

ANALYZING ISLAMIC EMBEDDED OPTIONS IN STRUCTURED PRODUCT IN THE LIGHT OF MAQASID AL-SHARIAH

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ABSTRACT

Islamic structured products are basically *Shariah* compliant structured product which applies the similar to its counterpart, conventional ones in terms of purpose, economic benefits and basic structural features. The difference is that Islamic structured products adheres to *Shariah* principles, avoiding *riba* (usury), *gharar* (uncertainty), *zulm* (injustices), and operates holistically in a *Shariah* compliant manner. This includes utilizing *Shariah* contracts approved by the SAC to structure the investment, and contains underlying assets that are permissible in *Shariah*. Hence the main aim of this work is to intricately elaborate the *Shariah* framework applied to develop the structured product in the light of Maqasid al-Shariah and discussed the current scenarios of the product implementation in Malaysia. It is found that, most of the Islamic structured products are embraced by the concept of ‘Urbun and Wa’ad to serve as *Shariah* compliant structured product. Although there are some issues to be considered by *Shariah* scholars in order to enhance the existing framework of the product.

Keywords: *Islamic structured product, Maqasid al-Shariah, ‘Urbun, Wa’ad*

1.0 INTRODUCTION

An Islamic structured product should always be in line with the objectives of *Shariah* in order for it to be a *Shariah* compliant product. As told by al-Ghazali, there are two purposes of law which is divided into two types, the purposes of the Hereafter (akhirat) and the purposes pertaining of this world (duniawi). Furthermore, there are five ultimate purposes of law which relates to the worldly life, that is the preservation of religion, life, progeny, intellect and wealth. It could be seen that the issue of Islamic option embedded in structured products will fall under the preservation of wealth of the *Maqasid al- Shariah* (objectives of *Shariah*). Wealth is given considerable amount of attention, in which it is evident as many of the Qur’anic verses and the Prophetic traditions

touches on the aspect of wealth, such Allah SWT has stated in the Holy Qur’an:

“Fair in the eyes of men is the love of things they covet: women and sons; heaped-up hoards of gold and silver...” (3:14)

By obtaining wealth, it will indeed lead to a better quality of life towards the society especially in its civilization development, by which is possible only when it is being properly distributed amongst the people. In the light of the *Maqasid al-Shariah* (objectives of *Shariah*), there will be a set of regulations that needs to be adhered to in regards to the preservation of wealth.

2.0 LITERATURE REVIEWS

Islamic structured products are being offered in three different forms which are

structured deposits, structured notes and certificates, and hedging solutions. Structured deposits are usually offered to banks' premier clients (corporate and HNW). Structured notes are sold as over the counter securities or through exchanges. Currently, the introduction of Islamic derivatives market in Malaysia, the tradability of Islamic structured product is bound for improvements in the futures. Islamic hedging solutions are offered by some Western investment banks in the form of profit rate swaps, currency swaps, and other Islamic derivatives.

Table1

Shariah Concepts and Principles Approved by Shariah Advisory Council (SAC)

Primary Shariah Principles	Supplementary Shariah Principles
<i>Bai` Bithaman Ajil</i> (BBA) (Deferred-Payment Sale) <i>Bai` Inah</i> (Sale with Immediate Repurchase) <i>Bai` Istijrar</i> (Supply Sale) <i>Bai` Salam</i> (Advance Purchase) <i>Bai` Wafa`</i> (Sale and Repurchase) <i>Ijarah</i> (Leasing) <i>Ijarah Thumma Bai</i> (Lease to Purchase) <i>Istisna`</i> (Purchase Order) <i>Mudharabah</i> (Profit-Sharing) <i>Murabahah</i> (Cost-Plus Sale) <i>Musyarakah</i> (Profit and Loss-Sharing) <i>Qardh Hasan</i> (Benevolent Loan)	<i>Bai` Dayn</i> (Debt Trading) <i>Bai` Muzayadah</i> (Open-Bidding Trading) <i>Kafalah</i> (Guarantee) <i>Hak Tamalluk</i> (Ownership Right) <i>Hibah</i> (Gift) <i>Hiwalah</i> (Remittance) <i>Ibra`</i> (Rebate) <i>Ittifaq Dhimni</i> (Pre-Agreed Contract) <i>Rahnu</i> (Collateral) <i>Sukuk</i> (Securities) <i>Ujrah</i> (Fee) <i>Wakalah</i> (Agency)

Islamic structured products in Malaysia are required to contain only *Shariah* concepts and principles that have been approved by the Shariah Advisory Council (SAC) as shown in a non-exhaustive list above. The structure provider must also observe the nature of the contracts used in creating the Islamic

structured products. Unlike conventional structured products which are specification driven, Islamic structured products are contract driven. If the structured product utilizes sale-based contracts such as *Murabahah* and *Tawarruq*, the contract's structures must contain sale-based contract's features.

