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# NEW STORIES

## FMDQ Markets Record over ₩200.00 trillion Turnover in 2019

Despite the usual headwinds, the year 2019 significantly impacted FMDQ, its entities and its markets with the Company undergoing a reorganisation into a holding structure following all necessary and due regulatory approvals. Consequently, the parent company FMDQ Group was birthed to house four (4) wholly owned subsidiaries - FMDQ Securities Exchange Limited (FMDQ Exchange), FMDQ Clear Limited (FMDQ Clear), FMDQ Depository Limited (FMDQ Depository) and iQx Consult Limited (iQx). In addition to this, the operationalisation of FMDQ Clear and FMDQ Depository which completes the post-trade spectrum for the markets, positioned FMDQ to become Africa's first vertically integrated financial market infrastructure (FMI) group by the end of 2019. FMDQ Group is therefore, a one-stop FMI Group and an integrated platform to execute, clear and settle financial markets transactions. In view of the above, a new brand identity (including Logo) was unveiled for FMDQ Group in August 2019, communicating FMDQ's drive to "consistently move forward" and replacing the individual logos of the FMDQ Entities.

Still during the year 2019, the markets continued to experience steady growth, akin to the rest of the global economy, despite the challenges faced from both the local and international fronts. Overall, the FMDQ markets (i.e. the fixed income, currency and derivatives markets) turnover for the full year (FY) 2019 closed at ₩232.68 trillion, an impressive 27.25% increase when compared to the same period in 2018 which closed at ₩182.86 trillion and ₩142.03 trillion in 2017. Growth in these markets were primarily driven by trading activities in the Treasury bills (T.bills) market which contributed the most to total turnover transactions at 36.95% (\text{\tin}\text{\texi}\text{\text{\texi}\text{\text{\text{\texit{\texi}\text{\text{\texi{\ticl{\tii}\titi}\xititt{\texititt{\text{\texi{\text{\text{\text{\t compared to a total value of \dagger72.12 trillion recorded in the same market in 2018. Following this closely were activities in the foreign exchange (FX) market (Spot FX and FX Derivatives) which grew by 23.23% to close at \\$3.45 trillion in 2019 from \\$67.72 trillion in 2018, contributing 35.87% to total turnover in 2019.

Furthermore, transactions in the Repurchase Agreements (Repos)/Buy-Backs market increased by 46.74% (₩44.29 trillion) in 2019 from ₩30.18 trillion in 2018. Market activity in the Bonds and Unsecured Placements/Takings category grew by 41.17% (2018; ₩11.98 trillion, 2019; ₩16.91 trillion) and 58.76% (2018; ₩0.82 trillion, 2019; ₩1.31 trillion) respectively, while trading activity in Money Market Derivatives contributed 0.32% (₦0.74 trillion) to total turnover transactions in 2019.

In addition to its market development activities, over the course of the year, FMDQ Exchange admitted the listing of fourteen (14) bonds with a total value of #284.23 billion. The Exchange also admitted the quotation of sixty (60) commercial papers (CPs) with a total value of ₩467.56 billion. By their





admission to the FMDQ platform, these securities have gained access to the full complement of the unsurpassed FMDQ Listings and Quotations Service, which includes, but is not limited to, improved secondary market liquidity, efficient listings/quotations process, unprecedented transparency and information disclosure, global visibility and improved network effects. With an efficient Clearing House providing risk management and clearing functions for the markets, and a Securities Depository positioned to ensure asset servicing and settlement finality, amongst others, FMDQ Group remains resolute, as in previous years, to achieving its founding GOLD agenda (Global competitiveness, Operational excellence, Liquidity and Diversity) for the Nigerian financial markets and economy in general.

