# Chapter 6
# Islamic Finance and Limited Purpose Banking (LPB):
## Two Sides of the Same Coin

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## ABSTRACT

*The saying that "history repeats itself" is best manifested in capitalist financial system operating worldwide. It seems people are not learning lessons from the history of financial crises. Leading economists and capitalist gurus are warning about an inherently fragile capitalist financial system and about an urgent need to do something about it before it is too late. After the recent global financial crisis, Kotlikoff proposed the most radical and the most comprehensive reform of the existing financial system. His proposal became known as the Limited Purpose Banking (LPB). Kotlikoff's proposal runs hand in hand with the aspirations of the pioneers of Islamic finance. He envisioned a financial system that is based on risk sharing, cooperation, and overall public interest (maslahah). In short, the idea of the LPB – after certain modifications and minor adjustments – can be applied in developing a true Islamic financial system. Thus, it can be said that the LPB and Islamic finance are two sides of the same coin.*

## INTRODUCTION

Humans are faced with decision–making processes every day. Regulators, government officials and managers in general are faced with same issue day after day. It is only when we are faced with severe situations that we will try our best to find ways out of the problem. These extreme cases that happen every now and then represent unique opportunities to change the course and take on new roads. The same is true for financial crises. When they happen, and they do happen, more or less, on a regular basis we need to rethink our overall financial system. Even though they represent these unique opportunities to take on different path and make our overall financial system a bit better and sound, we usually fail to do so.

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In this regard, the global financial crisis of 2007-2009 was unique in many ways and offered a hope that we might rethink the way we do the finance. This is, at least, what Laurence J. Kotlikoff had in mind when writing his book, *Jimmy Stewart is Dead*, and drafting his proposal known as the Limited Purpose Banking (LPB). He offered a completely new blueprint on how we can structure our financial system that would prevent it from entering into similar troubles. This view, however, was not shared by majority of people in the White House and the Wall Street. Obama's administration started bailing out one financial institution after another preserving the existing financial system as it was. By doing so, Kotlikoff believes, they were treating the symptoms, not the disease, making us fiscally and financially weaker.

The Islamic financial system (IFS), although existing since the birth of Islam, is relatively new financial model and offers unique ways for financial intermediation. Original ideas around the IFS are pretty much in line with Kotlikoff's LPB proposal. It is for this reason that we are focusing in this chapter on these two models or proposals. Hence, the main objectives of this chapter are: (i) to discuss briefly anomalies inherently installed within the capitalist financial system (CFS); (ii) to review Kotlikoff's proposal of LPB; (iii) to summarize ideas behind the IFS; and (iv) to relate LPB to IFS.

The rest of the chapter is structured as follows: Section two provides an overview of the global financial crisis that motivated Kotlikoff to propose his LPB model as a viable alternative to the existing financial system. In section three we will briefly discuss the LPB model and the way it is supposed to work in practice. This is followed by section four that will provide an overview of the IFS and elaborate on how the LPB model goes hand in hand with ideas behind the IFS. Finally, section five is reserved for concluding remarks.

## CRITICS OF CFS AND THE GLOBAL FINANCIAL CRISIS: THE EVENT THAT LED TO LPB

Since the starting of the 21st century alone, about 24 economic and financial crises hit economies worldwide.[1] Among these 24 crises, the most severe one is the recent global financial crisis of 2007-2009. In fact, it is so severe that basic tenets of the CFS, such as the notion of *'the invisible hand'*, are questioned openly.

This notion of *'the invisible hand'* was introduced by the 18th century Scottish philosopher and economist Adam Smith in his book *'The Theory of Moral Sentiments'*. He used this phrase in two other places, but with a different meanings (Rothschild, 1994). In this case he refers to some rich landowners who are selfishly interested in their own wellbeing ignoring values such as "humanity" and "justice". They go after precious commodities "from the labours of all the thousands whom they employ". In doing so, *They are led by an invisible hand to make nearly the same distribution of the necessaries of life, which would have been made, had the earth been divided into equal portions among all its inhabitants, and thus without intending it, without knowing it, advance the interest of the society, and afford means to the multiplication of the species* (Smith, 2006, pp. 215-216)

Nowadays, *'the invisible hand'* is considered as the unobservable market force standing behind the demand and supply of goods and services in a free market and bringing about beneficial social and economic outcomes from an individual's self-interested actions. This is, at least, how economists see the notion of *'the invisible hand'*, although this may not be at all Adam's intention – as pointed out by Rothschild (1994).

Generally speaking, capitalism has been criticized from the very beginning until now, from Karl Marx, Paul Krugman, Hyman P. Minsky, to hedge-fund billionaire Ray Dalio – just to name a few. In short, capitalism is seen as anti-democratic, inherently exploitative and unsustainable, leading to economic inequality and an erosion of human rights including but not limited to economic freedom. For example, after the global financial crisis it was obvious that *'the invisible hand'* is not doing what its proponents claimed to do. As a result, experts started questioning the conventional wisdom that the existing financial system is stable. This brought into the limelight Minsky's *'financial instability hypothesis'*. According to this hypothesis financial stability breeds instability (Minsky, 2008).

Recently, the hedge-fund billionaire Ray Dalio criticized the way capitalism is functioning and said that "capitalism is failing" America. Although capitalism has made him a billionaire, knowing the system inside out, he argues that it is no longer functioning well for the majority of Americans as it is "producing self-reinforcing spirals up for the haves and down for the have-nots." According to Dalio, this is due to the following: (i) there has been no real wage growth, adjusted for inflation, for the majority of Americans since 1980; (ii) the income gap is about as high as ever and the wealth gap is the highest since the late 1930s; (iii) most people in the bottom 60% are poor; & (iv) the childhood poverty rate in the US is now 17.5% and America's public-education system is among the worst in the developed world. In order to put capitalism back on track, Dalio recommended the following steps: (i) need for a top leadership that will proclaim the income/wealth/opportunity gap to be a national emergency; (ii) need for a bipartisan and skillful approach to develop policies for restructuring of the system so it works better; (iii) need for clear metrics upon which to hold leaders accountable for their actions; (iv) need for a more equitable redistribution of resources that will benefit the vast majority of Americans; & (v) need for a coordination of monetary and fiscal policies, i.e. a coordination between the Federal Reserve, Congress, and the White House (for details see Dalio, 2019).

