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Innovative Islamic Social Finance for Housing Microfinance

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Abstract

For a long time, microfinance was considered an appropriate tool to accomplish social and financial goals simultaneously. Over time microfinance has become more commercialized, transforming into a financially efficient industry, allowing more *customers to have access to more sophisticated banking products (e.g. small housing loans). Despite interest from the commercial sector, the industry has yet to find a workable market-based solution to fund (housing) microfinance and to improve access to finance.*

Microfinance in member countries of the Organization of Islamic Cooperation (OIC) face three challenges: (i) affordable funding, (ii) financial exclusion due to religion and limited access of consumers to financial services, *and (iii) constraints in the area of risk and management capabilities. Growing populations and rising urbanization have impeded the access of low income groups to housing finance. Housing* costs *in relation to incomes and the lack of formal title have forced people to live in informal settlements.*

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The objective of this paper is to describe and assess the introduction of an innovative way to leverage Islamic social finance instruments combined with a market-based mechanism, e.g. ṣukūk, (Islamic bond), that aims to enhance access to finance at a *lower and* more *affordable cost. Microfinance institutions have tapped capital markets by securitizing their housing microfinance portfolios however, due to the high risk of underlying portfolio conventional mechanisms of credit enhancements fail. The paper proposes a unique way to overcome credit enhancement issues in absence of outright credit guarantees through the use of Islam's redistributive social finance instruments such as waqf (trust*) and *qard hasan), qarḍ ḥasan (benevolent loan). The result is a viable option to develop a market-based financing solution to address core problems of financial inclusion and non-bankable segments in OIC countries.*

Keywords: Housing Finance, Sukuk, Waqf, Social Finance
JEL Classification: G21 , G23 , Z12.
KAUJIE Classification: I68, K16, E23, K3.

1. Introduction

For a long time, microfinance has been considered an appropriate tool to accomplish social and financial goals simultaneously. Over time, microfinance has become more commercialized, transforming into a financially efficient industry, allowing more customers to have access to more sophisticated banking products (e.g. small housing loans). The experience with microcredit or microfinance has been mixed, as there is a growing consensus that expectations were overestimated and that there are serious challenges in achieving a sustainable impact on poverty alleviation.[1] One of the key criticisms of commercial and conventional approaches to microfinance is the high cost of borrowing as a result of high interest rates.[2] These high rates are justified because of high transaction and operating costs and the high risk premium. However, this imposes undue stress on the recipient to engage in activities that produce returns higher than the cost of funding—which may not be possible in many cases. In the case of housing microfinance (HMF), high interest rates make housing less affordable and thus prevents the poor from building a valuable asset.

[1] For example, see Chawdhury (2005), Amendariz De Aghion and Morduch (2005), Fischer (2010)
[2] Interest rates in the range of 20-35% are common in the conventional microfinance industry.

Investments in the housing and housing finance sector of an economy have several multiplier effects that will systematically lead to more jobs, and improve health and education. As far as the impact on job creation is concerned, anecdotal evidence shows that for every job created directly in construction, it is likely that at least one to two more jobs are generated in the industries feeding materials, transportation, sustenance and parts into the construction process. These effects are independent of the provider of housing loans – be it a microfinance institution (MFI) or a commercial bank.

Providing the framework for the expansion of human capabilities provides a foundation for the generation of additional resources with which public and private efforts will flourish. The provision of such resources will lead to increased welfare and living standards. For most low-income people their home is a place of living and production. A solid and clean home improves the quality of life and increased well-being. As a result, people will become more productive, creative, and satisfied.

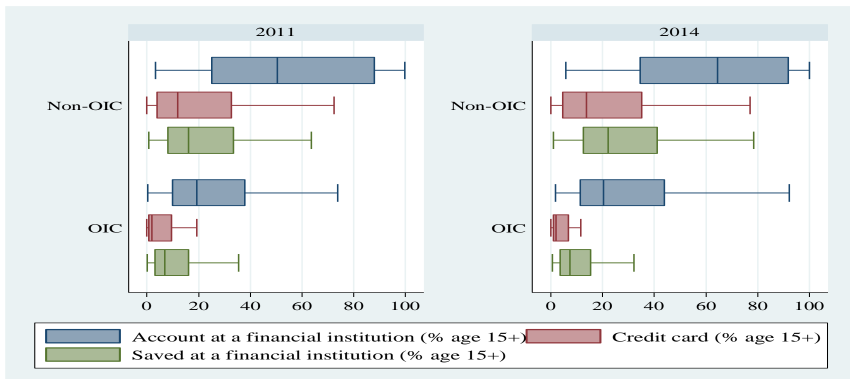
The purpose of this paper is to describe and assess the introduction of a market-based model aimed at combining Islamic finance principles with the objective of addressing “market-failure” in the microfinance industry and to enhance access to finance at an affordable cost in OIC countries.[3] The core economic principles of Islam places great emphasis on social justice, inclusion, and the sharing of resources between the haves and the have-nots. Islamic finance addresses the issue of financial and social inclusion from two directions: one by promoting risk-sharing contracts that provide a viable alternative to conventional debt-based (risk-transfer) financing, and the other through voluntary and involuntary instruments of redistribution of wealth in society, i.e. instruments of social finance. Both risk-sharing financing instruments and social finance instruments complement each other to offer a comprehensive approach to enhance financial and social inclusion, eradicate poverty, and build a healthy and vibrant economy. The second set of instruments meant for redistribution are used to redeem the rights of the less able in the income and wealth of the more able.[4]

In OIC countries, the majority of low income earners often do not have access to formal financial services. Figure 1 shows the relative state of OIC countries with respect to non-OIC countries in different indices that intend to capture the level of financial inclusion, such as account ownership, credit card ownership and saving

[3] OIC stands for Organization of Islamic Cooperation, an organization consisting of 57 Muslim countries.
[4] Iqbal and Mirakhor (2013).)

habits at a financial institution. We see that the OIC countries are worse off than their non-OIC counterparts in all three metrics. The biggest gap between OIC and non-OIC countries seems to be in the category of owning an account at a financial institution. Even though OIC countries have made some progress on that metric during the period between 2011 and 2014, they still have a long way to go. In the other two categories, saving in a financial institution and use of credit card, it is striking that the state of OIC countries has not improved at all between 2011 and 2014. In 2014, account penetration was the highest in East Asia and the Pacific with 69% and lowest in the Middle East with just 14%.

Figure-1:
Different Proxies for Comparing Financial Inclusion Between OIC and Non-OIC Countries



Source: Findex database and authors' calculations

One of the major initiatives that the World Bank Group (WBG) has targeted is to make it more likely to achieve its twin goals (ending extreme poverty and boosting shared prosperity) as well as to increase the welfare of the people living in the world is to achieve Universal Financial Access (UFA) by 2020. The UFA goal envisions that by 2020, adults that are currently not part of the formal financial system have access to a transaction account or an electronic instrument to store money, send and receive payments to manage their financial lives, and help to manage risks and escape poverty.[5] To achieve the UFA goal, 25 focus countries, which represent 73% percent of the world's unbanked adult population, were identified. Out of the 73%

[5] http://www.worldbank.org/en/news/feature/2013/11/07/achieving-universal-financial-access-by-2020-requires-the-wbg-to-think-about-what-we-need-to-do-differently

percent of the world's unbanked, 22.2 percent are Muslim-majority countries, indicating that access to finance is a major problem in OIC countries.

The World Bank's traditional goal has been to eradicate extreme poverty. Recently it has increased its metric for defining people living under extreme poverty from $1.25 ($2.0) to $1.9 ($3.1).[6] The official goal of the WBG is to reduce extreme poverty to 3% (or less) by 2030. In addition to the World Bank, the United Nations (UN) has also given the highest priority to poverty reduction and has listed poverty eradication as the first Sustainable Development Goal.[7] In Figure 2, we see the state of OIC countries with respect to non-OIC countries. It could be observed that both OIC and non-OIC countries have managed to reduce poverty levels in recent years, however OIC countries are lagging behind their non-OIC counterparts in reducing extreme poverty.

Increasing financial and social inclusion would not only enable the extreme poor to better cope with negative income shocks but also help overall economic growth by creating a countercyclical economic policy and helping the poor to maintain their human capital for the future and to assist in the recovery of the economy. Furthermore, increasing financial access to marginalized groups and increasing the financial literacy of low income groups is important in order for the extreme poor to maximize their usage of financial services.

