

Commodity Derivatives: Shariah Alternatives in Risk Management?

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Abstract

This study aims to examine the application of Shariah principles in the commodity derivative as an alternative to the conventional derivative contracts in risk management. The majority of Shariah scholars consider derivatives contracts are non-Shariah compliant because of selling something that does not exist, the deferment in the counter values, uncertainty, gambling, speculation and sale of one debt for another. This study uses a thematic analysis approach to explain the data collected through secondary sources and interviews with few individuals involved in the derivatives market. This study reveals that the application of *wa'd*, *hamish jiddiyah*, *bay' al-murabahah/musawamah* are the most relevant and suitable principles to be adopted due to its flexibility and easy application in forward, futures, options and swap contracts to eliminate the Shariah issue in the contract.

Keywords: *Derivatives, commodity, risk management, wa'd, hamish jiddiyah, bay'al-murabahah/musawamah.*

Introduction

Prices of commodities fluctuate within a wide margin and this imposes a big constraint to the various intermediaries involved. Therefore, the resolution about risk management is recommended. Thus, various attempts have been made to control the price movement to make the transaction in a most efficient and conducive manner. Palm oil as the agricultural commodity has no exception of the varying degrees of price fluctuation. As such, there is a need among the palm oil sellers (producers, millers and exporters) and buyers (refiners, processor) depend on commodity earnings for a substantial portion of their inflow of foreign exchange. Severe fluctuations in prices could have unfavorable effects on the economy. The key feature of derivatives markets is their ability to predict prices at a specific future date both efficiently and in unbiased fashion (Ab Rahman *et al* 2012). Common forms of derivatives include forwards, futures, options and swaps and they are widely used as a means of efficient

risk management and for quick and easy access to a market. Thus, risk management is closely related to the use of derivatives as the financial instrument to minimize losses of the financial investment. The majority of Shariah scholars consider derivatives contracts are non-Shariah compliant because of selling something that does not exist, the deferment in the counter values, uncertainty, gambling, speculation and sale of one debt for another (Kunhibava and Balachandran 2010).

Commodity derivative contracts, specifically crude palm oil commodity, still exist in the conventional framework. Despite the resolution issued by the Shariah Advisory Council (the SAC) of the Securities Commission Malaysia (2006) stating that the crude palm oil futures contracts are not conflicting with Shariah, some scholars still do not accept them as being Shariah-compliant (Abdul 2011; Hassan 2011). However, in Malaysia, other underlying assets such as currency, profit rate (interest) and cross-currency already have derivatives contracts which are Shariah-compliant. The principles applied in these contracts will also be applied in crude palm oil derivative contracts. A few Shariah principles have been recommended by several scholars, but are found to be unsuitable for application in derivative contracts, namely *bay' al-salam*, *bay' al-istisna'* and *bay' al-urbun* (Ahmad & Ab. Halim 2014).

Despite being unsuitable, these principles form the basis of other proposed principles which are more appropriate to be applied in derivative contracts. The need to hedge by financial institutions has impelled current scholars to seek alternative ways to eliminate elements of *gharar*, *riba* (usury) and *maisir* from derivative contracts. Therefore, this study aims at analyzing the Shariah alternatives for commodity derivatives, namely forward, futures, options and swap contract. It attempts to solve out the Shariah issues as well as other challenges in the contracts. The principles recommended to be applied in derivative contracts with crude palm oil as the underlying asset are principles of *wa'd*, *bai' al-murabahah/musawamah*, and *hamish al-jiddiyyah*. These principles have in some parts been applied in derivative contracts with underlying assets such as profit rate (interest) and cross-currency. These principles are recommended solely for purposes of hedging, in line with the resolution issued by the Shariah Advisory Council of Bank Negara Malaysia which permits the use of derivative contracts for hedging purposes only, and not for purposes of speculation and profit-making (Bank Negara Malaysia 2010). The writing begins with the introduction. The next section discusses the forward, futures, options and swap contracts.