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# FMDQ Exchange Receives Statement of Compliance to IOSCO's Principles for **Financial Benchmarks**

In line with its mandate to develop and organise the Nigerian financial markets, FMDQ Exchange, as a Benchmark Administrator, identified the need to ensure compliance with the International Organisation of Securities Commissions (IOSCO) Principles for Financial Benchmarks (PFB) and in furtherance to this, the Exchange activated an independent review on its Benchmark Administration Framework across various business areas including governance, operations and information technology.

The objective of the IOSCO PFB is to create an overarching framework of principles for benchmarks used in global financial markets. These principles focus on the methodology, transparency and overall quality of benchmarks, as well as the overall governance arrangements and accountability for benchmark providers and other relevant bodies.

The review was performed on the Nigerian Autonomous Foreign Exchange Fixing (NAFEX), the Nigerian Inter- Bank Offered Rate (NIBOR), and the Nigerian Inter-Bank Treasury Bills' True Yields Fixing (NITTY), following which the engaged independent auditor issued an unqualified opinion on the Exchange's Statement of Compliance to the IOSCO PFB, deeming the Exchange's Benchmark Administration process fairly representative of the IOSCO PFB.

Consequently, FMDQ Exchange has issued and published its Statement of Compliance with the IOSCO PFB and other relevant Benchmark Administration governance documentation on the FMDQ Group website. The Statement can be found here.



### FMDQ-Next Commemorates International Day of Education

### ... Hosts Children from Various Charities at Exchange Place

As a champion for the education of youth, particularly financial market education, FMDQ Group, through its flagship corporate responsibility Programme, FMDQ Next Generation Financial Market Empowerment Programme (FMDQ-Next) joined the rest of the world on January 24, 2020, to mark the International Day of Education – a day proclaimed by the United Nations General Assembly in advancement of the Sustainable Development Goal 4 (Quality Education) to honour education and highlight its centrality to human well-being, sustainable development, and achievement of shared prosperity. Sustainable Development Goal 4 - Quality Education - aims to ensure inclusive and equitable quality education, as well as promote lifelong learning opportunities for all. The focus of the 2020 celebration was centred on positioning education and the learning it enables as humanity's greatest renewable resource and reaffirm the role of education as a fundamental human right, a public good and an enabler of the 2030 Agenda for Sustainable Development.



The FMDQ-Next Programme, a learning and development Initiative aimed at promoting financial market awareness and literacy among students (primary, secondary, tertiary), as well as fresh graduates in Nigeria, marked the day by hosting vulnerable children, including those displaced and/or with little or no access to quality education, drawn from charities, orphanages and other social initiatives focused on educating the marginalised in society, to a special excursion at Exchange Place.



The 1-day event themed: 'Making Financial Markets Education Accessible to All' aimed to empower the children with financial markets knowledge and provide access to lifelong learning opportunities, aiding the acquisition of the knowledge and skills needed to participate fully in society, the economy and contribute to sustainable development. The Special Excursion featured beneficiaries from Slum2School Africa Initiative, Kabara Community Development Initiative, Echoes of Mercy and Hope Foundation, LOTS Charity Foundation, amongst others, all focused on empowering vulnerable Nigerian youth through the provision of quality education, as well as providing them with social, psychological and emotional support, to accelerate the realisation of their full potential in order to positively impact the society.

The day which was packed with educational and fun activities commenced with a tour of Exchange Place, and the children being introduced to FMDQ Group; its history, subsidiaries, business services, strategic alliances, amongst others, as captured in the FMDQ Archives and its world-class studios, FMDQ Media Room. Thereafter, teaching sessions followed with the children learning about savings, how to manage and grow wealth, the financial market ecosystem, the markets that exist within this, investment vehicles available, amongst others.



In order to gain an appreciation of how trading works in the financial market, the children were given the opportunity to experience a live market trading session via the Bloomberg trading terminals before proceeding to the FMDQ Q-Hub - a dedicated state-of-the-art Trading Simulation Room - for a practical trading session via the FMDQ-Next bespoke trading application. The Special Excursion ended with a motivational session with the Group Chief Operating Officer of FMDQ Group, Ms. Kaodi Ugoji, who inspired and engaged the children.









