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DESTABILIZING OF ISLAMIC FINANCE FUTURES MARKET IN DERIVATIVE SECTOR

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ABSTRACT

In recent times the global financial industry is witnessing a sharp rise in Islamic Banking products .Today more than 1340 Islamic Financial Institutions are operating across the globe .The estimates reported by S& P for Islamic Banks Derivative Market is $ 4 trillion .The purpose of this study is to identify the bounds on Futures Market which comes under the purview of Sharia Compatible Futures (SCF) which comes under the scanner of Islamic Financial Futures undermining Investment in Islamic Derivative market. This paper assesses the gaining momentum as the instrument reallocates risks among those who chose to trade in futures contract and disseminate information flow for prices in spot Market .The paper also carried out to differentiate the conventional model of futures pricing with Islamic Model and how the Sharia Compatible Futures dabble in Futures Market with protected risk.

Keywords: Sharia Compatible Futures, Islamic Banking, Risk

TÜREV SEKTÖRÜNDEKİ İSLAMİ FİNANS VADELİ SÖZLEŞMELER PİYASASININ İSTİKRARININ BOZULMASI

ÖZ

Küresel finans endüstrisi İslami bankacılık ürünleri açısından son zamanlarda keskin bir yükseliş tecrübe etmektedir. Bugün dünya çapında 1340'tan fazla İslami Finans Kurumu faaliyet göstermektedir. S&P tarafından raporlanan tahminler İslami Bankacılık Türev Piyasası için 4 trilyon dolar civarı bir rakama işaret etmektedir. Bu çalışmanın amacı, İslami Türev piyasasındaki yatırımı baltalayan İslami Finans Vadeli Sözleşmelerinin tarayıcılığı altındaki Şeriata Uyumlu Vadeli Sözleşmelerin sahasına giren Vadeli Sözleşmeler Piyasasının sınırlarını tanımlamaktır. Bu makale söz konusu enstrüman, vadeli sözleşmelerle ticari işlemlerde bulunmayı ve spot piyasada fiyatlar için bilgi akışını yaymayı seçenler arasındaki riskleri yeniden dağıtırken kazanılan ivmeyi değerlendirmektedir. Ayrıca, vadeli sözleşmelerin fiyatlanmasını İslami modelle karşılaştırmayı ve Şeriata Uyumlu Vadeli Sözleşmelerin Vadeli Sözleşmeler Piyasasında korunmuş riskle nasıl serpildiğini incelemektedir.

Anahtar Kavramlar: Şeriata Uyumlu Vadeli Sözleşmeler, İslami bankacılık, Risk

The Economic Functions of Futures Market

Hedging: Hedging is defined as an insurance activity where the main objective is to protect an asset from adverse change, which can be an unexpected and undesirable change in the value of an asset. It can be a substitute for the cash market .Over last few years the concept has changed where companies try to make a perfect hedge to keep the hedge ratio loss at the minimum but also witnessed structural shifts and fundamental changes and the main one being floating rate of exchange system and the monetary policy's target, a change of interest rate which increases the exposure of firms to various financial risks. The above fundamental changes can cause dramatic increases in the volatility of interest rates, exchange rates, equity and commodity prices which in turn necessitate risk management industry.

Price Discovery: Imperical studies such as Rockwell (1967), Dusak (1973), Raynauld and Tessier (1984), Boxter et al (1985), Ehrhard et al (1987), Kolb (1992), and Deaves and Krinsky (1995), indicated that the rejection of equality of futures price with the expected future spot price is not strong, which means that the futures price may be the best readily available estimate of future spot price. Thus, economic agents can use future market estimates of futures cash prices to guide their consumption or production decisions, and this reduces the uncertainty and increases the rational for their decision.

Cash Price Stability: Moriarty and Tosini (1988), Froewiss (1978), Taylor and Leuthold (1974) and Powers (1970), found that futures trading did not increase cash prices but it stabilized them. Figlewski (1981) found that futures trading accompanied an increase in the mortgage market volatility, but Working (1960) found that cash prices volatility declined after futures trading began. We can conclude that the weight of evidence seems to suggest that futures trading does not increase the volatility of the cash market and does not destabilize it.