Obviously, given a long history of the criticism of CFS, the emergence of the global financial crisis should not be seen as a surprise. In fact, there are numerous studies that questioned the functionality of the CFS and warned us of possibility for such unpleasant scenarios.[2] Although we are relatively aware of end results of the global financial crisis (or perhaps we are still counting the bad effects of it), its causes are less known even to leading experts on the topic. Are the complexity and intensive use of structured financial products, derivatives and other assets with uncertain fundamentals the main culprits for the crisis?[3] Or are we to blame combination of loose monetary policy, lax financial supervision and overall financial deregulations, coupled with low interest rates, excessive leveraging and credit growth for the crisis?[4] According to Dalio, "poor education, a poor culture (one that impedes people from operating effectively together), poor infrastructure, and too much debt cause bad economic results" (Dalio, 2019). This is in line with Fisher's claim that all major crises are initially caused by "too much short-term debt…" that leads to "too great a contraction of the circulating medium" (Fisher, 2009).

In general, every time a financial crisis happens, there are numerous calls for reforms from those suggesting radical changes to those that call for minor or no changes to the existing financial system and its regulations. A sort of minor regulatory changes was proposed by Stiglitz (1993). For instance, addressing the problems related to the savings and loan crisis of the 1980s and 1990s (the S&L crisis),[5] Stiglitz (1993) argues that "some revision of deposit insurance" should be the focal point in most bank reform proposals, including this one. Consequently, his proposed consists of basically four elements: (i) financial institutions interested in deposit insurance should pay premiums on all of its deposits; (ii) the interest rate payable on those deposits need to be regulated; (iii) these institutions would be subjected to a high capital requirement (ratio of net worth plus bonds to deposits); & (iv) similarly, these institutions should satisfy a high net-worth requirement (ratio of net worth to deposits). He proposed 20 percent for the capital requirement and 10 percent for the net-worth requirement (Stiglitz, 1993).

The same is true when the global financial crisis erupted. Experts of all sorts started questioning the existing financial system, especially government bailout actions, and looking for alternative one(s). Today, we can find hundreds and thousands of pages discussing the global financial crisis and evaluating its causes and effects worldwide. Even though these papers indicate many causes of the crisis and highlight many lessons (at least in theory), no serious steps have been undertaken to prevent such crises from happening again. This is because the existing financial system is still functioning in the same way as it was functioning before the crisis. Whatever has been done so far is done in order to preserve the *'status quo'* as no significant changes have been made in any ways.

Again, this should not come as a surprise. The crisis is a result of bad actions and steps taken by people who run financial institutions, governments, regulatory institutions, etc. In other words, those who caused the global financial crisis were invited by the government(s) on a rescue mission to save the global economy. Consequently, we hardly believe that those who led us to this financial crisis can get us out of it, rather they may create additional problems after all. Unfortunately, this is exactly what happened. We ended up with huge fiscal deficits all over the world, bailing out the very same people who lost billions and allowing them to cash out huge bonuses. In short, all the actions taken in the aftermath of the global financial crisis proved that under the CFS profits are privatized while losses are socialized. This left us with the same – inherently unstable – financial system and we can only expect the same outcomes in the near future but their repercussions are expected to be much worse.

Perhaps, the most radical and the most comprehensive reform has been put forward by Laurence J. Kotlikoff. His proposal for overall overhaul of the existing financial system became known as Limited Purpose Banking or LPB (2010). The financial crisis fueled by the wrong prescriptions taken by the governments placed the CFS "in terrible shape." Thus, he argues that this state of the CFS "needs a fundamental overhaul, not an oil change" (Kotlikoff, 2010, p. 189). In the following section, we will discuss LPB in more details.

## LIMITED PURPOSE BANKING (LPB): AN OVERVIEW

According to Kotlikoff, the existing conventional financial system is terminally ill and whatever has been done so far is nothing but a wrongly prescribed medicine that does not represent a long-term solution but rather a postponement of yet another financial crisis that is inevitable. Transferring bad loans and toxic assets from one balance sheet to another one is not going to solve the problem as someone is still going to be faced with default and eventual losses.

In his book *Jimmy Stewart is Dead*, Kotlikoff provides an overall analysis of the financial crisis and offers a way out that would prevent similar episodes in the future. We would not be faced with these crises if the *Efficient Market Hypothesis* (EMH) was correct. In short, he argues that the CFS is "replete with market failure" (Kotlikoff, 2010). While detecting inherent problems with the CFS, Kotlikoff comes with a genuine and possible solution to all problems faced by the current CFS. Although in his analysis he agrees (to some extent) with some authors when it comes to causes that led to the financial crisis, yet Kotlikoff differs significantly when it comes to the way how these problems should be addressed. It is said that 'desperate times call for desperate measures' and this was the time – according to him – that radical changes were needed. In other words, given the global financial crisis the CFS was ripe for major changes, *the overhaul*. Today, about ten years after the global financial crisis, it can be said that no significant changes have been made in the financial world or how we do the business. According to Kotlikoff, there is a need for a transparent financial system with automatic financial firewalls and LPB is the proposal that can take care of these requirements (Kotlikoff, 2010).

## LPB at Glance

The idea behind Kotlikoff's proposal known as LPB stands on three major propositions. First and foremost, all banks and bank-like institutions should be converted into mutual funds. A unique feature of the LPB is that every mutual fund will have *'limited purpose'* as it would hold only what it says it holds and nothing else. For instance, a real estate investment trusts (REITs) mutual fund would only hold REITs certificates; a six-month T-Bill mutual fund would only hold six-month Treasury Bills and nothing else, etc. In other words, funds raised from investors would be placed only in specified asset classes selected and limited by a mutual fund's charter. This way, every investor would know exactly where his/her money is. Through implementation of LPB – Kotlikoff believes – we are limiting banks' functions to the one and the most important function which is the function of intermediation between borrowers and lenders and savers and investors (Kotlikoff, 2010). The banks would simply act as middlemen or as *pass-through* mutual fund companies. For example, if Sara buys, say, $1,000 of shares in a six-month T-Bill mutual fund, that means that Sara literally has $1,000 worth of that mutual fund in an account under her name and under the control of the third-party custodian.