HMF intersects housing finance and microfinance and incorporates elements of both.[8] As a result, HMF products combine on the one hand traditional microfinance elements (e.g. creditworthiness assessment methodologies), and on the other hand, they include features common in housing finance. Typically, HMF loans are long term and loan amounts are larger.[9] Being asset-based HMF loans are a good candidate for securitization transactions of a microfinance (MF) portfolio.

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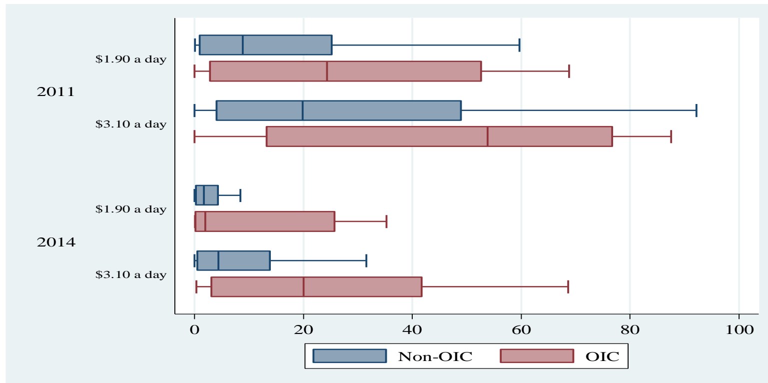
[6] http://www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq

[7] http://www.un.org/sustainabledevelopment/poverty/

[8] F. Daphnis, Bruce Ferguson (2004). Housing Microfinance: A Guide to Practice. *Kumarian Press Inc.,* p. XV.

[9] For a summary of the differences between microfinance loans and HMF loans, see S. R. Merrill (2009). Microfinance for Housing: Assisting the "Bottom Billion" and the "Missing Middle". Urban Institute Center on International Development and Governance, IDG Working Paper No. 2009-05, p. 2.

Figure-2:
Poverty Headcount Ratio at $1.90 and $3.10 a day (2011 PPP) (% of Population)



Source: World Development Indicators and authors' calculations
2011 represents the averages of available values for the period from 2005 to 2011 while 2014 represents the average of the available values from 2012 to 2014

This paper focuses on designing funding mechanisms to support the expansion of such products with the use of commercial as well as social finance instruments of Islamic finance. The proposed market-based solution entails the structuring of an Islamic bond (*ṣukūk*) through securitization of micro-portfolios. Given the high risk of the underlying portfolio, conventional mechanisms of credit enhancements would fail. In addition, such credit enhancement mechanisms may not be aligned with the Sharīʻah principles. Therefore, this paper proposes to utilize two of Islam's redistributive instruments, i.e. *waqf* (trust) and *qarḍ ḥasan* (benevolent interest-free loan) to serve as credit enhancements, which facilitate the use of securitization as a funding vehicle for HMF portfolios.

The paper is structured in the following way: after the introduction, the second part provides an analysis of the challenges of (housing) microfinance in MENA countries, the third and fourth part presents the model. The last two sections discuss the feasibility of the proposed model according to pre-defined criteria and propose an approach for the implementation of the model.

2. Low Income Groups in OIC Countries Struggle to Access Financing at an Affordable Costs to Meet their Housing Needs

Most OIC countries including those from the Middle East and North Africa (MENA) region face considerable housing shortages due to changing demographics.[10] Young and rapidly growing populations are driving an increased rate of household formation. Population growth is twice the global average of 1.1 %. About 30 % of the populations are below 15 years. These trends have put considerable pressure on housing markets. LaSalle (2011) estimates the housing deficit at about 3.5 million dwellings. A further increase in this deficit is expected in the next five years.[11] As the region is already highly urbanized (on average 63%), urbanization is of less importance as a reason for the increased demand for housing.[12]

In particular low income groups are particularly exposed to this housing backlog because they are often forced to find shelter on the fringes of cities or in an informal settlement with suboptimal construction standards and no access to clean water. Besides weak and dysfunctional legal and regulatory conditions, a major challenge for countries is to provide and allocate sufficient financial resources to meet the financing needs to enable the provision of decent housing conditions for the majority of their citizens.[13]

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[10] The Middle East and North Africa (MENA) is an economically diverse region that includes both the oil-rich economies in the Gulf and countries that are resource-scarce in relation to their population. This region includes the following countries Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank and Gaza, and Yemen. See http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,menuPK:247619~pagePK:146748~piPK:146812~theSitePK:256299,00.htmlSee http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,menuPK:247619~pagePK:146748~piPK:146812~theSitePK:256299,00.html for more information. As applicable, reference is also made to South Sudan and Sudan.

[11] Jones Lang LaSalle (2011). Why Affordable Housing Matters? Page 5

[12] O. Hassler (2012). Overview and background of housing finance developments in MENA. Presentation given at the Conference on "Developing Housing Finance in the MENA Region", Arab Monetary Fund and World Bank, Abu Dhabi, April 4-5, 2012.

[13] N. S. Shirazi, M. Zulkhibri, S. S. Ali (2012). Challenges of Affordable Housing Finance in IDB Member Countries using Islamic Modes. *Islamic Research and Training Centre*, page 3.

Low income groups typically access financial services from relatives, friends or informal lenders (e.g. loan sharks) or MFIs.[14] MFIs have benefitted from the concept among investors, policy makers and academics that granting loans at fair conditions is an acceptable approach to alleviate the financial constraints of the poor.[15] The industry has expanded over recent years, extending loans to approximately three million clients throughout the region. At the same time the offer of Sharīʻah-compliant microfinance products has also increased, albeit at a much smaller rate.[16]

Coupled with expansion, the microfinance industry has become more commercialized, allowing more customers to have access to a wider range of different products, especially small housing loans. However, the growth in access to finance has uncovered a number of challenges and weaknesses in the MFI's model:

(i) *High cost of borrowing*. Conventional MFIs are often criticized for charging very high interest rates on loans to the poor. These high rates are justified because of high transaction and operating costs and the high risk premium. However, this imposes undue stress on the recipient to engage in risky activities that produce returns higher than the cost of funding—which may not be possible in many cases. Microfinance providers claim that profit margins of small entrepreneurs are high enough to cover high cost of borrowing. However, this justification leaves a very small margin of survival in the face of unexpected loss of business due to adverse circumstances due to family, health, and natural calamity.

(ii) *Diversion of funds.* The possibility exists that funds will be diverted into nonproductive activities such as personal consumption. In some cases, micro-credit may lead the poor into a circular debt situation, where borrowing from one micro-lender is used to pay off the borrowings from another lender. Poor households clearly have other needs, such as school fees, risk mitigation against adverse events such as illness, disability, or failed crops, and even personal consumption.

(iii) *Excessive exposure*. In the wake of the fast expansion of microfinance, many MFIs have extended finance to riskier borrowers without having adequate risk

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[14] The term microfinance institution (MFI) is used in a broader sense, comprising besides the typical MFIs, NGO, co-operatives or other non-bank financial institutions, which specialize in lending to low income groups.

[15] C. Luetzenkirchen, C. Weistroffer (2012). Microfinance in evolution. *DB Research*, Current Issues, page 2.

[16] For example, see Mohieldin, Iqbal, Rostom, and Fu (2011) and various reports on Islamic Social Finance by IRTI, i.e. IRTI (2014), IRTI (2015), and IRTI (2017)

management capacities which increases their exposure. In addition, there is a growing realization that every micro-borrower is not an entrepreneur and therefore, may not manage their borrowings in an optimal fashion.

(iv) *Deteriorating effectiveness*. Microfinance was often introduced as a development tool in a largely non-competitive setting. But with increasing commercialization and competition, the instruments used to overcome moral hazard and adverse selection have become less effective. This has weakened incentives to repay on the part of borrowers, increasing the probability of multiple borrowings and strategic default by borrowers.

(v) *Absence of a market-based solution.* As mentioned early, the effectiveness of MFIs is often compromised because of limitations on the supply of funding at affordable rates, coverage, mix of products, and funding by the informal, semi-formal, and noncommercial sectors. There is a need to move towards a market-based or private sector-based solution within the formal financial sector or capital markets. Without participation by the private sector, some of the core issues may not be overcome.