Understanding Risks

The essence of any business is risk taking .Any commercial process involves a series of functions with different levels of risk; there is no risk-free enterprise.

An essential function of management is to identify the principal risks to which the business is exposed, to understand the level of risk that the corporate culture is willing to bear, and to decide and regularly review the

nature and extent of risks the business is prepared to take. The attitude of the corporate toward risk can be risk-averse or risk – oriented, but must be pinned down to a clear strategy. Identification of risk is a prerequisite to the development of a clear strategy and this is a prerequisite for the successful management of the level of risk inherent in its activities (Crawford and Sen, 1996).

Primary Risks

There are risks that must unavoidably be accepted as part of the decision to enter a particular type of business. To hedge these risks and make it down to zero is a substantial task .The thing which must be realized about primary risks is that for most business enterprises, primary risks constitute a complex package of risks and cannot be easily isolated. This package is constantly changing as the managers shift strategies and tactics, trying to take advantage of a competitive business environment.

Secondary Risks

There are risks that come with a business along with the package of primary risks. These risks can be eliminated or hedged through financial derivatives or other instruments, and this primary function of the risk professional to keep the risks at the least minimum level to improve the flexibility of managing .

Business Risks

There are several types of risk which can be encountered when a company is conducting business, among them are:

a) Market risk: This occurs when market factors such as changes in exchange rates, interest rates, equity prices and commodities prices, cause a change in the price of goods or services offered by the business.
b) Credit risk: This occurs when the other party defaults on a contract. Assessing the potential cost of replacing a transaction at some future date is difficult, but past experience can be used to estimate it.
c) Operational risk: This is the risk of running a business. It may occur for the following reasons among others: inadequate systems, insufficient management control, insufficient human control, management failure, and criminal acts.

The Rationale for Not Hedging Risk

After identifying the types and sources of risks, and understanding the level of risk that the corporate culture is willing to bear, the company may decide, in its risk management plan, not to moderate the primary risks and/or not to hedge the secondary risk.

The company's justification for its decision might be as follows:

- *The risks involved in using financial derivatives to manage the perceived existing business risks are greater than the original exposure.*
- *It is not cost effective, since the cost of managing the risk is greater than any financial loss which the original risk can reasonably be expected to incur.*

The Rationale for Hedging Risk

Evaluating risk is a dynamic process. The package of core risks is continuously changing so every risk in the package must be continuously and rigorously tested, before deciding whether to eliminate, hedge or accept it as part of the core risk of the business. The process of analyzing and identifying the core risk package can be done through the top-down method, in which the senior management decides on the core risk package and communicates this throughout the firm, and the bottom-up method where a lower level in the organization identifies the potential risk, and communicate that to the top management.

Having identified the core risk package and decided that risks must be hedged, financial derivatives are the most well-known products for hedging as they curtail risk by providing financial coverage to ensure that any exposure can be confined and managed.

a) Risk management tends to stabilize cash-flow. With a stable cash-flow, a company may trade at a premium relative to their more volatile peers. Hedging avoids company earnings surprises and reduces the likelihood of bankruptcy or failure.
b) Hedging tends to enable companies to avoid deferring investment when cash-flows fall and to have long-term investment strategies. This inevitably boosts the value of the company.
c) Hedging tends to unbundle risks. Companies can eliminate the secondary risks and focus on primary risks which they have the market capacity to handle.
d) Hedging tends to reduce the volatility of cash flows. This will

improve the credit rating of the company and increase its debt capacity.

e) Hedging policies extend benefits to different groups, such as creditors who fear default. It improves employment prospects and conditions for employees and assures customers who are interested in stable product prices.

Islamic Positioning of Hedging and Futures

Since futures markets are very important for market mechanism in Islamic system, a reengineering process must be taken to bring the futures markets institutional setting to conformity with Islamic transaction restrictions.

Futures contract was discussed by many authors and commentators such as Khan (1995), Chapra (1992), Khan (1988), Mahmassani (1983), Muhiaddin (1995), Sulayman (1982) and Majma'al Fiqh al-Islami (1989). All the above reject the futures contract, but Kamali (1996) as well as Azzam Azzam, who was quoted by Kamali, do accept futures trading in the light of the operative procedures of futures markets.

