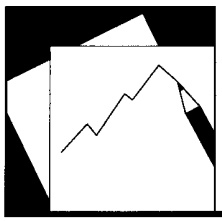
WP/13/184



IMF Working Paper

Cooperative and Islamic Banks: What can they Learn from Each Other?

Saeed Al-Muharrami and Daniel C. Hardy

INTERNATIONAL MONETARY FUND

 WP/13/184

IMF Working Paper

Monetary and Capital Markets

Cooperative and Islamic Banks: What Can They Learn From Each Other?

Prepared by Saeed Al-Muharrami and Daniel C. Hardy[1]

Authorised for distribution by Daniel C. Hardy

August 2013

Abstract

Islamic and cooperative banks such as credit unions are broadly similar in that they both share some risk with savers. However, risk sharing goes along with ownership control in cooperatives, whilst Islamic banks share risk with borrowers and downside risk with depositors. Islamic banking is consistent with mutual ownership, which may ease some of the governance and efficiency concerns implied by Shari'ah constraints. Greater risk sharing among cooperative bank stakeholders, using mechanisms embedded in Islamic financial products, may strengthen cooperatives' financial resilience.

JEL Classification Numbers: G20, G21

Keywords: Islamic Banks, Cooperative Banks, Credit Unions, Profit and Loss Sharing, Mutualization

Authors' E-Mail Addresses: muharami@squ.edu.om; dhardy@imf.org

[1] Sultan Qaboos University and International Monetary Fund, respectively. The paper was prepared while Al-Muharrami was a visiting the IMF as a Fulbright Scholar supported by a grant from the U.S. Department of State. The authors would like to thank Suliman Aljabrin, Khalid Al-Saeed, Martin Cihak, Mohamed Norat, Abdulkader Thomas, and Zeine Zeidane for useful comments.

Contents Page

I. INTRODUCTION

The recent global financial crisis has forced consumers, business, and voters to reconsider what are desirable features of a financial system. There is a feeling of unease with the dominance of very highly-leveraged institutions determined to maximize return on equity from quarter to quarter, focusing on high-volume own-account trading in complex instruments that are perceived to have little net social value. One senses a yearning for a return to simpler, more client-oriented financial relationships that depend on underlying "real" activities.[2] Moreover, those parts of the financial system that survived the crisis relatively well are worth studying for the more general lessons that they might offer.

Cooperative banks—including notably local credit unions—and Islamic banks are among those financial institutions that are generally more distant from "speculative" financial markets, and that survived the crisis with comparatively little strain; those that got into difficulties did so mainly because of "old fashioned" credit risk, not market risk or liquidity risk. Therefore, they are worth considering as alternatives to conventional commercial banks. Yet, both have strengths and weaknesses, and face challenges. Hence, as part of the reassessment of the features and services they offer, each may benefit from looking at and learning from the practices of the other. To this end, one may then wonder how Islamic and cooperative banks work, and in particular, how do the operations of each differ from those of commercial banks and those of the other? Are there similarities between them? What can they learn from each other?

The following section describes the main characteristics of cooperative and Islamic banks, presents data on the size, growth, and recent performance of these two kinds of institution, and summarizes some issues that they face. Section III details their similarities and differences and Section IV presents what the institutions can learn from each other, before Section V concludes.

---

[2] See, for example, "JPMorgan loss fuels calls for simplification," Financial Times, May 14, 2012; http://www.guardian.co.uk/commentisfree/2012/jul/13/deborah-orr-better-banks-move-money; or http://www.kpmg.com/uk/en/issuesandinsights/articlespublications/pages/simplification-of-banking.aspx. The recommendations in the final report of the High-level Expert Group on reforming the structure of the EU banking sector (the so-called Liikanen report) have as a main objective making "banking groups, especially their socially most vital parts (mainly deposit-taking and providing financial services to the non-financial sectors in the economy) safer and less connected to high-risk trading activities" (page *i*, http://ec.europa.eu/internal_market/bank/docs/high-level_expert_group/report_en.pdf). Napoleoini and Segre argue in the Vatican's official newspaper *L'Osservatore Romano* that "The ethical principles on which Islamic finance is based may bring banks closer to their clients and to the true spirit which should mark every financial service" (March 3, 2009; http://rassegnastampa.mef.gov.it/mefnazionale/PDF/2009/2009-03-04/2009030412006886.pdf).

II. CHARACTERISTICS

The defining characteristics of Islamic banks and cooperative banks, including credit unions, need to be specified. To this end, it is helpful to contrast both forms of banking, not just with each other, but also with the typical characteristics of a "conventional" bank. The prototypical conventional bank is a profit-maximizing firm owned through negotiable shares, that earns profits primarily from the spread between the interest it earns on loans and the interest that it pays to depositors and other providers of financing. The bank may earn substantial non-interest regular income, for example, from transaction fees, but these are often associated with interest bearing products, as when a bank collects a service charge for making a loan or maintaining a deposit account.

Where banks are permitted to operate on a "universal" basis—as traditionally they are in much of Continental Europe and Japan—they are allowed to hold substantial amounts of equity in non-financial companies, and also carry out operations such as trading on its own account, which activity lies beyond the sphere of intermediation. Universal banks can thus act also as investment banks and finance their business customers through a combination of equity and lending, and they can sit on the boards of directors of their business customers, which potentially enables them to monitor the use of their funds at low cost. Possibly, the reduction of the monitoring costs reduces business failures and increases the efficiency of the banking system (see for example Al-Jarhi and Iqbal, 2001), although there may be drawbacks, for example, in an excessively "cozy" and opaque relationship between bank and corporate management.

A. Cooperative Banks and Credit Unions

Main Features

The essential characteristic of a cooperative or mutual bank is that it is owned by the majority of its customers through instruments that are not freely negotiable.[3] Normally, each depositor has at least one share, which can be redeemed only upon closure of the customer's deposit account.[4] In some cases, additional shares can be purchased and, under certain conditions, redeemed. These shares form the basis for control of the bank's management. Within that framework, a wide variety of organizational forms and control mechanisms are possible. For example, some cooperatives do a certain amount of retail business with non-members; some allow members to buy additional shares that are redeemable at the cooperative; and some require that also borrowers own shares even if they are not depositors.

[3] Fonteyne and Hardy (2011) provide a fuller description of cooperative structures and some of the economic and welfare issues that arise.

[4] The owners can collectively decide to de-mutualize by transforming the bank into a publicly-owned company, as certain British building societies did during the 1980s.

Cooperative banks can in principle engage in any of the activities found in conventional banks. While cooperative banks typically have a strong retail orientation, there are cooperatively-owned banking groups that engage in investment-banking type activities. Also, there are cooperative banks that provide equity-type financing to small and medium-sized enterprises (SMEs). Nonetheless, most cooperative banks earn most of their profits from interest rate spreads and transaction fees.

A credit union is a particular form of cooperative bank. Specifically, a credit union is a not-for-profit cooperative financial institution that is owned and controlled by its members and operated for the purpose of promoting thrift, providing credit at reasonable rates, and providing other financial services to its members.[5] Every member of a credit union is an equal owner and each member has one vote regardless of the amount of savings or the size of loans outstanding. Regardless of account size in the credit union, each member may run for the volunteer board of directors and cast a vote in elections. Members are meant to benefit from acceptable returns on savings, reasonable rates on loans, and fewer fees than would be typical of a conventional, profit-maximizing bank. Credit unions pool their members' savings deposits and shares to finance their own loan portfolios, rather than relying heavily on outside capital. Thus, credit unions typically engage mainly in retail business including homeowner-related and SME lending, and often do not provide more complex products.[6]

Credit union membership is usually based on some common bond that links savers and borrowers, such as their belonging to a specific community, organization, religion, or place of employment.[7] This selectivity in membership—which is found also in some but not all cooperative banks—can yield economic benefits by increasing information about borrowers; creating a "repeated game" that promotes cooperative behavior; reducing adverse selection problems; and facilitating tax efficiency.

The owner-members of cooperative and credit unions oversee management, but also receive dividends that depend in the profits earned and how much is added to reserves. Thus, risk-bearing and managerial control are connected in cooperative banks and in particular credit unions, but in a way that differs from that found in a publicly owned bank: depositors share also in up-side risk, and, to some extent, they share in downside risk even before bankruptcy. Yet, an implication of these provisions is that a cooperative bank, and, a fortiori, a credit union, has limited capacity to manage its capital structure. It cannot issue capital except to members, and so it cannot bring in outside capital either to expand or to shore up

[5] See World Council of Credit Unions (WOCCU, 2012).

[6] In the United States, for example, credit unions outsource the provision of most international transactions services.

