the process is likely to be lengthy and painstaking;
- Work should be forward-looking to consider the development of frameworks for non-bank Islamic financial institutions and Islamic securities markets. IFSB is again in the lead in such work. Among non-bank institutions, insurance (*takaful*) is a priority. Given the participatory nature of funding of Islamic financial institutions, the line between banking and investment funds is blurry. Coverage of securities markets should be a priority in the European Union and financial centres, such as Kuala Lumpur, Hong Kong, Luxembourg, Singapore, and Dubai;
- Statistical coverage of financial inclusion (microfinance) deserves a special initiative in light of its direct impact on millions of people;
- The United Nations must continue working on its project on Islamic finance in national accounts, for which the 2017 workshop in Beirut was a critical foundation step;
- Statistical work must be dovetailed with the rapidly increasing work at IMF, the Bank for International Settlements and elsewhere on the role of Islamic finance in policy, surveillance and financial stability. Much of this work relates to financial stability analysis and supervisory needs, or granular analysis of microdata and systemic importance of

individual institutions, but many interactions can be expected between statistical requirements in these areas and the macroeconomic statistical work for national accounts;

- The International Association for Research in Income and Wealth should promote this frontier methodology work.

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Paper Two
A Review and Treatment of Islamic Versus Conventional Bank Products in National Accounts
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Abstract

The present paper explores the field of Islamic finance and its product offerings, as they are accounted for and measured within the existing System of National Accounts (SNA).
A comparison between traditional banks and Islamic finance entities (IFEs) and their product particularities is introduced at the outset. The paper subsequently explores the application of national accounts measurement and recording as pertains to Islamic finance, and uses product examples in critiquing methodology and conclusions. The discussion parameters of the issues take into consideration risk matters, treatment of accounting, and a cost-benefit framework for outlining the debate, with a view towards the resolution of outstanding issues.

1. Background on differences in traditional versus Islamic platforms

The historic foundation of our financial system, and banking in particular, is based upon the movement of funds from savings surplus units (SSU) to savings deficit units (SDU) in the economy. This function is critical in facilitating the intermediation process between saver and investor, with implications on our financial lives. In dealing with financial institutions, customers interact with front-line representatives who use financial products as tools in the intermediation process with the ultimate aim of providing timely solutions while keeping an eye on the need to innovate. There is a broad consensus in the service-marketing literature to classify services using different criteria, such as how a service can be customized for the customer or how the service is differentiated. Today's competitive marketplace for financial and banking solutions has created an environment with a universe of product offerings with ever-increasing sophistication, across type of product, geography and size/scope of the institutional product provider.

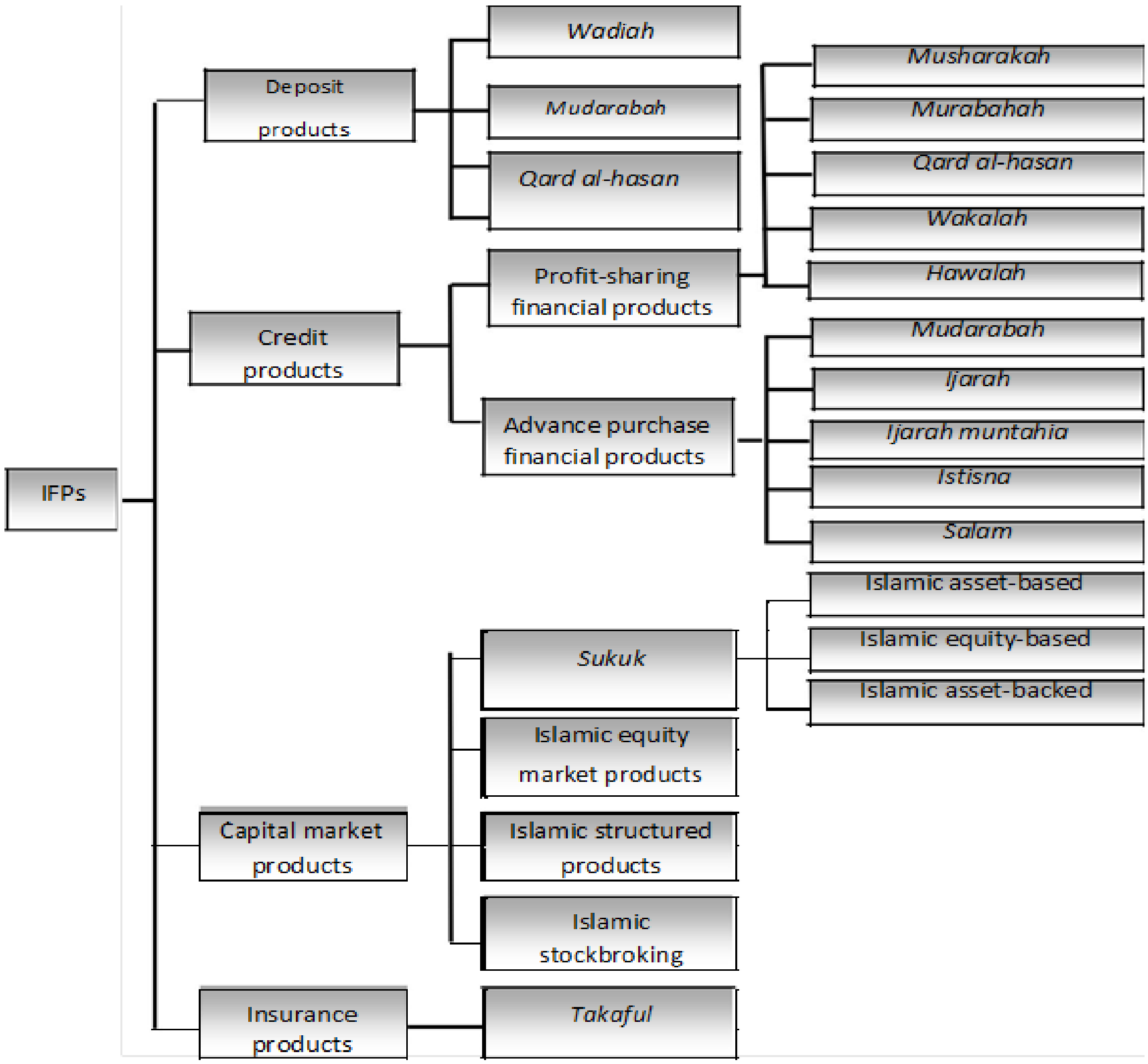
Within financial services, there is a challenge in evaluating them as they are offered through a range of delivery systems. The same product can be developed by two entities, and they are generally acquired as a means of achieving an end. As shown in figure 1 below, Islamic financial institutions can be broadly classified into four categories in terms of approaches of financing that can satisfy particular financial needs of customers, namely, deposit products, credit products, capital market products, and insurance products.

Much as is the case in traditional banking systems, the supervision mandate of the central bank has, at the outset, a stability remit of the financial system as a whole. Moreover, the ethical conduct of employees working for member institutions is of paramount importance. It is a given that central banks issue banking charters for startup institutions that offer traditional products or services, but that charter-issuing role extends to Islamic finance and banking as well. Going forward, the regulator undertakes a supervisory and regulatory function regarding Islamic institutions identical to regarding a conventional institution. As concerns the implementation of prudential supervision, although Islamic banking is largely based on profit-and-loss sharing agreements, sharia-compliant institutions still need to be supervised at the same level as conventional banks. In fact, as already pointed out by Errico and Farrahbaksh and El Hawary and others (2004), there are certain features of Islamic banks that warrant prudential regulation to a similar degree as traditional banks, including the following:

- Moral hazard considerations: Within Islamic financial institutions, the critical element of risk sharing applies to investment deposits. The agreement is that depositors place funds in activities the bank invests in and views as profitable. However, sharia-compliant institutions, in their role of sharing a potential investments loss, could, by their nature, include riskier projects versus guaranteed deposits in conventional banks. Investment depositors also require greater guarantees than company shareholders as Islamic banks take on high leverage given the presence of demand deposits; and risk associated with leverage has been a historic concern. In addition, investment depositors do not have equity voting rights – as customers, they do not have an associated say regarding the institution's strategies. With risks come mitigation efforts through Islamic banks focused on maintaining their market share and minimizing the losses passed on to customers. Another tool used is the investment risk reserve to protect depositors from certain risks. This is to be considered when classifying investment deposits in Islamic banks as deposits or shares;
- Safeguarding the interests of demand depositors: Demand depositors in Islamic banks, also known as current account holders in conventional institutions, face the same risks as demand depositors in conventional banks and thus merit the same level of protection;
- Systemic considerations: While the failure of a corporation would not have contagion effects, the failure of a bank could result in the public's loss of confidence in the stability of the banking system as a whole, thus triggering a generalized bank run;
- Sharia compliance: Supervisors must have an understanding of whether the activities of Islamic banks' are compatible with sharia. In some countries, private Islamic banks have their own sharia advisors. However, setting up a sharia consultative board at the supervisory agency would be beneficial in countries where Islamic banks are present. Central banks would need to recognize the need for this evolution in their relationship with member institutions to take actions. The spread of Islamic finance in an increasing number of countries has hastened the need for a set of internationally accepted regulations. To satisfy this need, the Islamic Financial Services Board (IFSB) was created