The rejections of the futures contract were based on the following grounds:

a) Short selling in futures trading is contrary to Shariah ruling on the item of sale; that the item must exist and be owned by the seller at the time of the contract.,but in the shortselling

b) Reverse trading in futures markets is contrary to the Shariah ruling that the purchaser may not sell the goods purchased until they are in his possession.

c) In the futures contract, a sale is concluded in which the delivery of goods and its counter value are postponed. This is one form of debt clearing sale (*bay - al - dayn bi aldayn*) which the general consensus is said to have materialized on its prohibition.

Sharia Compatible Hedging Contract (SCHC) (Islamic Forward)

SCHC is a binding promise from the buyer to buy and from the seller to sell a generic good of specific quantity on a specific date in the future at an agreed upon price. On maturity, the buyer has to pay the pre-agreed price and the seller has to deliver the asset at the settlement place. In essence it is a forward purchase of a generically described good at an agreed upon

price, time and place of delivery.

As the purpose of this contract is to protect the assets against unexpected and undesirable change, the following conditions must be satisfied:

a) Both the asset and its counter value must exchange hands on maturity only.
b) The counter value can be usufruct or matured debt on the day of the settlement.
c) The asset must be generic and not specific.
d) Specifications and attributes, which may affect the price of the asset, must be known and agreed upon.
e) Quantity of the asset and its counter value must be known and agreed upon.

Short Selling Objections

Since the SCHC is a forwards contract in which delivery of goods and its counter value are postponed, the goods may not exist or be owned by the seller at the time of the conclusion of the contract, and this is not permitted according to San'ani (1353 H.), Ibn Qudama (W.D) and Ibn Humam (1317 H., 3/17, 4/155, 6/336). However Hanafis have ruled that it is the effectiveness of the sale that is a condition of validity and not the seller's ownership of the item that is the subject of the sale (al Kasani, 1353 H, 5/146).

Most jurists hold that the ownership condition for the validity of sale contract applies only to the sale of specified objects and not to fungible goods, which can be substituted and replaced (al-Baghawi, 1974, 8/140-141; al Khattabi, 1949, 5/143).

Ibn Taymiyyah (1398, 20/529) and Al-Baji (1332 H., 1/399) recorded that the ownership condition which is stipulated for the validity of a sale contract, is meant to prohibit the sale of an item which is not present and the seller cannot deliver, so the emphasis is not on ownership or possession, but rather on the seller's effective control and ability to deliver.

Thus the hedging Contract must apply only to fungible goods which are likely to exist at the time of delivery.

The Drawbacks of SCHC

In the hedging contract, like any other forward contract calling for

delivery of goods at a future time for payment to be made upon delivery, the agreement is based on terms which are mutually beneficial, but with time, conditions may change, and hedging may have the following drawbacks:

a) Credit risks: In SCHC, both parties must trust each other to complete the contract as promised. A cost-of-carry model can be used to decide on the price of the goods on the delivery date, which is acceptable to both parties. But as the market changes, the market price on the delivery date may be higher than the agreed upon price, and the seller will be tempted to default on the hedging contract obligation. Also, if the market price of the goods is lower than the agreed upon price, the buyer will be tempted to default and buy the goods on the open market at the spot price. This gives rise to credit risk in the hedging contract.
b) Matching Problems: In SCHC, there is a difficulty in finding the right trading partner, as one party may wish to sell 10 tons of sugar for delivery in 6 months, but it might be difficult to find some one willing to contract now for the delivery of sugar in six months time and for the whole 10 tons.
c) Contracts liquidation problems: The SCHC is a binding agreement for both parties. So if market changes and make the contract undesirable to complete and deliver, then the parties have no choice but to make the delivery, even though it is suboptimal for one of them.

The above drawbacks of the SCHC are expected to limit the use of this contract to parties that know and trust each other to honor their commitments, and to big companies and big transactions where the counter parties credit record can be easily verified and their needs easily identified.

