

PRICEPALLY FOOD PRICE METRICS REPORT (Vol 1)

Learn the cost of food price in Nigeria



In November 2023, the <u>PricePally Stew Index Report</u> revealed the factors (cash shortage, naira instability, insecurity in farming regions, and climate change) affecting food price volatility in Nigeria. Food prices are yet to see redemption in 2024, especially in the opening quarter (January–March), as food inflation grew by <u>11.10% points year–on–year (YoY)</u> to reach 26% in January 2024. Similarly, Nairametrics revealed that imported food inflation <u>increased from 26.3% in January 2024 to 29.8% in February 2024</u>—a 352 basis points difference. The rising food cost makes tracking food prices and monitoring their effect on consumer eating behavior imperative.

About PricePally Food Metrics

The PricePally Food Metrics (PFM) report tracks food prices in Nigerian markets quarterly. Specifically, it covers PricePally operating areas in Lagos, Port Harcourt, Abuja, and Ibadan, although Ibadan is excluded from the inaugural release. The report also examines the influence of food pricing on consumer shopping and spending behavior.

Quarter One & Two 2024 Food Report: The Same Old Problems on a Bigger Scale

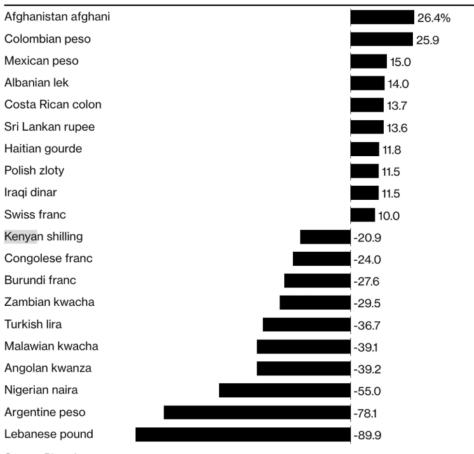
The Fall and Fall of the Nigerian Naira in the Foreign Exchange (FX) Market
The 2023 Stew Index Report highlighted the stability and strength of Nigeria's currency in the
foreign exchange (FX) market as a key food pricing determinant. In June 2023, the federal
government (FG) floated the naira, switching to the "willing buyer, willing seller" model.

In theory, the model would close the gap between the official naira rate and the parallel market, improving foreign direct investment (FDI) and the availability of foreign currencies for manufacturers and importers. Easy accessibility to foreign currencies at the FX market, a currency with appreciable value in the FX market, and high FDI would reduce overhead costs and the prices of food commodities.

The theoretical projections, however, fell flat. While the <u>disparity</u> between the official and parallel market rates was 0.10% in June 2023, the Nigerian naira value at the FX market widened significantly between August and December 2023, as the naira <u>depreciated</u> by 55% against the US dollar and crossed the №1,000/\$ twice on its way to becoming the worst-performing currency in Africa in 2023.

Naira Is Among World's Worst Performers in 2023

Nigeria's currency weakened 55% against dollar this year



Source: Bloomberg

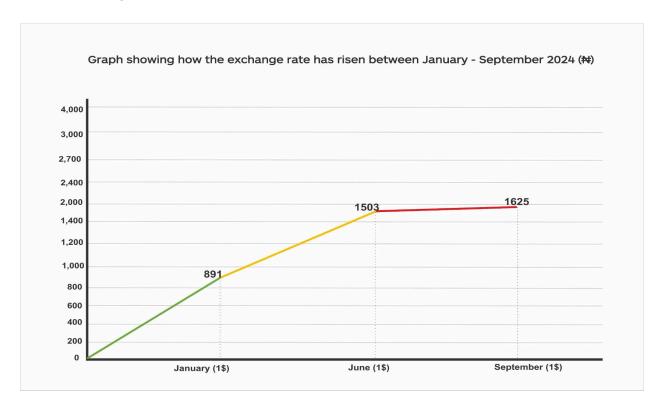
Note: Chart depicts the 10 best- and worst-performing currencies against the US dollar in 2023

The naira slump showed no respite in the opening quarter of 2024. Between January 1, 2024, and the close of trading on February 29, 2024, the naira declined by 80.58%, falling from 891/\$ to 1,609/\$. Though the naira recorded a 5-year 21.8% gain against the dollar between March and April 2024, it has since suffered a steady decline, and as at June 30th traded at ₹1503/\$1. This mammoth devaluation was responsible for the naira being ranked as the worst-performing currency in the first half of 2024 (Jan - June).