Forward Contract

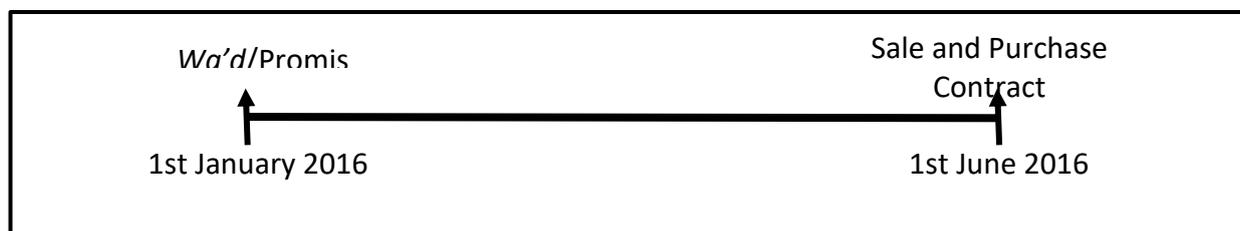
The proposed principle for forward contracts with crude palm oil as the underlying asset is the principle of *wa'd*. *Wa'd* is a binding unilateral promise has been applied in many Islamic financial products (Abdullah 2010). However, there is disagreement amongst scholars as to whether or not a promise is legally binding for the promisor. AAOIFI Shariah Council (2010) and the Shariah Advisory Council of Bank Negara Malaysia (2010) concluded that *wa'd* religiously binding. However, *wa'd* is only legally binding on the promisor when the promise is attached to a cause and the promisee has entered into an action based on this promise.

The application of this principle is sufficient to create an impression similar to conventional forward contracts and indirectly functions as an effective hedging mechanism for both contracting parties, where the buyer makes a promise to the seller to purchase crude palm oil at a fixed price. Submission of price and delivery of the commodity will happen in the future

when the actual performance of the contract takes place (Atallah and Ghoul 2011). As an example of a Shariah-compliant forward contract, consider a palm oil refinery is producing 10,000 tons of cooking oil every year. The company wants to circumvent the fluctuation of cooking oil price in the current market. Meanwhile, the oil palm plantation company also wants to circumvent the fluctuation of crude palm oil price in the current market. Therefore, the refinery enters into a forward contract with the plantation company. Both companies can hedge against the exposure to the changes in the price of crude palm oil and cooking oil. The structure of the forward contract can be explained as follows:

1. On the 1st January 2016, the buyer promises (*wa'd*) the seller to buy 5,000 tons of crude palm oil on 1st June 2016 at the price of RM3,200.00 per ton.
2. On the 1st June 2016, the sale and purchase contract between the two parties is performed. In accordance with the promise made on 1st January 2016, the buyer pays the seller and the seller delivers the crude palm oil to the buyer. The sale is conducted without taking into account the price of crude palm oil in the cash market at the time. Based on the description above, no contract is sealed between the parties on 1st January 2016. In fact, there is only a promise to perform a sale and purchase transaction in the future. The actual contract only takes place on 1st June 2016, when the contracting parties make payment and delivery of the commodity. Illustration of the timeline of the forward contract is shown in Figure 1.

Figure 1: Illustration of the timeline of the forward contract



Based on the above illustration, the main purpose of the forward contract is to fix a price that will be delivered in the future. In large scale transactions, the setting of the price is important to overcome the risk of price fluctuations and the shortage of supply in the future. Buyers will be able to hedge against an increase in the price of crude palm oil while sellers can hedge against the risk of a fall in the price of crude palm oil in the cash market. Forward contracts provide a hedging mechanism for both buyers and sellers of crude palm oil. The application of the principle of *wa'd* binds only one party, namely the party who makes the promise. Therefore, to avoid the risk of default, the buyer only makes promises with reliable and trustworthy parties (Yahya, 2011). There are differences between conventional and Shariah-compliant forward contracts. These differences are shown in Table 1.

Table 1: Comparison between conventional forward contracts and Shariah-compliant forward contracts

Conventional Forward Contracts	Shariah-Compliant Forward Contracts
The contract takes place on the date it is sealed, namely on 1/4/2016.	On 1/4/2016, one of the party promises to perform the contract on 3/7/2016 and the

The contract is binding on both contracting parties.