As a result, the industry experienced some difficulties: asset growth has slowed markedly, profitability has declined, and portfolio risk rose. The microfinance crisis in Morocco in 2008 was a prominent example of the industry's difficulties.[17] The future development of the industry will therefore depend on the implementation of sound lending and risk management standards as well as offering products which put client needs back in focus. It also requires a culture of social responsibility among MFI owners, managers, and staff.

Another important aspect is the access to stable funding sources to allow a balanced expansion. The US subprime mortgage crisis of 2007 revealed the risks of 'slicing and dicing' underlying portfolios and brought the development of market-based funding solutions to a complete standstill. Markets are only slowly recovering. For example, securitization volumes in 2012 amounted to approximately EUR 200 billion, a fraction of the more than EUR 800 billion in 2008.[18] Before the financial crisis, leading investment houses began to take a serious look at the microfinance market with a view to entering into this market. Several efforts were made to provide financing from financial markets as the market appeared to offer viable investment opportunities. However, the complexities of the microfinance sector and the

[17] Grameen – Jameel (2012). The Microcredit Sector in Morocco – Pre and Post Crisis.

[18] R. Atkins (2013). ECB's Draghi in drive to revive slicing and dicing. *Financial Times*, Thursday May 9, 2013, p. 21.

financial crisis halted the introduction of a market-based solution to financing this sector.

3. Challenges of Islamic Microfinance: A Small Industry with Limited Product Offering, Serving only A Fraction of the Potential Clientele

The aggregate population of the MENA region is about 381 million. About 23% (76 million people) live below the poverty line of $2 USD per day.[19] As poverty is widespread, access to financial services is limited. According to estimates by the CGAP there are only 602,000 Islamic microfinance clients, representing approximately 0.16% of the total population of MENA countries. Additionally, most of the clients are concentrated in Sudan (426,694 clients). The remaining number (175,306 clients) is distributed among other MENA countries.[20]

The number of customers with microfinance loans is even smaller. The total portfolio of Islamic microfinance loans amounts to USD 29 million for 53,503 customers. This results in an average loan amount of $608 USD. The majority of loans are granted in the form of *murābaḥah* (deferred payment sale) and *qarḍ ḥasan* (benevolent interest-free loan) contracts. The percentage of these loans, which are used for housing purposes, is not known. Anecdotal experience from conventional MFI lenders suggests that only 5 to 10 % of MF loans (a fraction of the amount borrowed) is used for housing purposes. For many microfinance clients, the home is often the place of production. Therefore, it is evident that customers also invest in the home to facilitate the production process.

Concurrently, the number of financial service providers which offer Islamic microfinance products is quite small. The number is estimated at 72. The slow growth of Islamic microfinance is attributed to a number of reasons: (i) Islamic MF Programs are provided by small institutions (NGOs, village or rural banks) with limited outreach and (ii) limited access to funding at reasonable cost.[21]

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[19] Data from A. Mohseni-Cheraghlou (2013). Islamic Finance and Financial Inclusion: A Few Must-know Facts. GFDR Seminar, World Bank, p. 1.

[20] M. El-Zoghbi, M. Tarazi (2013). Trends in Sharia-Compliant Financial Inclusion. CGAP Focus Note, No. 84, p. 7

[21] B. K. Grewal (2011). Constraints on Growth in Islamic Finance. IFSB 4th Public Lecture on Financial Policy and Stability, p. 13. IFSB (2013). Islamic Financial Services Industry Stability Report 2013 Kuala Lumpur: Islamic Financial Services Board, p. 142.

As information on demand for microfinance products is incomplete and contradictory, it is difficult to provide estimates of the demand for these products (including demand for small housing loans or HMF loans). As already mentioned in the introduction, changing demographics are driving the demand for housing. More than 60% of the roughly 300 million population in the Arab world is under the age of 25. One of their biggest concerns is the access to affordable housing.[22]

In conclusion, it appears justified to assume that some borrowers of Islamic MFIs use their borrowings for housing purposes. HMF product offerings are likely to be well absorbed by the market given the needs of low income groups to improve their housing situation.

4. Building the Model: Ingredients to Establish A Sharīʻah-Compliant Structure for Securitizing Islamic Microfinance Portfolios

4.1. Securitization of (Housing) Microfinance Assets

MFIs have successfully tapped capital markets to raise funding by issuing domestic or international bonds or via equity funds. In India, for example, MFIs regularly raise funds by securitizing their loan portfolios.[23] In the international context, Morgan Stanley was the first to arrange and place its first securitization of loans to MFIs in 2006. The second securitization deal in 2007 had wider participation and was the first rated securitization of loans to MFIs.[24] With the financial crisis, securitization of micro-loans was hampered which saw a decline in the issuances. In contrast, there is hardly any capital market activity by Islamic MFI providers. This absence is due to the small size of the industry, lack of awareness of MFI providers, and lack of an enabling legal and economic environment. In general debt markets in OIC countries are not very well-developed, but particularly, Islamic capital markets are still in an emerging phase. In some countries, Islamic capital markets are developing at a faster pace than the conventional debt markets. Credit enhancement

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[22] J Drummond (2011). Youths fear housing shortage. *Financial Times* April 1, 2011.

[23] Accion (2006). Who will buy our Paper: Microfinance Cracking the Capital Markets. Number 18, p.1; CRISIL (2012). CRISIL – rated MFI securitization transaction expected to continue demonstrating robust performance.

[24] M. Jayadev, Rudra Narasimha Rao (2012), Financial resources of the microfinance sector: Securitisation deals – Issues and challenges Interview with the MFIs Grameen Koota and Equitas, IIMB Management Review, Volume 24, Issue 1, March 2012, Pages 28-39, ISSN 0970-3896, http://dx.doi.org/10.1016/j.iimb.2011.12.002. (http://www.sciencedirect.com/science/article/pii/S0970389611001248)

plays a critical role in building trust and confidence in asset based and asset backed transactions such as securitization transaction. In this respect, an important factor is the absence of an institutional credit guarantee system in most OIC countries [25] which could provide credit enhancement to securitization transactions.[26]

Securitization involves the collection of homogeneous assets with a known stream of cash flows into a pool, or portfolios, which are independent from the creditworthiness of the financier. This pool or portfolio of assets is used to issue securities, which can be marketed to different classes of investors. The securities are structured in such a way so that all payoffs in terms of risks and returns are "passed through" to the investors or the holders of the securities. As a result, this is similar to direct exposure of the investor to the underlying assets; he or she shares the returns from the assets and is exposed to all associated risks. The securities are traded on organized exchanges. This general framework of a conventional securitization is also applicable to securitization within an Islamic financial system.[27] Of course securitization in Islamic finance context would require that the risk sharing principles are observed and the investors have exposure to cashflows of underlying pool of assets.

Sukūk (Islamic bonds) are examples of successful securitization in Islamic finance.[28] *Ṣukūk* are based on several different structures and come in different flavors. *Ṣukūk* markets have been seen as one of the fastest growing segments of the Islamic financial industry. The volume of annual *ṣukūk* issuances reached 75 billion USD in 2016, bringing the volume of outstanding *ṣukūk* close to 320 billion USD[29]

The main structural difference between the Islamic securitization process and that applying to conventional securitization is the way in which returns and risks are shared with the investors. In the conventional system, the buyer and holder of the security is exposed to a number of risks which are passed on to the investor (including credit risk, market risk, and interest rate risk) but enjoys some protection

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[25] The Kingdom of Saudi Arabia and The Islamic Republic of Pakistan are two examples of having institutional credit guarantee mechanisms for SMEs in place.
[26] M. Obaidullah, T. Khan (2008). Islamic Microfinance Development – Challenges and Initiatives. *Islamic Research and Training Institute*, Policy Dialogue Paper No. 2, p. 34.
[27] H. Askari, Z. Iqbal, N. Krichne, A. Mirakhor (2012). Risk Sharing in Finance – The Islamic Finance Alternative. *John Wiley & Sons (Asia) Pte. Ltd*. p. 125.
[28] See Z. Iqbal (2015). The Appeal of *Ṣukūk* as Asset-backed Financing. JKAU: Islamic Econ., Vol. 28 No. 2, pp. 185-198.
[29] IFSB (2017). Islamic Financial Services Industry Stability Report 2017. Kuala Lumpur: Islamic Financial Services Board

given by the underlying assets which "back" the security ("asset-backed security"). However, there is no direct link to asset payoff. Such structure does not transfer any rights or control or ownership over these assets to the investor. The function of the asset backing is a credit enhancement mechanism so that in the case of a default, the assets will be seized and the proceeds from foreclosure will be used to repay the investors.