The Sharia Compatible Future (SCF)

SCHC can be modified to avoid the above-mentioned drawbacks. This can be done when the assets or the commodity subject to trade, become standardized contracts and are permitted to be traded on an organized exchange only, and the transaction and the contract are regulated at different levels by different institutions to ensure propriety and the fairness of the transaction, as well as to protect the integrity and the commitment of the counterparties.

The institutional setting of SCF is an integral part of the standardized

hedging contract which will be used in this transaction. Thus, it must be in conformity with the Shariah code of transaction. The above contract involves a commitment to sell or buy a specified quantity of an asset or commodity at a particular future date at a price determined at the time of contracting, given that the asset or commodity must be permitted to be transacted according to Shariah. The institutional setting of conventional futures can be utilized and modified to conform to the institutional setting of Shariah Compatible Futures.

Closing the SCF Position

There are three ways to close the SCF contracts:

a) Delivery of the commodity: Since the main purpose of the SCF is to hedge against undesirable and unexpected changes in an asset's value, Islamic futures contracts are written as to call for completion of the futures contract through the physical delivery of a particular good. The contract specifies the time and the location where delivery takes place. The clearinghouse must supervise the arrangements for delivery. It also would pair buyers and sellers for the delivery and identify the two parties to each other. Each of the buyer and the seller will communicate the relevant information concerning the delivery process to the opposite trading partner and to the clearinghouse. The position is closed when the buyer receives the commodity and the seller receives the payment.

b) Cash settlement: For many commodities, the delivery process can be quite cumbersome. The buyer may find that it is convenient for him to receive the market value of the commodity and buy it from the market, and the seller may like to distribute his commodity through his established channels and pay the market value of the commodity. In this case, the counterparties may agree to settle the transaction in cash, so the seller will pay the buyer the agreed upon value of the commodity through the clearinghouse, and will close his position.

One way to justify the cash settlement is to consider it as a new transaction. The seller will buy back the commodity at the market price and pay the difference. This is known as "iqalah" and is Shariah permitted. According to Ibn Rushid, if the seller asks the buyer to revoke the sale and receive ten dinars cash or defer payment, it is permitted; if the new price is higher or lower than the sale price, then this will be considered a new contract (Ibn Rushd, 1416 H., 2/193).

For the permissibility of a cash settlement and on an analogical base to the Salam contract, al-Subky stated that, if the Salam contract matures and the seller wants to settle it in cash, by giving the market price to the buyer and ask him to buy the commodity for himself, this will not be permitted. But if the seller asks him to buy it for him, and possess it as proxy for him, and then possess it for himself as a buyer, his sale and possession of the commodity as proxy for the Salam seller is permitted, but he cannot sell it to himself. However, the Hanafi jurists permit it (Ibn al Humam, 1317 H., 5/346-347).

In a SCF contract, al-Subky's reservation will not apply since the seller's broker will be his proxy who will receive the cash settlement and buys the commodity from the spot market and deliver it to the buyer.

c) Reversing trade: If delivery becomes undesirable for a trader, he may liquidate the SCF by entering a reversing trade prior to the time of delivery. For an Islamic futures contract, the trader, whether the buyer or seller, may ask his broker to transfer his obligations (ihalah) in the contract to the other trader, who must be willing to take on the same contract with its obligations and terms. As all Islamic futures contracts must be standardized, and there is no direct contact between traders, and transactions are concluded through the exchange brokers who may be agents for many buyers and sellers at the same time, the broker may find a substitute who will buy the contract at its market value.

But in a reversing trade, the buyer will sell the commodity before he owns or possesses it, and make the sale invalid according to Ibn Qudama, Ibn Humam and al-Sanaani. This objection is raised also in the case of short selling in the previous section.

Since most jurists conclude that the possession and ownership conditions for the validity of a sale contract apply only to the sale of specified objects and not to fungible goods, and as Ibn Taymiyyah and Al-Baji's emphasis is not on the ownership or possession but rather on the seller's effective control and ability to deliver the goods as conditions for the sale contract validity, Islamic futures reversing trade can be valid, since the subject of sale in the Islamic futures contracts is fungible goods and the institutional setting in Islamic futures market, which was discussed earlier, may give the seller effective control and ability to deliver the goods.