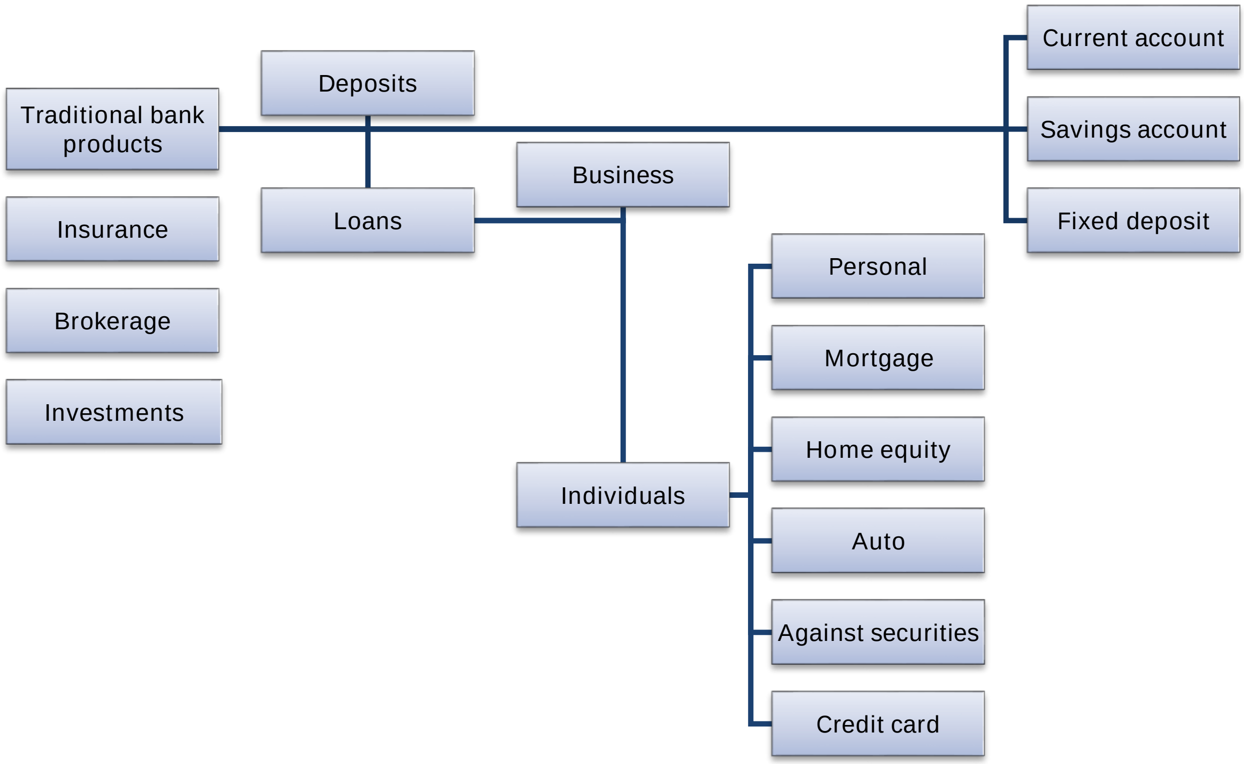
in 2002, with a mandate to develop prudential and regulatory standards for the Islamic industry, and to identify and publicize recognized international best practices in several areas. Paralleling the development of the Basel II Capital Accord, IFSB issued regulatory standards on capital adequacy and risk management for Islamic institutions. The scope of IFSB guidelines encompasses critical matters such as corporate governance and the supervisory review.

Figure 1. Categories of Islamic financial products (IFPs)



Source: Islamic Financial Services Board, Understanding the nature and market for Islamic financial products, *Asian Journal of Business Research*, 2015.

Figure 2. Categories of traditional bank products



Source: Prepared by author.

Funding source differences between traditional banks and Islamic finance entities and the impact on businesses

The broad difference between conventional retail banks and their Islamic counterparts is that the former perform their funding operations through interest-bearing loans while the latter's funding is executed via Islamic modes of financing. Viewed from the balance sheet perspective, this basic operation leads to the generation of 'liabilities' which stand for the basic balance sheet of a retail bank's deposit accounts, and 'assets' representing the financings offered to retail bank clients. The balance sheet of a retail bank, like that of most companies, consists of a broad range of liabilities and assets with a range of liquidity. In essence, the first function of a retail bank is to attract liabilities in the form of deposits and utilize them to create assets in the form of financings to bank clients (or more commonly called "loans" for conventional institutions). The management of a bank's balance sheet in retail banking is therefore a sensitive issue because the ability to provide finance depends on the nature and stability of deposited money. In this domain, the regulator must maintain vigilance in protecting depositors' money against undue exposure to retail banking balance sheet risks. Two methods are used, namely, the allocation of sufficient cash reserves against the deposited funds; and avoidance of unnecessary risks in the financing activity. Within Islamic banking, the mission becomes to avoid involvement in risky economic enterprises thus protecting depositor funds by utilizing low-risk modes of finance such as *murabahah* and *ijarah*.

Deposit accounts of Islamic retail banks are broadly classified into two categories, namely, demand deposits, also called current accounts, and Islamic investment deposits or profit-and-loss-sharing (PLS) investment accounts.

Table 1. Definitions of financial products in Islamic finance

Financial products	Characteristics
Mudarabah	A contract in which one of the parties (the possessing of capital appointed *rab al mal*) provides the capital to another party (the contractor appointed *mudharib*) which ensures the necessary work to use these funds.
Musharakah	A contract for the participation of two or more parties in the capital and the management of the same case. It is a partnership with allocation of losses and profits.
Murabahah	A contract of purchase and resale with a profit margin prefixed in advance; in other words, the bank buys from a supplier a tangible property at the request of its client, the well is resold to the customer at a price equal to the cost of purchase plus margin.
Ijarah	A leasing contract or lease by which a bank buys a well for the completion of a project and gives the rent to a company for an amount and a maturity agreed.
Al Istisnaa	A contract that brings together the *oustasnii* (investor) and the *sanii* (contractor/manufacturer) for the execution of a property for a fee payable in advance. The two parties will agree on the price and the time of delivery.
Bai al salam	A technique to pay in advance goods that are predetermined. The financial institution pays the price of the asset in advance for a delivery date deferred.
Qard hasan	A loan without interest often supported by a guarantee, granted by the bank to its customers in order to cope with specific circumstances (such as death, marriage, child care, and education).
Sukuk	An Islamic commitment backed by a tangible asset. It indicates a right of debt during a specified period and is attached to investment funds with predefined risk and yields assistance.

Source: Sirine Gha and Nejia Nekaa, Efficiency of Islamic financial institutions, *Journal of Business and Management Sciences*, vol. 4, No. 4, 2016, pp. 98-104.

1. Current accounts

Current accounts satisfy the following two main conditions: they promise no return to the depositor apart from the bank's guarantee of the principal amount; and they can be totally withdrawn at any time without notice, or 'on demand', in the classic use of the banking term. From an Islamic perspective, the taking of demand deposits is equivalent to borrowing funds from depositors, while withdrawal is equivalent to repayment of borrowed funds. The borrowing of funds is permitted in sharia so long as it is an interest-free loan with the promise that there is no reward to the lender. In exchange for the privilege of using an interest-free loan, it is important that an Islamic bank, as the borrower, guarantees repayment of the loan to the lender, but not necessarily the return. This is crucial according to sharia authorities as a criterion for distinguishing between the concept of *qard* (repayable loan) and that of *amana* (trustable fund). The former creates what jurists call "hand of guarantee" (*yad dhaman*) on the borrowed funds, while the latter creates a "hand of trust" (*yad amana*). In other words, the borrower is obliged to repay the *qard* under all circumstances unless the lender relieves him of this obligation, but no such obligation arises in the case of *amana*. Repayment of *amana* is done on a best-effort basis and can only be guaranteed in case of gross negligence. Hence, current accounts in Islamic banks follow the rules of *qard* in Islamic jurisprudence, which promises no return to the depositor while holding the bank accountable to repay the deposited funds at any time.

When an institution includes checking facilities as an offering, this does not impact the legitimacy of current accounts as long as banks provide depositors with cheque books to control the inflows and outflows of their accounts. Conventional banks provide the same current accounts accommodation, but in many cases tend to contravene the Islamic rules of *qard*. In effect, it is not unusual for conventional banks to promise promotional gifts to open an account, given the keen competition among rival banks to attract new depositors. Moreover, it is a typical practice of conventional banks to offer overdraft facilities with which current account depositors may draw more amounts in excess to what they have deposited. The issue with this approach in the eyes of Islamic scholars arises from the switching of the roles of lender and borrower between bank and client: the bank becomes a lender and the client becomes a borrower. Effectively, the violation relates to the charging of a positive interest rate by banks as lenders, and is strictly prohibited in sharia. This issue should be taken into account when classifying current accounts, as it may affect issues related to money supply.

2. Investment accounts

Investment accounts are the Islamic alternative to the interest-bearing term deposit accounts in conventional banks. Like term deposits, Islamic investment accounts are held for specific periods of time by banks and hence cannot be drawn on demand, without prior notice. However, unlike conventional term deposits, Islamic investment accounts avoid the use of interest rates both in the compensation of account holders and in the utilization of funds. Two primary issues are therefore raised by Islamic investment accounts. As a matter of practice, holders of Islamic investment accounts can only be compensated from profits as actually realized by the Islamic bank; therefore, depositors are not promised any positive returns on their funds, whether predetermined or floating.

There are two types of investment accounts in Islamic banks, which are the following:

(a) Unrestricted investment: balance sheet accounts

The first option gives rise to a PLS concept. In short, the PLS investment account underlines an unrestricted *mudarabah* contract between the bank and depositors allowing for the mixing of the bank's funds. Alternatively, it can be based upon a *musharakah* contract whereby the bank acts as a partner (*sharik*) as well as a manager of the funds, given that all the other partners (the investors) have given up their right of management to the bank. In both cases, the parties may share between themselves whatever profit or loss happens to be generated from the utilization of deposited funds, as long as it adheres to the PLS ratio. Generating profits in unrestricted investment accounts means that assets are created by extending financing facilities to other client activities. At the outset, it is understood to what extent PLS investment accounts are also utilized by the bank to generate profits, and the account holders are entitled to a share in such profits. This explains why PLS accounts are balance sheet accounts. Unrestricted PLS accounts are accessible to all potential depositors who wish to share in the overall profitability of the Islamic bank, subject to terms and conditions, which impose no restrictions on the utilization of funds by Islamic banks apart from sharia compliance. By looking at this from a national accounting perspective, a question might arise regarding the classification of the investment deposits under deposits or shares, and the effect this can have on income flows.

(b) Restricted investment: offbalance sheet accounts

The other two options of accepting investors deposits – restricted *mudarabah* and agency contracts – have one thing in common: they both give rise to 'restricted investment accounts', where the investor wishes to generate profit from a specific field of economic activity rather than share in the overall profitability of the bank. It is therefore an off balance sheet investment account as the bank does not mix such funds with the pool of funds invested on an unrestricted basis (such as current accounts, investment accounts and shareholders' own funds). It simply reduces the bank's role to one of a manager of funds. As is the case in unrestricted investments, the depositor cannot be guaranteed any returns. *Mudarabah* is adopted for the management of restricted investments, where the depositor assumes the position of *rabb al-mal,* while the Islamic bank assumes the position of *mudarib*. In this case, the bank's income is defined as a share in the profit that can be realized from the management of the investment. However, if loss is realized at the end of the contract, it will be borne by the holder of the restricted account alone, and the bank will only lose its administrative effort. Alternatively, the bank might act as 'agent' for its client in the management of restricted investment accounts (working for an agency fee that can be a fixed amount or defined as a percentage of the project's net asset value, provided it is denominated in a fixed amount at the outset of the agency). The agent is bound to work on a best-efforts basis but cannot guarantee any return to the investor, per Islamic finance rules. This is an important point to recall as it is against conventional practice where the agent is held to account and must reimburse the principal against all damages.