[7] The staff of the IMF and the World Bank have their own credit union, as do staff of the U.S. Federal Reserve System. Other credit unions are national organizations with no special membership requirements.

capitalization after losses are made.[8] If a credit union suffers large losses, it cannot do much about it in the short term, but must slowly rebuild reserves out of retained earnings.[9]

Ensuring that management acts in the interest of owner-members can be problematic for cooperatives. Ownership tends to be diffuse, with each member having little incentive to monitor management carefully. Furthermore, a cooperative bank is effectively protected against a hostile take-over, and there may be few if any market indicators of performance or outside analysis. A single cooperative within a larger system may be overseen by the apex institution, but the managerial governance problem is then pushed to that higher level.

Development and Organization

The cooperative movement, and especially cooperative banking, has a long history.[10] Franz Hermann Schulze-Delitzsch set up a cooperative bank in Germany in 1852, and Friedrich Wilhelm Raiffeisen developed the movement further (Moody and Fite, 1984). By the time of Raiffeisen's death in 1888, credit unions had spread to Italy, France, the Netherlands, and Austria, among other nations. Many cooperative movements were and still are infused with a religious or secular morality that emphasized the virtues of thrift and mutual solidarity between all those involved, and the evils of usury.[11] On a more material level, there is a belief that making financial services available can have a catalytic role in lifting people out of poverty. This belief infuses also the movement to promote micro-finance institutions (MFIs), of which Grameen Bank is the best known.[12]

Over time, the cooperative sector in each country has tended to become more concentrated and also more integrated. Certain large cooperative banks own subsidiaries that are also listed companies, and sometimes a cooperative organization owns a bank that is itself organized as

[8] In general, a cooperative can issue a capital call on members, or sell them additional shares. The latter option is not available to a narrowly-defined credit union, where each member has just one share. A cooperative group that has a listed subsidiary can raise additional capital for that subsidiary.

[9] Dreese and Pazarbasioglu (1998) suggest that is inflexibility was a significant constraint in dealing with the Nordic banking crisis.

[10] Many early cooperatives, for example in England, focused on the provision of insurance and pensions.

[11] The Association of British Credit Unions Limited (http://www.abcul.coop/credit-unions/key-features) emphasizes that "credit unions have a number of clear objectives enshrined in their constitution…:

- Promoting thrift – members must be encouraged to save as well as borrow.
- Providing credit and loan products with fair and reasonable interest rates**.**
- The efficient use and control of members' savings for mutual benefit."

[12] MFIs are themselves very diverse in structure, size, and business models (see http://www.cgap.org/). Grameen Bank itself has a mutual structure, with all members forced to save with the bank, and part of those savings are shares in the bank itself but shareholders do not receive dividends; rather, they received a relatively high return on their deposits (Dowla and Barua, 2006).

a limited liability corporation.[13] In many systems, local cooperative banks own shares in a central "apex" institution that provides central services, helps reallocate liquidity from local cooperatives that have surpluses to those that need liquidity or to remunerated investments, and also often exercises oversight and resolution powers in case of need.[14] [15] The strength of the center over the member cooperatives differs from system to system, but in any case the arrangement presupposes coordination rather than fierce competition among member cooperatives.

Credit unions in their current form originated in the United States in the late nineteenth century, and the movement spread to other (mainly English-speaking) countries over time. Some U.S. credit unions are state regulated, and others are federally regulated and have to report to the board of the National Credit Union Administration (NCUA). The NCUA insures credit union customer accounts, in much the same way the Federal Deposit Insurance Corporation (FDIC) insures bank accounts up to a certain amount. Credit unions throughout the United States were granted a federal income tax exemption by Congress because they are not-for-profit cooperatives.

Local "natural-person credit unions" rely on larger financial institutions known as "corporate credit unions" to act as apex institutions that provide liquidity management services.[16] They also provide such services as investment placement, credit and loan processing and information management, business checking, and wire funds transfers. The corporate credit unions are owned by the natural person credit unions. Corporate credit unions, like natural-person credit unions, can be either federal-chartered or state-chartered.

The 2012 annual report of the European Association of Co-operative Banks (EACB) reported that there were about 4,000 member cooperative banks and 72,000 branches in their member countries. Alone in the 28 European member countries, cooperative banks had 56 million member-owners and served more than 217 million customers. Table 1 shows some financial variables of cooperates in Europe, Canada, and Japan. The average total asset size in Europe is about €1.4 billion, but with a large dispersion; some European cooperative banks are very large indeed. Furthermore, the number of cooperative banks is in some regards misleading because in countries such as France, Germany, and Austria, many cooperatives are closely

[13] For example, the Co-op Bank plc. in the U.K. is owned by the Co-op Group.

[14] The German Raiffeisen- und Volksbanken sector, for example, is organized along these lines.

[15] Because of the liquidity reallocation function, the apex institutions are sometimes known as giro centers.

[16] Because credit unions are each owned by a defined group of individuals with a common bond, they do not compete with one another, and also they have no reason not to share information (for example, on their liquidity positions) with the common apex institution.

bound together through mutual guarantees, common operating systems, and the role of the apex institution.

Table 1. Cooperative Banks: Financial Statistics for European Union, Canada, and Japan

Country/ region	Total assets (Million Euro)	Total deposit (Million Euro)	Total loans (Million Euro)
EU	6,951,981	3,932,516	4,033,568
Canada	144,124	93,539	94,867
Japan	653,180	396,750	133,476
Switzerland	128,940	101,053	112,659

Source: EACB, 2012.

In 2011, there were over 50,000 credit unions around the globe in 100 countries (WOCCU, 2012). Table 2 shows the growth of the number of credit unions and their members. They have been growing steadily over the years, to serve 196 million members in 2011, compared to around 118 million in 2002. Table 3 shows that their balance sheets have been growing fairly steadily. Their loan to deposit ratio is on average well below unity, and reserves including capital relative to total assets as a measure of leverage) tends to be about 10 percent.

Table 2. Credit Unions: Worldwide Membership Statistics

Year	Countries with credit unions	Credit Unions	Members
2011	100	51,013	196,498,738
2010	100	52,945	187,986,967
2009	97	49,330	183,916,050
2008	97	53,689	185,800,237
2007	96	49,134	177,383,728
2006	96	46,367	172,007,510
2005	92	42,705	157,103,072
2004	82	41,042	128,338,297
2003	84	40,457	123,497,445
2002	78	40,258	118,268,624

Source: WOCCU (2012).

Table 3. Credit Unions: Worldwide Financial Statistics

Year	Savings (Million US$)	Loans (Million US$)	Reserves (Million US$)	Assets (Million US$)
2011	1,221,635	1,016,243	141,314	1,563,529
2010	1,229,389	960,089	131,659	1,459,606
2009	1,145,851	911,753	119,738	1,352,609
2008	995,741	847,059	115,317	1,193,812
2007	987,861	847,896	115,358	1,181,466
2006	904,121	758,209	106,826	1,092,136
2005	763,820	612,202	91,557	894,455
2004	707,438	531,419	82,927	824,653
2003	656,370	482,574	74,674	758,479
2002	589,220	424,951	67,420	676,049

Source: WOCCU (2012).

Credit unions are most prevalent in the United States. As of September 2010, there were 7,535 credit unions in the United States, serving nearly 91.8 million members, which implies a penetration rate of 43.9 percent (CUNA, 2012). There are also about 30 corporate credit unions. However, these credit unions are typically rather small: at that time they held about US$800 billion in savings, which implies an average deposit base of about US$100 million each. CUNA (2009) statistics show that two thirds of the 8,000 credit unions in the United States, with 13 million members, are very small, with assets under US$35 million. Half of all the credit unions in the United States have less than $16 million in total assets.

As suggested by this small average size, credit unions tend to be retail-oriented, a feature that is their strength, and their weakness. Although corporate credit unions could provide more sophisticated services and finance larger projects by pooling resources from several credit unions, the sector does face a problem in reaping all economies of scale and scope. Moreover, engaging on a large scale with non-members would be against their guiding principles, and local credit unions lack relevant expertise and systems. Furthermore, traditional credit unions may find it difficult to offer services to a more mobile public, where the "common bond" may be weaker and more transient. In an economy where people change jobs and locations frequently, the inter-temporal and interpersonal commitment that underlies a credit union may be hard to maintain.

