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Global Markets Advisory & Beyond

Risk seeking or risk-averse, it helps both ways.

EXCHANGE-TRADED EQUITY DERIVATIVES

Investors are often demotivated by the large capital requirements, limited disclosures, low liquidity, limited products offering and therefore the high risk associated with traditional stock markets trading.

Will these challenges continue to be an obstacle to investors?

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Tadawul Initiatives

We are now witnessing a historic upgrade to the infrastructure of Tadawul as an exchange platform. Tadawul has recently taken several initiatives including changing the settlement date from T+0 to T+2, restructuring sectors to be in line with global markets, increasing the level of transparency by ownership disclosures of key decision makers within listed companies, allowing investors to take short positions on underlying stocks and finally launching the financial derivatives market along with establishing the Central Counterparty Clearing House ("CCP").

Those infrastructural upgrades came as part of the Vision 2030 Financial Sector Development Program (FSDP), which seeks the development of three main pillars focused on developing an advanced capital market, promoting financial planning, and enable institutional investors to contribute to private sector growth.

Introduction Of Derivatives To TASI

Saudi Stock Exchange "Tadawul" has recently announced its plan to introduce exchange-traded derivatives. Equity derivatives on TASI will initially start with a future contract on the tradable index jointly developed with MSCI, which will be launched by the first half of 2019. By 2020, Tadawul will also offer single stock futures, single stock options, and index options.

Adding more products to the platform provide market participants with a broader diversity of trading strategies and investment opportunities which in return invite wider risk profiles to participate.

To reduce the counterparty risk associated with derivatives dealing, a central clearing counterparty "CCP" has been commenced by Tadawul with a capital of SAR 600 million.

Establishing an independent clearing party come in line with global practices, where a central clearinghouse assign "clearing members" (mostly large financial institutions) to help facilitate derivatives trading through acting as an intermediary between traders and the central clearinghouse.

The main roles of clearing members are the periodic balance clearance, which is the process of transferring funds from losing parties to gaining ones to adjust for fair market values, and to ensure remaining balances do not go lower than pre-identified margins. The clearinghouse will bear most of the default risk of buyers and sellers in derivatives which can attract more participants to trade on those derivatives.

The Impact Of Derivatives On The Stock Market

Exchange-traded derivates inceptions have shown mixed impacts on global stock markets.

While some studies argue that introducing derivatives can have a negative impact on stock markets efficiency, many cases demonstrated a positive effect through increased liquidity and lowered volatility.

The impact on the stock exchange is highly dependent on how smooth exchange-traded derivatives are introduced to the market.

The most common approach of introducing derivative instruments is by phasing the process to gradually introduce products starting with simple instruments like futures contracts, while at the same time progressively inviting more participants depending on their creditworthiness and ability to absorb market shocks, which can be achieved through starting with more sophisticated market makers such as fund managers and institutional investors.

Smoothening the introduction process plays a significant role in ensuring a healthy gradual introduction. It will provide participants more time to understand the implications of using derivatives and master the derivatives valuation techniques.

The phasing process will allow participants to structure financial models for valuations, statistical reasoning and probability analysis of potential future trends. Enhancing the valuation and analytical tools can ultimately help in rationalizing investment decisions.

Common Practices In Equity Derivatives

Equity investors use derivates for different objectives. Among different uses of equity derivatives, the most common applications are hedging and leverage. A risk-seeking trader would utilize the leverage such instruments offer to hopefully boost his portfolio returns while a risk-averse investor, on the other hand, would consider contrary derivative and stock payoff profiles to lower the overall investment value volatility.

While some investors had significantly boosted their returns by adequately utilizing the leverage these instruments offer, other investors suffered catastrophic losses due to misusing equity derivatives as leverage, especially when used for speculation.

Traditional Market Risk Management Approach

Traditionally, lowering market risk used to be achieved by structuring a portfolio that is adequately diversified which obtains a suitable correlations mix thus reduces portfolio risk (Beta).

However, the more diversified a portfolio is, the closer it gets to "over-diversification" in which adding another stock to the portfolio would actually lower portfolio risk-adjusted return, in other words, adding that stock led the investor to sacrifice more potential returns in exchange for a fraction decrease in risk.

In addition to the potential returns being sacrificed, managing a portfolio with too many assets sometimes lead managers to lose control over the portfolio, in a sense, they reach a point where they obtain too many assets within their portfolio and become no longer aware of what market movements they are hoping for.