3. Assets generated by variable return modes

Assets generated through *mudarabah* and *musharakah* contracts would usually have the following attributes:

(a) The Islamic bank's return from financing can only be generated from the operations of the projects being financed. Accordingly, the financing decision requires a careful economic feasibility study of the prospective projects to assess their potential profitability. This is an internal self-initiated method of risk management. Accordingly, the types and characteristics of services provided by Islamic banks are different from the services provided by conventional banks since they do not conduct feasibility studies and assessment related to the projects to be financed;
(b) The financed client is committed to a best effort policy that is translatable into clear contractual terms, but otherwise the client cannot guarantee return or principal to the Islamic bank;
(c) The bank's readiness to offer such financings is often based on an expected rate of return of a relevant project to be financed. This expected rate of return proves useful in assessing the expected performance of the project, even though it cannot be guaranteed;
(d) To guard against the possibility of loss that might arise from the client's negligence or misconduct, it is permissible to take collateral from the financed clients. This is the only situation in which the client would be held liable to guarantee principal in *mudarabah* and *musharakah* financings.

4. Assets generated from fixed return modes

Assets created from fixed return modes share the regular property of having an organized, structured and dependable future income, based on the fixed price in sale contracts, in addition to the following:

(a) Unlike *mudarabah* and *musharakah* assets, it is currently mandatory for a customer to pay the scheduled instalments. Consequently, the Islamic bank can take securities or collateral from customers to ensure timely payment of instalments;
(b) Islamic bank loans are not considered variable rate loans, unlike their tranditional counterparts. In other words, Sharia-compliant financing does not rely on interest rate indexes determined by central banks and market forces to adjust the rates charged to consumers;
(c) This standard is based on the use of historical cost as opposed to current market prices in the valuation of Islamic banking assets. It is a generally accepted accounting principle according to Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) standards;

(d) Cash flows stemming from *murabahah* contracts are special forms of pure receivable debt arising from the sale of real goods against agreed deferred payments (instalments). Having sold the goods, the bank will have no recourse but to revise the agreed instalments or to penalize defaulted clients, much like conventional banks, by charging additional interest.

Of particular use is the *ijarah*, which provides a particular flexibility since the bank continues ownership of the physical asset (real property or equipment) and gives it a special recourse to revise the terms of the *ijarah* contract (in response to any external economic shocks). *Ijarah* is useful for long-term financing, but also for the structuring of open-ended mutual funds where investment fund units can be bought and sold among potential investors.

Istisna and *salam* assets are the Islamic counterparts of conventional futures. However, unlike conventional futures, which are extensively used in pure speculative trade, the Islamic counterparts address the financing needs of clients at particular periods of time and therefore might be mistakenly perceived as subject matter of speculative trade.

2. Risk of specific products versus issues such as tenor and liquidity

To better understand the structure of Islamic financial institutions and their conventional rivals, we can review some data from Gulf Cooperation Council (GCC) countries. The analysis for the purpose of the present study was carried out using annual banking data from Bankscope for GCC countries over the period 2008-2014, based on 65 banks (38 conventional and 27 Islamic). The sample did not distinguish between the banks’ business models (wholesale versus retail). Table 1 shows that the reliance of Islamic banks on deposits has increased recently, with data provided through 2014. For Islamic banks, the average deposits-to-assets ratio was 62.3 per cent over the period 2008-2014, but not significantly different from the conventional banks ratio of about 64.1 per cent. A build-up was particularly noticeable in 2013-2014.

Results indicate that conventional banks, on average, performed better after the 2008 crisis than their Islamic counterparts (table 2). With few exceptions, Islamic banks in most GCC markets seemed to have lower access to securities. While, on average, Islamic banks recorded slightly lower non-performing loan (NPL) ratios in terms of gross loans than in conventional banks, the gap in NPLs has contracted since 2012. Islamic banks recorded, on average, lower profitability than their conventional counterparts. The difference in profitability is explained, in part, by higher holdings of liquid assets and property investments by Islamic banks. This difference in asset allocations partially reflects limited investment opportunities available to this banking segment.

Table 2. GCC countries: Conventional and Islamic banks, average for 2008-2014 (% of assets unless otherwise stated)

	Conventional banks	Islamic banks
Deposits	64.1	62.3
Securiteies[1]	18.4	14.6
Liquid assets	19.8	23.0
Non performing loans[2]	4.4	4.2
Return on assets	1.6	1.3
Return on equity[3]	10.2	6.7

Source: Bankscope and IMF calculations.

Note: Oman's banks not included.

[1] For Saudi Arabia, total security holdings are significantly higher than conventional banks.

[2] Percentage of gross loans.

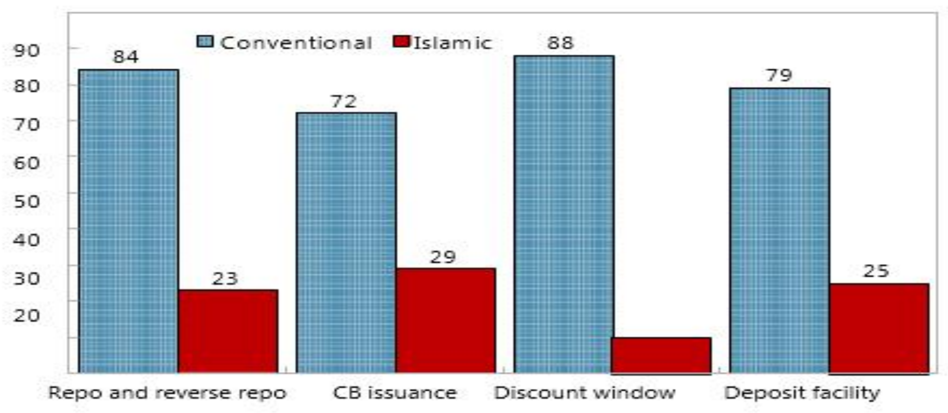
[3] Percentage of equity.

Limits of monetary policy tools

According to an International Monetary Fund (IMF) survey conducted in 2011, sharia-compliant central bank facilities are limited, reflecting the difficulty in designing market-based instruments for monetary control and government financing that satisfy the Islamic prohibition on future interest payments. The 2013 Islamic Financial Services Board (IFSB) assessment also corroborated this view (figure 3). Most central banks do not provide deposit or credit facilities for Islamic Financial Services Industries (IFSIs) that are sharia-compliant.

Despite significant progress in Islamic banking infrastructure, access to market financing (particularly to securities and other placement opportunities) remains limited for Islamic banks when compared with their conventional counterparts. This is creating market segmentation vis-à-vis conventional banks in an environment where banking consolidation is used to strengthen Islamic bank competitiveness in some countries. These findings are consistent with the results of other studies.

Figure 3. Tools for monetary operations of central banks



Source: Islamic Financial Services Board, 2013.

3. Islamic products generating an interest-like return in the market: a competitive and transactional perspective

A. Short- to medium-term *murabahah* financing

Interest rate comparison using a *murabahah* example

Auto financing

The *murabahah* procedure is best explained through the example of auto financing, which tends to be a dominant Islamic banking practice in the Arab and Muslim world. The procedure normally starts with the client's submission of a formal application form, requesting the bank to purchase (according to the client's order) a car (new or used) available at a designated showroom or company. The bank then buys the same car and resells it to the client at a higher price (including cost plus agreed profit) paid over an agreed finance term. The client would normally provide an invoice stating the cost price of the car, its make, quality and whatever technical features are requested in the application form.

Every car must be taken in comparison of *murabahah*'s profit with the market interest rate. It is probable for the profit to be somewhat higher than the interest rate on a similar class of finance in a conventional bank. One reason the rate is higher is that profit cannot be adjusted after the conclusion of the *murabahah* contract, even in the event of default, whereas the interest rate of a conventional loan is usually updated based on an index rate and takes into consideration penalties for defaulting behaviour or any delay in payment.

B. Medium- to long-term *ijarah* financing

As an alternative to *murabahah*, Islamic retail banks can satisfy client needs through the *ijarah* mode of finance, which is an analogue to conventional lease financing but with definite sharia provisions. The major appeal of *ijarah* lies in the bank's ownership of the leased asset, which makes the *ijarah* return rates more readily adjustable in response to such external factors as inflation rate, unlike *murabahah* and other sale types of Islamic modes of finance. *Ijarah* payments, however, cannot be adjusted for an *ijarah* period that has already commenced. However, it can be adjusted for an *ijarah* period sometime before the lease starts. This is the basic flexibility which makes the *ijarah* rate adjustable to future price changes and therefore suitable for medium-to-long-term financing needs. When comparing *murabahah* and *ijarah*, it is worth mentioning that the flexibility of *ijarah* can be counterbalanced by risk of ownership which does not exist in *murabahah*. For this reason, some Islamic banks prefer *murabahah* over *ijarah* in conducting medium-term financing. Ownership risk is the basic point of departure between conventional financial lease and Islamic *ijarah*. The lessor in *ijarah* is held accountable for maintaining the continuous flow of the asset's usufruct to the lessee throughout the *ijarah* term. The Islamic bank must provide maintenance and property insurance for the lessor, in line with sharia dictates.

C. Home and real estate financing

The best example of *ijarah* in retail Islamic finance relates to home financing where *ijarah* is adopted as a replacement to conventional home mortgages. Currently, there are many different forms of *ijarah* financing adopted by Islamic banks. *Ijarah wa iqtina* is the most common. Under this structure, the bank, as lessor, grants a unilateral sale undertaking to the client, as lessee, pursuant to signing an *ijarah* agreement. This sale undertaking gives the lessee an option to buy the leased asset from the lessor at a given price (usually a nominal value) after the *ijarah* term has ended, conditional to the lessee having fulfilled all his obligations under the *ijarah* agreement. The above-mentioned *ijarah wa iqtina* can be drawn between the bank as owner and lessor of the house (or real estate property), and the client as lessee and potential buyer of the house (or real estate property). The concept here is to enter into a renewable *ijarah* arrangement whereby the bank leases a house it owns to the client for a given number of years, for example 25 years. The added benefit for the customer is to purchase the house at a nominal price when the *ijarah* term has ended.