There's a straight line between the naira's peripheral value in the FX market and the rising cost of food items. Importation fees typically increase as the naira falls in the FX market. In Q1 2024, the Nigeria Customs Service (NCS) <u>issued</u> 28 different import duty rates, as the volume of imported goods declined by 5% between Q1 2023 and Q1 2024. By interpretation, the cost of raw materials and production will increase, causing a surge in food prices.

For instance, in February 2024, Mojeed Iyiola—the chairman of the Lagos State Chapter of the Poultry Association of Nigeria (PAN)—believed the volatile exchange rates were responsible for the surge in egg prices, as a crate of eggs increased from \$\frac{1}{2},700\$ to \$\frac{1}{2},400\$ in February 2024. "Dealers in poultry feed materials have blamed the fluctuations in [the] dollar exchange rate as the reason for the constant increment [of egg prices]... You buy a bag of layer's feed for \$\frac{1}{2}10,000\$ today, [and] the next day it'd have risen to \$\frac{1}{2}10,500\$ and so on," Iyiola explained. The unfavorable economic challenges, Mojeed stressed, forced poultry farmers to close shop, causing egg demand to outstrip supply, negatively affecting egg prices.

Mojeed's observations spread across other staple foods. The food inflation data post-naira devaluation showed that food prices increased as the value of naira depreciated. Food inflation grew month-on-month (MoM) between August 2023 and February 2024, reaching a near two-decade-high xxx% in February.



No More Niger: The Effect of Border Closure on Food Pricing

The Nigerian food economy has multiple faces influencing it. The volatility of the Nigerian currency in the FX market is one side of the story. Nigeria's dependence on importation is another essential cog in the Nigerian agro-economy wheel. The food trade data backs the claim: food imports <u>increased</u> by 121.7%, rising from №857 billion to №1.9 trillion between 2018−2022. In the same 5-year period, agricultural trade exports <u>rose</u> 98% from №302 billion to №598 billion. In 2023, Nigeria <u>relied on USD 10 billion</u> worth of food imports from Europe, Asia, the United States, South America, and South Africa to meet agricultural production shortfalls. Cereals, fats and oils, fish, sugar and honey, dairy products, and eggs constitute the bulk of food Nigeria imports.

Nigeria's reliance on food importation suggests land border restrictions will likely impact trading activities and, by extension, food supply and pricing. Despite the potentially damaging effects of trading restrictions, border blockade policies routinely feature in Nigeria's agro-economy approach. In the proposed bid to reduce smuggling activities and boost food production, the immediate Nigerian president, Muhammad Buhari, trialed land border closures in 2019. The approach, however, backfired. Food inflation rose to 19.56% in December 2020, up from 18.3% in November 2020. Specifically, the prices of imported foods like cereals, fats and oils, potatoes, yam and other tubers, meats, fruits and vegetables, and fish increased.

The closure also had little cushioning effects on importation, the expected outcome of the border restriction policy. Nigeria's imported food stood at №1.85 trillion between January and September 2020, a 62% increase from the same period in 2019, despite the border blockade. Cheta Nwanze, Partner at SBM Intel, provided a worthy anecdote summarizing the damaging effect of border closure on food inflation in 2021.

He <u>said</u>, "Simply looking at a chart of food inflation makes it clear [that border closure affected food inflation]. The curve, which was rising anyway, began to rise more steeply two months after the borders were arbitrarily closed, essentially the normal lagging effect associated with any change in policy. So, yes, it's a fact that the border closure contributed to the rise in food inflation."

If the previous border-closure-induced food inflation lighting wasn't ominous enough, it struck again in the first quarter of 2024, when border restrictions, albeit partly because of geopolitical conflicts with Niger, affected the agricultural economy. In response to the political turmoil in Niger, the Economic Community of West African States (ECOWAS)—led by Nigerian President Bola Ahmed Tinubu—imposed sanctions restricting direct trade activities.