Hence, it must be built with complete pillars of contracts including *Mawdu' al-Aqd* (subject matter of contract), *al-Aqidan* (the two contracting parties), and *Sighah* (statement of contract). Plus, the returns must be based from the sale price (purchase price plus profit). If the structure utilizes participatory contract such as *Mudharabah*

or *Musharakah*, the contract's structures must contain the nature of a participatory contract. In this case, the returns must be based from a profit sharing ratio, contribution determined for *Musharakah*, and mutually agreed for *Mudharabah*. If the structure utilizes *Walakah bi al-Istithmar* contract, it must contain

service based features and banks will decide the amount of fixed fee the customer will pay upfront.

Previously, we have mentioned several common types of structured products. However, we need to revisit the list and re-evaluate what types of structured products are compliant with the *Shariah*. Interest linked notes are not accepted because it obviously contains *riba*. Bond, currency, and credit linked notes are generally not accepted due to the existence of *riba* elements. Equity and index linked notes may be acceptable provided that the underlying equities and indexes are *Shariah* compliant. This is enforceable because there are many *Shariah* compliant equities and *Shariah* compliant indices available in the market. Commodity linked notes are also accepted as long as the commodity and its derivatives' contracts are *Shariah* compliant. Hybrid link notes can be accepted as long as the foundations within the hybrid securities comply with *Shariah* principles.

Most of the successful Islamic structured products offerings are exposed to the commodity market and it began with Deutsche Bank commodity linked Islamic structured product with reference to platinum, aluminum, and crude oil to Abu Dhabi Commercial Bank. Due to the excellent performance of commodities futures during economic downturns, commodity-linked Islamic structured product becomes an attraction to the Islamic investors who are used to earn high returns. To put it simply, the underlying securities present in the structured products must be *Shariah* compliant top to bottom. It should not be

securities that are involved in *riba*, *gharar*, *zulm*, *qimar* (gambling), *maysir* (speculation), and any form of activities that renders the asset *haram* (prohibited). To ensure that the underlying securities are *Shariah* compliant, it is normally certified upon issuance by the *Shariah* advisors. For equity stocks and indexes, there are bodies that run Islamic stock screening criteria to ensure that the stocks are *Shariah* compliant.

A *Shariah* compliant structured product must also go through a two-tier regulatory requirement. First the rating requirement which is necessary for all types structured products. Second is the approved *Shariah* concept and principles which is only applicable to Islamic structured products.

However, there are two broad types of Islamic structured products. First is the fully *Shariah* compliant structured product, which contains *Shariah* compliant structure and underlying asset. This is commonly produced by fully fledged Islamic banks and subsidiary Islamic banks due to the preference of purer products. The second is the *Shariah* bridged products which contains *Shariah* compliant structure but non-*Shariah* compliant underlying asset. This type of structured product is currently specialized by Western banks.

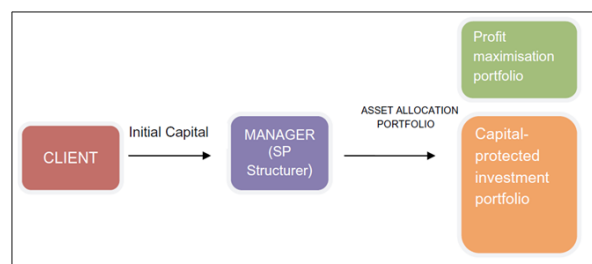


Figure 1: General Framework of Islamic Structured Product

Figure 1 shows the client will provide the principal or initial capital to the structure product manager to be invested into a particular portfolio of investment. Clients of structured product are made of individuals (usually HNW), institutional investors, and even banks where they resell the structured notes to their clients. The relation between the client and the structured product manager are usually based on the *Mudharabah* or *Wakalah* contract.