Most credit unions did not suffer major losses in the recent global financial crisis, nor did they contribute much to the preceding credit boom, deterioration in lending standards, and growth in the market for collateralized debt obligations and mortgage-related credit default

swaps. Table 3 shows that they suffered a slowdown in 2008, but have since resumed steady, if unspectacular, growth. Similarly, most cooperative banks in Europe fared relatively well (Fonteyne and Hardy, 2011). This "conservative" behavior may be a reflection credit unions' dedication to serving a known customer base, not maximizing short-term profits, and limiting dependence on outside funding.[17] In some countries, credit unions and cooperative banks have been gaining market share, in part because they are regarded as more risk averse, more transparent, and perhaps less subject to managerial self-serving than other banks. However, this is not to say that a cooperative bank is always low risk, for example, when the community served by a credit union suffers a common shock (e.g., when the depositors and borrowers are all dependent on the same industry). Furthermore, many cooperative banks and credit unions focus on household lending including residential mortgages, and so are especially vulnerable to credit risks associated with unemployment and the collapse of real estate bubbles.[18]

B. Islamic Banks

Main Features

Islamic banking must be compliant with Islamic religious law, known as *Shari'ah*, which, as will be explained, contains many specific injunctions and some more general principles relating to financial operations.[19] For the purposes here, perhaps the most relevant requirement for *Shari'ah* compliance is that a financial investment should be connected to a specific, "real" activity, that is, the provision of a good or service that is not itself a financial investment.[20] Logically, the prohibition on a predetermined interest rate (*riba* in Arabic) follows: a predetermined return that varies only in the very limited circumstances of bankruptcy would not have a connection to a real activity. Also, trading financial instruments such as derivatives for the sake of making a financial profit is prohibited (although use of forward contracts, for example, is allowed). Perhaps even more fundamentally, Islamic finance is meant to support mutual solidarity between all those involved: neither provider nor the user of financing should ever be exploited or gain a disproportionate share of the

[17] Cihak and Hesse (2007) find that cooperative banks tend to be more stable than other banks due to the low volatility of their profits.

[18] The Britannia Building Society in the U.K., which was mutually owned, made substantial losses on its mortgage lending. Britannia was merged into the Co-op Bank, as a result of which, at the time of writing, the Co-op Bank has initiated a capital-raising initiative, the sale of non-bank businesses, and the conversion of some debt to equity (see http://www.co-operativebankinggroup.co.uk/servlet/Satellite?c=Page&cid=1166524495195&pagename=Corp%2FPage%2FtplCorp&loc=t).

[19] Neither author is an Islamic scholar. This brief summary represents our personal interpretation.

[20] The "real" activity can itself be a "financial" service such as the making of payments and transfers or the safekeeping of assets.

benefits.[21] Indeed, one element of Islamic finance is the requirement to pay a charitable contribution known as *Zakat.*[22] [23]

Provided that these conditions are met, there are a wide variety of contract forms that Islamic banks have developed to provide financing and to mobilize savings (Box 1). Banks offer these products in order to generate management fees and to engage in profit and loss sharing (PLS) arrangements. Moreover, Islamic banks are generally free to provide fee-based transaction services. A variety of ancillary services are offer in a *Shari'ah*-compliant manner, such as bonds and guarantees, letters of credit, remittances (local and international), online banking, ATM/debit cards (including credit cards), safe deposit boxes, payment services, collection of export bills, and assignment of export/local bills (SBP, 2009). Similarly, funding is on a PLS basis, or in the form of non-remunerated safekeeping accounts. In effect, savers face a risk-return efficiency frontier, such that they can choose to allocate funds between a safe asset and assets whose returns depends on the realization of the bank's operations.

Within this diversity, Islamic banks usually operate as universal banks, with both retail and more wholesale and own-account business. Indeed, risk sharing on the asset side amounts to own-account business, most obviously in the case of the equity- or partnership-like *musharakah* and *mudarabah* investments, but also in sale-based or leased-based instruments (*murabahah* and in particular *tawarruq*, or *ijara*), where the bank generally obtains outright ownership of commodities or other goods. In practice, also, the earning of commissions and fee income is a major part of their business, where these revenues come from both retail and large corporate clients.

[21] It is more accurate to speak in terms of providers and users of financing, but for the sake of concision the terms "depositors" or "lenders," and "borrowers" will be used when no confusion arises.

[22] *Zakat* is levied at the rate of 2.5 percent for lunar calendar year (IFQ, 2007). Islamic banks also provide *qard-hasn* uncompensated loans.

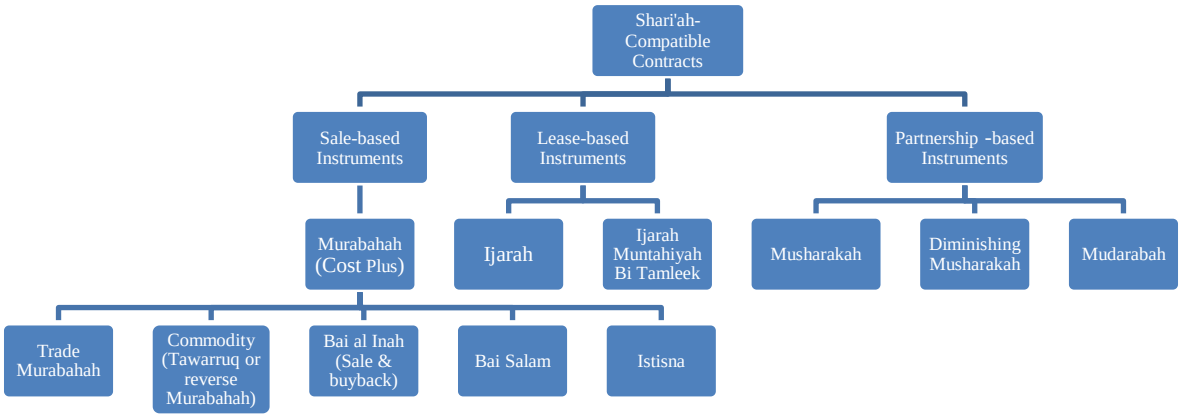
[23] Note that many conventional banks, such as German Sparkassen, have a mandate to contribute to community causes. Others are owned by charitable foundations.

Box 1. *Shari'ah*-Compliant Financial Contracts

A large variety of financial instruments and modes have been developed to enable financial services to be provided while respecting the constraints of *Shari'ah*. These modes are generally known by their Arabic names. *Sukuk* is the term used for Islamic securities, which may be issued by government, corporates, or banks themselves.

Asset Side

The three main modes of permissible financing are (i) sale-based instruments; (ii) lease-based instruments; and (iii) partnership–based instruments (see figure).



The sale-based instruments referred to as *murabahah* (cost plus) is implemented as (i) true-trade *murabahah*, when the bank buys a tangible asset and sells it to the client, who wants to own this asset; (ii) commodity *murabahah* (*tawarruq*), when the bank buys a commodity from a broker and sells it to the client, who does not want to own the commodity, so the client sells it to another broker to get cash; or (iii) *bai al inah* (Sale and buy back), when the bank sells its asset to the client (on credit), who immediately sells back the same to the bank (on cash basis) and obtains the sought sum. *Murabahah* can be used to fund the purchase of an asset already in existence such as a car, a completed building, and machinery. However, to fund an asset that is not yet in existence, such as agricultural produce that needs to be cultivated or properties under construction, *bai salam* or *istisna* are used.

Islamic banks can use leasing as an alternative to sale-based instruments, whereby ownership does not transfer to the client; money is exchanged with the right to use an asset. *Ijarah muntahiyah bi tamleek* is effectively a lease-to-buy contract.

The third category of financing instrument is partnership-based instruments. Unlike sale and lease transactions that involve exchange, the third category of instruments calls for the pooling assets. The return to the bank depends on the actual business performance of the client. There are two basic instruments in this category, namely (i) *musharakah* (joint venture); and (ii) *mudarabah* (passive partnership). One can also find **"**diminishing *musharakah"* arrangements, where tenancy and sale are mixed such that one partner will, over time, purchase units in the joint venture from the others at a pre-agreed unit price.

Liability Side

On the liability side, the Islamic banking industry offers various *Shari'ah*-compliant deposit schemes. These include current accounts, basic banking account, savings accounts, term deposits of various maturities, and certificates of investment (SBP, 2009). The main form of account is a safekeeping account (*al-wadiah*), which offers no regular return but enjoys a guarantee on the principal; a savings account in an unrestricted *mudarabah* investment account, where the saver shares in the (risky) general return of the bank and gives bank management discretion in the allocation of resources; and a restricted investment account, where the saver decides on individual investments and shares in their returns. The last two forms of savings do generally enjoy a guarantee against gross negligence or malfeasance on the part of bank management, but otherwise are allocated a share of the revenues net of operational costs. The associated "real" activities are the managerial and operational services provided by the bank staff and management.

Because of the equity-like properties of many Islamic products or the connection to transactions in physical goods, Islamic banks typically operate as universal banks. In the case of certain financial products, an Islamic bank will have to take ownership of a commodity, real estate, or other physical asset, and so will have to be cognizant of how the asset needs to be stored, maintained, and managed, and it will have to check that this activity is carried out correctly. In other cases, an Islamic bank will provide equity for a company, and so must understand in some depth the commercial and noncommercial risks involved, the investment and production process, etc. An Islamic bank will need not just financial experts, but also experts in the various sectors in which it wishes to invest.

