AFREXIMBANK AFRICAN COMMODITY INDEX (AACI) H1-2022

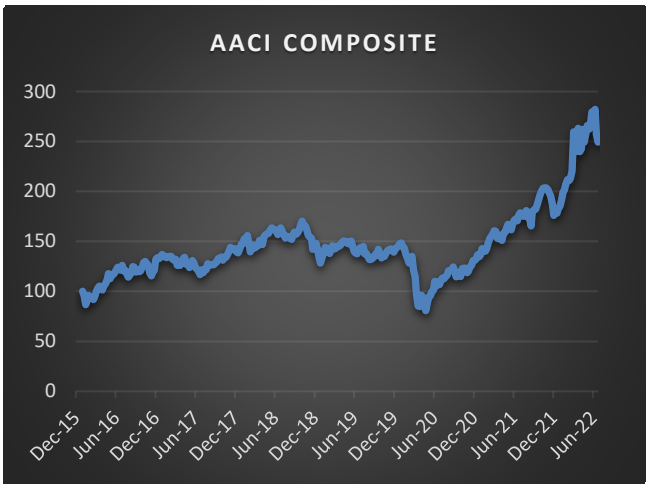
The recurrence of adverse shocks in commodity terms of trade has severely constricted growth in African economies and made it crucial for businesses and policy makers alike to consistently monitor trends in the region's key commodity markets. The Afreximbank African Commodity Index (AACI) accurately reflects the composition of African commodities and tracks the movements of commodity prices on a biannual basis. In so doing, the AACI highlights areas that require preemptive measures by the Bank, its key stakeholders, policy makers, and global institutions interested in the African market, to effectively mitigate risks associated with volatility of commodity prices.

The AACI reflects the dynamics of 14 key commodities that are of export interest to Africa. This edition of the index has been expanded to include natural gas, which reflects its growing importance in the global energy mix and the potential that such a shift, accelerated by geopolitical tensions, could have in Africa. More than half of the countries in the region have proven natural gas reserves estimated at more than 800 trillion cubic feet. The production of natural gas on the continent is projected to expand by 80 percent by 2035, and the region could raise its production to about 30 billion cubic meters as Europe strives to diversify its sources of supply following the escalation of sanctions against Russia.

The commodity list is divided into three main categories; seven agricultural (cocoa, coffee, cotton, corn, sugar, wheat, and palm oil), five metal (aluminum, cobalt, copper, gold, and zinc) and two energy (crude oil and natural gas). Based on trade volumes, translated into trade weights of the selected 14 commodities, natural gas is currently ranked the second most important contributor to the composite AACI, after crude oil. This report focuses on price movements, including growth rates and volatility, during the six months that ended in June 2022.

The AACI composite index in Figure 1 shows the aggregated price movements on commodity markets since 2016. The index, which has maintained a steady increase, showed impressive growth since the collapse in commodity markets triggered by the COVID-19 pandemic. The index recovered from a drop during the pandemic downturn in April 2020, rising steeply to a peak in March 2022. It remained elevated in the second quarter of 2022, amid a lingering myriad of global risks, with the Ukraine crisis, coupled with China's zero-COVID-19 policy, further exacerbating the disruptions of global supply chains and heightening inflationary pressures and global volatility.

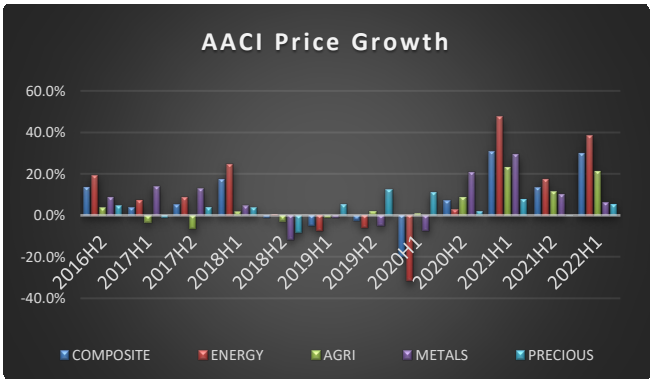
Figure 1: AACI Composite Index (2016=100)

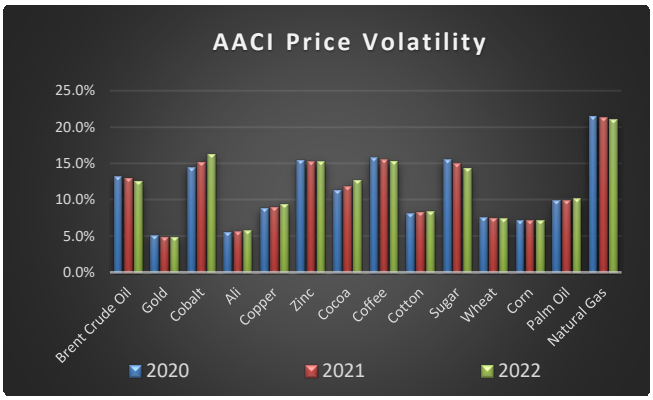


Source: Afreximbank Research.