However, it will not effect on how the asset allocation portfolio is managed. Instead, it will only effect on the profit to be distributed to the manager. For instance, in a *Wakalah* contract, the manager will take the upfront fee regardless of the performance of the structured product in the future. However, if the *Mudharabah* contract is used, the manager will be entitled only to the profit sharing ratio, where he will earn if the SP manages to generate returns at maturity.

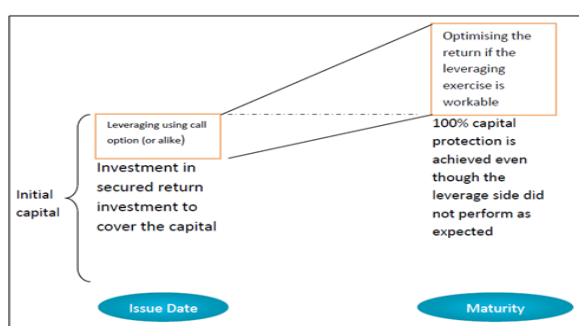


Figure 2: Portfolio in Equity linked Islamic Structured Product

In Figure 2, the initial capital provided by the client will be divided into two

portfolios. The bigger portion will be invested in a relatively secured investment which will cover the principal capital regardless of the performance of the leveraging instrument. This ensures that the capital invested is protected if the structured product fails to perform as anticipated at maturity. The smaller portion of the capital is used to ‘buy’ an Islamic option which is used to optimize the return on the investment. It can generate high profits if the option performs well. But if it does not perform as expected, the investor will lose all the money invested in this portfolio. However, their principal capital is already protected by the first portfolio which provides returns enough to cover the initial capital.

The most important aspect that needs to be monitored within the Islamic structured product is the embedded Islamic options. This is because leveraging an Islamic structured product using a conventional option is not possible with the current global view of *Shariah* rulings on options. It is not similar to the conventional options, and it is not a mere copy of it as well. However, the intent of embedded Islamic options is to mitigate risks present within the structured product and the principles present in the embedded Islamic option must be *Shariah* compliant. Normally, *Urbun* contract is utilized to create a *Shariah* compliant call option. But *Wa’ad* can also be used to achieve the similar effect. *Wa’ad* is also normally used for a *Shariah* compliant forward.

The reason why Islamic options need to be embedded lies within the scope of option creation and trading. Creating an option

(including the exercise and cancellation of it) only for hedging purposes is viewed as permissible by most scholars as it reduces *gharar* (uncertainty) and is therefore regarded as a *maslahah* or known as contribution to public interest (Obaidullah, 1999; Al-Suwailem, 2006). However, the trading of an option that is not accompanied by the trading of its underlying asset, with the intention to make a speculative gain (similar to gambling which is prohibited in *Shariah*) is regarded as not permissible by several scholars as it increases the *gharar*.

3.0 METHODOLOGY

In order to complete the objective, the study applied two phases of the methodology. In the first phase the study will scrutiny the Islamic structured product based two *Shariah* principles, known as '*Urbun* and *Wa'ad*. In these two principles, the study focuses on the nature of the principle and its application into the Islamic structured contract. Aside from the nature of the principles, the study also gives a focus on strength and weaknesses in each principle.

In the next phase of the methodology, the study will perform an in-depth of case study in which related on the implementation of the Islamic structured product in Islamic financial institutions practiced.

4.0 FINDINGS AND DISCUSSIONS

4.1 '*Urbun*

'*Urbun* is one of the principles used as an embedded Islamic option. In its literal translation, '*Urbun* means to pay or to receive in advance. In '*Urbun*, the deposited advance paid to the seller is considered part of the purchase price if the buyer decides to continue with the contract. So, if the buyer decides to continue, he will only have to pay the remaining purchase price (full purchase price minus '*Urbun* price).

'*Urbun* might look like a regular option contract in the first glance. However, there are actually major differences between these two contracts. First, the '*Urbun* down payment serves as collateral or a guarantee that the potential buyer has a significant intention of purchasing the commodity. The '*Urbun* down payment also acts as a security for the seller if the buyer wants to withdraw from the purchase. Secondly, '*Urbun* down payment of the commodity is counted as part of the total price of the commodity, whereas in the options contract, premium is paid by the buyer to obtain the option to purchase the underlying at a fixed price and a fixed term in the future. As a result, when the option holder decides to continue with the contract, he will still have to pay the full purchase price of the underlying.

