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Financial Engineering and Shari'a compliant (Urbun, Promise, Participation and Cooperative)

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Abstract:

This research present a list of instruments proposed as Islamic instruments for the management of market risks. Moreover, through the filtering of the instruments collected, resulting from this conceptualization effort, our approach has enabled us to identify certain "non- replicative" and other "replicative" instruments. We have seen how the latter: often present obvious contractual and /or financial weaknesses or limits, and above all, generally struggle to represent real Islamic derivatives, according to the very discourse of Islamic finance. Indeed, faced with such a contradiction between theory and practice, we have tried to find the possible path (s) towards such a radical change in practice, by returning to this sharing of risk.

Keywords: Gharar, Risk, Participation, Islamic, instrument, Financial engineering

1. Introduction

Islamic financial institutions need new tools that can enhance liquidity in the market, and develop their performance in risk management. But the process of creating new tools is complex and sensitive and requires interdisciplinary study including a deep understanding of Islamic jurisprudence.

The future of Islamic financial institutions- considered an emerging industry compared to its conventional counterparts- depends on financial engineering. Therefore, Islamic banks, to be competitive, need a variety of financial tools capable of responding to local and global economic variables. This article will present the role of financial engineering in the risk management of Islamic financial institutions

Economists regularly distinguish between the terms “risk” and “uncertainty.” Based on Knight (1921), risk explains situations in which probabilities of diverse results can be “objectively” evaluated. Uncertainty describes situations where such measurement is infeasible. But, according to Takayama (1993), if subjective probabilities are used instead, and axiomatic approach is employed, the difference among risk and uncertainty "seems to have become mostly irrelevant". In point of view of Islam, risk as such, like hardship, is not desirable for its own sake. Hardship is desired only when involved benefits more than offset associated hardship. Risks are desirable only when they stimulate productive efforts and value-added activities. However, this does not mean that any decision to take risks is prohibited. Moudaraba involves significant risks, but it is completely Islamic.

Derivatives play an essential role in hedging and mitigating risk. However, most financial derivatives in the financial markets are rejected by the lawyers mainly because of Gharar involved in these transactions .

Islamic banks, similar to conventional banks, face credit risk, liquidity risk, profit-rate risk and currency risks, among others. Conventional banks use derivatives to hedge their exposures against interest-rate risk and currency risk, in addition to offering their customers derivative products. However, more than 30% of Fitch-rated Islamic banks do not use derivatives, and most of the remaining 70% use it in a limited capacity, constraining it to instruments like profit-rate swaps and Islamic-currency forward contracts.

Why Conventional derivatives are prohibited?

The derivatives are accused, among other things: of promoting speculation, of driving finance away from the economy real from contribute at the distortion some price to increase the complexity of markets, to promote inequality in the distribution of risk and therefore wealth. As the object of a transaction may not exist at the time a contract is signed, Islamic scholars argue that derivatives could lead to excessive uncertainty, unnecessary risk (gharar) or speculation that borders on gambling (maisir) due to contingent state pricing and the lack of predetermined object characteristics. Value could lead to zero-sum gains on both sides of the market (Kamali, 2007) and possible exploitation of the ignorant (Smolarski et al., 2006). Many derivative contracts are also used for speculation (they lack an actual hedging need), disproving equal risk sharing (sharing) in the actual ownership of the reference asset(s) by all contractual parties subject to the religious constraints that govern lending and profit-taking (Jobst, 2007b; Ahmad, 2000).

A large number of Sharia scholars do not accept futures and options because they are not concluded contract (Osmani, 1999). "Some basic concepts and some form requirements of futures trading are exactly the same as those established by the Prophet Muhammad for futures trading", says Khan (1995), but the problem is the possibility of unnecessary risks resulting from speculation, exploitation, and perceived lack of ownership of physical assets, rendering traditional futures incompatible with the Sharia.

Another reason for considering them not in conformity with the Shariah relates to the defermentof both actual asset delivery and final payment in conventional derivatives contracts, such as futures (Jobst, 2008b).

For similar causes, many scholars judge options as incompatible with Sharia. Holders of a call (put) option ("promises") obtain from the seller ("promissory") the right (but not the obligation) to obtain (sell) the underlying asset at a pre- determined price through a precise period of time. Usmani (1999) examines that “according to the principle of the shari’ah, an option is a promise to sell or purchase a thing on a specific price within a specified period. Such a promise in itself is permissible and is normally binding on the promisor (like a wa’ad contract). But, this promise cannot be the issue subject of a sale or purchase. Consequently, the promisor cannot charge the promisee a charge for making such a promise".

