



Ehata
Ehata Financial Company



Ehata Financial Saudi Futures Guide

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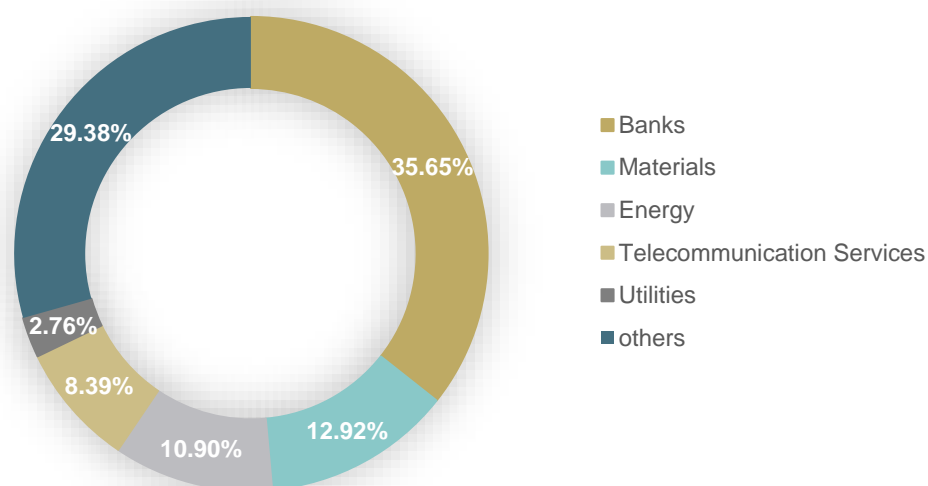
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Preface

The MSCI Tadawul 30 (MT30) index was launched in December 2018 and went live in January 2019. MT30 is a tradeable index jointly created by the Saudi Exchange and Morgan Stanley Capital International (MSCI). The index targets the top thirty (30) securities listed on the Saudi main equity market, based on free-float market capitalization, representing about 80% of the market value. The weights in Table 1 below show the major contributors in the index, which rebalance at different points in time. The index follows a Sunday-through-Thursday (STW) week trading calendar. It provides international and local investment institutions with various financial products of derivatives and ETFs and serves researchers and financial market experts. The first financial product to be based on the MT30 index is the index futures.

Table1: Index constituents:

Company Name	Sector	Index Wt. (%)
Saudi Basic Ind Corp	Materials	12.92
Al Rajhi Bank	Banks	12.77
ARAMCO	Energy	10.90
National Comm Bank	Banks	9.25
STC	Telecommunication Services	8.39
SAMBA	Banks	4.05
Riyadh Bank	Banks	3.86
Saudi British Bank	Banks	2.93
Banque Saudi Fransi	Banks	2.79
Saudi Electricity	Utilities	2.76
Total		70.62



Source: The Saudi Exchange

The MT30 index futures contract was launched on August 30, 2020. It is the first exchange-traded derivatives product in the Saudi Exchange and runs on NASDAQ's market technology. The contract code is SF30, and the contract size is MT30 Index Futures multiplied by 100. The contracts expire on the third Thursday of the month; if it is a holiday, the contract will expire on the previous trading day.

The maximum number of net long or short positions for all months is set at 10,000. At the same time, qualified hedgers can take positions beyond 10,000 contracts subject to the exchange approval upon submission of appropriate documents of owning the underlying assets. All outstanding positions will be settled daily on a mark-to-market (MTM) basis at the end of the day. The launch of the MT30 index futures will not only boost Saudi’s capital market but also provide the investors with an instrument to effectively manage their risk and opportunities to gain exposure to the fast-growing Saudi economy.

Central counterparty clearing house inception milestone

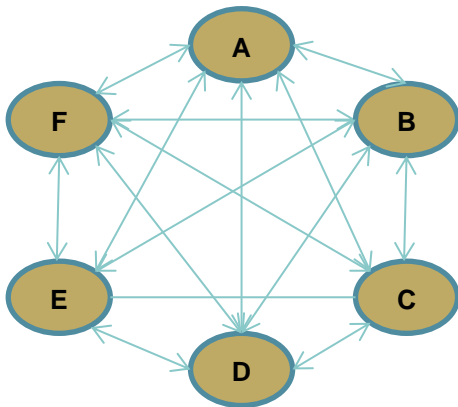
The Saudi Exchange’s first central counterparty (CCP) clearing house, Muqassa, was established in 2018; it started operation on August 30, 2020. A CCP clearing house is a financial organization that facilitates trading by acting as an intermediary between the buyer and seller in a transaction and provides clearing and settlement services for trades in the derivative contract. CCP’s functions are given below:

Figure 1: Role of Central Counterparty Clearing House



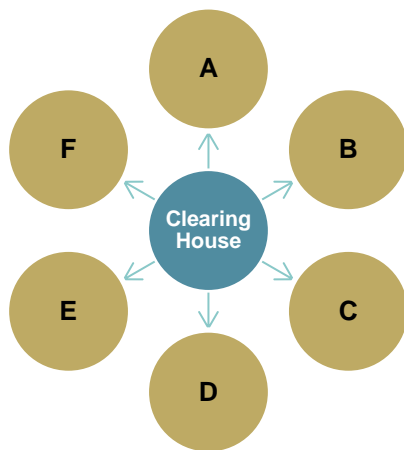
CCP plays a crucial role in introducing efficiency and stability in the market. It safeguards the financial market from credit and liquidity risks. The cases given below illustrate the importance of a clearinghouse.

Case 1 – Bilateral clearing (no central counterparty clearinghouse)



In a bilateral futures agreement, each participant interacts separately with every other participant. The legal, credit, market, and operational risks are dealt directly with the parties transacting in the contract. A default by one party may lead to a cascading effect, thereby putting the entire market at risk; this ultimately disrupts the futures market's liquidity.

Case 2 – Clearing through a clearinghouse



The clearing house imparts efficiency and liquidity to the market by acting as an intermediary between the parties in a contract. It provides a guarantee to honor the terms of the original transaction. Even if one of the parties defaults, the failure will not cascade to the rest of the market. The clearing house isolates the rest of the market from the default.

Muqassa's foundation is one of the Financial Sector Development Program (FSDP) plans introduced under the Saudi vision 2030. It is another step toward developing the Saudi capital market and enticing investors to the region. As an independent clearinghouse, Muqassa acts as a legal intermediary between the parties in a transaction, assuring to honor the terms of the original transaction, even if one of the parties in the contract defaults before the fulfillment of the obligation. The CCP team is responsible for developing futures clearing services as per the best international risk management practices and standards. Furthermore, Muqassa will reduce the post-trade risks, provide a centralized counterparty risk management, and develop clearing services, which will appeal to investors towards the Saudi capital market. This, in turn, is expected to strengthen the current market infrastructure and enhance operational efficiency. The CCP currently clears only MT30 index futures; it is expected to provide clearing services for other instruments in the future.

Overall, the introduction of MT30 futures trading is a major part of the Saudi capital market development project under the Saudi Vision 2030 program. The first step would pave the way for more index futures (e.g., TASI futures, TASI sector-specific futures), index options (e.g., MT30 options), single-stock futures (e.g., Aramco futures), and single-stock options (e.g., SABIC stock options). Globally, both developed and emerging markets' stock exchanges provide a full suite of derivative contracts for investors. The Saudi market is expected to attract a broad range of global investors to help achieve FSDP objectives.



SAUDI FUTURES GUIDE

Introduction to Index Futures

Introduction to Index Futures

What are futures contracts?

A futures contract is a type of derivative product. It is a legally binding agreement between two parties, where both parties agree to buy or sell a particular asset of a specific quantity at a pre-specified date in the future for a predetermined price fixed at the signing of the contract. The contract's underlying asset could be market indices, commodities, stocks, currencies, interest rates, and bonds. The futures contract buyer holds a "long position," whereas the seller holds a "short position" in the contract. Key terms of the futures contract are futures price, spot price, and delivery date.

Future Price	A predetermined price that the parties fix at the beginning of the contract
Spot Price	The current price of the asset in the spot market
Delivery Date	Date when the actual payment and delivery of the asset take place

On expiry, the contract can be settled by delivering the underlying asset or in cash. Stock index futures are usually settled in cash. Futures contracts help investors hedge the underlying asset's price movement to avoid losses from adverse price changes. Futures contracts are typically traded on an exchange, which makes them highly regulated and standardized.

Index futures are contracts based on a specific stock market index. The derivative market allows investors to participate in the index futures; investors can simulate the movement of the underlying index. Launching the first exchange-traded derivatives product in Saudi Arabia, the MT30 index futures is a vital step toward developing the capital market. The launch will support growth in the Saudi capital market as well as provide regional and international investors with the required hedging tools to mitigate the risk while expanding exposure opportunities to one of the largest and most liquid markets in the world.