In contrast, in theory, the Islamic finance structure suggests the establishment of an ownership stake in the underlying assets. Such an "asset-backed" structure leads to (i) an ownership interest by the investor in the underlying asset, (ii) a link between securities payoff and the payoff of underlying asset, and (iii) exposure to uncertainties in the security's cash flows to the investor. The security's payoff will depend on the performance of the underlying asset. The repayment of the principal will not necessarily be guaranteed. Additionally, the holder of the security establishes an ownership or beneficial ownership claim against underlying pool of assets (whereas in a conventional securitization structure, the holder of a security establishes a claim against the performance of assets in a pool).[30]

Figure 3 depicts a simplified model of securitization as used in an *ijārah* (lease)-based *ṣukūk*. The core legal entity in the securitization is a Special Purpose *Muḍārabah* (SPM) or Special Purpose Vehicle (SPV) which is bankruptcy remote and has Sharīʻah-compliant assets on the asset side against liabilities of *ṣukūk* or marketable securities.[31] Although, fund mobilization, pooling of assets, setting-up of SPMs or SPVs, placement, and servicing is structured similar to conventional securitization, credit enhancement which gives the certificates an investment grade rating is complex to replicate. As a key notion of Islamic finance is risk-sharing and passing-through of assets' payoffs to investors, providing financial guarantee-style credit enhancement is difficult. This is particularly critical in the case where the underlying assets are exposed to high risk similar to microfinance portfolios.

Table 1 shows the main differences between conventional and Sharīʻah-compliant securitized assets. The comparison is with a conceptual view of Sharīʻah-compliant securitization and may be different from the actual securitized product currently practiced in the market. In a conventional asset-backed or mortgage-backed security (MBS), the typical pricing model uses variables such as the probability of

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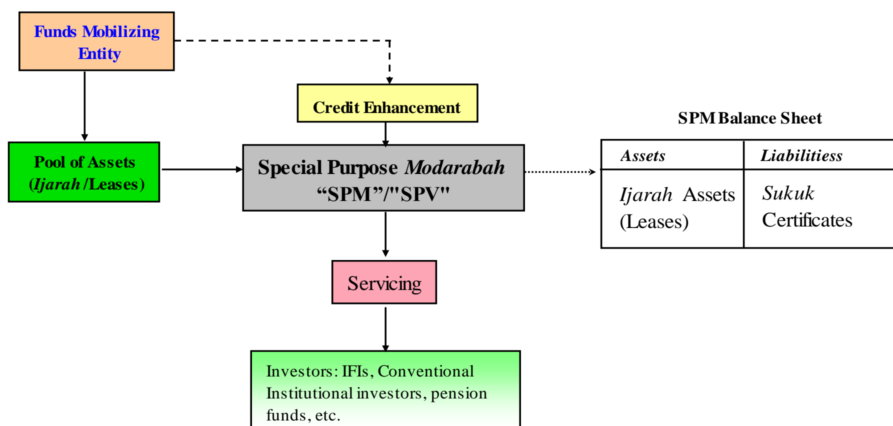
[30] Y. Zöngür, "Comparison between Islamic and Conventional Securitization: A Survey", Review of Islamic Economics, Vol. 13, No. 2, 2010, pp. 81-118, p. 90.

[31] *Muḍārabah* is a well-established principal/agent contract where an agent undertakes management of capital for the investors on the basis of profit and loss sharing principles.

prepayment or refinancing, which depends on the expected interest rate levels in the future, the loan-to-debt ratio, the credit score of the borrower, and other considerations. Since the principal of the security is guaranteed through credit-enhancing mechanisms, the security is priced in the same way as a coupon-bearing debt security with an early prepayment option.

Figure-3:
Anatomy of a Sharī'ah-Compliant Securitization



Source: Iqbal and Mirakhor (2011)[32]

In the case of *ṣukūk* (Islamic bond), however, the price will depend on variables determining the expected periodic cash flows in the future, but in addition it will have to take into consideration the expectation of future market values or the residual values of the underlying assets. In the absence of any guarantee of the principal, the redemption value of the security will depend on the expected market value of the asset at the time of maturity of the security. Another factor which influences the pricing of an Islamic security is the underlying risk-sharing agreement. In an asset-backed security, the price of the security will also incorporate the riskiness of the underlying assets and the investor will be sharing the risk through fluctuations in the price of the security. Investors will be exposed to the risks associated with the portfolio of assets and will share the losses. This will put greater emphasis on the need for prudent selection of the underlying assets and close monitoring of the assets'

[32] Z. Iqbal, A. Mirakhor (2011). An Introduction to Islamic Finance, 2nd ed., John Wiley & Sons (Asia) Pte. Ltd.

performance, and should motivate securitization specialists to structure good-quality securities that offer valuable and secure investment opportunities.

In a Sharīʻah-compliant securitization, moral hazard would be minimized. For example, the *Mushārakah* (equity partnership) arrangement with pre-determined profit-loss-sharing ratios aims to regulate incentive structures.[33] Additionally, the Sharīʻah requirements to maintain high moral values and ethics by the stakeholder would discourage practices such as "predatory lending" or "walking away."

Table-1:
Comparison between Conventional and Islamic Securitized Securities[34]

	Conventional asset-backed security	Sharīʻah-compliant, asset-based security
Type of security	Fixed income (debt based)	Hybrid structure depending on contract and underlying asset
Intended risk allocation	Risk transfer	Risk sharing
Ownership	No ownership in underlying assets	Security owner has outright or beneficial ownership interest in underlying pool of assets
Linkage with asset value	No direct link to market value of underlying asset	Final or other payoffs may be linked to market value of underlying asset
Principal protection	Principal is protected irrespective of the value of underlying real estate	Principal is based on the market value of underlying asset
Pricing variable	Based on expected yields, current interest rates, creditworthiness of asset owner and issuer or guarantor	Based on expected yields, current levels of return, market value of underlying asset, expected value of underlying asset at maturity
Recourse	No recourse to asset of security holder in case of distress	Recourse to underlying asset in case of distress
Principal agent problem	May exist depending on the role played by originator, structurer, and credit enhancer.	Moral hazard could be minimized as SPV ring fences the pool of assets.

Source: Iqbal (2014)[35]

Sharīʻah-compliant securitization is not without its challenges. An Islamic financier which wishes to securitize its housing mortgage loan portfolio (we assume

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[33] A. Jobst (2009). Islamic Securitization after the Subprime Crisis. *Journal of Structured Finance*, Vol. 14, No. 4, pp. 41-57

[34] The table highlights the differences from a theoretical perspective. At present, *sukuk* issues resemble in most cases conventional securitization structures.

[35] Z. Iqbal (2014), "Economics of *Sukuk,"* in Zamir Iqbal and Zurina Shafii (eds.) State of Islamic Finance: A Retrospective Assessment and Looking Forward, Universti Sans Islam Malaysia (USIM), Malaysia.

that the underlying contractual arrangements are Sharī‘ah-compliant) faces a number of challenges in structuring a Sharī‘ah-compliant security:

(i) Ownership and linkage with the assets. Typically, a conventional MBS issue comprises many small mortgage loans which are collateralized against individual properties. They serve to back the security. In case of Islamic security, it could be difficult to establish a distribution of ownership rights among investors in the case of Islamic security based on proportion of their investment. This question could become critical in the case of a rising number of foreclosures. The issuer or SPV may be required to establish an investor registry to establish a link between the underlying assets and the investors. This would be challenging when the security is bring actively traded in the market.

(ii) Linkage with the asset value. As already mentioned above, the valuation of the security depends to a great extent on the quality of the underlying assets as expressed by such as market value of the asset, the type of financing contract, and other factors. As the market value of the underlying assets also has a considerable impact on the value of the security, there may be considerable uncertainty in the security value, depending on the location and quality of the properties as well as availability of fair and transparent market value. These could be a deterrent for some investors.

(iii) To price a housing *sukuk*, additional ratios must information would be determined required which could add a further element of complexity in the fair price of the security.[36] For example, the determination of the market value and the expected value of the underlying assets at maturity may lead to stark differences depending on the scenario selected for the valuation (rising house prices or declining house prices). It is likely that the issuer may overstate the expected value.