In many cases, Arbon (down payment) and Waad (one-sided promise) have been used to design Shariah-compliant tools similar to call options (Al-Jamal, 2006; Oberoi et al., 2009).

For Basha (1999) the exclusion of options on the basis of Gharar and Maisir is assumed to be dealt with primarily for speculative gain rather than a true hedge. Therefore, we can say that the use of futures or options is contrary to Islamic principles(Jobste, 2008a).

1.1. Research objective

The main objective of this paper is to suggest products and tools for financial derivatives that can be used in Islamic finance for the risk management. This research aim to propose Islamic financial instruments based on the principle of "risk sharing" (as opposed to "transferring" or "selling" the risk). This research is mainly based on two ideas: the first is "permissible risk", and the second is the rule of Gharar, while we try to define the possible conceptual meanings of "prohibited gharar" in contemporary financial terms.

Our research focuses on field discovery, hybrid exploration (theoretical and empirical) of the research object and the proposal for improving the existing (Baumard and Ibert, 2003). Indeed, the sub-objectives of the research are: (1) Discover, understand and identify contracts, practices, techniques or financial instruments intended for the management of market risks، currently used by institutions Financial and banking, or proposed in the literature of Islamic Finance. (2) Complete the prospecting work, in the light of our work theoretical and conceptual previous ones, i.e. in particular: by filtering the instruments obtained with predefined criteria in order to separate "replicative instruments" from derivatives of "non-replicable instruments". (3)Propose, if necessary, from there and all of our analyses and results, avenues for the future in terms of managing market risks.

2. Methodology

Our research follows the path of exploration, as opposed to hypothesis testing. Based on all of our analyses and observations, we will suggest ways forward in terms of market risk management. The empirical part will start by a case study (three Islamic financial institutions), both descriptive and exploratory.

The **exploratory case study** allow us to discover the ground at the start of the research: its results will then be substantiated and deepened by the extended investigation with the aim of describing / exploring their market risk management practices and techniques.

However, we will move from this simple case study to a more **extensive field survey**.

We therefore set out to build a sample of 100 Islamic financial institutions around the world in order to study carefully and in detail their annual reports, websites and other available financial publications.

3. Literature review

We don't have, from Fiqh, a fairly accurate general definition of "Gharar", especially "forbidden gharar". Although the legal aspects of gharar are well established in Islamic jurisprudence, researchers in Islamic finance constantly face the dilemma of defining the concept and its precise meaning.

3.1. Definitions of Gharar

Badawi (1998, p. 16) considers that: "The precise meaning of Gharar is itself uncertain. The literature does not give us an agreed definition and scholars rely more on enumerating individual instances of Gharar as substitute for a precise definition of the term." Frank Vogel (1998, p. 64) expresses a similar tone: "As with riba, fiqh scholars have been unable to define the exact scope of gharar." These claims might well be exaggerating, but they point to the need for further contemporary formulation of the subject.

Gharar has many definitions, which can be summarized under three headings: (Al-Darir 1977):

1) Gharar means uncertainty. Ibn Abidin defines Gharar as "uncertainty over the existence of the subject matter of sale".

2) *Gharar* also means ignorance and this can be when the subject matter of sale isunknown. According to Ibn Hazm "*Gharar* in sale occurs when the purchaser does not know what he has bought and the seller does not know what he has sold". 3) *Gharar* means both the unknown and the doubtful. According to Al-Sarakhsi "*Gharar* obtains where consequences are concealed". This view is shared by most jurists.

3.2. Classification of *Gharar*

There are many hadiths that forbid Gharar, either by name or by identifying one or more of its equivalents. But Gharar cannot be completely avoided. According to Shatby, "removing all gharar from contracts is difficult to achieve". In the opinion of the majority of jurists, the gharar that affects the contract is the excessive gharar because it affects the validity of the contract, while the slight gharar has no effect.

The jurists distinguish between two types of Gharar: excessive and light gharar, and its effect on the contract is questionable. According to al-Baji, the slight gharar is that from which only just a contract is free although **excessive** *Gharar* is that which dominates the contract that it comes to characterize it.

