
Gas Industry Update

Awakening to a New Era




Analyst

Kelechi Chidi-Ihuoma

kelechichidi@meristemng.com

+234 (816) 570 7588

June 2022



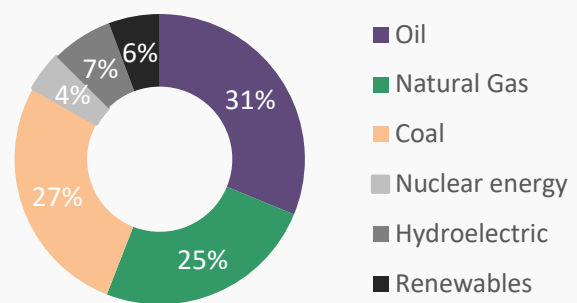
Global Market

A Need for a Developed Gas Market

Given the need to reduce global carbon emissions, natural gas, which generates about 30% fewer CO₂ emissions, is considered a better alternative than other fossil fuels such as oil and coal. Hence, this has spurred the demand for natural gas globally, with countries increasing investment in gas infrastructure to speed up coal-to-gas switching. As of 2020, gas consumption had reached 3.82Tcm (Trillion cubic meters), representing an average annual growth rate of 2.90% from 2009. The International Energy Agency (IEA) also projects gas demand to expand to 4.37Tcm by 2025 on the back of growing consumption by emerging economies.

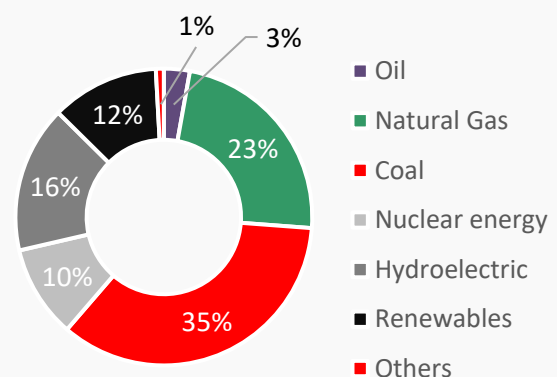
Nonetheless, data from the British Petroleum energy statistical report reveals that crude oil remains the highest consumed fuel worldwide while coal ranks as the most used fuel-based commodity for electricity generation.

Chart 1: World Consumption by Fuel Type



Source: BP Energy Statistics, Meristem Research

Chart 2: Electricity generation by Fuel type



Source: BP Energy Statistics, Meristem Research

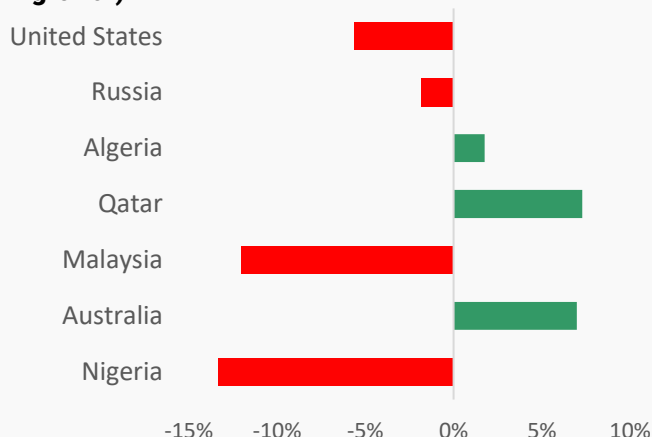
This is no surprise, given that the oil market has a well-developed value chain. At the same time, the coal industry provides a low-cost advantage, especially for countries with high energy demand. Supply challenges remain a significant factor driving natural gas prices upward, particularly during the mid-year when rising temperature means higher electricity demand for cooling. Moreover, this has been exacerbated by the ongoing Russia-Ukraine crisis, which already has sent natural gas prices to record peak levels, forcing industries to revert to coal-powered plants.

Although infrastructural development has been intensified to bolster global supply, the pace is slower than the growing demand. For example, the delay in the Nord Stream 2 pipeline, which is expected to carry 55Bcm (Billion cubic metres) of gas from Russia to other parts of Europe, is one of the few supply setbacks. Similarly, the occasional weather disruption such as the hurricane Ida experienced in the Gulf of Mexico, known as the US petro-

leum-producing region, are other factors affecting supply. So far, Europe, North America and Asia are the largest consumers of natural gas, strengthened by consistent investment in a well-integrated pipeline network to facilitate distribution. Regarding supply, key suppliers remain the US, Russia and Iran, with countries like China and Canada following behind.