Alternatively, *ijarah* can be combined with diminishing *musharakah* to offer another sharia-compliant alternative for conventional home mortgages. In this structure, the transaction starts off with a joint ownership by the bank and the client (for instance, the bank's share is 90 per cent and the client's share is 10 per cent). This is *sharikat al-milk* (co-ownership). In this case, the *ijarah* agreement between the bank, as lessor, and the client, as lessee, will be relating to a 90 per cent common share in the house subject of the *ijara*h agreement. During the *ijarah* term, the client will purchase small fractions of the bank's share over a given period. A such, the client's periodic payments will consist of two payments: a rental for the lease of the common share owned by the bank and leased to the client, representing the bank's profit; and a fractional purchase of the bank's equity. This process will result in the gradual transference of house ownership from the bank to the client.

D. Agency fees

The best example of Islamic banking services is when the bank offers to execute on a particular activity for its clients (for instance, the management of an investment fund). The agent, in Islamic law, can be approved to act for the principal and to fully assume the principal's ability to perform a function in a wide variety of situations. The agency fee can be charged as long as the activity is halal, meaning that it is in line with Islamic principles.

However, it is important to note that an agent is a 'best effort' worker in the sense of not promising that something will definitely happen. This is a crucial difference between agency in Islamic banking and agency in conventional banking where the bank is held to indemnify the principal and hold him harmless against all possible risks, irrespective of misconduct or negligence.

E. Financing fees

Assessing fees to process Islamic finance transactions and documentations are good examples of fee-generating Islamic banking services, even if the service was to provide a *qard al-hasan* (interest-free loan). Such fees have been approved by sharia scholars. For example, the Jeddah-based Fiqh Academy approved charging fees in the processing of *qard al-hasan,* subject to the strict condition that any excess amount over the actual administrative costs incurred in this process is forbidden. Therefore, if an excess fee is accumulated at the bank in a certain period, the same amount would be deposited in the bank's charity account. The example of *qard al-hasan* brings the difference between fee income and interest income into particularly sharp focus. This is because interest income is based on time value of money, which is counter to sharia, whereas fee income is a recovery of labour and material costs. The offering of *qard al-hasan* is not only permissible but even highly encouraged. There are, however, significant labour and material costs involved in the delivery of *qard al-hasan* that must be acknowledged and appropriately recovered for this activity to be properly perpetuated and to continue to be provided to those who need it.

4. Monetary aggregates and money supply measures

A. Classic money markets

Money market instruments in conventional financial markets, which are distinguished from capital markets in having a maturity of less than one year, have the following three common characteristics: they are usually sold in very large denominations, hardly accessible to households and small businesses; they usually have low default risk; and they have a highly active and liquid secondary market. Being wholesale markets with large transactions, usually in excess of $1 million, money markets are more suited to brokers and dealers than to small-scale investors and individuals. From a sharia perspective, there are elements of money markets to note. The low risk associated with money markets is largely attributable to relatively low investment rates of return compared to capital market rates. It is the appeal of finding a good substitute to holding idle cash for short periods of time which makes money markets' securities particularly attractive to buyers. Money markets, therefore, play an important role in helping Governments and corporations synchronize cash flows, and in helping regulators control the supply of money. Governments can get quick cash from the sale of treasury bills, a type of money market instrument, to finance immediate obligations before the tax proceeds are collected. Similarly, large corporations can have close access to quick cash from the money markets to meet their immediate obligations before sales proceeds are received. Central banks are able to control money supply through 'open market operations' within the money market. Acting as agents for distributing Government securities, central banks sell Government securities in large amounts if the desired policy is to reduce money supply. Alternatively, if the policy is to increase money supply, central banks would buy Government bonds from the public.

B. Islamic money market instruments

The main sharia problem with money instruments relates to their predominant debt-based structure. Nonetheless, the recent upsurge in short-term Islamic bonds (*sukuk* or certificates) seems to have filled a significant gap in the growing Islamic financial markets. Islamic central banks – as in Malaysia, Pakistan and the Sudan – have also developed legitimate money market instruments on the basis of *musharakah* to help regulate money supply in the economy. While particularly relevant for short-term money market dealings, *sukuk* can still perform the function of capital market instruments, depending on the maturity of the *sakk*, or the certificate. According to the AAOIFI sharia standards, investment *sukuk* include *sukuk* of ownership of leased assets, ownership of services, *murabahah, salam, istisna, mudarabah, musharakah*, investment agency, and sharecropping, irrigation and agricultural partnership. The challenge was not only to structure an Islamic bond/certificate, but to also make it 'negotiable' in the sense of being freely bought and sold in the secondary market. Taking a legitimate *murabahah* contract as the subject matter of an Islamic bond, for instance, the Islamic problem would soon arise that the *murabahah* bond cannot be freely bought and sold without violating the sharia ruling about the sale of debt, because the *murabahah* bond underlies a receivable debt from the sale of a commodity.

From a mathematical and Islamic perspective, selling a debt instrument in practice is the same thing as discounting the amount of debt, so the seller receives from the buyer a smaller amount than the actual debt. In other words, the *murabahah* bond, if traded, will boil down to a conventional 'discount bond' that is issued below par value. The problem will not arise if the *murabahah* bond represents a share, not only in receivable debt, but also in the inventory of goods being traded, such that receivable debt represents a small percentage (usually less than 50 per cent) of the total asset base of the bond. Perhaps a solution would be for the Islamic bond to be based on an *ijarah* contract whereby the bond not only represents a share in the rental payments, essentially a share of ownership in the underlying asset or equipment being rented. This is the essence of an asset-based security in Islamic investment banking, which should not be confused with the conventional concept of asset-backed bonds.

C. International Financial Reporting Standards and Islamic finance

There has been wide adoption of the International Financial Reporting Standards (IFRS) among institutions in recent years. The potential benefits of bringing Islamic finance more broadly into the IFRS fold would include ease of international and peer group comparisons and a high level of transparency for stakeholders in a unified framework. The

IFRS framework is designed to recognize, measure and disclose any transaction, including many non-monetary transactions. Islamic contractual provisions and associated risks that also arise in Islamic finance are identified, though their actual nature may sometimes be different from conventional products. For example, interbank loans are normally based on underlying commodity trades (*murabahah*) and the repurchase contracts used in Islamic finance may have different legal terms from their conventional counterparts. These differences have led some commentators to assert that IFRS and Islamic finance are largely incompatible. In most cases, however, the IFRS can provide an appropriate accounting treatment for Islamic finance products and transactions. The key to overcoming any apparent conflict or contradiction is the sensible use of the requirement under IFRS to provide additional disclosure and explanation to enable users to gain a proper understanding of the financial statements.

Islamic banks may often use a profit equalization reserve (PER) to hold back profits in good times and use them to top up returns to depositors in leaner years. However, this can create valuation and recognition anomalies, including how to record the funds remaining after depositors have received their return and whether the residual money constitutes a hidden reserve. Institutions will need to examine the substance of the obligations relating to PER to determine its accounting treatment.

Although certain aspects of Islamic finance are seen by some commentators as difficult to account for under IFRS, evaluation of the rights/obligations and risks/rewards generally determines the appropriate accounting treatment, which includes the following: in relation to a financial lease, establishing who "owns/controls" the underlying asset and the financial benefits derived from it; if profits and losses from an investment fund are shared between the institution and its customer, establishing the level/nature of control and hence how the monies received should be recorded; and in relation to the underlying physical asset required under Islamic finance, establishing whether the investment is asset-backed (where the institution has the right to take possession in the event of a default on payment) or simply asset-based (generating a return).

Islamic insurance (*takaful*) funds are often ring-fenced from other parts of the business. However, sharia principles require providers to put aside money for a benevolent loan (*qard*) to cover for potential shortfalls in the *takaful* fund; therefore, they would usually need to consolidate the fund under IFRS. Additional disclosures are often necessary when bringing Islamic finance into the IFRS fold, such as explaining the basis for an accounting treatment. From an Islamic perspective, they might also provide an outline of the framework for achieving sharia compliance, explain how any potential conflicts with sharia principles have been resolved and report aspects of accounting not covered in IFRS, such as *zakat* calculations.

When a transaction is measured and reported in line with its economic value as opposed to its legal form, this is identified by IFRS as 'substance over form'. As Islamic finance transactions are legally underpinned by sharia principles, it is sometimes argued that it would be inappropriate to apply substance over form to such transactions. However, there are widely divergent legal systems in operation across more than 100 countries that have adopted, or plan to adopt, IFRS (civil law, common law or some alternative framework). This means that IFRS is not tied to any particular legal code and that accounting and legal frameworks can operate side by side.

D. Time value of money within International Financial Reporting Standards

Another key concept incorporated within IFRS is the time value of money or use of net present values. As the time value of money and discounting are generally calculated with reference to interest rates, they would appear to conflict with the outlawing of interest charges (*ribah*) under sharia law. This issue is seen as particularly problematic as the net present values and the time value of money are fundamental to many of the IFRS requirements for financial instruments. For example, International Accounting Standard (IAS) 39 requires that a financial asset classified as a loan or asset held to maturity should bear interest at an 'effective' rate, taking into account all fees, discounts or premiums, to recognize the time value involved. However, Islamic banking in its current form does appear to accept the validity of future payments being higher than current payments to take account of permissible (halal) trading or sales profits in the case of a *murabahah* contract. In the case of other financial assets, IAS 39 generally requires measurement at fair value, ideally based on a quoted price in an active market. However, in the absence of an active market, IAS 39 requires the use of techniques which involve net present values of cash flows discounted at appropriate rates of interest. The question of whether this is really an interest charge must be addressed.

1. Finance leases

Leases are commonly used in Islamic finance as a way for one party to pay another party for the right to use an asset. There are therefore similarities with operating leases in conventional business. Conventional banks have modified this type of transaction into a form of finance where the bank buys the asset and then leases it to the customer. The arrangement enables the bank to recoup its costs and earn a profit as though it had loaned the money to the customer, who is in turn able to acquire ownership of the asset at the end of the rental term. Under IFRS, such a contract is designated as a finance lease, as opposed to an operating lease, to reflect that the inherent risks and rewards associated with the asset have been transferred to the lessee, who in substance is deemed to be the owner. As such, IFRS requires finance leases to be recorded by the lessor as a loan which earns interest, while the lessee records the asset in its balance sheet as though it is the owner.

2. Profit participation

Many depositors in Islamic banks will expect rates of return to be in line with conventional market rates. Islamic banks might therefore introduce a mechanism to make this possible.