Based on the degree of permissibility of gharar in Islamic operations, we can present four types of gharar

1) The Prohibited *Gharar*:

For Fukuoha, gambling is the pure form of gharar, the latter being a zero-sum game with uncertain winnings. Imam Malik's explain: "Gharar and risky deals include the case of a man who lost slavery, or his slave ran away, the price of which is (say) fifty dinars, so someone else tells him. The man: buy it for twenty dinars. If the buyer finds it, the seller loses thirty dinars. Otherwise, the buyer loses twenty Dinars. **Ibn Taymiyyah** explicitly explains: "Al-Gharar describes matters with an unknown fate. Selling such things is easy and a gamble". **Ibn al-Qayyim writes**: "Gharar is the possibility of existence and nonexistence. Its sale is forbidden because it is a sort of gambling, which is maysir".

2) The Permissible *Gharar*:

According to Shatibi, the *Hadith* (which prohibits *Gharar*) does not intend to prohibit all *Gharar* because jurists permit some transactions which have *Gharar* such asselling what is hidden in the ground, selling a house though its foundation has not beenseen.

Gharar can be permissible when there is no general agreement among the schoolsof jurisprudence that this *Gharar* is prohibited and the contract that involves this *Gharar* is invalid. If at least one school permits it with or without conditions, then it is considered permissible *Gharar*.

3) The Acceptable *Gharar*

In the Islamic context jurists define *Gharar* to mean risk. Islam does not prohibit a contract just because it involves risk. Only when risk is a channel to make one party profits at the expense of the other that it becomes **Gharar**. Based on Ibn Taymiah, Islam did not prohibit every kind of risk. What is prohibited among such kinds is eating wealth for nothing, even if there were no risk, not that risk as such is prohibited.

Jurisprudence scholars have three conditions for **permissible risk**. The risks involved must be: 1) Neglected: The probability of failure is low enough. As the magnitude of the potential loss rises, the degree of certainty needed to consider this loss diminishes Al-Ghazali notes. 2) Inevitable: The game allows win-win results, so that a beneficial exchange can be made. 3) Unintentional: Win-win outcomes are preferred over lose-lose outcomes. If the player's goal is to search for a win-win outcome this is a beneficial transaction.

When the endogenous or the exogenous uncertainties are the main sources of Gharar then this Gharar can be considered acceptable Gharar.

4) The Mandatory Uncertainty

In this case *Gharar* (uncertainty) is a prerequisite to the validity of the contract. This is the well-established view concerning the *musharakah*, *ijarah* and *mudarabah* contracts. In the *musharakah* contract all parties are partners in case of profit and liable in case of loss and no minimum profit can be assured to one party, or one party is entitled to a share in profit only while the other party is made liable for the entire loss along with his share in profit as these situations could contradict the above maxims.

4. Empirical Study

On the empirical study, we postulated that the "Prohibited Gharar" verified a number of characteristics, which we translated into terms of filtering criteria already analyzed and clarified on this research. The data analysis consist essentially of market risk management techniques and instruments used in Islamic Financial Institutions or proposed in the literature, as well as their characteristics. The second bias is that of the field survey conducted at the level of annual reports and financial publications/communications of a well-considered sample of Islamic financial institutions.

The collection phase therefore enabled us to draw up a list of market risk management instruments: instruments already used or at least proposed for use in Islamic financial institutions. We have analyzed/ filtered these instruments based on the conceptual framework already mentioned.

Indeed, we started by taking one or two cases per country, gradually moving from one country to another, and so on. The sample is composed of 100 IFIs (mainly BIs). The representativeness of the sample was checked in the light of the statistics of geographical distribution but also,

In the light of a "theoretical" analysis taking into account the distribution of the schools/models of the IF and the composition of the Sharia Councils.

The collection phase has therefore enabled us to compile a list of market risk management instruments: instruments already in use or at least proposed for use in Islamic financial institutions. We analyzed / filter these instruments starting from the conceptual framework discussed . We postulated a given vision of the "Forbidden Gharar", whose characteristics gave rise to a number of analytical criteria. this postulated view reflects the majority view in Islamic Finance, emphasizing the transfer aspect of market risk not only in the prohibition but also in the alternative.

