Islamic Finance: A catalyst for shared-prosperity and financial inclusion?

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There is broad consensus that the objective of economic development is not only to boost economic growth but also to share prosperity with all segments of society through equitable distribution of income and wealth. In recent decades, policy makers, including multilateral development organizations such as the World Bank Group (WBG), have often taken a "trickle-down" approach to reduce levels of absolute poverty. This approach asserts that higher productivity and industrial advancement would lead to higher GDP growth in a country. However, the immediate impact of such a growth-led policy could be an undesirable concentration of wealth in the hands of a few, while the growth benefits trickle down to the extremely poor only over a relatively long period of time. This approach has resulted in only partial success at the cost of social disequilibrium.

Rising inequality and ways to cope with this growing problem top the agenda of multilateral development institutions and the policy makers in both developed and developing countries. International organizations such as the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF) and multilateral development institutions including the World Bank Group have repeatedly warned about the dire consequences of the expanding income gap between the very rich and the very poor. Thomas Piketty's influential 2013 book, *Capital in the Twenty-First Century,* documented the inequality in 20 countries during the last three centuries.

With these developments, for the first time in 30 years, the World Bank has revised its mission to give priority to inequality and to include it in its main mission. Traditionally, World Bank's approach since the 1970s in reducing global poverty has been the "trickle down" policy with the premise that as long as growth rate of GDP in a given country was increasing this would eventually decrease absolute poverty levels. The benefits of growth might be distributed in an unequal manner but those benefits sooner or later would pass to the extremely poor. Hence from this point of view unequal distribution of income and wealth was ignored given that economic

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growth rates were increasing. However, the recent experience in the USA and other countries in the world shows that the gap between poor, even the middle class and the very rich is increasing and the benefits of higher growth are stuck at the top income group rather than trickling down to the poor. Hence the reason why the WBG felt the need to update its target. The new mission of the WBG established in 2013 has two pillars2; (i) reducing people living in extreme poverty and (ii) promoting shared prosperity.

One of the major initiatives that the WBG has targeted to make it more likely to achieve its twin goals as well as to increase the welfare of the people living in the world is to achieve Universal Financial Access (UFA) by 2020[3]. According to the latest estimate, 38% of the world, or 2 billion people, do not have access to basic financial services. Not having access to financial services hinders the households' ability to earn return to their savings or obtain funds in case of emergencies.

Another aspect of being financially excluded, especially for micro, small and medium enterprises (MSMEs) is the difficulties they face in obtaining credit for their operations. The International Finance Corporation (IFC) estimates that more than 200 million formal and informal MSMEs in developing economies are either unserved or underserved in terms of their financing needs (Stein et al. 2013). Considering that the majority of employment is in developing countries, two out of every three full-time jobs in developing economies are provided by SMEs (Ayyagari et al. 2011), the importance of supporting the growth of these enterprises is better understood.

In this chapter we will argue that Islamic finance, with its core principles based on risk sharing, asset based/backed finance and with strong emphasis on social justice could assist countries both in creating a more inclusive financial system that caters the needs of a wider spectrum of people and firms in a society and realizing the twin goals of the WBG. The chapter is organized as follows. Section 1 depicts a brief picture of the current state of the Organization of Islamic Cooperation (OIC) countries with respect to financial inclusion, poverty alleviation and shared prosperity. Section 2 elaborates on how the principles of Islamic finance (two forms of risk sharing) could be utilized to enhance the goals of the WBG. Section 3 and 4 analyse the challenges

[2] http://www.worldbank.org/content/dam/Worldbank/gmr/gmr2014/GMR_2014_Full_Report.pdf

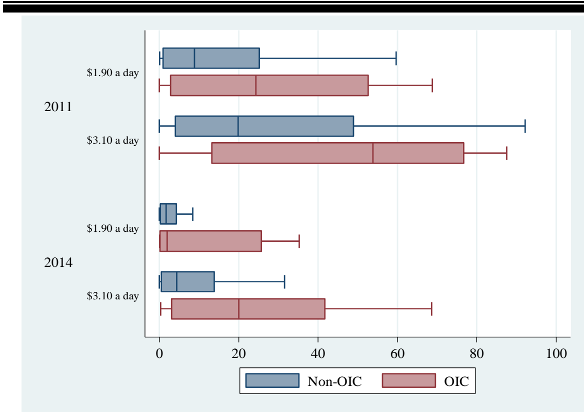
[3] http://www.worldbank.org/en/news/feature/2013/11/07/achieving-universal-financial-access-by-2020-requires-the-wbg-to-think-about-what-we-need-to-do-differently

OIC countries face in increasing financial inclusion and interaction between financial inclusion and shared prosperity. Finally, Section 5 provides concluding comments.