Furthermore, there will be two additional but specific types of mutual funds. The first type would be *cash-only mutual funds* that will be used as the payment system with a 100% reserve requirement. In other words, under the LPB these *cash-only mutual funds* represent the demand deposits (checking accounts) that will be used for writing checks, online payment and ATM withdrawals. By implementing the 100% reserve requirement on checking accounts, the LPB will solve a number of problems faced by the current CFS, namely: (i) a practice of demand deposit will become obsolete removing false sense of security that leads to a *moral hazard*;[6] (ii) there will be no bank runs as money in these demand deposits (*cash-only mutual funds*) will not evaporate from accounts; and (iii) the money supply (M1) would be under the full control by the government and no bank would have any impact on money creation.[7]

The second type would be *insurance mutual funds*. Under the LPB model, all insurance companies will be converted into bank-type mutual funds. Nevertheless, *insurance mutual funds* would differ from conventional mutual funds on two grounds, namely: (i) payments of premiums to purchasers of the insurance, under this model, would be subject to "personal outcomes and decisions" and "economy-wide conditions"; (ii) these *insurance mutual funds* will be closed-end as there will be "no new issues (claims to the fund) to be sold once the fund had launched" (p. 137).[8]

Consequently, banks under the LPB model will not extend credit themselves and since there will be no speculative investments but rather intermediation alone, there will be no-risk banking (Smolo & Mirakhor, 2014). In other words, exclusive rights of gambling and speculative investments would be in the hands of investors only as banks, under LPB, would have no such rights at all. Thus, the existing practice of leveraging that caused disastrous results worldwide would be abandoned. So far, managements of banks and financial institutions leveraged and gambled using our money without our explicit knowledge and consent. Under the LPB, we will be able to leverage with our own money, bearing all risks and consequences, while being fully aware of them. In doing so, a natural financial firewall is created (Kotlikoff, 2010).

Second proposition is that there is a need for a single financial regulatory body that will oversee the financial system. This body is termed as the Federal Financial Authority (FFA) that would oversee the LPB and provide independent government ratings based on full disclosure and transparency. Current system led to practice of insider ratings that misled investors and provided some sort of gateways for the "financial debacle" (p. 128). Given the FFA and full disclosure under the LPB system, people and investors placing their investments within the system will bear all risks and they will be fully aware of them from the very beginning. This mechanism, once in place, will act as built-in firewalls warning protecting us from upcoming financial crises.

Finally, the third proposition of the LPB model foresee that the financing and investment by the mutual funds will be done through online auctions. In particular, the above-mentioned regulator would first ensure transparency and validity of underlying investments, say a mortgage. Once this is done, a particular mutual fund (a bank under the LPB model) would be allowed to buy these investments through this online auction similar to eBay auctions that we are all familiar with.

## LPB and the 100% Reserve Requirement Proposal

Although Kotlikoff's LPB proposal has a certain degree of novelty, some of its features can be traced back to other proposals, in particular to *Narrow Banking*. The *narrow banking*, although known as *Chicago plan*, called for a *100% reserve requirement* on all demand deposits.[9] It was initially originated by Henry C. Simons during the Great depression (Fisher, 2009). During the 1930s, the idea was further developed and advocated by Irving Fisher (2009), Frank Knight (1933) and James W. Angell (1935), among others. Referring to the *100% reserve requirement* proposal, Fisher said that it is the best solution for "the problem of depressions; for it would remove the chief cause of both booms and depressions, namely the instability of demand deposits, tied as they are now, to bank loans" (Fisher, 2009).

Likewise, Frank Knight wrote a memo in 1933 together with seven other economists from the University of Chicago and recommended a proposal for restructuring of the financial system. In short, this proposal called for breaking up of commercial banks into two types of corporations, a *deposit-bank* and a *lending-company*. Similar to the *cash-only mutual funds* under the LPB model, *deposit-banks* would serve exclusively as demand deposits (checking accounts), while *lending-company* would provide short-term lending, discounting, and acceptance (Knight, 1933).

Later on, this idea was endorsed by Milton Friedman (2015) and Robert Litan (1987), among others. Having in place the *100% reserve requirement* would place the control over the money supply (M1) back where it belongs, in the hands of the government. Nowadays, monetary policies have limited impact on economies as they are government tools for partial and indirect control of M1. Here, a money multiplier plays a crucial role and it is part and parcel of the fractional reserve system.

Notwithstanding similarities between *narrow banking* and LPB, Kotlikoff believes that LPB is far more superior and better equipped to deal with complex financial system that we have today. To sum up, LPB has several distinguished features. First, once converted into specific mutual funds, banks are placed back on their original track to do what they were supposed to do originally and that is the intermediation. Second, the principles of LPB are simple and easily understood by common people. For example, these newly created mutual funds would have simple rules and regulations. Third, having a relatively simple structure then the financial market can be served by a single regulatory authority, the Federal Financial Authority. Fourth, LPB would improve corporate governance practices due to its transparency that will help us better evaluate bankers'/managers' performance. Finally, no individual bank would be able to create money as this function will be solely in the hands of the government. All of these are contrary to the features of the existing financial system.

## THE ISLAMIC FINANCIAL SYSTEM: AN OVERVIEW

There are several definitions for Islamic banking and finance.[10] In short, Islamic finance in general and Islamic banking in particular can be defined as business of resource allocation and management as well as financial intermediation based on the principles of *Shari'ah*.

Therefore, the IFS is a system based on a religious worldview. Teachings of Islam and principles of the *Shari'ah* (Islamic law),[11] are the very foundations of and provide legal framework for the IFS. All rules related to Islam are drawn from the four primary sources, namely: The Holy *Qur'an*, the *Sunnah* (tradition),[12] *ijma'* (the consensus of the jurists) and *qiyas* (analogy). These rules provide guidelines on all daily activities, including but not limited to religious rituals. Consequently, a significant portion of the *Shari'ah* is addressing interpersonal relations, be it economic transactions, social, political and international affairs, etc. Over the years, Muslim scholars developed special branch within the *Shari'ah* called *fiqh al-mu'amalat* that is focused primarily on rules about economic transactions and trade related activities.

