دار المراجعة الشرعية

SHARIYAH
REVIEW BUREAU

ARE TURBO WARRANTS ADAPTABLE UNDER SHARIAH ARCHITECTURE?

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Summary

Warrants are derivative products, in that their price depends on the performance of the underlying asset. They are securities that give the holder the right, but not the obligation, to buy a certain number of securities at a certain price before a certain time. The underlying asset can be anything such as ETFs, shares, indexes, commodities etc. Warrants are generally traded for leveraging, speculation, investment, income, market exposure, tax effectiveness and hedging purposes. Warrants fail several Shariah compliance criteria as they are not *Mal* (property) and therefore are not considered as valid tradeable assets from a Shariah perspective. Warrant contracts are subject to excessive uncertainty (*Gharar*) and *Qimar* (gambling). If hedging risk is the main goal for a warrant trader, *Wa'd* structures and *Bay' al-Arbun* are two plausible Shariah compliant methods which can be used instead of warrants.

INTRODUCTION

Derivatives are financial contracts - the inherent values of which are derived from, and exist by reference to, independently existing underlying(s). The underlying(s) for a derivative contract can be an asset or a pool of assets, an index or any other item to which the parties may choose to link their derivative contract. For example, credit derivatives, equity derivatives, index-linked derivatives and property derivatives are some of the popular types of derivative instruments. In addition to these, there can be 'exotic' derivatives instruments, such as inflation derivatives, weather derivatives and mortality derivatives[1]. Derivatives were introduced for a purpose of managing risk and hedging open financial exposures of genuine needs. But the unfortunate part is that they have become the most famous, and the most used instrument for arbitrage and speculative activity[2]. This paper analyses the Shariah compliance of one particular type of derivative known as 'warrants'. Initially, a detailed discussion is presented on warrants, its features, its mechanics as well the different types. Thereafter, an in-depth Shariah review of warrants is offered. The paper is concluded with suggestions of Shariah compliant alternatives.

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1 Rizvi (2012), Derivatives in Islamic Finance: The Need and Mechanisms available from Islamic financial markets, ISRA, Available from: http://www.maybank2u.com.my/iwov-resources/islamic-my/document/my/en/islamic/scoe/knowledge-centre/research-paper/Derivatives_in_IF.pdf

DEFINING WARRANTS

Warrants are financial instruments issued by banks and other institutions. Warrants entitle you to buy (call warrants) or sell (put warrants) a specified underlying instrument (the "underlying") during a specified exercise period or on a specified date. Warrants are derivative products, in that their price depends on the performance of another asset (the underlying asset).
Warrants are securities that give the holder the right, but not the obligation, to buy a certain number of securities (usually the issuer's common stock) at a certain price before a certain time. Unlike shares, they do not represent ownership interest in a public limited company; instead, they represent the holder's option rights. If they are not exercised by the expiration date, the option rights expire and the warrant becomes worthless[2].

A warrant has some features in common with an option. A warrant gives the right to trade shares, other securities and more at a fixed point in the future for a fixed price.

However, there are also key differences[3]:

- Unlike an option, that is traded on an exchange exclusively for options (options exchange), warrants can be listed on stock exchanges (such as Euronext).

- Warrants are issued by a company or a financial institution that trades in warrants on specific shares, while options are issued by the options exchange. Warrants issued by the company itself are dilutive. When a warrant issued by a company is exercised, the company issues new shares of stock, so the number of outstanding shares increases. When a call option is exercised, the owner of the call option receives an existing share from an assigned call writer (except in the case of employee stock options, where new shares are created and issued by the company upon exercise; this is also true for convertible loans and convertible preferred shares upon conversion). Unlike common stock shares outstanding, warrants do not have voting rights.

- The exercise period for a warrant (the period during which the investor can exercise their right) is usually longer than that for an option. A warrant's lifetime is measured in years, while options are typically measured in months, or, put differently, warrants are longer dated (on average) than options. Even LEAPS (longterm equity anticipation securities), the longest stock options available, tend to expire within two or three years. Upon expiration, the warrants are worthless unless the price of the common stock is greater than the exercise price.

- The conditions for options are defined by the options exchange and are very standardised. The conditions for a warrant are defined by the issuing financial institution. Warrants are not standardized like exchange-listed options. While investors can write stock options on pretty much any exchange, they are not permitted to do so with listed warrants, since only companies can issue warrants. Also, while each option contract is over a certain amount of the underlying ordinary shares, the number of warrants which must be exercised by the holder to buy the underlying asset depends on the conversion ratio set out in the offer documentation for the warrant issue.

- Warrants are considered over-the-counter instruments, and thus are usually only traded by financial institutions with the capacity to settle and clear these types of transactions. More and more, investors are using the instrument in emerging markets to create an equity kicker in illiquid investments, rather than for trading purposes (which would likely be extremely limited given the often severe illiquidity). Investors are attracted to warrants as a means of leveraging their positions in a security, hedging against downside (for example, by combining a put warrant with a long position in the underlying stock) or exploiting arbitrage opportunities[4].

2 Core Capital, Available from: http://corecapital.eu/wp-content/uploads/Information-about-Financial-instruments.pdf

3 BNP Paribas, What are Derivative Products?, Available from: https://www.bnpparibasfortis.be/rsc/contrib/document/1-Website/5-Docserver/BNP/F04827E.pdf