Investment contracts with predetermined interest rates are pervasive in conventional finance because they are generally optimal when outcomes, effort, and riskiness are not verifiable or verifiable only at high cost.[24] An investor does not need to know much about upside risk of a borrower's project, so long as its principal and interest are repaid, but if the project fails the investor will be one of the claimants in a bankruptcy case. This attractiveness applies in bank lending, and also in bank financing: depositors and other financers (such as holders of bonds) of conventional banks do not need to know much about the bank's results so long as they have access to their deposits and the interest is paid; the owners bear residual risk but also control management. The depositors may suffer losses if the bank's capital is wiped out, but in that situation the original owners have lost their control rights. In practice contracts contain relatively complex provisions, such as collateral requirements, but in general conventional interest-based contracts reduce monitoring and verification costs, and ensure that risk-bearing is associated with control.

Islamic banks need to analyze and monitor the projects that underlie the financing that they provide especially closely in order to offset the disadvantage of not having available fixed-interest contracts and similar instruments. Partly for this reason (and also partly because of the prevalence of relatively short-term financing), many Islamic banks have concentrated on sale- and leasing-based products, or low-risk *sukuk*, rather than partnership-based contracts, where asymmetric information issues are more pervasive and offsetting mechanisms less readily available.

Not only bank management, but also the depositors in an Islamic bank typically face an extra informational burden.[25] Investors in remunerated accounts in an Islamic bank cannot make use of a contract with a predetermined return, nor do they have a say in how the bank is managed. They therefore have a strong incentive to devote time and resources to evaluating

[24] The seminal papers include Townsend (1979), Diamond (1984), and Gale and Hellwig (1985). There is a large literature on optimal financial contracts with asymmetric information, moral hazard, adverse selection, and various transaction costs. Nabi (2013), for example, shows that profit-sharing contracts are appropriate where the entrepreneur is not highly leveraged and where monitoring costs are low.

[25] See Grais and Pellegrini (2006).

where the bank is investing and how it is managing those investments; they do not need to know just the probability of default of the bank and loss given default, but rather the whole distribution of possible returns, yet they may find it very difficult to find and interpret relevant information.[26] Depositors still have disciplining power: they can remove their funds altogether or they can shift them to a non-remunerated but guaranteed safekeeping account. Indeed, depositors may shift funds whenever they fear that the Islamic bank will provide a yield below their reservation level even though the bank is solvent and liquid; depositors in a conventional bank may "run" only when they fear that the bank will collapse.

Moreover, Islamic banks are mostly privately owned and operated by managers for the benefit of shareholders, which feature, in conjunction with PLS, will affect incentives in several ways.[27] By sharing also upside risk with depositors, moral hazard may be reduced: bank management has less incentive than under conventional banking to make investments with relatively good chances of making very high returns and also a good chance of doing poorly. But management of an Islamic bank may have less incentive than management of a conventional bank to reduce downside risk, which too is shared with depositors.[28] Owners and thus managers have less at stake, less "skin in the game," and may therefore make less effort to choose and monitor investments carefully.

Development and organization

Islamic institutions operated a wide-ranging payments system already in medieval times, but the first Islamic bank in modern times was founded in Egypt in 1962/63.[29] The movement "took off" in the 1970s, with the coincidence of the oil boom in many Arab countries and a renewed interest in Islamic institutions (Wilson, 2000). Subsequently, strong growth and high savings in certain predominantly Muslim countries in Asia, and continued surpluses in Middle Eastern hydrocarbon exporting countries contributed to further expansion and diversification. Most recently, Muslim communities in some European countries such as the United Kingdom and France have shown interest in Islamic products.

According to Sanusi (2011), the number of Islamic financial institutions worldwide at that time included at least 435 full-fledged institutions, and 191 windows of conventional

[26] See Hamza and Saadaoui (2011).

[27] The governance of Islamic banks is discussed, for example, in Archer, Karim and Al-Deehani (1998), Archer and Karim (2007), and Niehaus (2007).

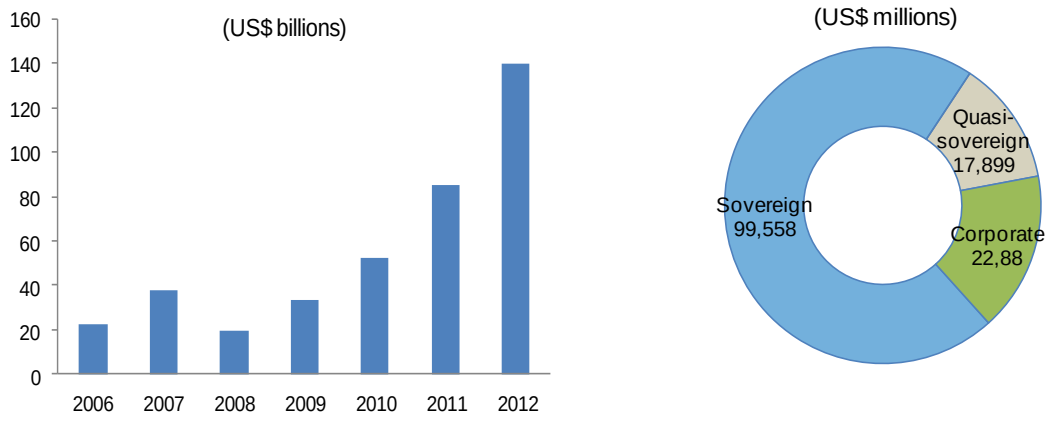
[28] This argument applies only to a certain range of outcomes. Since in principle an Islamic bank shares downside risk with (non-safekeeping) depositors, and if its depositors do not withdraw funds, the bank's capital will be exhausted only when all deposits are written down to zero. Hence, bank management cannot attempt to shift risk to depositors as residual claimants in case of bankruptcy.

[29] Reportedly, the movement was partly inspired by the experience of German cooperatives.

institutions, operating in over 48 countries. According to a 2012 survey by Ernst and Young, Islamic banking assets grew at an annual rate of 19 percent over the five years to end-2012, to reach US$1.55 trillion; growth is expected to remain strong.[30] The *Shari'ah*-compliant assets rose of major Islamic financial institutions tracked by *The Banker* reached US$1.16 trillion in 2012, up from US$894 billion in 2010 and US$1,086 billion in 2011.[31] Bahrain, Malaysia, and United Kingdom are global hubs; major Islamic banks are found also in Saudi Arabia, United Arab Emirates, and Qatar; and Sudan and the Islamic Republic of Iran operate wholly Islamic banking systems. It is estimated that about 12 percent of Muslims use Islamic financial products (Zawya, 2012). Globally, banks hold over 90 percent of Islamic assets.

Much of the recent expansion in Islamic savings has gone into *sukuk*, as shown in Figure 1. Malaysia dominates the global *sukuk* issuance market; the infrastructure and financial sectors are the main non-government issuers.

Figure 1. Growth of *Sukuk* Issuance



Source: Zawya Sukuk Monitor.

It should be emphasized that the Islamic banking sector is diverse and not formally organized. What is acceptable practice on one country need not be recognized as *Shari'ah* compliant elsewhere (although there is in practice a high degree of convergence among internationally active Islamic banks). Perhaps the two most important organizations for Islamic financial institutions are the Islamic Financial Services Board, which is a standard setting in such areas as prudential banking regulation and supervision, and the Accounting & Auditing Organization for Islamic Financial Institutions, which oversees the development of

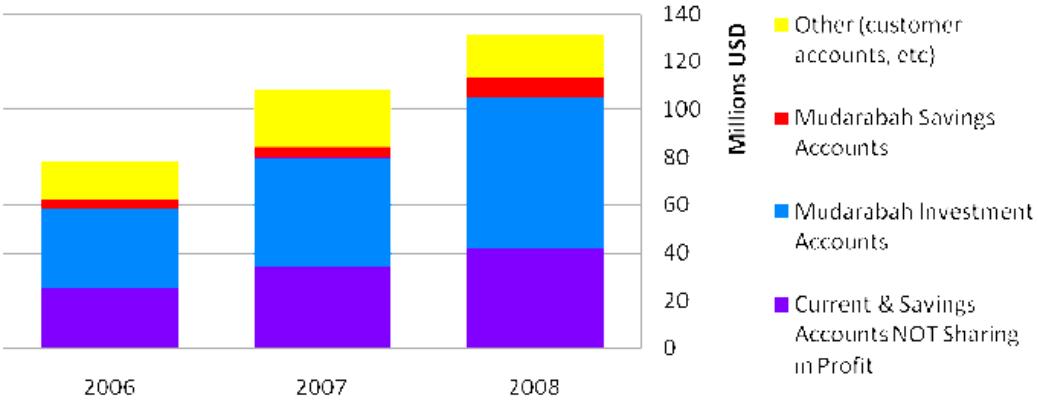
[30] Available at http://www.mifc.com/index.php?ch=28&pg=72&ac=21&bb=uploadpdf . See also Imam and Kpodar (2010).

[31] Available at http://www.thebanker.com/Banker-Data/Top-Islamic-Financial-Institutions .

Shari'ah-compatible accounting and audit standards and practice. However, statistical information about what is predominantly a private sector activity is not collected on a regular and comprehensive basis.