In general, trade and finance practices did not start, nor did they stop with the advent of Islam. In essence, financial transactions and practices that were in line with the *Shari'ah* principles were approved by the Prophet Muhammad (*peace be upon him*), and those that were against these principles were abolished. Since then these principles of Islamic finance have been practiced not only in the Muslim world but in other parts of the world. For example, the principle of *Mudarabah* (passive partnership)[13] have been used in the Western Europe during the Middle Age. This practice in Europe, however, was known as *commenda* (Brouwer, 2005; Fischel, 1933; Mirakhor, 2003; Udovitch, 1962, 1967, 1970a, 1970b). Nevertheless, the modern day Islamic finance emerged some fifty years ago and gained momentum in the last two decades. Hence, according to the latest report by Thomson Reuters, the global Islamic finance industry grew year-on-year by of 11% to US$ 2.4 trillion in assets in 2017 with a potential to grow to US$ 3.8 trillion in assets by 2023. Iran, Saudi Arabia, Malaysia, Bahrain and the UAE are leading countries in terms of development of the Islamic finance (Thomson Reuters, 2018).

In short, the overall Islamic finance industry attracted worldwide attention due to its relative resilient to the global financial crisis and it attracts Muslims and non-Muslims alike (Smolo & Mirakhor, 2010). As a result, the IFS now encompasses banking, *Takaful* (Islamic insurance), funds, microfinance, capital markets, etc.

## SALIENT FEATURES OF THE ISLAMIC FINANCIAL SYSTEM

In what follows, we will provide a brief note on salient features of the IFS. The idea is to show who these features fit in the LPB model and how these two proposals, i.e. LPB and IFS, are complimentary in many ways. In other words, it should be clear to a reader after getting to know these salient features of IFS that they are overlapping most of the ideas and features that are presented in the LPB model above. Now, let us see what the salient features of IFS are.

In fact, many authors have discussed the salient features of Islamic finance (Rafay & Farid, 2017; Askari, Iqbal, Mirakhor, & Krichenne, 2010; Ayub, 2007; El-Gamal, 2006; Venardos, 2005; Visser, 2009). They are primarily derived from the *Qur'an*, *Sunnah*, *ijma'*, and *qiyas*. Here, we will briefly discuss the most important ones:

- **Prohibition of *Riba* (Interest or Usury):**[14] Payment and receipt of interest (*Riba*) are prohibited in Islam. In this regard, the *Qur'an* says: *Those who devour usury (Riba) will not stand except as one stands whom Satan has driven mad by his touch. That is because they say, 'Trade is like Riba,' whereas Allah (SWT) has permitted trade and forbidden Riba.*[15] The literal meaning of *Riba* is 'excess', 'growth' or 'increment.' Technically, it refers to a predetermined interest collected by a lender, which the lender receives over and above the principal amount he has lent out. One reason, *inter alia*, for the impermissibility of the contract of *Riba* is surely, due to the fact, that this contract transfers all, or at least a major portion, of risk to the borrower. *Riba* is further classified into two types:
    - *Riba al-fadl*: This largely applies to barter transactions. It refers to the trading of one commodity of a category to which the rules of *Riba* apply, for another commodity of the same category, with an increase of one compensation over the other (Al-Zuhayli, 2003, p. 312).[16]
    - *Riba al-nasi'ah*: This is specific to loans. It refers to any excess paid over the principal amount as a compensation for a delay in repayment.
- **Prohibition of *Gharar* (Excessive Risk & Uncertainty):** Literally, the term *Gharar* refers to something with a pleasant appearance and unpleasant reality (Al-Darīr, 1995, p. 48). Consequently, the *Gharar* can be defined as the sale of probable goods whose existence and/or characteristics are not certain. Due to these reasons this trade is akin to gambling. Examples of *Gharar* are the sale of fish in the sea, of birds in the sky, and of unripe fruits on the tree, which cause excessive and avoidable uncertainty.
- **Prohibition of *Maysir* (Gambling/Speculation):** Islam prohibits gambling and games of chance in which there is a possibility of total loss to one party. It is a zero-sum game whereby there is a transfer of wealth from one party to another without creating any new wealth. One of the reasons for prohibiting *Maysir* (gambling) is that it invokes enmity and distracts the faithful from acts of worship.
- ***Shari'ah*-Compliant ACTIVITIES:** Islamic financial institutions may engage in or finance only activities that are in line with teachings of *Shari'ah*. As a result, financing casino activities as well as the production of tobacco, alcohol, pork, pornography, weapons – among others – are strictly disallowed.
- **Risk-and-Return Sharing:** While the *Shari'ah* prohibits earning income through charging interest, it permits income generation through the sharing of risks and rewards between the parties. In other words, Islam encourages and promotes entrepreneurship that builds trust and cooperation between partners.
- **Sanctity of Contracts:** Fulfilling contractual obligations in Islam is considered a sacred duty. Furthermore, disclosure of full information is also required in order to reduce the risk of asymmetric information and moral hazard.
- **Social Justice:** Islam prohibits any transaction that leads to injustice and exploitation. Moreover, Islam gives preference to public interest (*maslahah*) over individual interest.

Thus, by prohibiting *Riba*, *Gharar* and *Maysir* on the one side, and promoting risk-and-return sharing, cooperation and *maslahah* on the other, Islam seeks to foster an environment based on fairness and justice. In short, the focus of Islamic finance is on community banking, ethical banking, and socially responsible investing.

Having this in mind, it is worth noting that pioneers of Islamic finance – such as Uzair (1955, 1978), Siddiqi (1983a, 1983b, 1985), Chapra (1985, 1988), Khan (1986), Kahf and Khan (1992), Mirakhor and Iqbal (1988), and Mirakhor (1993), just to name a few – envisioned a significantly different IFS from the one we have at the moment. They envisioned a model based on the principle of *Mudarabah* (passive partnership) and *Musharakah* (active partnership). As an example, Islamic financial pioneers envisioned financial intermediation based on 'two-tier' or 'two-fold' *Mudarabah*, even though the classical *Mudarabah* is based on bilateral relationship between *Rabb al-mal* (owner of capital) and *Mudarib* (entrepreneur). First-tier is related to a *Mudarabah* between investors as *Rabb al-mal* and banks as *Mudarib*. Subsequently, banks as *Rabb al-mal* invest these funds into projects/businesses who act as *Mudarib* in the second-tier *Mudarabah* (Smolo & Mirakhor, 2014).