Thus, after having constituted a sample of instruments, we filtered them with these criteria (Filter I). Two categories of instruments are therefore obtained: "derivatives replicative instruments" according to the postulated majority view ("Category I") and "non- replicative instruments" ("Category II"). Then, this Category II was in turn be subjected to a qualitative filtering (Filter II), aimed above all at opening the way to the final discussion of the results.

The sampling and collection work corresponding to our field survey is long, repetitive and perilous. Indeed, we studied the financial publications for each institution. It is almost the work of an archivist: defined the desired information sections, read the media, list the information in a central Excel file, go back and forth continuously between the sections and the elements discovered (etc.), and all this while constantly comparing with our study of the literature.

Filter I. The two criteria of "zero-sum game" and "sale of risk" best reflect, according to our study, the problem of extension. We have in the first place essentially numerical and / or financial criteria explained, and which is called "numerical-financial criteria of Filter I" (CNF). These are: (1) already specified criterion of "sale of risk"; (2) the already specified "zero-sum game" criterion; and (3) the "fictitious sale" test already specified. In addition to these criteria, there are essentially qualitative and/or legal criteria. We called them "Filter I qualitative criteria" (CQ1 and CQ2).

CQ1 allow instruments to be analyses from the point of view of the property-return-risk-taking relationship, and therefore of the "cause of gain". The CQ2 make it possible to analyze the instruments from the angle of Bay' al-Gharar. To these two families of criteria, precedes a contractual and fiqhic study of the assemblies in question.

How the analysis have taken place in practice?

(1) We started with the preliminary stage and with the contractual and fiqhic study.(2) We studied the instrument from the angle of the CQ1 and CQ2 of Filter I: this allowed us to make a first idea, to detect possible problems, to compare with our previous analyses.

(3)Then, we passed the instrument through the CNF, with the aim of refining and deciding the results.(4) We classified the instrument in one of the two categories mentioned above generally: any device verifying any of the CNFs is classified in Category I.

Filter II. After obtaining the expected results of submitting our list of devices to Filter I, we are submitted the devices of Category II ("non-replicatives") obtained to a second filter, qualitative (Filter II). The latter has two main objectives: (1) attempt to identify the possible limitations/benefits of these instruments, especially in comparison with conventional derivatives; (2) attempt to assess, in the light of all of our conceptual work, the extent to which they ultimately represent "alternatives" to conventional derivatives.

In the second step, we exposed and then discussed the results of our approach (Filter I and Filter II) in particular those corresponding to Filter I. In this context, it is useful to mention that the first product of our work, after the list of instruments, is the distinction between "replicative instruments" and "non- replicative instruments" within the meaning of our study. The second is the identification of the financial philosophies underlying each of the corresponding categories, and their comparison with our conceptual framework in order to complete the answer to our research questions. The third will be the proposal of avenues of reflection taking into account the various results of this research.

Therefore, first we present preliminary fiqhical and theoretical analyzes and insights fundamental for the precise understanding of the results. Second, we present and discuss the instruments corresponding to Category I according to our approach, and those corresponding to Category II. Indeed, we present a summary of the result of the submission to our analysis of the "Islamic instruments" collected in this study. We tried to explain most of the legal and conceptual characteristics of these instruments. Beyond the exploratory aspect, our approach will emerge from the conceptual and managerial results that will be discussed in detail.

The ideal typical view defended by contemporary Islamic finance essentially emphasizes, "risk sharing", thus opposed to the "risk selling" philosophy on which derivatives are based.

In accordance with this vision, it is therefore from this idea of "risk sharing" that we start in order to complete the reflection on the existence or not of alternatives to conventional derivatives (Cf. theory of need and of general interest). Indeed, our reflection leading to the paths set out below, is based on two fundamental theoretical pillars:

• **The first combines the Islamic moral and** / or legal notions of Musharakah (or "participation") and Ta`awun ("cooperation"). According to this pillar, "participatory" and / or "cooperative" solutions should constitute the best reflection and the best path towards the ends (Maqasid) sought by Islamic Finance, but also by the entire Shari`ah. In other words, they should constitute the true antithesis to derivatives, but also, which amounts to the same thing, the true antithesis to the dominant and already conceptualized idealtypical view of the "forbidden Gharar". We have already seen that the Koranic discourse brought the logic of "game" (Gharar-game relation) closer to ideas of enmity (al-`Adawah) and hatred (al-Baghda ’). In accordance with the prevailing contemporary vision, favoring the spirit of participation, mutual aid and cooperation would therefore be consistent with the discourse of the Koran and of Islam.