Given the current state of development of the sector and macroeconomic conditions of many predominantly Muslim countries (such as the Arab hydrocarbon exporters), Islamic banks often have a surplus of deposit funding and a relative lack of suitable investment opportunities. Furthermore, Islamic banks typically display large maturity mismatches, in view of the availability of mostly very short maturity funding and demand for funding of longer term projects. According to a sample of data available from Bankscope of 118 Islamic banks in 2010 (with total assets of US$685 billion), deposits and other short-term funding makes up on average three quarters of Islamic banks' liabilities (Figure 2).

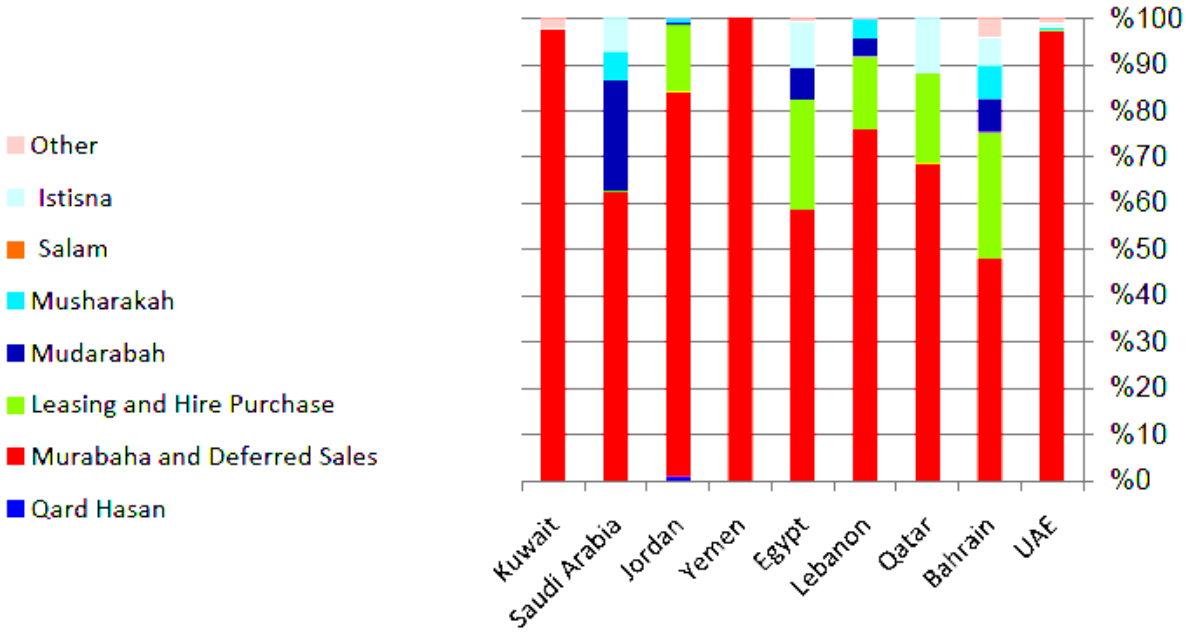
Figure 2. Composition of MENA Region Islamic Banks' Customer Accounts
(Customer account balances for banks in the MENA region, 2008)[1]



Source: Ali (2011).
[1] Mudarabah investment accounts are short-term and mostly unrestricted. Mudarabah savings accounts are longer-term and mostly restricted.

For reasons explained above, investments are concentrated in *sukuk* and sale- and lease-based products, rather than partnership-based products. Figure 3 shows that, for MENA region banks, *murabahah* cost-plus products make up the bulk of investments, followed by leasing and hire purchase products. Among these countries, *mudarabah* partnerships are important only in Saudi Arabia. According to statistics available from Bank Negara Malaysia, *musharakah* and *mudarabah* products constituted 5.2 percent of Malaysian Islamic bank financing at end-2012, whereas *bai al inah, istisna*, and other *murabahah* products constituted 49.5 percent, and *ijarah* products constituted 25.4 percent.

Figure 3. Composition of Islamic Banks' Investments
(Share of investments, by financing product, 2008)



Source: Ali (2011).

These conditions are far from universal or inherent, but point to an underlying complication: it is relatively difficult for an Islamic bank to manage short-term liquidity fluctuations.[32] Hence, an Islamic bank typically maintains substantial surplus liquidity, on which it earns at best a very low return. The problem arises in part because an Islamic bank would not normally invest in or take funding from a conventional bank, since a major portion of the latter's business involved interest. Rather, Islamic banks often make use of commodity-based *murabahah* transactions, which however are relatively expensive, and in some jurisdictions there may be a shortage of suitable commodities.[33] In some countries, Islamic banks can place funds on a safekeeping *al-wadiah* basis with the central bank, or the central bank provides a *Shari-ah* compatible facility, sometimes on the basis of a pool of assets.[34] When these assets are valued on a daily basis, a form of overnight rate is established. Such facilities are not available everywhere. There continues to be a lively debate on what are the most efficient *Shari'ah*-compatible arrangements for liquidity management.

[32] This issue has long been discussed, as in Sundararajan and Errico (2002), for example.

[33] International commodity *Murabahah* is available, but only in countries with sufficiently open capital accounts and supportive infrastructure.

[34] Some may regard either such facility as problematic from a *Shari'ah* standpoint where the central bank is primarily engaged in interest rate-based business.

Islamic banks were relatively little affected by the global financial turmoil that started in 2008 (Hasan and Dridi, 2010). The economies where most of them operate mostly continued to perform relatively well, and because of restrictions on their investment activities Islamic banks were not substantially exposed to such sectors as the U.S. sub-prime mortgage market and related derivative markets. Since they generally enjoy excess liquidity—and in some case, the backing of governments with large financial assets—and do not substantially borrow from or lend to conventional banks, they were not squeezed by deteriorating conditions in international interbank markets. However, where Islamic banks were heavily committed to markets that suffered large corrections—as in some Gulf states—significant credit risk was realized, notably on the financing of real estate projects. And the recent default of some *Sukuk* damaged some Islamic and non-Islamic banks in the course of the global financial crisis (Torre, 2011). On average, nonperforming loan ratios of Islamic have been on average higher than those of comparable conventional banks, and profitability has tended to weaken (Islamic Financial Services Board, 2013). Thus, it can be argued that the need to link financial with "real" transactions helps reduce incentives for excessive leverage, arbitrage trades, or contributing to financial market bubble, but this argument does not apply to the financing of real estate bubbles, for example.[35]

III. SIMILARITIES AND DIFFERENCES

Islamic banks and cooperative banks share characteristics as financial depository institutions, where savers can deposit funds and withdraw them on demand or under certain conditions, depending on the contract. They, like ordinary commercial banks, are financial intermediaries, determining where savings are to be allocated.

Beyond this, a basic similarity between Islamic banks and cooperative banks (including credit unions) is that they all require depositors to share risk. In an Islamic bank, the risk sharing is very visible: savers with unrestricted investment accounts receive a proportionate share of bank's revenues minus operating expenses and other costs (but of course, not interest costs). This return fluctuates from time to time and can even be negative.[36] In a cooperative bank, savers receive interest on their accounts, plus a dividend, which depends on the bank's revenues minus operating expenses and other costs (now including interest costs). This with-dividend return fluctuates from time to time, although it does not normally fall below the rate of interest.

[35] There is a considerable literature on the stability properties of Islamic versus conventional banks. Cihak and Hesse (2008), for example, present findings from a panel of banks, according to which smaller Islamic banks tend to be especially stable, whereas larger Islamic tend to be financially weaker.

[36] Those with restricted investment accounts—which are off-balance sheet—receive a return related to that earned on the respective assets, but not the bank's total earnings.

To illustrate this point, consider the profit and loss accounts of a conventional commercial bank, a cooperative bank, and an Islamic bank. Each institution has total assets of *A*, deposits *D*, and capital *K*. It earns gross revenue *R* and has operating costs of *C*. The interest rate on deposits is *i*. The Islamic bank has agreed to allocate a proportion *x* of its net revenues to the depositors; this proportion reflects the comingling of resources in the form of the bank's equity, investment accounts, safekeeping accounts, and the efforts of the bank's management.

The simplest case is where the bank makes sufficient profits that all obligations can be met, and profit retention, etc., is ignored. The payoffs to shareholders and depositors are shown on the following table. For the cooperative bank, depositors are identical with shareholders. It can be seen that the payoff for depositor-shareholders of a credit union equals the interest they receive plus the dividend. Their total return depends on just the difference between the institution's revenues and non-interest costs. The payoff for depositors in an Islamic bank depend on exactly that difference, weighted by their earnings share *x*. Except for this factor of proportionality, the risks and returns are the same for depositors in the two types of institution. In contrast, the depositors of a conventional bank receive a predetermined interest income and do not share in risk.