The FMDQ-Next Initiative is FMDQ Group's Flagship Corporate Responsibility Programme, which supports the United Nation's Sustainable Development Goals, 4 - Quality Education, Goal 8 - Decent Work and Economic Growth and Goal 10 - Reduced Inequalities. The Initiative is an expression of the Group's ongoing commitment to proffering solutions to some of our societal problems, in a bid to encourage economic prosperity across varied communities and advance socio-economic development in our nation.

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# The 43<sup>rd</sup> FX Futures Contract Matures on FMDQ

On Wednesday January 29, 2020, the 43<sup>rd</sup> OTC FX Futures contract - NGUS JAN 29 2020 matured and settled on FMDQ Exchange, the Futures Exchange. This maturity brings the total value of matured currency futures contracts on the Exchange, since the inception of the market in June 2016, to circa \$25.53 billion; with a total of about \$34.83 billion so far traded.

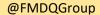
The matured contract was valued for settlement against the NAFEX, the FMDQ Exchange reference Spot FX rate published same day. The associated clearing/settlement activities were effected accordingly by FMDQ Clear.

The Central Bank of Nigeria (CBN), as observed over the last forty-two (42) maturities, introduced a new contract NGUS FEB 24 2021, and refreshed its quotes on the existing 1 to 12-month contracts.

The contracts quotes are published daily <a href="here">here</a> and on the FMDQ Twitter page, @FMDQGroup







## At a Glance: Update from FMDQ Clear

Following its operationalisation in 2018, FMDQ Clear set out to deliver post-trade services that will enhance the integrity of and eliminate the inherent risks to bilateral trades in the FMDQ markets. In 2019, the efficiency and value created by the Clearing Franchise through its risk management and clearing activities were further consolidated whilst ensuring that its structure, activities and operations were aligned to meet global best practices ahead of its evolvment to a Central Counterparty. The tables below provide an overview of the value created for stakeholders by FMDQ Clear through its clearing and settlement activities cutting across the derivatives (currency futures) and fixed income markets.

Table 1: Clearing and Settlement Activities in the Currency Futures (Derivatives) Market

S/N	Currency Futures	2019	2018	Change (%)	
Clear	Clearing				
1	No. of Traded & Cleared Contracts	1,068	671	59.17	
2	Value of Traded & Cleared Contracts (\$'bn)	15.07	7.88	91.24	
3	Value of Open Contracts (as at Dec. 31) (\$'bn)	9.67	4.78	102.30	
Settlement					
4	No. of Matured & Settled Contracts 812 540 50.3			50.37	
5	Value of Matured & Settled Contracts (\$'bn)	10.18	6.42	58.57	

Table 2: Clearing and Settlement Activities in the Sovereign Fixed Income Market

S/N	Sovereign Fixed Income Clearing & Settlement Activities	2019	2018	Change (%)
1	Total Value of Trades Processed (₦'bn)	76,118.82	64,425.72	18%
2	Value of Trades Settled (#'bn)	73,163.05	47,404.92	54%
3	Value of Unsettled Trades (₦'bn)	2,955.77	17,020.80	(83%)

With a vision "to become a globally accepted Central Counterparty by 2024" and a shared mission of FMDQ Group "to collaborate to empower markets for economic progress towards delivering prosperity", FMDQ Clear through technology as an enabler is set to expand its activities and service offerings for the market in readiness for product innovation, including the derivatives market, by FMDQ Exchange, and more. For more on FMDQ Clear, please click <a href="https://example.com/here/bmd/here/bmd/">here</a>



### At a Glance: Update from FMDQ Depository

With a vision "to be the Nigerian Depository of choice by 2024" and a shared mission of FMDQ Group "to collaborate to empower markets for economic progress towards delivering prosperity", FMDQ Depository commenced operations in Q4 2019 to provide asset servicing and settlement services in the Nigerian financial market, amongst others. FMDQ Depository, which completes the post-trade spectrum of the financial market infrastructure value chain, complements the clearing function discharged by FMDQ Clear towards offering market participants an unrivalled opportunity to experience enhanced straight-through-processing.

