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**| RESEARCH ARTICLE**

## **The Causes and Effects of High Commodity Prices in Uganda Giving Solutions on how to Overcome Them**

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**| ABSTRACT**

This study focused on assessing the causes and effects of high commodity prices in Uganda based on three main objectives that included; assessing the causes of high commodity prices in Uganda, examining the effects of high commodity prices in Uganda, and establishing solutions on how to overcome high commodity prices in Uganda and to establish solutions on how to overcome high commodity prices in Uganda. The study adopted a cross-sectional research design whereby a sample size of 248 respondents was selected from a population of 700 using a simple random sampling approach; 187 responded, indicating a response rate of 75.4%. A five-point Likert scale structured questionnaire was used to collect data. Data were tested for reliability, analyzed using SPSS v23, and results were presented based on the study objectives. Findings indicated that there are still causes of high commodity prices in Uganda, such as government subsidy fluctuations, labour cost fluctuations, the Global spread of COVID-19, the escalating geopolitical risk, and the systemic uncertainty in the commodity markets due to the Russian-Ukraine war in Ukraine, increased demand from the local consumers, increased demand from neighbouring countries, supply variability, globalization, and monetary inflation. The high commodity prices have some effects, such as demand weakness and supply disruptions, the proportion of commodities in the consumer price basket, deterioration in fiscal accounts, and improvement in the Current Account balances through better Terms of Trade. Hence it was recommended that subsidies granted and tariffs imposed by the government on commodities in Uganda should be grounded on facts about their impacts on price fluctuations and, eventually, their consequences on the profitability of the market. The government should reduce taxes to create instability in markets, improve supply chains of the main commodities, and government or third-party intervention in the market to manage commodity prices in Uganda.

**| KEYWORDS**

Causes, Effects, Commodity Prices, Solutions, Uganda

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### **1. Introduction**

Globally, most commodity prices are now two or even three times higher compared with a decade earlier (Sun & Wang, 2021). Commodity prices are volatile as well as most of the commodity exchanges are volatile and dynamic (Miečinskienė & Lapinskaitė, 2014). One of the most influential factors affecting commodity price rate is the price of production costs, which mainly depends on the final price of commodities in a market. Therefore, the price changes of the most important commodities in the world's commodity exchange markets influence the price of local producers or imported production (Miečinskienė & Lapinskaitė, 2014).

Recently the global spread of COVID-19 (Tröster & Küblböck, 2020) and the war in Ukraine originating from rising geopolitical tensions between Russia and western countries (Wang, Bouri, Fareed & Dai, 2022) has affected countries' commodity prices in unprecedented ways. Higher geopolitical risk spiralled commodity prices already disturbed by supply interruptions from the pandemic. Covid 19 prevention measures like lockdowns have contributed to sharp declines and high volatility in commodity prices for most countries (World Bank, 2020). The global supply lines have been disrupted, and aggregate demand has decreased

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as a result of the COVID-19 pandemic-induced lockdowns (Vidya & Prabheesh, 2020). The lockdowns resulted in a significant drop in natural resource commodity (such as crude oil) prices on the global market, that is from US\$61 on January 02, 2020, to US\$12 on April 28, 2020, owing to a substantial fall in oil consumption (Prabheesh et al., 2020). Developing countries, especially in Africa, have experienced continued fluctuations in commodity prices, especially agriculture products, in the past few decades (Masron & Subramaniam, 2019). Governments have been involved in deliberate attempts to achieve stability since it contributes a lot towards the economic growth of most African countries (Masron & Subramaniam, 2019)

In Uganda, the government has put in place efforts to achieve stability in commodity prices (MoFPED, 2022). For example, through the Bank of Uganda, the government continued to monitor the situation and applied appropriate monetary policies to ensure inflation stayed within the target and maintained macroeconomic stability. The government has also continued supporting farmers to grow more food and vegetable cereals to take advantage of the rising global and regional prices to boost export earnings. The government continued to support citizens and businesses through the provision of funds such as EMYOOGA, money in UDB, a microfinance support centre, and a small business recovery fund. Additionally, the government started implementing the parish development model so that 39% of the households in subsistence may join the money economy and build the capacity to withstand high commodity price shocks (MoFPED, 2022). However, there are still high commodity prices in Uganda; as indicated by the Uganda Bureau of Statistics, the price of commodities like cooking oil increased by over 21 percent between December 2021 and February 2022, and the annual rise was 77.6 percent. In February, a laundry-soap bar cost 20 percent more than in December and almost 50 percent more than one year earlier. The petrol price surged by 15.3 percent in three months and by 34 percent in 12 months. (UBOS, 2022)

Amid such unprecedented conditions, soaring prices of these commodities can potentially contaminate other commodities through higher costs of production and biofuel and substitution effects, inducing higher volatility and, ultimately, intense volatility spillovers in the commodity markets (Zhang et al., 2019). These effects could affect price stability and food security and thereby represent a concern for policymakers, given their adverse effect on the level of inflation, consumer spending, and, ultimately, economic activity. Despite the global effort and control measures taken over the years to maintain price stability, there has been a steady upward trend in world commodity prices at a modest rate (Boyd & Bellemare, 2020). The available literature is, however, inadequate in determining price variations among the main commodities in the world. Since its one of the developing countries in the world affected by high commodity prices, it is imperative to analyse the causes and effects of high commodity prices in Uganda and come up with solutions.

