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### **Islamic banking and derivative financial instruments**

Methodological base of research in given clause was made with modern concepts Islamic banking and Islamic model of financing takaful (insurance) as a whole. Findings: the results indicate the mathematical model consists of a probability space, a Brownian motion and a Poisson process. The jumps are independent and identically distributed. The approach consists of defining a notion of risk and production instrument takaful (insurance) in order to minimize the risk.

Originality/value:

- In new judgement the principle «riba» an islam breaking moral laws as an interdiction of usury and its significant advantages in any spheres of human life is shown;

- The author's financial analysis of economic experience Islamic banking in the countries of near and far abroad as new judgement of Islamic bank system is lead;

- In a new context features of financial specificity Islamic model of financing takaful (insurance) in modern Kazakhstan are revealed.

**Key words:** Islamic Bank, financial instruments the Islamic banking, takaful (insurance), risk management.

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### **Ислам банкингі және оның қаржы құралдары**

Мақаланың методологиялық негізі ретінде қазіргі заманғы ислам банк концепциясының негізі болып табылатын такафул (сақтандыру) және қаржыландырудың исламдық моделі алынды. Нәтижелері: алынған ғылыми нәтижелер Пуассон процесі мен броун қозғалысының шамаланған кеңістігінен тұратын математикалық моделді көрсетеді. Тұрақсыз тәуекелділік және ислам моделіндегі такафул (сақтандыру) бір жүйеде реттелген. Бұл тәсілдің мәні шығынды мүмкіндігінше азайту үшін шығын ұғымын және өндіріс құралы болып табылатын такфулды (сақтандыру) айқындауда.

Ғылыми жаңалығы:

- жаңа шешімде «риба» принципі өсімқорлыққа және адам өмірінде, әлеуметтік тұрғыда бірден-бір маңызды артықшылықтары бар өсімге тыйым салу қағидаларына ие;

- жақын және алыс шетелдердің ислам банкингі бойынша экономикалық тәжірибесін қаржыландыру;

- тұрғысынан талдау жасау, жетекші ретінде ислам банк жүйесінің жаңа шешімдерін табу;

- қазіргі Қазақстанда ислам банкингінің қаржыландыру жүйесіндегі сақтандырудың жаңа моделі такфулды ислам қаржыландыру жүйесінің өндірістік құралы ретінде қарастыру.

**Түйін сөздер:** ислам банкі, ислам банк жүйесі, ислам банкингінің қаржыландыру құралдары, такафул (сақтандыру), тұрақсыз тәуекелділікті басқару.

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### **Финансовые инструменты в исламском банкинге**

Авторы в данной статье рассматривают исламскую финансовую систему как очень гибкую, несмотря на ее видимые ограничения. При формировании параллельно с исламскими принципами финансовую систему можно применить к частным, государственным или суверенным предприятиям, исламским или традиционным экономическим объектам развивать такфул (страховые) и хедж фонды.

Авторы утверждают, насколько современное выражение исламских ценностей финансовой системы сосредоточилось на Аравийском полуострове, Малайзии и Великобритании, где Лондон стал мировым центром рынка капитала для исламского финансирования. Например, многие транснациональные исламские сделки находятся под руководством английского права. Кроме того, английский является важным языком для исламских финансовых инструментов как такафул, поэтому мы находим логическое распространение исламской финансовой системы в Казахстане и нарастающую поддержку принципов в нарастающем числе мировых юрисдикций.