The price has been fixed on the date the contract is sealed, namely on 1/4/2016.

Delivery of commodities takes place on 3/7/2016.

actual contract will only take place on 3/7/2016.

The promise given is only binding on the party who makes the promise.

The price has been fixed on the date the contract is sealed, namely on 1/4/2016.

Contract and delivery of commodities takes place on 3/7/2016.

Source: Adapted from Hasan (2010)

Futures Contract

Futures contracts have been ruled by the Shariah Advisory Council of Securities Commission (2006) as being Shariah-compliant. However, in the Islamic finance industry, they are still not accepted as being Shariah-compliant (Abdul Kudus, 2011; Abdul Rahman, 2011; Hassan, 2011). Thus, Shariah principles proposed to be applied in futures contracts in order to make them Shariah-compliant are the principles of *wa'd* and *bay' al-murabahah/musawamah*. As ruled by the Shariah Advisory Council of Bank Negara, the application of Shariah principles in derivative contracts is permitted on the basis of hedging and not for the purpose of making profits (Bank Negara Malaysia, 2010). Therefore, several features in conventional futures contracts which appear to conflict with Shariah also have to be eliminated.

The principle of *wa'd* or promise is applied at the beginning of the contract. *Wa'd* is given to lock in the price of crude palm oil at a certain price in the future. As in forward contracts, the buyer gives *wa'd* to purchase crude palm oil from the seller in the future at a price agreed upon at the time when the promise is made. The promise made is to perform the contract in the future and to lock in the price of crude palm oil at a certain price in the future. The difference between forward contracts and futures contracts is that the latter benefits from the presence of the clearing house which regulates the promise and contract between the seller and the buyer. The clearing house also functions as a guarantor for the contract which will take place and this function does not conflict with principles of Islamic law as found in *kafalah* (al-Zarqa', 1998). As guarantor for all registered contracts, the clearing house ensures that the delivery and payment are made by the contracting parties.

In conventional futures contracts, there are margin payments which serve as security or guarantee against default by a contracting party. At the close of each business day, the clearing house will perform daily settlement and the margin will be adjusted according to the market price or market to market (Don & Robert, 2007). In this process, the contract price will be matched with the current price to calculate the margin status in the account, whether profitable or otherwise (Durbin, 2006; Don & Robert, 2007).

Shariah-compliant futures contracts are structured using *wa'd*, therefore no margin payment is required to function as security or guarantee that the buyer will buy crude palm oil in the future. Calculations based on mark to market are also eliminated from the Shariah-compliant futures contract. Without these calculations, speculators will not enter into futures contracts to reap profits from the adjustment of price based on mark to market. In fact, research findings are in line with scholars' opinion that such calculations can lead to gambling when it results in profit or loss unanticipated by the contracting party (El-Din, 2004; Kasri, 2013).

Additionally, the close out element, which enables the contracting party to cover their exposure by balancing their original position before or on the maturity date, is eliminated from futures contracts (Hull, 2003). This is because the contract is based on the contractual principle *tabarru'* and the party who makes the promise only promises to perform the contract in the future. Thus, it is not appropriate to apply the close out element in this contract as there is no position that requires be closing or changing.

Shariah-compliant futures contracts are allowed for purposes of hedging. Therefore, the speculative elements which can lead to gambling have to be purged, although Bacha (1999) opines the speculators play a role in providing liquidity to futures contracts. This contract is specific only for hedgers who wish to manage the risk of change to the price of crude palm oil price. Indirectly, elements which have caused futures contracts to be rejected can be eradicated. On the date of performance of the contract, the contracting party has the option whether to receive the crude palm oil or to make cash settlement (*set off*). The mechanism for cash settlement does not conflict with Shariah, taking into account the possibility that there are contracting parties or hedgers who do not require the crude palm oil but only want to hedge by locking in a fixed price. Cash settlements can be done by using cash value equivalent to the value of the commodity, where the seller pays to the buyer the price which has previously been agreed upon (Bakar, 1998; al-Saati; 2002).