• **The second pillar**, linked to the first and conditioning it, is based on the Islamic notions of Maqsid ("finality") and Ma`nah (" meaning "). This refers to two famous fiqhic rule-maxims (Qawa`ed Fiqhiyyah).

1) The first states: "Things are according to their ends [or intentions]. », (Al Umuru Bi Maqasidihah).

2) The second goes in the same direction and more explicitly: "Contracts must be understood in relation to their purposes [or intentions] and meaning, and not in relation to their words and sentences. », (Al` Ibrah Fil `Uqud Lil Maqasidi Wal Ma`ani…). In other words, according to this pillar, it is the "finality" of the proposed technical path that must be our target and not its appearance. This pillar also refers to our concept of "fictitious sale".

By resting therefore on these two pillars, we are going to propose a number of potentially exploitable (non-exclusive) pathways. It is also about responding to the more abstract theoretical need regarding the question of Gharar and risk.

It will in fact: (1) the consistency of this investigation with our conclusions on Gharar (Cf. notions of need, general interest, alternatives and Risk-sharing); and (2) that we do not adopt here - in the ideological sense of the term - one ideal-typical view rather than another.

We are content to apply for one so that we can explore its possible translations in financial practice.

At this stage, we are synthesized the conclusions of our reflections on so-called "classical" instruments. Secondly, we present the so-called participatory and cooperative forms, then those based specifically on Wa`d (lit. "promise"), and those based specifically on Khiyar (lit. "option"), with an opening on the concept of "Islamic convertibles".

5. Results and discussions

Our empirical research work has allowed us to classify the financial products used by Islamic banks for risk management into different lists: (1) the first list consists of Islamic replicative products of their conventional counterparts (Category I); (2) "non-replicating" instruments that we have categorized as structurally weak (Category II.A); and (3) a "Category II.B" consisting of non-replicating instruments. To these we have added the traditional Islamic instruments.

The empirical work carried out has allowed us to conclude that Islamic financial engineering tries to start from existing conventional products by trying to rectify these products and make them compatible with Islamic law. Indeed, Islamic finance has a problem of creating new financial products without making a reproduction of conventional finance.

The theory of Islamic finance is mainly based on "risk sharing", which is different from "risk selling" on which derivatives are based. However, we will start from the theoretical and empirical study carried out to be able to propose ideas to help in the creation of new Islamic financial products that can be used to manage the risks of these banks. These proposals are based on the notion of participation, cooperation and Islamic concepts of purpose. Based on these two concepts, we announce a number of proposals that are probably exploitable using the results of our empirical study. Indeed, we have exposed the so-called participatory and cooperative aspects, those based clearly on the Promise, and those based specifically on the option, with an opening on the concept of "Islamic convertibles".

For a list of the main instruments in question, as well as to the bibliographical references. Recall that these are so-called "classic" contracts because they come from the classical fiqhic heritage, and in principle authorized by contemporaries. At this level, it seems useful to us to mention that contracts such as Salam, Istisna or Bay al-Urbun were intended to finance, manufacture or deliver, and not to protect themselves against risk.

For this, the use of these products in risk coverage is limited.

5.1. Proposals based on participation

As we mentioned earlier, our proposal will be for Islamic financial products based on "perfect" participatory or cooperative concepts. Then, we offered other mixed products containing a part of Derivative-like and a part of participation/cooperation.

5.1.1. Participation and "pure" cooperatives

At this level, we offer new financial products based entirely on the concepts of participation and collaboration. This participatory proposal is based on the concept of profit and loss sharing between the two parties.

The essential basis of the cooperative principle is that the actor who makes a profit will ensure the losing party, and vis-versa.:

5. 1.2. Symmetrical participation in market risk (MR)

Indeed, the principle of participation applies in the Moucharaka contract used by all Islamic banks. The essential notion of this Moucharaka contract is that the capital will be provided by the shareholders who share the profit and the loss of market: in the case of profit they share the profit and in the case of a loss they lose together. In Islamic law, Moucharakat (participatory forms) is generally discussed, as opposed to Ijara (Masri, 2010a). Based on this philosophy, we have built the proposal in question:

Presentation

In the context of a 'symmetrical holding' (SM), it is an actor subject to a given market risk seeking to associate this risk with another actor as opposed to a (symmetrical) participation in favour of the corresponding market. That participation between two parties is based on the fact that the second party bears such a percentage of the potential loss of that of the first party on a given position on a specific date, but this, in return, entitles it to the same percentage of its possible profit.

