



Transparency Problems in Cash Flow Transformation and Reserves Management in Islamic Investment Accounts

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Abstract

Islamic banks must comply with the interest rate prohibition to maintain *Shari'ah* compliance. This means that depositors cannot be offered fixed guaranteed returns on their investments. As an alternative, Islamic banks offer profit sharing investment accounts that depend on underlying investments to generate their cash flows. These cash flows are then transformed by the management before they are finally paid out to the investment account holders. The objective of these cash flow transformations is to transform the stochastic returns of the underlying investment to more stable (to an extent non-stochastic) returns for investment account holders. This is required or recommended by regulatory authorities and aims to mitigate system-wide mass withdrawals by investors (Withdrawal Risk). However, managing such reserves comes at a price, and this is the focus of this paper. These reserves create a veil of intransparent practices while hiding the actual performance of the investment accounts. Furthermore, they may end up defrauding some depositors from their deserved profits (inter-generational reserves ownership problem). Finally, mitigating withdrawal risk by matching the returns of competing riskless deposits while ignores the risks of Islamic investment accounts that associated with investing in the real economy. Some of these issues have gone relatively unnoticed in the literature or at least not combined in a structured manner. Therefore, it is highlighted in this paper the problematic nature from an ethical and *Shari'ah* compliance perspective and if not from a pure financial regulatory one.

Keywords: Islamic finance, profit equalization reserve, investment risk reserve, profit sharing deposits

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1. Introduction

Islamic financial assets and Islamic financial intermediaries have grown into relevant players in many countries in recent years. The global volume of Islamic (*Shari'ah*-compliant) financial assets¹ has reached a value of USD 2.14 trillion at the end of 2015 (Edbiz, 2016), growing at an average annual growth rate of 17.3% (MIFC, 2014: 2; The Economist, 2014; Thomas Reuters, 2015: 3) and forecasted to reach a value of USD 3.4 trillion by the end of 2018 (MIFC, 2014: 9). Islamic financial intermediaries have shown similar positive developments across all countries where Islamic banks operate with an average market share of 18% and with a relatively stable, slightly positive growth rate ranging from 0.06% to 3.08% average market share growth rate in the five years 2010-2014 (E&Y, 2017: 13).

Islamic financial intermediaries are governed by *Shari'ah* principles which, among others issues, prohibit riskless interest payments on deposits (Iqbal, 1997: 43; Ayub, 2007: 73). This has made Islamic financial intermediaries highly dependent in their funding on so-called Islamic investment accounts, which are profit-sharing-based contracts, and represent two-thirds of Islamic banks' funding (see Table 1.0). This reliance on profit-sharing-based contracts—that do not guarantee fixed interest payments—comes at a cost, namely, the risk that inadequate rates of return could lead to massive withdrawals that may reach systemic proportions and cause concern on the part of supervisory authorities as expressed in IFSB Guidance Note 3, Article 9.

¹ Islamic financial assets refer to the total of Islamic bank assets, Islamic mutual funds, Islamic insurance (*Takaful*), as well as *Sukuk* (MIFC, 2014: 2).

Table 1.0: Investment accounts as a percentage of total assets in a sample of banks in 16 countries at 2016Q2

Investment Accounts	Arithmetic Average at 2016Q2	Investment Accounts	Arithmetic Average at 2016Q2
Bahrain	68.49%	Pakistan	57.40%
Bangladesh	75.93%	Philippines	N/A
Egypt	77.98%	Qatar	56.55%
Indonesia	58.29%	Sri Lanka	78.92%
Jordan	69.58%	Syria	16.28%
Kuwait	68.09%	Thailand	108.10%
Malaysia	82.28%	Turkey	45.02%
Oman	53.74%	UAE	80.05%
Average: 66.45%			

Source: Author's own calculations

To mitigate these risks and comply with regulatory and supervisory recommendations, Islamic financial intermediaries have resorted to a form of cash flow transformation before returns are finally paid out to investment account holders. These cash flow transformations include managing reserve accounts, which allows financial intermediaries to smoothen the returns on investment accounts to match the returns of competitors, and thus avoid massive withdrawals due to inadequate rates of return on deposits.