So far into 2022, liquefied natural gas (LNG) export has declined for some top exporters and improved for others. We could link this to the rising demand causing countries to prioritize local demand and the ongoing supply constraint experienced at the seaport.

Chart 3: LNG Exports for Selected Countries (Q-o-Q growth)

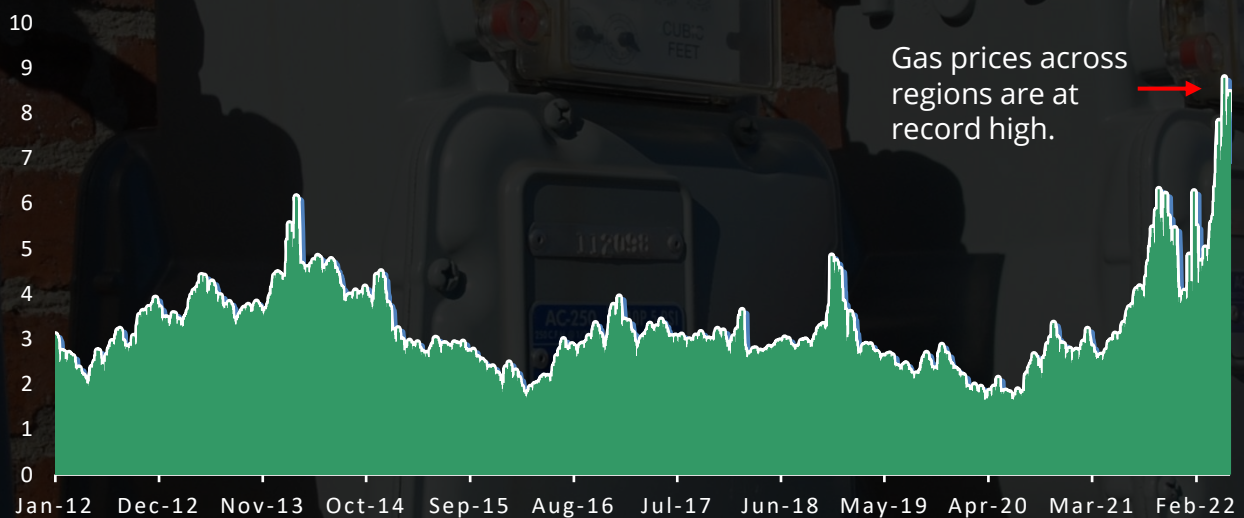


Source: Bloomberg, Meristem Research



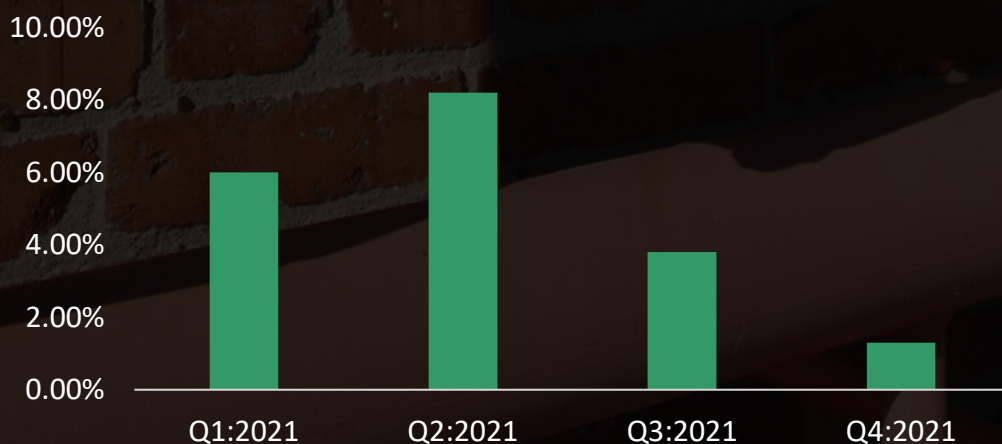
Data shows that natural gas consumption began to slow down in H2:2021 as prices trended upwards. However, this uptrend has continued into 2022 and will likely remain if the war lingers, thus widening the supply gap.