4 Investing Answers, Warrant, Available from: https://investinganswers.com/dictionary/w/warrant

Call and Put Warrants

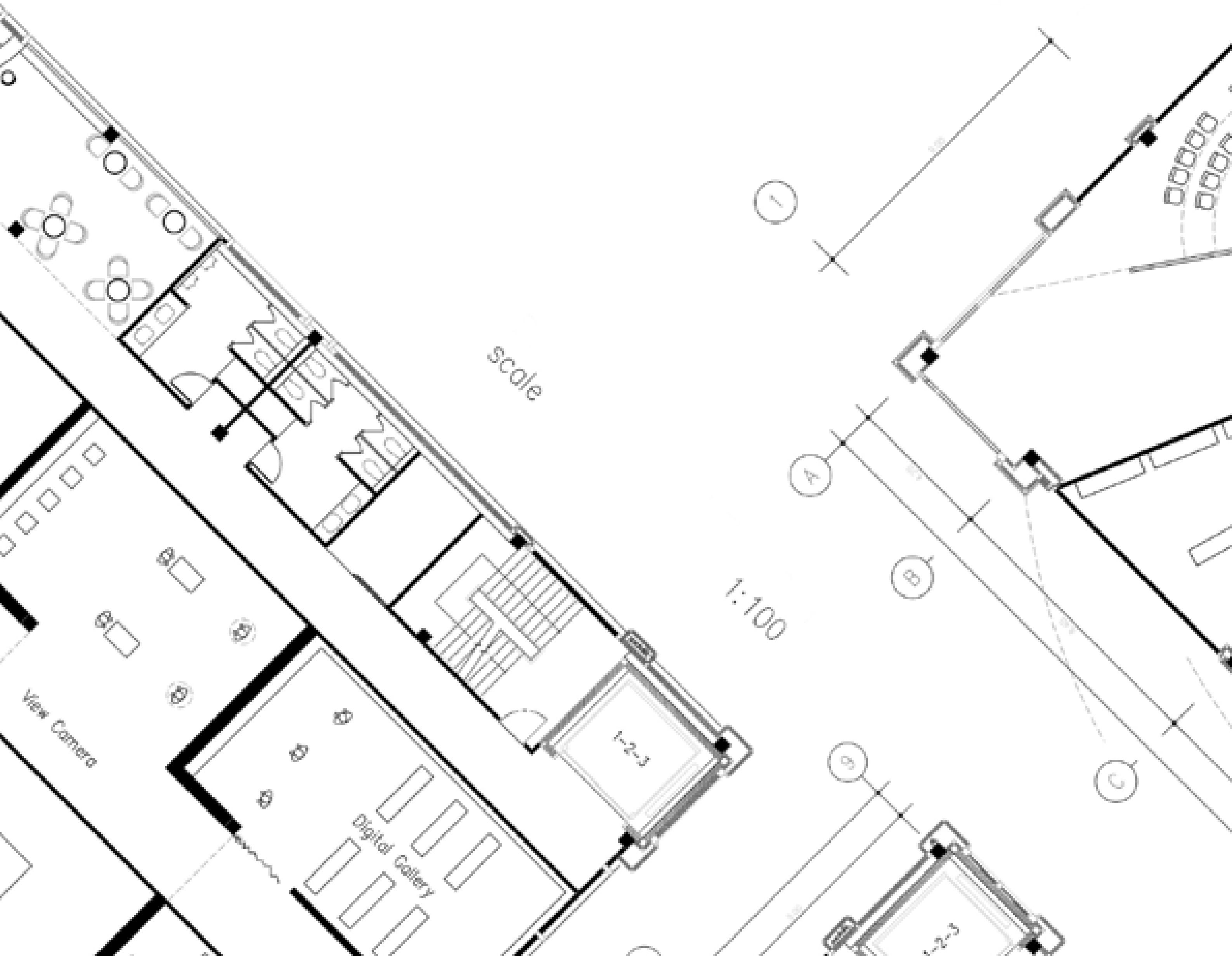
Warrants can be classified into two categories: Call warrants and put warrants.

Call Warrants

Warrants that give the right to buy a specific underlying value, are known as call warrants. If an investor believes that the price of Share A will increase they will buy a call warrant that allows them to purchase Share A at the strike price £100. If in future the price rises to £120 the warrants holder can exercise the right to purchase Share A at £100.
The value of the call warrant on the expiry date is usually the difference between the price of the underlying asset and the strike price of the warrant. If the closing price of the underlying asset is lower than or equal to the strike price, the call warrant expires as worthless and all the invested capital is lost.

Put Warrants

Warrants that give the right to sell a specific underlying value, are known as put warrants. If an investor believes that the price of Share B will decrease they will buy a put warrant that allows them to sell Share B at the strike price £90. If in future the price drops to £80 the warrants holder can exercise the right to sell Share B at £90.
The value of the put warrant on the expiry date is usually the difference between the price of the underlying asset and the strike price of the warrant. If the closing price of the underlying asset is higher than or equal to the strike price, the put warrant expires as worthless and all the invested capital is lost.



How warrants work

As the buyer, you pay a price for the rights conferred by the warrant certificate.
The price of the warrant is determined by supply and demand, and is also closely linked to the performance of the underlying, although the price of the warrant is usually much lower than the price of the underlying. Consequently, any change in the price of the underlying usually leads to a greater percentage change in the price of the warrant (leverage effect). This means that the warrant holder participates to a greater-than-average extent in the price gains or losses of the underlying.

Investors in call warrants and investors in put warrants have different expectations in terms of the performance of the underlying.
Investors buying call warrants expect the price of the underlying to go up during the life of the warrant so that the option rights are worth more and the price of the warrant rises as a result.
Investors in put warrants expect the price of the underlying to fall so that the price of the warrant rises. Holders do not normally exercise their option rights, but instead aim to sell back their warrants at a higher price[5].

5 Core Capital, Available from: http://corecapital.eu/wp-content/uploads/Information-about-Financial-instruments.pdf

Why do People Trade Warrants?[6]

1. Leverage

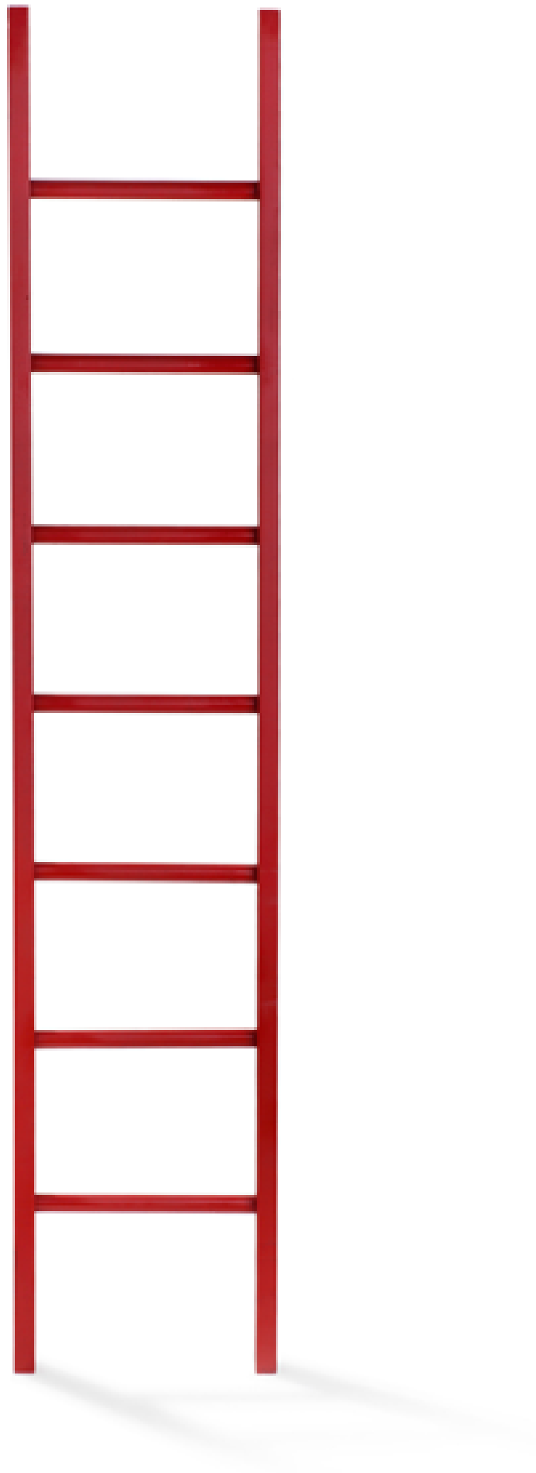
Most warrants offer some degree of leverage. This can range from negligible leverage to a high level of leverage, depending on the type of warrant. Some warrants, such as structured investment products effectively have no leverage and generally speaking, investment-style warrants offer less leverage than trading-style warrants. Leverage means that small percentage changes in one variable are levered up into larger percentage changes in another variable.

For example, given a 5% change in the underlying share price, the market value of a warrant might change by 20%.