1. State of OIC Countries

WBG's traditional goal has been eradicating 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)[4]. The official goal of the WBG is to reduce extreme poverty to 3% (or less) by 2030. In addition to the WBG, the UN has also given the highest priority to poverty reduction and has listed poverty eradication as the first Sustainable Development Goal[5]. In Figure 1, we see the state of OIC countries with respect to the non-OIC countries in the world. It could be observed that both OIC and non-OIC countries have managed to reduce poverty levels in recent years however the OIC countries are lagging behind their non-OIC counterparts in reducing extreme poverty.

Figure 1: Poverty headcount ratio at $1.90 and $3.10 a day (2011 PPP) (% of population)



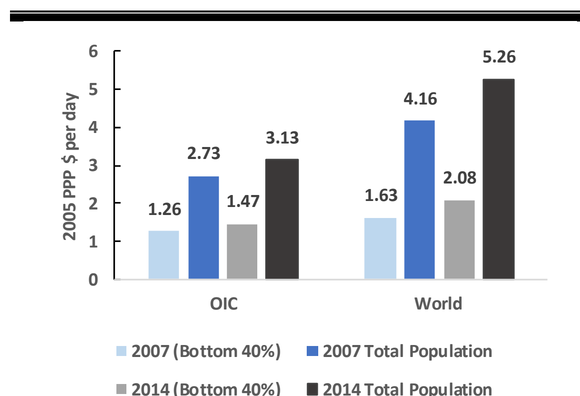
Source: World Development Indicators and authors calculations
2011 represents the averages of available values for the period from 2005 to 2011 while 2014 represents the average of the available values from 2012 to 2014

Figure 2, depicts and contrasts the state of OIC countries with the World in light of the new goal of WBG, which is to foster the income growth of the bottom 40% of the population in a given

[4] http://www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq
[5] http://www.un.org/sustainabledevelopment/poverty/

country. It can be observed that the per capita income of the bottom 40% of the population, both in OIC and non-OIC country categories, is lower than the per capita income of the total population. In both categories of countries the per capita income has increased from 2007 to 2011. The OIC countries are lagging behind the World in both waves of survey periods (2007 and 2014). Figure 1 and Figure 2 together suggest that the OIC countries should develop new policies in trying to catch-up with the rest of the world in terms of economic development and increasing the welfare of their citizens. Policies that would encourage inclusive economic growth and would benefit a broader spectrum of people should be introduced.

Figure 2: Survey mean income per capita, bottom 40% and Total Population (2005 PPP $ per day)

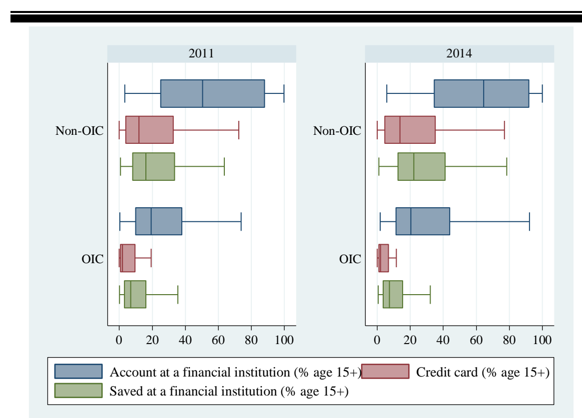


Source: World Development Indicators and authors calculations

As has been noted before, achieving universal financial access by 2020 is another area that the WBG has prioritized to achieve its twin goals. Figure 3 shows relative state of OIC countries with respect to non-OIC countries in different proxies that intend to capture the level of financial inclusion, such as account ownership, credit card ownership and saving habits at a financial institution. The users of financial services can be distinguished from non-users, who either cannot access the financial system or opt out from the financial system for some reason. Within the non-users, first, there is a group of households and enterprises that are considered un-bankable by commercial financial institutions and markets because they do not have enough income or present high lending risk. Second, there might be discrimination against certain population groups based on social, religious, or ethnic grounds (red-lining). Third, the contractual and informational framework might prevent financial institutions from reaching out to certain population groups

because the outreach is too costly to be commercially viable. For example, in Bangladesh, Pakistan, and the Philippines, it takes more than a month to get a small business loan processed. In Denmark, the wait is only a day. Finally, the price of financial services may be too high or the product features might not be appropriate for certain population groups.

Figure 3: Different Proxies for Comparing Financial Inclusion Between OIC and Non-OIC Countries



Source: Findex database and authors calculations

Differences in the underlying causes that create obstacles in achieving financial inclusion demand different responses from policy makers in tackling with these issues. In addition, there could be a set of users who voluntarily exclude themselves from the system due to conflicts with their religious, ethical or moral value system. Using micro-level data, Demirguc-Kunt, Klapper, and Randall (2013) find that, once relevant individual characteristics are accounted for, although Muslims are less likely to have an account or save in a formal financial institution, they are no less likely to borrow from one, and the greater observed religious self-exclusion of Muslims seems to arise solely in sub-Saharan African countries. Furthermore, the authors do not find evidence that the size of the Islamic finance industry is related to differences in financial inclusion between Muslims and non-Muslims. In Figure 3, 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 before realizing the WBG goal of having full financial access by 2020. In other

two categories, i.e. 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.