Chart 4: Global Natural Gas Prices (USD/MMBtu)



Source: Bloomberg, Meristem Research

Chart 5: Global Natural Gas Consumption (y-o-y growth)



Source: International Energy Agency, Meristem Research

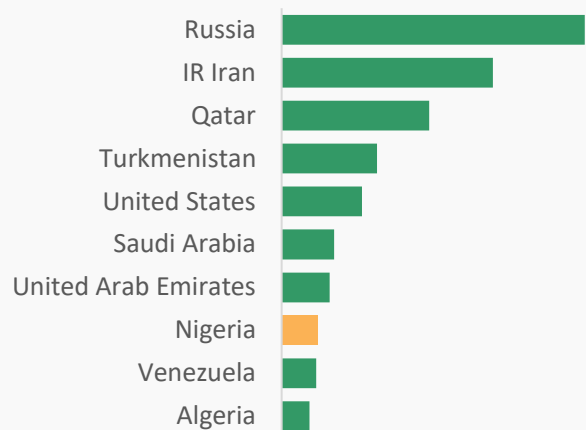
The Nigeria Gas Market

An Untapped Market

With a proven gas reserve of up to 193.3Tcm (the 8th largest globally), Nigeria has speedily improved its production capacity over two decades to meet global demand. However, only a fraction of the country's gas reserves has been tapped. Few players exist in the space owing to the capital-intensive nature required in setting up gas infrastructure, as well as its storage difficulties, making it hard for producers to engage in gas exploration without potential off-takers.

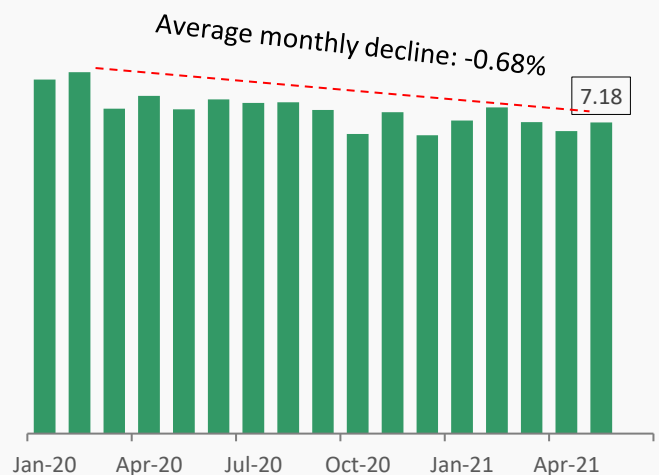
Other factors such as the growing divestment of oil assets by International Oil Companies (IOCs) and pipeline sabotage has led to production decline. For context, about 70% of total gas produced in Nigeria is Associated Gas (AG), which refers to natural gas captured when drilling for crude oil. Hence, this highlights the impact of the waning oil activities on gas production.

Chart 6: Top 10 World proven natural gas reserves



Source: OPEC, Meristem Research

Chart 7: Nigeria natural gas production in Bscf/d (Jan-2020 – May 2021)



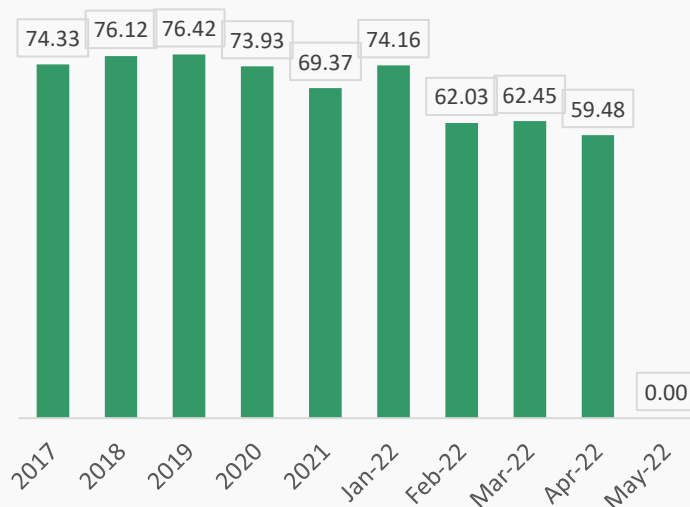
Source: NNPC, Meristem Research

Rising Natural Gas Prices Improves Gas Sales

Nonetheless, export sales began to rise in February this year, a turnaround from its year-on-year downtrend. NNPC monthly report shows gas export sales in February 2022 more than doubled compared to the same period last year. Surging gas prices in the international market have anchored gas sales given the declining export.