Example:

	XYZ Shares	XYZ Warrants
16/05/2015	$13.68	$0.47
30/05/2015	$14.44	$0.68
Absolute profit	$0.76	$0.21
Percent return	5.6%	44.7%

In the example shown above, on 16 May 2018 the shares of XYZ Limited were trading at $13.68 and the XYZ warrant were $0.47. By 30 May 2018, the warrants in the table were trading at $0.68 and the shares were trading at $14.44 giving you a 44.7% return from the warrant (not annualised) compared with a 5.6% return on the shares.
It is important to recognise that leverage is a ‘double-edged sword.’ In addition to magnifying your gains, a warrant can also magnify the percentage of your losses where the value of the underlying instrument moves against the warrant position. This is because an adverse movement in the underlying instrument will also result in a greater percentage decrease in the value of your warrant, i.e. leverage works in both ways.



6 ASX, Understanding Trading and Investment Warrants, Available from: https://www.asx.com.au/documents/products/understandingwarrants.pdf

2. Speculation

A speculator is a trader who is prepared to bear more risk in return for an expected higher return. If a speculator anticipates the value of a particular asset to rise in the future they could purchase the asset now. An alternative would be to buy a deliverable call warrant over the same asset. The difference between these and other alternatives is the cost of investment.

Purchasing a leveraged warrant costs less than purchasing the underlying asset. There is however the risk that the warrant will be worthless at the expiry date, this may be more common when using trading-style warrants.

3. Investment

Some warrants are structured as longer-term investment- style products, for example instalments. The benefits of investing in these types of products might be capital growth, income, capital protection or a combination depending on the nature of the product.

4. Income

Holders of instalments are entitled to the full dividends and franking credits. This income stream is accelerated as the holder only pays a fraction of the share price upfront. If the share price is $10 and pays a 50c dividend, this would give holders a 5% yield, while an instalment worth $5 would entitle the instalment holder to the same 50c dividend generating a 10% yield.

5. Unlock wealth – cash extraction

Holders of an existing share portfolio can convert the shares into instalments allowing them to unlock the wealth to invest elsewhere, while deferring Capital Gains Tax (CGT). This allows you to further leverage your exposure to the share or spread the risk and build a broader asset base. If the share price is $10, a holder could convert them into an instalment worth $5, unlocking $5 in cash. This cash can then be reinvested to buy more of the same shares, instalments or other investments.

6. Portfolio protection and hedging

Equity and index put warrants allow you to protect the value of your portfolio against falls in the market or in particular shares. Put warrants allow you to lock in a selling price for the underlying instrument. Protecting your position in this way is called hedging. A hedge is a transaction which reduces or offsets the risk of a current holding.

7. Limitation of loss

If the value of the underlying instrument is less than the exercise price of the warrant at expiry, then a call warrant will expire worthless. Your maximum loss is the amount paid for the warrant. While you can lose your entire investment in the warrants, you have to compare that loss to the size of the exposure the warrant holding gave you, and what an equivalent exposure in the underlying instrument would have cost.

For example, If you buy 1,000 XYZ call warrants which have a current market price of $0.50 per warrant, then the maximum amount you can lose is $500 (i.e. $0.50 x 1000).

However, these warrants may give you exposure to $10,000 (say) of XYZ shares, so a similar exposure in the shares would cost you $10,000. If the share price dropped significantly you could lose far more than the $500 you invested in the warrants.

8. Market exposure

Some warrants such as index, warrants over ETFs and basket warrants, offer you the opportunity to profit from movements in the market or in a sector without necessarily owning a large portfolio, which effectively tracks the market or sector. International index warrants, international equity warrants and currency warrants allow you to gain exposure to overseas and other markets. Some warrants and structured investment products may also give you exposure to overseas underlying assets, such as shares, ETFs, indices and debt.

9. Tailored to meet specific requirements

Warrant issuers have flexibility in structuring warrants which allows a warrant series to be tailored to the investment needs of a particular kind of investor. For example, index warrants may appeal to investors looking to profit from moves in a particular index over a short period of time, while endowment warrants may appeal to investors looking for long term exposure.

10. Tax effectiveness

Some products, such as instalments and endowments, offer tax effective benefits to investors. The disclosure document will contain information on tax considerations.

Warrant Features

Warrant contracts have several features and nomenclature. The following features are common elements of every warrant contract[7]:

1. Underlying instrument
A warrant derives its value from some other 'thing' or instrument. The underlying instrument may be a security (such as a share in a company including overseas securities & ETFs), a share price index, a commodity or a currency. Some warrants are over a 'portfolio' or 'basket' of securities. The basket may consist of securities in entities with similar activities, for example mining or manufacturing. Warrants over a basket of securities give exposure to the performance of a group of securities or a particular industry.

2. Exercise price (or strike price)
This is the amount of money which must be paid by you (in the case of a call warrant) or by the warrant issuer to you (in the case of a put warrant) for the transfer of each of the underlying instrument(s) (not including any brokerage or other transfer costs).
In the case of cash settled warrants, the difference between the exercise price (sometimes referred to as the exercise level) and the value of the underlying instrument at expiry is paid on settlement. The exercise price is generally fixed when the warrants are issued. However, the exercise price could be variable. For example, the exercise price of self-funding instalments and MINI warrants is not fixed.
The exercise price of some warrants may also be in a foreign currency – e.g. currency warrants and international equity warrants.

3. Expiry date
The expiry date is the last date on which the warrant can be exercised. Trading in a warrant ceases on the expiry date. Under some circumstances warrants may expire early including when the warrant has been validly exercised.
The issuer will be obliged to deliver or take delivery of the underlying instrument or make a cash payment according to the terms of the warrant series.

4. Exercise style
Warrants can be either American style or European style exercise. American style means you can exercise the warrant at any time on or before the expiry date. European style means you can only exercise the warrant on the expiry date of the warrant. Occasionally warrants are a mixture of American and European, eg. they may be European up to a certain date and then American thereafter.

5. Conversion ratio
The conversion ratio is the number of warrants that must be exercised to require the transfer of the underlying instrument.
The terms of issue may require one warrant to be exercised to trigger delivery of one underlying instrument. Alternatively, a number of warrants may need to be exercised for the delivery of one underlying instrument.

7 ASX, Understanding Trading and Investment Warrants, Available from: https://www.asx.com.au/documents/products/understandingwarrants.pdf

6. Barrier levels

Some warrants have barrier features. A barrier level is a defined level that causes some event to occur. Some barriers cause the warrant to terminate before the original expiry date. Others may cause an adjustment to the exercise price and barrier level (and the warrant continues until expiry) but may require you to make an additional payment to the issuer. Other barriers simply cause the exercise price (or level) and barrier to be reset. Barrier levels are nominated by the issuer before warrants are issued. The barrier can be above or below the exercise price (or level) of the warrant. Warrants may expire and become worthless if they are out-of-the-money when the barrier is triggered. If however, the warrants are in-the-money, then the issuer may be obliged to pay a cash amount to holders.

7. Cap levels

Some warrants have their upside potential capped at a certain level. This is sometimes called the cap level. Cap levels are different to barriers. Cap levels generally do not cause the warrant to terminate but will limit the upside profit potential of the warrant. A cap level is fixed by the issuer when the warrant is issued. If, on exercise or expiry, the value of the underlying instrument is above the cap level, settlement of the warrant is based on a return equal to the cap level (and not the value of the underlying instrument). You could be entitled to a cash payment or transfer of the underlying instrument at a value equal to the cap level. Cap levels are used in a number of different warrant types. In some warrants the cap level is an essential feature. In these warrants, the position of the cap relative to the current share price has a significant economic impact on how the warrant works.