Table 4. Payoff for Depositors and Shareholders of Three Types of Financial Institutions

Beneficiary	Conventional Bank	Cooperative Bank	Islamic Bank
Depositors	$D*i$	$D*i + (R-C-D*i) = R-C$	$x(R-C)$
Shareholders	$R-C-D*i$		$(1-x)(R-C)$

Some real-world complications can enrich the comparison. First, banks (including Islamic banks) retain some proportion *y* of profits to add to capital, rather than paying out all profits as dividends. Indeed, if the bank makes losses, it can pay out dividends while running down capital ($y<0$). Retained earnings do accrue to the owners through a change in the net value of the bank. In the case of a cooperative bank, which does not have negotiable equity, the retained earnings accrue to current depositors and future depositors; earnings retained by the current generation of depositors will be available as inherited capital for future generations of depositors.

Second, Islamic banks sometimes operate what is known as a "profit equalization reserve" (PER) to smooth returns to depositors.[37] [38] This practice seems to be to motivated by the need to ensure that Islamic banks offer returns that are consistently comparable to those offered by

[37] See IFSB (2010) for details and a discussion of the appropriate regulatory treatment.

[38] In some cases an Investment Risk Reserve serves a similar purpose.

conventional banks with which they compete, and to ensure that savers' incomes are not subject to unnecessary fluctuations, while still sharing risk.[39] With a PER, bank management may choose to retain and add to reserves a proportion *z* of the revenues allocated to depositors. When earnings are poor, *z* will be negative and the depositors' earnings topped up.

With these two complications, the payoffs are as shown in the next table. Note that the profit retention ratios need not be identical and are therefore distinguished by apostrophes. The total return to current and future depositors, comprising current earnings and addition to reserves, is the same for a cooperative bank and for an Islamic bank but for a factor of proportionality. In both cases there is an issue of intergenerational distribution: profits retained as a credit union's capital, or added to an Islamic bank's PER, do not necessarily accrue to existing depositors. And a cooperative bank that runs down its capital ($R-C-D*i<0$, $(1-y)>1$), or an Islamic bank that uses up its PER ($z<0$), in effect disadvantages future depositors. There may be good reason to do so—perhaps otherwise the institution would go out of business—but the possibility of an inter-generational conflict of interest remains.

Table 5. Payoff for Depositors and Shareholders with Retained Earnings and Profit Equalization

Beneficiary	Conventional Bank	Cooperative Bank	Islamic Bank
Depositors	$D*i$	$D*i + (1-y')(R-C-D*i) = (1-y')(R-C)+ y'D*i$	$x(R-C)+(1-z)x(R-C) = (1+x-zx)(R-C)$
Shareholders[1]	$(1-y)(R-C-D*i)$		$(1-y')\ (1-x)(R-C)$
Future depositors	--	$y'(R-C-D*i)$	$zx(R-C)$
Total depositors	$D*i$	$(R-C)$	$(1-x)(R-C)$

[1] Cash flow, ignoring effect on firm valuation.

Table 5 illustrates also the case where the bank makes substantial losses but is not insolvent. The shareholders of a conventional bank may be called upon to make a capital contribution, failing which there will be a rights issue and the existing shareholders will see their interests diluted. For an Islamic bank, the situation is similar, except that the threshold for action is higher: the depositors bear much of the risk before the bank becomes substantially undercapitalized.[40] For a cooperative bank, a capital call would be represented by $R-C-D*i<0$, $(1-y)<0$; the depositors would need in effect to give back some of their interest earnings. In practice there is a risk that it will be difficult to get depositors in a cooperative to contribute

[39] In effect, a PER allows risk to be aggregated over a long time period than the normal accounting period. As a practical matter, some time aggregation in risk sharing is unavoidable.

[40] The required minimum capital ratio can be the same for an Islamic and a conventional bank, but an Islamic bank can suffer a larger flow of overall losses until it reaches that level because depositors share in the losses.

more capital in cash when ownership is highly diffuse and much of the benefit accrues to future generations of depositors.

The sharing of risks between owners and depositors found in Islamic and cooperative banks has another common feature, namely, that payouts are largely determined by management on the basis of accounting data. Banking inevitably involves large asymmetries in information and complex accounting, so that it is relatively difficult to monitor or constrain management. Financial results of Islamic banks may be especially difficult to interpret because returns depend on the profitability of the individual enterprises that are financed, funding is comingled, and payouts smoothed. In any one period, depositors in an Islamic or cooperative bank will have to trust that the bank's management has calculated profits and chosen payouts in an appropriate manner. They can exercise discipline through withdrawing deposits or—for Islamic banks—rely on vicarious monitoring by owners, but they are unlikely to receive much reliable and interpretable information on performance on a timely basis.[41]

Cooperative banks including credit unions differ from Islamic banks more on the asset side of their balance sheets. Islamic banks share risk with borrowers or counterparties on a transaction by transaction basis, and for both upside and downside risk (i.e., across the full support of the distribution of possible returns). A cooperative bank normally charges a predetermined rate of interest on loans. In case the borrower defaults, the cooperative bank inherits all remaining risk; the borrower possibly bears no more risk if she enjoys limited liability rather than full recourse. When a borrower is a member of the cooperative, she shares in the overall risk of the cooperative's returns. However, assuming that any one loan is only a small share of cooperative bank's portfolio, the overall risk is insignificantly connected to the success of the borrower's project.

Islamic banks and cooperatives—especially credit unions—differ in some of their main business lines. An Islamic bank has to act somewhat in an investment bank-like manner, taking outright ownership or shares in commodities, products, and firms. Even if it specializes in household finance—perhaps the financing of auto purchases and housing—it will have to own and to some extent manage an inventory of cars, apartments, and houses. In contrast, the typical cooperative bank or credit union would own very little non-financial assets beside what it uses for its own operations and collateral seized from defaulted loans, which the credit union would normally try to dispose of quickly. Thus, the distribution of returns will differ even when financing otherwise similar projects and enterprises.

Nonetheless, there is a certain affinity between the guiding principles of Islamic finance and cooperative banks and especially credit unions, namely, in their emphasis on solidarity between all those involved and a rejection of usurious or unfair financing conditions. Credit unions are expressly built on the notion of community and sharing of burdens and rewards.

[41] See Archer and Karim (2007).

Predetermined interest is charged on loans, but the rate is meant to be "reasonable." Furthermore, in a given community, there will be a certain amount of turn taking: the borrowers of today may well be the savers of tomorrow, and vice versa, so over time risks are shared about. In this regard, their not-for-profit objective is important. Islamic banks have an explicit injunction to share upside and downside risks, not to seek earnings through purely financial operations, and to make charity contributions. There is a risk of over-emphasizing these lofty objectives: one cannot expect that everyone will live up to the spirit or even the letter of such principles. Islamic banks, it should be remembered, are mostly established and operated for the benefit of shareholders, and credit unions seek to maximize the economic welfare of their members, even if they are classified as not-for-profit for tax purposes.

At present, Islamic and cooperative bank including credit unions share some aspects of performance. Individual institutions tend to be small. For example, according to the Ernst and Young, just 13 Islamic banks had capital over US$1 billion at end-2012. Second, profitability and especially return on equity tends to be quite low, albeit relatively stable.[42] Low profitability may to an extent be the counterpart to high capitalization or reflect a deliberate strategy to achieve fairly low-risk returns. These similarities are not inherent an immutable, but each sector may still offer lessons to the other on how to deal with the current situation.

IV. WHAT EACH CAN LEARN FROM THE OTHER?

Cooperative elements in Islamic financial institutions

It seems at least possible for an Islamic bank to be organized along cooperative and in particular credit union lines, and such a structure could be both beneficial and highly consistent with the principles of Islamic finance. Such a structure would enhance mutuality in business dealing, as emphasized in Islamic jurisprudence, where obligations to various stakeholders have long been recognized (Iqbal and Mirakhor, 2004). There would be greater equality among the parties and more need to respect diverse interests, while risk sharing and the avoidance of predetermined returns would be at least as comprehensive.

It is true that the status of the shareholders in an Islamic bank is that of working partner, and the account holders' is that of the financier. This is the reason why the share of returns allocated to depositors is less than their share of the financing provided, and why depositors do not have voting power to select or instruct management; the depositors only supply the capital. However, there does not seem to be a reason why depositors have to have this limited role; a sort of equity position for depositors seems prime facie to be an acceptable basis for accruing returns to savings in Islamic banking (Ariff, 1988). Indeed, attempts have been made to establish credit unions operating on Islamic principles in Afghanistan (Box 2).

[42] Besides studies already cited, see also IMF (2011) for an examination of bank profitability by ownership form.

Box 2. WOCCU's Project for Islamic Credit Unions

WOCCU has undertaken a project to set up Islamic Investment and Finance Cooperatives (IIFCs) in Afghanistan. These IIFCs are the only credit unions within WOCCU system with Islamic financing features. WOCCU believes that the design and delivery of financial products and services is shaped by local customs, religious beliefs, and the economic environment. Successful financial sector development in a predominately Muslim country often requires the application of Islamic law and its guiding principles, as it has with WOCCU's financial cooperative development experience in Afghanistan.

