
**THE OPERATIONAL FRAMEWORK OF ISLAMIC DERIVATIVES
(APPLIED STUDY ON MALAYSIA)**

Dr. Muhamad Abdul Aziz Muhamad Saleh Jumaa
(PhD)

Associate Professor & Department Chair
Department of Finance & Accounting
City University College of Ajman (CUCA)
Post office Box: 18484. Ajman
Fax: 00971 6 7315000

Abstract

Options and futures are widely being rejected by the scholars as there is no underlying asset or parties simply liquidate the position without actual delivery raises to speculation, facts against the fundamental instruction of sale of commodities. There is a divergent array of opinions on the use of these Islamic derivatives. A swap is an agreement where two parties commit to exchange assets or series of cash flows. A plain vanilla swap is the exchange of floating interest payments with fixed interest payments. Swaps have rapidly emerged as tool for hedging and speculation. Islamic Financial Services Act 2013 in Malaysia have laid out the Islamic swaps fundamentals e.g. Islamic profit swapping or swapping of assets expected to generate varying cash flows during the certain period of time or foreign exchange swaps. Most important swap in conventional market is credit defaults swaps where buyer of swap pays an amount and get insurance for being compensated in case of default of a loan or customer. Swaps are not standardized unlike futures and options and usually take place among financial institutions. The study found some advantages and disadvantages of using Islamic derivatives.

Keywords: Islamic derivatives, conventional, forward, options, hedging and swaps

1. Derivatives in Conventional Market

Derivatives are securities whose values depend on the value of other or underlying assets. There are two primary purposes of derivatives; hedging and speculation. Derivatives are used to minimize risk exposure arising from various routine transactions. Businesses face interest rate risk, commodity price risk and foreign exchange risk. The purpose is to reduce or curb the price risk in all transactions that require delivery in future of money, commodity or a security (Black, 2012). The other purpose or use of the derivatives is speculation, earning from the favorable price movements. Main types of derivative contracts are forward, futures and options. Forward are the contracts where two parties agree to buy or sell specific quantity or amount of an asset at specific date in future at price agreed at the inception of the contract. In forward contracts, parties agree to deliver today without exchange of money at the spot. Assets and payment will be exchanged on agreed or set date in future which is also called settlement date. Buyers are referred to take *long position* and sellers are referred to take *short position*. The standardized

version of the forward contracts which is exchange tradable with standardized quality, quantity and delivery dates are known as futures contracts. In fact, futures are improved and exchange traded version of the forward contracts. All the problems and issues with forward contracts such as counter party risk, tradability and standardization have been resolved in future contracts. In future contracts, buyers and sellers trade with and through exchange and not certainly with each other. For example, if Dean buys one particular stock and Jane sells that particular stock to be delivered in future at agreed price, future exchange buys from Jane and sells to Dean (Black, 2012). Delivery is rarely made in futures, as parties usually liquidate their positions on or before the settlement date unlike forward contracts which are tailor made or customized contracts and parties perform their obligations on the said date. Future contracts don't carry counter party risk because investors usually have to pay initial margin and then maintain a minimum maintenance margin throughout the inception of the contract to the date of settlement, contracts are marked to the market daily and margin calls are made for more deposits of money to the position holders if contract balance falls below the maintenance margin. The third and evolved tool of hedging and speculation in derivative markets is options. In futures, either delivery or liquidation has to take place whereas in options, the investor has the right to buy or sell but not an obligation against the payment of premium. The right to buy is known as *call option* whereas right to sell is known as *put option*. An option is exercised if it is in the money or its exercise avoids any loss beyond already paid option fee or premium to the option holder. Swaps are another tool usually linked with interest rate hedging where parties agree to exchange a series of cash flows e.g. variable rate payments with fixed rate payments. Generally, swaps are seen as a series of forward contracts (Black, 2012).

Derivatives in Islamic Financial Market

Islamic financial instruments must meet all criteria for acceptance according to Sharia principles. Initially transactions should be free of *riba*, *Maisir*, *gharar*, *rishwa* (*corruption*) and *jahl* (*ignorance*.) Moreover, Sharia has some requirements for the sale of assets 1. Asset must exist in physical form 2. The seller should have ownership and possession of the asset in its form. But these conditions generally are applicable for real assets and not on financial assets. There are some exceptions to the financial and derivative assets. There are number of transactions applicable and permitted by Sharia are currently in practice which allow deferred payment or deferred delivery of the payment such as *Istisna*, *Joa'la* contracts and *Bai Salam*, the nature of these transactions resemble to contracts of future and forwards (Bacha). But the deference of both price and commodity is an issue in Sharia due to *Gharar*. The main difference between *Istisna* and *Joa'la* is that *Istisna* is applicable for goods to be manufactured or assembled or constructed whereas *Joa'la* is applicable for services. Islamic Financial Services Act 2013 in Malaysia defines Islamic derivatives as follows: *any agreement including a swap, an option, a future or forward made in accordance with sharia whose market price, value, delivery, or payment obligations is derived from, referenced to or based on, but limited to, Islamic securities, commodities, assets, rates (including profit rates or exchange rates) or indices* (Universiti Teknologi Mara).