There could be several reasons as to why OIC countries' performance lag behind when they are compared to non-OIC countries in different proxies intended to capture the state of countries with respect to WBG's twin goals. In Section 3 we focus on some of the possible reasons as to why OIC countries are lagging behind the world in financial inclusion. Before doing that we introduce some of the core principles of Islamic Finance that could, if implemented properly, alleviate this problem.

2. Islamic Finance, Financial Inclusion and Shared Prosperity

The core principles of Islam lay great emphasis on social justice, inclusion, and sharing of resources between the haves and the have nots. Islamic finance addresses the issue of financial inclusion from two directions—one through promoting risk-sharing contracts which provide a viable alternative to conventional debt-based financing, and the other through specific instruments of redistribution of wealth among the society. Both risk-sharing financing instruments and redistributive instruments such as *Zakah*, *Sadaqat*, *Waqf*, and *Qard-al-hasan* (see glossary) complement each other to offer a comprehensive approach to eradicating poverty and building a healthy and vibrant economy.

One could easily argue that the most significant principle that distinguishes Islamic finance from conventional finance is that Islamic Finance calls for risk sharing, where lenders receive their returns in line with the risk they bear, rather than receiving fixed payments regardless of the outcome of the investment which is the case for conventional finance—a risk-transfer system. A financial system based on risk sharing principles could help boost shared prosperity and enhance financial inclusion.

2.1. Risk Sharing and Shared Prosperity during Production Cycle

In Islamic Finance the risk sharing principle helps to achieve a more egalitarian income distribution through two stages of redistribution. The initial stage takes place during the production/investment process. Here investors receive their returns according to the risk they accept to take. In conventional finance, the provider of capital is guaranteed a fixed return no

matter what the outcome of the investment is. This puts the entrepreneur in a disadvantaged situation and favours the capital rich lenders which worsens the income distribution.

Out of two main approaches to redistribution, i.e. (a) income-based or (b) asset-based, Islamic finance provides a comprehensive approach to asset-based redistribution through risks sharing, which is at the core of Islamic finance. Whereas income-based redistribution approach takes the current income distribution as given and aims at fairer distribution of future GDP, the asset-based redistribution is basically a risk-sharing approach and converges to Islamic finance's contractual framework in terms of empowering equity participation by the lower income groups in the society. Analytically, by making the poor direct real-asset holders in the real sector of the economy, the approach reduces their empirically observed high risk aversion, it creates positive incentives for actualizations of behavioral factors that are productivity enhancing (such as trust, truth telling, hard work, etc.) through design of contracts that reduce or eliminate the difference between principles and agents and are conducive to achievement of interests of all parties to a contract (Ng, Mirakhor and Mansor 2015)

From another perspective, it could be argued that a system based on risk sharing principle has the potential of not only creating a smoother business cycle and a more equitable distribution of wealth but also speeding up the deleveraging of the financial system while encouraging the entrepreneurial spirit. Studies show that financing modes that operate closer to risk sharing principles such as equity finance are more conducive to economic growth than other forms of financing[6]. The same study argues that "*Finance is a vital ingredient of economic growth, but there can be too much of it. Over the past 50 years, credit by banks and other institutions to households and businesses has grown three times as fast as economic activity. At these levels, further expansion is likely to slow long-term growth and raise inequality*." Hence, it would be wise for policymakers to design policies that would promote risk sharing financing instruments rather than debt based contracts.

Another positive aspect of risk sharing principles is that it considerably eases the access of SMEs to finance. As the largest providers of new jobs and major source of technological

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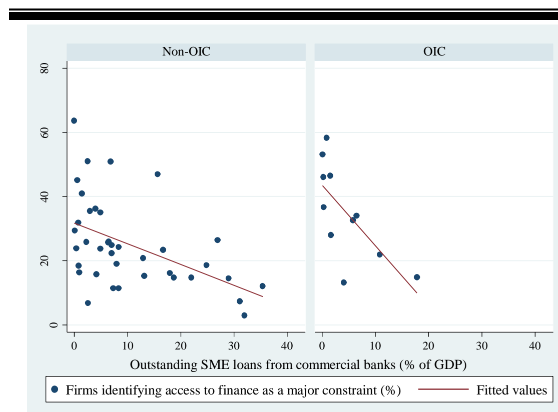
[6] http://www.oecd.org/eco/How-to-restore-a-healthy-financial-sector-that-supports-long-lasting-inclusive-growth.pdf