The Regulation of the Sharia Compatible Futures (SCF)

Though Islamic futures are engineered to overcome the drawbacks of the SCHC, such as credit risks, matching problems and liquidity problems, the institutional setting is the essential part of the Islamic futures system. Successful setting, organization and regulation for the institutions in the SCF market, ensure its ability to achieve its objectives. The aims of the SCF regulations are:

a) To ensure that contracts as well as operations of the SCF market do not violate the Shariah restrictions on transactions such as interest rate, gambling and exurbanite *Gharar*, and the commodity subject to trade must not be prohibited such as pork, wine, weapons, etc.
b) To ensure that the rules that govern the conduct of all parties in the SCF market, including brokers, exchange members, clearinghouse members as well as traders, are designed to be in conformity with Islamic norms and create a smoothly functioning market in which traders can feel confident that their orders will be executed properly and at a fair price. Thus, all fraud, dishonesty, dishonorable conduct, and defaulting on contract obligations are prohibited.
c) To provide a market place in which the economic functions of the futures market can be fulfilled; thus any practice that interferes with the process of price discovery or the efficient transfer of unwanted risk which make the SCF market performs poorly, must be prevented.

The fulfillment of the above aims is the responsibility of all SCF market institutions which include the broker, the exchange, the clearinghouse, and the regulatory authority. All measures must be taken by them to ensure that the Islamic futures market can achieve its economic functions. We can say that there are three regulators for the SCF market:

Future Pricing

The 'Cost-of-carry model' is used to price futures. It defines the price relationship between the spot price of an asset and the future price that precludes arbitrage. In a perfect futures market for a commodity, the carrying charge reflects the cost of carrying the commodity from one time or one place to another. This cost falls into four basic categories: storage costs, insurance costs, transportation costs and financing costs. These costs

determine the pricing relationship between spot and futures prices as well as the relationship among prices of futures contracts of different maturities. According to cost-of-carry model, the futures price must be less than or equal to the spot price of the asset plus the carrying charges necessary to carry the spot asset forward to delivery. So to prevent cash-and-carry arbitrage the following rule must hold:

$$Fo,t = So\ (1+C)$$

and to prevent reverse cash-and carry arbitrage this rule must hold.

$$Fo,t = So\ (1+C)$$

where:

Fo,t = the future price of an asset at t = 0 for delivery at time t.

So = the spot price at t = 0.

C = cost of carry, expressed as a fraction of the spot price.

In the case of an imperfect futures market, other costs must be added to the carrying charge, such as transaction costs (T), for the model to remain valid:

$$Fo,t = So\ (1+T)\ (1+C)$$

The future price must be less than or equal to the spot price (So) of the asset plus the carrying costs necessary to carry the spot asset forward to delivery plus the transaction cost (T).

The above model is used also for stock futures, but the equation for the price of the stock futures must be adjusted to include the dividends that would be received between the present and the expiration of the futures, as the chance to receive dividends lowers the cost of carrying the stocks. So we have:

$$S_o\ (1 * C) = D_i\ (1\ i*1)$$

where: D_i= the i dividend. r_i = the interest earned on carrying the ith dividend from its time of receipt until the futures expiration at time t.

$F_{o.t}$, S_o, C were defined above.

In swap pricing, swap prices may be affected by a number of factors such as:

a) The creditworthiness of the potential swap partner, because in the case of counter parties' defaults, the dealer must either absorb the

loss or institute a lawsuit to seek recovery on the defaulted obligation.

b) The availability of additional counter parties, as the swap dealer will be very concerned about how the risk involved in a prospective swap can be offset by participating in after swaps.

CONCLUSION

Futures can be beneficial to Islamic finance if modified to become Sharia compatible. The economic efficiency and risk governance is the prime goal of Sharia compatible futures. Futures markets, as they reallocate risk among those who choose to take it, aggregate and disseminate information about the future course of the prices in spot market and stabilize future cash prices. However, they can be a destabilizing factor if they are misused. This can happen if they are used as a gambling device, through speculation, which is considered an unproductive activity by Islamic economists. An integral part of the permissibility of Sharia compatible futures is its institutional setting, as it will insure that all transactions in their markets will be in conformity with Sharia.

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