Thirdly in '*Urbun*, both parties share the risk of transaction because the seller may not sell the item and the buyer may reclaim back his down payment. But in a conventional option, the option holder bears all the risk

while the financial institution is safe from any risk because of the secured premium paid to them. Here, the financial institution acts only as an option provider and has no concerns on the results of the client's forecast at all. This type of situation is not permissible in *Shariah* contracts because it lays down the risk of transaction to only one person, whereby *Shariah* recommends that the risk present in contracts should be borne by the parties in a just manner. Fourth, the purpose of an '*Urbun*' contract is to secure a future purchase of commodity with a total price known by all parties. If the client decides to proceed with the contract, there will be a transfer of ownership for the underlying item in the contract. In this situation, the client does not bet on the future price of the underlying; he already knows the price at the time he entered into the contract.

Some writers also argued that '*Urbun*' can be viewed as a 'real option'. With *Urbun*, the decision to exercise the option depends on real variables affecting the buyer's total utility rather than just asset price. An option however, is bought to monitor the price of the underlying asset where it will only be exercised if the underlying asset's price appreciates. One of the virtues of '*Urbun*' contract is that the '*Urbun*' holder is the owner of the securities during the holding period, thus entitling the '*Urbun*' holder dividends generated from the securities during the period. This is because once '*Urbun*' is enforced, the right and liability of the subject matter is transferred to the buyer. This is one reason why '*Urbun*' is suitable as an embedded option for a structured product, especially equity linked notes.

To see how '*Urbun*' operates as an embedded option, we will look at the example of an Islamic equity linked structured product as explained by Prof. Dato' Dr. Azmi Omar:

1. The investor places the capital in an equity linked structured product.
2. Bank will invest most of the capital (e.g. 85%) in a *Shariah* compliant fixed income investment that gives fixed amount of returns suffice to protect the initial capital/principal investment.
3. The remaining portion of the capital (e.g. 15%) is invested in a "call option" using '*Urbun*' contracts.
4. The "call option" will give the investor the benefit if equity price referred is in-the-money.

Alternatively, if the "call option" is out-of-the-money, the investor will only suffer a limited loss of the '*Urbun*' that will not affect the portion of the capital that is protected by the fixed income investment.

So far, there are several introduced structured products which contain the concept of '*Urbun*'. CIMB first equity linked structured product 'Islamic All Stars Global' is a *Mudharabah Muqayyadah* and '*Urbun*' based structured investment. Most of the principal is invested into *Shariah* compliant debt instrument for a minimum of five years maturity which will provide capital protection if held until maturity. The balance of the principal is invested into an *Urbun* contract which refers to the performance of

the Islamic All Stars Index that consists of 20 global blue chip multinational companies. It won the most innovative *Syariah* compliant structured product in Asia, best guaranteed fund in Malaysia, and best local currency structured product in Malaysia in The Asset Mid-Year 2007 Triple 'A' Derivatives and Structured Products award. It was the first structured product offered in Ringgit Malaysia and Singapore Dollar.

Bank Islam's first structured investment product, An-Najah NID-i is the first Islamic structured investment focused on healthcare. It invests into Islamic Negotiable Instruments (INI) structured along the *Shariah* contract of *Mudharabah Muqayyadah*, and Baraka Aging Population Index options under the *Shariah* contract of *Bai al-'Urbun*. The structure product is managed by Societe Generale Asset Management. HSBC Amanah Islamic Equity Linked Structured Investment-i is based on *Wakalah fi al- Istithmar* and also contains *'Urbun* contracts.

4.2 *Wa'ad*

For a *Shariah* contract to be enforceable, it needs to fulfill three pillars of contract which are *Mawdu al- Aqd* (subject matter of contract), *al-Aqidan* (the two contracting parties), and *Sighah* (statement of contract). *Wa'ad* does not have to strictly adhere to these pillars due to its unilateral nature, and thus making it as an attractive *Shariah* principal to be used in contracts. Due to its flexibility, *Wa'ad* has gained a lot

of exposure in the Islamic Finance market for the past few years.