innovation in most countries, SMEs have functioned as the engine of growth for both developed and developing economies. As for poverty reduction, SMEs are more likely to employ poor and low-income workers then larger firms; sometimes, SMEs are the only source of employment in poor regions and rural areas. However, market failures may cause biases against SMEs. For example, high risks for cost-searching and coordination failure across sectors always prevent start-ups from entering a new market. Promotion of entrepreneurship and risk-sharing are two key features of Islamic finance and given that SMEs require both encouragement to entrepreneurship and risk-sharing, there is a natural fit for Islamic finance and SME financing. Islamic SME finance concepts can be seen to provide a comprehensive asset-based economic and equitable model that fulfils expectations such as social justice and human centered sustainable development.

In Figure 4, we see the relationship between percentage of firms that identify financing as a major constraint and SME loans a percentage of GDP. Among OIC and non-OIC countries there is a clear negative relationship between these two variables and the relationship is stronger for OIC countries. Hence designing policies that would extend the amount of SME loans would ease the worries of financial entities in obtaining loans that are necessary for SMEs to expand their businesses and employ new workers. Since SMEs tend to be regarded as high-risk investments, financial firms require SMEs to pay either higher interest rates or post high collateral. These two factors inhibit the SMEs opportunities to obtain funds for their investments. Love, Martínez Pería, and Singh (2013) find that the introduction of movable collateral registries increases firms' use of credit and reduces the degree to which firms consider access to finance to be an obstacle to their growth prospects. Islamic finance principles, due to its asset based/backed principles is appropriate for supporting the introduction of adopting movable collaterals in SME financing.

Figure 4: Firms Identifying access to finance as a major constraint and SME loans (% GDP)



Source: Enterprise Surveys, Financial Access Survey (IMF), authors' calculations. All values are averages for the period from 2003 to 2014.

In addition to SME financing, Box 1 presents other financing instruments that operate in line with Islamic Finance principles and could

be utilized in enhancing financial access, especially of individuals that belong to marginalized segments of the social ladder.

Box 1: Other Islamic Finance Tools to be Utilized in Enhancing Financial Access

Islamic Micro-Finance

In most OIC countries, Islamic financing instruments comprise only a small fraction of microfinance supply. Two important problems in access to credit services for poor households are lack of collateral or steady future income and high transaction costs. Microfinance institutions have tried to overcome these two constraints by innovations such as group lending schemes. Conventional literature focuses on how microfinance unleashes the productive potential of small and unbankable borrowers. Islamic finance addresses the same issues but with different tools and products. Islamic micro-finance is provided through risk-sharing instruments or through Islam's instruments of redistribution (as discussed below) or through a hybrid of two depending on the desired objective, i.e. targeting extreme poverty or alleviating poverty. (see Iqbal and Mirakhor 2013).

Micro-*Takaful*

Takaful (Islamic insurance) is a cooperative insurance mechanism that evolved in the late 1970s in Sudan and Egypt. The concept is similar to conventional mutual risk mitigation, in which risk sharing is expressed as *ta'awuni* (mutual protection). Micro-*Takaful* has long been considered as one of the most promising segments among other *Shariah*-compliant financial products. The main argument is that Micro-*Takaful* can play an important role in poverty alleviation through risk-sharing among low-income individuals. Policyholders benefit by increased access to a wider range of products with increase had coverage and greater sustainability; and the partnering insurance institutions gain access to a new market without taking extensive marketing, distribution, or administration costs. More importantly, the partner-agent model facilitates the pooling of risks between the formal and informal sectors.

2.2. Risk Sharing and Shared Prosperity through Redistributive Instruments

The post production cycle of risk sharing in Islamic finance occurs through redistributive instruments and institutions such as *Zakah, Qard-al-hasan, Waqf* and *Sadaqat*. These instruments of redistributions can contribute to poverty alleviation and enhanced sharing of prosperity when used for their intended purposes. This set of tools can help the policy makers design interventions through providing safety nets or micro-finance or SME lending to bottom segments of the society which is often neglected and fails to reap the fruits of prosperity.

