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Derivatives 101

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"What are Derivatives?"

Analysts:

Renaldo D'Souza
+254 (20) 2222651
Renaldo.DSouza@sterlingib.com

Susan Makena
+254 (20) 2222651
Susan.Makena@sterlingib.com

Elizabeth Njenga
+254 (20) 2222651
Elizabeth.Njenga@sterlingib.com

Justina Vuku
+254 (20) 2222651
Justina.Vuku@sterlingib.com

For queries call: +254 (20) 315414; 2244077 or
Email: research@sterlingib.com
Website www.sterlingib.com
Bloomberg Code: SCLK <GO>

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Executive Summary

- The first issue of our **Derivatives 101** report seeks to give a brief overview of the latest introduction to the Nairobi Securities Exchange (NSE), **derivatives**.
- Our report begins with a definition of the investment instruments giving types and uses of derivatives.
- We also delve into the exact specifics of the NSE derivative market with the five stocks and one index futures mentioned.
- Finally, the report breaks down the relevant derivatives trading fees.

NSE Derivatives Market (NEXT)

- The Nairobi Securities Exchange (NSE) Derivatives Market (NEXT) futures started trading on **4th July 2019**, providing new opportunities to local and international investors.
- The official launch of the market was on **11th July, 2019**.
- The NSE will be the second exchange in Sub-Saharan Africa after Johannesburg to launch trading in derivatives.

What is a derivative?

- A **derivative** is a financial contract whose value is derived from the performance of an underlying asset.
- The most common underlying assets for derivatives are stocks, bonds, commodities, currencies, interest rates, and market indexes.

Types of derivatives markets

- There are two types of markets where clients can trade derivatives (Table.1);

  a) **Exchange traded derivatives (ETD):** Derivatives are traded through central exchange with publicly visible prices.

  b) **Over-the-counter (OTC) markets:** Derivatives are traded between two parties without going through an exchange or any other intermediaries.

Table.1: Differences between Over-The-Counter (OTC) and Exchange Traded Derivatives (ETD)

		Over-The-Counter (OTC)	Exchange Traded Derivatives (ETD)
1.	Centralization of market	Privately negotiated and have no centralized trading facility	Traded in an organized centralized exchange
2.	Standardization	Customized contract	Standard contract
3.	Counterparty risk	Substantial counterparty risk	Less counter party risk
4.	Transparency	Trade reporting less transparent	Transparent pricing and trade reporting
5.	Parties involved	Parties involved in negotiations are the trading firms or the counter parties	Exchange is the counter party to all the trades
6.	Regulation	Less regulation	Highly regulated
7.	Liquidity	Low liquidity	High liquidity

Source: Sterling Capital Research

Types of derivatives

- The following are the most common types of derivatives:

  a) **Forward contract:** is an over-the-counter derivative contract in which two parties agree that one party, the buyer, will purchase an underlying asset from the other party, the seller, at a later date at a fixed price they agree on when the contract is signed.

  b) **Futures:** Is an agreement between two parties to buy or sell an asset at a certain time in future at a certain price.

- The primary ways in which forwards and futures differ are that futures are;

  1) Traded in an active secondary market.
  2) Subject to greater regulation.
  3) Backed by a clearing house.
  4) Require a daily cash settlement of gains and losses.

  c) **Options:** Gives the owner (holder) the right, but not the obligation, to either buy or sell a particular asset at a later date at an agreed-upon price.

- Two types of options:

  1) **Call option:** Give the holder the right but not the obligation to buy a given quantity of the underlying asset, at a given price at a certain time.

  2) **Put option:** Give the holder the right but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

  d) **Swaps:** Are agreements to exchange a series of payments on periodic settlement dates over a certain time period.

- The two commonly used swaps are interest rate swaps and currency swaps.

  1) **Interest rate swaps:** These involve swapping only the interest related cash flows between the parties in the same currency.