Niger has over 70 million livestock population, making it one of the largest owners of livestock in the Sahel region. In 2022, Niger exported the following food items to Nigeria: tropical fruits and nuts worth USD 18.77 million, locust beans, seaweed, beet, and sugar cane for a combined value of USD 1.44 million, livestock valued at USD 5.36 million, palm oil worth USD 2.81 million, and pasta worth USD 1.56 million. Between 1995 and 2022, the value of Niger imports to Nigeria grew at an annualized rate of 0.76%, increasing from USD 74.8 million in 1995 to

USD 91.6 million in 2022. In the same period, Nigeria exported products worth USD 287 million to Niger. The statistics suggest Niger is a valuable partner for Nigeria in food trading activities.

Adamu Aliero, the Kebbi Central senator, claimed the land border blockade negatively affected Nigeria's economy. He said, "If you go to the border today, you'll see over a thousand trucks coming back to the country with goods from different countries but are stuck in the border because of this ECOWAS sanction." Statistically, his words aren't far from the truth: Nigeria's food inflation increased consecutively between August 2023 and February 2024, as the prices of staple foods like rice, fats and oils, meats, and fruits reached astronomical levels.

Amidst the border conversation, there's a caveat to note. It's statistically accurate that Nigeria seldom imports food from African countries, especially with the once-banned Niger Republic, which <u>exported</u> only USD 29.94 million worth of food to Nigeria in 2022. However, closing the borders against Niger at a time when the naira value at the FX market was depreciating at the speed of light was likely to exacerbate food costs as trading activities between both countries hit an unwanted nadir.

Transportation Woes: The Last Trinity Influencing Food Pricing in Nigeria Logistic hiccups in food production are an age-long problem. Nigeria's trading and day-to-day activities heavily rely on road transportation. But in May 2023, the subsidy removal on petroleum products increased the price of fuel and diesel, the predominant fuels for transportation and business activities.

To help you understand the effect of subsidy removal on Premium Motor Spirit (PMS), here's a quick look at NBS' PMS Price Watch in January and February 2024.

- In January 2024, the average retail price consumers paid for PMS was ₩668.30, a 159.92% increase compared to the value recorded in January 2023 (₩257.12).
- Compared to December 2023, the average retail price of PMS decreased by 0.523% from ₩671.86.
- The average retail price consumers paid for PMS in February 2024 was ₹679.36, a 157% increase compared to the value recorded in February 2023 (₹263.76).
- Compared to January 2024, the average price of PMS increased 1.66% from №668.30.

To understand the effect of subsidy removal on transport fares, let's briefly examine NBS' Transport Fare Watch in January and February 2024.

• In January 2024, the National Bureau of Statistics (NBS) revealed that the average fare commuters paid for bus journeys within the city per drop increased to 6.72% from №902.70 in December 2023 to №963.38 in January 2024.

- On a year-on-year (YoY) basis, the fare rose 48.03% from ₹650.80 in January 2023. The average fare commuters paid for bus journey intercity per drop was ₹7,577.03 in January 2024, an increase of 2.36% on a MoM basis compared to ₹7,402.16 in December 2023.
- The average commuter paid for bus journey intercity drop was ₹7,577.03 in January 2024, a 2.36% MoM increase compared to ₹7,402.16 in December 2023. The fare rose 89.50% from ₹3,998.42 in January 2023 on a YoY basis.
- The average fare commuters paid for bus journeys within the city per drop declined to 1.21% from ₹963.38 in January 2024 to ₹951.76 in February 2024.
- Despite the drop, the fare rose by 46.98% YoY from №647.54 in February 2023. Similarly, the average fare for an intercity journey per drop was №7,002.97 in February 2024, indicating a decline of 75.58% MoM compared to №7,577.03 in January 2024. Nonetheless the drop, the fare rose by 75.48% from №3,999.70 in February 2023.