The concept of *Zakah* could be expanded to provide a sustainable source of income for the poor. It is seen as a significant tool for promoting financial inclusion and economic growth. If *Zakah* funds are managed properly, pooling these funds and encouraging the poor/beneficiaries to direct the funds towards starting a micro/small business would contribute to a more conducive developmental impact and help reduce disparities within the economy. *Zakah* is also perceived as an important tool for continually circulating liquidity in the system. Imposing it on aggregate

wealth, including gold and silver and idle balances, benefits the system from unutilized resources and induces more investment and employment. This in turn paves the way for innovations to introduce alternative financial products that would achieve both effective accommodations to the nature of micro and small businesses in addition to poverty alleviation. Studies estimate that for most countries in South and Southeast Asia and Sub-Saharan Africa, the resource needs to alleviate poverty could be met adequately if the potential of institutions of *zakah* and *waqf* were realized, even if partially.7

Qard-al-hasan (QH henceforth) is an interest free benevolent loan. It is usually granted from well off lenders to poor borrowers. It can also be directed from borrowers to intermediaries that can redirect it on their behalf to poor borrowers. QH is therefore a non-monetary rewarding loan (with no expected return) and the borrower is under obligation to repay the loan depending on the borrower's financial capacity to do so. Loan procedures are usually informal and social capital is the basic collateral for this instrument. The main objectives of QH could be to help the needy fellow people, to establish better relationship among the poor and the rich, and to mobilize the wealth among all people in the society. QH-based micro-finance is being practiced in several Muslim countries with success. Such micro-finance programs provide interest-free or low cost affordable financing to poor. Akhuwat (solidarity) organization is one success-story providing QH financing in Pakistan and enhancing inclusion for unbanked poor. (see Iqbal and Shafiq 2015).[8]

Waqf (pl. *Awqaf*, endowments) are basically real non-perishable properties that are voluntarily donated for philanthropic purposes. *Awqaf* are dominated by fixed property mainly land or buildings, but can be applicable also to cash, shares, stocks, and other assets. The concept of *waqf* is a well-practiced phenomenon in recent times in both the Muslim and non-Muslim world. *waqf* are usually named endowments and are providing a wide range of services especially in education and community services. *Waqf* by definition needs an institutional setup to ensure perpetuity and good governance. A *Wqaf*, whether in North Africa or India, is established by a wealthy individual or family who decides to endow personal property for a specific, often pious, purpose. The amount

[7] IDB Islamic Social Finance Report (2015): http://www.irti.org/English/Research/Documents/Report-2.pdf
[8] Iqbal, Zamir and Bushra Shafiq (2015), Islamic Finance and the Role of Qard-al-Hassan (Benevolent Loans) in Enhancing Inclusion: A Case Study of *Akhuwat* ACRN Oxford Journal of Finance and Risk Perspectives, Special Issue of Social and Sustainable Finance, Vol.4 Issue 4, October 2015, p. 23-40.

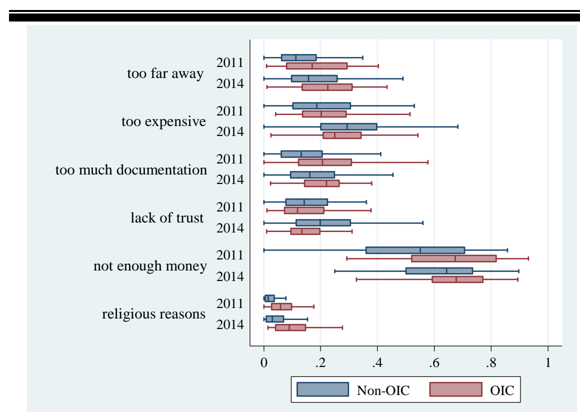
of the original property or capital, the purpose for which it is endowed and all the other conditions of management are clearly registered in a deed of endowment. In this way the privately accumulated wealth of a pious Muslim becomes God's property. The founder strictly stipulates how the annual revenue of the *Waqf* should be spent. This revenue may be allocated completely for a social welfare purpose (*Waqf khayri*), or to a group of beneficiaries.

3. Challenges for Enhancing Financial Inclusion in OIC Countries

In this section, using various surveys and databases, we will look at the root causes of why individuals in OIC countries tend to be excluded from financial services.

Figure 5, based on Findex surveys conducted in two waves in 2011 and 2014. Survey participants were asked 5 questions to determine why they chose not to have an account at a financial institution. The most pressing obstacle expressed by the individuals in OIC countries (also in non-OIC countries) was that they did not have enough money to open an account. Second reason, associated with the first one is that having an account is expensive i.e. banking fees are high. The most important two obstacles for individuals for not having financial accounts seems not having enough income. Hence, based on these results, one might argue that the causality runs from having a higher income to having a financial account. Love and Martínez Pería (2012) show that bank competition is linked to greater financial inclusion: all else being equal. Higher competition in the banking sector could decrease the costs of owning accounts which could help to increase financial inclusion in OIC countries.