In essence, the IFS is supposed to be an equity-based and/or risk-sharing financial system. In case of *Mudarabah*, profits will be shared according to an agreed ratio between *Rabb al-mal* and *Mudarib* while losses are completely borne by *Rabb al-mal* alone. On the other hand, in the case of *Musharakah* profits and losses are to be shared between the partners according to an agreed ratio and capital contribution respectively (Smolo & Mirakhor, 2014).

Nevertheless, although the IFS calls for equity and risk-sharing financing (at least in theory), current model of Islamic banking and finance is far from meeting these objectives. It has been criticized by many due to, among other things, being a replica of the conventional banking, dominated by debt-like and short-term financial instruments, lack of risk-sharing, etc. (Ahmed, 2009; Mirakhor & Smolo, 2011; Smolo, 2010). For example, the contemporary Islamic finance industry has accomplished mainly two things: (i) multilateralize originally bilateral contracts as the latter move from the real sector to the finance sector; and (ii) employ instruments of risk transfer available in conventional finance after making them *Shari'ah*-compatible (Mirakhor & Smolo, 2011).

Finally, having all these that has been said about the salient features of IFS, we can conclude that many of these features (if not all) run hand in hand with features or goals of LPB.[17]

## ISLAMIC FINANCE BASED ON LPB: A PROPOSAL

The original idea behind the IFS is the one envisioned by the above-mentioned pioneers of Islamic finance. As briefly mentioned above, the main financial instruments within the IFS are *Mudarabah* and *Musharakah*. These two instruments are perfect examples of the risk-sharing instruments and completely opposite to the existing debt-based contracts that are dominating the financial area nowadays. Once risk-sharing instruments are in place, then investors' decision-making process will be based on risk characteristics of the underlying assets. Thus, structuring a financial system along the lines described above leads to overall cooperation, economic justice and promotion of public interest (*maslahah*). It follows that in Islam risk plays a fundamental role in determining whether earnings from trade and finance are lawful or not. This view is based on two legal maxims linking returns from trade and finance to risks associated with it. The first one says: *al-ghunm bil al-ghurm* meaning "no risk no gain". And the second states: *al-kharaj bi ad-daman* which means "revenue goes with liability" (ISRA, 2011; Smolo, 2013). Moreover, Islam also recognizes that market participants have different tolerance towards the risk. While some participants are risk-lovers, others are risk-averse.

It should now be clear how Kotlikoff's proposal can contribute to further refine the fundamental ideas in structuring the IFS by allocating the risk to those who are economically more capable to bear it. Similarly, it can be seen that a financial system based on the idea of LPB is similar to the original, *the ideal*, model of the IFS, and vice-versa. Based on the overview of the LPB model, we can see that the risk characteristics of the envisioned mutual funds by Korlikoff are crucial to the model. In particular, under the LPB model, clients (investors) assume risks by investing their money in different funds based on their risk appetite. Identically, this would be similar to the '*Mudarabah* fund' (applied under the LPB model) although it can be broader than Kotlikoff's mutual funds as well as limited to specific purposes as evident from the following example.

*It is reported in Sunnan al-Bayhaqi that Abbas (r.a.)[18] would stipulate the following conditions when he was giving his mal (property) to the Mudarib (entrepreneur): (i) not to take property (livestock) on-board a ship; (ii) not to lodge in a valley; and (iii) not to buy any live animals; and if he (Mudarib) were to do so he would be liable for it. Then he referred the matter to the Prophet (May peace be upon him) and he approved it.*

The above example tells us that we can limit our business activities (purposes) when structuring an investment fund. Thus, the IFS could be formulated according the same lines as LPB model having in place two-tier *Mudarabah*.[19] To be precise, initially a bank acts as *Mudarib* on behalf of depositors who are capital providers (*Rabb al-mal*). This is the first *Mudarabah*. Subsequently, banks extend the collected funds to potential entrepreneurs or invest them in projects. This way, these banks become capital providers and the entrepreneurs become their *Mudarib* and this is the second *Mudarabah*. Hence, the overall term for this two-step process is the 'two-tier *Mudarabah*'.

In short, with a minor modification to the Kotlikoff's proposal,[20] we could have the IFS structured along the same lines. In particular, we would have mutual funds based on *Shari'ah*-compliant contracts such as *Mudarabah* mutual fund, *Musharakah* mutual fund, etc. Each and every *Shari'ah*-compliant mutual fund, under this model, will have clear and transparent objectives and investment targets. Similarly, these funds will represent different risk characteristics that would cater for different risk appetites of investors. With full disclosure and transparency in place, as envisioned by LPB, investors will have all information available at their disposal for informed decision-making. As pointed out by Smolo and Mirakhor (2014) these funds could be classified based on underlying *Shari'ah*-compliant instruments. Thus, we would have *Mudarabah*, *Musharakah*, *Murabahah*, and similar funds. Otherwise, they could be classified based on financing sector. Having various LPB-based *Shari'ah*-compliant mutual funds, we would be able to provide a more diversified spectrum of products to both investors and borrowers of these funds. All in all, we can see that Islamic finance and LPB are very similar in nature and thus can be considered as *'two sides of the same coin'*.

All of the above, however, represents just a tip of an iceberg when it comes to the implementation of Kotlikoff's LPB model within the Islamic finance industry. It is far from being complete and in any ways flawless as this chapter represents a work-in-progress or a conceptual idea by the author. Thus, it is open to further discussions and improvements. Hopefully this chapter will trigger additional discussion and debate on the proposal and eventually lead to a better ideas and solutions for currently fragile financial system – be it Islamic or conventional.