(iv) In the Particularly, in case of securitizing microfinance portfolios which consist of high credit risk borrowers, the key problem is higher expected returns by the investors to compensate for the high risk. Given the underdeveloped state of capital markets and the financial sector of the majority of MENA region countries, this becomes a key impediment to finding a market-based solution for microfinance.

[36] For developed markets, tools like S&P/Case-Shiller Home Price Indices can serve as benchmark for the valuation of real estate. However, such tools are yet to be developed for other markets and particularly for areas dominated by poor segments of the society.

(v) Duration mismatches.[37] Depending on the structure of the security, any duration mismatches within the security may be directly passed onto the investor as the issue has to remove pre-paid parts from the underlying assets. Duration mismatches could be reduced in a pass-through structure such as *ṣukūk*.

(vi) Finally, as mentioned earlier, credit enhancement is a challenge. Direct guarantees of performance especially by the originator faces constraints as they impose restrictions on risk-sharing. In addition, an outright guarantee in the form of conventional option writing may not be acceptable by Shariah scholars if such blanket guarantees are given by an entity that may not have a direct stake in the underlying pool of assets but who provides guarantee only against option premium. Therefore, finding a third party guarantor without a stake in the asset and without any financial reward would become a challenge.

4.2. Credit Enhancements to Securitize Housing Microfinance Portfolios

Credit enhancements bridge the gap between the stand-alone quality of the portfolio of assets transferred by the originator, and the target rating of the instrument based on the needs of various investors. Credit enhancement is comparable to equity in a business as it determines the extent of leverage in transactions and the layer of protection against expected and unexpected losses. There are three common types of credit enhancements.[38] Not all of them are necessarily Sharīʻah-compliant due to various reasons depending on the form and the structure of the credit enhancement arrangements:

A. Originator[39] provided credit enhancement.

The originator assumes part of the credit risk through:

- Excess spread or profit. It represents the excess of the inherent rate of return in the securitized portfolio over (i) the expenses of the transaction, (ii) senior servicing fees and (iii) the rate of return offered to investors. Excess spread retention is considered the most common credit enhancement.
- Cash collateral. It refers to the SPV retaining a cash balance, which is subordinated to the interests of the investors. The cash reserve can be created

[37] Duration is a common measure of interest rate sensitivities.
[38] V. Kothari (2006). Securitization. The Financial Instrument of the Future. *John Wiley & Sons (Asia) Pte. Ltd*.
[39] An originator is an institution which undertakes to form a pool of assets to be securitized.

either up front by retention of a part of the funding of the transaction by the SPV, or by the originator making a subordinated loan to the SPV.

- Over-collateralization. It refers to the originator transferring a higher value of receivables, but being paid for a lesser value and leaving the balance as a security interest with the SPV.

B. Structural credit enhancements.

They arise from the structure of the liabilities. They refer to the redistribution of risks among the investors, so that one section of the investors provides credit enhancements to the other. The most common form is the stratification of securities into senior, mezzanine and junior or subordinated securities. The senior securities are protected by the subordinated securities. They are considered the safest and, consequently, have to be content with a very low rate of return. The subordinated securities are those paid after settling the claims of the senior and the mezzanine security holders. Cash flows are organized in a waterfall structure. The definition of the individual tranches and their rights is contained in the waterfall clause of the securitization contract. In terms of ratings, the stratification of liabilities is done to provide a triple A rating for the most senior class. Consequently, the other tranches receive a lower rating. The junior class, which is retained by the originator, is typically not rated.

C. Third party credit enhancements.

Third parties assume specific risks of a securitization transaction. The most common form of third party credit enhancements are:

- Pool insurance. It provides cover for the assets in the pool. It is frequently used with the securitization of housing loans. Policies often cover the risk of foreclosure of the underlying housing loan. There are two forms of pool insurance: (i) primary insurance covering a particular loan and (ii) portfolio insurance covering a pool of housing loans.[40]
- Letters of credit. The originator arranges for a letter of credit from a third party, usually from an acceptable bank. It can be considered a more advanced form

[40] In addition, there are monoline insurance companies which are not engaged in traditional insurance functions but merely provide insurance against defaults in financial transactions. They are most common in the US.

of credit guarantee where the insurer may cover such risks as interest rate variations.

- Credit derivatives. They are one of the most common forms of third party credit enhancement and involve the transfer of credit risk to a counterpart by way of a credit default swap transaction. Typically, derivatives are not in compliance with Islamic finance principles.

5. Potential Credit Enhancing Tools Enabling the Securitization of Islamic Housing Microfinance

Conventional and Islamic MF have very similar features and objectives, but each uses different instruments. Table 2 serves as an illustration. They mainly differ in the mode of financing (for example risk-sharing elements as well as prohibition of interest (*ribā*) and certain sale-based transactions) and the emphasis on ethical and religious principles.[41] Therefore, it appears feasible to arrange a securitization of MF portfolios using the same structures and methodologies as a conventional securitization.

Whereas securitization of pool of assets based on Islamic instrument is being done, the real challenge comes in providing credit enhancements especially where the underlying assets are risky. Since micro-housing finance assets would be considered risky, structuring of credit enhancements at low cost would be essential. A securitization structurer using Islamic instruments may not be able to use all of conventional credit enhancements as some of them may not be considered Sharīʻah-compliant by the scholars. For example, providing guarantee to perform is allowed in Sharīʻah but there is difference of opinion if the guarantor can charge a fee for such guarantee.[42] Given the associated risks with the securitization of HMF portfolios, a credit enhancement is necessary to attract lower risk premiums to be paid to investors and allow for the offering of products which are affordable to households.

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[41] Islamic finance prohibits unsecured interest-based debt and calls for risk-sharing through asset-based financing and partnerships. It uses a variety menu of sale and leasing- based financial instruments. For further details, see Iqbal and Mirakhor (2011).

[42] For example, in Malaysia operations of Credit Guarantee Corporation which provides credit guarantee for small and medium enterprises for a fee is approved by Malaysian scholars. BNM (2010) *Shariah* Resolutions in Islamic Finance, 2nd ed., Bank Negara Malaysia (BNM), Kuala Lumpur, Malaysia.

Table 2:
Comparison between Islamic and Conventional Microfinance

Items	Islamic Microfinance	Conventional Microfinance
Liabilities (sources of funds)	External funds, Islamic charitable sources	External funds (e.g. deposits, or donations)
Assets (deployment of funds)	Islamic financial instruments based on sale, leasing, or partnerships.	Interest-based financing
Nature of contractual agreement	Risk-sharing, asset-backed, leasing/rental agreement	Risk-transfer, lending-based
Target group	Family (or individual) or groups	Individuals or groups
Disbursement	Purchase of real assets / Cash	Cash
Repayment incentive	Monetary, compliance with religious obligations	Monetary, peer pressure
Dealing with default	Group/family/mosque intervention, Islamic ethics regarding obligations.[43]	Group/center pressure may be used (in case of group lending schemes)
Social development program	Can be included and may have a religious component (social and ethical behavior)	Can be included

Source: Authors and Ahmed (2002)

Whereas when the securitization of a pool of assets based on an Islamic instrument is being done the real challenge comes in providing credit enhancements especially where the underlying assets are risky. Since micro-housing finance assets would be considered risky, the structuring of credit enhancements at a low cost would be essential. A securitization structurer using Islamic instruments may not be able to use all of conventional credit enhancements as some of them may not be considered *Shariah*-compliant by scholars. For example, providing a guarantee to perform is allowed in *Shariah* but there is difference of opinion if the guarantor can charge a fee for such a This paper proposes unique model for credit enhancement for structuring a *Shariah*-compliant HMF securitization and requires the understanding of two Islamic instruments which play a critical role in this model:

[43] Debt obligations are taken very seriously by Muslims and traditionally, one would try to avoid not been able to meet any debt obligations before one passes away.

5.1. *Qarḍ ḥasan* (= beautiful loan)

Qarḍ ḥasan (QH) is a loan granted to the needy and is mentioned in the *Quran* as "beautiful" (*al- ḥasan*). It is a voluntary loan without the creditor's expectation of any monetary return, but the loan is granted to please Allah (s.w.t.) with the expectation of His Blessing. Additionally, while the debtor is obligated to return the principal, the creditor, of his or her own free will, does not press the debtor for an exact timing of its return. In the case where despite the debtor's best efforts, the debtor's circumstances make it difficult to repay the loan, the creditor would forgive the loan. In the case of *qarḍ ḥasan*, God promises multiple returns on such a "beautiful loan." *Qarḍ ḥasan* is called "beautiful" (*ḥasan*) probably because in all the verses of the Quran, in which this loan is mentioned, it is stipulated that it is made directly to Allah (s.w.t.) and not to the recipient (see, for example, Quran Verse 17, Chapter 64).