There are three different views on the enforceability of *Wa'ad*. First, *Wa'ad* is legally enforceable because of the moral and legal obligation to honour the promise. This view is endorsed by Samura bin Jundab, Umar bin 'Abd al-Aziz, Hasan al-Basri, Said bin al-Ashwa, Ishaw bin Rahayawh, Ibn Shubrumah, Imam Bukhari, Ibn Arabi, Ibn al-Shat and al-Ghazzali (Mustafa al-Zarqa, 2008). Second, *Wa'ad* is enforceable, but despite the fact that fulfilling promise is noble, it is neither enforceable nor mandatory through the court of law. This view is endorsed by Imam Abu Hanifah, Imam Al-Shafai', Imam Ahmad and several Maliki jurists (Abdullah, 2008).

Third, *Wa'ad* in the context of *Murabahah* sale is morally binding. Its fulfillment may be enforceable in court if the unilateral promise binding only one of the parties to the *Murabahah*, and the promise has caused the promise to incur some cost. The Islamic Fiqh Academy (IFA) issued a fatwa supporting this view on December 1988, which resulted into more scholars supporting this particular view (Uberoi, 2009). The Accounting and Auditing Organization of Islamic Financial Institution (AAOIFI) also endorsed the IFA's fatwa to currency exchange transactions within the Islamic framework (Al-Bashir, 2008). Thus making the usage of *Wa'ad* no longer confined to *Murabahah* only. However, there are some scholars who criticize the extension of the IFA's fatwa (Vogel & Hayes, 1998).

Due to the development of Islamic finance progresses, scholars find that the concept of *Wa'ad* is suitable to act as a derivative instrument which is *Shariah* compliant. Unlike conventional derivative instruments that are used for speculation, *Wa'ad* is used strictly to mitigate profit and currency related risks. In other words, it is used for hedging purposes only. As a derivative instrument, *Wa'ad* has several interesting features such as being asset based (except for currency unit), requiring *Wa'ad* made by both parties to be mutually exclusive, should be based on actual performance and must result in actual trading and should not be on notional basis, and assets must be used for profit swap. One final feature is for currencies based *Wa'ad*, it is either a promise for sale or purchase of currencies only, or a promise for sale and purchase of assets at agreed benchmark or fixed rate.

Wa'ad based derivative has been applied in so many ways to mitigate risks. One of them is by providing a *Shariah* compliant options and hedging for profit related risk (asset based), currency related risk (asset based and currency based), and providing conditions of exercise to achieve (*Shariah* compliant cap, floor, or collar mechanism). It has also been used as a *Shariah* compliant mitigation of asset disposal risk, commercial risk, legal and regulatory risk by exercising the *Wa'ad* option through purchase undertaking or even sale undertaking.

To see how *Wa'ad* is used as an embedded option in a structured product, we will demonstrate with the example of a Rolling *Murabahah* structured product as shown by

Nikan Firoozye:

1. We enter into a 5-Year *Murabahah* which matures at value RM 100 (the principal protection component). The prevailing 5-Year swap rates will be around 5%, thus costing the *Murabahah* only RM 75.
2. Bank offers the investor a unilateral undertaking (*Wa'ad*) to enter into a subsequent *Murabahah* starting in Year 5 for the duration of one (1) month. The cost of this *Wa'ad* is RM 25. This second *Murabahah* will have a markup of $(\text{LIBOR} + \text{Spread}) \times \text{Number} \times \text{RM } 100$ where the markup is determined from today until Year 5 at which point it is fixed.
3. If the markup is less than or equal to zero (0), the investor receives RM 100 in Year 5 and chooses not to roll into the second *Murabahah*.
4. If the markup is positive, the investor will choose to exercise the *Wa'ad* and roll into the second *Murabahah*, thus receiving $\text{RM } 100 + (\text{LIBOR} + \text{Spread}) \times \text{Number} \times \text{RM } 100$ in 5 years and 1 month.

In this example, the investor had successfully purchased a promise, namely the *Wa'ad*. Also, the second *Murabahah* is not based on a 1-Month LIBOR, but some odd range-accrual-linked cash flow. Note that the Rolled *Murabahah* is not transferrable by selling it to a third party or resold back to the bank, because it would be *Bay'al-Dayn* (sale of debt).