Although this would seem to solve the direct problem of withdrawals, it comes with a rather high price that has been, to some extent, addressed in the Islamic finance literature. Yet some rather severe aspects remain to be addressed and highlighted, which is the aim of this research paper. The aspects are severe, in the sense that they render reserve management practices possibly unethical and even non-*Shari'ah* compliant if interpreted in a strict manner.

The paper is divided into four sections; the first briefly introduces the Islamic finance principles that force Islamic banks into using Islamic investment accounts. The section further explains how these Islamic investment accounts work. The second section builds upon the first, explaining how Islamic financial intermediaries use cash flow transformations through reserves to match the returns of their competitors in order to mitigate withdrawal risks. The third section discusses the problems with the practices of reserves management, highlighting some severe problems that have not been addressed by the literature. The fourth section concludes the paper.

2. Islamic Finance Principles and the Rise of Islamic Investment Accounts

2.1 Islamic Finance Principles

The term "Islamic", in the context of Islamic finance, implies that Islamic financial contracts adhere to the *Shari'ah* criteria governing all Islamic financial dealings. These include the following six principles based on standard-setters in the Islamic finance literature as well as global financial reports (Iqbal, 1997: 43; Ayub, 2007: 73; Ali, 2011: 5; IRTI/GARP, 2016: 1-8):

- (i) Prohibition of interest/*Riba*: where *Riba* (interest) is defined as any positive predetermined rate tied to a maturity and the amount of principal invested, and guaranteed regardless of performance. This includes investing in businesses that rely on interest-based loans for funding their operations.

- (ii) Prohibition of extreme speculative behavior/*Gharar*: includes hoarding of money and prohibition of transactions featuring extreme uncertainty and ambiguity regarding contract terms or contract outcomes, such as speculation or gambling. The actual definition of what constitutes “extreme” uncertainty is determined by a *Shari’ah* board on a case-by-case basis.
- (iii) Condition of risk-sharing: where providers of funds and entrepreneurs must share in the risk of the business to be entitled to any of its returns.
- (iv) Condition of money only as “real” capital: profits are generated only from money, which is used to undertake a productive activity, i.e., production in the sense of activities in the real economy. Money as “potential” capital, i.e., stored or lent as a medium of exchange or as a derivative without any real production, cannot produce profits, but only interest (which is prohibited).
- (v) Condition of sanctity and transparency of contracts: dictates the obligation to disclose any information relevant to the contract in order to reduce asymmetric information.
- (vi) Condition of *Shari’ah*-approved investments: all business activities must be *Shari’ah*-compliant. Prohibited non-*Shari’ah*-compliant activities include investment in businesses dealing with interest, alcohol, or gambling among others.

This is a comprehensive list of the most well-known and acknowledged principles of Islamic finance. It might be worth noting that the number of principles differs across the literature due to clear overlapping. For example, the sixth principle can be used to encompass the first principle as well, given that dealing with prohibited interest is implicitly non-*Shari’ah*-compliant. However, the (cited) Islamic finance literature does not mention this overlap and tends to differentiate between these principles as done here.

2.2 The Rise of Islamic Investment Accounts

Given the *Shari’ah* prohibition on interest and the condition of risk-sharing, Islamic financial intermediaries could not raise funding for their activities through conventional interest-based deposits. Instead, Islamic financial intermediaries raise funding through Islamic investment accounts. These are accounts owned by depositors and placed in a financial institution responsible for investing depositors’ funds and sharing the returns with the depositors. The returns of investment accounts depend on the underlying investments, the diversification/pooling strategy of the financial institution as well as management fees to be deducted. Additionally, management may choose to use practices of income smoothing using reserves or equity, before paying out the final returns to the depositors according to profit-sharing ratios pre-determined at the time of depositing the funds (IFSB15, paragraphs 271 & 272).