8. Bonus levels

Some warrants, most commonly Bonus Certificates, have a feature that adjusts the settlement amount depending upon whether a barrier level has been reached. This is sometimes called a bonus level.

Bonus levels are different to caps. Bonus levels do not limit the upside profit potential of a warrant. A bonus level is fixed by the issuer when the warrant is issued. If the value of the underlying instrument has not fallen beneath the barrier level at any time before the expiry date, the holder will get the value of the bonus level when the warrant expires. Unlike a cap, the bonus level sets a minimum value for the settlement amount.

If the value of the underlying instrument is higher than the bonus level the settlement amount of the warrant will reflect the higher value. For a bonus certificate both the bonus level and the barrier level are essential features.

Types of Warrants

Warrants are broadly split into investment-style products and trading- style products. Trading style warrants are frequently traded and are generally short dated. They have a higher risk/return profile compared to the investment- style warrants. Equity warrants, index warrants, barrier warrants and MINI warrants usually fall within this category. Investment-style warrants have other features to attract investors. These warrants tend to be longer dated and are less frequently traded. They have a lower risk/return profile and often have a higher initial outlay compared to trading- style warrants. Endowments and structured investment products are investment-style products.

Trading-style warrants:

1. Equity warrants

Also known as share warrants/stock warrants. Usually valid for a stipulated period of time, that give the holder the right to subscribe for shares at a stipulated price. The warrants can often be traded independently from the underlying shares[8]. Equity warrants give the holder the right to buy (call) or sell (put) shares or to receive a cash settlement when the share price rises above (call) or below (put) a certain level. The crucial factor for investors in share warrants is the performance of the underlying share: as an investor, you profit from a rise (call warrant) or fall (put warrant) in the share price.

When an investor exercises a warrant, they purchase the stock, and these proceeds are a source of capital for the company. However, a warrant does not represent the actual ownership of the stocks but the right to buy the company shares at a particular price in the future[9].

2. Index warrants

In the case of index warrants, the underlying security is the value of an index. The index call warrant tracks the performance of the underlying index i.e. it will tend to increase in value when the underlying index increases. The opposite is true for an index put warrant, whose price will go up when the underlying index decreases. In effect, purchasing an index warrant is taking a bet on how the overall share market will move between the time you buy the warrant and when it expires. Index warrants tend to be short-dated, generally expiring within three months of being issued. After this the warrant is worthless.

8 Thomson Reuters, Practical Law Glossary, Available from: https://shariyah.com/wp-content/uploads/2020/03/Equity-warrants.pdf

9 CFI, Stock Warrants, Available from: https://corporatefinanceinstitute.com/resources/knowledge/finance/stock-warrants/

3. Barrier warrants

A warrant in which the underlying price/ rate remains above (for a call warrant) or below (for a put warrant) a set barrier price/ rate over the life of the warrant. However, if in a call warrant the underlying price/ rate ends up at or below the barrier level, the barrier is breached and the warrant terminates and becomes worthless. If in a put warrant the underlying price/ rate ends up at or above the barrier, the barrier is breached and the warrant terminates and has no value. In either case, the warrant holder may be entitled to receive a certain amount. Barrier warrants are issued deep in-the-money, i.e., with exercise prices substantially lower than the current underlying price/ rate[10].

4. MINI warrants

MINIs are a type of warrant listed on an exchange that can be traded over a range of underlying assets such as shares, indices, commodities and exchange traded funds. Like ordinary warrants, MINIs allow you to make an upfront payment and borrow the balance from the issuer, who will charge interest and borrowing fees.

Unlike other types of listed warrants, MINIs have no set expiry date and usually track the value of the underlying asset closely. MINIs do not give you the right to purchase (or sell) the underlying asset, they only allow you to trade on the movements in the value of the underlying asset.
MINI warrants are classified as either ‘longs’ or ‘shorts’. A MINI long allows you to benefit from an increase in the value of the underlying asset. A MINI short allows you to benefit from falling prices. MINIs have an in-built stop loss mechanism which ensures you cannot lose more than your initial investment[11].

10 Financial Encyclopedia, Barrier Warrant, Available from:
https://www.financialencyclopedia.net/derivatives/b/barrier-warrant.html

11 ASIC, Warrants, Available from:
https://www.moneysmart.gov.au/investing/complex-investments/warrants

Investment-style warrants:

1. Endowments
Endowments are long term call warrants typically with a 10-year life at the time of issue. Endowments are promoted as investment products to be bought by investors and held until expiry. The issue price of an endowment is between 30 and 65 percent of the market value of the underlying security at the time of issue.
The exercise price (called the "outstanding amount" of the endowment) is initially the remaining sum plus other costs.
The outstanding amount varies over the life of the warrant. In this respect endowment warrants differ from most warrants as they do not have a fixed exercise price. The outstanding amount is reduced by any dividends that are paid in relation to the underlying security. In some instances, other payments may also reduce the outstanding amount. However, an interest rate is also applied, and the outstanding amount is increased by these interest amounts.

At expiry, if you exercise the warrant and pay the balance of the outstanding amount (if any) the issuer will transfer the underlying securities to you. Ideally the reductions applied against the outstanding amount exceed the interest incurred over the life of the warrant, and the outstanding amount will have decreased. It could reduce to zero prior to or at expiry. If this occurs you may only have to pay a nominal exercise price such as one cent.

An investor in endowments is taking a long term view on the underlying company's dividend policy versus interest rates with the belief that the dividends will outweigh the interest payments and the outstanding amount will reduce over time.

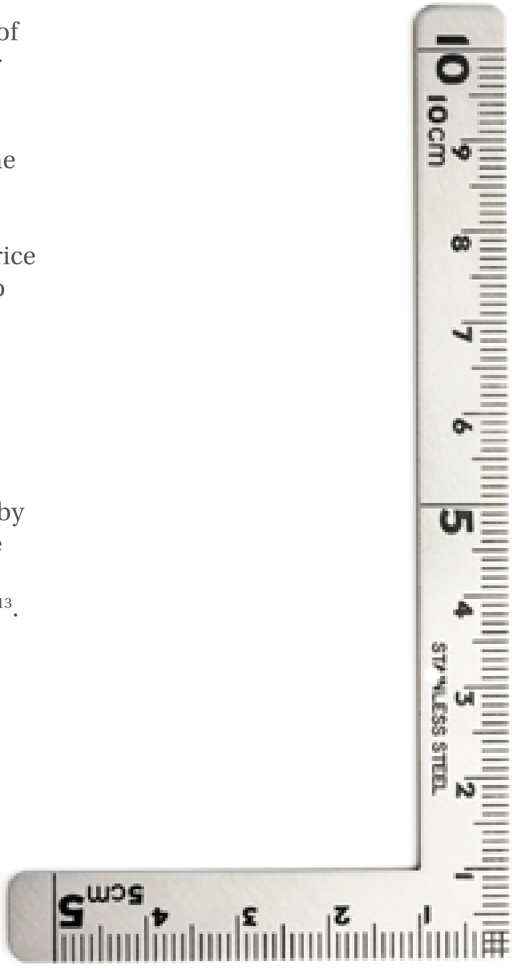
2. Structured investment products
There are many types of warrant structured investment products. For example, YIELDS - Yield Income Enhanced Listed Deferred Securities - give you a 100% capital guaranteed on the issue price (if held to maturity). They provide exposure to global equities with the potential for a quarterly income payment and capital growth.
The potential return is achieved by generating a dividend yield while writing call options over the underlying instrument.
Another example is Capital Plus. Capital Plus are issued over a basket of securities quoted. Capital Plus also offer a 100% capital guarantee on the issue price (if held to maturity). The issue price of each Capital Plus series has varied, either being issued at $1,000 or $1 per warrant. Generally the investment exposure has been up to 5 years from the issue date. While the Capital Plus does not offer an income stream, the holder will receive an investment bonus if held to maturity. Any performance above the issue price at maturity will be geared at a pre- determined level. For example, if the issue price of a Capital Plus series is $1,000 with a gearing level bonus of 10% and it matures at $1,500. The holder will receive the original $1,000 back plus $550 ($500 times 110%).