How does a futures contract work?

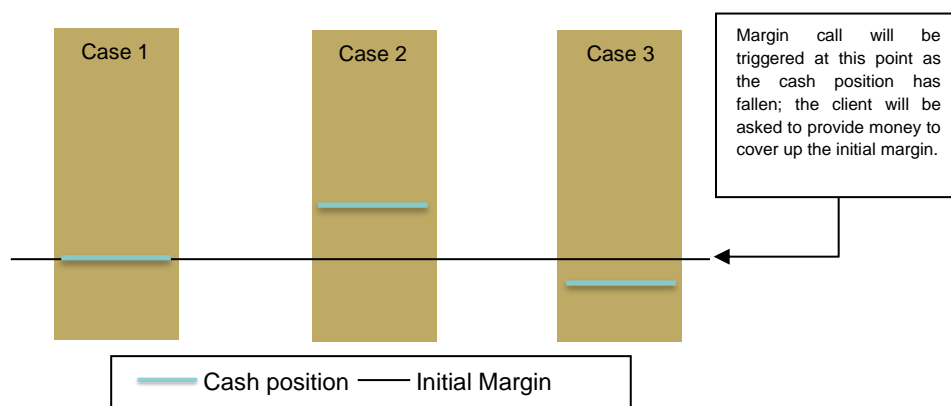
Futures contracts allow investors to lock an actual price for an underlying asset that will be purchased at some point in the future. Hence, it protects the investors against the possibility of price fluctuations. An investor can take either a long position or a short position in a contract. When an investor takes a long position, he expects the underlying asset's price to increase in the future. Accordingly, the investor enters the contract to buy the underlying asset at a pre-agreed price at some point in the future. Similarly, when an investor takes a short position, he decides to sell the underlying asset at a pre-agreed price. A futures contract comprises a certain number of shares, known as a lot, and has a specific expiry period: one, two, three months, or different periods depending on the index.

Each position in the contract requires the investor to deposit a small amount with the clearinghouse and not pay the full amount of the underlying asset. This small deposit is known as the initial margin, which is a certain percentage of the total contract value. Theoretically, the exchange sets the initial margin amount reliant on the underlying price volatility. The higher the underlying's price volatility, the higher the margin, and the lower the volatility, the lower the margin. Investors' profits and losses on futures contracts are settled daily, which is referred to as MTM. The buyer makes a profit when the price of the underlying asset increases and his earnings are added to the initial margin account. In contrast, the seller makes money when the price of the underlying asset drops.

If the buyer or seller of the contract faces enormous losses and their funds fall below the initial margin (other markets apply a maintenance margin), the buyer or the seller receives a margin call from the broker asking him/her to add more funds immediately to cover up the initial margin. If the buyer or seller fails to meet the margin call, either the position in the contract would get liquidated automatically or reduced in accordance with the amount of funds remaining in the buyer or seller's account. The graph below explains the concept of a margin call in three different cases.

- **Case 1:** Cash position = initial margin
- **Case 2:** Cash position > initial margin
- **Case 3:** Cash position < initial margin

Figure 2: Futures margin requirements



The final profit or loss is assessed once the trade gets closed at expiry. All futures contracts have a specified date on which they expire. Before the expiration, the investor can either close out (close the contract before expiry) or hold the contract until settlement. If the investor plans to hold the contract, then on the settlement date, the contract will be settled according to the settlement parameters specified in the contract; the investor margin account will be marked to market for profit or loss on the final day of the contract. The investor can also offset his position before the expiration date to close a position. The investor must take an equal opposite position to neutralize the trade, i.e., if the investor is long in a contract, he can take a short position in the same contract. The long and short positions will offset each other, and the investor margin account will be marked to market and adjusted for profit and loss.

The futures contract also allows the investor to rollover. Rollover allows switching the current contract to one that has a later expiry date. This means the investor will close his current position in the contract, which is about to expire, and reopen a similar position in a further-out month contract. As the futures contract is traded through an exchange, it assures the parties involved that the contract will be honored. Also, all the futures contracts are generally cleared via a clearinghouse; this eliminates the default risk to a great extent.



Let us assume, Mr. Ahmed, an investor, having done some analysis believes the price of the MT30 index would rise in the future. He buys a one-month SF30 (contract code of the index) futures contract on July 27, 2021; the contract will expire on August 24, 2021. If, the contract price is SAR 1,000 and contract multiplier is 100, then the total value of the contract comes to SAR 100,000 (contract price multiplied by contract multiplier). To buy this contract, Mr. Ahmed does not have to pay the entire contract value; he is obligated to pay just the initial margin to open a buy position in the contract. Assuming 10% is the initial margin, Mr. Ahmed has to pay SAR 10,000 (10% of the contract value) to open a position in the contract. Now, let us assume the price of SF30 increases to SAR 1,050 on August 15, 2021. Under such a scenario, Mr. Ahmed will have two options: either to close his open position and book a profit of 5,000 ($50 * 100$) or keep his position open until the expiry date. Consequently, Mr. Abdullah who is the seller in the contract will realize loss because of increase in the price of the contract. He would have booked profit had the price of the index decreased. Futures trading is a zero-sum game, which means one party's loss is another's gain.

Trading example and queuing of orders

Multiple traders can place orders simultaneously via terminals which will get queued up in the exchange order system. The bid and ask limit orders will become visible to traders, thereby giving them an idea of the bid-ask spread related to a specific futures contract. As soon as any trader enters a market order (to either buy or sell a futures contract at best ask or best bid level, respectively), it will get matched to the best quote, and that level will become the latest level traded in the market. The rest of the orders will get adjusted accordingly.

As an example, assume four traders are looking to buy and sell MT30 index futures contracts. They place limit orders as follows:

Table 2: Futures orders pipeline for June 2021 contract

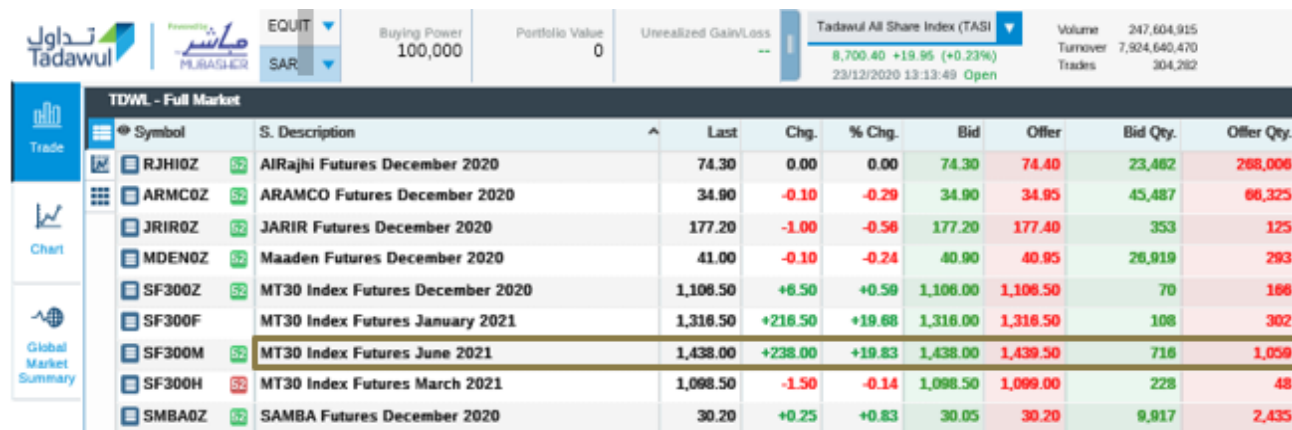
Trader	Order	Quantity	MT30 Index Futures
 Trader 1	Order 1 – Buy	10	1,450
 Trader 2	Order 2 – Buy	20	1,425
 Trader 3	Order 3 – Sell	15	1,475
 Trader 4	Order 4 – Sell	10	1,500

These orders will get lined up in the order system and will be visible on the trading screen.