Commodity Prices stability serves as an efficient means for seeking out production possibilities and potential, as well as allocating scarce resources within an economy (Hoenink et al., 2022). However, despite the government's efforts to reduce high commodity prices in Uganda, the economy is still faced with high commodity prices, as evidenced in the Uganda Bureau of Statistics Report (2022) that the price of commodities like cooking oil increased by 21 % between December 2021 and February 2022, and the annual rise was 77.6 %. In February, a laundry-soap bar cost 20 % more than in December and almost 50 % more than one year earlier. The petrol price surged by 15.3 % in three months and by 34 % in 12 months (MoFPED 2022; UBOS, 2022). The high commodity prices could be mostly attributed to the Ukraine war and supply-chain disruption due to Covid-19 (MoFPED, 2022). Therefore, this study sought to assess the causes and effects of high commodity prices in Uganda, giving solutions on how to overcome them.

## **2. Literature Review**

Ghoshray (2019) in their work pointed out that given the fact that many developing countries are dependent on c as their main source of income, the issue of trends in commodity prices in relation to manufactures has been of great interest in the trade and development economics literature and a strand of theoretical research argues that commodity prices should be stationary, due to the biological nature of production, storage, and arbitrage. The price movements of commodities as well were analysed by Dudzinski and Knap (2021). Cashin et al. (2002) analysed empirical evidence that has generated several stylized facts about real commodity prices: they are often dominated by long periods of doldrums punctuated by sharp upward spikes (Deaton & Laroque, 1992); they have a tendency to trend down in the long run (Grilli & Yang, 1988); shocks to commodity prices tend to persist for several years at a time (Cashin et al., 1999); and unrelated commodity prices move together (Pindyck & Rotemberg, 1990). Several of these stylized facts have been summarized by Deaton (1999). Commodity prices have recently resurfaced in discussions of the inflationary outlook for western economies. The popular view seems to be that changes in commodity prices are a consequence of developments occurring solely in the relevant commodity market

### **2.1 International Commodity Price Fluctuations**

International commodity prices play a very significant role in determining the level or rate of price fluctuations in various countries around the globe. For instance, the price of oil in the international market is possibly the reason for serious price fluctuations experienced in many countries around the globe (Frankel, 2018). He further argues that international price fluctuations are mostly

affected by macro variables that are problematic to ignore in any given economy. Significant price fluctuations in international commodity prices lead local prices to also experience notable fluctuations.

There has been a serious fluctuation in international commodity prices due to economic growth changes that are being experienced in some countries such as China. The demand for cheaper products from countries that have experienced growth in production has had an impact on price fluctuations in a number of countries. The high growth experienced in countries such as China after the 2008 economic recession has greatly influenced international commodity price fluctuations in many countries (Wolf, 2008). According to Kilian and Lee (2013), the increased growth has also seen the storable inventories of commodities in the global market increase, and this has increased speculation, which has had an impact on international commodity price fluctuations.

### ***2.2 Raw material price fluctuations***

Becker and Posner (2013) argue that prices of raw materials in any production process will greatly influence the level of price fluctuations in any sector of the economy. They further argue that the prices of various natural resources are usually very volatile and are likely to cause major fluctuations in the prices of commodities that require such resources as inputs. The inputs or raw materials are scarce, and the world's population has always been on the increase. This situation has also contributed to the fluctuations in commodity prices in the recent past. Leybovich (2012) also concurs with the above position by arguing that the prices of raw materials are very volatile, and this is the main concern that any manufacturer has to address. This implies that manufacturers have to find new ways of coping with fluctuations in the cost of raw materials for them to remain competitive.

### ***2.3 Labour Cost Fluctuations***

Those in charge of formulating economic policies have done close monitoring of a reliable early indicator of inflation. As a result of this close attention, changes in hourly compensation in the form of wages and salaries of workers have received greater attention. An examination of the relationship between private sector compensation and prices on an aggregate level reveals that ECI and the core CPI frequently are usually in tandem, with only a slight tendency for labour cost developments to precede price movements (Peneva & Rudd, 2015). However, Gordon (2013) asserts that the effect of labour cost on price fluctuations can only make sense if there is an economically significant level of influence of labour costs on commodity price fluctuations. He further argues that commodity price fluctuations can only be evident if labour costs are closely connected to price-setting dynamics in any market. Tonu (2012) concludes that labour costs may or may not be a major determinant of price fluctuations depending on whether the duration involved is short or long-term. Labour costs have a significant impact on the fluctuations of prices of commodities or on wage-related inflation in any economy. When the cost of engaging labour keeps on increasing from time to time, it forces the firms to pay more in terms of wages and salaries. This makes the cost of production increase, and producers are left with no alternative other than passing through the additional cost to the consumers in the form of increased prices of commodities. Labour costs in most firms represent a significant portion of the firm's operational expenses, and their continued fluctuations have a negative outcome on the firm's financial performance. In most cases, the profitability of the firm declines due to reduced financial activity when the prices fluctuate to abnormal levels (Peneva & Rudd, 2015).

### ***2.4 Government subsidy fluctuations***

According to Bloom (2009), Governments shape the environment in which firms operate. They affect firms in many ways, such as levying taxes, providing subsidies, enforcing laws, regulating competition, and defining environmental policies. In other words, the governments set the rules that firms must comply with as they engage in business.