An example of Shariah-compliant futures contracts is: An oil palm plantation company will produce 800 tons of palm oil in the next six months, while a margarine producing company requires an additional supply of crude palm oil in 6 months' time. The oil palm plantation company is exposed to the risk of a drop in the price of crude palm oil in 6 months' time and the possibility of no demand. Meanwhile, the margarine producing company is exposed to the risk of an increase in the price of crude palm oil and the possibility of insufficient supply. The plantation company thereafter chooses to hedge its crude palm oil by entering into a futures contract. Similarly, the margarine producing company also opts to hedge the value of crude palm oil. Thus, both companies enter into a futures contract and are matched by the clearing house. This action locks the selling price for the next six months. They can sell at a point in the future at a price which is fixed now. The structure of futures contracts is explained as follows:

1. On 1 January 2016, the buyer enters into a futures contract and makes *wa'd* to purchase 5,000 tons of crude palm oil from the seller on 1 June 2016 at the price of RM3,200.00 per ton. The requirements of the buyer and the seller are matched by the clearing house which acts as the regulator of the futures contract as well as guarantor for both contracting parties.
2. On the maturity date of the contract, being 1 June 2016, the buyer delivers the payment and the seller delivers the crude palm oil. However, the contracting parties can choose whether to accept and deliver crude palm oil or to perform a cash settlement instead. If a cash settlement is opted for, no physical delivery will be made. Instead, the seller pays the difference between the price agreed during the time the agreement was made and the current price of the contract. There are differences between conventional futures contracts and Shariah-compliant futures contracts. These differences are shown in Table 2.

Table 2: Comparison between conventional futures contracts and Shariah-compliant futures contracts.

Conventional Futures Contracts	Shariah-Compliant Futures Contracts
The contract takes place on the date it is sealed, namely on 1/1/2016.	On 1/1/2016, one of the parties' promises to perform the contract on 1/6/2016 and the actual contract only takes place on 1/6/2016.
The contract binds both contracting parties.	The promise given only binds the party making the promise.
The price has been fixed on the date the contract is sealed, namely on 1/1/2016.	The price has been fixed on the date of the agreement, namely on 1/1/2016.
The contracting parties pay a margin fee to the clearing house.	No margin payment is imposed.
Adjustment in the margin payment (mark to market).	No adjustment as there is no margin payment.
The contracting parties can close out by taking up different positions.	The close out element has been eliminated.
Set off or cash settlement can replace physical delivery.	Set off or cash settlement can replace physical delivery.
Delivery of commodity on 1/6/2016.	Contract and delivery of commodity on 1/6/2016.

Options Contract

Over-the-Counter Options Contract

Shariah principles used to structure options contracts are *wa'd*, *hamish jiddiyyah* and sale and purchase contracts. *Hamish al-jiddiyyah* is the amount of money paid to indicate the seriousness to purchase an asset or may be considered as a security deposit or as a commitment fee. *Hamish al-jiddiyyah* paid prior to the signing of a contract. However, if after the contract was successfully concluded, the amount of payments from *hamish al-jiddiyyah* will be counted as part of the overall cost of the asset. However, if the customer refuses to conclude the contract of sale, AAOIFI Shariah Council resolved that the actual loss (*darar fi'li*) incurred by the seller should be covered using *hamish al-jiddiyyah*. If there is a balance, the money must be returned to the customer. If the amount of *hamish al-jiddiyyah* still insufficient to cover losses that occur, then the seller have recourse to the customer for any remaining amount (AAOIFI, 2010; Ayub, 2007).

Despite the differences in payment between *hamish jiddiyyah* and premiums in conventional options contracts, *hamish jiddiyyah* can be the best alternative in options contracts. Indirectly, this deposit payment prevents any party trying to gain profits which are being scenarios in conventional options contracts. In Islamic law, the option writer or option seller has to own the crude palm oil which forms the underlying asset of the contract, in order to prevent the occurrence of *gharar*, which is when the seller sells something which is not yet in his possession (Smolarski, Michael and Tahir, 2006). This is considering that there is no entity regulating over-the-counter options contracts and ensuring that the seller possesses the crude palm oil at the point when the buyer wishes to exercise his right.