The high cost of PMS and transportation is the main reason food prices continue to surge despite the renouncement of border closure and naira stability in the FX market between March and April 2024, when the naira recorded a 5-year 21.9% gain against the dollar.

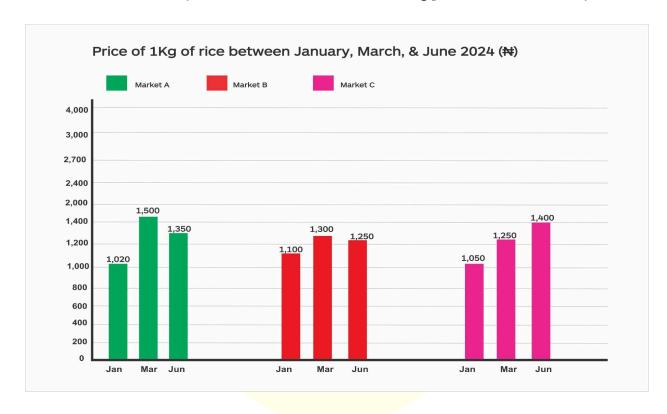
Food Prices in Nigeria: What is The Market Saying?

The most common food items in Nigeria are rice, beans, garri, and yam, though Nigerians are now reconsidering the tuber as a common staple given its affordability. Worsening MoM inflation rates - 33.2% in March and 34.2% in June - means that yam, which once sold at ₹1500 for a sizeable tuber, sells, at ₹3500 in Lagos markets (as at August 2024).

Ingredients for stew preparations in Nigeria include peppers, tomatoes, onions, and proteins such as chicken meat, turkey meat, and beef. This report analyzes prices in Lagos for the first and second quarters of the year using in-house data. Real-time prices were gotten from three Lagos markets, and are noted as Market A, B, and C respectively.

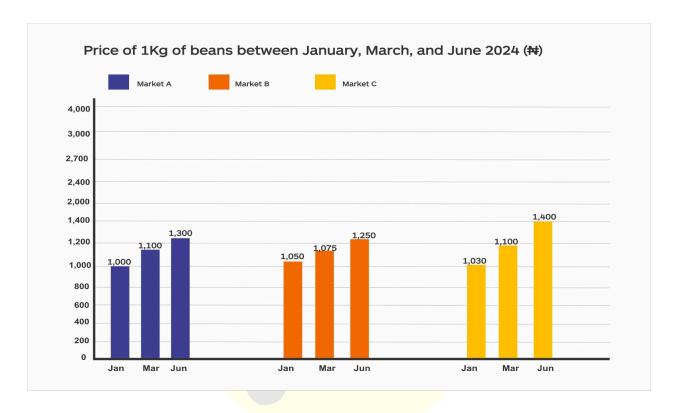
Rice Price in O1 & O2 2024

In January 2024, 1kg of rice was sold in Lagos for №1021, a 98.47% YoY increase from the №514 price the previous year. By March, 1kg of rice ranged between №1250 and №1450 across three different markets in Lagos, a 22.42% - 41.89% surge depending on the market. In April, rice sold for №1500 per kg in Market A, №1300 in Market B, and №1250 in Market C. At the end of June 2024, the minimum selling price of 1kg of rice in Lagos was №1250. 1kg of rice peaked at №1500 in Market A in May 2024, a 46.91% rise from its selling price at the start of the year.



Beans Price in Q1 & Q2 2024

Being a <u>leading producer</u> of dry beans globally, Nigerians consume beans in large quantities. Most Nigerians consider it a healthy source of protein and a plant-based alternative to animal-sourced proteins like beef and fish. Our survey sampling over 150 respondents supports the argument that regardless of the state of the economy, Nigerians will always eat beans.



As at January 2024, 1kg of brown beans sold for №976, surging by 64.42% on a YoY basis from the previous year. This price steadied until the end of Q1 2024, when 1kg sold for №1100 in Market A and №1075 in Market B. This marked a 12.70% climb from Jan 2024. In April, prices held at №1100 per 1kg in Markets B and C, but peaked at №1300 in Market A.