The Energy and Agricultural subindices were the main drivers of AACI during the review period, as shown in Figure 2. These subindices grew by 30 percent and 21 percent respectively, compared with the second half of 2021. The most volatile commodities over the last three years, as measured by the coefficient of variation, include natural gas, brent crude oil, coffee, sugar, and cobalt.

Figure 2: AACI Price Growth and Volatility (2016=100)

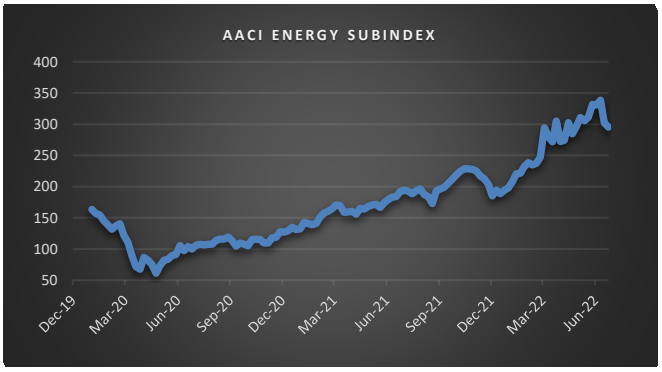


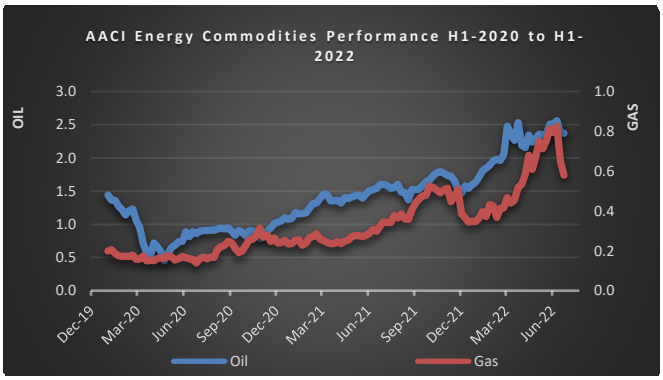


Source: Afreximbank Research.

a. Energy

Figure 3: AACI—Energy Subindex (2016=100)





Source: Afreximbank Research.

The AACI energy subindex soared sixfold in the two years that ended June 2022. The near-exponential growth is attributable to the exceptionally fast-paced global economic recovery in 2021, coupled with demand and supply imbalances. The first half of 2022 saw the energy subindex continuing to increase and reaching its all-time high, because geopolitical tensions and global volatility persisted.

At the outbreak of the Ukraine crisis, natural gas futures soared to 14-year highs as a result of reduced supplies from Russia and other global Liquified Natural Gas (LNG) producers. Russia is the world's second largest natural gas producer, after the United States, and it is the leading exporter, accounting for about 26 percent of global exports. The European Union (EU) imports roughly 45 percent of its natural gas from Russia. With EU staggered bans on Russian commodities, European countries are seeking diversification of their LNG sources and showing increased interest in the African continent.

As a consequence of the Ukraine crisis, Africa ramped up natural gas production and strengthened LNG export agreements. Italy struck LNG deals with Angola and the Democratic Republic of Congo (DRC), while Germany commenced negotiations with Senegal and Mauritania. African natural gas hotspots are making concerted efforts to revive the Trans-Saharan gas pipeline (NIGAL) to transport Nigerian gas through Niger to Algeria. From Algeria, the existing Trans-Mediterranean (Transmed) and Medgaz LNG pipeline network will link NIGAL and Algerian NLG to Italy and Spain, respectively.

Egypt recently reopened the Damietta LNG export terminal, which links to the European LNG market, and will maintain its market share for natural gas exports to China. Other countries including Ghana, Mozambique, and Tanzania are set to become major exporters of natural gas to Europe.