Main derivatives in Islamic financial market include Islamic FX Forwards, Islamic Swaps (Islamic FX swaps, Islamic cross country swaps, and Islamic profit rate swaps) Islamic options and Islamic Futures contracts.

2. Legal Contingencies Imposed by Islamic Jurisprudence for Islamic Money and Capital Markets

On one side Islamic Jurisprudence, full of divergent opinions among scholars and different schools of thought, has contributed in the development of financial capital market, therein lack of precedents following and uniform practices and ideology has created challenges for the legal integrity of Islamic financial instruments. Securitization which is fully sharia compliant requires two tiers of assessments. From the point of investors, both the underlying asset and transaction nature must satisfy both legal regimes, ruling commercial law and Islamic law. So Islamic investors don't require only legal enforceability of the contract but also their sharia compliance. Islamic money and capital market instruments should comply with the sharia rules, which unfortunately lack in uniform interpretation due to various schools of thought. This divergence in opinion has infact casted Islamic financial industry and hampered its growth. Moreover, financial institutions are supervised by the sharia boards which also have difference of opinion leading to uncertainties, contingencies and challenges for Islamic money and capital market. So some products which are allowed to trade in one country or market are not acceptable in another Islamic country. Now the biggest challenge imposed by Islamic jurisprudence, other than the divergence of opinion, is direct conflict between applicable commercial rules and Islamic or Sharia rules regarding securitization process. In the countries, where Islamic products are common, contracts are still being enforced through commercial rules which have drifted the efforts to bring the Islamic products at par with equivalent in international market. The difference in whether Islamic law governs the substance or form of a particular securitized arrangement determines structural and legal risks associated with that issue (Jobst, *The Economics of Islamic Finance and Securitization*, 2007). Say in case of possible non-compliance certificate of sharia regarding a securitization will impact the interest and confidence of the investors and liquidity of that issue. The need of a direct linkage between investors and identifiable assets as required by Sharia contradicts the commercial interest of legally separating the assets from bankruptcy estate of the originator. Thus, afterward legal interpretation carries the chances of characterizing the sale of asset as unsecured loan. Moreover, legal uncertainty regarding bankruptcy and dispute resolution in case of Islamic securities frequently gets amplified because these are infact untested so far due to scarce default cases or relatively due to shorter age of this mechanism. Legal uncertainties caused by sharia instructions regarding securitization and other unresolved issues such as bankruptcy-remoteness have discouraged the growth of money and capital market instruments and have limited the rating only to those backed or supported by government securities. Rating companies are reluctant to rate these securities because these focus the credit aspects of the securities, applicability of commercial laws and not sharia compliance or enforceability.

3. Differences between Islamic Money Market and Capital Market Instruments

Money market provides instruments for liquidity and low returns. Much part of this market consists of inter-bank transactions and state-issued or treasury securities. Money market intends to provide high value liquid assets to the investors and meet short term needs of high quality borrowers. Conventional money market is filled in with quality instruments evolved and built over a long period and as a result experiences and practices. Common instruments in conventional money market instruments are T-bills, inter-bank loans or federal funds, commercial papers, certificate of deposits and bankers' acceptances, all are based on interest and compute return either using discount yield or single payment yield for the holders.

Islamic money market is relatively new and based primarily in two locations; Malaysia and Bahrain. The Islamic money market is also essential part of Islamic banking system functioning in Malaysia. It serves two purposes, firstly the short term investments and portfolios adjustments through parking of short term idle funds and meeting the shortage of funds of needy institutions, secondly, it channels the implementation of monetary policy. In Malaysia, Islamic Inter-bank Money Market was introduced on January 3, 1994 as a venue for short term investments based on Sharia principles (bnm.gov.my), so the Islamic banks and banks participating in Islamic scheme may match their financing needs and funding requirements. These are the main instruments in Islamic Interbank Money Market which is filled mostly with Mudaraba investments and trading and investment of Islamic financial instruments among the banks:

i). Mudarabah Interbank Investment

MII signifies to an apparatus whereby a deficit or funds needing Islamic banking normally called as investee bank acquires funds from a surplus Islamic bank, investor bank, based on profit sharing. The period of investment is usually from one night or overnight to 1 year. The ratio of profit sharing is flexible and negotiable between both the banks. The surplus bank at the time of negotiation does not know what the return will be, as the real return will only be clear at the end of the period of investment. The principal amount will be returned at the end of the investment period, along with with a share of the profit accruing from the use of the funds by the deficit or investee bank.