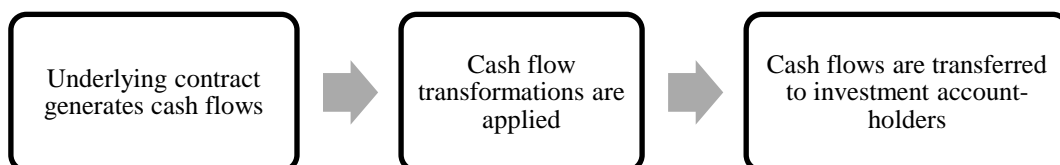
Investment accounts can be divided into restricted or unrestricted accounts, where an unrestricted investment account refers to the case where investment decisions, such as where, how, or for what purpose the funds are to be invested, are left freely to the bank, and thus the investment accounts are unrestricted from the bank’s perspective. Commingling of unrestricted investment accounts’ funds with shareholders’ funds is allowed. In the case of restricted investment accounts, depositors actively decide which project to invest the funds in, and thus the investment accounts are restricted from the bank’s perspective (IFSB15, paragraphs 273-275). Commingling of restricted investment accounts’ funds with shareholders’ funds is typically prohibited. It is important to note that in the case of restricted investment accounts, the depositor decides which project to invest the funds in, but does not manage the underlying project (IFSB15, paragraphs 273-275, & 414).

An additional aspect that distinguishes investment accounts from Conventional bank deposits is whether they are to be considered, from the bank’s perspective, as liabilities (like Conventional bank deposits) or equity. According to IFSB, unrestricted investment accounts appear in the liabilities section of a financial institution’s balance sheet while restricted investment accounts are considered off-balance-sheet. Both are treated as equity in the case of bankruptcy, i.e., the investor has shareholder-like residual claims over the

assets of the financial institution (IFSB15, paragraphs 275). The size of Islamic investment accounts represents on average 67% of total liabilities and equity for Islamic banks at 2Q2016 in a detailed sample of countries as can be seen Table 1.0.

A depositor in an investment account must first engage in a (profit-sharing) contract with the bank that allows the depositor to share in the profits of the underlying contract. The bank then uses the capital obtained from the depositors to invest in underlying contracts. When the underlying contracts generate cash flows, these are then transferred to the investment account-holders after cash flow transformations are conducted: management fees are deducted and reserves are created. This procedure is depicted in Figure 1.0.

Figure 1.0: Procedure of transferring returns to investment account-holders.



According to IFSB15 (paragraph 15), there exists seven contracts that are available as underlying contracts for Islamic investment accounts. An entire listing of the contracts and their descriptions are available in IFSB15. The IFSB classifies underlying Islamic financial contracts based on their nature of return where a (*Shari'ah*-compliant) return can be achieved by one of two methods:

- (i) **Mark-up:** a contract, which generates returns through the sale or lease of an asset, where the return is the mark-up levied upon the transaction. Mark-up contracts include *Murabahah*, *Salam*, *Istisna'* and *Ijarah* (IFSB15, paragraph 12). The returns of these mark-up contracts are thus based on the sale of (—in case of *Ijarah*—the benefits of) assets or commodities and their returns are the spread between cost of asset acquisition and the amount recovered from selling it (—in case of *Ijarah*—leasing) with the agreed upon mark-up. The cash flows of these contracts are therefore “real cash flows”, i.e., produced directly from a real asset, which taps into the real economy.
- (ii) **Profit-sharing:** a contract, which generates returns by sharing the returns of an underlying investment. Profit-sharing-based contracts include *Musharakah*, *Mudharabah* and *Wakalah* (IFSB15, paragraph 12). The returns of these profit-sharing contracts are thus based on the ownership of the underlying asset and their returns are the shares of profits or losses achieved by the underlying investment. The cash flows of these contracts are therefore “financial cash flows”, i.e., are at least one level away from the real asset that taps into the real economy (a real cash flow generating asset need not exist at this stage but must eventually exist in later stages).

The nature of the cash flows of the underlying contracts (real or financial) is, in our opinion, crucial and deserves much more attention than it has so far had in the Islamic finance literature since it identifies an important “loophole”, namely that no explicit limit on the levels of underlying contracts exists. For example, consider an investment account (generating a financial cash flow) where the funds are invested in another investment account whose funds are also invested in a third investment account and eventually invested in the real cash flow generating asset. Would such an asset be deemed better or worse—from a *Shari'ah*-compliance perspective especially with regards to sanctity and transparency of contracts—than another investment account whose real cash flow generating asset is only one level away? This loophole will constitute a problem for *Shari'ah*-compliance in the long run since a buyer may not be able to determine what the underlying contract actually is. This situation is as problematic as multiple level securitization and re-securitization of assets in conventional finance.