In *hamish-al-jiddiyyah*, payment of 10% of the commodity price is made before the contract is sealed (Hassan, 2011). During the term of the contract, the buyer of the options contract is

not permitted to sell the right he purchased to a third party and must hold on to the contract until its maturity date. The contract cannot be transacted in the secondary market given that the buyer has only paid a small portion of its price. Hence the ownership has not been perfected, thus disabling the buyer from selling the options contract. If the buyer of the options contract wishes to exercise his right, the buyer would only need to pay 80% of the price of the crude palm oil since 10% has already been paid up front. If the buyer does not want to exercise his right, he would need to pay compensation for the loss suffered by the seller from the total of *hamish al-jiddiyah* paid, being 10% security deposit paid to the seller. If there is a balance, it will be returned to the customer.

An example of an options contract is when a cooking oil producing company wishes to avoid having to deal with the fluctuating price of cooking oil in the current market. Therefore, the company purchases a call option contract for crude palm oil commodity which currently values at RM3, 200 per ton by paying *hamish jiddiyah* amounting to RM32, 000. This contract enables the company to purchase 100 tons of crude palm oil from an oil palm plantation company at the price of RM3, 200 per ton at any time from January 2016 until June 2016. In an options contract, the cooking oil producing company can opt to either exercise its right or to let it lapse. The contract cannot be sold to a third party as this could lead to speculative activities. The structure of options contracts is explained as follows:

1. On 1 January 2016, the buyer pays 10% of the *hamish al-jiddiyah*, amounting to RM32, 000, to the option seller. The buyer thus obtains the right to purchase 100 tons of crude palm oil on 1 June 2016 at the price of RM3, 200 per ton. In a Shariah-compliant options contract, this right cannot be sold to a third party. For example, if the contract was a conventional options contract, the buyer can sell the options contract which he purchased to a third party before its maturity date.
2. On the maturity date, being 1 June 2016, if the price of the crude palm oil in the cash market is higher than the price fixed in the options contract, the buyer can exercise his right and purchase the crude palm oil at the agreed fixed price as per the contract. For example, if the price of crude palm oil increases to RM3, 400 per ton, the cooking oil producing company will opt to purchase 100 tons of crude palm oil from the oil palm plantation company at the price of RM3, 200 per ton. However, if the price of crude palm oil in the cash market is lower than the price fixed in the options contract, the buyer will not exercise his right and will allow the *hamish al-jiddiyah* payment or the equivalent of the premium payment in a conventional options contract to simply lapse. The seller only pockets an amount equal to his loss from the security deposit payment made by the buyer. If there is a balance, it will be returned to the buyer. The difference between a conventional options contract and a Shariah-compliant options contract is shown in Table 3.

Table 3: Comparison between conventional options contracts and Shariah-compliant options contracts.

Conventional Options Contracts	Shariah-Compliant Options Contracts
On 1/1/2016, the buyer of the options contract pays the premium to the options contract seller. The premium is for the right purchased, not forming part of the price of crude palm oil.	On 1/1/2016 the buyer of the options contract pays a deposit (<i>hamish al-jiddiyah</i>) to the options contract seller. Payment of the deposit forms part of or 10% of the price of crude palm oil.

The option seller does not necessarily need to own the crude palm oil which forms the underlying asset sold to the option buyer.

During the term of the contract, the said options contract can be sold to a third party.

On 1/6/2016, being the maturity date of the contract, if the buyer wishes to exercise his right, the buyer needs to pay the full price of the crude palm oil. If he does not wish to exercise his right, the premium payment is forfeited and kept by the seller.

The option seller must own the crude palm oil which forms the underlying asset sold to the option buyer.

During the term of the contract, the said options contract cannot be sold to a third party.

On 1/6/2016, being the maturity date of the contract, if the buyer wishes to exercise his right, the buyer needs to pay 80% of the price of the crude palm oil. If he does not wish to exercise his right, the deposit payment goes to the seller, based on the amount of loss borne by the seller only.