Table 3: Bid-Ask table

Bid Offer	Bid Quantity	Ask Offer	Ask Quantity
1,450	10	1,475	15
1,425	20	1,500	10

Figure 3: Simulator screenshot summarizing all orders



Symbol	S. Description	Last	Chg.	% Chg.	Bid	Offer	Bid Qty.	Offer Qty.
RJHI0Z	AIRajhi Futures December 2020	74.30	0.00	0.00	74.30	74.40	23,462	268,006
ARMCOZ	ARAMCO Futures December 2020	34.90	-0.10	-0.29	34.90	34.95	45,487	66,325
JRIR0Z	JARIR Futures December 2020	177.20	-1.00	-0.56	177.20	177.40	353	125
MDEN0Z	Maaden Futures December 2020	41.00	-0.10	-0.24	40.90	40.95	28,919	293
SF300Z	MT30 Index Futures December 2020	1,106.50	+6.50	+0.59	1,106.00	1,106.50	70	166
SF300F	MT30 Index Futures January 2021	1,316.50	+216.50	+19.68	1,316.00	1,316.50	108	302
SF300M	MT30 Index Futures June 2021	1,438.00	+238.00	+19.83	1,438.00	1,439.50	716	1,059
SF300H	MT30 Index Futures March 2021	1,098.50	-1.50	-0.14	1,098.50	1,099.00	228	48
SMBA0Z	SAMBA Futures December 2020	30.20	+0.25	+0.83	30.05	30.20	9,917	2,435

As soon as any trader places a market order, i.e., to either buy or sell a futures contract at the prevailing best ask or best bid rate respectively, the order will get executed. Accordingly, the order table will get adjusted.

For instance, if another trader places a market order to buy 10 futures contracts at 1,475 level, it will get matched to the outstanding ask quote. The order book will get updated as follows:

Table 4: Bid-Ask table

Bid Offer	Bid Quantity	Ask Offer	Ask Quantity
1,450	10	1,475	5
1,425	20	1,500	10

Price convergence at expiry

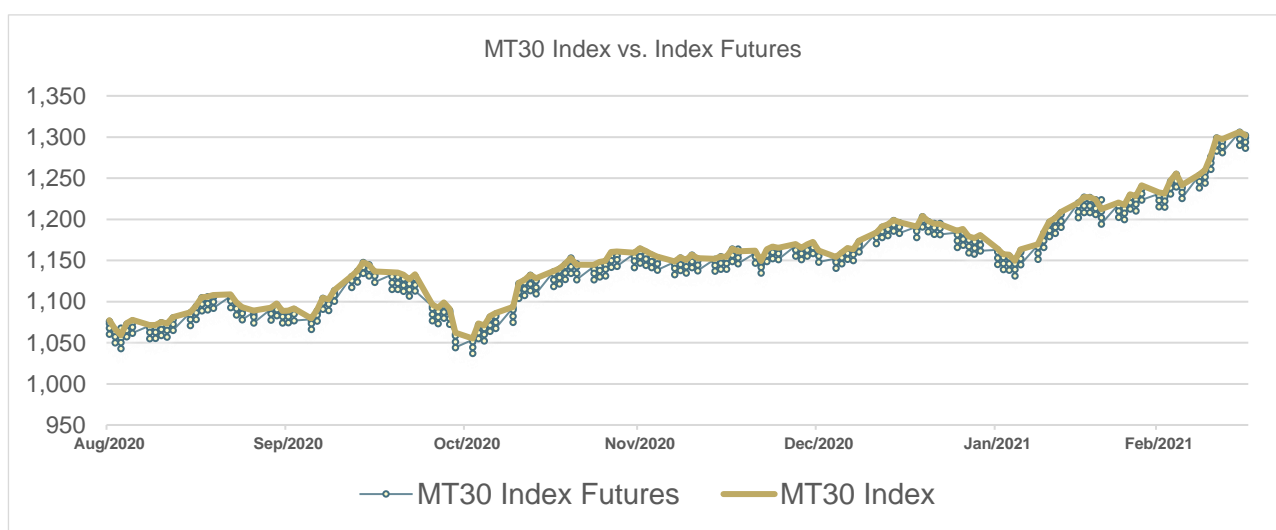
The spot price is the current market price of a specific stock or index in the spot market, also known as the cash market. If an investor wants to invest in a stock or an index, he needs to pay the spot price. As explained above, the futures price is the price of the same stock or index at a future date. Prior to the contract's expiration, the price of the futures contract will either be at a premium or at a discount that is represented in basis.

When the contract is introduced, the difference in the two prices could be due to the cost of carry (costs that one needs to incur for holding a position till the expiration of the contract) and the other factors such as demand and supply in the market. So, in a futures contract, the difference between the two prices is mainly due to variables such as interest rate, dividends, transaction cost, time to expiry, etc.

The "basis" is just the difference between the futures price and the spot price of the underlying asset. The basis can be negative, zero, or positive. A positive number indicates that the futures price of the underlying asset is higher than the spot price, known as contango. In comparison, the negative basis means that the futures price of the underlying asset is lesser than the spot price, called backwardation. A basis value of zero indicates the futures contract and its corresponding spot price are trading at par. Over the futures contract's life, the basis does not stay stable but keeps fluctuating with time.

When the futures contract is initiated, the basis tends to be wider, mainly because the number of days to the contract expiration is high. However, as the contract advances to expiry, the price of the futures will normally converge to the spot price, as depicted in the graph below. This is a solid trend that appears irrespective of the underlying asset. Upon expiration, if there is a difference between the two prices, this will bring an arbitrage opportunity. If the price of a futures contract is less than the spot price of the underlying at expiration, then market participants will buy the futures and sell the spot and vice versa. This will create downward (upward) pressure on the future price and upward (downward) pressure on the underlying; as a result, both will reach equilibrium, and the gap will be closed. Hence, to prevent arbitrage, the futures price at the contract's maturity must be equal to the spot price.

Figure 4: Spot and future price convergence



Source: The Saudi Exchange

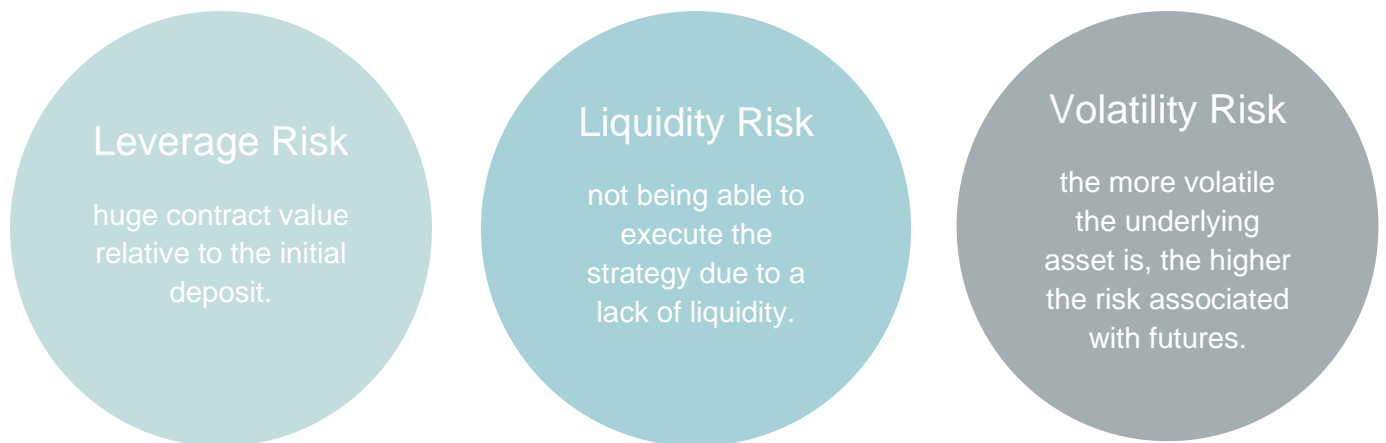
Why does futures trading involve risk?

One of the key risks associated with futures trading comes from the inherent feature of leverage. Investors will only need to fulfill the margin requirements to be able to trade. Given its nature, unfavorable price movements could potentially result in material capital losses for investors engaged in leveraged trades. More examples of the risks of leverage embedded in futures can be found in the final section of this guide.

Likewise, liquidity risk is an important factor in trading futures. The level of liquidity in a contract can impact the decision to trade or not. Even if an investor arrives at a strong trading view, he may not be able to execute the strategy due to a lack of liquidity. There may not be enough willing buyers and sellers in the market at the right price to initiate a trade. Also, if a trade is executed, there is always a risk that it can become difficult or costly to exit from positions in illiquid contracts. Even on a day-to-day basis, some contracts and delivery months tend to be more actively traded and liquid than others. Hence, interested investors should closely monitor useful liquidity indicators such as the volume of trading and the open interest (the number of futures positions that are still open and yet to be matched with an offsetting trade or satisfied by delivery).

Moreover, investors should be aware of the impact of market volatility on the risk-return profile of their portfolios when making investment decisions. Thus, investors must assess the risk profile of the underlying asset as futures volatilities are primarily influenced by the same factors that influence the underlying asset price. In other words, the more volatile the underlying asset is, the higher the volatility risk that the associated futures would exhibit.