3. Reserves Management in Islamic Investment Accounts

The term cash flow transformation is used to describe transformations of underlying contracts' original cash flows done at the hands of the managing institution before the final cash flows are transferred to investment account-holders. We divide cash flow transformations into three different techniques, namely (1) pooling, (2) management fees, and (3) smoothing and reserves. The extent to which these techniques are practiced is not publicized and therefore it is unclear how transformed/distorted the final cash flows received by the investment account-holders are compared to their original sources. This is the first of many intransparent aspects inherent in the way Islamic investment accounts are managed. This is quite problematic given the importance of transparency in *Shari'ah* principles, and even its presence in the very first paragraph of Bank Negara Malaysia's Guidelines on Profit Equalization Reserve stating that "the *Mudharabah* (profit-sharing) contract...is an example of the distinct risk in Islamic finance that would require adherence to strong risk management governance and a high degree of transparency" (Bank Negara Malaysia, 2008). This stance is later unceremoniously changed in the 2017 guideline (Bank Negara Malaysia, 2017) without explaining whether the *Mudharabah* contract's nature has somehow changed, or whether the Malaysia central bank simply recognized the problems with reserves management.

In any case, cash flow transformations are either voluntary or, in the strictest case, recommended by supervisory authorities, but never obligatory (Hamdi and Zarai, 2013: 27). Cash flow transformations aim at maintaining as-steady-as-possible cash flow streams to investors (IFSB, GN-3: 15). This is rather obvious with (1) pooling and (3) smoothing and reserves, however how this is conducted using (2) management fees will be explained in a coming section. Another aim of cash flow transformation is mitigating withdrawal risk by matching the returns of competitors (IFSB, GN-3: 4). The presence of both of these aims in the same IFSB Guidance Note introduces a degree of vagueness—if not a contradiction. Even if the original cash flows of the contracts are non-stochastic and as-steady-as-possible, cash flow transformations may end up introducing stochastic components into contracts' cash flows in order to match the returns of competitors (if these are stochastic as well). IFSB Guidance Note 3 seems to be working under the assumption that the returns of competitors are already as-steady-as-possible since this is the only way maintaining as-steady-as-possible cash flows while matching the returns of competitors can coincide.

3.1 Pooling

Pooling occurs when the bank pools numerous underlying contracts together into one fund (IFSB15: 93; Bank Negara Malaysia, 2014: 42, 43). This results in pooling of different cash flows of different contracts each possibly with its own conditions. Even if the pooling occurs only with one type of contracts, these contracts may have different maturities, mark-ups, profit-sharing conditions etc. whose combinations are not ex-ante known to the investor. In sum, though the original cash flows of the contracts might not be stochastic, the pooled cash flows will fluctuate across the lifetime of the investment account.

A transparency issue arises here, namely whether the returns of the individual investments before pooling should be communicated to investment account-holders or only the final cash flows. Furthermore, unrestricted investment account-holders have no say in whether their investment should be pooled with other investments or not. The degree of pooling should act as a diversification strategy, although the intransparent practices involved and the lack of data towards the degree of pooling makes it difficult to analyze the success of these pooling strategies.

3.2 Management Fees

Management fees exist in different forms depending on the nature of the contract: Management fees in *Musharakah*, *Mudharib* fees in *Mudharabah*, *Wakil* fees in *Wakalah* (see Table 2.0). These fees are deducted from the cash flows before any profit-sharing payout is conducted (IFSB, GN-3: 21). Although fees are contractually fixed within each contract, pooling of different contract types may imply different management fee structures. Furthermore, return smoothing using management fees occurs when management forgoes a portion or the entirety of the management fee in attempts to modify the returns to investors (IFSB, GN-3: 11).

Management fees can be summarized as follows:

Table 2.0: Structure of management fees in different profit-sharing-based underlying contracts.

Contract	Fees	Form	Condition under which fees become due
<i>Musharakah</i>	Managing-Partner Fee	Free to determine.	Received regardless of performance. However, fees are not necessarily present in <i>Musharakah</i> since it is common that the managing partner contributes less capital and therefore no fees are paid.
<i>Mudharabah</i>	<i>Mudharib</i> Fee	Pre-determined share of profits.	Only when profits are received.
<i>Wakalah</i>	<i>Wakil</i> Fee	Fixed/flat sum and in some cases an additional fee determined as a percentage of profits.	Fixed fee received regardless of performance while additional fee only when profits are received.