The government has the power to change its policy at any time. If a policy change occurs, the perception of the firms also changes: the posterior beliefs about the old policy's impact are replaced by the prior beliefs about the new policy's impact. When making its policy decision, the government is motivated by both economic and non-economic objectives: it maximizes the investors' welfare, as a social planner would, but it also takes into account the political cost incurred by changing the policy. This cost is unknown to the investors, who, therefore, cannot fully anticipate whether the policy change will occur. The investors' uncertainty about the political cost is labelled political uncertainty. Barsky and Kilian (2004) reveal that the type of fiscal and monetary policy adopted by a government largely dictates the level of price fluctuations.

### ***2.5 Demand variability***

Newberry and Stiglitz (1981) reveal that demand variability can be systematic and non-systematic. Systematic demand variability occurs when there is variability in income and variability in the price of related goods, either substitutes or complements. When income varies over a period of time, the commodities subject to demand variability form cycles with respect to the cycles in income. For commodities like Metals, Minerals, and Petroleum, the demand variability in industrialised countries causes cycles in prices (UNCTAD, 2008).

### ***2.6 Supply variability***

Supply variability is the most crucial factor for variability in the price of agricultural commodities (Shepherd, 1963; Lloyd, 1956). Supply variability from time to time can also be Systematic and non-systematic (Newberry and Stiglitz, 1981). Systematic variability

in supply can occur due to variability in rainfall and other production conditions, variability in input prices, and variability in price expectations. Non-systematic variability can be due to technological changes in the production of the commodity. Given the inelastic nature of the supply of agricultural commodities, instability in price in the short run and medium term will be high (Lloyd, 1956). The predictable component in the short-term variations is the regular seasonal price variations due to variations in rain and climatic conditions. Most often, during the peak production and marketing season price goes down and during the slack season price normally goes up. Medium-term fluctuations arise due to the multiyear delay in the adjustment of supply to the changes in market conditions (Shepherd, 1963).

### **2.7 The global outbreak and spread of COVID-19**

The global outbreak of COVID-19 has led to the sharpest economic decline since World War II have affected all countries in unprecedented ways (Tröster & Küblböck, 2020). Commodity-dependent countries are, however, impacted in multiple and specific ways: First, the implementation of lockdown measures in almost all countries across the globe brought global mobility and transportation to a hold and disrupted highly interdependent global supply chains, depressing the demand for oil and minerals. Second, the prescribed closure of businesses, as well as shrinking income due to higher unemployment, depresses the global demand for manufactured goods, which are based on commodities. Third, the COVID-19 outbreak in commodity-producing countries has led to the closure of mines, for instance, in Peru or South Africa, and to interruptions in agriculture, directly affecting the supply of these commodities. Fourth, similar to other global crises, uncertainty has led to massive outflows of capital from emerging markets towards "safe havens". All these factors have contributed to sharp declines and high volatility in commodity prices and exchange rates and, thereby, to large macroeconomic uncertainties for these countries (World Bank, 2020; Tröster & Küblböck, 2020).

### **2.8 Geopolitical risk and the systemic uncertainty in the commodity markets under the Russian- Ukraine war.**

Following the escalating crisis between Russia and Ukraine and the military operations from February 24, 2022, geopolitical risk has soared and overshadowed financial markets, especially commodity markets (Wang, Bouri, Fareed & Dai, 2022). Higher geopolitical risk spiralled commodity prices already disturbed by supply interruptions from the pandemic. While strategic commodities such as crude oil and gold are highly sensitive to the effect of intensified geopolitical risk, the fact that Russia and Ukraine are two major producers and exporters of commodities such as crude oil, natural gas, wheat, and aluminium, has amplified the effect on commodity prices. Besides these circumstances and facilitators, commodity investments are compelling under a potential economic turnaround, as indicated by the inverted US yield curve and aggressive tightening cycle by the Federal Reserve (Wang, Bouri, Fareed & Dai, 2022).

The transmission of yields and volatility in the space of commodities around the war in Ukraine has led to a sharp increase in commodity prices (Wang, Bouri, Fareed & Dai, 2022). The total volatility spillover jumped from 35% to 85%, exceeding the level seen during the pandemic. The role of commodities changes in both return and volatility spillover systems. Oil has become a clear spreader of return spillovers, whereas wheat and soybeans have become net receivers of return spillovers. Gold, Silver, Copper, Platinum, Aluminium, and Sugar become clear transmitters of volatility. Geopolitical risk Granger causes the spillover indices. High levels of return and volatility spillovers are associated with high levels of geopolitical risk (Wang et al., 2022).

### **2.9 Investment demand.**

This is where investors purchase future contracts to bring a commodity at a set price for future delivery. The issue of investment demand, however, affects the prices of oil in that the oil agreed upon to be sold in the future can be sold at relatively high prices compared to the purchase prices in the standardized contract.

In that regard, therefore, the expectations of shortages in the long run also influence the prices of oil, that is, conditions in future markets (Dées, Gasteuil, Kaufmann & Mann, 2008)

### **2.10 Monetary inflation (policy) and the value of the US Dollar**

Commodity price increase greatly derives from monetary inflation and its advocates (Tyakagire, 2012). It is argued that in some quarters, loose monetary policy from the developed economies like Federal Reserve and other Central Banks is a major contributor to the increase in oil prices on international and domestic planes. In the domestic market, in the event that a dollar loses value, the exchange rates affect the prices of oil on the national market.