However, we believe a now clearer fiscal guideline put in place via the Petroleum Industry Act would spur investment into the sector. Also, as the President declared the decade of gas demonstrates key interest is taken towards growing the sector. Various gas infrastructural projects so far have been proposed, and some nearing completion. An example is the Licence to Establish the first Floating Liquefied Natural Gas (FLNG) facility granted to UTM Offshore Limited. The vessel would have the capacity to liquify 176MMScf of natural gas produced offshore, thereby reducing associated gas mostly flared or re-injected during offshore operations.

Chart 8: Nigeria LNG Export (thousand metric tonne)



Source: Bloomberg, Meristem Research

Ongoing/Announced Gas projects	Some Company
First floating liquefied natural gas facility (176MMScf of gas processing capacity)	UTM Offshore Limited
NLNG Train 7	Nigeria LNG Limited (NLNG)
CBN NGN250bn gas infrastructure fund	Available to manufacturers, processors and wholesale distributors
Assa North-Ohaji South (ANOH) gas project	Seplat Energy Plc and Nigerian Gas Company (NGC)

A Strong Bias for Export

The oligopolistic structure of the country's gas value chain, where IOCs own critical gas assets, creates a strong bias for export. Nigeria LNG Limited remains the primary exporter of the country's LNG product, with a processing capacity of 22 Million Tonnes Per Annum (MTPA). Other gas export routes include the West African Gas Pipeline (WAGP), responsible for gas supply across West Africa and the Escravos Gas-to-Liquid (EGTL). However, significant equity interest is held by oil majors thereby accentuating the preference for export.

On this note, the market remains regulated to boost domestic demand and supply. For example, gas-to-power pricing is pegged at USD2.17/MMScf and often revised downward to encourage consumption. Compared to international prices, this comes at a significant discount. In addition, the Domestic Supply Obligation (DSO) ensures gas producers deliver a percentage of gas produced to the domestic market before export. However, this has not been strictly enforced as report from the Department of Petroleum Resources shows only a few companies are compliant.

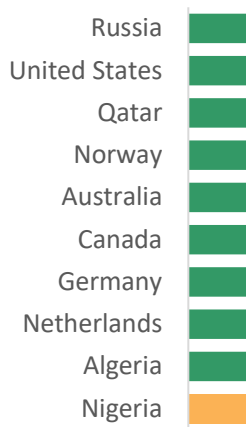
Company	Key Gas Asset (Ownership)
Shell	<ul style="list-style-type: none"> WAGP (17.9% interest) NLNG (25.6% interest)
Chevron	<ul style="list-style-type: none"> WAGP (36.9% interest) EGTL (75% interest)
TotalEnergies	<ul style="list-style-type: none"> NLNG (15% interest)
Eni	<ul style="list-style-type: none"> NLNG (10.4% interest)

Still a Long Way to Go...

Notwithstanding, supply to the domestic market remains very low, accounting for just c.21% of total gas produced. While gas-to-power prices are shielded from market realities, the LPG market continues to bear the burden of low domestic gas supply given that half of the cooking gas consumed is imported. Hence, this points us to a case of growing demand but limited supply. Overall, a lot needs to be done to fully develop the gas landscape and encourage indigenous participation.