Return smoothing can be achieved when bank shareholders forego a portion of their share of profits in order to offer investment account-holders a rate of return competitive with that of Conventional deposits (IFSB15, paragraphs 279 & 280; IFSB GN-3: 6). The exact amount of fees that is foregone by management is not publicized increasing the intransparency of investment accounts and hiding the ability of management to generate returns. This should also be seen as a problem from the stockholders' point of view since management fees are, at the same time, profits for shareholders. If management decides to forego a portion of these fees, stockholders should be made aware of how much fees (profits from stockholder perspective) were foregone.

3.3 Smoothing and Reserves

Another method of cash flow transformation is the generation and management of reserves to smoothen the long-term returns of an investment account. IFSB (GN-3: 3) mentions that the motivation behind smoothing is mainly the limited supply of money-market instruments to manage liquidity as well as the absence of a lender-of-last-resort for Islamic banks. This exposes Islamic banks to withdrawal risk: The risk that depositors would withdraw their funds if the returns distributed to them were lower than those offered by competing Islamic (and Conventional) banks. "If unmitigated, withdrawals can reach systemic proportions and become a cause for concern on the part of supervisory authorities" (IFSB, GN-3: 3). Consequently, smoothing techniques are widely practiced and recommended (IFSB15, paragraphs 279 & 280), but are transparently communicated. Smoothing returns at the expense of reserves is conditional on the availability of such reserves; otherwise, returns are smoothed at the expense of the shareholders of the bank. This gives rise to a risk specific to Islamic banks' shareholders, namely displaced commercial risk which is "the risk arising from assets managed on behalf of IAH (investment account holders) which is effectively transferred to the (bank's) own capital because the (bank) follows the practice of (smoothing) when it considers this necessary as a result of commercial and/or supervisory pressure" (IFSB GN-3: 3; Bank Negara Malaysia, 2017:10).

Applications of smoothing include the creation of profit equalization and investment risk reserves. Profit equalization reserves aim at evening out positive fluctuations in returns to ensure relatively stable cash flows (IFSB, GN-3: 6, 22). Investment risk reserves aim at compensating negative fluctuations in returns to avoid transferring losses to investment account-holders (IFSB, GN-3: 7, 23). It is important to note that these reserves are created before cash flow distribution to account-holders and are therefore hidden from the account-holder's perspective. This creates an important problem concerning the ownership of the reserves at any given time during the life of the fund that generates cash flows for the investment account.

Whether this reserve is paid out at the end of the investment account back to the depositor or not, is highly debatable in the Islamic finance literature (IFSB, GN-3: 7). It is clear that these reserves are owned by the investment account-holders and not the bank or its shareholders. Therefore, in case of bank liquidation, these reserves will go to the investment account-holders (IFSB GN-3: 13; Bank Negara Malaysia, 2008: Section 4.2, ii and Section 6.2). However, since investment accounts have—by design—an infinite maturity the following problem remains unsolved: to which investment account-holders should reserves be paid out? If the answer is: Only those present when the bank is liquidated (Bank Negara Malaysia, Section 4.2, ii), then earlier depositors that have already withdrawn their money will lose the contributions they have made to the reserve.

Furthermore, in case the Islamic bank deems the size of the profit equalization reserve too large, a portion of the reserve may be paid back to the investment account-holders, who are holding the reserve at the current time (Bank Negara Malaysia, 2008: Section 4.4, iii). This “inter-generational” problem is not only relevant upon liquidation of the bank, but rather whenever the bank decides to utilize the reserves to smoothen returns since the reserves may benefit a group of investment account-holders that are completely different from the ones who actually contributed to the creation of the reserve in the first place. In practice, Islamic banks solve this problem by requiring investment account-holders to sign a waiver of their ownership rights in the reserves upon withdrawal of their funds, or as early as when they first deposit their funds in the investment account (Bank Negara Malaysia, 2008: Section 4.2; Hamdi and Zarai, 2013: 27, 31). This may solve the legal component of the inter-generational problem, but does not solve the financial or transparency aspects and will usually lead to a situation where the reserves are not (fully) paid out to the original contributors. The balances of the reserves should be disclosed in the annual financial statements (Bank Negara Malaysia, 2008: Section 5.4, ii). This, however, does not sufficiently show investment account-holders why specific amounts of reserves were created and when they will be utilized since it is only reported at year-end.