Figure 5: Summary of futures risk



A nighttime cityscape with illuminated buildings and streets, overlaid with a teal semi-transparent oval containing text and faint white line graphs. The background is a blurred view of a city at night, with many windows lit up, creating a bokeh effect. The teal oval is centered horizontally and vertically, containing the main title and subtitle. Faint white line graphs are visible in the background, suggesting a financial or data-related theme.

SAUDI FUTURES GUIDE

Application of Index Futures

Application of Index Futures in Various Scenarios

Hedging

Hedging is a strategy undertaken to mitigate potential losses in the future due to adverse price movements in an asset. It involves designing an investment transaction to reduce, or in some cases, eliminate the risk of losses. One of the most effective and practical applications of futures contracts is hedging. According to the modern portfolio theory, diversification eliminates “Unsystematic Risk;” however, before the introduction of the futures contracts, investors had to accept that “Systematic Risk” could not be diversified.

Later, stock index futures were introduced. Investors can now hedge their investment portfolio and reduce or eliminate risk during the time of extreme volatility in financial markets. Instead of adjusting exposure by changing the weightage of every single stock in the portfolio, the investor can take an offsetting position in an index future (as it replicates the entire market movements). Moreover, investors can also safeguard their profits through hedging if the performance of the portfolio has been good in a particular period. In a long hedge, participants buy futures to offset a short position in the cash market. A long or short hedge position can be distinguished by taking a long or short position in the index futures contracts. In a short hedge, participants sell futures to offset a long position in the cash market. For instance, if the investor is concerned about the decrease in value of his portfolio due to a correction in the broader market, he will enter a short hedge position. In other words, he will sell the index futures to reduce his downside risk.

We can take an example of how investors can hedge their portfolios against adverse market movements. The following is a hypothetical portfolio held by an investor with eight different stocks. The portfolio is long-only. Hence, to reduce the market risk of a decrease in the portfolio value, the investor will short the index futures (in our case, the MT30 index futures). In our example, the MT30 index futures over-represent the stocks held by the investor in his portfolio; therefore, to hedge the market risk, an investor must short the appropriate number of MT30 index futures.

Table 5: Sample portfolio hedging

Stock Name	Investment Amount (SAR) (a)	Weightage in Portfolio (a/b) = c	Stock Beta (d)	Weighted Beta (c * d)
Al Rajhi Bank	50,000	5%	0.59	0.03
SABIC	150,000	16%	0.95	0.15
Saudi Aramco	180,000	19%	0.56	0.11
Saudi Telecom Co.	200,000	21%	0.67	0.14
NCB	175,000	19%	0.91	0.17
Samba Financial Group	65,000	7%	1.12	0.08
Saudi Arabian Mining Co.	35,000	4%	0.89	0.03
Saudi British Bank	85,000	9%	0.94	0.09
Total	940,000 (b)	100%		0.80

Source: Bloomberg

Notes:

1. Total portfolio amount of SAR 940,000 is an aggregate of investment amount (share price * no. of shares) in an individual company.
2. The stock betas are 1-year raw betas referencing to MT30 index.

To hedge a portfolio using index futures, one must carry out a few preliminary steps such as determining the portfolio investment amount, portfolio beta, hedge value, and the number of futures contracts required.

1) Hedging with Index Futures

It is important to remember that a hedged portfolio's beta signifies movements in the portfolio value in relation to the changes in the index and would serve as a hedge ratio when determining the correct number of contracts to purchase or sell. It can be calculated by summation of the weighted betas of each stock held in the portfolio. For instance, if the MSCI Tadawul 30 index moves up by 1%, our portfolio value will increase by 0.8% as the portfolio beta stands at 0.8.

The next step is to determine the hedge value. It can be calculated by multiplying the portfolio beta and investment value. In our case, the hedge value works out to around SAR 752,000. This indicates that to hedge our portfolio, we need to short MT30 index futures worth SAR 752,000.

To hedge the risk in a portfolio, the number of contracts that should be shorted is:

$$\beta \frac{V_A}{V_F}$$

where V_A is the current value of the portfolio,

β is its beta, and

V_F is the current value of one future (= futures price times contract size).

Next is the determination of the number of contracts required to hedge the entire portfolio. The MT30 index's futures contract code is SF30; it is traded on the Saudi Exchange with a contract size of 100. Let us assume that the current price of SF30 contract is SAR 1,150, then the contract value of a single futures contract will be SAR 115,000 (SAR 1,150 * 100). To hedge the portfolio, we will need to short 6.54 contracts (752,000/115,000) of SF30 futures contracts. We cannot short 6.54 contracts; hence, we will round it up and consider shorting 7 contracts of MT30 index futures.

Now, let us take a hypothetical situation where the MT30 index declines by 10%.

Table 5: Futures position payoff

Particulars	Amount (SAR)
Short Futures Strike Price	1,150
Decline in MT30 Index (-10%)	115 points
Profit/(Loss) = 115 * no. of contracts * lot size	115 * 7 * 100 = 80,500

The short position in MT30 index futures resulted in a gain of SAR 80,500.

Table 6: Portfolio payoff

Particulars	Amount (SAR)
Portfolio Value (a)	940,000
Portfolio Beta	0.8
Decline in Portfolio Value = Portfolio Beta * Decline in MT30 Index (b)	10% * 0.8 = 8%
Profit/(Loss) = a - b = 940,000 - 8%	(75,200)
Overall P&L: (+80,500 - 75,200) = SAR +5,300	

The investor was able to hedge the downside risks of the portfolio using MT30 index futures and generate a profit of SAR 5,300 by selling the MT30 index futures.

It is important to note that beta is a lagging indicator (measured over previous periods), and hence by its own, is not a reliable metric in predicting future performances.

2) Optimal Hedge Ratio

The method illustrated in the previous example is built on the premise that an index and a futures contract exhibit a perfect relationship such as the one between the MT30 index and MT30 futures. Now, should the portfolio manager attempt to account for the imperfect relationship between the spot and futures positions, then an optimal hedge ratio that incorporates the degree of correlation between both needs to be computed.

The optimal hedge ratio can be used to determine the correlation between the variance of an asset and that of the hedging instrument (futures contract) used to mitigate the asset downside risk. The ratio can also be used to determine the optimal number of futures contracts required to hedge the underlying asset position.

$$h = \rho \cdot \frac{\sigma_s}{\sigma_f}$$

where ρ is correlation,

σ_s is investor portfolio standard deviation,

and σ_f is index futures standard deviation.

Let us assume that the correlation between the portfolio and the index futures is 0.57, and the standard deviation of the portfolio is 2%, and that of the index futures is 5%. In this case, the optimal hedge ratio (determined using the formula given above) would be 0.23.

The optimal hedge ratio of 0.23 indicates that instead of hedging 100% of the portfolio, the investor must only hedge ~23% of the portfolio.

Nonetheless, it is imperative to note that when we are targeting an optimal hedge, more than one thing needs to be in place, including the absence of basis risk, which means that assets in the portfolio are exactly the same as that underlying the futures. Also, the hedging horizon must match perfectly with that of future maturity. These are only two factors, among others, such as liquidity mismatch, which can potentially introduce basis risk.

In most cases, a perfect hedge is challenging to attain; hedgers will need to continually account for imperfection between their portfolio and the hedging instrument. It is also important to note that the correlation between the portfolio and the index futures is continuously changing and could often break in a stressed market environment, requiring an investor to rebalance the hedge ratio to adjust for such variability actively.

Arbitrage

Arbitrage is a trading strategy whereby an investor tries to generate a risk-free profit by simultaneously buying and selling an asset or a basket of assets. The core idea behind an arbitrage trade is to exploit the price discrepancies arising in an asset in different markets or forms. An arbitrage opportunity exists due to inefficiencies present in the market; hence, according to the efficient market hypothesis, if the markets are efficient, all the information available is already factored in the prices, and investors will not be able to beat the market and generate alpha. In reality, markets are inefficient, and traders try to exploit the price discrepancies arising every millisecond.

Index arbitrage is a trading strategy whereby an investor attempts to exploit price discrepancies between actual and theoretical index futures prices. In other words, an index arbitrage trade aims to generate profit by making simultaneous trades in the index futures and the constituents of that index itself. For instance, an investor will simultaneously buy (sell) the index futures (e.g., MT30 index futures) and sell (buy) the stocks constituting the MT30 index in the cash market.