A typical instance relates to *mudarabah*, a common type of Islamic deposit agreement, whereby gains are shared but capital losses are borne by the depositor. Although more common in investment management situations, it has been adapted to meet the needs of Islamic banks that want some form of floating rate funding. The issue for banks under such an agreement is that, when profits are low, the institution might feel obliged to forgo its own share of profit to ensure that the depositor receives a comparable market return, even if there is no legal compulsion to do so. This is sometimes referred to as ‘displaced commercial risk’. Such difficulties may be compounded by the fact that under the prevailing incurred loss impairment model, the payments will not reflect any subsequent losses from a possible future impairment and thus earlier depositors might receive unfairly high returns.

However, the operation of such PERs raises issues from an accounting perspective. Contractual obligations to pay depositors will clearly be liabilities of the institution. Even where there is no formalized agreement, it may be construed that there is a constructive obligation such that the PER would also be deemed to be a liability. However, if no accounting (contractual/constructive) liability is justified, then any surplus will be the profit of the institution. If the bank’s share of any PER balance is included in the liability amount, then it could constitute a hidden reserve, which would not be acceptable under IFRS.

3. Classification

A further issue of debate is the classification of products on balance sheets that have characteristics of both debt and equity. An example is *mudarabah* deposits, where the profit-sharing arrangement may appear to be equity-like in nature as the depositor agrees to absorb the losses suffered by the bank. Yet, it may appear to be a liability as, in practice, many banks feel morally obliged to repay these deposits. In some cases, they may also absorb losses to ensure repayment when they have been deemed to be negligent. This negligence clause is included in the deposit agreement. Under IFRS, the classification would be a liability given the substance of the transaction. There are some jurisdictions where such items are disclosed as neither debt nor equity but somewhere in between. It is interesting to note that most regulators have required such deposits to be classified as bank liabilities.

4. On- or off-balance-sheet treatment

The structure of many types of Islamic finance products is similar to an asset management contract. The institution will invest funds on behalf of a client in return for a fee or share of the profit, and the resulting gains or losses are passed on to the customer. Examples of such arrangements include a restricted *mudarabah*, in which the institution is, in substance, acting as an agent for the customer. As such, it would not expect to record any liability (or equity) account for monies invested by the customer or any asset representing the underlying investments. The situation may appear less clear-cut where the customer invests funds on an unrestricted basis, so the institution can mingle the funds with its own for investment purposes, or where the gains or losses on the underlying investments are shared between the institution and its customers. In such cases, the

IFRS accounting framework determines through analysis of rights/obligations and risks/rewards where control resides, and discerns how the monies received and the related assets are accounted for. If the institution's overall return is, in substance, a management fee, then the assets and liabilities might represent a stand-alone off-balance-sheet fund. If the institution is earning an investment return, the arrangement might in substance be closer to a joint venture.

5. Need for additional disclosures

Certain aspects of financial statements are particularly relevant to users who want to assess the performance and direction of a company from an Islamic perspective. If material, this should include a description of the framework for achieving sharia compliance in areas such as expert advice and audit. It may also include the reporting of the results of activities that are permitted (halal) or forbidden (haram) under sharia. Such disclosure might be different from a segmental analysis of business activities performed for IFRS purposes. In addition, *zakat* is not a concept that is dealt with by accounting standards for conventional firms. Users who wish to have information to perform *zakat* calculations will also need additional disclosures. However, it is important to note that IFRS does not prohibit entities from making additional voluntary disclosures in their financial statements, provided they are not misleading or do not conflict with the information required by IFRS standards. IFRS requires an entity to provide additional disclosure if compliance with IFRS alone is insufficient to enable users to understand the impact of transactions and events on the company's financial performance and position.

E. Evaluating income components for an Islamic institution

1. Ijarah

There are two types of *ijarah*: *ijarah* of an asset, meaning to rent out something which is called leasing in English and in the terminology of *fiqh* it is called "*ijaratul ayaan*"; and *ijarah* of a person (their services), meaning to offer ones services for a specific remuneration, typically referred to as employment.

Ijarah of an asset or lease is divided into two types: financial lease and operating lease. An operating lease is a type of *ijarah* in which a person or an institution leases its specific asset for a specific period against a certain rent. After the expiry of the period, the asset is returned back to the owner. For example, renting a house or a shop or any item of daily usage like tents, speaker systems, and others. A financial lease is the type of *ijarah* used by banks. This type of lease was adopted as a form of capital investment and *ijarah* is used as a tool of financing. The asset is leased out for a specific period (three to five years), in which the lessor receives the principal with the profit of the asset in the form of rent. After the lease period, the ownership is transferred to the client or lessee.

In practice, a finance lease in conventional banks has the following sharia defects:

(a) The agreement comprises of sale and lease contracts since the instalments paid by the client are initially considered as rent, while at the end of the lease period they are supposed to be the price of the asset and the ownership is automatically transferred from the institution to the client without any further contract. If such a transaction is analysed in the light of sharia, it will be considered that the client asks the institution in such a manner that they will take this car on rent with the condition that at the end of lease period they will be the owner of the car against the paid rent;
(b) All the liabilities of the leased asset are borne by the lessee, whereas sharia only imposes the liabilities on a lessee which regard the usage of the asset. For example, with a car, the lessee's liability is to service it and change the oil, among others, while liabilities regarding ownership are the responsibility of the lessor, like paying ownership taxes and the maintenance of assets if it is defected/destroyed without the negligence of the lessee;
(c) Rentals are charged from the lessee even before the asset is delivered to the lessee, while sharia does not allow charging any rental unless the asset in working condition is handed over to the lessee.

These defects have been eliminated in the *ijarah* product, designed for the Islamic banks in the following manner:

(a) During the lease period, only a rental contract is signed between the client and the bank. Hence, the asset remains in the ownership of the bank from beginning to end of *ijarah*. At the end of *ijarah,* after handing the asset back to the owner, the client is given an option that he/she might purchase the car through a separate sale contract;
(b) It is clearly mentioned in the *ijarah* contract that liabilities regarding "minor maintenance" are borne by the lessee, while ownership expenses, such as tax, *takaful* and defects in case of accident, are borne by the bank. This is what sharia requires;
(c) The bank does not charge any rent unless the asset is handed over to the lessee.

Islamic banks are instructed not to take rentals unless the leased asset is handed over to the client, but if the client demands and wants to give some amount from the beginning then the bank might take it as on an account basis. These amounts will not be rentals nor can be treated as income, rather it will be on trust basis. If *ijarah* is not executed between the bank and the client, the bank will return the amount to the client, while the conventional banks treat this amount as their income from the beginning.

A common argument is that Islamic banks in *ijarah* say that they bear the risk of the leased asset but, like conventional banks, Islamic banks also insure their leased assets. Therefore, whatever loss occurs, it will be the loss of the insurance company. The answer to this argument is that Islamic banks do not insure their assets with conventional insurance companies, rather they are bound to sign agreements with Islamic insurers or *takaful*. Conventional insurance is not permissible since it consists of interest usage and uncertainty, while in Islamic *takaful* these impermissible elements have been removed.

Although conventional banks insure their asset in case of loss, if the claimed amount is insufficient, the bank does not bear the loss and recovers it from the lessee. However, if the amount of claim from the *takaful* company is insufficient, the Islamic bank bears this loss itself instead of claiming it from the client. Rather, it hands the security deposit back to the client. This difference supports the fact that the conventional bank does not consider itself as the owner of the asset nor is it ready to bear the liabilities of the leased asset, while the procedure adopted by Islamic banks proves that they consider themselves as the owner and bear the ownership liabilities.

2. Diminishing *musharakah*

Another common financing product used in Islamic banks is diminishing *musharakah*. This product is generally used for home financing and is, therefore, also known as home *musharakah.*

The procedure for this product consists of the following three stages:

(a) In the first stage, the Islamic bank and the client jointly buy a house in which, usually, the share of the Islamic bank is greater than the client's share. For example, a house is jointly bought by the client and the bank, with a bank share of 80 per cent and a client share of 20 per cent;

(b) Consequently, the bank's share is divided into small units. For instance, the bank's ownership of 80 per cent is divided into 80 units, and the client will gradually purchase these units, which will result in an increase in the client's ownership and decrease in the bank's ownership;

(c) If the client wishes to use the bank's share, a separate rent agreement is executed between bank and client, through which the client uses the bank's share and pays a certain rent. However, as mentioned above, as the client gradually purchases the bank's ownership share, the rent amount gradually decreases until the client becomes the sole owner of the property.

All three stages are permissible under sharia. The question which arises is whether it is permissible to gather these three stages in a single agreement. The answer to this is that, if two or more transactions are linked in a way that makes them conditional to each other, then it is not permissible. However, if the transactions are not linked to each other in such a manner that, if one of them is terminated, the other transactions are terminated automatically, then it is permissible. In diminishing *musharakah*, none of the transactions is conditional to another; the client himself promises unilaterally that, after partnership, he/she will gradually buy the bank's share.

It might be objected that the undertaking of the client to purchase the bank's share is similar to making a condition in a sale. This is because the bank, from the first stage, knows that the client will purchase the bank's share; therefore it should be considered as conditional. However, it can be argued that making a transaction conditional for the validity of the other transactions is different from start a unilateral undertaking. Conditional transactions mean that one will be considered complete when the other is fulfilled.

3. Murabahah

Murabahah is a type of sale in which the seller informs the buyer about the cost at which he would acquire the goods and the amount of profit with which he would sell the goods to the buyer. In other words, together with all the other conditions of a valid sale, the seller is obliged to fulfil one more condition which is to disclose his cost and the amount of profit he would make on the transaction.