ii) Wadiah Acceptance

It is a transaction between an Islamic banking unit and Bank Negara Malaysia, the central bank of Malaysia. It is a process where the Islamic bank keeps its surplus funds with BNM as Wadiah. BNM will be the custodian for the funds with no obligation to pay return on the amount. Nevertheless, if any dividend is paid by the BNM, is seen as gift, "Hiba". Under its liquidity management operations, BNM uses this tool to grip excessive funds of the interbank money market through overnight or a fixed period Wadiah.

iii) Government Investment Issue

Initially in Malaysia, Islamic banks were not able to park their idle funds in government papers or any other interest bearing instruments but there was always a need of these certificates from the perspective of Islamic financial institutions for liquidity and for regulatory requirements. Later, Malaysian government passed a law to allow issue of non-interest instruments to Islamic banks under the concept of Qard al-Hassan. Due to its nature tradability of these instruments was a question, which was solved by operating a special window in Bank Negara Malaysia which facilitates the sale and purchase and determines the prices recording movement in government investment issue.

iv) Bank Negara Monetary Notes

BNMN are Islamic instruments issued by central bank of Malaysia for the objectives of facilitating liquidity management in the Islamic financial market and institutions. The instruments are based on Sharia principles with usual maturity of from one year to 3 years. New securities may be issued on a coupon bearing or discount basis as per the demand of investors and will be traded using the conventional market avenue and platform but the profit computation will use the convention of government investment issue.

v) Sell and Buy Back Agreement

it is an instrument in Islamic money market where two parties in which a seller sells the assets to a buyer at an agreed price and afterward, the parties enters in another agreement in which the buyer commits to sell back the underlying instrument to the seller at an agreed price.

vi) Cagamas Mudarabah Bonds

These were issued by the Cagamas Berhad on March 1, 1994 to finance the purchase of Islamic housing debts from Islamic housing debt providers to the public. These use the Mudaraba concept and share profit on agreed ratio.

vii) When Issue

Allowed on the permission to commit for sale and purchase transactions, When Issue is a transaction of purchase and sale of credit based securities before they are being issued.

viii) Islamic Accepted Bills

To promote and facilitate domestic and international trade interest free Islamic Accepted Bill was introduced in 1991. This is very attractive Islamic finance product for Malaysian traders and Islamic bankers and is the replacement of conventional bankers' acceptance. Islamic accepted bills are based on Murabaha and Bai-AL-Dayn trading concepts of Sharia. Under Murabaha, goods are sold on cost plus profit formula using deferred payment plans for the selling price and

under Bai-Al-Dayn, underlying debt instruments are traded in the money market. The facility is available for both import and local purchases and exports and local sales.

ix) Islamic Negotiable Instruments

Islamic negotiable instruments primarily consist of Islamic Negotiable Instruments of Deposit and Negotiable Islamic Debt Certificate. Islamic negotiable instrument of deposit refers to the money deposited with an Islamic bank and payable to the bearer on specified date plus declared profit. In negotiable certificate of debt, Islamic bank sells debt certificate to customers and subsequently buys back paying the principal amount with profit on an agreed date in future.

x) Islamic Private Debt Securities

Existing Islamic Private Debt Securities were issued on the concept of Mudarabah, Murabaha and Bai Bithaman Ajil

xi) Ar Rahn Agreement

The Lender supplies Qard al-Hasan to borrower and borrower pledges its securities instruments as collateral for this loan. However, in case of default lender recourses to securities and recovers its money by selling the pledged securities, if the amount is more than the recoverable amount of lender, lender will return to the borrower. For its money market operations, BNM uses it as a liquidity management tool. Return is in the form of gift and is based on the average of the inter-bank money market rates.

xii) Sukuk Bank Negara Malaysia Ijarah

This Sukuk, wisely used in Middle Eastern countries, is based on the Ijarah or 'sale and lease back' concept. BNM has created a special purpose vehicle to issue Sukuk Ijara and pays rent to Sukuk holders twice in a year. At the conclusion, BNM purchases the assets back from SPV and returns the principal amount.