Wa'ad is also used in structuring a forex option since it is conceptually accepted by many scholars. The option's promisor may also receive a fee for facilitating the transaction. The objective of a *Wa'ad* forex option is to simply emulate the cash flow of a conventional forex cash flow. Here's how it works:

1. Client promises the bank to buy or sell a particular amount of Currency B against Currency A on a predetermined date and a predetermined rate. The bank acknowledges the promise of the client, but does not make any promise to the client.
2. Bank pays a non-refundable fee (a premium) to the client. From here, the bank has the liberty in choosing whether to exercise option or not. The decision depends whether the option is in-the-money or not, at or moments before the settlement date.

For this type of option, some scholars concluded that it can be used only for hedging and 1.27 cm cost reduction purposes, not for speculation.

4.3 Implementation of Islamic Structured Product in Practiced

From our observation, there is more *Wa'ad* in structured products than *'Urbun contracts*. We will introduce some structured products which explicitly mentions that it contains *Wa'ad*. Maybank Structured Islamic Deposit (STRIDE-i) is a commodity linked

notes that are based on BBA-*Murabahah* and *Wa'ad*. It is wrapped as *Shariah* compliant Negotiable Islamic Debt Certificate. It invests on wheat and copper due to driven demand from emerging economic giants which are India and China. It invests on copper futures on London Metal Exchange (LME) and wheat futures on the Chicago Board of Trade (CBOT). The investments in the futures are made using a *Wa'ad* arrangement. Majority of the principal is invested into Negotiable Islamic Debt Certificates which are held until maturity for capital protection.

CIMB Islamic's 'Greater China and Commodities Income Protected Plus-i' is a *Shariah* compliant credit linked note that combines commodity and equity investments with protection referenced to CIMB Islamic Bank Tier 2 Junior Sukuk. It is based on the *Shariah* concepts of restricted *Mudharabah*, *Wa'ad*, and *Bai'al-Inah*. The upside of the investment is that it capitalizes on global recovery via Greater China equities and commodities market and uses MSCI Taiwan Index, Hang Seng China Enterprise Index, and S&P GSCI Excess Return Index as its reference Indices. The principal is protected by CIMB's Tier 2 Junior Sukuk with AA rating from Malaysian Rating Corporation Berhad.

Hong Leong Tokio Marine Takaful introduced the Capital Protection Investment Linked Fund (CPIL) Scheme. It is a three-year *Shariah* compliant principal protected *takaful* plan investment using the concepts of *Murabahah* and *Wa'ad*. Its returns in the maturity are benchmarked against the best performing basket of investment based on

real estate related indices (European Public Real Estate Index and Tokyo Stock Exchange REIT Index) and commodities (oil, copper, and zinc). Citibank was the structure provider while HLTM Takaful managed this scheme. It received the award by The Asset magazine as the Most Innovative *Shariah* Compliant Structured Product in the 2008 Asia Pacific Structured Product and Derivatives Award.

HSBC Amanah Dual Currency Structured Investment is a liquidity management product that allows investors to earn a profit return on short-term surplus funds. It is based under the *Shariah* concepts of Commodity Murabaha-i and Wa'ad. It was also the first ever Islamic structured product that was approved under the SC's 'Guidelines on the Offering of Structured Product' back in 2006. The *Wa'ad* component is where the investor will provide the bank with a unilateral promise to exchange currencies in which the amount of currencies to be exchanged is specified in the unilateral promise.

5.0 CONCLUSION

Since *Wa'ad* has also been used in the form of futures (e.g. Maybank STRIDE-i), we will look at the *Shariah* jurisdiction on futures and forwards as well. Majma' al-Fiqh al-Islamiy states that forward and futures contract is not permissible. Index trading is not permissible, because the subject matter is *khayal* (not real) and does not exist. Such trading is tantamount to *muqamarah* (gambling). Majma' al-Fiqh al-Islamiy

also recommends that futures should follow *Salam* contract or other nominate contracts such as *Sarf*, *Wa'ad* and *Istisna'* to buy or sell at a future date, which require full payment of purchase price at the time of contract.

However, the SAC stated that as long as the stock index futures contract does not contradict *Shariah* principles as long as the index component is made up of *Shariah* compliant securities. This is because the SAC recognized that index futures contract is a new instrument which is useful in managing risk of securities trading. Therefore, in the case of Maybank STRIDE-i, it is allowable to use futures.

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