Positioned to become a depository of choice in the Nigerian financial market and beyond, FMDQ Depository, within the month in view was appointed as the depository to the Lagos State Government ₩59.00 billion and ₩100.00 billion Medium Term Bonds. Having empowered the Nigerian financial markets with a choice of depositories, the successful debut of these securities on the FMDQ Depository platform positively reinforces the agenda and commitment of FMDQ Group to offer innovative and seamless services towards making the Nigerian financial markets GOLD - Globally Competitive, Operationally excellent, Liquid and Diverse.

Leveraging on the strength of the Group Franchise, FMDQ Depository shall in 2020 and beyond, remain unwavering in its drive to deliver world-class services across its value chain so as to provide the markets and their participants a unique opportunity to experience efficient processes and settlement finality.

For more on FMDQ Depository, please click here





# FMDO LISTINGS & OUOTATIONS

### FMDQ Exchange Admits the GEL Funding SPV Infrastructure Bond

FMDQ Exchange, the choice platform for the registration, listing, quotation, trading and recording of financial securities, is pleased to announce the admission for listing on its platform, the GEL Utility Funding SPV PLC #13,000,000,000.00 Series 1 Fixed Rate Infrastructure Bond (the GEL SPV Bond). The GEL SPV Bond represents the first bond (new issue) to be admitted on the Exchange this year following the approval of the Board Listings and Markets Committee of FMDQ Exchange. In line with FMDQ's mission to collaborate with the markets for economic progress, the GEL SPV Bond is raised and targeted towards aiding the infrastructural sector of the economy.

GEL Utility Limited, the sponsor and promoter of the special purpose vehicle raising the bond – GEL SPV Bond, is a private power developer with 84MegaWatts of Gas-Fired Off-Grid power plants in operation. Proceeds of the GEL SPV Bond will be used to refinance existing loans, fund reserve accounts and offset the costs of capital expenditure.

As is tradition for FMDQ Exchange, the GEL SPV Bond shall be availed global visibility through the FMDQ Exchange website and systems, governance and continuous information disclosure to protect investor interest, credible price formation amongst other benefits derived from being an FMDQ Exchange listing. A formal ceremony to commemorate this listing shall be announced in due course.

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# FMDQ Exchange Admits ₦36.00 billion Citibank and ₦10.00 billion Union <u>Capital Markets CP Programmes</u>

In keeping with its mission to empower and collaborate with the markets, FMDQ Exchange through its Board Listings and Markets Committee who provide due diligience for debt securities sought to be listed on the Exchange, approved the registrations of the Citibank Nigeria Limited \$\\$36,000,000,000.000 Commercial Paper Programme and the Union Capital Markets Limited ₩10,000,000,000.00 Commercial Paper Programme within the month in view.

By this approval, both corporates can access the CP market when the need arises; raising short-term funds up to the limit approved within their respective programmes. It is expected that issues from these CP programmes will be listed on FMDQ Exchange and shall thus, be availed the benefits of an FMDQ Exchange Quotations Service, including but not limited to global visibility through the FMDQ systems, continuous information disclosure to ensure investor interest is protected etc.

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### FMDQ Exchange Kicks Off 2020 with Multiple Securities Issuances

Given the increasingly competitive and demanding market environment, corporate entities have continued to seek innovative ways to source funding to finance their institutional needs. The FMDQ Exchange has continued to provide a viable platform and the CP market, a feasible debt instrument for businesses seeking to raise short-term finance to support their business operations.