Index arbitrage trade is typically executed using sophisticated computer programs and algorithms that screen index and stock prices every millisecond to locate price discrepancies amongst various securities and automatically initiate buy and sell orders to generate risk-free profits. Large financial institutions generally execute such trades to generate sufficient profits from minor price discrepancies between securities by conducting trades in large amounts. An example of the most common arbitrage trading strategy is to determine discrepancies in the prices of S&P 500 futures and the published price of the S&P 500 index. According to the theory, the price of the S&P 500 index should be equal to the sum of market capitalization weighted prices of all the 500 companies in the index; however, if the prices are not equal, there is an arbitrage opportunity. Suppose the weighted prices of all the S&P 500 components are lower than the S&P 500 index price. Then, the computer will execute a buy transaction for all the 500 securities and simultaneously sell a similar amount of S&P 500 index futures and generate a risk-free profit until the prices converge to correct levels.

Speculation

In a speculative investment strategy, the investor executes a financial trade, which inherits a massive risk of investment value loss; however, at the same time, substantial gains can be obtained from the trade in case the anticipated asset price movements turn out to be correct. Investors undertake such investment trades as the possibility of gains is expected to be more than the probability of incurring a loss. One of the core applications of futures contracts is their use in speculative investments. If the price of the underlying asset of a futures contract (for instance, the MT30 index) is expected to rise, the investor will take a long position in the index futures. In case the value of the MT30 index rises until the expiry of the futures contract, the investor will generate a profit.

Moreover, the investor can also take a short position in the index futures if he expects the price of the underlying asset to decline. The investor can take the same exposure through the cash market; however, the futures markets enable investors to take a much larger exposure by just investing the margin amount. The margin exposure can magnify investor's gains, but at the same time, it can also magnify losses. Speculators who desire to outperform traditional investors in a short span typically

end up incurring more losses as they primarily rely on anticipated outright price movements. If the speculators believe the asset's price is going to rise, they attempt to buy that asset as much as possible. Such a sentiment across the market might drive the price of the asset above its intrinsic value. Unsophisticated speculators or retail traders might get caught in this frenzy and enter a position at an unrealistic price and most likely incur substantial losses. Moreover, speculators might also undertake leveraged trade, which can magnify losses, as explained later in the report.

A synthetic position in the futures market enables investors to replicate their positions in the equity markets. Large financial institutions use arbitrage strategies, as it requires large capital, sophisticated technology, and expertise to exploit the minor price discrepancies. However, synthetic positions in the futures market can be created using listed index products, enabling smaller experienced investors to replicate their equity positions and manage risks. Using index futures, investors can replicate the movements in the entire market after addressing the risk tolerance and capital requisites.



SAUDI FUTURES GUIDE

Payoff Scenarios and Exposure Management

Payoff Scenarios and Exposure Management

Bullish and bearish views

If an investor has a bullish view toward the underlying asset of a futures contract, he will take a long position in the contract. For instance, if the investor assumes the MT30 index to rise in the future, he will take a long position in the MT30 index futures. The payoff for the investor taking a long position in the futures position will be similar to that of the investor holding the underlying asset. In other words, if the price of the underlying asset increases, the price of the futures contract will rise, and the investor will generate profit. Similarly, investors can take exposure in futures contracts if they have a bearish view of the index. Investors can short the index futures contract and generate profit if the value of the index declines until the expiry of the futures contract.

Figure 4 illustrates an investor's payoff chart wherein the investor enters a long futures position at a strike price of 100 anticipating a rise in the underlying asset's price. If the price of the underlying asset moves to 150, then as per the futures contract, the investor will buy the asset at 100 (strike price) and sell the asset at 150, leading to a profit of 50.

Figure 4: Bullish view – Payoff Chart

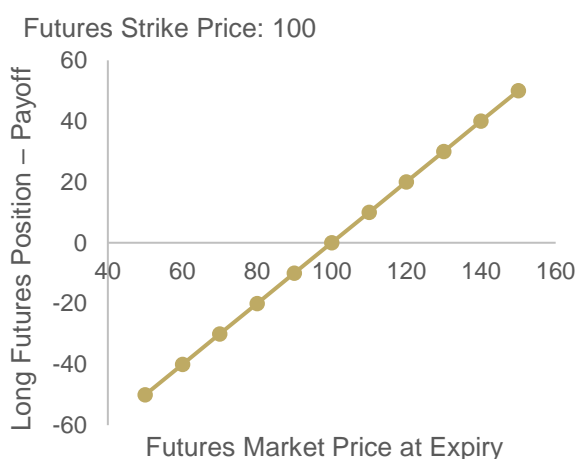
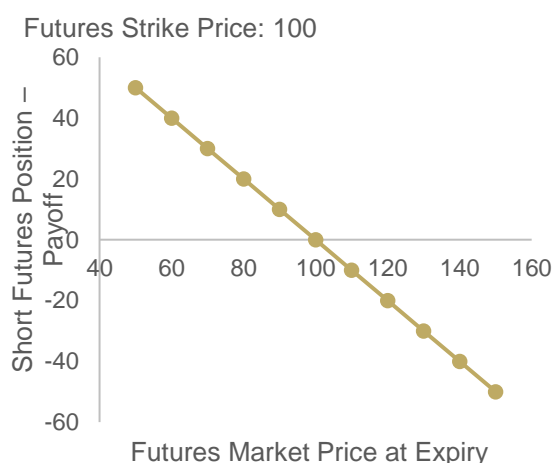


Figure 5: Bearish view – Payoff Chart



The potential upside in a futures position is unlimited. Theoretically, the potential downside in a futures position is also unlimited. Investors can limit the downside risk and manage the exposure by using techniques such as “stop-loss” orders. A stop-loss order can be used as a risk management tool to limit the amount of loss incurred by the investor. When the price of a security falls below a predetermined level, a stop-loss order automatically becomes a market order, and the offsetting trade would be executed at the next available price. In the previous example, investors can enter a long futures position at 100 and place a stop-loss order at 90 simultaneously. Later, if the futures contract price falls below 90, stop loss would be triggered, and a sell order would be executed automatically at the next available price, limiting higher potential losses.

If the investor wishes to have more price control when the order is filled, he can use a stop-limit order. A stop-limit order is a conditional trade over a set timeframe that combines the features of a stop with those of a limit order and is used to mitigate risk. The stop-limit order will be executed at a specified price, or better, after a given stop price has been reached.



SAUDI FUTURES GUIDE

Margin Requirements and Calculations

Margin Requirements and Calculations

Introduction

Futures margin requirements is a key concept for investors taking exposure in the futures/derivatives market. Margin requirements in the futures market are linked to the performance of the futures contract and ensure that the investor will fulfill his financial obligation at the expiry of the contract. A futures margin deposit is not a down payment, and the investor cannot own the underlying asset by maintaining the futures margin.

One of the most important features of taking exposure in the futures market is the availability of leverage. The investor is not liable to bring the entire value of the futures contract in cash. He is only required to bring in futures margin requirements, which depict a small proportion of the total futures contract value. To take exposure in the futures market, investors must be aware of various types of margins.

1) Initial margin

Initial margin is the upfront requirement of cash collateral deposited by the investor to open a buy or sell position in the futures contract. In other words, the initial margin accounts for the proportion of the total market value of the securities, which the investor must secure in cash. Usually, the initial margin ranges from 3% to 12%, indicating the availability of significant leverage while taking exposure in the futures market. The Securities Clearing Center, Muqassa, set the initial margin required per product based on global best practices and methodologies.

2) Variation margin

Variation margin is the amount of funds paid by the clearing member (broker) to the clearinghouse daily as per the futures contract's price movement. A futures contract has a daily settlement cycle; hence, investors will notice changes in margin cash as per the movements in the price of the futures contract's underlying asset. For instance, in the case of a long futures position, if the price of the futures contract rises, the margin cash deposited by the investor will increase; it will decrease when the futures contract price declines. The change in the value of margin at the end of the day's settlement is known as the variation margin.

Other markets may apply maintenance margin, which is the amount of cash the investor must maintain in the margin account at all times as long as the investor intends to keep the position open. In case the margin cash falls below the maintenance level, the investor will receive a margin call from the broker, whereby the investor will need to deposit additional cash to bring the cash margin back to the initial margin level.

To illustrate how margin requirements work, let us assume an investor anticipates the MT30 index to increase in the future. Consequently, he decides to open a long position in the MT30 index futures trading on the Saudi Exchange. Suppose on Day 1, the index value is SAR 1,150, and the lot size is 100, the total futures contract value comes to SAR 115,000 ($\text{SAR } 1,150 * 100$). As of this report date, the initial margin set by Muqassa is based on a flat notional amount that is updated periodically as market volatility changes. As such, if the initial margin is equivalent to 10%, the investor must secure cash collateral of SAR 11,500 to open a position.