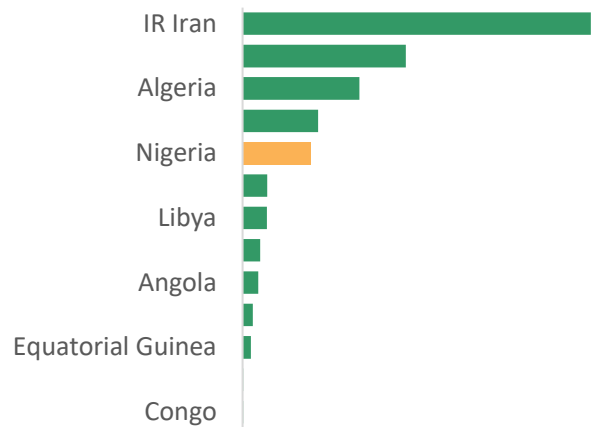
Key Industry Statistics

Chart 9: Top 10 World natural gas exports by country



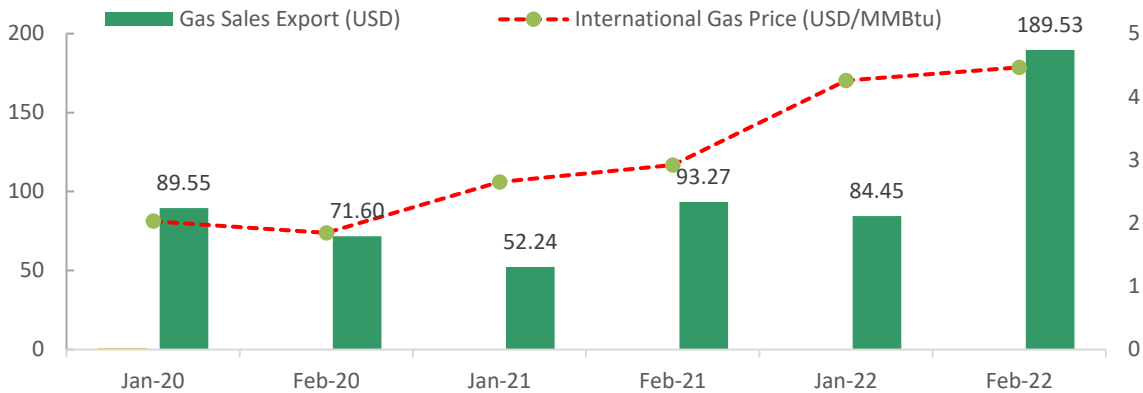
Source: OPEC, Meristem Research

Chart 10: Natural gas marketed production in OPEC Members



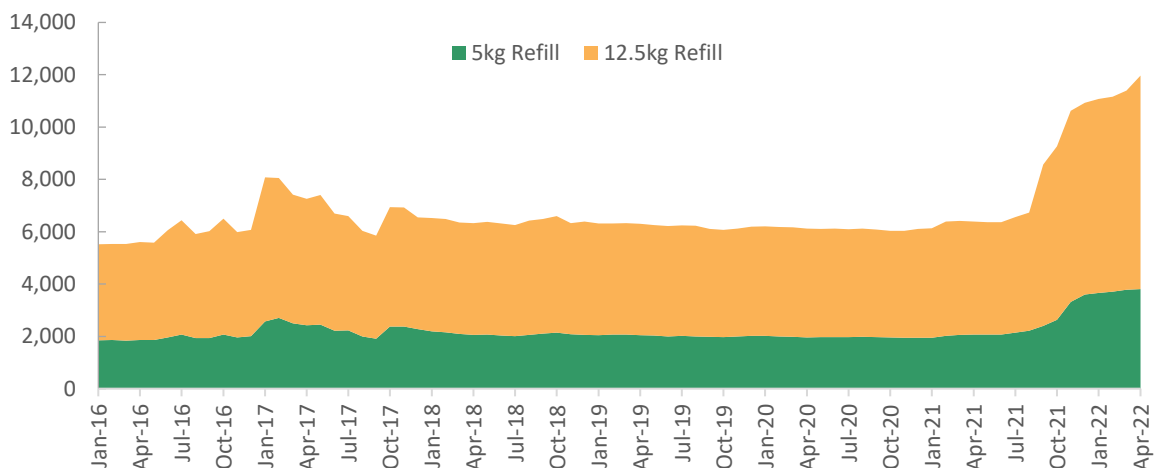
Source: OPEC, Meristem Research

Chart 11: Nigeria Gas Export Sales vs International Gas Prices



Source: NNPC, Meristem Research

Chart 12: Liquefied Petroleum Gas (Cooking gas) Prices (NGN)



Source: National Bureau of Statistics, Meristem Research

Chart 13: Global Natural Gas Distribution (2020)