Murabahah transactions that are concluded in Islamic banks comprise the following stages:

(a) Signing a facility agreement: In the first stage, the client and the bank arrive at a mutual understanding of the transaction and sign a general agreement or facility agreement. The limit of the amount at which the client will purchase goods from the bank, the profit that the bank will make on these goods, and the method of payment of these goods are among the aspects included in this agreement (t should be noted that this is not the *murabahah* transaction but merely a memorandum of understanding or a general framework for the transaction to follow);

(b) Purchasing the desired goods: The bank then purchases the goods that it will later sell to the customer. At this point, the Islamic bank either purchases the desired goods from the market itself or appoints an agent other than the client to purchase these goods; however, in special cases, the client himself can be appointed as agent of the bank to purchase the goods from the market on behalf of the bank. From this we understand that it is neither necessary for the client to be appointed as the bank's agent nor does the Islamic bank stipulate that it will only sell goods to the client if the client agrees to become its agent. In fact, if circumstances do not allow the bank or an agent of the bank other than the client to purchase the goods, only then can the Islamic bank appoint its client as an agent to purchase the goods. However, Islamic banks generally appoint their clients as their agents to purchase goods on their behalf. Clients also prefer to purchase the goods themselves since the bank or another agent might not be aware of the exact requirements. There is a strong possibility that the required goods purchased by the bank or the third party may not fulfil the requirements of the client, and the client may reject the goods. In such a situation, if the supplier refuses to take the goods back, the Islamic bank would suffer a heavy monetary loss. Therefore, with the mutual agreement of both parties, the client can be appointed as an agent to purchase the goods on behalf of the bank;

(c) Taking possession of the purchased goods and informing the Islamic bank: If the clients themselves are appointed as agents of the bank to purchase on its behalf, they are expected to take possession of the goods after purchasing and inform the bank accordingly. According to sharia, the possession taken by an agent is considered as possession taken by the principal. Hence, these goods are now in possession of the principal, which is the bank and all the rules pertaining to possession would take effect immediately. At this point, if the goods are destroyed without any negligence on the part of the client, then the bank would have to bear this loss. The client cannot be held responsible for such a loss. Similarly, if the goods are being imported from a foreign country, the risk of the goods being destroyed lies with the Islamic bank until the goods reach the country of import, and are sold to the client. In case of destruction, the bank would have to bear the loss;

(d) Execution of *murabahah:* After purchasing the required goods as a bank's agent, the client offers to purchase these goods from the bank at a certain price that clearly states the cost to the bank and its profit. The client agrees to pay for the goods either immediately or according to a particular schedule. When the bank accepts this offer, the *murabahah* transaction is concluded and the client becomes responsible to pay the amount agreed upon to the bank. The bank acquires some collateral from the client as a guarantee for the payment of this amount.

In contrast, a conventional bank advances cash on the basis of a loan against which it earns interest. As these funds are advanced on the basis of a loan, the bank does not bear any risk of loss on these funds. An Islamic bank, however, first purchases an item and, by taking its possession, assumes the risk for that item. Thereafter, the bank sells it for a specified profit. This transaction is the same as that of a shopkeeper who purchases goods and sells them in his shop at a specific markup. The only difference is that a normal shopkeeper does not generally disclose the cost and profit to his customer (this sale is called *mussawamah*), whereas, in *murabahah*, an Islamic bank discloses its cost and markup.

The logical reasoning for the permissibility of *murabahah* is that the Islamic bank assumes the risk of the subject matter of the sale. Under sharia, anyone who assumes the risk of an item is eligible to earn a profit from it.

It should be kept in mind that "risk" refers to the risk associated with the subject matter of the sale and not the risk of default by a client. The risk of default by the client is found in every transaction but to date, no sharia expert has permitted any transaction based on this risk. However, if by risk we mean the risk of default by the client, any transaction would be permissible, but following the clear rulings of the Quran and the Hadith, many transactions are impermissible.

5. Risk management

In earlier discussions on risk management in Islamic banking, the primary focus was on contracts and the general risk management processes adopted in Islamic banks, such as risk measurement techniques and risk mitigation methods. Now the discussion tends to skew towards the extent of risk management practices currently adopted by Islamic banks internationally by explaining how they manage their unique and specific risks. Selected issues are specific risks in credit, investment, market, liquidity, and operational risk.

At the outset, the first principle is the general requirement of the board of directors and oversight by the senior management of the risk management process. This includes, for instance, a regular review of the effectiveness of the risk management activities, and the board ensuring the existence of an effective management structure.

Regarding the principle of credit risk, focus is on specific products, in relation to receivables, leases and profit-sharing assets. IFSB rules focus on default, downgrading and concentration risks related to credit risk. In principle, there is the need to recognize credit risk exposures stemming from different stages in financing. Furthermore, there is the need to conduct an appropriate due diligence review on the financing products. Therefore, it is necessary to take remedial action in the case of the financial distress of a counterparty.

It is also important to mention investment risk, the risk being inherent in equity instruments that are held for investment purposes, such as *musharakah* and *mudarabah*. Risk managers must establish objectives, policies and procedures that use profit-sharing instruments. In addition, independent parties must carry out audits and valuations of the investments.

There is a distinct possibility of market risk exposure occurring at certain times throughout the Islamic financing contracts. The risk exists in the case of tradable, marketable or leasable assets and off-balance-sheet individual portfolios. Putting in place guidelines to govern risk-taking activities in different portfolios is critical, while allowing for a strong management information system for controlling, monitoring and reporting market risk exposure and performance.

Liquidity risk, by definition, highlights the key elements for effective liquidity management within the exposure framework of Islamic banks. Of concern are the two major types of fund providers, namely the current account holders and the unrestricted investment account holders, who require a degree of liquidity to be maintained by Islamic banks to meet their requirements for withdrawal. The institutions they are dealing with should also have in place a liquidity management policy that covers a sound process for measuring and monitoring liquidity and reporting exposures on a periodic basis.

Lastly, operational risk encompasses the risk arising from failed or inadequate internal processes, people and systems, as well as sharia non-compliance and the failure of Islamic banks’ fiduciary responsibilities. The guidelines suggest that Islamic banks consider the events that can affect their operation, for instance, failure in the internal processes and sharia non-compliance.

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Paper Three
A Second Generation of Islamic Banks: Riding the New Wave
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Abstract

The present paper assesses the degree to which Islamic bank earnings can be compiled and reported according to the 2008 System of National Accounts (SNA). It proposes that there are two reasons that challenge the use of 2008 SNA in its current form for compiling Islamic bank earnings. Firstly, the advent of a second generation of Islamic banks, which will likely focus on profit-and-loss-sharing (PLS) modes of finance that will generate earnings of a fluctuating and unstable nature. Secondly, the incompatibility, in principle, between the 2008 SNA conventional deposit-based system of fixed payment flows and the Islamic investment-based system of unfixed payment flows.

1. Background

I would like to begin with an overview of a previous study that I published on Islamic banks in the Middle East and North Africa (MENA) region, not including however the member countries of the Gulf Cooperation Council (GCC), with evidence from Lebanon.[1] The purpose of the study was to identify factors that influenced the adoption of Islamic banks in Lebanon. My method was quantitative, with a survey instrument of 38 items, 199 respondents and several statistical tests, including factor analysis and regression analysis. The factor analysis identified five factors, with 65 per cent of variance explained. The regression analysis produced a significant model with an adjusted R-square of 0.7. Unsurprisingly, the deciding factor in Islamic bank adoption was belief in sharia-compliance.

Many studies, qualitative and quantitative, have actually reported similar results, conveying people's distrust in the genuine sharia-compliance of Islamic banks, yet little has been done to change the status quo. I recently conducted another study on Islamic banks in two Arab nations.[2] The results of the new study blame the industry in that Islamic banks offer the instruments that they themselves prefer to use, instruments that are "easier" to administer and do not involve much risk (instruments that do not involve more risk than those used by conventional banks), such as *murabahah*, where the payment-flows resemble those of interest-paying deposits at conventional banks. It seems that this is the preference of the industry at this point in time.

2. The challenge

According to some scholars, Islamic banks are set up as financial intermediaries, not profit/loss-sharing institutions. Consequently, Islamic banks face high costs of compliance and the need to rethink accounting standards for PLS. This is not surprising as Islamic banks have long been set up to cater to debt-based contracts, not PLS contracts. Islamic banks have not developed their ability to mitigate the various types of risks associated with PLS contracts, not because they lack the ability but because they lack the will to do so.

Admittedly, Islamic banks have had to leverage existing conventional-bank infrastructure, but Islamic banks have reached the end of the line. They can no longer offer a replicated product line with a "halal" label. The public will not accept that. The customers will not accept that, and the competition will not allow that. Islamic banks need to break away from the status quo they have placed themselves in.

3. The new wave

Many brave scholars in the field are now calling for novel instruments that better reflect the true identity of Islamic finance. There are calls for private equity, participation banking, venture capitalists, and crowd funding as forms of PLS contracts. The digitization of the banking sector presents ground-breaking opportunities for the industry, leading to a new generation of Islamic banks, which will bear closer resemblance to the original paradigm that could really impact development and growth.

4. The call

I call for a second generation of Islamic banks which focus on the customer and not the industry. I call for a second generation of Islamic banks that reach out to the unbankable and are willing to invest in startups, while adequately mitigating unconventional risks rather than avoiding them altogether. My call is not solitary. Scholars are already echoing a similar call for a detour in the industry. Work is underway in that direction, which brings us to the theme of this workshop.

5. The question

Much hard work and serious thought has been put into the question of how to treat the "income" earned by Islamic banks, and whether that income can be treated like "liability-based" payment flows, thereby facilitating the recording of that income in national accounts. I have enjoyed reading the notes by Mr. Russell Krueger, and I applaud his efforts to rationalize the comparable treatment of conventional-bank "interest", and Islamic-bank "income" earned by investment account holders.[3] However, this treatment is irrelevant in the second generation of Islamic banks. The new paradigm itself will not, and should not, support such treatment. Under the second generation, the predominant mode of finance is PLS in a fintech environment, where the concept of fixed and stable payment flows is not applicable, and comparable treatment of “interest” and “earnings” is unrealistic.

6. Specialization is key

A key success factor in the second generation of Islamic banks is the specialization of Islamic banks. Not all banks need to offer all products. Some banks would become experts in *musharakah* contracts, others in *mudarabah*, and again others in crowdfunding. Specialization would limit the number of tools of differing terms, owners and rates of return, thus facilitating the recording and compilation of Islamic bank earnings. Under the new paradigm, Islamic financial intermediaries are outdated and so is their function. To treat conventional-bank “interest” and Islamic-bank “income” in the same manner is just as unrealistic as trying to fit an oversized piece into a small-sized puzzle. It just won’t fit!

7. The proposal

The proper treatment of income earned by Islamic banks is to treat it for what it is: profit – as unpredictable and fluctuating as the word conveys. Under the paradigm of the second generation of Islamic banks, the income statement will be as unstable and unpredictable as ever, and the broad approach would be irrelevant. A legitimate question might be: “What do we do in the meantime?”; and the answer would be: “Let us start working”. I call for working together to develop a system for the accurate estimation and recording of those profits, so that we are ready when the second generation arrives.

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Paper Four
Key conclusions and recommendations of the Workshop on Islamic Finance in National Accounts, Beirut, 24-26 October 2017
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1. Introduction

- Islamic finance does not operate in the same way as conventional finance as it follows sharia law, principles and rules;
- Sharia law does not permit:
  - o Receipt and payment of "*riba*" (interest);
  - o *Gharar* (excessive uncertainty);
  - o *Maysir* (gambling);
  - o Short sales or financing activities that it considers harmful to society.
- Instead, parties must share the risks and rewards of a business transaction;
- The transaction should have a real economic purpose without undue speculation, and not involve any exploitation of either party.