Table 7: Futures contract details

Particulars	Amount (SAR)
MT30 Index Level	1,150
1 Future Contract Value (a)	$1,150 * 100 = 115,000$
Initial Margin (b)	10%
Initial Margin Requirement (a * b)	11,500

As mentioned earlier, the futures contracts are settled daily. Thus, the investor's profit and loss are adjusted at the close of the market through Mark-to-Market (MTM). MTM is an accounting procedure whereby the exchange adjusts the cash balance present in the investor's account as per daily P&L. Table 8 depicts the entire cycle of cash and margin adjustments carried out after the opening of a futures position by an investor. At the end of day 1, the closing price of the futures contract is SAR 1,160. Hence, the new contract value will be SAR 116,000 with a margin requirement of SAR 11,600. The investor is not liable to infuse this additional margin requirement because the MTM profit of SAR 1,000 will be credited to his account. This will make the investor's cash balance SAR 12,500 (initial margin of SAR 11,500 + MTM profit of SAR 1,000), which is more than the required margin. Similarly, MTM P&L adjustments will be made until the investor closes the position or the futures contract expires.

Table 8: Day-wise change in futures contract value – Long position

Day	Initial Contract Value	Futures Contract Close Price	Futures Contract Value	Initial Margin Requirement	Daily MTM Change	Cash Balance
1	115,000	1,160	116,000	11,600	1,000	12,500
2	116,000	1,175	117,500	11,750	1,500	14,000
3	117,500	1,195	119,500	11,950	2,000	16,000
4	119,500	1,200	120,000	12,000	500	16,500
5	120,000	1,210	121,000	12,100	1,000	17,500
6	121,000	1,180	118,000	11,800	-3,000	14,500
7	118,000	1,185	118,500	11,850	500	15,000
8	118,500	1,190	119,000	11,900	500	15,500

Consider the investor closes the position on day 8 with a futures selling price of SAR 1,190. The investor's overall P&L stands at SAR 4,000 (initial margin deposit of SAR 11,500 – cash released after closing the position of SAR 15,500), indicating a return of 34.8%. This can also be derived by adding the cumulative daily MTM changes or by calculating the difference between the buying and the selling price of the futures contract.

Table 9: Long futures position – P&L

Particulars	SAR
Initial Margin Requisite	11,500
Cash Released After Closing the Position	15,500
Profit Earned	4,000
Returns	34.8%

A case where the investor receives a margin call

Let us understand the scenario wherein an investor receives a margin call. The investor receives a margin call when the required margin is more than the cash balance present in the account. Considering the previous example, let us assume the investor did not close his position on day 8, and on the next day, the MT30 index declined significantly, leading to a sharp drop in the index futures price. The futures price dropped to SAR 1,100, leading to an MTM loss of SAR 9,000 and a margin requirement of SAR 11,000 ($\text{SAR } 1,100 \times 100 \times 10\%$). The MTM loss will result in a decline in cash balance to SAR 6,500. Hence, the investor will receive a margin call and will be liable to infuse additional cash to bring the cash balance back to the initial margin. Moreover, the broker might also reduce the investor's position via liquidation if the MTM loss is significant.

Table 10: Margin call in futures contract value

Day	Initial Contract Value	Futures Contract Close Price	Futures Contract Value	Initial Margin Requirement	Daily MTM Change	Cash Balance
9	119,000	1,100	110,000	11,000	-9,000	6,500

A case where the investor undertakes a short futures position

The investor undertakes a short futures position as he expects the price of the underlying asset to decline in the future. Hence, during short positions, the investor makes money when the price declines, and the MTM adjustments are made accordingly.

Let us assume that instead of a long position, the investor undertakes a short position at the same strike price, and the daily price changes; the MTM calculations are given below.

Table 11: Day-wise change in futures contract value – Short position

Day	Initial Contract Value	Futures Contract Close Price	Futures Contract Value	Initial Margin Requirement	Daily MTM Change	Cash Balance
1	115,000	1,160	116,000	11,600	-1,000	10,500
2	116,000	1,140	114,000	11,400	2,000	12,500
3	114,000	1,135	113,500	11,350	500	13,000
4	113,500	1,100	110,000	11,000	3,500	16,500

For instance, the investor closes the position on day 4 with a futures selling price of SAR 1,100. The investor's overall P&L stands at SAR 5,000 (initial margin deposit of SAR 11,500 – cash released after closing the position of SAR 16,500), indicating a return of 43.5%. This can also be derived through summation of the cumulative daily MTM changes for all days or by calculating the difference between the buy price and sell price of the futures contract.

Table 12: Short futures position – P&L

Particulars	SAR
Initial Margin Requisite	11,500
Cash Released After Closing the Position	16,500
Profit Earned	5,000
Returns	43.5%



SAUDI FUTURES GUIDE

Index Futures Trading Strategies

Index Futures Trading Strategies

Index futures are used extensively by investors or portfolio managers for risk management or to generate profit. They represent broader markets, possess high liquidity, and provide significant flexibility for implementing various trading and hedging strategies. Examples of trading strategies are index spreads, outright bull/bear directional trades, and bullish and bearish pullback strategies.

Index spread

Index spread strategy involves generating a profit by simultaneously buying and selling two futures contracts. Index spread is a routine trading strategy; its effectiveness and ease of execution have made it significantly useful. The strategy structure is developed to exploit the relative valuation between two indexes rather than opening a position based on directional movement in the indexes. As the index spread strategy involves simultaneous buy and sell of the futures contracts of highly correlated indexes, it is expected to be relatively less volatile and safer than directional trades.

Let us take an example to understand how an index spread strategy is executed. Two major indexes in the US are the NASDAQ-100 and S&P 500. Although different, these indexes are highly correlated, or in other words, movement in these indexes generally follows a similar pattern. The NASDAQ-100 is a tech-heavy index due to the higher weightage of companies from the technology sector. In contrast, the S&P 500 index represents a broader market due to its vast and diversified range of companies as its components.

Now, let us assume that a portfolio manager is concerned about downside risks in the technology sector. After conducting a preliminary analysis, he decides to take exposure of USD 100mn to generate profit from this downside possibility. In such a scenario, the portfolio manager would decide to sell the NASDAQ-100 futures and simultaneously buy S&P 500 futures. However, to generate an index spread, he must calculate the notional value of the contracts, spread ratio, and the number of futures contracts required of each index to generate profit. The current prices of NASDAQ-100 and S&P 500 futures are USD 12,327.5 and USD 3,669.5, respectively.

Table 13: Index spread strategy calculations

Particulars	Contract Value
NV _{NASDAQ-100} (USD 12,327.5 * 20 contract multiplier)	246,550
NV _{S&P 500} (USD 3,669.5 * 50 contract multiplier)	183,475

$$\begin{aligned}
 \text{Spread ratio} &= \text{NV}_{\text{NASDAQ-100}} / \text{NV}_{\text{S\&P 500}} \\
 &= \text{USD } 246,550 / 183,475 \\
 &= 1.3438
 \end{aligned}$$

The calculation for spread ratio indicates 1.3438 S&P 500 futures for every one NASDAQ-100 futures.