Exchange Traded Options Contract

The application of Shariah principles in the options contracts at the exchange is based on *hamish al-jiddiyyah*. As with the futures contract traded at the exchange, a few elements that go against Shariah principles are discarded. Although *gharar* does not become the main issue in contracts formed at the exchange, issues of speculation and gambling become the reasons for its rejection by several scholars, in addition to the status of the contract, whether it is a *mal* contract or otherwise (Majma' al-Fiqh al-Islami, 1992; Usmani, 1999; Obaidullah, 1998). The seller who enters an options contract must show his ability to deliver the crude palm oil if the buyer wishes to exercise his right. The option buyer must pay the option seller *hamish al-jiddiyyah*, amounting to 10% of the price of crude palm oil which he wishes to purchase.

A clearing house acts as a guarantor to the contract which will take place and this conforms to the principle of *kafalah* in Islam. The seller must own the crude palm oil at the time when he sells the options contract, and the clearing house will ensure that the seller will be able to deliver the crude palm oil when the buyer exercises his right. As with contracts traded over-the-counter, this is in order to avoid *gharar* where goods are sold before being in the seller's possession.

The close out element is eliminated because the buyer only pays a small fraction of the option price. Thus, ownership is still deemed incomplete if the buyer wishes to sell his right in the options contract he purchased. This means that the contracting party cannot sell the options contract purchased to third parties and must hold the contract until its maturity date. Upon maturity of the contract, the buyer may decide whether or not to exercise his right. As with over-the-counter options contracts, the buyer has to pay 80% of the price of the crude palm oil if he wishes to exercise his right. If he chooses not to exercise his right, he will lose his deposit depending on the amount of loss borne by the seller. As with conventional options contracts, the absence of a close out element in options contracts will result in no liquidity. However, the purpose of the contract is solely for hedging and to prevent profit-making activities by speculators who can cause long-term effects. Islam only recognises contracts which are completely free from elements of *gharar*, *maysir*, and *riba*.

To give an example of an options contract, both a cooking oil production company and an oil palm plantation company wish to evade the fluctuation of crude palm oil price in the current market. Both parties, therefore, enter into an options contract at the exchange and the

clearing house matches both contracting parties based on their similar hedging needs. They enter into this contract given their inability to meet a match if they rely on options contracts traded over-the-counter. The structure of options contracts is explained as follows:

1. On 1 January 2016, the buyer makes payment of *hamish al-jiddiyyah* to the option seller through the clearing house. The buyer obtains the right to purchase 100 tons of crude palm oil on 1 June 2016 at the price of RM3,200 per ton within a period of 6 months.
2. Upon maturity of the contract on 1 June 2016, if the price of crude palm oil in the cash market is lower than the price stipulated in the options contract, the buyer will not exercise his right. The security deposit of 10% from the price of crude palm oil is forfeited, depending on the amount of loss borne by the seller. However, if the price of crude palm oil is higher than the price in the options contract, the buyer will exercise his right and purchase the said palm oil at a price agreed previously. The differences between conventional options contracts and Shariah-compliant options contracts are shown in Table 4.

Table 4: Comparison between conventional options contract and Shariah-compliant options contract.

Conventional Options Contract	Shariah-Compliant Options Contract
On 1/1/2016, the buyer of options contract pays a premium to the options contract seller. The premium payment is for the purchase of the right, and does not form part of the price of the crude palm oil.	On 1/1/2016, the buyer of options contract pays a deposit (<i>hamish al-jiddiyyah</i>) to the options contract seller through the clearing house. The payment of security deposit forms part of or 10% of the price of the crude palm oil.
The seller pays a margin as security to the clearing house.	No margin is paid as the seller must own the commodity at the point when he sells the options contract.
The clearing house acts as guarantor for the delivery of the crude palm oil even though the options seller does not own the crude palm oil at the time the contract is sealed.	The clearing house acts as guarantor for the delivery of the crude palm oil even though the options seller already owns the crude palm oil at the time the contract is sealed.
Throughout the duration of the contract, the options contract can be sold to third parties.	Throughout the duration of the contract, the options contract cannot be sold to third parties.
On 1/6/2016, being the maturity date of the contract, if the buyer wishes to exercise his right, he needs to pay the full price of the crude palm oil. If the buyer does not wish to exercise his right, the premium payment made is forfeited.	On 1/6/2016, being the maturity date of the contract, if the buyer wishes to exercise his right, he needs to pay 80% of the price of the crude palm oil. If the buyer does not wish to exercise his right, the deposit payment goes to the seller based on the amount of losses incurred by him, where the balance is returned to the buyer.