  2) **Currency swaps:** These entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.

Uses of Derivatives

- Derivatives help investors in many different ways;

a) **Risk Management:** Derivatives help to reallocate risk among investors. They allow trading the risk without trading the instrument itself. For example, consider a stockholder who wants to reduce exposure to a stock. The stockholder can sell futures, forwards, calls or swaps, or buy put options, all while retaining the stock.

b) **Price Discovery:** Refers to the markets ability to determine true equilibrium prices. Futures prices are believed to contain information about future spot prices and help in disseminating such information.

c) **Operational advantages:** Derivatives have lower transaction costs than the underlying. Thus, an investor who wants to take a position in an equity market index would likely find it less costly to use the futures to get a given degree of exposure than to invest directly in the index to get that same exposure.

Derivative markets also typically have greater liquidity than the underlying spot markets, a result of the smaller amount of capital required to trade derivatives than to get the equivalent exposure directly in the underlying.

d) **Ease of speculation:** Derivative markets provide speculators with a cheaper alternative to engaging in spot transactions as the amount of capital required to take a comparable position is less in this case.

e) **Hedge a position:** Derivatives can be used to hedge securities from fluctuating market prices. Clients' shares can be protected on the downside by entering into derivative contract.

f) **Market efficiency:** Since it is easier and cheaper to trade in derivatives, it is possible to exploit arbitrage opportunities quickly and to keep prices in alignment. The availability of derivatives makes markets more efficient.

NSE Derivatives

- The NSE derivatives market will offer futures contracts.
- The derivatives market will enable investors to better diversify their portfolios, manage risk associated with price movements of the securities and deploy capital more efficiently.
- All futures contracts listed on NEXT will have quarterly expiry dates; this will be the 3rd Thursday of March, June, September and December of every year.
- NEXT will commence with index futures and single stock futures on selected indices and stocks (Table.2);

Table.2: Single stock & index futures in the NSE Derivatives market

Single Stock Futures	Index Futures
Safaricom Plc	NSE 25 Index
KCB Bank Group	
Equity Bank	
East African Breweries Ltd	
British American Tobacco	

Source: Nairobi Securities Exchange

- The single stock futures were selected based on the below criteria;

    1) The security underlying the futures contract must be listed on the NSE.
    2) The underlying security shall be chosen from amongst the constituents of the NSE 25 Share Index.
    3) The underlying security must demonstrate a minimum average daily turnover of KES.7Mn over the last 6 months before review.
    4) The underlying security must have a market capitalization of at least KES.50Bn.

Players in the market

- The derivatives market is similar to any other financial market and has following categories of participants:

    1) **NSE Clear:** This will be the market's clearinghouse with the key responsibility of ensuring all contracts are settled where NSE Clear acts as the buyer to all sellers and the seller to all buyers.

    2) **Clearing Members (CM):** Co-op Bank and Stanbic have been appointed as clearing members to assist NSE Clear.

    3) **Trading Members (TM):** Include stock-brokers and investments banks.

    4) **Clients/Investors:** Individuals and institutions trading in the derivatives market.

a) **Hedgers:** Use the derivatives markets primarily for price risk management of assets and portfolios.

b) **Speculators:** They take a view whether prices would rise or fall in future and accordingly buy or sell futures and options to try and make a profit from the future price movements of the underlying asset.

c) **Arbitrageurs:** They take positions in financial markets to earn riskless profits. The arbitrageurs take short and long positions in the same or different contracts at the same time to create a position which can generate a riskless profit.

Trading Fees

Table.3: Derivatives Trading Fees

Fee	Single Stocks Futures	Index Futures
NSE	0.025%	0.02%
Clearing Member	0.025%	0.02%
Trading Member	0.10%	0.08%
Investor Protection	0.01%	0.01%
Capital Markets	0.01%	0.01%
Total	**0.17%**	**0.14%**

Source: Nairobi Securities Exchange

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