Figure 5: Reasons for not having an account at a financial institution



Source: Findex database and authors calculations

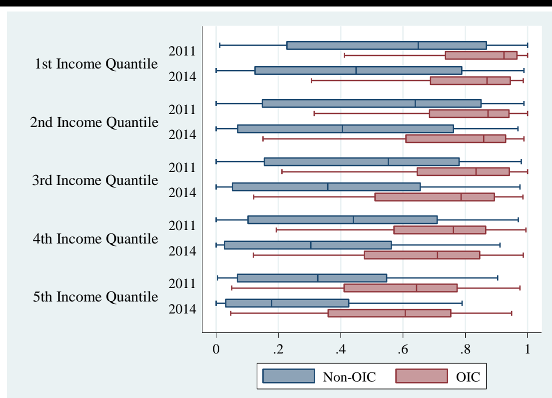
Interestingly, people who chose not to have financial accounts due to religious reasons constitute the smallest category among others. Although during the period from 2011 to 2014 the number of people who voluntarily decided to stay away from financial services increased, it is still far below the other reasons cited for not having a financial account. It could be inferred that for OIC countries to increase financial inclusion, providing financial instruments that are designed just to meet the religious tendencies of individuals may not suffice and that those financial

instruments should also be affordable by individuals who don't have the necessary amount of funds. It could also be due to low financial literacy about the prohibited elements of interest and its consequences on the financial system.

The last obstacle, the distance of financial institutions seems to be a bigger problem for OIC countries than their non-OIC counterparts. Hence the policymakers should focus on easing the access of individuals who might be living in rural areas where means of transportation might be limited.

Figure 6 sheds light on the account ownership at financial institutions of different income quantiles. One of the main arguments for supporting having universal financial access is that financial intermediaries enable individuals to obtain funds during times of emergencies or to earn on their savings whose real value might deteriorate during high inflation periods. Hence individuals, mainly rich ones who have easier access to financial services might have the upper hand in maintaining the unequal distribution in a country which would, in turn, hamper the prospects of realizing the twin goals of WBG. Figure 6 depicts that:

Figure 6: Individuals from different income quantiles who do not have an account at a financial institution OIC vs Non-OIC

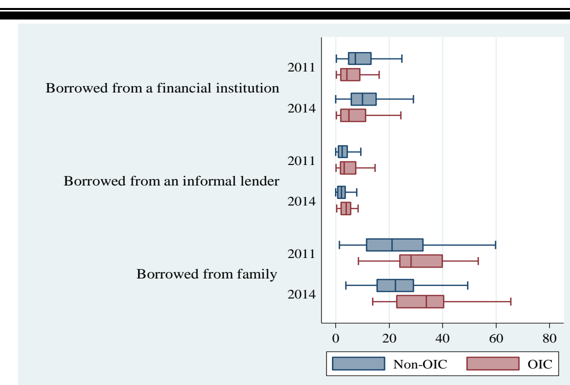


Source: Findex database and authors calculations

- There is a secular decreasing trend in every income quantile, both for OIC and non-OIC countries from period 2011 to 2014.
- The share of individuals without an account at a financial institution is higher for OIC countries compared to their Non-OIC counterparts for every income quantile.

Figure 7, shows the sources of borrowing for the bottom 40% between OIC and non-OIC countries. Figure 7, depicts that individuals in OIC countries tend to rely less on borrowing from financial institutions but more on informal lending or from family. The reason for this might be either that the access to financial services is limited due to several factors such as distance, cost, insufficient funds or voluntary

Figure 7: Sources of Borrowing for the Bottom 40%



Source: Findex database and authors calculations

exclusion due to religious reasons. One could argue that strong family and social ties in communities might be stronger in OIC countries which would make the use of informal channels for obtaining funds more lucrative and hence the agents would rationally opt to use informal channels rather than the formal more expensive sources of financing. Another observation is that between the two survey periods of 2011 and 2014, the individuals living in OIC countries are gradually shifting their borrowing habits from informal channels (family, informal lender) to more formal channels (financial institutions).

In Table 1, we analyse the factors that might be affecting the financial inclusion in OIC countries. We use the percentage of adults over the age of 15 years who either have an account at a financial institution or have saved at a financial institution as our proxies for the penetration of financial services in a country. As explanatory variables we use number of ATMs and bank branches per 1,000 km^2 to capture the effects of geographical difficulties individuals face when they need financial services. Credit depth information and domestic credit to private sector are used to capture the effects of soundness of legal infrastructure of the financial system and the depth of financial system, respectively. Bank-Z score is used to measure the stability of the financial system, i.e. as Bank-Z score increases the probability that banks might default decreases.