WHAT ARE TURBO WARRANTS?

Turbo or knock-out warrants are contingent in nature: if the price of the underlying instrument touches a predefined point (the barrier) during the turbo's life, the warrant is terminated ahead of time. The holder, in these circumstances, cannot exercise his or her right and will lose the premium paid. These warrants have a knock-out barrier level which is set at the same price as the exercise price of the turbo warrant. If the underlying share or index touches the barrier level at any time during the term of the warrant, the barrier is triggered, and the turbo warrant will be terminated with no payment made to holders[12].
The exercise price of the turbo warrants is also the barrier level for the warrant. If at any time during the life of the warrant, the market price of the underlying share touches the barrier trigger level, the barrier feature will be triggered, and the warrant will terminate with no payment to the holder. In the case of a turbo call warrant the underlying share price would need to be at or below the Barrier level to be triggered.
For a turbo put warrant the underlying share price would need to be at or above the barrier level to be triggered.

Another important feature of turbo warrants is the effect of dividends on the exercise price. If a dividend (other than a special dividend) is announced by the underlying company, the exercise price and barrier level will be reduced by the dividend amount. This adjustment will take effect on the ex-dividend date in respect of the underlying shares comprised in the underlying[13].

If the barrier level is not triggered during the life of the turbo call warrant, one has the ability to exercise the warrant and receive the underlying shares in exchange for the exercise price. If the barrier level is not triggered during the life of the turbo put warrant, one has the ability to exercise the warrant and deliver the underlying shares in exchange for the exercise price. They also have the option to sell the warrants on market at any time.



12 CNMV (n.d.), Warrants and Turbo Warrants, Available from: https://www.cnmv.es/DocPortal/Publicaciones/Fichas/Ficha_Warrants_engen.pdf

13 Macquire, Turbo Warrants, Available from: http://advisers.macquarie.com.au/advisers/spec_products/warrants/turbo_warrants/turbo_warrants_detail.htm

DIFFERENT TYPES OF TURBO WARRANTS

1. Turbo call warrant[14]

Turbo call warrants may produce a high return if the underlying asset increases in value. For example: If a turbo call warrant costs one-tenth (10 per cent) of the cost of the underlying asset, a 1 per cent rise in the underlying asset's price results in a 10 per cent increase in the value of the turbo call warrant. This represents a leverage of 10.
The value of the turbo call warrant on the expiry date is the difference between the closing price of the underlying asset and the strike price of the turbo call warrant.

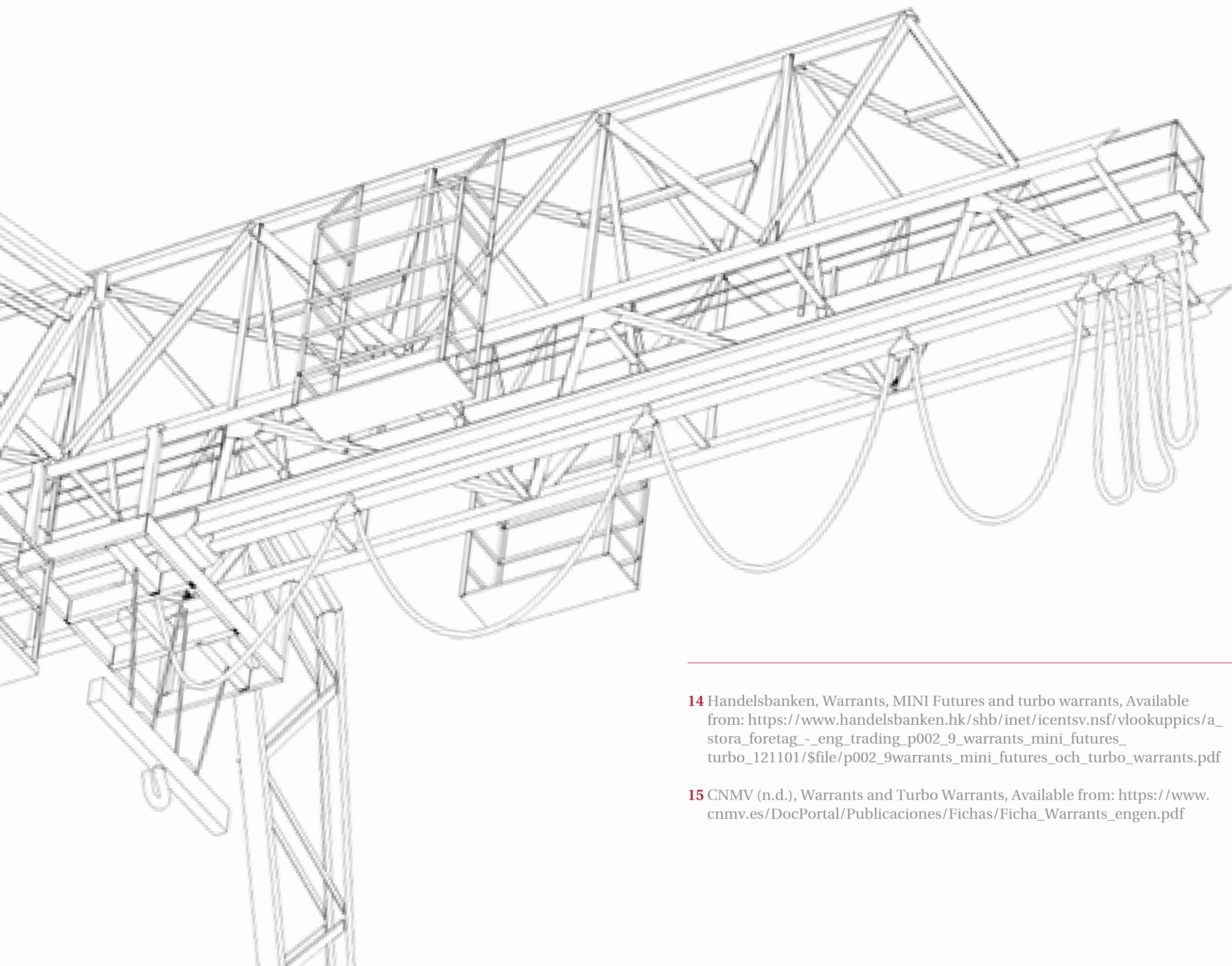
If the underlying asset price reaches a certain level (barrier) during the lifetime of the turbo warrant, it expires prematurely. The turbo warrant is then delisted from the marketplace and an amount equivalent to the difference between the underlying asset's closing price and the turbo warrant's strike price is paid. If the underlying asset's closing price is lower than the strike price, the turbo warrant expires as worthless and the invested amount is lost.