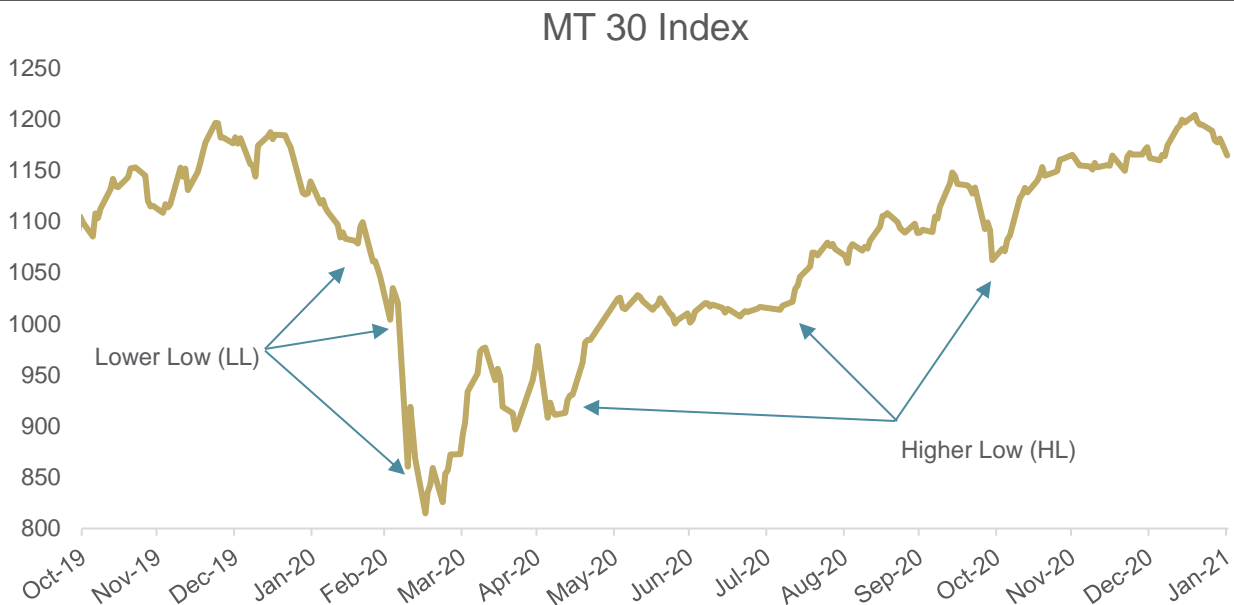
The next step is to determine the number of futures contracts required of each index to generate the index spread. As mentioned earlier, the amount of investment is USD 100mn. After dividing this portfolio investment by the notional value of NASDAQ-100 futures, we arrive at the number of NASDAQ-100 futures required, which will be around 406 contracts (USD 100mn/246,550). Moreover, by applying the spread ratio to this NASDAQ-100 futures position, we can determine the number of S&P 500 futures positions required: around 545 contracts ($406 * 1.3438$). Once the prices converge to the appropriate level, the portfolio manager will close both positions.

Momentum and trend trading strategies

The momentum and trend trading strategies are among the most effective and easy-to-execute trading strategies. In a trend trading strategy, the investor interprets the underlying trend and enters a directional trade. If the underlying asset's price trend is upward, investors will execute a long position in the futures contract. If the trend is downward, the investor will short the futures contract. In the trend trading strategy, the investor follows the “buy low, sell high” principle; however, determining the right price to open the position might be difficult. To determine the entry point, we need to understand how a trend forms.

The price forms higher highs and higher lows (HLs) during an uptrend, with every higher low indicating a countertrend move. A countertrend move represents price corrections on account of profit booking activities carried out by the traders. These higher lows could be the best entry points, or in other words, the investor will execute a buy order when the price correction occurs, and a countertrend move is established.

Figure 7: Underlying uptrend resulting in higher highs



Source: Refinitiv; LL – Lower Low; HL – Higher Low

As depicted in Figure 7, the lower low (LL) points are used to enter a short futures position, while HL points are used to enter a long futures position.

Investors undertaking pure trend trading strategies are exposed to marginal risks as the proportion of losing trades is usually higher than the winning trades. One of the primary reasons can be uncertainties in the market. A volatile market might indicate several false trend indicators, which might lead to loss of capital.

To successfully implement trend trading strategies, a trader must implement sophisticated risk management techniques to safeguard capital. For instance, a trader can have a trading system that wins or carries out profitable trend trades more than 50% of the time, indicating a risk-reward ratio of 1:2. Now let us assume a hypothetical outcome whereby a trader executes win (W)/lose (L) trades in the following manner: L L W W W W.

The trader's overall profitability will depend on the amount of equity the trader uses in a particular trade.

Table 13: Trend trading P&L scenarios

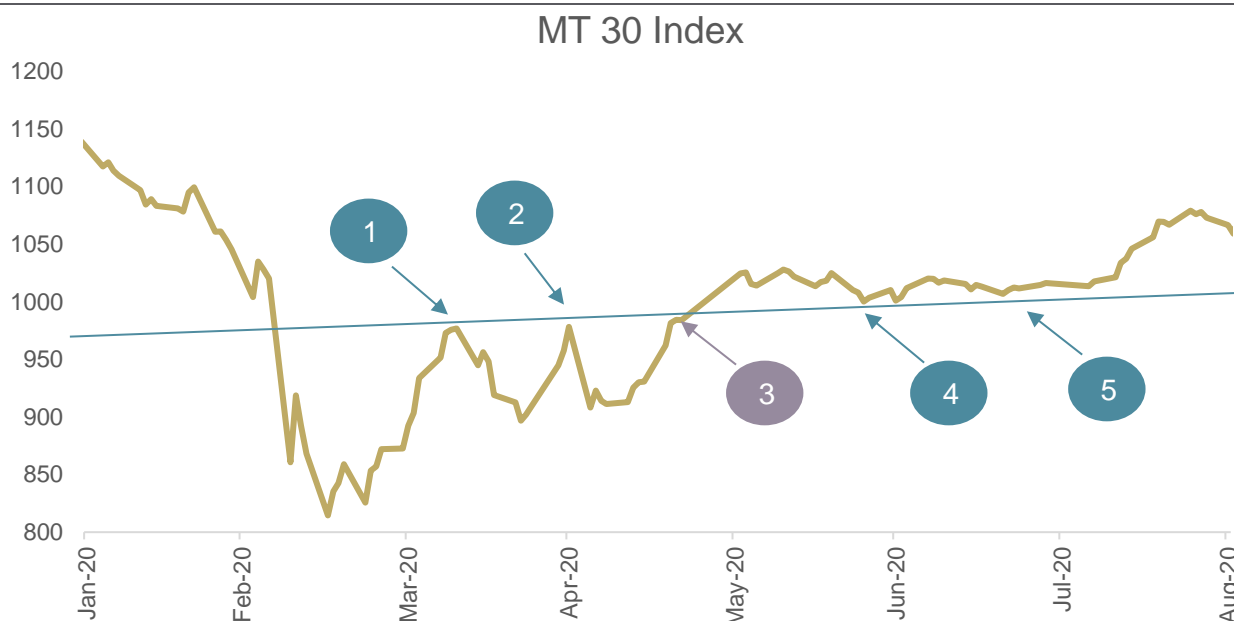
Particulars	50% of equity	10% of equity
Trade 1: L	-50%	-10%
Trade 2: L	-50%	-10%
Trade 3: W		20%
Trade 4: W		20%
Trade 5: W		20%
Trade 6: W		20%
Overall Profit/(Loss)	-100%	+60%

As illustrated in Table 13, if an investor uses a significant portion of capital upfront, the first two trades will be enough to eliminate the invested capital. However, if he more prudently invests the allocated capital, as depicted in the above table, which is around 10% of total equity, the trader could generate gains of about 60%.

Pullback strategy

The pullback strategy is another popular futures trading strategy that uses technical analysis concepts to interpret a strong underlying trend and then take a position when a pullback in prices occurs. A pullback in a price occurs when the price of an underlying asset breaks the established support/resistance level, then retracts itself, and again tests the broken support/resistance level. Pullbacks in prices occur as investors start to book profit once an established level is broken, forcing the prices to move in the opposite direction. Pullbacks will result in a change in the nature of the level broken. In other words, a broken support level should supposedly turn into a resistance level, and a broken resistance level will transform into a support level as per the strategy.

Figure 8: Pullback in an underlying downward trend



Source: Refinitiv

As depicted in Figure 8, the resistance level at points 1 and 2 has turned into a new support level at points 4 and 5. At points 4 and 5, prices have retested the previously broken resistance level at point 3.

During an uptrend, prices break through a well-established resistance level, retracts, and retests the previous resistance level. The investor will execute a long position once the retest is complete and generate profit amid an underlying uptrend. Similarly, during a downward trend, prices will break the support level, reverse, and then retest the previous support level. In this case, the investor will enter a short position once the retest is complete due to an underlying downward trend. In terms of risks, pullback strategies are exposed to execution risks. A trader needs to have a certain amount of experience and expertise to identify trends and patterns in price movements and accordingly undertake trades. However, these risks can be mitigated by applying techniques such as stop-loss orders and by placing profit targets.

Outright bull/bear directional trades

Investors undertake outright directional trades based on the future expectation of movements in prices. The sole determining factor for a long or a short position will be investors' expectations of the future direction of price movements. For instance, if the investor believes that the MT 30 index is overvalued and will witness a correction in value in the near term, the investor would short the MT30 index futures to express his opinion. Outright directional trading requires the investor to have a firm conviction of market movements; however, he also needs to implement risk management strategies such as stop-loss to mitigate downside risk and protect the invested capital. Moreover, in a directional trade, the price movements must be significant, enabling the investor to earn profit in excess of the transaction and commission costs. If the price moves in a direction opposite to the investor's anticipation, then he can use the stop-loss strategy to reduce losses.