In this context, we can mention that the profits and losses of both parties to the contract go in parallel. Moreover, the second party was not going to agree to enter into such a contract if it did not provide for a suitable action for both parties.

An example is the case of a company (E) which has 200 measures of wheat (A) and which forecasts a decrease in prices compared to a reference price (p) at maturity (n). In order to hedge against this price reduction,

This company can sign a contract based on the relationship (SM) with another agent (G) who anticipates an increase in market prices.

Based on this contract with the conditions mentioned above: if the market price at maturity Pm (n) is lower than the reference price (P), this company receives [P - Pm(n)] * a% from the agent (G). On the other hand, if the market price of wheat is higher than the reference price, the company will give [Pm (n) - P] * a% to the agent (G). However, an in-depth study of the SM contract cited above allows us to conclude that the purpose of the SM particularly for the company (E) is joined by that of the FUT contract used for coverage.

In this case, the company (E) will have precisely in the FUT contract a job opposite to its cash job, but with a given number of contracts (remember the a% rate mentioned above). In the case of a FUT contract, if at maturity (n) the market price increases, the company (E) will bear a loss to the speculator, part of what he earns on the cash and vis-versa.

At this level, we can mention that with this **FUT** contract, the company transfers a percentage of its risk to the speculator. Nevertheless, unlike the situation of the company (E) with the **FUT** contract, in the contract (SM) it is not a sales contract, rather a sharing of risk.

That is to say, as soon as the contract is signed, both parties agree on the sharing of risk.

To conclude this proposal (SM) based on the principle of profit and loss sharing is a solution. At this level, it seems important to us to mention that the creation of new products requires the development of a clear assembly. In a Mousharaka contract, the partner must insure a share of the capital (property), or insure capital and labor. Based on this principle, we will propose possible legal "solutions":

(1) Theoretically, the company seeking to hedge against the risk can make a donation of a portion (a%) of a form of Mousharaka (with legal personality), founded specifically for this reason,

And whose purpose is to achieve a beneficial result of the operation of sales and purchases of the assets in question, at a maturity (n). Let us cite at this level an example within the framework of an SM proposal, of which at the moment zero the planter (E) signs with an Islamic speculator an SM with the objective of making a profit through the sale of the harvest on the date (n). However, on date (n), the planter or the director of the operation (Moucharaka) will sell the goods subject to the contract, if this operation makes a gain by referring to the price (P), this profit will be shared up to such a percentage (a%) between the farmer and his partner. Also, if the MM operation achieves a negative result, the latter will be shared up to a percentage (a%).
Let us mention at this level that one of the problems that can be encountered in this operation is the fact that the goods, which are the subject of this contract, are not really bought or sold at the moment (n).
However, on date (n), the planter or the director of the operation (Moucharaka) will sell the goods subject to the contract, if this operation makes a gain by referring to the price (P), this profit will be shared up to such a percentage (a%) between the farmer and his partner. Also, if the MM operation achieves a negative result, the latter will be shared up to a percentage (a%). Let us mention at this level that one of the problems that can be encountered in this operation is the fact that the goods, which are the subject of this contract, are not really bought or sold at the moment (n). Formally, we will propose the following solution to solve this problem:

(1) Indeed, at moment (t) equals zero, two unilateral and binding promises are given for the purpose of cooperation. The first promise is given by the party (X), the latter undertakes to give a part a% of its profit to another party (Y) in the case of the realization of a profit at maturity (n) (in comparison with the reference price (P).

(2) The second promise is given jointly by party (Y): the latter promises to bear part a% of the loss to (Y) in the case of a negative result at maturity (n), the use of promises, clearly transcribed in the framework of cooperation, or even donation, is quite different from the dominant use at present.

(3) The third solution is also based on the principles of charity and profit and loss sharing, two parties of which agree to undertake to share between themselves a market risk, on a specific date and at a specific percentage a% and the associated market profits.