2. Turbo put warrant

Turbo put warrants provide an opportunity for a high return if the underlying asset falls in value. For example: If the turbo put warrant costs one-tenth (10 per cent) of what the underlying asset costs, a 1 per cent decrease in the underlying asset's price results in a 10 per cent increase in the value of the turbo put warrant. This represents a leverage of 10.

The value of the turbo put warrant on the expiry date is the difference between the strike price of the turbo put warrant and the closing price of the underlying asset.

Turbo warrants differ from regular warrants due to the barrier feature. In regular warrants, there is no barrier element, therefore, the right to buy or sell is conserved to expiry. Leverage is generally not as high as regular warrants, and the exposure to the underlying asset price varies in turbo warrants[15].



14 Handelsbanken, Warrants, MINI Futures and turbo warrants, Available from: https://www.handelsbanken.hk/shb/inet/icentsv.nsf/vlookuppics/a_stora_foretag_-_eng_trading_p002_9_warrants_mini_futures_turbo_121101/$file/p002_9warrants_mini_futures_och_turbo_warrants.pdf

15 CNMV (n.d.), Warrants and Turbo Warrants, Available from: https://www.cnmv.es/DocPortal/Publicaciones/Fichas/Ficha_Warrants_engen.pdf

SHARIAH ANALYSIS OF WARRANTS

Abu Sulayman (1992) of the Islamic Fiqh Academy of Jeddah, concludes that options should be prohibited because they are detached and independent of the underlying asset and therefore unjustified for the seller to charge a premium. Like options, warrants are detached from the underlying asset. They are traded independently from any underlying asset[16]. Warrants are valued mostly by reference to the sale of an asset not in the ownership (*milkiyyah*) and neither in the possession (*qabd*) of the seller, which invalidates the Shariah principle of selling what you do not possess. Shariah principles requires actual ownership and bearing of risks associated with the reference asset. Furthermore, in most warrant transactions delivery of the commodities or their possession is not intended. Derivatives almost never involve delivery by both parties to the contract. Often, parties reverse the transaction and settle for the price difference only, which transforms a derivative contract into a paper transaction as opposed to a genuine sale.

The question arises, what are warrants from a Fiqh perspective? Warrants are considered as rights to buy. The holder has the right, but not the obligation, to buy a certain number of securities (usually the issuer's common stock) at a certain price before a certain time. Warrants that confer the right to buy a security are known as call warrants; those that confer the right to sell are known as put warrants.
Mufti Muhammad Taqi Uthmani considers options – a right to buy/sell - as a mere promise[17].

16 Bacha (n.d.), Derivative Instruments and Islamic finance: Some thoughts for consideration, International Journal of Islamic financial services, Available from: https://shariyah.com/wp-content/uploads/2020/03/Derivative-Instruments-and-Islamic-Finance.pdf

17 Uthmani, M.T. (2014), Fiqh al-Buyu, Karachi: Maktaba Ma'arif al-Qur'an

He argues that such promises cannot have any consideration in lieu of it as they are not property (*Mal*) nor valid rights (*Huquq*). The 'right to buy' is a commitment, pledge and promise to transact. Let alone being lawful commodities, promises are not even assets. Promises are merely an expression of imposing a task on one's personal liability. Mufti Muhammad Taqi Uthmani further states that a premium is paid without any transfer of property, benefits or rights. Hence, when there is no transfer of an asset, a premium is unwarranted. As a consequence, the premiums paid for warrants can fall under *Rishwa* (bribe) and are prohibited. *Rishwa* refers to taking consideration for something which does not call for a premium or payment[18].

Some scholars argue that warrants contain an element of *Riba* (interest) as premiums are paid without any valid counter-exchange being offered. *Riba* (interest) is described as the conditional surplus payment not equated with any valid counter-exchange in a bilateral transaction.
If the warrant is not a valid subject matter, then conventional warrant agreements are in reality *Bay' al-Ma'dum* – which refers to a sale of a non-existent commodity. Such transactions are void and invalid in Islamic commercial law because the subject matter of the trade is non-existent.
Warrants are designed to give incentives. Despite the incentive element in a warrant, the incentive does not make the warrant a valid tradeable asset. Imam al-Zayla'i discussed the prohibition of paying premiums for incentives which are not valid counter-exchange (*mabi*') in Islamic law[19]. Imam al-Zayla'i suggests that such premiums are *Rishwah* (bribe). Therefore, the premium is unlawful and not Shariah compliant.

Another issue with trading warrants is the presence of leverage. In leverage, actual currency is not being lent to the trader; it is just an opportunity and chance to gain a higher volume of return on a trade. As a result of leverage, the broker gives you greater volume of win/loss and increases exposure to risk. The more money that is put at risk (as margin), the greater the return or loss. Therefore, leverage is just a gambling tool to increase potential return on capital and volume of gain, but equally, volume of loss too. Leverage involves *Maysir* (gambling) which is clearly prohibited in the Qur'an. *Maysir* is involved in such trades as the profit of one party is dependent on the loss of the counter-party. The Quran states:

> "They ask you about drinking and gambling. Say: 'There is great harm in both, although they have some benefit for men; but their harm is far greater than their benefit.'
>
> (Qur'an 2:219)

> "Believers, wine and games of chance, idols and divining arrows, are abominations devised by Satan. Avoid them, so that you may prosper. Satan seeks to stir up enmity and hatred among you by means of wine and gambling, and to keep you from the remembrance of Allah and from your prayers. Will you not abstain from them?
>
> (Qur'an 5:90-91)

18 Uthmani, M.T. (2014), Fiqh al-Buyu, Karachi: Maktaba Ma'arif al-Qur'an

19 ولو قال بع عبدك من زيد بألف على أي ضامن لك مائة سوى الألف فباع صح بألف وبطل
الضمان، وإن زاد من الثمن، فالألف على زيد، والمائة على الضامن:
قوله وبطل الضمان أي؛ لأنه رشوة على البيع لعدم المقابلة بالمبيع

Furthermore, in Warrants, risk is traded as part of a hedging mechanism whereby the risk is separated from real transactions. This makes risk transfer a zero-sum game, which jurists see as running against the Quranic injunction,