Table 1: Factors Affecting Financial Inclusion

	(1) Account at a financial institution (% age 15+)	(2) Account at a financial institution (% age 15+)	(3) Saved at a financial institution (% age 15+)	(4) Saved at a financial institution (% age 15+)	(5) Firms identifying access to finance as a major constraint (%)
ATMs per 1,000 km2	0.00376		0.0431		
	(0.108)		(0.0484)		
Domestic credit to private sector (% of GDP)	0.366***	0.359***	0.148**	0.154**	
	(0.0918)	(0.0991)	(0.0720)	(0.0700)	
GNI per capita, Atlas method (current US$)	0.000813***	0.000841***	0.000291***	0.000323***	-0.000257
	(0.000145)	(0.000184)	(7.01e-05)	(6.85e-05)	(0.000190)
Credit depth of information index (0=low to 6=high)	1.503*	1.801*	-0.113	-0.000487	-2.485***
	(0.837)	(0.941)	(0.456)	(0.479)	(0.587)
Bank Z-score	-0.413**	-0.427**	-0.231*	-0.225*	-0.118
	(0.186)	(0.197)	(0.126)	(0.122)	(0.127)
Commercial bank branches per 1,000 km2		-0.00698		0.0229	
		(0.0824)		(0.0438)	
Outstanding SME loans from commercial banks (% of GDP)					-0.391*
					(0.203)

Value of collateral needed for a loan (% of the loan amount)					0.00771
					(0.0368)
Constant	13.23***	13.67***	7.343**	7.110**	43.27***
	(4.042)	(3.984)	(2.864)	(2.662)	(7.446)
Observations	36	37	36	37	43
R-squared	0.815	0.789	0.594	0.592	0.563

The values of proxies in the table are averages of the available values during period from 2003 to 2014. Columns (1)-(4) are based on results using just OIC countries. The 5th column is based on all countries since we do not have sufficient data for just OIC countries. P-Values calculated from robust standard errors are reported *, ** and *** indicate significance levels at 10%, 5% and 1% level respectively

Results indicate that the most important factors that influence account penetration in OIC countries are the stability and the depth of the financial system. In all 4 regressions domestic credit to private sector as a ratio of GDP, is highly significant and positively correlated with the financial account penetration proxies. This indicates that increasing the depth of financial system should improve the financial inclusion in OIC countries. Another factor that the policymakers should focus on is enhancing the stability of the financial system, especially banks. The Bank Z-score, which is inversely correlated with probability of default of a bank, is statistically significant in all 4 regressions and negatively correlated with financial inclusion proxies. This indicates that agents living in OIC countries may voluntarily and rationally choose not to use financial system for obtaining loans or investing their saving since they worry about the stability of the system. Hence, policymakers should either take measures to increase the stability of the financial system or try to increase financial literacy in public which might be causing the distrust of people towards the financial system.

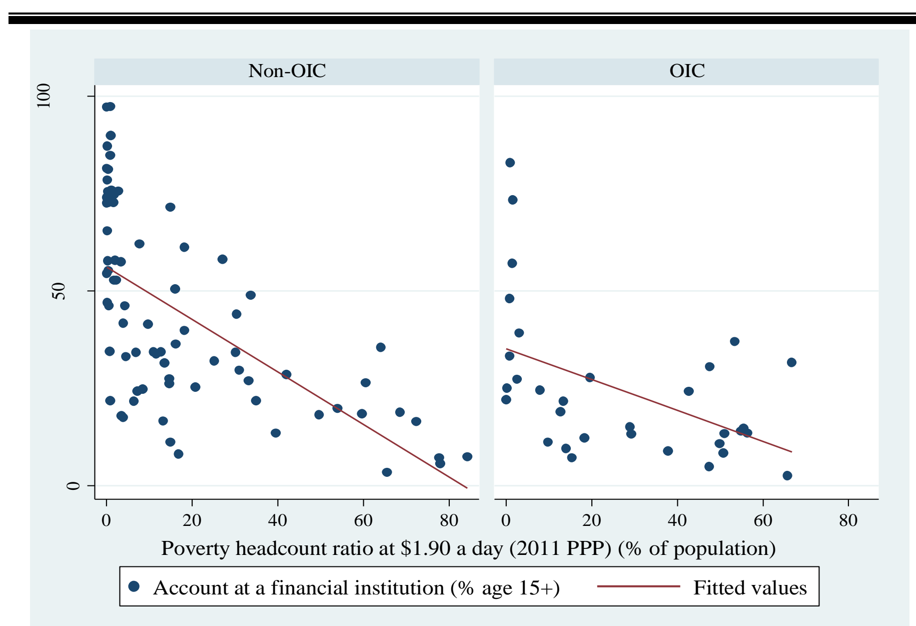
When we look at financial inclusion through the perspective of firms, we see that the percentage of firms that identify finance as a major constraint is negatively and significantly correlated with credit depth information index and outstanding SME loans as a percentage of GDP. These results indicate that policymakers should implement regulations intended at increasing credit depth information, in order to ease the financial access of firms. Better credit information would reduce information asymmetry problems which are most severely faced by SMEs.