As more companies are added to the portfolio, monitoring the performance of those companies consumes significant efforts.

After all these efforts, many "over-diversified" portfolio managers end up achieving minimum premiums over returns that could've been achieved through investing in index funds.

Modern Market Risk Management Approach

With the launching of equity derivatives on Tadawul along with short selling previously being permitted for investors, investors are now equipped with more tools to manage their market risk.

Combining an underlying stock and a derivative on the same stock could either form protection against adverse market movements (when payoff profiles move in opposite directions) or even create a leveraged return opportunity by concentrating the market risks of stock and derivative towards the same direction.

The latter strategy could end up being very profitable, but when adjusted for risk, it might not be the optimal action to go for.

Hedging With Equity Derivatives, In-Depth Review

In general, hedging adverse market movements could be achieved by taking "contrary" payoff profiles. To understand the Derivative-to-Underlying relationship, traders often use the "Greeks," statistical measures used to value options.

A common derivatives trading approach is "Delta-Neutral," Delta is a measure of the movement in derivative value for every 1 SAR movement in the underlying asset. delta-neutral hedging is the structure of a portfolio mix of positive and negative Delta levels that aims at lowering the overall delta level to zero or any other targeted level, according to the investor's risk appetite.

Depending on the Moneyness[1] of an option, delta is a continuously changing indicator. The deeper In-The-Money[2] an option is, delta becomes more responsive to stock price movements, and the closer to linear the derivative-underlying relationship become.

Therefore, delta-neutral hedging is more suitable for active investors as it requires continuous monitoring of market dynamics. Passive investors, on the other hand, tend to seek a "Delta-Gamma-Neutral" hedging approach as Gamma measures the impact of larger moves in underlying stock on the option value.
While Delta is often referred to as the "speed" at which an option value is changing, Gamma

Moneyness: a derivative intrinsic value that is derived from the underlying spot price in relation to the derivative strike price.
In-The-Money: a derivative is In-The-Money when executing it immediately would result in realizing profits.

is referred to as the "acceleration" of an option value which measures the rate of change in delta. Low levels of Gamma indicate lower volatility and ultimately lower risk.

Another portfolio risk management approach that is often perceived to be cost effective and monitoring-friendly is Index Futures.

Due to its low cost and overall market risk coverage, index futures are commonly used to reduce systematic risk, also known as undiversified risk. When a portfolio manager is looking for a lower portfolio beta, yet believes the selected stocks are lucrative, index futures becomes most useful, whereby a portfolio manager calculates the number of future contracts he needs to short in order to alter his current level of beta to a targeted level that is in line with pre-identified risk tolerance and desired hedge ratio.

Furthermore, index futures are also beneficial for proxy hedging given a significant correlation. However, a proxy hedger should frequently review such a strategy as correlations tend to break-up during stressed economic scenarios.

Traders of futures contracts are shifting from price risk to a considerably lower risk known as "Basis Risk", the spread between futures contract price and underlying asset price that is mainly driven by either a duration or an underlying mismatch.

When a portfolio composite does not mirror the index composite, basis risk on the attached index futures increases due to the mismatch in assets and therefore mismatch in market risk.

Since index futures are commonly used by speculators and proxy hedgers, the value of index futures is often pressured by the high volume traded in futures market, which triggers a pricing mismatch and therefore, higher basis risk.

Every Strategy Has A Weakness

When market participants fear over severe adverse market movements, they start selling stocks to avoid a predicted market crash and therefore trigger a market sell-off and a decline in stock prices. Under severe equity markets decline, pre-identified correlation patterns tend to distort. Such distortion in correlation patterns leads to some hedging strategies failure. To protect against severe market sell-off losses, risk-averse investors often use index put options as a portfolio insurance, in which it allows portfolio managers to enjoy upward index movements while at the same time being protected from downward movements.

However, due to its premium requirements, holding index put options for long periods could dramatically lower investment returns when stock prices continue to rise.

Article Takeaway

Unfortunately, there is no multipurpose or "one-size-fits-all" strategy, building a strategy should be carefully studied to capture the key investment objectives in the best possible way. Capital markets are continuously developing and therefore require investors to catch up accordingly.

Re-visit your investment and risk management policies to make sure they allow users to make the best use of products offered in the market. Decision makers should be fully aware of the risks associated with their investments while at the same time being supported by high-quality valuation models and analytical tools to ultimately make rationalized and carefully studied investment decisions.

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