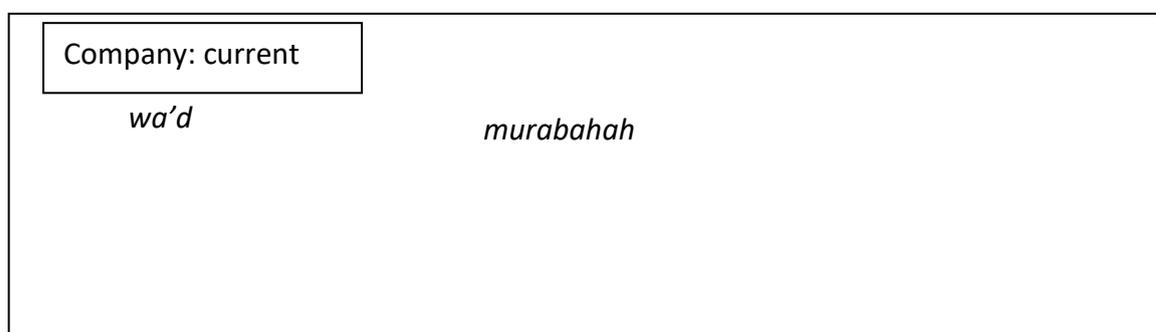
Swap Contract

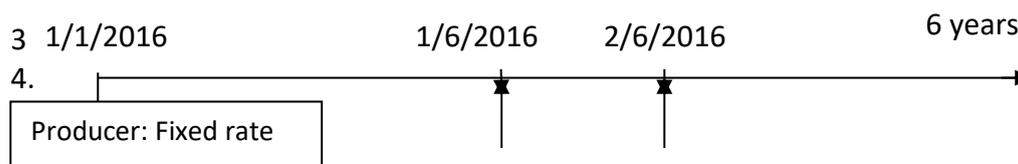
Commodity swap contracts involve the exchange between fixed rate cash flow and floating rate cash flow. Shariah principles that can be applied in a crude palm oil swap contract are

the principles of *wa'd* and *al-murabahah/musawamah*. *Wa'd* or promise is given at the beginning, whereas *al-murabahah/musawamah* is implemented on the transaction day. If *al-murabahah* is applied, the cost and profit margin is already known to the investor and thus the price can be fixed at the start. However, if *al-musawamah* is used, the investor does not know with certainty the cost involved from the beginning (Ayub, 2008). For example, the oil palm plantation company A produces 1,000 tons of crude palm oil every year. The company wishes to evade the fluctuation of the crude palm oil price in the current market. Therefore, the company enters into the swap market and seals a swap contract with manufacturer B. The company agrees to accept fixed payments for each ton of crude palm oil for six years and undertakes to pay the current market price for crude palm oil to manufacturer B annually. Every year, the plantation company pays the price for 1,000 tons of crude palm oil at the current rate while manufacturer B pays the price at the fixed rate. As a result, the company will obtain a certain price for the next six years, and a series of *murabahah* contracts enter into fixed rate based contracts and floating or current rate based contracts.