In that regard, the prices of oil are affected by the fall and rise in the dollar because oil is traded in dollars. Therefore, the principle earned from oil sales may lose value if the dollar loses value (Tyakagire, 2012).

### **2.11 Globalization**

Globalization is a notion that allows countries to gain from capital flows, technology shifts, cheaper imports, and larger export markets in the long term (Hirst et al., 2015). However, the effect of globalization on any country depends on that country's level of economic development, the structures in place during the implementation stage, and the flexibility of its financial system (Beeson,

2014). Globalization has three scopes; the first refers to the multiplication and intensification of economic, political, social, and cultural linkages among people, organizations, and countries at the world level (Steger, 2017).

## **2.12 Effects of high commodity prices**

### **2.12.1 Demand weakness and supply disruptions.**

Previously, global recessions have been associated with weak demand and disruptions in supply, which combined to depress commodity prices. Market disruptions in specific commodities have sometimes provided an offset. During global recessions, demand pressures on commodity prices were compounded by supply pressures specific to commodity markets (1975, 1991, 2020); in 1975 and 2020, these were offset by supply pressures resulting from large-scale trade embargoes (in 1975) or widespread supply chain disruptions (in 2020). The recovery of commodity prices after recessions has been driven by an unwinding of supply or commodity market shocks and, since early 2000, also by rebounds in demand. Consistent with this, the surge in commodity prices in 2020-21 can be explained by a strong resurgence of demand combined with unusually widespread supply bottlenecks (Baumeister & Hamilton, 2019; Ha, Kose & Ohnsorge, 2021; Kabundi & Zahid, 2022)

### **2.12.2 Economic growth:**

Expensive commodities have an effect on both the demand and supply in an economy. Commodity price increases raise the cost of production, thereby reducing supply, while they can reduce demand through a reduction in the wealth of consumers. If we assume that oil prices rise by US\$10/bbl, we could see a 0.1-0.6 percentage point decline in GDP growth<sup>2</sup>, with small, non-oil producing countries such as Singapore, Taiwan, Hong Kong, and Thailand facing the largest drag on growth. The reverse is true for net oil exporters as the value of exports increases, raising the economy's profits and wages. Because domestic oil prices are generally heavily subsidized by oil-producing nations (although this has somewhat been reduced now), a rise in international oil prices will likely have a limited effect on demand or supply within the country (Baumeister & Hamilton, 2019).

### **2.12.3 Inflation**

The effect of inflation depends on the proportion of commodities in the consumer price basket. For example, food and energy account for over 50% of the CPI basket in India, so any increase in commodity prices will have a major impact there. Thailand, the Philippines, and Malaysia also have large commodity weights in their CPI baskets. One more factor is government intervention in fuel prices. Many of the major oil exporters subsidize or regulate fuel prices, so higher commodity prices may not get fully passed onto consumers through CPI.

According to Baumeister & Hamilton (2019), an increase in commodity prices in the international market affects global inflation and inflation expectations because prices of food, oil, and gasoline carry significant weight in consumer price indices. In Iceland, the effects of rising commodity prices on goods prices have been limited but varied by goods categories. The impact is felt directly in the prices of imported food items and other imported consumer goods, such as oil. There are also indirect effects on domestic food prices through higher costs of domestic food production, which is dependent on imports of commodities.

According to Tröster and Küblböck (2020), an increase in commodity prices can affect the inflation expectations of consumers to a greater extent than price increases in many other goods categories. The frequency of food and gasoline purchases entails significant price awareness among consumers, and there is often extensive media coverage of changes in commodity prices. Although changes in world market commodity prices fall outside the scope of the Central Bank's monetary policy, it must respond to the extent that higher commodity prices are expected to have long-term effects on inflation expectations.

### **2.12.4 Fiscal imbalance.**

For the importers, higher commodity prices can lead to a deterioration in fiscal accounts if governments subsidize commodity prices, such as in Korea and Indonesia. For commodity exporters, an increase in commodity prices will help the fiscal balance. Many EM exporters have significantly lower breakeven prices<sup>4</sup> for oil than current prices. So, for example, Mexico only needs an oil price of less than \$50 to break even, while Saudi Arabia needs an oil price closer to \$80 (Tröster & Küblböck, 2020).

### **2.12.5 Current account balance.**

Commodity exporters should see an improvement in current account balances through better terms of trade. The chart below shows the net commodity exposure by country as a percentage of GDP. Russia, Chile, Malaysia, South Africa, and Brazil are the largest beneficiaries of higher commodity prices, although they vary in the type of commodity that they are exposed (Tröster & Küblböck, 2020).

### **2.12.6 Food Insecurity**

In Iceland, the effects of rising commodity prices have been limited so far. Food prices have risen by just over 3% in the past six months. The price of wheat has increased by almost 7% and meat product prices by 4% over the same period. Gasoline and oil prices usually respond promptly to changes in world market prices and have increased by close to 11% over the past six months.