4. Interaction Between Financial Inclusion and Shared Prosperity

Next we consider how financial inclusion and shared prosperity interact with each other. One could argue greater access to financial services from the poor would have a positive effect on

inequality. Poor individuals would be able to earn return on their savings, obtain funds during emergencies or obtain funds to start their own businesses. Figure 8 sheds some light on this issue. It contrasts OIC and non-OIC countries with respect to the relationship between the percentage of individuals over the age of 15 and headcount ratio of people living under $1.90 a day. We see that there is a clear negative relationship between poverty and account ownership proxies, both among OIC and non-OIC countries. Based on this, one could argue that enhancing financial access would in fact contribute to eradicating extreme poverty.

Figure 8: Poverty Reduction and Account Ownerships at a Financial Institution



Source: Findex, WDI databases and authors' calculations. All values are averages for the period from 2003 to 2014.

Table 2, looks closer on the interaction between financial inclusion, poverty, inequality and Islamic finance proxies. For financial inclusion we use the percentage of individuals aged over 15 years who have an account at a financial institution, Islamic bank assets per capita is chosen to capture the strength of Islamic finance in a country. Other than these, we use GNI per capita to control for the wealth level of individuals and domestic credit to private sector as the overall depth of financial markets. As for poverty levels we choose the headcount ratio of people living with less than $3.1 and for inequality we utilise the GINI index.

Table 2: Interaction between Financial Inclusion and Shared Prosperity

	(1) Poverty headcount ratio at $3.10 a day (2011 PPP) (% of population)	(2) Poverty headcount ratio at $3.10 a day (2011 PPP) (% of population)	(3) GINI index (World Bank estimate)	(4) GINI index (World Bank estimate)
GNI per capita, Atlas method (current US$)	-0.00237***	-0.00641***	-0.000170***	-0.000662*
	(0.000770)	(0.00163)	(6.13e-05)	(0.000368)
Domestic credit to private sector (% of GDP)	-0.165*	-0.305	0.0113	0.0361
	(0.0920)	(0.221)	(0.0222)	(0.0883)
Account at a financial institution (% age 15+)	-0.398***	0.527	-0.0356	0.237**
	(0.131)	(0.389)	(0.0364)	(0.0828)
Islamic Bank Deposits per capita		-0.00241		-0.00136
		(0.00729)		(0.00281)
Constant	67.85***	59.79***	42.44***	32.49***
	(4.137)	(9.497)	(1.416)	(2.226)
Observations	97	17	121	21
R-squared	0.569	0.670	0.143	0.442

The values of proxies in the table are averages of the available values during the period from 2003 to 2014. P-Values calculated from robust standard errors are reported *,** and *** indicating significance levels at 10% 5% and 1% level respectively.

The results reveal that although Islamic banking proxy has a negative coefficient, it is not statistically significant. This could indicate that either Islamic banking in these countries has not reached a certain threshold to become a significant contributor to poverty reduction, or the current practice of Islamic banking is not following risk-sharing financial instruments. Further research needs to be conducted. Financial depth and financial inclusion does not have consistent and significant coefficients in different regressions. The only variable that consistently has a negative and statistically significant coefficient is GNI per capita.

5. Conclusion

In this chapter we showed the current state of OIC countries with respect to poverty eradication, boosting shared prosperity and financial inclusion. We found that OIC countries tend to lag behind their non-OIC counterparts both in poverty, shared prosperity and financial inclusion proxies. Then, we argued that the core principle of Islamic finance, risk sharing, offers a very promising framework for both enhancing financial inclusion and boosting shared prosperity. Furthermore the redistributive instruments that are well defined within the Islamic finance paradigm reinforces a more equitable and just income distribution. Upon presenting this paradigm

we then analysed some of the root causes as to why OIC countries are behind the world in financial inclusion. We found that the main reason for not having financial accounts was either not having enough income or that the financial accounts were too expensive. Furthermore, we found evidence that decreasing information asymmetries or increasing the loans to SMEs alleviates the constraints firms face when they are trying to obtain funds for their operations. Finally we looked at the interaction between shared prosperity and poverty eradication with financial inclusion. We found that the greater levels of financial inclusion is generally associated with lower levels of poverty. However when we tested whether Islamic banks help to alleviate poverty, we could not find a significant relationship.

Given the rich theoretical foundation of Islamic finance to promote a sharing economy and to enhance inclusion, policy makers could leverage Islamic finance to alleviate poverty and enhance shared prosperity through development of financial system closer to essence of Islamic finance.

Glossary

Transliterated as	English Meanings
qarḍ ḥasan	Interest-free loan
ṣadaqāt	Charity(ies)
tabarru‘ (tabarru‘āt)	Donation(s), Gift(s), Charity(ies)
takaful ta‘awuni	Cooperative risk-sharing and mutual insurance
waqf (awqāf)	Endowment(s), Foundation(s), Trust(s)
zakāh, zakāt	Obligatory contribution or Poor due payable by all Muslims having wealth above *nisab* (threshold or exemption limit)

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