By the end of May, 1kg of brown beans peaked at №1550 in Lagos markets and sold at an average price of №1275. As at the end of June 2024, the average price of beans in Lagos was №1450 per 1kg. Reports by NBS shows that the average price of beans was highest at №2855 in Plateau state and lowest at №1171 in Kebbi state.

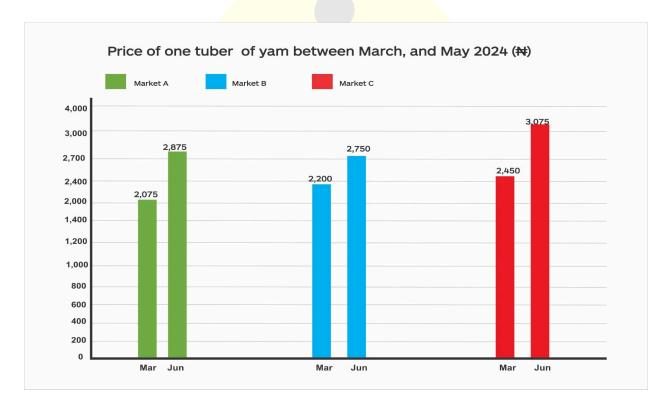
Garri Price in Q1 & Q2 2024

The hike in garri price between January and June 2024 is due to the collapse of the nation's economy, and the sudden drop in the available cassava farmlands in cassava-farming states like <u>Edo</u>. Thus, garri (white) experienced a 112.34% increase from ₹353.16 per kg in March 2023 to ₹749.89 in March 2024.

At the onset of the new year, garri (white) cost ₹750 per 1kg, and held at that rate until the end of Q1 2024, when it reached ₹800 in Market A and B. By May 2024, 1kg of white garri cost ₹1200 in Lagos. Gombe reported the highest average price for 1kg of white garri at ₹1613.

Yam Price in O1 & O2 2024

Yam, once the go-to alternative to rice in many Nigerian homes, is slowly turning to an option only for the rich and elite. Consider that as at June 2024 an average tuber of yam sold at ₹5500, which is about 18.33% of the present minimum wage (₹30,000). As at the end of Q1, 1kg of yam cost ₹2075 in Lagos and ₹2200 in Abuja, a 24% increase from its new year price.



By June 2024, the same measure of yam cost ₹2875 in Market A, ₹2750 in Market B, and ₹3075 in Market C, an average of ₹2900 in Lagos markets. This marked a minimum 25% hike from March, and a 10% MoM increase from May 2024. In Ogun state, the price for one dozen of medium yam tubers fluctuates between ₹15000 and ₹17000

Stew Ingredients Price in Q1 & Q2 2024

The <u>PricePally Stew Index Report</u> indicated that the average cost of preparing a pot of beef stew in Lagos as at Q4 2023 was №8060.32. By June 2024, the average cost of preparing a pot of beef stew sat at №17311 (2500 + 5500 + 2794.5 + 3216.5 + 3300), a 114.77% half-year leap from the closing cost in 2023. This is due to a hike in the prices of stew ingredients including tomatoes, peppers, onions, and protein.

As at January 2024, 1kg of tomatoes sold for ₩845, surging by 80.98% on a YoY basis from the previous year. The price of tomatoes continued on this path in the new year, surging by 110% between January and March 2024, during which it peaked at №2375 in Lagos Market A. At the start of Q2, prices dipped to №1500 per 1kg in Market A, №1300 in Market B, and №1250 in Market C.

While April brought a dip, April also brought rain, which contributed to the cost of transporting harvested tomatoes from the North to the South. Thus, by May, 1kg of tomatoes cost between ₹1950 and ₹2137.50 in Lagos, and had a 16.99% MoM increase by June ending, selling for ₹2500 per 1kg.