Global trade is a key factor in the shift in sustainable fisheries (Asche et al., 2015). Sustainable utilization of natural resources is regarded as an important component of ecological resilience (Mondal & Dalai, 2017). Unfortunately, many of the world's wild-capture fisheries have experienced diminished biological abundance leading to a fishery collapse (Branch et al., 2011) hence resulting in food insecurity within fishing communities.

### **2.12.7 Solutions on how to overcome high commodity prices in Uganda**

Arbitraging is expected to reduce price instability both intertemporally and spatially (Newberry and Stiglitz, 1981; Hoffman, 1931). Spatial arbitraging is often with a view to getting profit from geographical price differences by buying in low-price markets and selling in high-price markets. In doing so, they even out the price differences across spaces. Through the same process, they even out the inter-temporal price differences and hence reduce price instability. Speculators, on the other, are the least understood components in the markets whose contribution to instability (whether mitigates or adds) is still mixed in the literature (Newberry and Stiglitz, 1981; Hoffman, 1931; UNCTAD, 2008; Sen, 2008).

Government or third-party intervention in the market is often an instability-mitigating as well as instability-aggravating mechanism (Newberry and Stiglitz, 1981; Hoffman, 1931; Kuchiki, 1990). Instability mitigating mechanisms are understood as government procurement, and buffer stock actions often reduce price instability through the management of supply. Government actions like taxation can create instability in markets by distorting supply and, therefore, price. Through the Bank of Uganda, the government continued to monitor the situation and applied appropriate monetary policies to ensure inflation stayed within the target and maintained macroeconomic stability. The government has also continued supporting farmers to grow more food and vegetable cereals to take advantage of the riding global and regional prices to boost export earnings. The government continued to support citizens and businesses through the provision of funds such as EMYOOGA, money in UDB, a microfinance support centre, and a small business recovery fund. Additionally, the government started implementing the parish development model so that 39% of the households in subsistence may join the money economy and build the capacity to withstand high commodity price shocks (MoFPED, 2022).

### **3. Materials and Methods**

The study adopted the cross-sectional research design. This research design enabled an investigation into the subject of study, in particular, the causes and effects of high commodity prices in Uganda. A quantitative approach to data collection was employed so as to get an in-depth thought of the phenomenon under investigation and to confirm the completeness of the instruments (Amin, 2005).

The study considered a population of 700 employees at the Ministry of Finance, Planning, and Economic Development (Public Service Manual, 2021). The study covered the institution's employees, and these were selected from different departments.

The study considered a sample size of 248 out of a population of 700 respondents. As it was determined by (Krejcie and Morgan, 1970), a population size of 700 equates to a sample size of 248. The researcher chose 248 respondents. The above respondents were picked from different departments.

The study used a purposive sampling technique during the process of data collection from the study respondents. The study used the purposive sampling technique because it allows the researcher to select a sample with experience and knowledge about the study variables, and this method was used to select all the study respondents during the data collection process.

The study deployed both primary and secondary data. Primary data was collected using a questionnaire designed on a 5-point Likert scale. Secondary data was obtained from reports published, journal articles, textbooks, magazines, and previous studies on recruitment practices

A well-structured questionnaire was used to collect data. The questionnaire is about collecting data by asking respondents to give their responses to the questions being set by the researcher in a prearranged sequence (Saunders et al., 2019). This tool was used because it measures the perception of the respondents and helps in gathering data over a large sample, and saves time (Devault, 2020). This instrument was also used because it provides an avenue for the researcher to ask probing questions. Questionnaires are fast, cheap, and can be self-administered (Mugenda & Mugenda, 2013). The questions in the questionnaire were close-ended because they were exhaustive and mutually exclusive to the study variables.

The validity of the questionnaire was established using the Content Validity Index (CVI) to determine the relevance of the questions in measuring the variable (Campbell & Stanley, 1966). The researcher tested the reliability of the questionnaire using Cronbach's alpha test, as recommended by Nunnally (1978).

Data was collected, edited, coded, and analyzed using the Statistical Package for Social Scientists (SPSS). The analysis was done focusing on the descriptive statistics, including frequencies, mean and standard deviation. Respective interpretations were made to attach meaning to the findings.

**3.1 Presentation of Results and Interpretation of findings**

**3.1.1 Response Rate**

The study sought a sample of 248 respondents and consequently issued the same number of questionnaires. However, 187 questionnaires of the total number issued were returned as fully answered and complete. This represents a percentage response rate of 75.4%. According to Mugenda and Mugenda (2003), a 50% response rate is adequate, 60% good, and above 70% rated very well. This also concurs with Kothari (2004) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. This implies that based on these assertions, the response rate in this case of 75.4 % was very good.

**Table 4.1: Response Rate**

Targeted respondents	Attained respondents	Response rate
248	187	75.4%

*Source: Primary data*

The 187 comprised MoFPED staff, and therefore the researcher obtained a response rate of 75.4 percent. The researcher considers this rate sufficient and good for the study.

**3.1.2 Background Characteristics of Respondents**

The findings regarding respondents’ characters are revealed in the following tables; gender, age, level of education, marital status, and period worked with the MofPED.