**Ключевые слова:** исламские банки, такафул, салам, сукук,

## ISLAMIC BANKING AND DERIVATIVE FINANCIAL INSTRUMENTS

### Introduction

«Derivative financial instruments (derivatives) – A derivative is a contract between two or more parties whose value is based on an agreed-upon underlying financial asset, index or security. Common underlying instruments include: bonds, commodities, currencies, interest rates, market indexes and stocks. Futures contracts, forward contracts, options, swaps and warrants are common derivatives. A futures contract, for example, is a derivative because its value is affected by the performance of the underlying contract. Similarly, a stock option is a derivative because its value is «derived» from that of the underlying stock. The underlying asset can act as a commodity, interest rate, equity capital of the company, share price index, currency, or virtually any other marketing tool, in which the two sides can reach an agreement.»Classically, there are two ways to manage risk. The first is to bring together those who are also exposed to similar risks, and joint attempt to prevent it. In traditional Islamic societies, such associations are formed to mitigate the effects of the implementation of the risk of robberies or accidents due to adverse conditions or while traveling. Alternatively, some form of the partnership, where his various offices focused on similar activities on the same site, but at different times and in different ways – effectively severing of the group formed to disperse risk. From a practical point of view, the last method is the most simple and unlike Western methods of risk management, there is no such thing as advance payment to a third party. The Islamic financial system is still trying to determine if they have a risk management approaches similar to the West.

On the one hand, no one wants to make an advance payment for the insurance, and then worry about the product on the way to the customer. Takaful and insurance are not the main subject of discussion on this. The first reason for this is that takaful appears as a special order of service with the same variety as traditional insurance when contrasted with other disciplines of the financial system. In the context of protection of derivative securities and assets, takaful remains underdeveloped outside markets like Malaysia and Bahrain market. Rapid absorption of Islamic finance markets of the United Arab Emirates, Saudi Arabia and Kuwait are the cause of a new,

more detailed focus on core products in the process of protecting takaful assets. Outside the main Islamic markets, takaful is not distributed to the full, and where the takaful program were introduced to the first Islamic investment methods, they resulted in a failure in business or its slow development. Word Takaful means «solidarity and unity.» Its roots go back to pre-Islamic period, and still based on the principle of «insurable interest», where individuals are pooling their funds to create remedies against any losses. To achieve new business results, modern takaful divided into two main areas, each of which includes the same component of Islamic banking – ijthad. The first direction is considering a fee as a contribution to the general fund managed, controlled and others are considering the general fund as a form of mudaraba. In general, in both cases the methods remain close to traditional insurance.

Leading products takaful to date have been focused on protecting the consumer and business assets, or limited property insurance against accidents. This was followed by Takaful life insurance or programs to protect the family. Most recently, innovators began to study the question of the application of business takaful insurers, are considered non-payment of loans or other forms of security in the securities industry. Such schemes asset protection hitherto considered poorly thought through ways of traditional types of insurance.

According to former Federal Reserve Chairman Paul Volcker control, «derivative financial instruments are not inherently new risks are fundamentally different from those already available in the financial markets». [2] Thus, his statement turns on its head the basic hypothesis advanced books on Islamic finance, in particular the idea that buying and selling is gharar risks. If derivative financial instruments are subject to risk no more than other financial instruments, the question of their admissibility. Beyond the origin of modern financial operations from the main Islamic contracts and to the definition of acceptable and unacceptable (halal and haram) of the above, we need to understand what are the derivative financial instruments in today's financial markets and the securities market. Derivatives are financial market are financial instruments borrowed from the spot market or standard, «simple» tools of the financial market. Tool spot market is a tool of the financial market, implying an advance payment of principal. To do this, the buyer is entitled to interest and return of principal at the end of period (loan or bond / debenture) or partial ownership of the company (share). The use of derivative contracts to deal with

the risk or its insurance called hedging. Financial or trade investor, unable to hedge, faced with financial obligations arising out of the loss from the decline in the market value of capital or due to negligent attitude to the product. traditional market buys and sells instruments and hedging processes. The buyer's choice is determined by its attitude towards risk and leads to a practical issue – under what conditions it is better to make or not to make the purchase at a ratio of use of the option price and the market price, making use of the option unattractive, with the price of a financial instrument roughly equal to the strike price, or at a situation where the price of the option is more profitable use of the market.