Amin (2017) identifies this problem as well highlighting that it is problematic in that it removes a portion of the “risk sharing” and its intransparent introduces an element of “*Gharar*”. We disagree with the former point, but agree completely with the latter. Creating reserves should not be seen as a violation of the “risk sharing principle”, but rather sound returns management in the sense of saving for a rainy day. The intransparency however is indeed introducing an element of “*Gharar*”, even if the practices of reserve management are communicated to the Central Bank, at least in Malaysia according to Amin (2017), the “*Gharar*” still exists within the contracting parties, namely the investment account-holders since they are not made aware of the actual returns made out of their money, but only the transformed returns, leaving an element of “luck” as to how or what management will deem a suitable rate of return.

4. Discussion

This paper started off with evidence that Islamic investment accounts are becoming quite important for Islamic banks since they rely on them for financing their activities. However, in order to comply with interest rate prohibitions, these investment accounts cannot offer fixed guaranteed returns. As a result, investment accounts in Islamic banks are based on profit(-and-loss) sharing and that depend on underlying investments that exist in the real economy to generate their cash flows. At this point we highlight the first transparency problem, namely would an investment account be deemed better or worse—from a *Shari'ah*-compliance perspective especially with regards to sanctity and transparency of contracts—depending on how far the real economy underlying investment is? This situation may become as problematic as multiple level securitization and re-securitization of assets in Conventional finance.

With cash flows of investment accounts relying on real economy assets, they usually generate stochastic returns and are therefore transformed by management to obtain non-stochastic returns before they are finally paid out to the investment account holders. This is done to mitigate system-wide mass withdrawals by investors (Withdrawal Risk). Cash flow transformations by management can be summarized into three stages: Pooling of funds, management fees, and reserves management. With regards to pooling, it benefits the investment account holders since it acts as a diversification strategy, yet it is usually done in a very intransparent manner with hardly any data published towards the degree of pooling makes it difficult to

analyze the success of these pooling strategies.

The same problem exists in management fees where the exact amount of fees that is foregone by management is not usually publicized increasing the intransparent of investment accounts and hiding the ability of management to generate returns. An entry on the income statement usually shows “Bank’s *Mudharib* share”, however it is unclear how much fees have been forgone? We recommend a clearer footnote declaring how much management fees “should” have been taken, and how much were actually taken. Without this clear information, this becomes a clear transparency problem from the stockholders’ point of view since management fees are profits for shareholders.

Finally, reserves management also has a major transparency issue, namely the inter-generational reserves ownership problem, where investment account holders contributing to the reserves may end up losing this amount upon their exit, and the reserves end up being paid out to completely different investment account holders. This problem has been criticized by the Islamic finance literature when it comes to conventional insurance – where premium contributions are lost if not incident occurs. However, this reserves system is also meant as a type of insurance system, but suffers from the same problem.

It should be noted that some of these problems seem to have been recognized over the years with the latest Bank Negara Malaysia Guideline specifically prohibiting cash flow transformations in paragraph 13.5 “The (bank) must not implement profit smoothing practices or displaced commercial risk (DCR) techniques”. They do not give reasons to why this prohibition is now taking place as compared to their guideline from 10 years earlier. This research tried to highlight the problems in an elaborate manner. A critical contradiction remains, namely that Bank Negara Malaysia requires Islamic banks to follow the Reference Rate Framework (Bank Negara Malaysia, 2016) which implies a required rate of return. It is unclear how this rate should be reached given the real-asset nature of Islamic investments accompanied by the prohibition of cash flow transformations in the 2017 guideline.

5. Conclusion

All cash flow transformations create a veil of intransparent practices hiding the actual performance of the investment accounts. Furthermore, they may end up defrauding some depositors or stockholders from their deserved profits. We do not claim that mitigating withdrawal risk is not a worthwhile goal, but we do highlight that pursuing such a goal in an intransparent manner is problematic from an ethical and *Shari’ah* compliance perspective, if not from a pure financial regulatory one.

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