In this vein, the Exchange, within the month in view, following due approval from the Exchange's Board Listings, Markets and Technology Committee, admitted the following issues to its platform:

- The Lagos State Government of Nigeria Series 2 \(\frac{1}{2}\)6,911,000,000.00 Tranche III and ₦5,336,000,000.00 Tranche IV Fixed Rate Bonds
- The ₩2,000,000,000.00 Series 11 and ₩5,000,000,000.00 Series 12 Flour Mills of Nigeria PLC **Commercial Paper**
- The ₩7,128,783,000.00 Series 13 and ₩42,871,271,000.00 Series 14 Dangote Cement PLC **Commercial Papers**

Also, in the month of January, FMDQ Exchange recorded the listing of the Lagos State Government of Nigeria Series 2 ₦6,911,000,000.00 Tranche III and ₦5,336,000,000.00 Tranche IV Fixed Rate Bonds on its platform.

The successive admittance of these securities attests to the highly efficient time to market and the unrivalled listings and quotations service offered by FMDQ Exchange. As these corporates and a host of others continue to effectively and sustainably meet their funding needs, as well as contribute to the development of the nation through their activity in the Nigerian financial market, FMDQ Group and its Exchange, Clearing and Depository entities will continue to take crucial steps, towards upgrading and aligning the Nigerian financial market as a whole in line with its renewed vision to be the leading African builder of ecosystems of financial infrastructure and services for markets.







## FMDQ Markets Turnover & Dealing Member (Banks) League Table Report

The FMDQ Market Turnover Report shows the turnover on all products traded on the FMDQ secondary market – Foreign Exchange (FX), T.bills, Bonds (FGN Bonds, other Bonds (Agency, Subnational, Corporate & Supranational) & Eurobonds)) Commercial Papers and Money Market (Repurchase Agreements (Repos/Buy-Backs and Unsecured Placements/Takings). These figures exclude primary market auctions in T.bills and Bonds.

The data, collated from the weekly trade data submissions by FMDQ Dealing Member (Banks), represents trades executed amongst the Dealing Member (Banks), Dealing Member (Banks) & Clients, and Dealing Member (Banks) & the CBN.

# **FMDQ Market Turnover (January - December 2019)**

Product Category	( <del>N</del> 'mm)	(\$'mm)
Foreign Exchange	52,201,275	144,250
Foreign Exchange Derivatives	31,250,804	86,357
Treasury Bills	85,980,314	237,588
FGN Bonds	16,651,425	45,995
Other Bonds*	12,108	33
Eurobonds	249,736	690
Repurchase Agreements/Buy-Backs	44,286,284	122,418
Unsecured Placements/Takings	1,308,726	3,619
Money Market Derivatives	739,111	2,042
Commercial Papers	-	-
Total	232,679,781	642,993

No. of Business Days	246	246
Average Daily Turnover	945,853	2,614

Average YTD \$/₦ @ 361.95

mm - million

\*Other Bonds include Agency, Sub-national, Corporate & Supranational Bonds

Note: Figures may be subject to change due to potential adjustments from Dealing Member (Banks)

Source: FMDQ Data Portal as @ January 3, 2020; Figures reported by Dealing Member (Banks) on a week-ending basis





The total turnover for the January - December 2019 period amounted to ₩232.68 trillion. Trading activities in Treasury Bills maintains the largest contribution to overall turnover, accounting for 36.95% of the market. FX (Spot FX and FX Derivatives) transactions accounted for 35.87% whilst Repos/Buy-Backs product categories accounted for 19.03%, and Bonds, Unsecured Placements & Takings and Money Market Derivatives representing 7.27%, 0.56% and 0.32% respectively, of overall market turnover.

### Top Ten (10) Dealing Member (Banks) in FMDQ Markets (January – December 2019)

The FMDQ League Table shows the rankings of its top ten (10) Dealing Member (Banks) by overall market turnover in the FMDQ Markets.