### **The main of research**

At first glance, like to insurance solutions, are essentially tools of the spot market, are opposed to the Islamic approaches discussed in this book. Islamic instruments spot market is based on the central concept of selling, giving ownership of shares with no income, unless it is associated with the assets of the business through handling or issue of assets. In order to reduce or control the risks in the Islamic market, following the position of Professor Mohammad Hashim Certified Islamic Banker (CIB), refer to the classical concept of salam used to reduce the risk, in a manner similar to Western futures or options markets for transactions in the period. Further, this chapter discusses the theory and methods related to current and future applications of financial instruments managed by the Islamic contracts. Due to the fact that the recovery of benefits from the dynamics of prices of basic products is not contrary to the Shariah, we will not touch arbitrage as constituents structuring of derivative financial instruments. The main part of the study The main provisions of the study: the example of securitized Murabaha Global Oil – Malaysia In his seminal work on the futures and options contracts, Professor Certified Islamic Banker (CIB) says that modern, regulated operations governing clearing options and futures contracts, and eliminate the risk of gharar promote the free transfer of title between buyers and sellers of legitimate products. Effectiveness This has a direct impact on the practice of employment in the forward and futures purchases, neutralizing differences between the official process of Islamic salam and specific market transactions in futures and options contracts. The position of the Hanafi school of Islamic fiqh is the sale of an object that is not at the point of sale is not permitted on the concept gharar large or small, as the contract is

considered invalid or incomplete until the object is checked, but the need for testing can be arranged by mutual agreement. In accordance with the views of the Hanafi school, possession is not a condition of legality, but only determinant of the effectiveness of sale. This position undermines the claims of some scientists against futures contracts based on the fact that the seller is not the owner of the object of sale. It also aims to reduce the anxiety of some scientists who want to make sure that the contracting parties will be able to fulfill its obligations under normal circumstances. As a result, Certified Islamic Banker (CIB) begins that sane ban on futures contracts can not be applied. However, Certified Islamic Banker (CIB) articulates that is not quite correct to establish absolute parallels between traditional and Islamic futures contracts and sales contracts.

In 2013, the corporation (60%), the main Japanese contracting company (20%), the national oil company of Malaysia (10%) and local government (10%) have formed a joint venture for the construction of a factory for the synthesis of middle distillates for the production of diesel, kerosene, solvent petroleum and paraffin. In 1993 the plant launched over 1.9 million Malaysian ringgit (RM). Funding comes from three main sources.

1. The infusion of capital into 1.275 billion RM from shareholders (up to RM 475 million was received within Global Oil Company).

2. 500 million RM conventional debt with a fixed rate set by the major conventional local bank.

3. RM 125 million Islamic debt syndicated local Islamic Bank (LIB). Base solutions Global Oil.

The project proved economically successful for Global Oil and he was eager to expand the stock-based in Malaysia, being open to attempts to enter into contracts for the structuring of the financial operations of the plant Sarawak under the rules of Sharia. Global Oil instructed their main advisers to pay for domain assets *sinditsikatsii* intended to promote local version of a long-term contract of sale or *murabaha* called *buy 'Agila bisaman* – bargain with deferred payment. The syndicate bought special equipment and building materials for the plant Sarawak. They were then sold to Global Oil with a retail mark-up in accordance with the Islamic deferred payment scheme. The area was divided into assets with a group of RM 50 million contract with deferred payment, will expire in 8 years, and in the group with the RM 175 million with a term of five years.

The structure of payments for deferred sale (*bai bisaman'Agila*) can be analyzed in terms of the gross amount of the extended period for the determination

of income. During the five-year tranche, Global Oil margin turned into 7.5% of the annual income for the LIB. For eight of the income was 7.75%. At the same time, pricing was competing in comparison with the proceeds of the local Malay market.

Although LIB and Islamic insurance branch Local Syarical Takaful invested 30 million RM, they could not prudent to reduce the total amount. Therefore, LIB invited Tabung Haji, the main Japanese bank, has introduced a manual of the national oil company, and has invited several local banks and companies to participate in *sinditsikatsii*. Originally planned syndicate was at 100 million RM, but he was signed to a greater amount than required and the final agreement included a 125 million RM. The turning point of the deal was that it was the first syndication for (and from) the Islamic structures (excluding syndicated sales of goods). Although several European banks participated in the syndication of the goods, it was the first major deal for a multinational industrial company as a customer and included the main bank of Japan.