As one of the major fallouts from the Ukraine crisis, the shift in the geopolitics of energy has led to an abrupt departure from the 26th United Nations Climate Change Conference of Parties (COP26), Glasgow agreement to halt public financing for fossil fuels. The most recent dynamic in the LNG market presents a remarkable opportunity for African countries to harness potential financing to create and consolidate domestic natural gas markets to drive their process of economic development.

Amidst multiple global risks, oil futures surged considerably beginning the first week of March 2022, with prices reaching decade highs. Brent Crude futures remained elevated at around $100 per barrel during the review period, with the outbreak of the Ukraine crisis further exacerbating the disruption of global supply chain and adversely affecting production. Some international companies ended operations in Russia, with some limiting trade in oil and petroleum. Russia is one of the leading global players in the energy sector, accounting for 10 percent of world oil production.

Top oil producers Russia and Saudi Arabia failed to reach their production targets during the first half of 2022. Saudi Arabia and the United Arab Emirates (UAE) faced operational and technical challenges that could not be addressed in the short term and therefore kept production below quotas during the review period. Other countries (including Iran, Iraq, and Libya) produced below capacity due to political and security issues. International Energy Agency data showed marked reductions in US crude oil stocks, reflecting declines in Strategic Petroleum Reserve and other global inventories. These factors intensified volatility and upward pressure on oil prices.

Production in Nigeria decreased marginally during the first half of 2022, and its position as the leading African oil producer was overtaken by Angola. Shell delayed deepwater developments at Bonga oil field by a couple of years and thus, production in Nigeria is expected to decrease in the short to medium term.

The Organization of Petroleum Exporting Countries (OPEC) forecasts increased production in Angola driven by exploration campaigns and recent policy reforms to boost growth in the sector. During the review period, Algeria was the third largest producer, followed by Libya and Egypt. Although Libya is endowed with the largest oil reserves on the continent, prolonged conflicts have kept production below potential.

b. Precious metals

During the first couple of months of 2022, gold prices increased sharply to $2,039 per ounce, from $1,809, driven largely by heightened global volatility and uncertainty exacerbated by the Ukraine crisis. Observatory of Economic Complexity (OEC) data shows that gold imports in India bounced back to pre-pandemic levels, reaching 1,067.72 tonnes in 2021, from 430.11 tonnes the previous year, while consumption in China was the highest in five years. Gold prices reached 19-months highs as investors continued to use the precious metal as a buffer and safe haven asset.

During the second quarter of 2022, tightening of monetary policies by major central banks and the resulting capital flow reversal and appreciation of the US dollar improved investor confidence and put downward pressures on gold prices, which fell slightly to average around $1,850 per troy ounce.

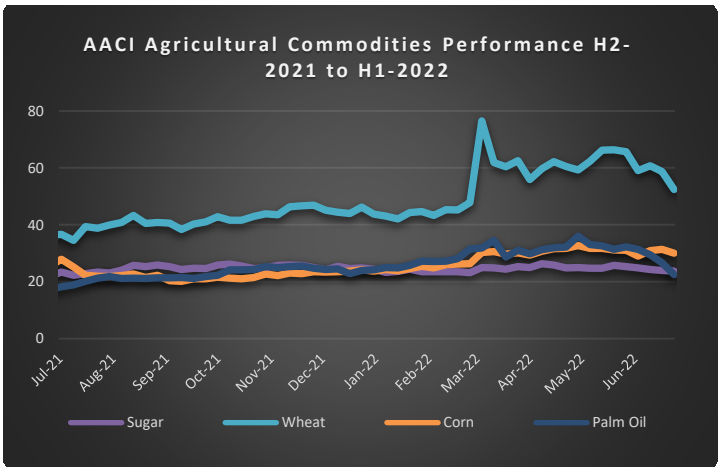
c. Base metals

The base metals subindex rose 6 percent from the second half of 2021 to the first half of 2022. Zinc and aluminum increased by 20 percent and 14 percent respectively, while copper increased marginally by 2 percent. Zinc prices rose on account of strong global demand and dwindling zinc inventories at the London Metal Exchange (LME) and Shanghai Futures Exchange (SHFE). Aluminum prices soared to all-time highs of about $3,850 per tonne during the review period, owing to steeper energy prices. Energy accounts for around 40 percent to 50 percent of aluminum smelting costs and therefore, the surge in energy prices raised overall costs for aluminum producers, causing most smelters to scale back on output.

Copper prices remained elevated during the first quarter of 2022, on the back of strong demand from China, the world's largest consumer. The price increase was further supported because copper is set to play a key role in the context of an ongoing transition towards green energy. However, prices softened slightly in the second quarter, owing to a slowdown in the Chinese property sector.

d. Agricultural commodities

Figure 4: AACI—Agricultural Commodities Performance (2016=100)



Source: Afreximbank Research.