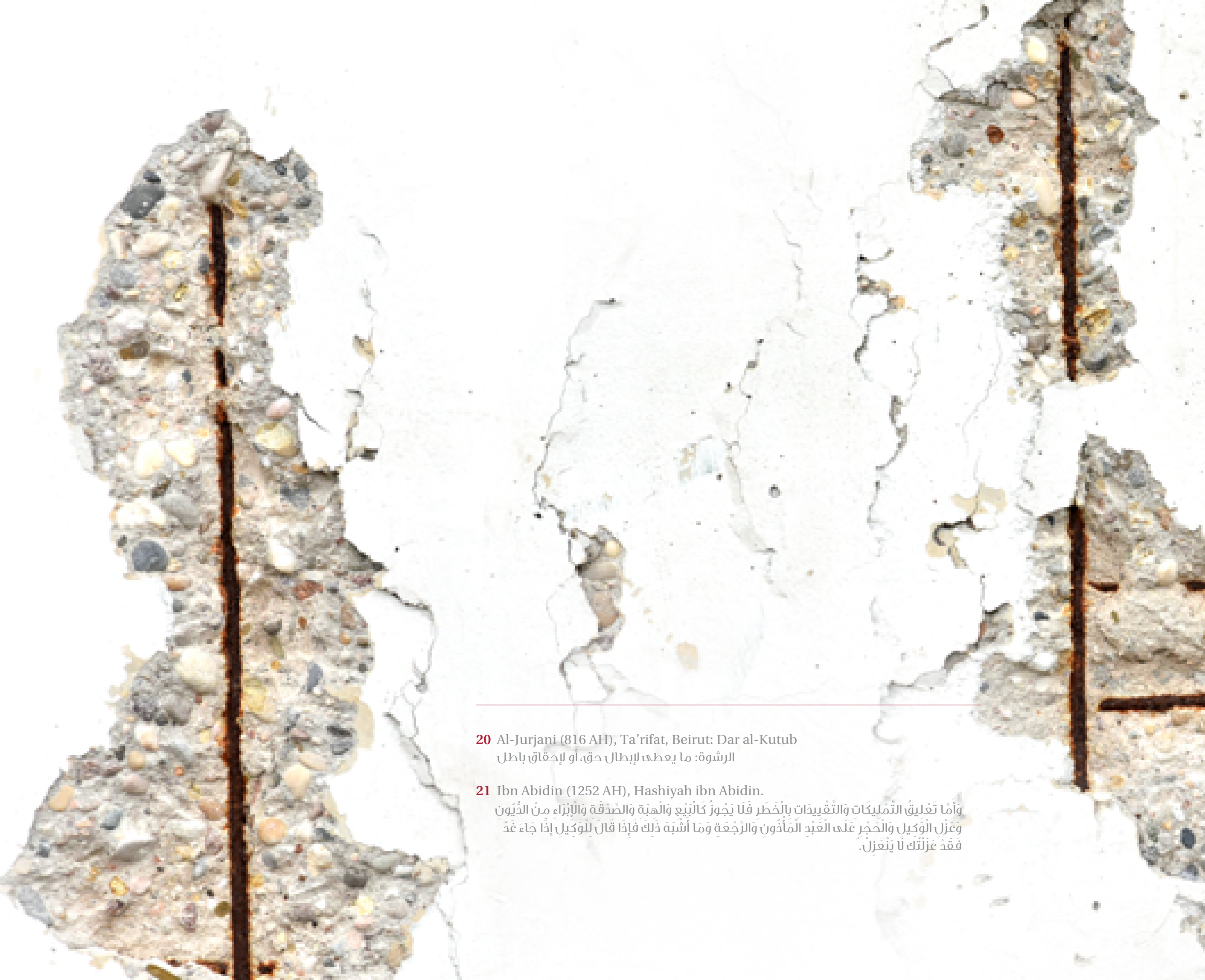
‘Do not misappropriate one another’s property unjustly’
(Quran2:188).

Another issue with warrants is that the underlying asset can be anything, even a non-Shariah compliant asset. The underlying instrument (from which the value is derived) may be a non-compliant security such as a share in a company, ETFs, share price linked index, commodity or currency. Some warrants are over a ‘portfolio’ or ‘basket’ of securities.

MINI warrants pose yet another non-compliance issue. Interest is charged in transactions where the total balance has not been paid. Ordinary warrants and MINIs allow you to make an upfront payment and borrow the balance from the issuer, who will charge interest and borrowing fees. Consequently, certain warrant transactions are susceptible to *Riba* (interest).

When a warrant is exercised, the other party is forced to sell/buy. The issuer will be obliged to deliver or take delivery of the underlying instrument or make a cash payment according to the terms of the warrant series. According to the Shariah principles, it is not compliant to force a party into a trade. This is the very reason why the primary payment for a warrant is a form of *Rishwa* (bribe). Al-Jurjani (d. 816 AH) describes *Rishwa* as a payment to nullify a valid right or a payment to establish something undeserving[20].

Another major Shariah concern with conventional warrants is the contingency of *Tamlik* (transfer of ownership) of the underlying shares. It is not permissible to make a sale transaction and the transfer of the subject matter contingent upon something else[21].



20 Al-Jurjani (816 AH), Ta’rifat, Beirut: Dar al-Kutub
الرشوة: ما يعطى لإبطال حق، أو لإحقاق باطل

21 Ibn Abidin (1252 AH), Hashiyah ibn Abidin.
وَأَمَّا تَعْلِيقُ التَّمْلِيكَاتِ وَالتَّقْيِيدَاتِ بِالْخَطَرِ فَلَا يَجُوزُ كَالْبَيْعِ وَالْهِبَةِ وَالصَّدَقَةِ وَالْإِبْرَاءِ مِنْ الدُّيُونِ وَعَزْلِ الْوَكِيلِ وَالْحَجْرِ عَلَى الْعَبْدِ الْمَأْذُونِ وَالرَّجْعَةِ وَمَا أَشْبَهَ ذَلِكَ فَإِذَا قَالَ لِلْوَكِيلِ إِذَا جَاءَ غَدٌ فَقَدْ عَزَلْتُكَ لَا يَنْعَزِلُ.

If the warrant holder exercises the warrant, they will receive newly issued stock. The *Tamlik* and transfer of ownership of shares is contingent upon exercising the warrant.
Turbo and barrier warrants have another dimension to it. If the barrier is breached, the warrant terminates and becomes worthless.
This is another manifestation of *Gharar* (major uncertainty) where the existence/non-existence of the warrant is contingent upon another uncertain event. *Gharar* means the randomness of exchange or any of its components (type of property, price, description, etc). *Gharar* can be more broadly defined as the sale of goods whose existence and characteristics are not certain.
Warrants are different to rights (*Huquq*) recognised in Shariah; *Huquq* generally confer the power to benefit from an asset/service, whilst warrants necessitate the other party to transact once exercised. Warrants are rights to contract, and thus, argued to be a derivative instrument which is being traded. A contract to contract is not Shariah compliant.

It is incorrect to analogise warrants with Shariah options such as the option of condition (*Khiyar al-shart*), option of defect (*Khiyar al-ayb*), option of inspection (*Khiyar al-ru'yah*). These are not detached from the contract; rather, they are embedded in the contract and are exercised for the same contract. In fact, they are regarded as terms of the contract[22]. On the other hand, warrants are independent and are exercised to initiate another contract. They are not terms of a contract. Even if they were terms of a contract, terms of contract are not valid, tradeable commodities in Islamic principles.

Warrants are also different to *Arbun* (earnest money). *Arbun* is paid by the buyer to the seller at the time of contract on the basis that the buyer has the option to revoke the contract during an agreed period of time. If he confirms the contract, the earnest money is credited towards the price. If he does not confirm the contract or fails to pay the remaining price during the stipulated time, the seller is entitled to forfeit *Arbun* (Earnest Money)[23]. Thus, *Arbun*, as mentioned in the Hanbali Fiqh, is part of a contract and not an independent payment to exercise another contract.