QH has been used for Islamic microfinance in several countries. For example, a microfinance organization called *Akhuwat* based in Pakistan is operating fully on the QH model.[44] There are several NGOs in Malaysia and Indonesia which are helping the poor through offering QH. QH funds have supported micro as well as SME lending in several MENA countries successfully. They are regular source of funds for many MFIs in South-East Asia.[45] In Iran, there are established dedicated financial intermediaries or banks specializing in the intermediation of QH funds. Typically, MFIs attract QH funds in the form of deposits which can be structured as savings, current and time deposits. As already mentioned above, the depositor does not receive any return on her/his deposits. In some cases, she/he may pay a fee to the MFI for the administration of the QH deposits. The depositor is entitled to claim them back from the MFI.

5.2. *Waqf* (endowment)

A *waqf* is a trust or endowment in which the contributor endows a property in perpetuity for specific benevolent purposes. No property rights can be exercised over

[44] http://www.akhuwat.org.pk/

[45] M. Obaidullah, T. Khan (2008). Islamic Microfinance Development – Challenges and Initiatives. Islamic Development Bank, Policy Dialogue Paper No. 2, p. 19.

the corpus (privately owned property). Only the *usufruct* or return will be applied towards the objectives of the *waqf* (typically charitable).

Extensive research by Cizakca (1998) has documented the historical significance of this Islamic instrument.[46] Although *awqāf* (plural of *waqf*) has been known in civilized human societies prior to Islam, it was Islam which put this institution to versatile uses especially for the benefit of poorer segments of society. Consequently, *awqāf* flourished in several Muslim communities especially during the Ottoman civilization and provided important social services especially in the form of mosques, schools, hospitals, potable water sources, and support for the poor. Very early in the history of Muslim societies, a practice emerged where a person could contribute up to one third of his/her wealth at the time of his/her death. An important characteristic of *waqf* relates to its objective, that is, the idea of *birr* (doing charity out of goodness).[47]

The concept of *waqf* functions as follows: a founder who has accumulated private wealth decides to endow his personal property for a specific, often pious, purpose. The amount of the original capital (or *corpus*), the purpose for which it is endowed, and all other conditions of management are clearly registered in a deed of endowment submitted to the authorities. In this way, the privately accumulated wealth of a pious Muslim becomes God's property. The founder strictly stipulates how the annual revenue of the *Waqf* should be spent. This revenue (*usufruct*) may be allocated completely for a social welfare purpose such as health, education, civil services to the poor, (*Waqf khayri*), or to a group of specified beneficiaries. Typically, *awqāf* institutions (AIs) provide such services at no cost without being a burden on the government. On the macroeconomic front, AIs can be seen serving the ultimate goal of reducing government spending, which contributes to reducing the budget deficit, inflation and government borrowing (other things being equal).[48]

The cash *waqf* is a special type of endowment and it differs from the ordinary real estate *waqf* in that its original capital, *asl al-māl* or, *corpus*, consists purely or partially, of cash. A key feature of cash *waqf* is that it generates income which in turn supplies the capital necessary to provide social services or poverty alleviation

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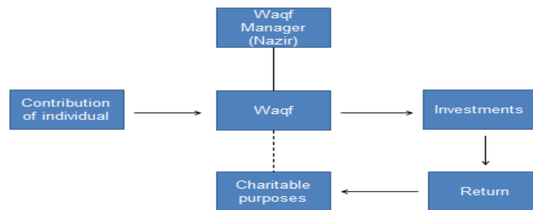
[46] M. Çizakça (1998). *Awqāf* in History and its Implications for Modern Islamic Economies, Islamic Economic Studies, Vol. 6, No. 1, November 1998.
[47] H. Ahmed (2007) *Waqf*-Based Microfinance: Realizing the Social Role of Islamic Finance, Islamic Research and Training Institution (IRTI), Proceeding of International Seminar on "Integrating *Awqāf* in the Islamic Financial Sector" Singapore, March 6-7, 2007.
[48] M. Çizakça (1998). *Awqāf* in History and its Implications for Modern Islamic Economies, Islamic Economic Studies, Vol. 6, No. 1, November 1998.

services. The concept of cash *waqf* opens the door to an innovative use of such capital. The management of the *waqf* is entrusted to trustees, whose functions may be fulfilled by the founder him or herself during his or her lifetime. Thus, there are four major components of any *waqf*: the three groups of individuals; the founder, the beneficiaries, the trustees and the endowed capital itself, or the corpus.

Figure 4 depicts a simplified structure of a cash *waqf*. The *waqf* manager or *Nazir* collects the contributions from the *waqif* (founder) or contributors and makes investments (e.g. housing, SMEs, etc.). The returns from the investments (after the deduction of all costs) will be allocated by the *Nazir* to charitable programs (e.g. improvement of health services, infrastructure for the poor). As in the original *waqf* design, it is important that the value of the contributions made by the *waqif* will remain constant to fulfill the criterion of perpetuity.[49]

Figure-4:
Simplified Structure of a Cash *Waqf*



Source: Authors

6. Structuring: Putting it Together

6.1. The starting point: general prerequisites for securitization

Sharīʻah-compliant securitization has specific requirements following Sharīʻah-rules (as already outlined above) and general requirements which are the same as for conventional securitization. The most important are:[50]

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[49] M. Khademolhoseini (2008). Cash-*Waqf* – a new financial instrument for financial issues: an analysis of structure and Islamic justification of its commercialization. Imam Sadiq University, p. 3.
[50] F. Roy (2011). Primary Mortgage Market Development in Emerging Markets – Is the Central and Eastern Europe Experience Replicable in Sub-Saharan Africa, in D. Koehn, J.D. v. Pischke (editors), Housing Finance in Emerging Markets. Springer Verlag Berlin Heidelberg, p. 171.

(i) Conducive legal and tax framework. Securitization must be supported by basic security laws, clear and reasonable off-balance sheet valuation guidelines for securitized assets and the guarantee of the bankruptcy remoteness of the SPV or SPM among others. As necessary, it also includes a specific securitization law.

(ii) Significant asset volumes. Lenders should have sufficiently large pools of loan portfolios for securitization to achieve economies of scale to justify the advantage of securitization over alternative funding sources. Ideally, these loan portfolios correspond to certain standards to facilitate the assessment of the credit quality of the underlying portfolio backing the bond issued by the SPV/SPM.

(iii) Lender preparedness. The originator's organization (MFI) must be prepared for securitization, especially the departments in charge of underwriting, servicing, information management, and treasury.

(iv) Investor demand. Various factors influence investor demand for securitized assets. These include the performance of loan pools, liquidity in the market, and the availability of a benchmark or yield curve. Typically, investors compare the return on an asset-backed security issue with that of government bonds as the quasi risk-free alternative investment and expect an attractive risk-adjusted return to compensate for the higher risk.

6.2. Structuring a securitization using waqf and *Qarḍ ḥasan* funds as credit enhancement

The major impediment to a market-based solution for microfinance is the high risk of portfolio leading to the high cost of funding. A market-based solution could attract investors if the credit risk or risk-of-default is reduced. Such default risk can be reduced by providing credit enhancement utilizing QH and/or *waqf* funds. In the case of QH, the argument is simple. QH funds are meant for poor people with the understanding that if despite their best efforts, the borrower cannot return the principal, the lender can write it off. If investors are assured that the first line of defense against default risk is covered by QH funds, then they would be willing to invest at lower returns. Similarly, *waqf* assets are meant for helping the poor to improve their living conditions and the return from such assets is utilized for the benefit of the poor. *Waqf* assets could be used to invest in a securitized pool with claims second to market-based investors which would enable the structure to offer a lower coupon rate to the market. *Waqf* may also be willing to forego returns if the borrower is not able to repay. As a result, the overall weighted cost of funding would be lower and affordable for micro-borrowers. The concept of using *waqf*-based

structures as catalysts to facilitate the financing of development-oriented projects, i.e. infrastructure or social finance projects has been presented in the literature and holds promising potential.[51]

As the nature of QH and *waqf* funds differs, both fund types can be applied at different levels of an asset-backed security. By structuring the MBS issue as a waterfall, *waqf* and QH certificates could be integrated into the issuance in a way that they provide credit enhancement to the senior notes. Similar to QH deposits currently being used by some Islamic MFIs, QH certificates could be issued with the same objective. These certificates can be even traded at par in the secondary market to maintain liquidity of such certificates. Being better protected against default, the senior notes would have a lower coupon rate which is expected to lead to a lower borrowing cost charged to the borrower (individual households having a HMF loan), thereby increasing affordability.