The agricultural commodities index rose 21 percent from the second half of 2021 to the first half of 2022, mainly on account of price increases for wheat (34 percent), palm oil (31 percent), corn (29 percent), and cotton (28 percent). Coffee prices rose by 3 percent while cocoa and sugar remained virtually flat at 1 percent and -0.9 percent, respectively. Similarly, cocoa prices remained virtually flat, oscillating from $2,277 to $2,420 per tonne during the six months that ended in June 2022.

During the first half of 2022, wheat futures soared significantly, slightly exceeding price levels reached at the height of the 2008 food crisis. The outbreak of the Ukraine crisis exacerbated the ripple effects of COVID-19, with significant negative impacts on the most vulnerable countries, which are highly dependent on wheat imports. Prior to the crises, Russia and Ukraine together accounted for roughly 30 percent of global wheat exports, followed by the United States, Canada, and France. The Middle East and North Africa region, which had been the main destination of Ukrainian and Russian wheat exports, was particularly affected.

Coffee prices jumped to decade highs of $2.50 per pound during the first half of 2022, as bean shortages rattled the global coffee market. Adverse climate events exacerbated supply chain turmoil and logistics complications that emerged from the pandemic. The International Coffee Organization said that drought, along with a frost in 2021, damaged the Arabica coffee plants in Minas Gerais, the top growing region of Brazil, and ruined the beans that were ready for harvest. The Intercontinental Exchange (ICE) Futures-monitored coffee supplies show that stockpiles are at a 22-year low, reflecting low production in the 2021/2022 season. Shipment of green

coffee weakened during the review period, further reinforcing supply tightness. In addition, the Brazilian real recently strengthened, thereby discouraging exports from local coffee producers. If these factors persist, high coffee prices will be sustained in the near future.
Coffee is one of the top-earning export commodities of many African countries, especially in the Eastern and Western regions of the continent, led by Ethiopia, Uganda, and Côte D'Ivoire. In the first G-25 Africa Coffee Summit held during the review period, representatives from 25 coffee-producing countries signed the Nairobi Declaration, which seeks to make coffee a strategic commodity. In addition, to help revitalize quality coffee production and trade, the Inter-African Coffee Organization assists its 25 African member states in dealing with challenges affecting the crop.

Cotton prices rose sharply to decade highs of $1.54 per pound during the first half of 2022 before plummeting drastically to $1.00 per pound in the last week of June. Price increases were driven by war-related complications in trade routes spanning Russia and Ukraine, coupled with increased freight charges, on top of the overstretched maritime costs caused by the pandemic. However, the increasing risk of stagflation and the ongoing lockdowns in China are likely to exert more pressure on the textile industry. Extenuating factors expected to pose challenges to production in the coming seasons include dry weather in the US state of Texas and the rising threats of pink bollworm pest infestation in India.

Mali produced more than 760,000 tons of cotton in the 2021/2022 season and has been recognized as the leading cotton producer on the continent. This record output was mainly attributable to supportive policy measures provided by Mali's government to the cotton sector. In May 2022, during "cotton days" meetings organized by the World Trade Organization, the Cotton 4 (Benin, Burkina Faso, Chad, and Mali) reiterated the need for cotton subsidies and implementation of trade reforms that enable ease of market access and removal of trade-restrictive measures. African cotton is mainly exported to Asian countries such as China, Vietnam, and Bangladesh.

e. Outlook for Commodity Prices

The outlook for commodity markets is largely dependent on the duration of the Ukraine crisis and the extent of global coordination to mitigate the risk of stagflation. A temporary respite has recently developed, with Russia and Ukraine signing an agreement to resume grain trading in Black Sea ports. This has enabled Ukraine to export, clear stockpiles, and prepare silos for the next harvest. Table 1 provides the forecasts for prices of key commodities of interest in the near term.