This transaction was not a simple syndication: main receivables were securitized. LIB has applied the concept of *Bai 'Al-Dine* – sale of debt or receivables, which is allowed only within Malaysia. This leads to a trade or discounting of trade debt. Essentially, LIB, on behalf of the syndicate sold the debt Global Oil at the local secondary market Malaysian institutional and individual investoram.<sup>5</sup> As a result, there was allowing the Islamic legal instrument that is similar to the corporate bond. What makes a distinctive commercial debt – is that he, like the (municipal) bond yields are based on this basic transaction in which there is a trade in goods and services and there is a risk of loss. In other words, Malay practice did not allow general obligation, common purpose, or other unsecured working capital bonds. In today's futures markets calculated banking Chamber ensure that the positions of all parties to the contract are met, taking the position of the other side, whose term expires earlier. Thus, the working position is not actually closed, and only move in time. Moreover, the function of clearing house – conducting payment transactions eliminates *gharar* and contributes to the implementation of the contract between partners who do not know each other. Therefore, in spite of the obvious violations Sales debt for debt (*bai al bil potassium potassium*) Certified Islamic Banker (CIB) does not consider offsetting of mutual claims between the parties to settlement or the clearing invalid.

Futures contracts are standardized in Western-style in a manner more acceptable to substitute

goods. It directly concerns salam limited interchangeable commodities. Standardization eliminates the instability, simplifies and facilitates settlement negotiations. These properties help to promote a forward contract. But at the same time it raises the question of non-traditional government bonds and shares of companies. Futures transactions with the shares do not have access to most markets, which makes them unacceptable. In fact, one approach to solving this problem lies in the fact that some Islamic leaders of the fund is a special kind of agreement with their salaam Stock Brokers. As a result, some people receive the execution of the contract due to the fact that the latter is interpreted as a form of salam futures contract, although not compatible with the International Association for swaps and derivative securities. Another problem is that futures contracts western markets can in principle be infinite, while the Islamic contracts have a certain time limit, except for the application istisna. Care practitioners question of what istisna can not be used when the product, security or commodity, can not be processed or produced. Buying through a margin account in which the paid part, but not the full purchase price deferred for the future, is a typical western commodity futures. For some, it seems unacceptable, although the concept urboun or «deposit» is similar to shopping through a margin account. Al Certified Islamic Banker (CIB) discusses DCE mudaf, is a contract with a specific buying and selling, but deferred to the future. Such relationships are valid without transfer of possession. As a result, this scheme is well applicable for the procedure or leasing relationship between the principal and the agent. Muslim jurists are concerned about permissibility of delays in relation to the property, as there is a serious risk of non-guaranteed deal. As mentioned earlier, the main objection concerned gharar, istisna the commonly agreed is permissible exception. Moreover, the concept of being restricted in sales without regard to the elements conditions permissible under salaam and istisna or traditional futures contracts. Since the days of the Prophet Muhammad in Medina (peace be upon him), the ability to perform the obligations futures increased significantly thanks to more efficient markets. The well-known legal scholar Ibn Qayyim said that sometimes the parties may delay any payment or delivery of the object of sale at a later date. In addition, fats does not violate the concept of futures sales as of its structure, it does not entail the use of the forbidden material values at the expense of the other. Also, there is a clear parallel with the futures markets where futures

contracts objects such as fats, can be stored for a long period of time, should demand and be used interchangeably. An ideal variant is when the objects are available in large quantities.

Salam can be used provided that the main product is food, not returned or exchanged by the seller salaam. «Hedging is a well-known economic function of futures markets and the most common way to manage price risk.»