RANK	DEALING MEMBER (BANKS)	
1	STANBIC IBTC BANK PLC	
2	UNITED BANK FOR AFRICA PLC	
3	ACCESS BANK PLC	
4	STANDARD CHARTERED BANK NIGERIA LIMITED	
5	ECOBANK NIGERIA LIMITED	
6	FIRST BANK OF NIGERIA LIMITED	
7	CITIBANK NIGERIA LIMITED	
8	ZENITH BANK PLC	
9	CORONATION MERCHANT BANK LIMITED	
10	FIRST CITY MONUMENT BANK LIMITED	

The top ten (10) Dealing Member (Banks) accounted for 72.61% (₩168.41 trillion) of the overall turnover in the market, with the top three (3) accounting for 57.24% (₩96.40 trillion) of this subsection of the market. Stanbic IBTC Bank PLC, United Bank for Africa PLC occupied the 1st and 2nd positions respectively, while Access Bank PLC maintained the 3<sup>rd</sup> position in the value traded for the review period.



# FMDQ Fixed Income Primary Markets Sponsors' League Table (January – December 2019)

The FMDQ Fixed Income Primary Markets Sponsors' League Table shows the rankings of sponsors of fixed income securities (excluding FGN Bonds and T.bills) on FMDQ. The Registration Member (Listings) (RML) and Registration Member (Quotations) (RMQ) (collectively referred to as "Registration Members" or "RMs") are the FMDQ-authorised sponsors of these securities listed and quoted on the Exchange.

RANK	BONDS REGISTRATION MEMBER (LISTINGS) (RMLs)	RANK	COMMERCIAL PAPERS REGISTRATION MEMBER (QUOTATIONS) (RMQs)
1 <sup>st</sup>	Chapel Hill Denham Advisory Ltd.	1 <sup>st</sup>	Stanbic IBTC Capital Ltd.
2 <sup>nd</sup>	Dunn Loren Merrifield Advisory Partners Ltd.	2 <sup>nd</sup>	FBNQuest Merchant Bank Ltd.
3 <sup>rd</sup>	Stanbic IBTC Capital Ltd.	3 <sup>rd</sup>	FCMB Capital Markets Ltd.
4 <sup>th</sup>	Standard Chartered Capital and Advisory Nigeria Ltd.	4 <sup>th</sup>	Coronation Merchant Bank Ltd.
5 <sup>th</sup>	Planet Capital Ltd.	5 <sup>th</sup>	Chapel Hill Denham Advisory Ltd.
6 <sup>th</sup>	United Capital PLC	6 <sup>th</sup>	EAC Advisory Ltd.
7 <sup>th</sup>	FBNQuest Merchant Bank Ltd.	7 <sup>th</sup>	Dunn Loren Merrifield Advisory Partners Ltd.

The top three (3) sponsors in both the bond and CP markets were Stanbic IBTC Capital Ltd., FBNQuest Merchant Bank Ltd. and Chapel Hill Denham Advisory Ltd., contributing 77.81% to total issuances in the review period. Stanbic IBTC Capital Ltd., occupying the 1st postion, contributed 46.82% to total issuances and participated in both the bond and CP markets. FBNQuest Merchant Bank Ltd. and Dunn Loren Chapel Hill Denham Advisory Ltd. contributed 23.26% and 7.73% respectively to total issuances in the period.



# FMDQ Fixed Income Primary Markets Solicitors' League Table (January – December <u> 2019)</u>

This FMDQ league table represents the top solicitors of debt securities listed and/or quoted on FMDQ Exchange excluding FGN Bonds and T.bills.