**3.1.2.1 Gender of the respondent**

Gender was considered as a variable in this study since the researcher wanted to find the gender of the respondents. This was coded into two, i.e., male and female, and the findings on this are tabulated in table 4.2 below;

**Table 4.2: Gender of respondents**

Gender	Frequency	Percentage
Male	109	58.3
Female	78	41.7
<b>Total</b>	<b>187</b>	<b>100.0</b>

*Source: Primary Data 2022*

The above table indicates that the majority of the respondents, 58.3 percent were male, and 41.7 percent were female. This implies that males were more than females, meaning most employees at the MoFPED who are involved in managing commodity prices are male.

**3.1.2.2 Age of the respondents**

Age was considered as a variable in this study since the researcher wanted to find out which age group works in MoFPED more than the other, and the findings on this are tabulated in table 4.3 below;

**Table 4.3: Age of the respondents**

Age	Frequency	Percentage
Below 25 yrs	32	17.1
Between 25 -35 yrs	76	40.7
Between 35-45 yrs	50	26.7
Above 45 yrs	29	15.6
<b>Total</b>	<b>187</b>	<b>100.0</b>

*Source: Primary Data 2022*

The above table shows that 40.7 percent representing the majority of respondents, happened to be between the age of 25 -35 yrs, 26.7 percent were between 35-45 yrs, 17.1% were below 25 yrs, while only 15.6 percent were above 45 yrs. This implies that most respondents were between the age of 25 -35 yrs, meaning that most workers involved in managing commodity prices at

MoFPED are in this active age group. This also shows that the respondents were mature enough to understand the purpose of the study

### 3.1.2.3 Marital status of the respondents

Here respondents were asked if they were single or married, and the results were as follows;

**Table 4.4: Shows the marital status of the respondents**

Marital status	Frequency	Percentage
Single	78	42
Married	98	52
Separated/Widowed	11	6
<b>Total</b>	<b>187</b>	<b>100</b>

*Source: Primary Data 2020*

From the table above, 42 percent were single, 52 percent were married, and 6 percent were separated or divorced. This implies that most of the MoFPED officers from several departments are married people who are responsible people with families, and they can easily compel their responsibilities in a different department.

### 3.1.2.4 Level of Education Attained

This seeks to establish the level of education of the respondents. Below is the response from respondents after they were asked to indicate their level of education.

**Table 4.5: Showing the level of education of the respondents**

Level of education	Frequency	Percentage (%)
Diploma	37	20
Degree	84	45
Masters	56	30
Others	9	5
<b>Total</b>	<b>187</b>	<b>100</b>

*Source: Primary Data 2020*

The table above indicates that the majority of the respondents are degree holders, 45 percent, followed by masters level 30 percent, diploma holders with 20 percent, tertiary 5 percent, and others like certificate holders 5 percent. This indicates that most of the respondents had enough knowledge about commodity prices in Uganda.

### 3.1.2.5 Period Worked in MoFPED

Besides testing for the maturity and integrity of the respondents, respondents were also asked to indicate how long they had been working in MoFPED with the various department so as to establish a level of understanding of the commodity prices. Below is the response obtained.

**Table 4.6: Showing Period Worked in MoFPED**

Period	Frequency	Percentage (%)
Less than 3 years	47	25
Between 3-6 years	75	40
More than 6years	65	35
<b>Total</b>	<b>187</b>	<b>100</b>

*Source: Primary Data 2020*

The table above demonstrates that most of the respondents have worked in MoFPED for a period of 3- 6 years (40%), followed by those between 6-10 years (35%), and lastly, those less than 3 years (25%). This implies that the majority of them had enough experience and knowledge about the causes and effects of high commodity prices in Uganda.



**3.1.3 Causes of High Commodity Prices in Uganda**

The first objective was to examine the causes of high commodity prices in Uganda. Table 4.7 shows the presentation of descriptive statistics for this objective, followed by interpretation and analysis.

**Table 4.7: Causes of High Commodity Prices in Uganda (N=187)**

	Min	Max	Mean	Std. Deviation
Increased demand from neighbouring countries	1	5	3.94	.938
Increased demand from the local consumers	1	5	4.04	.791
Raw material price fluctuations	1	5	3.98	.779
Labour Cost Fluctuations	1	5	4.40	.603
Government subsidy fluctuations	1	5	4.46	.641
Supply variability	1	5	4.27	.630
Global spread of COVID-19	1	5	4.40	.634
Geopolitical risk and the systemic uncertainty in the commodity markets	1	5	4.37	.561
Russian				
Globalization	1	5	4.38	.530
International Commodity Price Fluctuations	1	5	4.01	.701
Investment demand.	1	5	4.31	.581
Monetary inflation (policy) and the value of the US Dollar	1	5	4.42	.641
Valid N (listwise)				

*Source primary data*

The results in table 4.7 show that respondents were in agreement with the stated Causes of High Commodity Prices in Uganda. Results show that the strongest cited causes were when they agreed that the Government subsidy fluctuations (Mean=4.46, SD=0.641) imply that high commodity prices are caused by fluctuations in government subsidiaries. Also, the respondents agreed that Labour Cost Fluctuations (Mean=4.40, SD=0.603) imply that the increase in high commodity prices in Uganda is caused by fluctuations in labour costs.

The results in table 4.7 further show that respondents agreed that the Global spread of COVID-19 was one of the causes of high commodity prices (Mean=4.40, SD=0.634), which indicates that high commodity prices in Uganda have been caused by the spread of COVID-19. They further agreed that Geopolitical risk and the systemic uncertainty in the commodity markets under the war in Ukraine (Mean=4.37, SD=0.561) cause high commodity prices.