Asset-based approach:

- Money on money interest approach as the bank does not buy an asset to resell;
- Instalment has an interest component;
- Return on money is interest (on money) as no asset resale will happen;
- Clearly not an asset-backed approach to financing.

Figure 1. Traditional bank's automobile loan

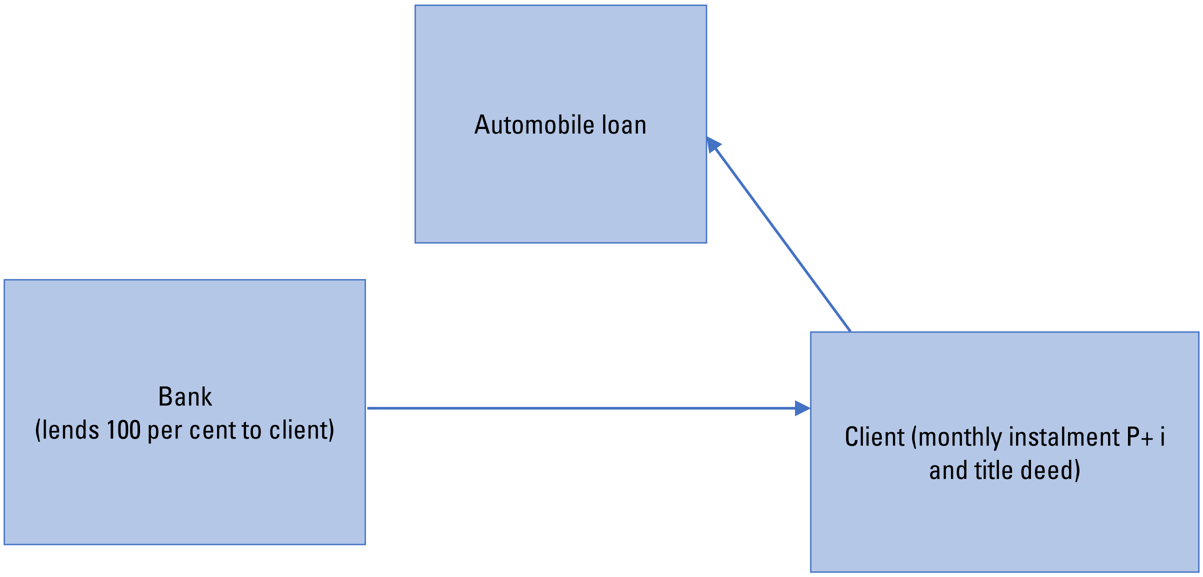
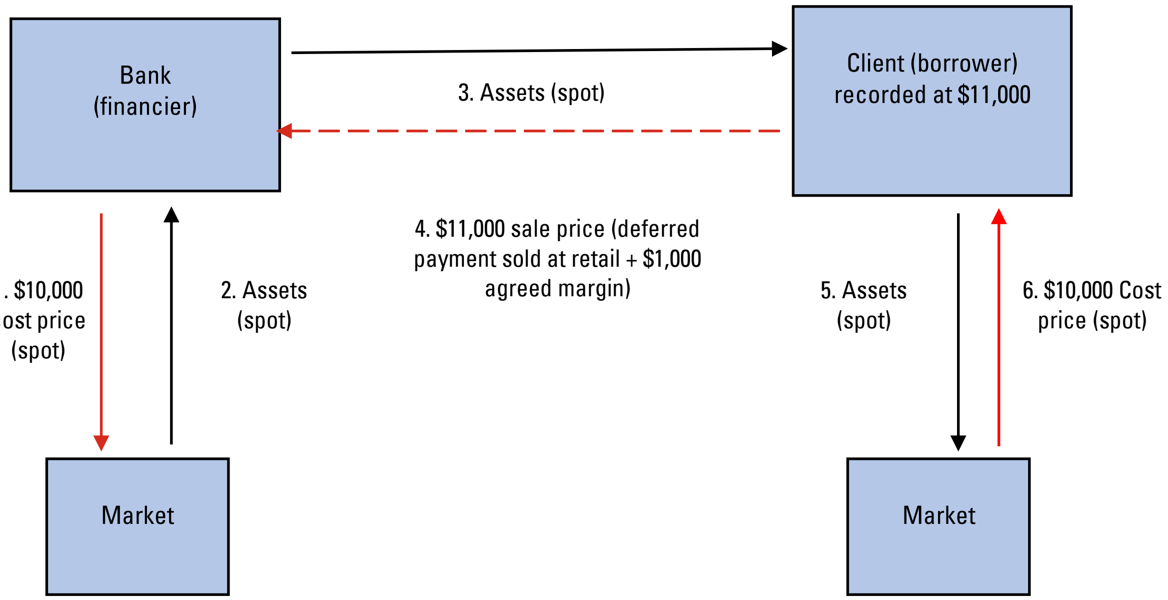


Figure 2. *Murabahah* automobile financing



Cost-plus approach:

- Terms are fixed from the outset of the agreement (in particular value of payment);
- In the event of early termination, no discount applies for early settlement;
- Rebate on the deferred sale price is permitted, but at the discretion of the financier.

2. Background

- Issues on the implementation of the 2008 System of National Accounts (SNA) recommendations for Islamic finance were raised during several meetings in the Arab region organized by the Economic and Social Commission for Western Asia (ESCWA);
- The Advisory Expert Group on National Accounts discussed this issue at its tenth meeting and noted the differences in business arrangements between Islamic finance and conventional finance. It recognized the system importance of Islamic finance for some economies and their relative rapid growth, and agreed that further research on the statistical implications of Islamic finance in national accounts was required and that practical guidance on the treatment of Islamic finance transactions needed to be developed;
- A task force was created to address the statistical treatment of Islamic finance in national accounts;
- A WebEx meeting among key stakeholders to identify key areas of work was organized in June 2017;

- An Islamic finance website to consolidate relevant materials and provide updates on the work done was set up (https://unstats.un.org/unsd/nationalaccount/ud-IF.asp);
- A workshop on Islamic finance in national accounts was organized in Beirut from 24 to 26 October 2017.

3. Discussions at Beirut workshop

Presentations and draft recommendations were made on the following points:

- Use of income statements and balance sheets of Islamic banks for compiling national accounts;
- Sectorization of Islamic financial corporations;
- Classification of Islamic financial instruments;
- Classification of corresponding property income associated with Islamic financial instruments;
- Calculation of output and value added of Islamic financial services;
- International initiatives to collect data on Islamic finance;
- Country practices in compiling Islamic finance statistics, challenges involved and solutions to overcome these challenges.

4. Key conclusions

A. Relevance of the 2008 SNA framework

The 2008 SNA provides the overarching integrating framework to measure the activities of Islamic finance. The accompanying international classification schemes such as the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, and Central Product Classification (CPC), Version 2.1, are meant to provide general guidance and recommendations. They should therefore not be amended to specifically accommodate the various elements of Islamic finance. Rather, compiling agencies can consider disaggregating the relevant categories in international classification schemes to the relevant Islamic finance subcategories in the national reporting of data.

B. Use of income statements and balance sheets of Islamic banks

There are important differences between the income statements and balance sheets of Islamic banks and conventional banks. A thorough understanding of these differences is needed to determine how to use the income statements and balance sheets of Islamic banks in the compilation of national accounts. The Islamic bank framework of the Islamic Financial

Services Board (IFSB) potentially provides a good source of information for compiling Islamic finance statistics in national accounts. There is a need to determine whether Islamic banks or their clients are the economic owners of the non-financial assets related to sales, lease and equity financing which are reported on the balance sheets of Islamic banks. There is also a need for worked examples to illustrate how to make use of those income statements and balance sheets to calculate the various elements of Islamic finance, such as property income and output in the national accounts. Solutions to obtain separate data on Islamic windows need to be developed since such data are typically not collected by regulatory or supervisory authorities.

C. Sectorization of Islamic financial corporations

Islamic financial corporations can be allocated to the subsectors of the financial corporations sector, as outlined in the 2008 SNA. However, the allocation of Islamic financial corporations to the deposit-taking corporations, except the central bank subsector, need to be reconciled with the consequent classification of at least one of their financial instruments on the liabilities side as deposits and the corresponding property income payable as interest. Sovereign wealth funds are allocated to the captive financial institutions and moneylenders subsector if they are institutional units and provide financial services on a market basis to the Government. Islamic insurance corporations should be allocated to the insurance subsector given that the nature of their economic activity is no different from that of conventional insurance corporations.

D. Classification of Islamic financial instruments

The existing sectorization of Islamic financial corporations and classification of Islamic financial instruments for compiling monetary and financial statistics using the classification schemes in the 2008 SNA are intended to obtain major macroeconomic aggregate indicators, such as money supply (broad money) and credit. There is a need to reconcile the existing sectorization and classification with the perceptible shift to second era Islamic finance, such as profit- and loss-sharing accounts, Islamic financial instruments with hybrid features, and the classification of the associated property income in national accounts. The reconciliation exercise will also need to assess the impact on the measurement of debt and money supply arising from classifying Islamic financial instruments as equity and non-equity in the 2008 SNA framework.

E. Classification of corresponding property income

There is a need to assess whether the current concept of interest in the 2008 SNA can be interpreted to include the property income associated with Islamic financial instruments that are classified as deposits, loans or debt securities. There is also a need to reconcile the classification of the investment income payable to holders of unrestricted profit-sharing investment accounts and the subsequent reinvestment of a portion of this investment income in the profit equalization reserves.

F. Output and value added of Islamic financial services

There is a need to assess whether it is appropriate to calculate the output of the financial intermediation services provided by Islamic financial corporations which are classified as deposit-taking corporations using the formula for financial intermediation services indirectly measured (FISIM) and, if so, determine the appropriate reference and financing rates to be used in the calculation of these services. There is also a need to develop practical guidance on how to calculate the quarterly output of Islamic financial services whose returns are only known ex-post annually. Moreover, it is necessary to develop methods to estimate the intermediate consumption of Islamic financial corporations and Islamic windows to calculate their value added.

G. International initiatives to collect data on Islamic finance

There is a need for regional and international organizations that are collecting data on Islamic finance to explore collaborative efforts to reduce duplication and respondent burden. Links to the databases of these international organizations should be included on the Islamic finance website of the United Nations Statistics Division to enhance user accessibility to the data which are collected. There is also a need for regional and international organizations collecting data on Islamic finance to consider standardizing their data collection and dissemination methods using internationally-endorsed standards such as Statistical Data and Metadata eXchange (SDMX) protocols.