On the other hand, Islamic capital market deals with the funds supply for a period of more than one year and is characterized by dominance of Islamic Shares, Sukuk and Diminishing Musharaka.

Islamic equity shares are shares issued by those companies which are not engaged in any of those activities prohibited by Islami, those may include engaged in trade if liquor, gambling, betting, casinos and speculation and/or any other activity which generates revenues completely or partially from interest based investment or activities.

Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) has identified 14 Sharia Compliant types of Sukuk (AAOIFI.Com)

i. Sukuk Ijara

The owner of an existing tangible leased based asset issues Sukuk

ii. Sukuk Ijara Mawasufah Fi Dhimmah

When asset does not exist, and owner issue Sukuk to mobilize the cost of asset which will be subject to lease contract.

iii. Sukuk Manfaa Ijara

When owner of a leasehold right sells the usufruct of the asset by issuing Sukuk

iv. Sukuk Manfaa Ijara Mawasufah Fi Dhimmah

When leased asset does not exist and owner wishes to raise cost of asset by selling usufruct of the asset to be acquired

v. Sukuk Milkiyat al Khidmat

This Sukuk is issued when an entrepreneur providing specific services raises the funds by pre-selling services against Sukuk

vi. Sukuk Al Salam

When entrepreneur in a Salam agreement issues Sukuk by preselling the goods or commodities which he wishes to produce for the third party.

vii. Sukuk Al Istisna

Constructor or developers looking to produce an asset at a specific future date for a third party may raise the cost of funds by issuing Sukuk

viii. Sukuk Al Murabaha

Entrepreneurs looking to acquire certain goods for sale under Murabaha agreement to third party may raise the funds to acquire the goods and commodities. Sukuk holders remains entitled to such goods and their selling prices.

ix. Sukuk Al Musharakah

Businesses issues Sukuk against partnership in business or an activity against the proportional shift of risk and reward to the holders.

x. Sukuk Al Mudarabah

An entrepreneur with no or insufficient money having a good business idea issues Sukuk as a Mudarib under principles of profit sharing for the funds. The Sukuk holders share the rewards and risks in the business

xi. Sukuk Al Wakala

When Sukuk are issued to raise capital to acquire a certain asset or goods managed by the issuer as a trustee. Sukuk holders are entitled to the goods and profits resulting from there.

xii. Sukuk Al Muzara'a

Owner of a land or leaseholder of a land issues Sukuk to raise the funds for cultivation of land against the share of crop of that land.

xiii. Sukuk Al Musaqa

The owner of a farm tree (capable of producing fruits) acquires the funds for maintenance, and irrigation of the farm by issuing Sukuk. Sukuk holders share the crop as per original agreement.

xiv. Sukuk Al Mugharasa

The owner of a farm land with trees or crops issues Sukuk to raise the funds necessary for the maintenance of that asset and share the produce with the Sukuk holders.

Another long-term Islamic capital market instrument is diminishing Musharakah or Musharakah Mutanaqisa. Two partners, one of them usually a bank, acquires one asset where the non-bank partner gradually purchases the share of the other partner over a long period of time. The return or profit of the asset is shared as per adjusted portion of ownership in each period upto complete purchase by one partner. There are usually involved three contracts in each transaction of Musharakah Mutanaqisa.

4. Pros and Cons of using derivatives in Islamic investments

Amidst wider difference of opinion on sharia compliance of derivatives, derivatives have become essential tools for risk management in both conventional and Islamic markets. Risk management is the need of every business entrepreneur and adventurer and Islam does not deny the right of risk mitigation of every Muslim whether common or a businessman. This divergence of opinion happening because of various schools of thoughts and Islamic Jurisprudence is ultimately creating an environment of debate, research, innovation and need satisfaction within the parameters set by fundamentals of Sharia. Islamic economy and market are not and cannot work in isolation, this is the fundamental thing, needs to be looked at it. Islamic philosophy or instructions regarding any aspect of the life are natural and unending as one of the basic belief of Muslims. Islam or Sharia instructions can never intend to keep Muslims, Islamic economy and markets falling behind those of non-believers or non-Muslim believers, so the strategy must be on inventing and re-inventing solutions that are effective and compatible but within the

boundaries of sharia. Scholars all over the world with their difference of opinion agree on this need of Islamic capital markets equipped with the tools of risk mitigation. Further, trade among Muslims and non-believers, exchange of knowledge, goods and services is very much allowed as per sharia rules. Islamic economy and capital markets may not to work in isolation, we are living in a world of uncertainty, risks emerging and instability, so there is a dire need of the hour of evolution in Islamic derivative instruments so far as there use for risk management is concerned.