RANK	BONDS SOLICITORS TO THE ISSUE	RANK	COMMERCIAL PAPERS SOLICITORS TO THE ISSUE
1 <sup>st</sup>	Banwo & Ighodalo	1 <sup>st</sup>	Banwo & Ighodalo
2 <sup>nd</sup>	Udo Udoma & Belo Osagie	2 <sup>nd</sup>	G. Elias & Co.
2 <sup>nd</sup>	Aluko & Oyebode	3 <sup>rd</sup>	Udo Udoma & Belo Osagie
3 <sup>rd</sup>	Perchstone & Graeys	4 <sup>th</sup>	Aluko & Oyebode
4 <sup>th</sup>	Wigwe & Partners	5 <sup>th</sup>	Perchstone & Graeys
5 <sup>th</sup>	F.O Akere & Co.		
6 <sup>th</sup>	Wigwe & Partners		

The most active solicitor for the review period was Banwo & Ighodalo, participating as solicitors in both the bond and CP markets. G. Elias & Co. ranked 2<sup>nd</sup> participating in the CP market alone, while Udo Udoma & Belo Osagie ranked 3<sup>rd</sup> by value, participating in both the bond and CP markets.







## **Introduction to Derivatives and Derivatives Markets**

#### **Definition and Brief Overview**

According to the International Monetary Fund (IMF), "Derivatives are financial instruments that are linked to a specific financial instrument or indicator or commodity, and through which specific financial risks can be traded in their own rights". Derivatives are generally defined as financial instruments which derive their value from another assets, group of assets, indicators or rates and any other item.

A Derivative contract is a legal agreement between two or more parties to trade or exchange cash flows based on the underlying asset/indicator at an agreed price on a predetermined date in the future.

Generally, derivatives are used for risk management, having been used originally to hedge the price risk of agricultural commodities. The advancement in technology and finance have driven and expanded the use of derivatives beyond hedging to other applications such as: speculating on the future price and value of the underlying asset/indicator, guaranteeing arbitrage profits, and other more advanced uses in portfolio management. Today, there are derivatives contracts on a myriad of underlying ranging from traditional stocks, bonds, currencies, interest rates, and commodities, to contracts on natural occurrences such as average rainfall and average daily temperature.

#### **Historical Background**

Derivatives have been in use for over 10,000 years, and have their origins firmly rooted in the trading of agricultural commodities, going as far back as during the reign of the ancient Babylonian rulers to medieval times (this era was dominated by forward contracts on farm produce such as grains), all the way to present day exchanges where electronic trading in various types of derivatives contracts are conducted.

#### Ancient History

In 3500 B.C in ancient Mesopotamia (modern day Iraq), spherical envelope-shaped tokens made from baked clay were used to record transactions between counterparties to deliver a quantity of goods by a certain date in the future. These transactions were essentially identical to modern day forward contracts to buy and sell an underlying asset at a predetermined price on a future date, which were recorded on the baked clay tokens.



Prior to the above, there were also records of derivatives contracts executed in Mesopotamia in the late 1700s B.C., when trade and commodity security were governed by ancient rulers' codes which provided some form of oversight on the recording and enforcement of contracts. Traders entered contracts to buy and sell various agricultural commodities such as grains for delivery on a future date, in some instances, contracts were executed prior to the planting of the underlying agricultural commodities. These contracts were actual enforceable agreements detailing transaction between merchants and buyers on stone or clay tablets in cuneiform<sup>1</sup>.

#### **Modern History**

Among the earliest record of an exchange where derivatives contracts were listed and traded in modern history is the Dojima Rice Exchange established in 1697 in Osaka, Japan. The Dojima Rice Exchange listed, and traded rice receipts in Japan when rice was an acceptable form of payment. Workers paid their taxes in rice, while Feudal lords ran stores for the rice collected at ports where rice receipts were used to conduct purchases and sales. The rice receipts were generated against current and upcoming harvest, and these practices and contracts traded on the Dojima Rice Exchange are generally considered the earliest record of trading in modern day futures contracts.