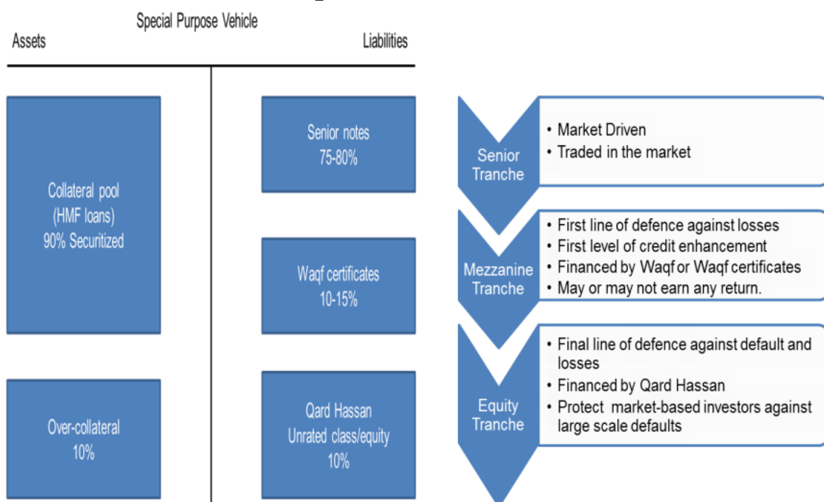
To comply with the perpetuity principle of the *waqf* funds, they should be invested at a level where the probability-of-default could be higher than that of a senior note but still lower than of junior note (which is typically held by the originator). As the QH investors do not necessarily expect the return of her/his deposits, they can be used at the junior tranche level. Figure 5 depicts a simplified structure of the waterfall of the MBS issue as well as the structure of the SPV's balance sheet. Referring to the conventional credit enhancement structure, we will find the following elements:

(i) Originator provided: overcollateralization of the SPV's receivables,
(ii) Structural credit enhancement: waterfall structure with mezzanine and junior securities,
(iii) Third party protection: *waqf* and QH funds. The use of a *waqf* fund as mezzanine tranche which will give a first level of defense against any default risk of the underlying HMF portfolio. The third and the last tranche could be financed by QH funds which also serve as quasi-equity. This tranche will absorb credit risk and loss of principal in case of defaults. It serves as the final buffer against any credit risk and provides a cushion against losses to *waqf* investments.

Figure 5 shows the balance sheet of a SPV/SPM model to structure Islamic securitization with the following structure:

[51] For further details, see Ali (2018).

Figure-5:
Simplified Structure of the Use of *Waqf* and QH Funds As Credit Enhancement and Simplified Structure of the SPV's Balance Sheet



Source: Authors

This model has the following noteworthy features:

i. There are two layers of protection: (i) on the asset side through the over-collateralization and (ii) on the liability side through the QH certificates and *waqf* funds.
ii. On the asset side: The share of over-collateralization amounts for example to 10% (e.g. the outstanding principal value of the loan is $110 USD which will be transferred to the SPV but the SPV will raise funding for $100 USD. The balance of the assets will be retained as collateral).
iii. On the liability side: The QH funds assume the role of the originator holding the "unrated piece". From the Islamic finance perspective, the QH funds enable the lending to low income groups by offering the QH deposits by Islamic financial intermediaries. In this way, Islamic financial intermediaries become channels to organize and distribute QH financing to deserving projects.
iv. Proposed percentages for the liability side: 10% for the QH funds and 5 - 10 % for *waqf* funds. The remaining funds can be sold to investors preferring senior notes. Although the proposed percentages for the credit enhancements are quite high, this extra credit enhancement is considered necessary to attract market-based financing as investors are likely to

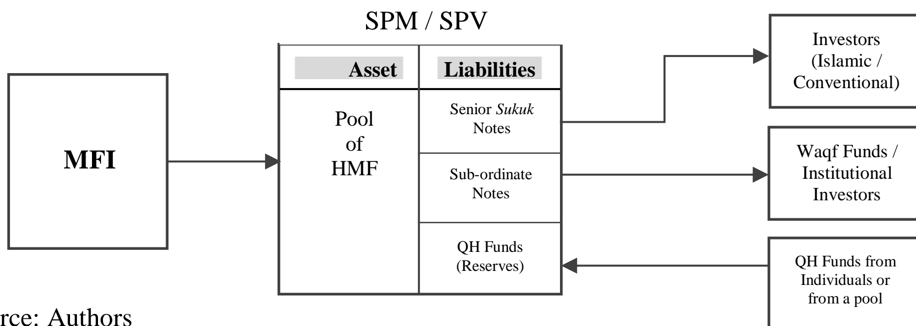
perceive such a security as quite risky given the nature of the underlying loan portfolio.

v. Additional credit enhancement could be built into the structure by using the return from the *waqf* certificates. In this case, the returns will not be deployed for charitable purposes and will be withheld by the *waqf* manager.

vi. Alternatively, returns from the *waqf* certificates could be used for administration of SPV/SPM to lower the overall transaction cost of securitization.

Figure 6a and 6b summarizes the proposed structures of securitization using *waqf* and QH funds as credit enhancements. Figure 6a shows the summarized form of the model according to which initially, a MFI sells its HMF portfolio to an SPM/SPV which issues senior notes in the form of *ṣukūk* and *waqf* certificates to investors. *Waqf* certificates could be issued as subordinated notes but in case there are any objections by Sharīʻah scholars, special certificates with cash *waqf* features could be issued. The objective is to have another class of investors who are willing to bear more risks.[52] The SPV also receives QH funds to offer additional protection to investors against default of the underlying portfolio. Such QH funds could serve as reserves to provide credit enhancements and to give the certificates investment grade credit ratings. By incorporating *waqf* certificates and QH funds to the transaction, the contributors fulfill their social and religious commitments which also help the provision of affordable financing to the poor segment of society.

Figure-6a:
Securitization Structure Using W*aqf* and QH Funds as Credit Enhancement



Source: Authors

[52] Some *Shariah* scholars raise objections to existence of multiple investor classes on the same pool of assets and giving preferential treatment to one class over the other.

Figure 6b shows a variation of the basic model. This version of the model is based on developing closer relationships with the financial intermediaries who could become a channel for individuals and institutions to screen originators and monitor the performance of the pool. These financial intermediaries could provide this service as corporate social responsibility (CSR) initiatives or for a small fee based on cost recovery. Financial intermediaries could deal with SPVs in three ways—first as a regular investor in the *ṣukūk* issuance, second as investors in *waqf* certificates, and third, as custodian of QH funds. The financial intermediary will serve as an investor in *waqf* certificates and custodian of QH funds on behalf of its customers. The key difference between the simplified version (figure 6a) and modified version (figure 6b) is the potential role of the financial intermediary.

The modified version of the model is more viable and sustainable especially in those OIC countries where Islamic financial intermediaries have a sizeable presence in the financial sector. Models based on *waqf* mutual funds have already been established in Indonesia and operate as following:[53]

(i) The contributor divides his or her contribution into a mutual fund and *waqf* fund. A potential breakdown could be to invest 30 % of her/his contribution into the *waqf* fund and 70 % into the mutual fund. Whereas the mutual fund aims to achieve a market based return, the *waqf* fund will operate under the same principles as outlined in the paper.
(ii) The *waqf* manager manages both the mutual fund and the *waqf* fund.

Our proposed model could also target the socially responsible investor who aims to make some return on his or her investment but is ready to share part of the returns and funds for a good purpose. In this way, the investment model would be in a position to broaden its appeal beyond the classical charitable investor. In addition, it allows the *waqf* fund manager to build up a more liquid and sustainable investment vehicle over time. In addition, the returns from the *waqf* fund could be used to increase the volume of available QH funds to be used for the junior tranche in the securitization transaction. In this way, they can compensate for the eroding value of QH funds or they serve as replenishment for those QH funds which have not been returned to the QH certificate holders as loans of the underlying HMF portfolio have defaulted.