5. Way forward

Two working groups should be formed to streamline work to tackle the issues raised at the workshop.

The first working group will undertake the following:

- Use of income statements and balance sheets of Islamic banks for compiling national accounts;
- Sectorization of Islamic financial corporations;
- Classification of Islamic financial instruments;
- Classification of the corresponding property income associated with Islamic financial instruments;
- Calculation of output and value added of Islamic financial services.

A corporation-by-corporation and instrument-by-instrument analysis of the characteristics of Islamic financial corporations and Islamic financial instruments and their transactions will be summarized in a matrix to determine the following:

- Appropriate sectorization of Islamic financial corporations;
- Classification of Islamic financial instruments;
- Recording of these transactions in the integrated national accounts framework;
- Development of a standard questionnaire to collect the input data.

The second working group will undertake the following:

- Assess how to coordinate the work of regional and international organizations which are collecting data on Islamic finance to maximize synergies and minimize duplication and respondent burden;
- Assess the data that can be used to compile Islamic finance statistics in the national accounts;
- Explore how to standardize their data collection and dissemination methods using internationally-endorsed standards such as SDMX protocols.

The two working groups should coordinate their activities to ensure the development of recommendations in an integrated approach. The development of recommendations and guidance of these two working groups should include inputs from stakeholders, including central banks, compilers of monetary and financial statistics, regulatory and supervisory authorities, Islamic accounting standards-setting agencies, and practitioners in the Islamic finance industry. These stakeholders shall be invited to any future workshops.

Endnotes

Paper One

1. www.imf.org/external/pubs/ft/cgmfs/eng/pdf/cgmfs.pdf.
2. www.unescwa.org/sites/www.unescwa.org/files/events/files/islamic_bankinglkhdmt_lmsrfy_.pdf.
3. https://unstats.un.org/unsd/nationalaccount/ud-IF.asp.
4. https://www.unescwa.org/events/workshop-islamic-finance-national-accounts.
5. https://unstats.un.org/unsd/nationalaccount/aeg/2017/M11.asp.
6. Broader questions exist beyond the scope of this paper. For example, a key question is how Islamic banking, which lacks interest rate signals and employs unique financial instruments, should be treated within the integrated global financial system and diverse national legal and policy frameworks. This paper limits its focus to statistical, quantitative issues to determine where bridges exist between conventional and Islamic bank and, conversely, where patterns diverge that require special treatment of Islamic banking.
7. FISIM: Borrowers from banks pay interest as a return for banks' services of gathering funds and making them available. Depositors in banks receive interest by making funds available to the banks but often receive no interest or reduced interest because they make implicit payments for services rendered by the bank (safekeeping, record keeping, transfer services, verification of borrowers' credit worthiness, collection services, and others). The amounts of bank interest received minus interest paid provides an indirect measure of the services offered by the bank to both borrowers and lenders.
8. Table 2 provides a synopsis of an Islamic bank income statement as agreed in September 2017 by the IFSB Task Force on Prudential and Structural Indicators for Islamic Financial Institutions. The presentation slightly modifies the presentation in the *Revised Compilation Guide on Prudential and Structural Islamic Financial Indicators* (the *Compilation Guide* is currently being revised – line descriptions will be changed to reflect the new compilation guide, when published). Other Islamic bank income statements also exist that have slight variations from table 2, but do not fundamentally change the discussion.
9. Islamic banks also have non-interest paying ("non-remunerated") deposit accounts, which are comparable with those provided by conventional banks. Unremunerated accounts are typically between 10 and 30 per cent of total funding.
10. Per the AAOIFI, returns to IAHs can be presented in a separate quasi-equity section below bank liabilities, but before equity. The International Financial Reporting Standards (IFRS) treat such positions as "puttable financial instruments" that must be classified based on their substance either as a liability or as equity capital.
11. The Prudential and Structural Islamic Financial Indicators (PSIFI) Compilation Guide 2011 uses the terminology "revenue on jointly funded assets", which emphasizes the commingling of funds between IAHs and the bank. The upcoming revision of the Guide might refer to this line as "net financing and investment income".

12. Two models exist for e-expenses to be allocated against bank income to produce net income: one model includes only direct costs associated with returns on bank investments, whereas the other can include indirect costs.
13. AAOIFI accounting standards treat as off balance sheet any assets funded by restricted PSIAs, which justifies only the reporting of the bank's share in the net income of the restricted account. However, this practice might not be universal and some banks following IFRS rules might decide that the assets should be on-balance-sheet. Moreover, new IAAOIFI rules could require consolidation of some *mudarabah* accounts within restricted PSIAs into the bank's balance sheet based on bank "control" of the funds, in which case, the treatment parallels that of the unrestricted accounts.
14. At the Beirut workshop on Islamic finance in national accounts, several participants questioned whether rr for Islamic banks should be the same as for conventional banks. In this paper, it is assumed that rr represents the general market rate of return available to all investors and borrowers, whether conventional or Islamic. However, this issue was not decided in Beirut and could be subject to further discussion.
15. Data on the distribution of loans and deposits by sector are available from IMF monetary and financial statistics.
16. A question to be resolved is whether the SNA should treat the reinvested PER (that is, funds deemed as paid to IAHs then immediately reinvested) as capital investment by IAHs or as a liability to IAHs.
17. Calculation of a reference rate and rates of return for use in calculating the current value of streams of future returns or for estimating impairment over the life of a financial instrument are among the most challenging issues in integrating Islamic banking into the SNA framework. For example, it has been suggested that use of interest-rate-derived measures should not be used as a discounting rate for estimating impairment losses. Suggestions include not divorcing rates from "time value of money" concepts, but rather using implicit growth measures drawn from the real economy.
18. Such monitoring, along with additional governance requirements for Islamic finance, is costly. One participant in the Beirut workshop, with both conventional and Islamic bank experience, said that Islamic banking is about 10 per cent more expensive than conventional banking.
19. However, IFIs sometimes provide a token return for the savings, but cannot offer the payment up front, cannot cite an indicative return, and must grant the payment at its sole discretion.
20. Sundararajan (2006) calculated that Islamic banks raise over 60 per cent of their funds through PSIAs. More recent information based on a 2013 survey found that PSIA-type deposits had slipped below 50 per cent of funding because of greater use of sales-based fixed profit deposits (IFSB, 2016). PSIFI data provide country-by-country information on funding by PSIAs, which show that the extent of PSIA funding varies widely by country, ranging from up to three quarters of funding down to only about a quarter of funding. PSIFI data also reveal a trend towards greater use of other types of remunerated funding rather than PSIAs.
21. This is sometimes called the expected or anticipated return.
22. Funds for PER are allocated based on estimated monthly income, or by topping up a desired level of the reserve from annual earnings.
23. Given the apparent high correlation, there is a case for treating a substantial portion of income paid to IAHs as equivalent to interest payments in calculations of financial soundness indicators and other measures of net bank income.

24. It is common for banks to use deposits received to purchase exchange-traded commodity contracts for metals such as platinum as the underlying item.

25. Commodity *murabahat* are usually contracted for a specific period, such as a year. However, there is flexibility for the customer to withdraw the deposit early by rebating back to IFI part of the full profit to term.

26. In cases where national accounting practices consolidate restricted PSIAs into a bank's balance sheet, their accounting and statistical treatments are parallel to unrestricted PSIAs.

27. An unresolved question is whether restricted PSIAs should be treated as a collection of financial assets held by households or other macroeconomic sector (corporations, non-residents, and others) under the management of the Islamic bank, or whether they might be deemed to be institutional units classified as "other investment funds". Discussion on investment funds is continued in the next section. National practices may differ on this question and statistical coverage of these assets will differ depending on the chosen treatment.

28. Other types of financial instruments need not be consolidated into bank's financial accounts.

29. Rates offered for new deposits provide information on the current market conditions and incentives for depositing, including how monetary policy actions might be affecting banks' funding decisions. The European Central Bank interest rate statistics, for example, cover new accounts separately.

30. The names and specific features of Islamic financial instruments can vary widely between countries. Statistical compilers will need to review the practices in their own countries to determine best treatments.

31. In countries with significantly large Islamic financial sectors, a comparison of data for conventional banks and Islamic banks as separate peer groups would be informative. The possibility exists that the Islamic earnings could be negative, but a priori there does not seem to be a problem in displaying it in comparison with conventional interest data.

32. If windows are deconsolidated, it is feasible to more accurately compile SNA accounts based on specific treatments for various types of Islamic financial instruments. However, it might be impractical to deconsolidate windows with a full set of financial accounts (such as the capital accounts).

33. In contrast, for financial soundness analysis, a cross-border residency classification based on supervisory consolidations is sometimes used (box 1).

34. Broad money, as per the *Monetary and Financial Statistics Manual* of the IMF, is a measure of cash and liabilities of depository corporations to the domestic public that have high liquidity and capital certainty, and are empirically related to general domestic economic activity and prices. The definition of broad money has steadily expanded in recent decades to include cash, current account or transferrable deposits, circulating or negotiable instruments used as means of payment, savings deposits that can be withdrawn and used for payments and a wide range of financial instruments that have acquired characteristics of money. Islamic banks can effectively undertake all those functions, although some instruments do not have capital certainty.

35. Non-MMMF investment funds are not subject to Basel risk-weighted capital adequacy rules for banks, and thus are freer to invest in riskier projects.

36. For example, in the eurozone, every investment fund is subject to statistical tests of its capital certainty; those with 10 per cent or higher equity components are classified as other investment funds.

37. As per AAOIFI, *mudarabah* accounts within restricted PSIAs should be consolidated into their parent bank accounts if they are effectively controlled by the bank. The current extent of application of this rule is unknown, but it parallels recent IFRS rules for investment accounts, and can thus be expected to be increasingly applied.
38. Prior to 2008 SNA, insurance and pension funds were combined into a single category, but pension funds were reclassified into a separate subsector because the structure of their accounts differs from that of insurance firms.
39. PSIFIs are published on the IFSB website. Available from www.ifsb.org and http://psifi.ifsb.org.
40. For example, ratios such as non-performing loans to Basel regulatory capital, liquid assets to short-term liabilities, return on assets, or large exposures to regulatory capital. Many of these macroprudential indicators parallel indicators used by banking supervisors to monitor the condition of individual banks.

Paper Three

1. Bizri, 2014.
2. Bizri, 2017.
3. Krueger, 2017.