1. On 1 January 2016, the oil palm plantation company provides *wa'd* or a promise to execute a few *al-murabahah* transactions, whereby the company will sell crude palm oil to manufacturer B on a series of dates by paying the price based on a floating rate for a certain period. The manufacturer, in turn, undertakes to seal a few *al-murabahah* contracts where the manufacturer will resell the crude palm oil to the company by paying the price based on a fixed rate for a certain period. To ensure that neither party backs out from the transactions involved, both parties will furnish *wa'd*. Thus, two unilateral and independent *wa'd* that are not connected to each other comes into place. If the company wishes to cancel the *wa'd*, it must pay compensation (*ta'widh*) based on the actual amount of losses borne by the manufacturer, if any. Promises given by both parties have to be made separately and are not to be bound to each other. This *wa'd* is a promise to sell and buy commodities several times throughout the duration of the contract. For example, if the duration of the contract is six years with the swap taking place twice a year, each party will then have to furnish *wa'd* to sell and buy commodities 12 times (Hasan, 2010).
2. On 1/6/2016, the oil palm plantation company and the manufacturer will execute *murabahah* contracts by buying and selling commodities. The oil palm plantation company sells the crude palm oil to the manufacturer based on the principle of *murabahah* at the price as agreed on 1/1/2016. The manufacturer will make payment on the said date. The manufacturer will then resell the crude palm oil to the company based on the principle of *murabahah* at the price as agreed on 1/1/2016. The company will pay in cash at the said time. This *murabahah* contract is performed on a cash basis with no credit term. Consequently, the manufacturer has to pay a fixed rate to the palm oil production company and will, in turn, receive a variable rate from the palm oil production company (every six months). This variable rate received will protect the oil palm plantation company from any increase in its operational cost (which is based on variable rate). The timeline illustration of a Shariah-compliant swap contract is as shown in Figure 2.

Figure 2: Timeline illustration in a swap contract





Source: Adapted from Mohd Iqbal (2007)

3. On 2/6/2016, both parties, namely the manufacturer and the oil palm plantation company, will not pay the exact value involved. They will only discharge their respective obligations by *muqassah*, being the settlement of payment based on net worth (Hasan 2010). The Shariah Advisory Council of Bank Negara has resolved that *muqassah*, or the practice of set off inherent in conventional swap contracts, is acceptable as it does not involve the sale of debt with debt, which is forbidden in Islamic law (Bank Negara Malaysia 2010). For example, as a result of the swap contract between the oil palm plantation company and the manufacturer, the oil palm plantation company has to pay RM1 million to the bank, but the company will simultaneously receive RM1.1 million – RM 1 million from the manufacturer (Hasan, 2010). The differences between conventional and Shariah-compliant swap contracts are shown in Table 5.

Table 5: Comparison between conventional swap contracts and Shariah-compliant swap contracts.

Conventional Swap Contracts	Shariah-Compliant Swap Contracts
The contract is formed on the date of sealing of the contract, on 1/1/2016.	On 1/1/2016, (both parties) one of the parties makes a promise (<i>wa'd</i>) to perform the contract on 1/6/2016 dan the actual contract only comes into place on 1/6/2016.
This contract binds both contracting parties.	The promise given only binds the party making the promise.
The price has been fixed on the date the contract is sealed, namely on 1/1/2016.	The price has been fixed on the date the contract is sealed, namely on 1/1/2016.

No clear contract is formed.	On 1/6/2016, a <i>murabahah</i> contract comes into place, where the company sells commodities to the bank at fixed price and the bank pays the price of the commodity. The bank then resells the commodity at the current market price and the company makes payment in cash.
A set-off occurs between contracting parties	On 2/6/2016, the contracting parties perform <i>muqassah</i> , being a settlement of payment based on the net value between the contracting parties.

Conclusion

In general, the Shariah principles recommended to be applied in derivative contracts are principles of *wa'd*, *bay' al-murabahah/musawamah*, and *hamish al-jiddiyah*. The application of *wa'd* principle in forward, futures and swap contracts provide the best solution to resolve Shariah issues in conventional derivatives. The application of the *hamish al-jiddiyah* principle in options contracts ensures more justice for the contracting parties. The seller only earns the amount equal to the loss he bears if the buyer does not exercise his right. This is because options contracts are permitted for purposes of hedging, not for profit-making in instances where the buyer does not wish to exercise his right. Notwithstanding, monitoring still has to be carried out by regulatory authorities such as the Shariah council. This is to ensure that derivative contracts are used for purposes of risk management and not for unjustified profit-making

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