Indeed, according to this proposal, the company (E) enters into a contract who has as its objective to share the risk and not in the obligation to sell shares in a Moucharaka contract. It should be noted at this level that the essential advantage of this proposal lies in the fact that both parties win together and lose together. Improvements can be proposed, according to the dominant contemporary vision:

5.1.3. Reciprocal and integral cooperation on market risk (CR)

This proposal is based on the concept of cooperation between the different parties in which the party in a good situation compensates for the party in an unfavorable situation, and vise-versa. The "CR" proposes a link between the two parties (X) and (Y) who are in a situation of risk on the market separate and diametrically opposed, on the same good, in such a way that those who win on the date (n) fully compensate the losing party and vise-versa.

1) Suppose that on date (n), the bank (X) is in a long position regarding dollars and short on the euro, that is, this bank will buy dollar in n, and sell euro. In this case, the bank (X) will look for another party (Y) who is in an opposite situation, on the same date, with a third party (Z): short situation in dollars and long in euros. The two banks (X) and (Y) agree on a contract (CR) determining the reference price (P), of which the bank (X) uses its profit to fully compensate for the loss made by (Y) and vise-versa.

Taking the example of the company (E), mentioned above, which seeks to sell its goods at maturity (n), finds a company has a need to buy this same property. We do not use the traditional Forward contract, both parties of the contract sign a form of (CR), allowing them to tie their prices on a reference (P) by compensating reciprocally, between them, the market profits and losses at the moment (n).

In this context we have proposed two traces of relevant legal solutions.

(1) They will also issue two unilateral and binding promises within the framework of ooperation and solidarity. At this level, we can say that each party gives a unilateral promise to reimburse the total market loss suffered by the other party on a given situation on a given date (n).

(2) This solution is based on the principle of authorisation, the new proposal will be to set up a new contract (CR), based on the concept of cooperation between the different parties, each party declaring a commitment to compensate the other party for its diametrically opposed loss for the same property on a specific date.

5.1.4. Reciprocal and partial cooperation on market risk – (CRP)

The new proposal that we have called it "CRP" is based on the fact that each party can take part of the profit in the event of good market developments. At this level, we can mention that the compensation for loss will be limited to a well-defined rate.

5.1.5. "Partial" participatory and cooperative proposals

These proposals take on some features of the Derivative -like contract and another of "risk sharing". So that the operation is based on the real exchange taking into account the principle of cooperation. At this level, we can say that this proposal concerns the technical part which requires a fiqhic agreement.

5.1.6. Forward Sale Proposal with Market Risk Cooperation (BMT)

Within the framework of this proposal, we can say that the agreement between the two parties (X) and (Y) is based on the fact that the winner compensates for a fixed rate of loss and vise-versa. Indeed, it is easy to see that full compensation would amount to executing the sale at spot market prices at the moment (n).

Taking up at this level the example of the company (E) which can sign a real forward contract (BMT) with a company (F), for a specific date, this contract sets an exercise price (P). If at the specified maturity (n) the market price is higher than the price of the financial year, the company (E) will lose in: the company (Z) that wins, then pays it a fixed percentage of loss and vise-versa. Another innovation can be proposed at this level which is to introduce a support element in a contract called "Islamic Forward". Another proposal is to create a contract whose object is regularly mutual participation in market prices, between a seller and a futures buyer.

5.2. Participations based on the principle of promise

In this context, we have set out some proposals based on the principle of promise.

5.2.1. Proposal 1: Unilateral, independent and no-premium promise

According to our empirical study, we mentioned that there is an instrument used by some Islamic banks called independent and unilateral promise that is based on notions near this proposal. As part of our proposal, we add an element saying that the promise should be: unilateral, independent and free (without detached premium and without resale logic). With regard to this proposal,

we can say that party (X) gives a unilateral and unprimed promise for the interest of the other party of contract (Y) whose purpose is precisely: (1) or to buy (or sell) a specific good to it at a fixed deadline and a fixed price; (2) or to pay the person the total (or partial) sum of a loss suffered in a given activity.

5.2.2. Proposal of the "attached promise" (or parallel)

This proposal consists in linking the promise to a specific sale or other transaction. Provided that this promise is made for the purpose of cooperation. Let us cite at this point a practical example illustrating the case. Taking the example of the company (X) which carries out a sale transaction today to business (Y) of any property (B) at a price specified at the signing of the contract either (P), but the execution will be postponed to a given date(n).

The company (Y) bears a market risk specifically related to the possibility of a price reduction of much less than (P) on the specified date.