Table 1: Selected Commodity Forecasts

Commodity Price/Unit	Quarterly					Annual	
	Spot	Q3 22	Q4 22	Q1 23	Q2 23	2022	2023
Aluminum, $/tonne	2,359	2,383	2,362	2,371	2,384	2,373	2,391
Brent Crude $/bbl	94	100	93	90	88	102	87
Cobalt $/lb	25	32	32	29	29	34	28
Cocoa $/tonne	2,427	2,392	2,410	2,396	2,393	2,403	2,385
Coffee, Robusta $/tonne	2,228	2,155	2,223	2,197	2,180	2,156	2,177
Copper $/tonne	7,802	7,776	7,804	7,774	7,762	8,656	7,761
Corn US cents/bu	670	676	672	677	676	708	653
Cotton, US cents/lb	114	117	113	109	104	119	99
Natural Gas $/MMBtu*	9	9	9	7	6	8	6
Palm Oil RM/tonne	3,860	4,073	4,164	4,273	4,324	4,118	4,299
Gold $/oz	1,695	1,721	1,718	1,736	1,753	1,791	1,766
Sugar, raw US cents/lb	18	18	18	18	17	18	17
Wheat US cents/bu	806	811	834	850	858	931	862
Zinc $/tonne	3,460	3,550	3,457	3,360	3,273	3,617	3,224

Source: Afreximbank Research, Bloomberg.

*MMBtu (Metric Million British Thermal Unit)

Wheat: As economies adjust to the Ukraine crisis and other global shocks, a bearish outlook is envisaged. The US Department of Agriculture predicts a strong comeback in exports in the 2022/23 season, and a marked reduction in consumption across the world. The EU forecasts more grain production following approval for farmers to use fallow land in that region, to boost agricultural supplies. Agricultural consultancy Sovecon revised upwards its forecasts for Russian wheat production on the back of a record harvest, especially in the Rostov region. Russian production predictions are revised up by 0.6 million tonnes, to record highs of 89.2 million tonnes, in the next harvest.

Gold: Rising interest rates are also increasing the risk of recession, likely to enhance the safe haven nature of gold. Accordingly, investors will remain bullish on the yellow metal and its price will likely remain elevated in the short to medium term, especially with the lingering crisis in Ukraine and increasing global volatility and uncertainty.

Copper: While prices are likely to be affected in the short term, with the increasing risk of stagflation in Europe, the outlook is positive in a world that has made a major shift towards clean energy and net-zero transition. According to the International Energy Agency, the stock of copper to be used in electric cars rose by 43 percent in 2020 and is expected to surge tenfold by 2030. Clean energy is projected to consume more than double the amount of copper in 2040, compared with current levels. On the supply side, the African international mining hotspots, the DRC and Zambia, are expected to increase supply in the next couple of years, particularly from Kamoa-Kakula mine and Mopani Copper Mines, respectively.

Cocoa: Cocoa prices could be affected by trade disruptions and shortages of fertilizer caused by the Ukraine crisis. The International Cocoa Organization indicated that unfavorable weather conditions and diseases in Côte D'Ivoire and Ghana, the world's top producers, which account for more than 60 percent of global output, will likely impact the quality and quantity of production, as well as the size of the cocoa bean. In the context of multiple global risks, demand for chocolate could be subdued because of the rising cost of living, forcing consumers to tighten their belts.

Table 2: Forecasts vs. Spot Prices (% change)

Forecasts versus Spot	Quarterly				Annual	
	Q3 22	Q4 22	Q1 23	Q2 23	2022	2023
Aluminum, $/tonne	1.0%	0.1%	0.5%	1.1%	0.6%	1.3%
Brent Crude $/bbl	7.2%	-0.8%	-4.0%	-6.2%	9.3%	-7.1%
Cobalt $/lb	25.0%	25.0%	16.1%	16.1%	35.3%	11.2%
Cocoa $/tonne	-1.4%	-0.7%	-1.3%	-1.4%	-1.0%	-1.7%
Coffee, Robusta $/tonne	-3.3%	-0.2%	-1.4%	-2.2%	-3.2%	-2.3%
Copper $/tonne	-0.3%	0.0%	-0.4%	-0.5%	11.0%	-0.5%
Corn US cents/bu	0.9%	0.2%	1.0%	0.9%	5.7%	-2.6%
Cotton, US cents/lb	3.1%	-0.6%	-3.6%	-7.9%	4.8%	-13.2%
Natural Gas $/MMBtu*	0.1%	3.4%	-18.0%	-35.5%	-13.2%	-29.7%
Palm Oil RM/tonne	5.5%	7.9%	10.7%	12.0%	6.7%	11.4%
Gold $/oz	1.6%	1.4%	2.5%	3.4%	5.7%	4.2%
Sugar, raw US cents/lb	0.0%	-0.7%	-1.7%	-4.4%	2.2%	-3.4%
Wheat US cents/bu	0.6%	3.5%	5.4%	6.4%	15.5%	7.0%
Zinc $/tonne	2.6%	-0.1%	-2.9%	-5.4%	4.5%	-6.8%

Source Afreximbank Research, Bloomberg.

*MMBtu (Metric Million British Thermal Unit