Furthermore, in *Arbun*, the partial payment paid is considered as earnest money; as such, if the buyer does not revoke the contract and continues, the earnest money would form part of the purchase price. However, if the contract is revoked within the specified time, the partial payment will be forfeited to the seller. Thus, the partial payment is not a fee or premium, as in an option or warrant contract, but more of a deposit.

22 Al-Laknawi, Umdat al-Ri'ayah, Beirut: Dar al-Kutub

23 AAOIFI (2017), Shariah Standard No. 53: Arboun (earnest money, Bahrain: AAOIFI

ALTERNATIVES TO ATTAINING SHARIAH COMPLIANCE

The tradability of a 'right to buy' in a secondary market is non-compliant with Shariah principles. However, if the incentive element of a warrant is considered, an alternative Shariah compliant incentive can be offered as a substitute to a warrant. A unilateral *Wa'd* (promise/undertaking) agreement can be structured to offer incentive features of a warrant. The seller of the warrant can instead make an undertaking to transact equity with the buyer for a limited time at a pre-determined price or market rate. This is supported by the AAOIFI standard No. 49 which states: "It is permissible for a party to promise to enter into a commutative contract in the future."

The legal nature of such a promise is described in the standard in the following words:

"It is permissible to promise to perform an action or a financial transaction and it is then a religious obligation to fulfill it, meaning that breaking a promise without an excuse is a sin. However, a promise is not legally binding except when there is a real need for it to be enforced, such as when the promisor causes the promisee to incur a liability as a result of the promise.

For example, if a person instructs a merchant to purchase a specific item and then resolutely promises the merchant that he will buy this item from him. If the merchant purchases the item solely in reliance on the promise, the promisor is legally bound to purchase the item from him, failing which the promisor is required to indemnify the promisee (merchant/seller) for any actual loss suffered such that if the merchant is unable to sell the item for a price that covers the cost of the item, the promisor is required to make up the difference between the cost of the item and the price obtained by the merchant for it. Actual loss does not include opportunity cost."

In reference to exercising the promise, the standard states:

"When a promise is made to enter into a contract in the future, such contract is not effected automatically. The contract must be entered into at the relevant time by the exchange of offer and acceptance. Where the promise is legally binding, if the offer is made by the promisee, the promisor is bound religiously and legally to accept it. And if the offer is made by the promisor, the promisee has the option to accept or reject it."

However, unlike warrants, such a *Wa'd* cannot be traded as the trading of a *Wa'd* is not Shariah compliant.

As discussed above, *Bay' al Arbun* is different to warrants. However, *Bay' Al Arbun* presents many similarities with a Call Option and Call Warrant since both can be employed as strategies of hedging risks. The Council of the Islamic Fiqh academy defined *Bay' Al Arbun* as a "sale of a commodity with the buyer making a down payment to the seller on the understanding that if he took the commodity, the down payment would be deducted from the selling price and if he dropped it, then the down payment would be the seller's property"[24].

Bay' Al Arbun is a void contract according to the three schools of Islamic law: The *Shafi'i*, *Hanafi* and *Maliki* Schools. Only the Hanbali school upholds *Bay' Al Arbun* with the condition imposed that the time should be stipulated for the option[25]. The Council of the Islamic *Fiqh* Academy has also endorsed *Bay' Al Arbun* but only if the time limit is specified. The resolution of the OIC Fiqh Academy states that: "Down payment (earnest) sales are permissible if the time frame of the contract is set, and the down payment *Arbun* is considered as part of the selling price if the purchase is carried through, and as the property of the seller if the buyer desists."

There are some similarities between *Bay' Al Arbun* and Call Warrants, however, the main difference is that the premium is a part of the price if the purchase is carried out, while for the Warrant it is not. However, the rationale of Call Warrants is similar to that of *Bay' Al Arbun* particularly in the way that both can be used as a risk reduction strategy or a method by which stakeholders have more flexibility prior to executing their contracts.

The down payment is a predetermined amount, non-refundable, that buyer must pay when concluding contract. It is the "price" of the optional component of the contract. However, unlike the premium for a "Call", the down payment is part of the price and not an independent component. Eventually, in case of termination of contract by the buyer, the counterparty retains the deposit.

To illustrate *Bay' Al Arbun*, consider an underlying asset which is a share: Initially, the counterparties agree on a price £100, and £10 deposit/*Arbun* payment that buyer pays immediately. Two situations are observed thereafter. If the value of the underlying asset is lower than the amount remaining, the buyer can terminate the contract. In this way, he limits his loss to the amount of the deposit. On the other hand, if the value of the underlying asset is far greater than the remaining balance, the *Arbun* holder can continue with the trade and purchase the underlying asset. In this case, he will buy the asset but will only pay the remaining balance[26].

If Shariah compliant hedging is the objective for using warrants, *Tahawwut* is a plausible alternative. *Tahawwut* refers to a hedging process/mechanism that is used or offered by Islamic banks and financial institutions to help mitigate a specific type of risks such as FX risk, market risk, liquidity risk, counterparty risk, etc. Islamic banks' retail product offerings are generally fixed-rate *murabaha*-based products to customers (or individual investors), while the corporate customers are offered facilities based on certain floating benchmarks. From a banks' perspective, this may be used when there is a liquidity mismatch between tenors of Islamic deposits and tenors of Islamic investments, and also between fixed rate exposure and floating rate exposure. Corporate clients also require more complex products in order to manage their own risk positions through the banks. Therefore, Islamic banks use Islamic finance tools to manage interest rate risk and FX risk. Among the most common tools are profit rate swaps and the Islamic forward FX contract[27].

24 Siham (2013), Bai al Arboun A Shariah Compliant Alternative to Conventional Call Options, Available from: https://www.researchgate.net/publication/281372626_Bai_Al_Arboun_A_Shariah_Compliant_Alternative_to_Conventional_Call_Options

25 Ayub, (2003), Derivatives and Islamic finance

26 Siham (2013), Bai al Arboun A Shariah Compliant Alternative to Conventional Call Options, Available from: https://www.researchgate.net/publication/281372626_Bai_Al_Arboun_A_Shariah_Compliant_Alternative_to_Conventional_Call_Options

27 Financial Encyclopaedia, Investment & Finance, Tahawwut, Available from: http://www.financialencyclopedia.net/islamic-finance/t/tahawwut.html

Conclusion

Warrants are derivative products, in that their price depends on the performance of the underlying asset. It gives holder a right, but not an obligation, to buy a certain number of securities at a certain price before a certain time. The underlying asset can be anything such as ETFs, shares, indexes, commodities etc. Warrants violate several principles in Shariah. Warrants are not *Mal* (property) and therefore are not valid tradeable assets from a Shariah perspective. Warrants are a manifestation of Bay' al-Madum (selling something which is non-existent). Warrant contracts are subject to *Gharar* (excessive uncertainty) and *Qimar* (gambling).
Therefore, they are classified as non-Shariah compliant derivatives. However, alternatives such as Bay' *al-Arbun* and *Tahawwut* can be used as alternatives of Warrant structures for Shariah compliant hedging.

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Disclaimer

This is a preliminary Shariah research and is by no means a definitive conclusion or fatwa on the aforementioned subject. This paper was written to develop knowledge and research on this complex subject from a Shariah perspective. We hope that this paper will prompt and engage global Islamic finance bodies, Shariah scholars and Muslim economists to analyze, comment and build upon the arguments expressed.

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