Respondents agreed that increased demand from the local consumers (Mean=4.04, SD=0.791) shows that there are high commodity prices in the country as a result of increased demand from the local consumers.

They also agreed that Increased demand from neighbouring countries (Mean=3.98, SD=0.779) indicates that Increased demand from neighbouring countries causes high commodity prices in Uganda

They agreed that supply variability causes high commodity prices (Mean=4.27, SD=0.630), which implies that the variability in supplies leads to high commodity prices in the country. The respondents agreed that Globalization causes high commodity prices (Mean=4.38, SD=0.530) and Monetary inflation (policy) and the value of the US Dollar (Mean=4, SD=0.) are causes of high commodity prices in Uganda.

In conclusion, therefore, respondents were in agreement on all the causes of high commodity prices in Uganda included in this study given their mean, and also there was uniformity in the opinions provided in the study given their standard deviation, which was below 1. Given the above results, All practices of Causes of high commodity prices in Uganda are in existence since most of them have a mean that is above 3.0 on a scale of 1-5 and also with a standard deviation that is not very far away from one.

**3.1.4 The Effects of High Commodity Prices in Uganda**

The second objective was concerned with the effects of high commodity prices in Uganda. Pursuant to this objective, descriptive statistics were run, and these are shown in table 4.3, which is followed by interpretation and analysis. The findings are based on the Likert scale where 1-strongly disagree, 2-disagree, 3-Not sure, 4- agree, and 5-strongly agree. The findings are indicated in table 4.8 below:

**Table 4.8: Effects of High Commodity Prices in Uganda (N=187)**

	Min	Max	Mean	Std. Deviation
Demand weakness and supply disruptions.	1	5	4.60	.495
Higher commodity prices have an effect on both demand and supply in an economy	1	5	4.48	.641
Inflation depends on the proportion of commodities in the consumer price basket	1	5	3.44	1.320
Higher commodity prices can lead to a deterioration in fiscal accounts	1	5	4.21	.800
Commodity exporters should see an improvement in Current Account Balances through better Terms of Trade	1	5	4.56	.608
Valid N (listwise)				

*Source: primary data*

Results in table 4.8 above show the Standard deviation (SD). SD is the extent to which the views obtained from the respondents vary from the mean scores. It implies that a higher SD had varying opinions towards the given response (SD above 1), and when the SD is below 1 closer to 0, it means uniformity in the opinions provided in the study. The results in table 4.8 show the Grand mean of 4.258, which indicates that from an overall perspective (average), the respondents were in agreement with the statements in the questionnaire regarding the effects of high commodity prices in Uganda.

The respondents strongly agreed that demand weakness and supply disruptions (Mean=4.6, SD=0.495) imply that Demand weakness and supply disruptions are an effect of high commodity prices. They agreed that higher commodity prices have an impact on both demand and supply in an economy (Mean=4.48, SD=0.641) is an effect of high commodity prices in Uganda. They were agreement that inflation depends on the proportion of commodities in the consumer price basket (Mean=3.44, SD=1.32).

The respondents agree that higher commodity prices can lead to a deterioration in fiscal accounts as an effect of high commodity prices (Mean=4.21, SD=0.8). The respondents also strongly agreed that Commodity exporters should see an improvement in current account balances through better terms of trade as an effect of high commodity prices (Mean=4.56, SD=0.608).

Given the above results, all effects of high commodity prices in Uganda were agreed upon by the respondents since most of them have a mean that is above 3.0 on a scale of 1-5 and also with a standard deviation that is not very far away from one.

### **3.1.5 Solutions on how to overcome high commodity prices in Uganda.**

The third objective was to find Solutions on how to overcome high commodity prices in Uganda. Table 4.9 below summarizes the results from the respondents, and it is followed by interpretation and analysis.

**Table 4.9: Solutions on how to overcome high commodity prices in Uganda (N=187)**

	Min	Max	Mean	Std. Deviation
Arbitraging is expected to reduce price instability	1	5	4.58	.499
Government or third-party intervention in the market reduces prices instability	1	5	4.27	.910
Reduction in taxation can create instability in markets	1	5	4.38	.530
Improving supply chains of the main commodities	1	5	4.58	.572
Valid N (listwise)				

*Source: primary data*

Table 4.9 above presents results for Solutions on how to overcome high commodity prices in Uganda. The most prominent solution, which was agreed upon by most respondents, was Arbitraging is expected to reduce price instability (Mean=4.58, SD=0.499). This was followed by Improving supply chains of the main commodities (Mean=4.58, SD=0.572), then Reduction in taxation can create instability in markets (Mean=4.38, SD=0.530). In addition, respondents were in agreement that Government intervention in the market reduces price instability (Mean=4.27, SD=0.91) as a solution to solutions on how to overcome high commodity prices in Uganda. All these items had a mean score above 4.0 and SD below 1, as indicated in table 4.8 above, which indicates that most of the respondents were in agreement with the solutions, and also, there was uniformity in the opinions provided.