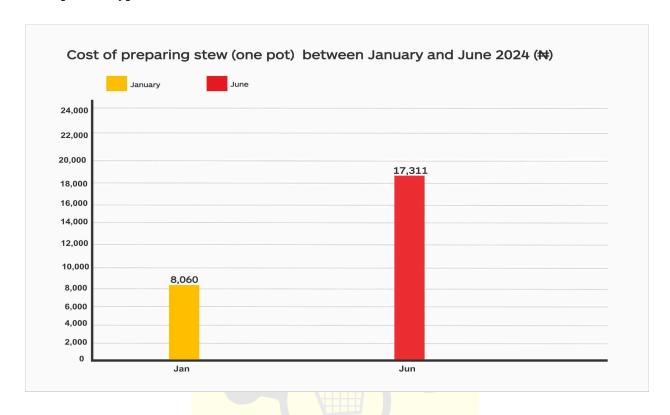
At the turn of the year, 1kg of scotch bonnet pepper (ata rodo) cost ₹1520, marking a 22.58% increase on a MoM basis from its December 2023 price. The cost of purchasing 1kg of ata rodo has reached new heights since then, across markets in Lagos and Abuja. As at June 2024, 1kg of standard grade ata rodo sold for ₹2906, ₹2290, and ₹3175 across three Lagos markets, an average of ₹2790 per kg. This is at least a 83% surge over the first half of the year.

For bell pepper (*tatase*) and cayenne pepper (*sombo*), prices have camped at either side of the inflation spectrum, with both peppers recording prices as low as ₹4500 per kg and ₹5000 per kg respectively. These figures, obtained in April 2024 from our survey of Markets A - C in Lagos, increased before the close of the year's first half. As at June 2024, 1kg of standard grade *tatase* sold for ₹6500, ₹5800, and ₹7000 across three Lagos markets, an average of ₹6433 per kg. 1kg of standard grade *sombo* sold for ₹6700, ₹5800, and ₹7300 across three Lagos markets, an average of ₹6600 per kg. These prices represented a minimum 19.63% and 16% YoY hike from June 2023.

At the close of 2023, 1kg of onion bulbs sold for ₹971, though this could have been due to the expected hike associated with festive periods in the country. A month prior, the same measure of onions had only sold for ₹564. By Q1 2024, 1kg of onion bulbs sold for ₹1450, a 33.03% increase in price. That price held steady into H1, with 1kg of onions selling at an average price of ₹1550 in Lagos markets.

Inflation also hit across the different proteins that go into preparing a pot of stew. Dating back to Dec 2023, 1kg of chicken meat, beef, and turkey meat cost №3100, №3120, and №4500 respectively. Between January and June 2024, these prices shot up to №4600, №5500, and

₹6000 respectively, signifying a 48.33%, 76.43%, and 33.33% price hikes respectively for the three protein types.



This Food Metrics report implies that:

- At the end of Q2 2024, the cost of preparing a pot of beef stew in Lagos was at least 114% more than the cost as at Q4 2023.
- As at Q4 2023, you need at least 26% (№8,060.32) of the minimum wage to prepare a pot of beef stew in Lagos. By Q2 2024, you'd need at least 57% (№17311) of the minimum wage to prepare a pot of beef stew in Lagos.
- The lowest price hike across all observed foodstuff in the first six months was for onions (33.03% hike). This means that over the first six months of 2024, you need at least a 33% increase in income to attempt to meet up with the inflation rate across the country.

PS. In July 2024, the minimum wage was increased to \$70,000. However, at the time of preparing this report, the minimum wage was \$30,000.

At PricePally, we're committed to making food accessible to all. So, what do prices on PricePally say about the reported inflation rate across the first six months of 2024?

PricePally vs Local Markets: Q1 - Q2 2024

The global adoption of remote work since the start of the post-pandemic era has encouraged a steady growth of businesses that merge technology with other industries to offer customers more efficient services. Platforms such as PricePally, Chowdeck, Glovo, and GoLemon, which intersect the food, agriculture, and logistics sector, come to mind. These platforms focus on saving customers hours of brainstorming and preparing a meal or haggling prices in a local market.

We wanted to know if shopping groceries from Lagos local markets was holistically cheaper than shopping on PricePally.