Bull spreads

Bull spreads is a futures trading strategy that involves simultaneous opening of a long position in a near-term contract and a short position in a longer-term contract of the same underlying asset. The strategy generates profits when the price of the underlying asset increases. Investors use it to reduce the margin requirements and create a hedge against any adverse price movements in the underlying assets. The margin requirements in a bull spread trade are lower because of reduced volatility. For instance, if the investor believes that the MT30 index will rise in the near term, instead of undertaking an outright directional trade, he can create a bull spread and generate profit and mitigate downside risks simultaneously. The investor will open a long position in MT30 index futures with expiry in December 2020 and short the MT30 index futures with expiry in June 2021 simultaneously.

The bull spreads strategy is used by investors as it provides higher scenarios in which the investor will make a profit compared to outright directional trades. Table 14 depicts various scenarios in which the bull spread strategy generates profit. Moreover, the strategy can generate profit when the prices of underlying assets are stagnant. Furthermore, as the margin requirement is lower, this strategy can provide higher returns on investments. However, the strategy would provide lower profits compared to directional trades if the price of the underlying asset breaks out significantly. The bull spread strategy has a few disadvantages. For instance, more legs will compel the investor to consume more commission. Moreover, bull spreads do not have the potential to generate profit as extreme as outright positions.

Table 14: Bull spread profit scenarios

Particulars	Long Leg	Short Leg
Scenario 1	Rises	Falls
Scenario 2	Rises	Unchanged
Scenario 3	Rises	Rises at a Lower Rate
Scenario 4	Falls	Falls Faster than the Long Leg
Scenario 5	Unchanged	Falls

Traders buying or selling futures contracts should clearly understand that any given transaction could result in a loss. The loss may exceed the amount of the initial margin and the entire amount deposited in the account or more. A trader should understand that neither the past nor the present price behavior assures what will occur in the future. Relatively stable prices may become highly volatile (which is why many individuals and firms choose to hedge against the possibility of future price changes). Moreover, there can be no assurance that, at all times, a liquid market will exist for offsetting a futures contract that the trader has previously bought or sold. This could be the case if a futures price has increased or decreased by the maximum allowable daily limit and there is no one presently willing to buy the futures contract the trader wants to sell or sell the futures contract the trader wants to buy. Well-informed futures traders should be familiar with key risk factors entailing futures trading and the available risk management possibilities.



SAUDI FUTURES GUIDE

Leveraged Trades and Risks Involved

Leveraged Trades and Risks Involved

An essential element of a futures contract is leverage. It is inherent in the contract, making it an attractive investment instrument. When an investor opens a futures contract position, he is obligated to pay a small proportion of the total contract value. This is called the initial margin, which usually ranges between 3% to 12% of the total contract value. Since the initial margin requirement is small, investors can use leverage benefits by entering a futures contract. In simple terms, leverage refers to using a little to control a lot. When an investor trades in futures, he exposes himself to a much greater value of stocks compared to that while buying the same stocks in the spot market. Therefore, his profits also increase sharply if the market moves in his favor or decrease if the market goes against him. The lack of knowledge of the instrument and its risk can lead to negative consequences.

Let us understand how investor returns could be different in the spot and futures markets with an example.

Assume an investor is bullish on Saudi Basic Industries Corporation (SABIC), and the share price of the stock is SAR 96.50 on July 29, 2021. Also, assume the futures contract is available on SABIC in the futures market, and the contract is trading at par. The initial margin required to open a position in the futures contract is SAR 25,000, and the contract size is 2,500 units. Let us understand how the investor returns will vary in spot and futures markets for the same amount of capital.

The tables below illustrate the profit/loss the investor would earn in the spot and futures markets under two different scenarios.

Table 15: Case 1 – Increase in price to SAR 103.5 after 10 sessions

Particular	Value Derived	Spot Market	Futures Market
Units Bought	Spot market: Capital ÷ Share Price Futures market: Depends on the Lot Size	259	2,500
Realized Profit	New Price - Old Price × Units Purchased	1,813	17,500
Returns in %	Realized Profit ÷ Capital	7.25%	70.00%

Table 16: Case 2 – Decrease in price to SAR 91.5 after 10 sessions

Particular	Value Derived	Spot Market	Futures Market
Units Bought	Spot market: Capital ÷ Share Price Futures market: Depends on the Lot Size	259	2,500
Realized Loss	New Price - Old Price × Units Purchased	(1,295)	(12,500)
Returns in %	Realized Loss ÷ Capital	(5.18%)	(50.00%)

As depicted in the above tables, the same amount of capital (SAR 25,000) can lead to different returns in different markets. The additional profit that is made in the futures market is attributed to the leverage (calculated as futures contract value/initial margin). Leverage in the futures market allows the investor to take a large position than the capital deployed, thereby increasing the profit potential if the price moves in his favor. However, if the investor view goes wrong, then the leverage can result in material capital losses.

Many brokers in the derivatives market offer clients an opportunity to increase their leverage by providing funds to them for use, empowering the investors to open large trades in the futures contract but increasing their risk exposure in the market. Taking credit from brokers to open large positions increases the possibility of rewards as well as risk. In the previous example, had the investor purchased two lots of the contract, one with his investment and the other by borrowing money from the broker, his purchasing capacity would have increased without additional spending. Still, at the same time, it would have also increased risk in the contract. Any rise in the price would increase his profits to double and vice versa.

Therefore, as an investor, one should never forget that leverage is like a double-edged sword. When used correctly, it can create wealth for the investor, and if not, it can destroy his wealth.



SAUDI FUTURES GUIDE

Appendix

Appendix

MT30 index futures contract specifications

Table 17: Contract details

Features	Details
Contract Code	SF30
Underlying Instrument	MSCI Tadawul 30 (MT30) index
Contract Size	SF30 multiplied by SAR 100
Minimum Price Fluctuation – Tick	0.5 points valued at SAR 50
Daily Price Limits	20%
Daily Margin/Premium Settlement	All outstanding positions are MTM based on the daily settlement price at the end of the day T + 0. Variation margins have to be settled by the clearing members to Muqassa by the next day (T + 1) by a prescribed time as outlined in the Muqassa Procedure.
Daily Settlement Price	Daily settlement price of the futures contract shall be based on the following: The volume weighted average price (VWAP) of last 10 minutes of trading day, subject to a minimum of 10 trades in the last 10 minutes. If there are less than 10 trades in last 10 minutes, then the exchange shall use the theoretical futures price (TFP) to compute the fair value of the contract at the market close. TFP calculation: The price of the futures contract is determined from the spot price of the underlying asset, adjusted for time, and dividend accrued till the expiry of the contract. The mathematical formula to calculate the future price of the contract is as follows: $F_0 = S_0 e^{(r-q)T}$ Spot – Spot/underlying price r – Interest rate (risk-free) q – Dividend paid by the company T – Time to expiry in years The difference between the spot price and future price arises due to variables such as interest rates, dividends, and time to expiry. As the future contract expires in 1, 2, or 3 months, the interest rate is adjusted proportionately. The spread between the two is at its maximum at the start of the series and tends to converge as the settlement date approaches.
Final Settlement	T + 0 (MTM is T + 0 and payment is T + 1)
Final Settlement Price	The final settlement price is the average value, rounded to the nearest 0.5 of an index points (values of 0.25 or 0.75 and above are rounded upward), taken every 15 seconds or at such intervals as may be determined by the exchange from time to time from 14:00 to 15:00 plus one value after 15:10:30 of the MT30 on the final trading day, except the three highest and three lowest values.
Speculative Position Limit	The maximum number of net long or net short positions to be held for all months combined 10,000. Qualified hedgers can hold positions beyond 10,000 contracts subject to exchange approval upon submission of relevant documents of owning the underlying assets.

Features	Details
Price Decimals	2
Contract Months	Current month, next month, and the next two quarters
Negotiated Deals	Yes
Market Making	Yes
Trading Hours	Pre-open (opening auction): 9:00–9:30 Market open (trading): 9:30–15:30
Contract Expiration	Third Thursday of the expiry month. If it is a holiday, then the contract will expire on the previous trading day.

Table 18: Margin multiplier

Type of Client	Margin Multiplier
Institutions	100%
Tier 1 Individual	133%
Tier 2 Individual	200%

Table 19: Post-trade features

Features	Details
Clearing Members	General Clearing Member (GCM) and Direct Clearing Member (DCM) connected to Muqassa
Settlement Mode	Cash settlement
Settlement Currency	All transactions settled in SAR
Settlement Cycle	Contracts marked to market on a daily basis
Margins	Initial margin, variation margin, add-on margin
Short Selling	Short selling embedded in derivatives market products

Source: The Saudi Exchange



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| **Foreign Exchange**

| **Interest Rate**

| **Commodities**

| **Hedge Accounting**

| **Valuation**

| **Dispute Resolution**

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