#### **4.0 Discussion of Findings**

##### **4.1 The causes of high commodity prices in Uganda**

The results of the study indicated that the majority of the respondents were in agreement with the causes of high commodity prices in Uganda, such as government subsidy fluctuations, labour cost fluctuations, the Global spread of COVID-19 was one of the causes of high commodity prices, geopolitical risk, and the systemic uncertainty in the commodity markets under the war in Ukraine, increased demand from the local consumers, increased demand from neighbouring countries, supply variability, Globalization, and Monetary inflation.

The findings are in line with the studies of Tonu (2012), who stated that labour costs may or may not be a major determinant of price fluctuations depending on whether the duration involved is short or long-term. Labour costs have a significant impact on the fluctuations of prices of commodities or on wage-related inflation in any economy. Barsky and Kilian (2004), in their study, revealed that the type of fiscal and monetary policy adopted by a government largely dictates the level of price fluctuations. According to World Bank (2020); Tröster & Küblböck (2020), the COVID-19 outbreak has contributed to sharp declines and high volatility in commodity prices and exchange rates and, thereby, to large macroeconomic uncertainties for these countries. Lastly, Wang, Bouri, Fareed & Dai (2022) stated that following the escalating crisis between Russia and Ukraine and the military operations from February 24, 2022, geopolitical risk has soared and overshadowed financial markets, especially commodity markets.

##### **4.2 The Effects of High Commodity Prices in Uganda**

Results show that the strongest cited effects of high commodity prices in Uganda are demand weakness and supply disruptions; higher commodity prices have an effect on both demand and supply in an economy, the proportion of commodities in the consumer price basket, deterioration in fiscal accounts as an effect of high commodity prices and improvement in Current Account balances through better Terms of Trade as an effect of high commodity prices.

The findings are in line with several studies, such as Packer (1997), who stated that high inflation affects the fixed income earners and those without bargaining power because their purchasing power falls. Davidson and Weil (1995) said that high inflation in a country would, in turn, weaken its competitive position in the international market, and this may result in a decline in profitability. Davidson and Weil (1995) further stated that Tax regimes also cause a decline in profitability in that when organizations need to make firm-level decisions about investment, profit taxation becomes much more relevant compared to trade liberalization. When changes in profit tax instruments are uniform, the result is a heterogeneous response of effective tax rates and after-tax profits at the firm level. If firms have similar profit margins, then they would require pretax profits to differ as well (Downson & Tehranian, 1988).

##### **4.3 Solutions on how to overcome high commodity prices in Uganda.**

The results indicated that arbitraging and reduction in taxation could create instability in markets, improving supply chains of the main commodities and third-party government intervention in the market are solutions on how to overcome high commodity prices in Uganda

These findings are in agreement with the studies of Newberry and Stiglitz (1981); Hoffman (1931), who stated that arbitraging is expected to reduce price instability both intertemporally and spatially. Government or third-party intervention in the market is often an instability-mitigating as well as instability-aggravating mechanism (Newberry and Stiglitz, 1981; Hoffman, 1931; Kuchiki, 1990). Government actions like taxation can create instability in markets by distorting supply and, therefore, price.

#### **5. Conclusions**

Drawing from the above findings and discussion, a number of conclusions have been drawn: Firstly, The study was undertaken to examine the causes of high commodity prices in Uganda, to examine the effects of high commodity prices in Uganda, and to establish solutions on how to overcome high commodity prices in Uganda. Secondly, The government endeavours to manage its commodity price; however, there are still causes of high commodity prices, which were agreed upon by most of the respondents, such as government subsidy fluctuations, labour cost fluctuations, and the Global spread of COVID-19. Thirdly, Geopolitical risk and the systemic uncertainty in the commodity markets under the war in Ukraine, increased demand from local consumers, increased demand from neighbouring countries, supply variability, globalization, and monetary inflation.

The high commodity prices have some effects, such as demand weakness and supply disruptions, the proportion of commodities in the consumer price basket, deterioration in fiscal accounts, and improvement in Current Account balances through better terms of trade.

Several solutions were suggested and strongly agreed upon by the respondents, among which included: arbitraging, Reduction in taxation can create instability in markets, improving supply chains of the main commodities, and government or third-party intervention in the market are solutions on how to overcome high commodity prices in Uganda. On that basis, the study has a number of recommendations in the section that follows.

Furthermore, there are other causes and effects of high commodity prices not limited to this study; The study provides policy alternatives that may be used by the government, and the study findings add to the existing literature about the causes and effects of high commodity and solutions on how to overcome them and most importantly, future researchers may use this study as a point of reference while handling similar research.

However, the study was cross-sectional, which measures the intention only at a single point in time; this means that the study does not provide findings over a long period of time. Future studies should take a longitudinal direction to assess the causes and effects of high commodities and solutions on how to overcome them over a period. The study only adopted a quantitative research approach, yet some of the responses were peoples' perceptions that would require a qualitative research approach; therefore, further studies should adopt a qualitative research approach to assess the causes and effects of high commodity and solutions on how to overcome them.

### 5.1 Recommendations

From the findings, discussions, and conclusions of the study, the following recommendations are made.

- The study recommends that subsidies granted and tariffs imposed by the government on commodities in Uganda should be grounded on facts about their impacts on price fluctuations and, eventually, their consequences on the profitability of the market.
- The government should reduce taxes to create instability in markets, improve supply chains of the main commodities, and government or third-party intervention in the market to manage commodity prices in Uganda.

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