<u>Costs of 1kg of select groceries as at June 2024 (prices are in </u>₹)

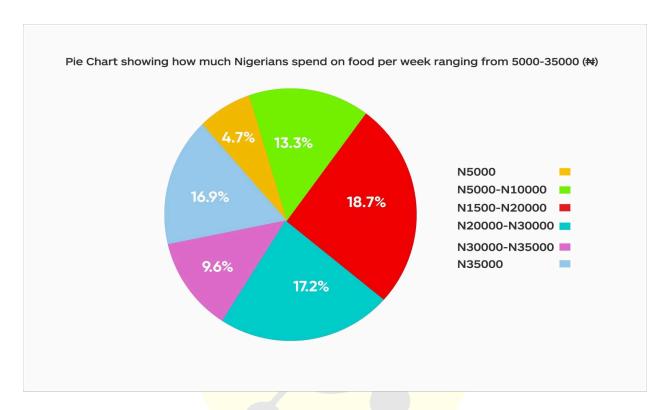
	PricePally	Market A	Market B	Market C
Rice	1471.5	1375	1300	1400
Beans	381 <mark>4.65</mark>	4207.5	4207.5	3960
Yam	2 <mark>837.33</mark>	2875	2750	3075
Garri	4 <mark>516.9</mark> 4	3800	4200	3500
Tomatoes	3 <mark>101.08</mark>	2300	2000	2250
Bell pepper	7249.5	6500	5800	7000
Scotch pepper	6162.47	7500	6350	7800
Beef	7106.51	6000	6000	6000
Chicken Meat	5233.14	4500	4800	5200
Turkey meat	6841.8	5500	5800	6000

Our findings indicated that, as at June 2024, the costs of shopping most groceries on PricePally were commensurate with or slightly higher than the costs of shopping in local supermarkets.

However, factors such as transport fare, expended energy, and time spent all tie into the total cost of completing grocery shopping at a local market. Considering this, there's a strong argument that online grocery shopping favors individuals looking to save costs across board.

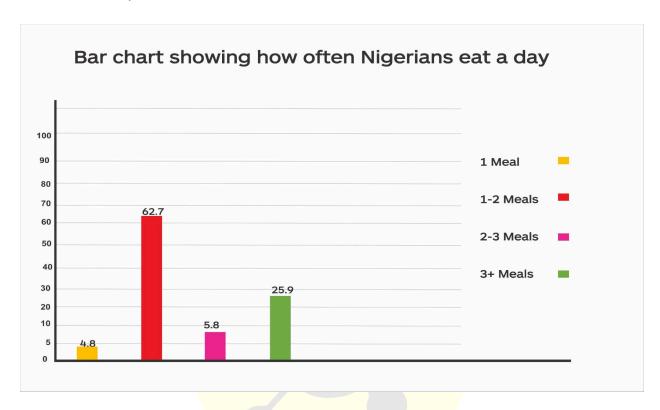
Consumer Spending Pattern Analysis

While ideating this report, we were curious to know how the cost of inflation and the demonstrated surge in food prices has impacted the average Nigerian's food-related expenses. We sent out a survey that received over 150 responses, distributed across Lagos, Abuja, Port Harcourt, and Ibadan. Here's what we found



- 18.7% of our respondents spend between №15000 and №20000 on food, fresh or cooked, every week, putting them at №60000 №80000 each month. This meant that this group of individuals spend at least twice the minimum wage on food expenses alone.
- The highest spenders commit over ₹35000 on food expenses each week. This group polled in 16.9% of all responses.
- The lowest weekly food-related expense was ₹5000, with 13.3% of respondents stating they spend ₹5000 ₹10000 each week on food. Spread across each day of the week, this group spent less than ₹1500 daily on food. With the current costs of foodstuff, this alone implies that this group eat at most two meals each day.

• To confirm, we asked respondents how many meals they eat each day. 62.7% of respondents indicated that they eat 1-2 meals each day, despite spending at least ₹20000 each month on food. And 4.8% of respondents stated that they eat only one meal a day. No snacks, no in-between meals.