Islamic financial cooperatives are very similar to non-Islamic cooperatives. They are locally owned and operated institutions, and the staff and boards of directors represent the membership and community. However, local elders and religious leaders are also consulted about the *Shari'ah* compliance of the products and services offered to members. WOCCU has developed a number of *Shari'ah*-compliant products for the IIFCs including *al-wadiah* safekeeping accounts; *w*orking capital loans (*Murabahah*) for the purchase of inputs on a mark-up basis, financial investment (*mudarabah*) on a passive partnership basis; financial lease (*ijara*) for equipment; and h*y*brid loans (*ijarah* paired with *murabahah*). Islamic cooperatives are also encouraged to reinvest some portion of their profits into community development initiatives. *Zakat* is giving back to the community. In Afghanistan, the Islamic cooperatives have helped rebuild schools and clinics, as well as provide scholarships for students.

The following table summarizes how these IIFCs are meant to combine Islamic and credit union principles:

Islamic Principles	Islamic Financial Cooperative Principles
Prohibition of interest-based transactions.	Emphasize a member's investment by offering an opportunity to purchase shares. Loans are made as financial contracts between borrowers and the cooperative.
Profit and loss sharing.	Establish member-ownership through the purchase of share savings. Share profits among members as dividends.
Transactions must be backed by assets rather than financial speculation. Financial contracts must detail the specific product/service being bought or sold.	Provide loans by purchasing a physical asset and either (i) leasing it to the member (*ijarah*), or (ii) transferring ownership to the member who pays a mark-up (*murabahah*).
Prohibition of financing activities considered harmful to society.	Lend only to *Shari'ah*-compliant businesses.

It would seem to be quite possible to give an Islamic bank a cooperative ownership and governance structure: converting (unrestricted) investment accounts into equity would effectively turn the bank into a cooperative. The depositor-owners would not be entirely passive suppliers of financing; the contact form would change from *mudarabah* to *musharakah.* One could in addition require those with safekeeping accounts to hold

minimum balances in investment/equity accounts, so they too would have an equity stake.[43] To be more like a credit union, the Islamic bank could be established as a not-for-profit institution; its membership could be restricted to a certain community; and all members would be given one voting share (their other savings would remain in Islamic deposits of the familiar sort).

Such an approach would reduce the risk that the owners and managers of an Islamic bank shift too much risk to savers—risk and control would become more closely linked—or otherwise exploit their position unduly.[44] In a cooperative Islamic bank, the depositor-owners would delegate much operational control to the bank's management, and thus they would not themselves need to devote effort to selecting projects in which to invest.[45] Nonetheless, they would have more control over management strategy and performance than if they are passive providers of financing.

El-Gamal (2005, 2006) goes further, and makes an argument that much of what is currently represented as Islamic finance is based on dubious foundations because the purpose is to increase capital through financial intermediation, and for the benefit of a relatively small number of major shareholders. He argues that only a fully mutualist institution can clear the obstacles to financial intermediation posed by Islamic jurisprudence, such as prohibitions against *riba* and *gharar* (risk of uncertainty). His recommended solution is to make Islamic financial intermediaries truly mutual entities, in which returns are distributed as dividends on shares, and the charity implicit in Islamic lending drives the institution's quest for growth. The authors are not fully convinced by the most rigorous form of this argument, but El-Gamal does point to the possibility of an Islamic bank being controlled by very narrow and possibly short-term interests.

At a more practical level, in some countries it may be worthwhile to establish an apex organization to help individual Islamic banks better manage their liquidity, and possibly to provide other services, similar to the institutions used by cooperative banks and credit unions.[46] As noted, liquidity management is relatively difficult for Islamic banks, especially

---

[43] Similarly, in U.S. credit unions, it is common to have to maintain a notional sum in a savings account in order to be a member, even if most funds are held in more remunerative accounts.

[44] Grais and Pellegrini (2006) point out that it would be inappropriate to grant investment account holders control rights over the whole bank unless they are indeed owners. Hall, Dar and Muljawan (2000) suggest that agency roles can be enhanced by requiring shareholders to hold funds in PLS investment accouints.

[45] "Restricted" investment accounts always have to make such a selection.

[46] At an international level, the International Islamic Liquidity Management Corporation was founded monetary authorities and multilateral organizations to create and issue short-term *Shari'ah*-compliant financial instruments in order to facilitate cross-border Islamic liquidity management by institutions offering Islamic financial services.

where the central bank has not established a dedicated facility and where there is no large stock of suitable *sukuk* outstanding. In response, Islamic banks could establish their own liquidity-pooling giro institution, where they could place funds partly on an unremunerated *al-wadiah* basis, but partly also on a remunerated basis.[47] Idiosyncratic liquidity shocks would be diversified away, and so the apex institution could safely invest in profitable longer-term projects relatively more than could a single bank. A bank needing liquidity could do so up to a limit on a *qard-hasn* basis, but there would have to be some mechanism to prevent or discourage abuse; the apex institution would have to establish and enforce a rule requiring that unremunerated borrowings even out over some time period; perhaps an excessive borrower would have to issue equity to the apex institution if it fails to abide by the "club rules," or each member would have the right to a maximum daily overdraft, and a maximum period-average gross overdraft. Perhaps the most difficult condition for the success of such an institution would be the need to protect confidential information of individual member banks; each bank would need to be entirely sure that information about its liquidity and funding situation does not become available to its competitors.[48]

Broader risk-sharing in cooperative banking

Likewise for cooperative banks and credit unions, there are some lessons from Islamic banking that address structural issues, and others that are more practical and contingent.

First, cooperative banks and credit unions could consider paying out a higher share of (or even all) returns in the form of dividends, and a lower share as predetermined interest on accounts. In this way, depositors bear more of the risk from year to year, and the credit union's inflexible capital structure is less constraining and less of a source of vulnerability. Insofar as depositors are compensated more in the form of variable dividends, they can absorb some loss in bad periods without the need for a rights issue, and the cooperative can more readily retain earnings in good times in order to build reserves or finance growth. A certain amount of automaticity would in effect "bail in" some deposits, possibly up to some limit (say, 10 percent of the average balance in the account). The cooperative might offer a remuneration rule (say, double the dividend rate paid on interest-bearing accounts, but a proportional write-down in case of losses), or its dividend payment would be less formalized but rely on the establishment of a reputation for prudence and providing satisfactory returns.

A constraint on this strategy is that the cooperative bank would have to persuade its members to bear extra risk and earn a predetermined return that is lower than that available from

[47] The apex institution would not be tainted by interest-based business, as would be a typical central bank.

[48] Local cooperative banks and credit unions do not have such concerns because they do not compete with one another.

commercial banks.[49] But a cooperative bank is not constrained to offer just one savings product: possibly the bank could market risk-low return savings accounts, alongside accounts with returns that are more variable but also expected to be higher. In effect a cooperative bank could expand the risk-return frontier available to its members.

The higher risk, higher return deposits could be made more attractive by granting them enhanced voting rights. Those with funds in the variable return accounts have more incentive to monitor the management of the cooperative bank, which may otherwise be weak because ownership is diffuse, and so would value those rights relatively highly. To this end, it would be important that depositors can withdraw funds from variable return accounts, possibly with some allowance for the cooperative's retention of profits over the history of the account. However, depositors need to be prevented from withdrawing all funds just before losses are imposed on them; possibly a certain amount would have to be kept in escrow until the next (positive or negative) payout.

Second, cooperative banks could consider offering more risk-sharing contracts to borrowers, and contracts that involve the credit union more directly in the project or acquisition financed. For example, a cooperative bank could offer financing for lease-to-buy arrangements, whereby homeowners pay a rent that includes a contribution toward purchasing the property, as in **"**diminishing *musharakah.*" In providing working capital to SMEs, a cooperative bank could offer a sales-based contract, where the bank (or a related subsidiary) retains ownership of the inputs that it finances until they are used in production. In this way the cooperative bank has immediate recourse to the collateral in case the project fails. This advantage applies mainly to sales- and leasing-based contracts, rather than to partner-ship-based contracts, that is, where realizable collateral is involved and moral hazard or adverse selection concerns are less acute. Prudential regulations in many countries prevent banks including credit unions from owning extensive real estate or other physical assets, so employing such contracts may require the establishment of a non-financial company, such as a leasing company, to hold the assets.[50] More problematic for many small cooperatives and credit unions would probably be the acquisition of more expertise in the particular sectors to which it is lending, and in the management of the nonbanking assets that it acquires—especially if credit quality deteriorates. The institution would need to convince its members and its supervisors that it truly has the necessary expertise, and that the legal framework supports the exercise of this expertise.