## CONCLUSION

This chapter represents an attempt on linking Kotlikoff's LPB model with the IFS as envisioned by its pioneers. After reviewing the main ideas and structures behind the LPB model, it is evident that it shares many salient features with of the IFS. Structuring Islamic financial institutions along the lines suggested by Kotlikoff's LPB model, goes hand in hand with the ideal model of the IFS that was and still is advocated by many Muslim scholars and economists. A slightly modified version of Kotlikoff's LPB model, could be used in structuring a better IFS. In fact, Islamic financial instruments such as *Mudarabah* and *Musharakah* are perfect fit for the LPB model. Hence, it can be said that the LPB and Islamic finance are but two sides of the same coin.

Nevertheless, this is still a theoretical proposal that need to be embraced by larger number of scholars and financial professionals to be considered and further elaborated. It is not perfect nor complete. We need to investigate it further in order to identify any possible shortcomings. Finally, although this chapter is limited in scope, it is a good starting point for future debate and discussion on the topic.

### Classifications

JEL Classification: G01, G21, P51
KAUJIE Classification: F12, I11, I24

## REFERENCES

Ahmed, H. (2009). Financial Crisis Risks and Lessons for Islamic Finance. *ISRA International Journal of Islamic Finance*, *1*(1), 7–32.

Al-Darīr, S. M. A.-A. (1995). Al-Gharar wa Atharuhū Fī al-'Uqūd: Fī al-Fiqhi al-Islāmiyyi (2nd ed.). Jeddah, Saudi Arabia: Dallah al-Barakah.

Al-Zuhayli, W. (2003). Financial Transactions in Islamic Jurisprudence (M. A. El-Gamal, Trans. Vol. 1). Damascus, Syria: Dar al-Fikr.

Angell, J. W. (1935). The 100 Per Cent Reserve Plan. *The Quarterly Journal of Economics*, *50*(1), 1–35. doi:10.2307/1882341

Askari, H., Iqbal, Z., Mirakhor, A., & Krichenne, N. (2010). The Stability of Islamic Finance: Creating a Resilient Financial Environment for a Secure Future. Singapore: John Wiley & Sons (Asia). doi:10.1002/9781118390450

Ayub, M. (2007). *Understanding Islamic Finance*. West Sussex, UK: John Wiley & Sons.

Bordo, M. D. (2008). *An Historical Perspective on the Crisis of 2007-2008*. Paper presented at the Central Bank of Chile Twelfth Annual Conference on "Financial Stability, Monetary Policy and Central Banking." Santiago, Chile, November 6-7, Santiago, Chile.

Bossone, B. (2002). Should Banks Be 'Narrowed'? *Public Policy Brief No. 69*.

Brouwer, M. (2005). Managing Uncertainty through Profit Sharing Contracts from Medieval Italy to Silicon Valley. *The Journal of Management and Governance*, *9*(3-4), 237–755. doi:10.100710997-005-7420-4

Chapra, M. U. (1985). *Towards a Just Monetary system: A Discussion of Money, Banking and Monetary Policy in the Light of Islamic Teaching*. London, UK: The Islamic Foundation.

Chapra, M. U. (1988). Towards An Islamic Financial System. *IIUM Journal of Economics and Management*, *1*(2), 1–30.

Chapra, M. U., & Khan, T. (2000). *Regulation and Supervision of Islamic Banks*. Jeddah, Saudi Arabia: IRTI.

Čihák, M., & Hesse, H. (2010). Islamic Banks and Financial Stability: An Empirical Analysis. *Journal of Financial Services Research*, *38*(2-3), 95–113. doi:10.100710693-010-0089-0

Cooper, G. (2008). *The Origin of Financial Crises: Central Banks, Credit Bubles and the Efficient Market Fallacy*. Hampshire, UK: Harriman House.

Dalio, R. (2019). Why and How Capitalism Needs to Be Reformed (Parts 1 & 2). Retrieved from https://www.linkedin.com/pulse/why-how-capitalism-needs-reformed-parts-1-2-ray-dalio/?published=t

El-Gamal, M. A. (2006). *Islamic Finance: Law, Economics, and Practice*. Cambridge, UK: Cambridge University Press. doi:10.1017/CBO9780511753756

Fischel, W. (1933). The Origin of Banking in Medieval Islam. *Journal of the Royal Asiatic Society*, *65*(2), 339–352.

Fisher, I. (2009). *100% Money and the Public Debt*. Pakthongchai, Thailand: ThaiSunset Publications. By Irving Fisher originally published without copyright notice in the *Economic Forum* Spring Number, April-June 1936, pp. 406-420.

Friedman, M. (2015). *A Program for Monetary Stability*. Renenio Books.

FSF. (2008). *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*. Retrieved from Basel, Switzerland: http://www.fsforum.org/publications/r_0804.pdf?noframes=1

Garcia, V. F., Cibis, V. F., & Maino, R. (n.d.). Remedy for Banking Crises: What Chicago and Islam Have in Common. (Unpublished). *World Bank and IMF Staffs*.

ISRA. (2011). Islamic Financial System: Principles and Operations. Kuala Lumpur: International Shari'ah Research Academy for Islamic Finance (ISRA).

Jordan, C., & Jain, A. (2009, October). *Diversity and Resilience: Lessons from the Financial Crisis*. Paper presented at the Canadian Law and Economics Association Meeting, University of Toronto, Canada.

Kahf, M., & Khan, T. (1992). *Principles of Islamic Financing: A Survey*. Jeddah, Saudi Arabia: Islamic Research and Training Institute (IRTI), Research Paper No. 16.

Kashyap, A. K., Rajan, R., & Stein, J. (2008). *The Global Roots of the Current Financial Crisis and its Implications for Regulation*. Paper presented at the 5th ECB Central Banking Conference, November. Retrieved from http://www.ecb.int/events/pdf/conferences/cbc5/Rajan.pdf?17bea4624be62b27d96a6a290c65da52

Khan, M. S. (1986). Islamic Interest-Free Banking: A Theoretical Analysis. *Staff Papers - International Monetary Fund. International Monetary Fund*, *33*(1), 1–27. doi:10.2307/3866920

Knight, F., Cox, G., Director, A., Douglas, P., Hart, A., Mints, L., ... Simons, H. (1933). Memorandum on banking reform, Franklin D. Roosevelt Presidential Library, President's Personal File, 431.