Although «Resellers buy and sell contracts for the supply of goods, not wanting to deal with the real goods», their actions through increased liquidity beneficial to the development of the market, and they assume the risk profile through its transfer or hedging strategy.

There are good reasons to believe that the new, ultra-modern vision of the derivative financial instruments will contribute to the emergence of new tools and approaches to Islamic securities market, possibly even with a more liberal vision of the Malaysian futures and options contracts, which probably will provide a modification of the above instruments and their distribution on Islamic markets. That would not bring a new vision, it goes without saying that Islamic institutions and investors will have the same obligations management, translation and reduce the risk, like their counterparts in the traditional markets.

The International Association for swaps and derivative securities gives the following definition options:

«An option contract according to which one of the parties receives the right to buy (sell) an asset at a set price before a specific future date or on the date the other party, or the right to refuse to perform the transaction with payment of these rights a certain amount of money, called a premium. An option gives the right to buy an asset, called call option and gives the right to sell is called a put option. « Certified Islamic Banker (CIB) defines the option as follows:»An option contract is concluded between the two sides. Buyer contract granted the privilege of buying or selling an asset at a certain price, while the seller (subscriber) of the contract assumes the obligation to provide the customer all the required contractual pre-emption rights. «From the perspective of Shariah, there is a difference between options and options trading: the first allowed, and last, according to the opinions of Islamic scholars – no. Given that the futures contracts are a form of the option, the majority of Islamic scholars consider it nedozvolitelnym. Warrant – a form of the option, which allows but does not require the purchase of a certain amount of assets at a set price over a period

vremeni<sup>36</sup>. Unlike futures contracts, options can be moved on terms regarding the goods. According to Sharia law there is a significant problem if someone refuses to execute the transaction, which, according to Muslim analysts entails gharar. Certified Islamic Banker (CIB) said that the concept of «option» and its adoption of Sharia law requires additional research. A fascinating discussion of options is also the case in Majdal (civil code of the Ottoman Caliphate, is considered the first attempt to establish Islamic law). Although the debate is inextricably connected with sales, there is clearly traced the concept of an option as a right. The discussion clarified the limitations of translation and transmission depending on the occupied part of the seller or buyer. This discussion does not in itself lead to the extrapolations, but she clearly outlines the issues required discussion.

The importance of the first transaction has increased threefold in size. First of all, LIB demonstrated the depth of corporate financial skills and the ability to rationalize in order to meet the basic requirements of multinational corporations. Second, although it is assumed that Bank Negara has stimulated Global Oil engage transaction, Global Oil did so with enthusiasm, each time showing his support. Ultimately, the deal with the modern approach to the classic Islamic methods succeeded in simple modern corporate finance transaction, creating a commercial security. As a result, the deal set stage for Islamic institutions to expand their customer base and the role of the market. Chairman of the Malaysian branch of Global Oil said: «Securitization fees according to Islamic agreement of purchase and sale makes Islamic finance

exciting and viable alternative to other methods of increasing the investment capital.» A wide network of Malaysian finance 'Islamic duty' decreased based on the original transaction buy 'Agila bisaman.

### Conclusion

Overall, we can conclude that communicate about improving the quality of the securities, and the structural innovations of recent years to strengthening the assets. Thus, the principles of the market, after all, took place. The Islamic financial infrastructure should be significantly strengthened by four new multinational institutions. Improved cooperation, dialogue and direct interaction between the main Islamic institutions increase their contributions and begin to create a system of standardization of new products and innovations in the market. The main success almost always depended on the active participation of the central administrative bodies, related to Islamic financial transactions. The obvious involvement and support of Bahrain and Malaysia to streamline the bonds corresponding to the Shariah, increased confidence in the product and the profile of the overall market. Sovereign securities strengthened its position. Securities markets are becoming more successful, reliable and safe. Effective oversight and strict rules to help avoid mistakes and ensure calm investors. Independent qualified rating system allows you to get an objective assessment, and again, strengthens the confidence of depositors. In turn, market confidence provide liquidity and helps to create the critical mass necessary to any financial market.

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