Third, cooperative banks and credit unions could consider offering Islamic-type products, especially forms of financing, as a means of differentiating themselves from conventional

[49] Such an offer may be easiest to introduce in a low interest rate environment, when returns to conventional bank accounts are generally low.

[50] Many cooperative groups already include leasing subsidiaries.

banks. The products need not be marketed as Islamic or carry Arabic names, but would constitute alternatives to the homogeneous offerings of conventional banks and appeal to those who appreciate an emphasis on responsibility toward all stakeholders. In this way, the small credit unions could preserve a niche of relatively limited competition.

V. CONCLUSION

This paper reviews two types of financial institutions—Islamic banks and credit unions as examples of cooperative banks—their similarities and differences, and how each can learn from each other. They share a similar ideology, namely, that finance is meant to serve society and should not involve exploitation of individuals. Moreover, remuneration of depositors in Islamic banks and cooperative banks is variable and dependent on the overall performance of the bank: ex post, depositors in either institution receives an overall reward that depends on the realized difference between revenue and non-interest costs, so risk is shared.

There are important differences in practice, but it seems that an institution with ownership and governance according to cooperative bank and especially credit union principles could operate according to Islamic principles, and there may be advantages in doing so: a mutualist structure would be very much in keeping with Islamic precepts about inclusiveness and risk-sharing, but it would also strengthen incentives to ensure that savers' interests are fully taken into account when deciding how much risk to bear. At the same time, greater risk sharing across the community making up a cooperative bank's member-owners, and especially the availability of savings products that participate in the upside and downside risk to which the bank is exposed, would make the institution more resilient, and also perhaps strengthen incentives for its good governance.

VI. REFERENCES

AAOIFI (2004), "Accounting, Auditing and Governance Standards for Islamic Financial Institution, Accounting and Auditing for Islamic Financial Institutions," Manama, Bahrain.

Ali, Salman Syed (2011), *Islamic Banking in the MENA Region*, The World Bank and the Islamic Development Bank.

Al-Jarhi, Mabid and Munawar Iqbal (2001), "Islamic Banking: Answers to Some Frequently Asked Questions," Occasional Paper No.4, Jeddah: Islamic Research and Training Institute, Islamic Development Bank.

Archer, Simon, Rifaat Ahmed Abdel Karim, and Talla Al-Deehani, (1998), "Financial Contracting, Governance Structures and the Accounting Regulation of Islamic Banks: An Analysis in Terms of Agency Theory and Transaction Cost Economics," *Journal of Management and Governance*, Vol. 6-01, pp. 1385–3457.

Archer, Simon, and Rifaat Ahmed Abdel Karim (2007), "Capital Structure, Agency Theory and Corporate Governance Issues in Islamic Banks," presentation of the Philipps University of Marburg, Germany, available at http://www.uni-marburg.de/cnms/fachgebiete/wirtschaft/praesentation-archer-abdel-karim .

Ariff, Mohamed (1988), "Islamic Banking," *Asian Pacific Economic Literature*, Vol. 2, No. 2, p. 46–62.Bankscope (2011), *Capital Intelligence*, Bankscope CD Rom Databases.

Cihák, Martin, and Heiko Hesse (2007), "Cooperative Banks and Financial Stability," IMF Working Paper WP/07/02.

Cihák, Martin, and Heiko Hesse (2008), "Islamic Banks and Financial Stability: An Empirical Analysis," IMF Working Paper WP/08/16.

CUNA (2009), "CUNA Small Credit Union Committee Ten-Year Review," Final Report to the CUNA Board of Directors, December.

Deese, Burkhard, and Ceyla Pazabasiglu (1998), *The Nordic banking crises: pitfalls in financial liberization?* Washington, DC: International Monetary Fund.

Diamond, Douglas W., (1984), "Financial intermediation and delegated monitoring," *Review of Economic Studies*, 51(3) July, pp. 393–414.

Dowla, Asif and Dipal Barua (2006), *The Poor Always Pay Back: The Grameen II Story*, Kumarian Press.

EACB (2012), "European Association of Cooperative Banks, Annual Report," EACB AISBL-Secretariat: Brussels.

El-Gamal, Mahmoud (2005), "Islamic Bank Corporate Governance and Regulation: A Call for Mutualization," Rice University manuscript, available at http://www.ruf.rice.edu/~elgamal/files/IBCGR.pdf .

El-Gamal, Mahmoud (2006), *Islamic Finance: Law, Economics and Practice*, New York: Cambridge University Press.

El-Gamal, Mahmoud (2009), "Microfinance Experience versus Credit Union–Grameen I," http://elgamal.blogspot.com/2009/08/microfinance-experience-vs-credit-union.html

Fonteyne, Wim and Daniel C. Hardy (2011), "Cooperative Banking and Ethics: Past, Present, and Future," in *Ethical Perspectives, European Center for Ethics*, K.U. Leuven.

Gale, Douglas, and Martin Hellwig (1985), "Incentive Compatible Debt Contracts: The One-Period Problem," *International Economic Review*, 30(1), Feb., pp. 3–31.

Grais, Wafik, and Matteo Pellegrini (2006), "Corporate Governance and Stakeholders' Financial Interests in Institutions Offering Islamic Financial Services," World Bank Policy Research Working Paper 4053.

Hall, Maximilian J.B., Humayon A. Dar, and Dadang Muljawan (2000), " A Capital Adequacy Framework for Islamic Banks: The Need to Reconcile Depositors' Risk Aversion with Managers' Risk Taking," *Proceedings of the Fifth Harvard University Forum on Islamic Finance: Islamic Finance: Dynamics and Development*, Cambridge, Massachusetts, Center for Middle Eastern Studies, Harvard University, pp. 21–42.

Hamza, Hichem, and Zied Saadaoui (2011), "Investment Deposits, Risk-Taking and Capital Decisions in Islamic Banks," 8th International Conference on Islamic Economics and Finance, *Studies in Economics and Finance*, Vol. 30 Iss: 3, pp.244–265.

Hasan, Maher, and Jemma Dridi (2010), "The Effects of the Global Crisis on Islamic and Conventional Banks: A Comparative Study," IMF Working Paper No. 10/201.

IFQ (2007), *Islamic Finance Qualification*, edition No. 2, Securities and Investments Institute, London, United Kingdom.

Imam, Patrick and Kangni Kpodar (2010), "Islamic Banking: How has it Diffused?" IMF Working Paper WP/10/195.

International Monetary Fund (2011), "Germany: Technical Note on Banking Sector Structure," IMF Country Report No. 11/370.

Iqbal, Zamir, and Abbas Mirakhor (2004), "Stakeholders Model of Governance in Islamic Economic System," *Islamic Economic Studies*, Vol. 11, No. 2, pp. 43–62.

Islamic Financial Services Board (2013), *Islamic Financial Services Industry Stability Report*, 2013.

Islamic Financial Services Board (2010), *Guidance Note on the Practice of Smoothing the Profits Payout to Investment Account Holders*.

Moody, J. Carroll and Fite, Gilbert C. (1984), *The Credit Union Movement: Origins and Development 1850 to 1980*, Kendall/Hunt Publishing Co., Dubuque, Iowa.

Nabi, Mahmoud Sami (2013), "Access to Finance and Investment: Does Profit Sharing Dominate Debt?" Islamic Research and Training Institute Working Paper 1434-02.

Nienhaus, Volker (2007), "Governance of Islamic Banks," in Hassan, M. Kabir, and Mervyn K. Lewis (eds.), *Handbook of Islamic Banking*, Cheltenham, U.K. and Northampton, Mass.: Edward Elgar, pp. 128–143.

Sanusi, Lamido Sanusi (2011), "Islamic Finance in Nigeria: Issues and Challenges," lecture delivered by the Governor, Central Bank of Nigeria, at Markfield Institute of Higher Education (MIHE), Leicester, UK, 17 June 2011.

SBP (2009), *Handbook of Islamic Banking Products and Services*, Islamic Banking Department, State Bank of Pakistan.

Sundararajan, V., and Luca Errico (2002), "Islamic Financial Institutions and Products in the Global Financial System: Key Issues in Risk Management and Challenges Ahead," IMF Working Paper No. 02/192.

The Banker (2007, 2012), "Top 500 Islamic Institutions."

Torre, de la, Ignacio (2011), "Four lessons that Western banks can learn from Islamic counterparts," *Banking, Finance, Markets*, issue May 27–June 23, p. 17–19.

Townsend, Robert (1979), "Optimal Contracts and Competitive Markets with Costly State Verification," *Journal of Economic Theory*, 21, pp. 261–293.

Wilson, R. (2000), "Islamic Banking and Its Impact," in Asma Siddiqi (ed.), *Anthology of Islamic Banking*, London: Institute of Islamic Banking and Insurance, pp. 69–73.

World Council of Credit Unions (2012), *Statistical Report, World Council of Credit Unions.*

Zawya (2012), http://www.zawya.com/middle-east/*sukuk*/.