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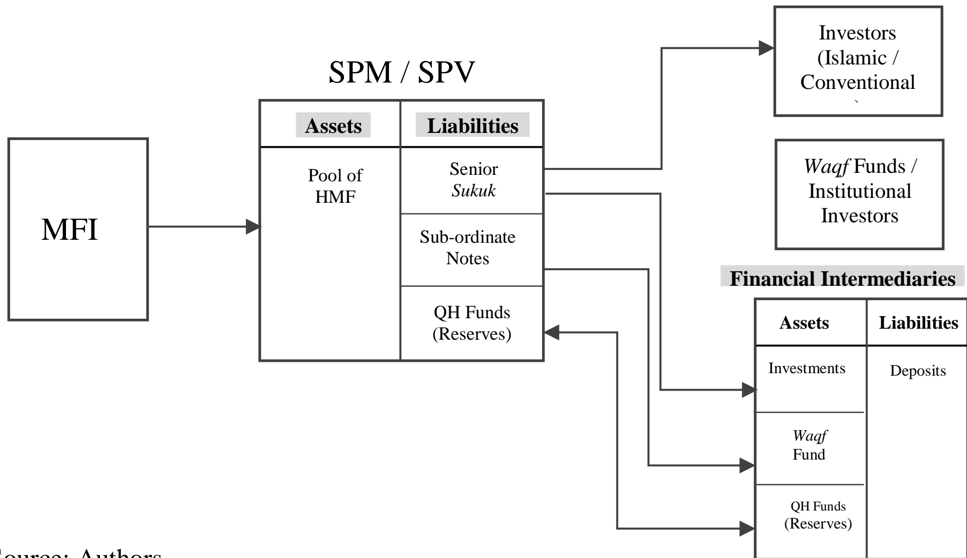
[53] M. Khademolhoseini (2008). Cash-Waqf – a new financial instrument for financial issues: an analysis of structure and Islamic justification of its commercialization. Imam Sadiq University, p. 11.

Figure-6b:
Securitization Structure Using *Waqf* And QH Funds As Credit Enhancement and Financial Intermediaries



Source: Authors

7. Feasibility of the Proposed Model: Technically Feasible but Islamic Housing Microfinance Markets are at Present too Small for its Sustainability

To assess the feasibility of the proposed structure, the following criteria will be applied. As the member states of the OIC are in very different stages of development, the analysis provides a perspective from the MF industry and refers to individual OIC countries in selected cases only. Table 3 provides a simplified overview:

Enabling environment. It comprises not only a conducive regulatory framework for securitization, but also conditions which allow the Islamic microfinance industry to flourish.
Market preparedness. This criterion assesses the preparedness of investors to invest in the securities offered as well as investors to provide funding for the establishment of *waqf* funds as well as a sufficient number of QH investors.
Sharīʻah-compliant standards and HMF products. Questions of relevance are whether there is a demand for Sharīʻah-compliant HMF products or whether there are already well established standards which are known to the investor community.

Although Table 3 indicates a weak capital market infrastructure, the set up from a purely technical standpoint appears feasible, especially in those markets which have some capital market activities (e.g. Saudi Arabia). Some countries like Jordan have also established liquidity facilities which mimic securitization structures,[54] which could help stimulate the appetite among investors to buy Islamic HMF-backed securities. These issuances are likely to benefit from the assigned reputation of MF portfolios having good credit quality as MFIs are considered as being good at servicing their loan portfolios.[55]

The implementation of such a model is likely to face several obstacles which range from a very small industry (USD 30 million) concentrated in countries with a weak enabling environment (e.g. Sudan) to a weak and inadequate infrastructure to establish a continuous flow of securitization transactions to allow for liquidity, transparency and visibility.

Table-3:
Simplified feasibility analysis of proposed *waqf*/QH securitization model

	Criterion	**Overall status**	**Emerging markets in Islamic countries which is considered a comparatively high performer for this criterion**
1. Enabling environment	Capital market infrastructure	Most OIC countries do not have necessary infrastructure to allow for the securitization of loan portfolios	Malaysia, Turkey, Indonesia
	Financial sector development	Underdeveloped financial sector with a small MF industry	Malaysia, Turkey
2. Market preparedness	Size of MF industry	Very small size	
	Originator and investor preparedness	Potentially limited	
	Availability of *waqf* and QH funds	Most countries have established *waqfs* and banks collect QH deposits	Indonesia, Pakistan, Iran, Saudi Arabia
3. Sharīʻah-compliant standards and HMF products	Prevalence of Sharīʻah-compliant standards and regulation	Especially in GCC countries, Pakistan, Iran, and Indonesia. Some countries lack legal framework for *waqf*	

[54] D. Diamond (1998). Creating a Secondary Mortgage Facility for Jordan, in M. Lea (editor). Secondary Mortgage Markets – International Perspectives. International Union for Housing Finance. Page 131 -136. A liquidity facility offers refinancing to partner financial institutions for their mortgage lending activities. Alternatively, the liquidity facility buys the mortgage loans from these lenders. The liquidity facility finances its activities through bond issuances in the capital market.
[55] R. Cull, A. Demirguc-Kunt, J. Morduch (2008). Microfinance meets the Market. World Bank Policy Research Paper No. 4630.

The implementation of such a model is likely to face several obstacles which range from a very small industry ($30 million USD) concentrated in countries with a weak enabling environment (e.g. In addition, the number of charitable investors is probably limited as well.

Although some countries have considerable QH deposit volumes (e.g. Iran), a viable model requires a continuous flow of QH deposits into the SPV as the value of the QH deposits is likely to erode over time due to the relative high and volatile inflation rates in many OIC countries.

One point which requires further clarification is how to ensure that the selling MFI will have "skin in the game". A mechanism must be established which requires the selling MFI to take back any defaulting loan which it has previously sold to the SPV/SPM. The MFI is also likely to remain the servicer of the HMF loans sold. Thus, the proposed model supports the funding side, but does not provide capital relief.

Another point deals with the management of the SPV/SPM. The *waqf* fund manager could be in charge of it; however, it may lead to a potential conflict of interest. Depending on which type of institution is in charge of the overall securitization process, increased transaction costs can arise.

The development of a feasible approach requires substantial improvement in the enabling environment and the market infrastructure in most MENA countries. In addition, stronger development of the Islamic MF industry is warranted to raise the profile and the attractiveness of further investment flows into the industry.

6. Conclusion: A Potential Model for the Way Forward

The model proposed in this paper is a technically and practically viable one for the following reasons:

(i) The proposed model addresses the issue of “market-failure” in conventional microfinance where a market-based solution would not provide financing at affordable rates.

(ii) Both QH and *waqf* are well-established and time-tested instruments in Islamic civilization where these have played a significant role in economic development, alleviating poverty, and being the source of finance for social

welfare of Muslim societies. There is a renewed interest in reviving these instruments in several Muslim countries.

(iii) Unlike conventional microfinance where a community or social-based collateral is used for lending, HMF utilizes a tangible asset as collateral. No additional collateral is required.

(iv) The underlying housing assets serve as collateral which can trigger lower funding costs and, therefore, lower borrowing costs.

(v) Islamic securitization, which is based on asset ownership, is a natural fit for securitizing microfinance housing.

In conclusion, this proposed structure is a way of integrating Islamic social finance instruments to enhance the access to affordable housing for low income groups. As the markets for HMF loans are quite small, the fund manager may also consider direct investments into MFIs and developing the securitization model over time once higher volumes are available. The returns from the *waqf* funds can be used in several ways: (i) to support the volume of available QH funds; (ii) to offer construction support to low income households and (iii) to offer advisory services to the MFI to improve risk management and corporate governance capacities as well as to help build standardized HMF portfolios and facilitate their securitization at a later stage.

In this way, the fund manager supports the expansion of the Islamic MF industry in a responsible manner. Simultaneously, it allows for the combination of innovations in finance with the goal of financial inclusion in compliance with *Shariah* principles. A marketable instrument would be introduced to provide funding for much needed housing finance in OIC countries to be offered to low income groups. With the introduction of securitization of HMF loans, financial institutions would be able to pool their assets and issue marketable securities. In this way, they will share the risks with the market as well as free-up capital for further mobilization of housing finance.

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