Following are the advantages of using derivative in Islamic investments:

- Derivatives provide security or stability in the transactions in the eve of adverse moments in the prices of securities or assets. In case of no use of derivatives, investors in sharia products and services will be left unprotected.
- Not equipped with relevant risk management tools, Islamic financial markets cannot be competitive and attractive for investors and risks arising from market imperfections will continue to prevail
- Investors in Islamic capital markets will likely to increase in numbers and with amounts once suitable instruments for risk management will be in place.
- Islamic capital markets will grow and compete with conventional one locally and internationally.

Following are disadvantages of using derivatives:

- Derivatives have complex structure and require complete expertise and understanding which may not be available with every investor; hence use of these only does not necessarily provide a protection from risks.
- Islam prohibits the money earned from *Jahl* or ignorance of the other party; derivatives are required to tackle the risks arising from the market imperfections. Keeping in view the nature of derivatives, the element of fortunate earning can never be eliminated and will continue to prevail as uncertainties are stemmed from the whole economic philosophy or system and Islamic capital market has to operate with that shade.
- Speculation will continue which will lead to further instability in the market. In derivative, risk is shifted to one party; it clearly creates gainers and losers. This is fundamentally against the spirit of Islamic economic philosophy.

5. Market Operations and Transactions of Islamic and Conventional Derivatives

Because the reliance on capital market financing is very weak in many Islamic countries, the risk transfer apparatus is facing serious legal hindrances which impact the way the derivatives are perceived to redress the financing constraints and market imperfections in financial industry (Jobst , 2008). As mentioned in section 1, implicit derivatives such as in the form of derivative contracts are necessary to put-call parity repetition of interest via through generation of profit from temporary transfer of asset or sharing of profit in Islamic finance and are not carrying religious objections, the explicit derivatives are still highly controversial and objectionable.

Forward contracts are customized contracts where parties agree to deliver a specific quantity of an asset at an agreed price in future but carry potential counterparty risk and are highly non-standardized, are operating in both conventional and Islamic capital markets. Legal course in case of default in conventional market is available under commercial law, whereas legal course in Islamic market becomes conflicting point between the applicability of commercial law vs. Islamic law (Jobst , 2008). Forward contracts require also double coincidence of the two parties which is difficult in the absence of a centralized exchange house or market place. This obvious and many other shortcomings of forward contracts such as being non-tradable and non-standardized contracts, have led to creation of future market transactions and operations. Future market overcomes all the problems present in the forward contracts. In future market, contracts deal with the standardized quantity of assets and are exchangeable through future exchange. Counterparty risk is also eliminated in the presence of exchange and security deposits in the form of maintenance margin. These contracts are market to the market regularly and make necessary margin calls, if and when investor's margin drops below the minimum maintenance balance, otherwise the position of the investor is liquidated.

In conventional future market, trading in future contracts occur in trading pits, through an open-outcry style and between members of exchange. Participants are categorized as floor brokers, professional traders, position traders, day traders and scalpers (Saunders & Cornett, 2015). Long position refers to a purchase of future contract and short position refers to sale of a future contract. Every future exchange has a clearing house which looks after the trading and ensures the completion of transactions promised and executed, that's why the future contracts are more secured, exchangeable and effective in overcoming market imperfection of finance industry. Future contracts are marked-to-market, in the absence of transfer of underlying asset mark-to-market pricing is not acceptable under Sharia laws but this solvable by marginal adjustment of periodic payments on the change in value of underlying asset from the agreed striking price regularly at different times until maturity comes.

Future contracts have still some contingency risks, which are eliminated with the evolution of options. Holder of a call option has the right to purchase but not obligation a specific quantity of an asset on striking price on or before a day, similarly holder of a put option has the right to sell but not obligation specific quantity of an asset on or before a date on striking price. This privilege in *options* comes against the payment of an upfront fee or option price which is forfeited in case option holder does not exercise the option or option goes unexercised. Holder will exercise the option only if exercise will earn some gains or avoid loss over and above already paid upfront fee. Options not only hedge against the contingency risks but also provide chances of gain in case of favorable price movements. Risk hedging is desirable as per sharia law but the uncertainty of definite performance either as cash settlement or via deferred options is not. However, holding two equal but opposite positions to avoid risk is consistent with sharia rules on entrepreneurial investment. As speculative motive of this derivative tool is objectionable, gains arising from favorable price movements are not acceptable unlike conventional options. Any change in the value of underlying asset from the final repayment amount incorporates shares business risk in an existing or future asset.

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