In the 1800s, the demand for agricultural products in the United States (U.S) and the concerns for U.S merchants to ensure that there were buyers and sellers of commodities resulted in forward contracts to sell and buy commodities. However, these contracts still had the issue of credit risk typically inherent in a forward contract as a major problem and this necessitated the formation of the Chicago Board of Trades ("CBOT") in 1848. The CBOT provided a centralised location, where buyers and sellers can meet to negotiate and formalize forward contracts. On July 12, 2007, the CBOT merged with the Chicago Mercantile Exchange (CME) to form the CME Group.

This period represents the period of boom in the securities exchanges using open outcry and trading pits to subsequent period which saw the adoption of technology and advancement in finance which ultimately led to the expansion in the use of derivatives in the financial markets.

#### **Today**

Today, there are numerous exchanges all over the world trading all types of derivatives instruments generally of one (1) of the four (4) major types of contracts: Forwards, Futures, Options and Swaps. These above-mentioned types of derivatives contracts are generally traded via two (2) channels which forms the basis of classifying derivatives markets into the following:

1. Over-the-counter (OTC) Derivatives Market: OTC Derivatives refers to derivatives contracts executed bilaterally between two (2) counterparties directly or indirectly through financial intermediaries (e.g. banks, brokers, etc.). These contracts are not traded on any organised

<sup>&</sup>lt;sup>1</sup> Cuneiform was one of the earliest systems of writing, invented by Sumerians in ancient Mesopotamia. It is distinguished by its wedge-shaped marks on clay tablets, made by means of a blunt reed for a stylus. The name cuneiform itself simply means "wedge-shaped"



markets and due to the nature of their use are very bespoke contracts developed to meet the needs of the counterparties. The execution of OTC derivatives contracts bilaterally directly or through intermediaries is what is called the OTC Derivatives Market, which accounts for over 80% of derivatives contracts executed globally

2. Exchange-Traded Derivatives (ETD) Markets: Exchange-traded Derivatives, on the other hand, refers to standardised derivatives contracts developed, listed and traded on securities exchanges. These ETDs are standardised and not bespoke like OTC derivatives to allow multiple market participants use them. They are also risk managed by default through a combination of two (2) processes called novation and margining, unlike OTC derivatives which may not be risk managed. Futures exchanges across the world such as CME Group, Intercontinental Exchange ("ICE"), Johannesburg Stock Exchange ("JSE") and Nasdaq all have ETD segments or wholly owned exchanges focused on ETDs

#### **Uses and Benefits**

As discussed earlier, derivatives are primarily used for risk management (i.e. to price and transfer risk), they can however be used by the market participants for making profits either by taking speculative positions or arbitrage by taking advantage of asset mispricing (i.e. unexplained differentials in prices/values of assets/indicators in the spot and derivatives markets or in the derivatives market alone. Hence, derivatives are broadly used by market participants for one or a combination of the following:

- Hedging (Risk Insurance)
- Guaranteeing arbitrage profits
- Changing the profile of an asset or liability
- Portfolio rebalancing
- Taking speculative positions

Some of the benefits of using derivatives include *inter alia*:

- Flexibility Derivatives tend to be more flexible than the underlying instrument
- Leverage Derivatives trading permits greater use of leverage than spot transactions for the underlying securities/assets
- Hedging and Insurance Derivatives are used to hedge against adverse price movement in the underlying security and any other linked assets
- Lower Transaction Costs It is cheaper to trade in derivatives than the underlying asset/event, with the cost typically restricted to the required margin and associated commissions compared to the full cost of the underlying asset in a spot transaction
- **Price Discovery** Derivatives trading facilitates price discovery in the market







- Lower Information Asymmetry Derivatives trading helps reduce information asymmetry in the markets, as it provides information about market participants' expectations on asset prices and the economy at large
- Liquidity in the Spot Markets

#### Conclusion

The few milestones in history show that derivatives were developed to secure the supply of commodities both in time and geographical distance, as well as protect changes in prices and to mitigate risks. With its unique feature of locking prices to hedge against unfavourable movements in rates and mitigating risks, derivatives has proven to be a very useful tool for investors and the financial market in general.



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