Kobayakawa, S., & Nakamura, H. (1999). A Theoretical Analysis of Narrow Banking Proposals. *IMES Discussion Paper Series 99-E-19*.

Konstans, P. (2006). Reforming Deposit Insurance. *Public Policy Brief, No. 83*.

Kotlikoff, L. J. (2010). *Jimmy Stewart is Dead: Ending the World's Ongoing Financial Plague with Limited Purpose Banking*. Hoboken, NJ: John Wiley & Sons.

Litan, R. E. (1987). *What Should Banks Do?* Washington, DC: Brookings Institution.

Mersch, Y. (2009). About the Role of Central Bank in Financial Stability and Prudential Liquidity Supervision, and the Attractiveness of Islamic Finance. IFSB 2nd Public Lecture on Financial Policy and Stability, Kuala Lumpur: Islamic Financial Services Board (IFSB).

Minsky, H. P. (1994). Financial Instability and the Decline of Banking: Public Policy Implications. *Working Paper No. 127*.

Minsky, H. P. (2008). *Stabilizing an Unstable Economy*. New York: McGraw Hill.

Mirakhor, A. (1993). Equilibrium in a Non-Interest Open Economy. *Journal of King Abdulaziz University: Islamic Economics*, *5*(1), 3–23.

Mirakhor, A. (2003). *Muslim Contribution to Economics*. Paper presented at the Annual Meeting of the South-Western Economic Association, March 1983; reproduced in Essays on Iqtisad; Nur Corp. (1989); republished by Global Scholarly Publication, New York, NY (2003).

Mirakhor, A., & Iqbal, Z. (1988). *Stabilization and Growth in an Open Islamic Economy (IMF Working Paper No. 22)*. Washington D.C.: International Monetary Fund.

Mirakhor, A., & Krichene, N. (2009). The Recent Crisis: Lessons for Islamic Finance. IFSB 2nd Public Lecture on Financial Policy and Stability, Kuala Lumpur: Islamic Financial Services Board (IFSB).

Mirakhor, A., & Smolo, E. (2011). Do Conventional and Islamic Finance Share Common Epistemology? *Global Islamic Finance, August,* 48-53.

Mizen, P. (2008). The Credit Crunch of 2007-2008: A Discussion of the Background, Market Reactions, and Policy Responses. *Federal Reserve Bank of St. Louis Review*, *90*(5), 531–567.

OECD. (2009). The Financial Crisis: Reform and Exit Strategies. Paris, France: Organization for Economic Co-operation and Development (OECD).

Phillips, R. J. (1992a). Chicago Plan and New Deal Banking Reform. *Working Paper No. 76*.

Phillips, R. J. (1992b). Credit Markets and Narrow Banking. *Working Paper No. 77*.

Pierce, J. L. (1991). *The Future of Banking: A Twentieth Century Fund Report*. New York: Yale University Press. doi:10.2307/j.ctt1ww3v09

Rafay, A., & Farid, S. (2017). Dynamic Relationship between Islamic Banking System and Real Economic Activity: Evidence from Pakistan. *Journal of King Abdulaziz University*. *Islamic Economics*, *30*(2), 97–114.

Rothschild, E. (1994). Adam Smith and the Invisible Hand. *The American Economic Review*, *84*(2), 319–322.

Roubini, N. (2008). Financial Crises, Financial Stability, and Reform: Supervision and Regulation of Financial Systems in a World of Financial Globalization. In J. Bilodeau (Ed.), *The Financial Development Report 2008* (pp. 33-46). New York: World Economic Forum.

Scott, K. E. (1998). Mutual Funds as an Alternative Banking System. *Journal of Institutional and Theoretical Economics*, *154*(1), 86–96.

Siddiqi, M. N. (1983a). *Banking Without Interest*. Leicester, UK: The Islamic Foundation.

Siddiqi, M. N. (1983b). *Issues in Islamic Banking (Islamic Economics Series 4)*. Leicester, UK: The Islamic Foundation.

Siddiqi, M. N. (1985). *Partnership and Profit-Sharing in Islamic Law*. Leicester, UK: The Islamic Foundation.

Smith, A. (2006). *The Theory of Moral Sentiments (Dover Philosophical Classics)*. Cambridge, UK: Cambridge University Press.

Smolo, E. (2010). *Al-Bay*ʿ *Bithaman Ajil, Musharakah Mutanaqisah and Ijarah Sukuk: A Theoretical Comparison*. Saarbrücken, Germany: Lambert Academic Publishing AG & Co. KG.

Smolo, E. (2013). *Uvod u islamsku ekonomiju i finansije: teorija i praksa*. Sarajevo: Dobra Knjiga.

Smolo, E., & Mirakhor, A. (2010). The Global Financial Crisis and its Implications for the Islamic Financial Industry. *International Journal of Islamic and Middle Eastern Finance and Management*, *3*(4), 372–385. doi:10.1108/17538391011093306

Smolo, E., & Mirakhor, A. (2014). Limited Purpose Banking (LPB) and Islamic Finance: Could LPB Model Be Applied to Islamic Finance? *Humanomics*, *30*(2), 122–135. doi:10.1108/H-08-2013-0053

Spong, K. (1993). Narrow Banks: An Alternative Approach to Banking Reform. *Working Paper No. 90.*

Stiglitz, J. E. (1993). Perspectives on the Role of Government Risk-Bearing within the Financial Sector. In M. S. Sniderman (Ed.), *Government Risk-Bearing: Proceedings of a Conference Held at the Federal Reserve Bank of Cleveland*, (pp. 109-130), May 1991. Boston, MA: Kluwer Academic Publishers. 10.1007/978-94-011-2184-2_5

Taylor, J. B. (2008, November). The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong. *Stanford University Working Paper*. Retrieved from http://www.stanford.edu/~johntayl/FCPR.pdf

Thomson Reuters. (2018). *Islamic Finance Development Report 2018: Building Momentum*. Salaam Gateway.