Under the title of cooperation, the enterprise (X) gives a promise, at the time of signing the contract, to the enterprise (Y) to compensate it a specified percentage of the sum of loss which exceeds a certain limit at maturity (n).

For all that concerns the optional aspect in our ways of reflection, we refer, in depth and in addition, to the KS (Ash-Shart option):

Participations based on the concept of choice or option and openness to "Islamic convertibles"

A Khiyar is generally defined as: the "right" conferred on a party to cancel (Haq al-Faskh) or to confirm (Haq al-Imda') unilaterally a contract after it has been signed, within a given period of time. This resemblance, even partial, between the concept of Khiyar and the concept of OPT in contemporary finance has led us, like other researchers, to reflect on possible alternative ways to conventional Call and Put and in line with the (ideological) vision postulated.

5.3. Proposal for the option

Our proposal of the option will be based on the opinion of specialists in Islamic jurisprudence who insist on the obligation to avoid cases of Gharar, ignorance or deception. As a result, we can say that it is possible to launch a call or sell option at a fixed price that is part of the vision of cooperation and mutual aid (or even donation). Therefore, this proposal is based on the prohibition of the premium and the sale of risk.

5.3.1. Proposal: Islamic option without premium for the purpose of cooperation

As part of our research, we propose an Islamic option issued within the framework of collaboration and cooperation. Let us mention at this level the case of two Islamic institutions (B1) and (B2) of which B1 will sell on a given date (d) goods (M) at the market price (P), which makes that B1 bears a risk related to the price of these goods on the market.

The institution (B2) can give B1 an Islamic option (without premium) with the objective of selling goods (M) at a price (P) and at the moment (n). This will allow B1 to protect itself against the risk of a decrease in market prices. In order for (B2) to have an interest in giving this free selling option to (B1), the latter must, at the same time, protect (B2) on another different risk. This implies that (B2) bears a risk quite opposite to that of (B1) which allows us to easily achieve the targeted cooperative specificity.

6. Conclusion

The importance of these conclusions for our research is twofold: on the one hand, they allowed us to approach the question of Gharar andderivatives starting from a coherent theoretical framework of the risk (and return)allowed, and on the other hand, they allowed us to highlight the foundations of a general theory of Islamic Finance, potentially consensual.

Based on our data, we were able to propose a new attempt to define, as generalizable as possible, the Gharar (or Bay` al-Gharar) prohibited in financial transactions, while taking into account the necessary precautions. Moreover, the issue of Gharar, or the transfer of risk that most often results from it between thetwo parties, clearly seems to be, above all, a matter of contractual justice, justicemost likely seen in the contract.

Therefore, we deal in this research with derivatives that depend on two questions. After assuming a certain vision of this “prohibited gharar”, we have effectively extended the logic of gharar to a post-contract market context, and we are looking for new Islamic financial products that are possible alternatives to derivatives, to manage market risk in international financial institutions. Based on the study of the forbidden risk in financial transactions and our knowledge of the question of gharar, a way out has been suggested through the idea of the alternative (and the need for Muta). At the end of this research, we presented possible technical answers and suggestions for Islamic financial instruments.

In terms of the creation of new Islamic financial products, therefore starting from acertain vision of the "Forbidden Gharar", and in the spirit of the already mentioned theory of need and the general interest, we went to the search for new Islamic instruments in the literature as well as in the financial publications of a sample ofIslamic financial institutions around the world. This observation was reinforced and deepened by the filtering work carried out on the instruments collected.

As part of this research work, we have proposed, based on our work on Gharar and risk taking, a conceptualization of the view of derivatives by contemporaries,and therefore of the very search for the alternative. This conceptualization will reflectabove all the content in terms of transfer of market risk, as opposed to the simplelegal form.

Through our investigation, we were able to obtain a list of instruments proposed as Islamic instruments for the management of market risks. Moreover, through the filtering of the instruments collected, resulting from this conceptualization effort, our approach has enabled us to identify certain "non- replicative" and other "replicative" instruments.

We have seen how the latter: often present obvious contractual and /or financial weaknesses or limits, and above all, generally struggle to represent real Islamic derivatives, according to the very discourse of Islamic finance.

Indeed, faced with such a contradiction between theory and practice, we have tried to find the possible path (s) towards such a radical change in practice, by returningto this sharing of risk.

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