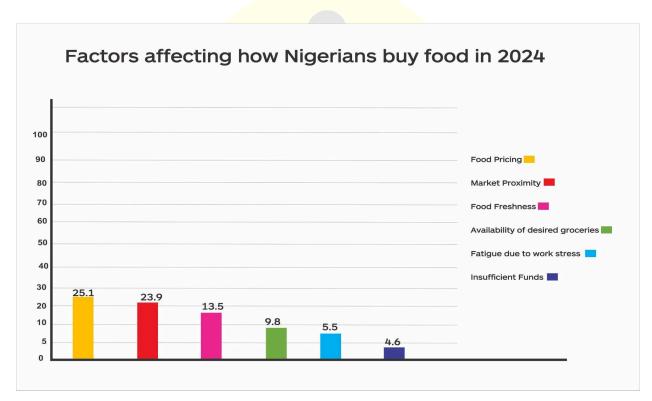


• However, all is not totally dire in the country. Despite a 34.2% inflation rate at the end of June 2024, a 28-year high, Nigerians still eat three meals a day. Of our respondents, 25.9% eat thrice a day. This category of spenders intersects with the respondents that spend over №35000 (16.9%) and between №30000 and №35000 (9.63%) on food each week.

Has the hike in foodstuff costs impacted Nigerians food and shopping preferences? We observed that:

- Food pricing impacts the choices of 25.1% of respondents, making it the largest unit factor that determines the kind of foods Nigerians eat. Market proximity comes in second, affecting 23.9% of respondents. Other factors include freshness of food (13.5%), availability of choice groceries (9.8%), bodily fatigue due to work stress (5.5%) and insufficient funds (4.6%).
- 66.3% of respondents prefer to purchase their groceries online than in-person. 19.9% of individuals prefer in-store shopping, and 14.7% of respondents alternate depending on time, availability, and urgency.

This distribution is understandable, given how distance to local markets and availability of groceries contribute to the fresh foods Nigerians buy. Grocery shopping online, meanwhile, offers the convenience of sampling multiple products before making a purchase, all without having to cover the distance to the closest market.



How has inflation affected Nigerians' consideration of food nutrients? From the survey, we noticed that:

- On a scale of "very important" to "not important", 62% of respondents say that food nutrients is a very important factor when making purchasing decisions. 26.5% say it's important, 10.2% say it's only mildly important, and 1.2% of respondents say it doesn't matter.
- 61.4% of respondents cook daily at home. Only 2.4% of respondents eat out every day of the week. Though this could imply that Nigerians love to cook at home, the bigger argument is that Nigerians cook at home out of obligation (to family) or to conserve costs.
- Nigerians are cutting down on protein intake. We asked Nigerians to select, from protein options including egg, beef, beans, chicken, turkey, goat meat, ram meat, and seafood, what protein types they eat. Per the survey, 16.9% of Nigerians eat only three protein types at least once a week. 19.3% of Nigerians eat only two protein types. And 7.8% of respondents eat only eggs at least once a week.
- Nigerians don't eat enough fruits and vegetables. 28.3% of respondents eat fruits and vegetables only once a week, 25.9% eat twice a week, and 19.3% of respondents each thrice a week. In fact, only 9% of respondents eat fruits and vegetables daily.

With at least 29% of our respondents (representing 3 in 10 adult Nigerians) spending only №2000 each day on food, the question isn't, "How can we improve our nutrient intake?" The question is, "How do we keep measuring up to the rising inflation as a nation?"

Conclusion: How Much Inflation is Too Much?

Inflation isn't always a negative thing. It's possible to have a moderate and controlled increase in the general price level of goods and services in an economy over time. This concept, often stirred by the government, is called **healthy inflation**. Typically, central banks target an inflation rate of around 2% per year, which is considered ideal for economic stability.

2%, though, is a far cry from the <u>33.4% inflation</u> rate reported for July 2024. And our report so far has revealed that Nigerians are bearing the brunt of this uncontrolled hike.

For many Nigerians, the inflation rate isn't just numbers. The steady surge of food prices is impacting both consumers, farmers, and suppliers. No part of the food distribution triangle is exempt from the mandatory adjustment to cope with the reality of a steep economy marked by a plummeting currency.

The Federal Government, through the CBN, is still committed to reining in inflation in the country. However, we must concede that restoring the economy to its prior state isn't a day's job. In fact, the data presented in this report affirm one thing: it's a long road home.