Region	North America	South and Central America	Europe	CIS	Middle East	Africa	Asia Pacific
Proven Gas Reserve 188.1Tcm	US	Venezuela	Norway	Russia	Iran	Nigeria	China
	6.7%	3.3%	0.8%	19.9%	17.1%	2.9%	4.5%
	Others	Others	Others	Others	Qatar	Algeria	India
	1.4%	0.9%	0.9%	10.2%	13.1%	2.1%	0.7%
					Others	Others	Others
Consumption 3.82Tcm			Germany		Iran	Egypt	China
	US	Argentina	2.3%	Russia	6.1%	1.5%	8.6%
	21.8%	1.1%	UK	10.8%	Saudi Arabia	Algeria	India
	Others	Others	1.9%	Others	2.9%	1.1%	1.6%
	5.2%	2.7%	Others	3.3%	Others	Others	Others
Production 3.85Tcm		Argentina	Norway		Iran	Nigeria	China
	US	1.0%	2.9%	Russia	6.5%	1.3%	5.0%
	23.7%	Trinidad & Tobago	UK	16.6%	Qatar	Algeria	India
	Others	0.8%	1.0%	Others	4.4%	1.2%	0.6%
	5.1%	Others	Others	4.2%	Others	Others	Others
Import 0.94Tcm							China
	US	Brazil		Russia			14.8%
	7.4%	1.0%	Total	1.2%	Total	Total	India
	Others	Others	34.7%	Others	1.1%	0.2%	3.8%
	8.5%	1.1%		2.8%			Others
Export 0.94Tcm	US			Russia			23.4%
	14.6%	Total	Total	25.3%	Total	Total	Total
	Others	2.8%	0.6%	Others	14.3%	8.8%	19.7%
	7.3%			6.6%			

Percentage distribution across region has been approximately the same since 2018.

CIS: Commonwealth of independent States (including Russia)

* Data excludes gas flared or recycled.

Source: BP Energy Statistical Data, Meristem Research

CONTACT INFORMATION

Brokerage and Retail Services

topeoludimu@meristemng.com (+234 905 569 0627)
isaaconaolapo@meristemng.com (+234 803 234 8275)
contact@meristemng.com

Investment Banking/Corporate Finance

rasakisalawu@meristemng.com (+234 806 022 9889)
seunlijofi@meristemng.com (+234 808 536 5766)

Wealth Management

funmilolaadekola-daramola@meristemng.com (+234 803 355 0008)
crmwealth@meristemng.com (+234 01 738 9948)

Registrars

muboolasoko@meristemregistrars.com (+234 803 324 7996)
martinaosague@meristemregistrars.com (+234 802 303 1783)
www.meristemregistrars.com (+23401-280 9250)

Group Business Development

saheedbashir@meristemng.com (+234 802 454 6575)
ifeomaogalue@meristemng.com (+234 802 394 2967)
info@meristemng.com

Trust Services

damilolahassan@meristemng.com (+234 803 613 9123)
trustees@meristemng.com

Investment Research

research@meristemng.com
damilareajo@meristemng.com (+234 816 890 2771)
_praiseihansekhien@meristemng.com (+234 817 007 1512)

Analyst Coverage

kelechichidi@meristemng.com (+234 816 570 7588)

Client Services

adefemitaiwo@meristemng.com (+234 803 694 3034)
car@meristemng.com (+23401-280 9250)

Meristem Research can also be accessed on the following platforms:

Meristem Research portal: research.meristemng.com

Bloomberg: MERI <GO>

Capital IQ: www.capitaliq.com

Reuters: www.thomsonreuters.com

ISI Emerging Markets: www.securities.com/ch.html?pc=NG

FactSet: www.factset.com

IMPORTANT INFORMATION: DISCLAIMER

Meristem Securities Limited (“Meristem”) equity reports and its attendant recommendations are prepared based on publicly available information and are meant for general information purposes only and it may not be reproduced or distributed to any other person. All reasonable care has been taken to ensure that the information contained herein is not misleading or untrue at the time of publication; **Meristem** can neither guarantee its accuracy nor completeness as they are an expression of our analysts’ views and opinions.

Meristem and any of its associated or subsidiary companies or the employees thereof cannot be held responsible for any loss suffered by relying on the said information as this information as earlier stated, is based on publicly available information, analysts’ estimates and opinions and is meant for general information purposes and should not be construed as an offer to buy or sell or a solicitation of an offer to buy or sell securities or any financial instruments. The value of any investment is subject to fluctuations, i.e. may fall and rise. Past performance is no guide to the future. The rate of exchange between currencies may cause the value of investment to increase or diminish. Hence investors may not get back the full value of their original investment.

Meristem Securities is registered with the Securities and Exchange Commission (SEC) and is also a member of The Nigerian Stock Exchange (The NSE). Meristem Securities’ registered office is at 20 Gerrard Road, Lagos, Nigeria. Website: www.meristemng.com; Email: research@meristemng.com. © **Meristem Securities Limited 2022.**