Truman, E. M. (2009). Lessons from the Global Economic and Financial Crisis. Keynote address at the conference "G-20 Reform Initiatives: Implications for the Future of Regulation," cohosted by the Institute for Global Economics and the International Monetary Fund in Seoul, Korea, November 11, 2009. Retrieved from www.iie.com/publications/papers/truman0911.pdf

Udovitch, A. L. (1962). At the Origins of the Western Commenda: Islam, Israel, Byzantium? *Speculum*, *37*(2), 198–207. doi:10.2307/2849948

Udovitch, A. L. (1967). Credit and a Means of Investment in Medieval Islamic Trade. *Journal of the American Oriental Society*, *87*(3), 260–264. doi:10.2307/597719

Udovitch, A. L. (1970a). Commercial Techniques in Early Medieval Islamic Trade. In D. Richards (Ed.), *Islam and the Trade of Asia: A Colloquium* (pp. 37–62). Oxford, UK. doi:10.9783/9781512806021-005

Udovitch, A. L. (1970b). *Partnership and Profit in Medieval Islam*. Princeton, NJ: Princeton University Press. doi:10.1515/9781400820474

Uzair, M. (1955). *An Outline of Interestless Banking*. Karachi, Pakistan: Raihan Publications.

Uzair, M. (1978). *Interest Free Banking*. Karachi, Pakistan: Royal Book Company.

Venardos, A. M. (2005). *Islamic Banking & Finance in South-East Asia: Its Development & Future*. Singapore: World Scientific Publishing Co. Pte. Ltd. doi:10.1142/5751

Visser, H. (2009). *Islamic Finance: Principles and Practice*. Cheltenham, UK: Edward Elgar Publishing Limited.

Wallace, N. (1996). Narrow Banking Meets the Diamond-Dybvig Model. *Federal Reserve Bank of Minneapolis Quarterly Review*, *20*(1), 3–13.

Yellen, J. L. (2009, May). A Minsky Meltdown: Lessons for Central Bankers. *FRBSF Economic Letter No. 2009-15.* May 1, Retrieved from http://www.frbsf.org/publications/economics/letter/2009/el2009-15.pdf

## ENDNOTES

1. For details See https://en.wikipedia.org/wiki/List_of_economic_crises, accessed on 14 May 2019.
2. For some details on this matter see Bossone (2002); Garcia, Cibis, and Maino (n.d.); Kobayakawa and Nakamura (1999); Konstans (2006); Minsky (1994); Phillips (1992a, 1992b); Pierce (1991); Scott (1998); Spong (1993); Wallace (1996).
3. For details see FSF (2008); Jordan and Jain (2009, October); Mersch (2009, p. 14); Mirakhor and Krichene (2009); Mizen (2008); Truman (2009); Yellen (2009, May).

4 See Cooper (2008, p. 171); Kashyap, Rajan, and Stein (2008); Taylor (2008, November). (See also Bordo, 2008; Mirakhor & Krichene, 2009; OECD, 2009; Roubini, 2008).

5 During this crisis, about 747 out of the 3,234 savings and loan associations in the United States collapsed.

6 In economic theory, the term "moral hazard" describes situations in which a party will have a tendency to take risks because the resulting costs will not entirely be incurred by the party taking the risk.

7 This idea was advocated by a number of economists including Milton Friedman.

8 In this section, our goal is to provide a brief overview and introduction of LPB to a reader. Our main focus is banking operations as envisioned by Kotlikoff's LPB. Hence, we avoid detailed elaboration on cash mutual funds, 100% reserves and insurance mutual funds as it goes beyond the scope of this chapter. Note however that the issue of 100% Reserve Requirement Proposal has been discussed further in the next subsection as we believe that this issue is a crucial to any sort of financial reform.

9 The term "*narrow banking*" was coined in Litan (1987).

10 For example, the Islamic Banking Act 1983 of Malaysia (Act A1307) defines Islamic banking business as "*banking business whose aims and operations do not involve any element which is not approved by the religion of Islam*". Similarly, Čihák and Hesse define Islamic or *Shari'ah*-compliant banking as "*the provision and use of financial services and products that conform to Islamic religious practices and laws*" (Čihák & Hesse, 2010). More narrowly, Chapra and Khan define an Islamic bank as a "*depository institution whose core business is financial intermediation on the basis of a combination of profit and loss sharing and sales-based modes of financing*" (M. Umer Chapra & Khan, 2000).

11 Literally, *Shari'ah* means a path to a watering-place, a clear path to be followed. This led to its use for the path which the believer has to tread in order to obtain guidance in this world and deliverance in the next.

12 Sunnah is an Arabic word that means 'habit' or 'usual practice'. Technically, this term refers to whatever was reported that the Prophet Muhammad (May peace be upon him) said, did, or gave his tacit approval.

13 *Mudarabah* or passive partnership is a type of a partnership between *rabb al-mal* (capital owner), who provides the capital and *mudarib* (entrepreneur), who runs the business.

14 Some authors differentiate between usury and interest and say that *Riba* refers to usury only while interest is not included in the prohibition. In this chapter, the term *Riba* refers to both interest and usury.

15 *Al-Qur'an*, 2:275. In fact, the receipt of *Riba* is forbidden in the Holy *Qur'an*, while the payment of *Riba* is prohibited in the *Sunnah* of the Prophet (peace be upon him), and consensus (*ijma'*). In the *Qur'an*, the strongest prohibition is provided in the verses [2:275-279].

16 The following items are mentioned in a *hadith* [a saying of the Prophet (May peace be upon him)] to be *Ribawi* (subject to be usurious items) and as such should be exchanged only in an equal measure or quantity: gold, silver, barley, wheat, salt and dates.

17 For example, by having mutual funds under the LPB model, we are getting into equity-based sort-of financing that is the original idea behind the IFS model. Furthermore, the issue of uncertainty (*gharar*) under the current financial system is one of the reason why Kotlikoff proposed his LPB

model and at the same time, this issue is one of the fundamental prohibitions under the IFS model that needs to be avoided altogether, etc.

[18] The acronym (r.a.) stands for '*radiyallahu anhu*' or '*may Allah be pleased with him*'. Abbas is one the companions of the Prophet Muhammad (*May peace be upon him*).

[19] In similar way we can have two-tier *Musharakah* funds and so on.

[20] For example, Islam does not allow financing of illegal activities such as casinos, production of alcohol, etc.