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### DYNAMICS OF THE POULTRY MARKET IN GHANA

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**Abstract:** This paper examines the dynamics of the poultry market in Ghana using secondary data and a field study in four regions including Greater Accra region, Western region, Ashanti region, and Northern region. Secondary data on prices, per capita consumption, import, and export quantities was obtained from the Food and Agriculture Organization (FAO) and the Ministry of Food and Agriculture (MoFA). Primary data on shopping malls, supermarkets, cold stores, and open markets as well as on imported and local chicken meat prices and brands was also obtained using surveys and focus group discussions. The study employs trend and content analyses to highlight specific imported products, their origins, drivers, and the potential of domestic poultry as a substitute for imported chicken meat. The paper confirms that Ghana imports about 80% of its poultry meat, mostly in the form of branded cut parts (thighs, wings, legs, back, and offal) from high-income countries including Belgium, the US, Brazil, Poland, and the Netherlands. Despite a 35% increase in tariffs, imported poultry meat tends to be 27–30% cheaper than locally produced chicken. The findings further show that although there is some preference for domestic poultry meat, this does not translate into purchase decisions, as people prefer more convenient and ready-to-use products. The paper recommends the prioritization of policies to boost local production through investments in processing (cut parts), branded packaging, and marketing facilities such as cold vans. Furthermore, policies to reduce chicken meat import volumes may be focused on other non-tariff measures such as licenses, allotments, trade embargoes, foreign exchange restrictions, and import depositories.

Key words: poultry meat, cut parts, imports, trade, packaging, Ghana.

#### Introduction

Food demand in less developed countries is rapidly changing toward the consumption of higher-value products such as meat (Pingali, 2015). In Africa, a similar transition toward meat products is emerging. Recent reports reveal that

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poultry meat accounts for a larger part of meat consumption in the region (FAO, 2018). According to Hollinger and Staatz (2015), poultry consumption in West Africa has been stimulated by the availability of low-cost alternatives for consumers through imports. The influx of imported poultry meat products, mainly frozen cut parts, has become popular with urban consumers. These products are often sold below production cost because producers in exporting countries make their profits from the sale of high-value parts such as breasts, which are demanded by consumers in those countries (Hollinger and Staatz, 2015).

Like the global trend, poultry meat is increasingly becoming an important source of animal protein in Ghana (MoFA, 2020; Asante-Addo and Weible, 2020). The higher demand for imported poultry meat is attributed to increasing income growth, rapid population growth, and the high rate of urbanization (Sumberg et al., 2016). In Ghana, poultry meat consumption is dominated by chicken meat, but guinea fowls, ducks, turkeys, and ostriches are also consumed. It is estimated that the growth in consumer demand for poultry meat in Ghana is expected to increase further in the future (MoFA, 2020).

The rising consumer demand for poultry meat provides new market opportunities for growth and investment in the value chain of the sector in Ghana. However, local production lacks the capacity to meet this growth in consumer demand, resulting in the country currently depending on imports (Ashitey, 2017; Asante-Addo and Weible, 2020). The high import is attributed to the high cost of production (feed and drugs), production technology inefficiencies, lack of adequate processing facilities, as well as cheap import products resulting in low productivity of the poultry sector in Ghana (MoFA, 2020). Other operational constraints include high energy prices, which continue to increase production costs by over 60% (MoFA, 2020). This leads to a higher price of domestic broiler meat, making it uncompetitive. The situation has prompted local farmers to call for policy interventions to support domestic production (Sumberg et al., 2016).

In response, the government implemented measures to protect local producers by introducing import tariffs of about 35%, reducing tariffs on inputs (additives, feeds, medicines, and vaccination drugs), providing efficient veterinary services, and delivering subsidized inputs through the rearing for the food and job program (Andam et al., 2017). However, these strategies do not seem to be yielding the desired effect as the volume of poultry imports keeps increasing astronomically. Competition from imported chicken meat has put pressure on broiler production in Ghana as prices of imported chicken meat are 30–40% lower than locally produced chicken. This has led to a producer shift from the production of broiler (meat) to the production of layer birds for table eggs (Ashitey, 2017).

Stakeholders seeking to intervene in Ghana's poultry sector face a dearth of policy-relevant research to guide their decision process. Unfortunately, reliable, and up-to-date information on trends in domestic poultry production and trade is

hard to find (Sumberg et al., 2016). Existing research consists mostly of assessments at the production levels, and qualitative assessments of the impacts of disease outbreaks, such as avian flu on production (Diao, 2009). The ability of local producers to remain competitive requires an in-depth understanding of the dynamics of the poultry market in Ghana.

The main purpose of the paper is to explore evidence of the growing demand for poultry meat in Ghana by analyzing the dynamics of the poultry market in terms of production, consumption, trade, and how local poultry can be used as a substitute for imports. The paper provides a comprehensive overview of the development of domestic production, consumption, and imports of poultry products. It further uses secondary and primary data to analyze prices, sales points, packaging, and branding of local and imported chicken meat. It also highlights the country of origin of the imported products, whilst accounting for the extent of domestic and international trade among partner countries. The findings of this study will assist policy makers to formulate appropriate production and trade policies related to the poultry sector that are critically important in the advancement of commercial production, processing, and marketing of local poultry in Ghana. The rest of the paper is structured as follows: Section 2 provides an overview of the development of the poultry sector in Ghana, Section 3 describes the data used in the analysis, Section 4 presents the empirical results, while the conclusion of our paper is presented in the final section. The market for poultry meat in Ghana is segmented into imported and domestically produced chicken meats. The latter is sold typically in live bird markets where the consumers purchase the birds for slaughter at home.

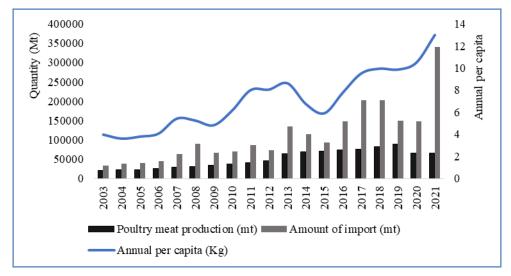


Figure 1. Poultry production and consumption in Ghana. Source: MoFA, 2020.

Retailers also provide slaughtering and primary processing services and sell them on the local markets. The imported meat is sold frozen and cut into parts (Asante-Addo and Weible, 2020). The popularity of frozen chicken parts in the market suggests that live birds are less preferred (Andam et al., 2017). Per capita consumption of chicken meat in Ghana considerably increased from 3.98 to 9.87 kg annually between 2003 and 2019 (Figure 1). Ghana's per capita consumption of poultry meat is relatively higher than the average in Africa (6.76) and West Africa (8.0). According to the FAO (2020), the daily consumption of poultry meat in Ghana has risen from 2 calories per day to 20 calories within the last two decades.

Even though substantial investments have been made in national poultry production, production is still not able to keep up with the growing demand for poultry meat in Ghana. Although local poultry production has recently seen 10.5% annual growth from 20,588 metric tons (Mt) in 2003 to 89,210 metric tons (Mt) in 2019, Ghana still imported about 150,039Mt of poultry meat in 2019 (Figure 1).

Although import constituted only about 12% of the total domestic supply of poultry meat in 1961, it increased to 44% in 1990 and reached about 76% in 2018. However, the share of domestic supply of poultry meat decreased from 80% in 2000 to 24% in 2018 (FAO, 2020).

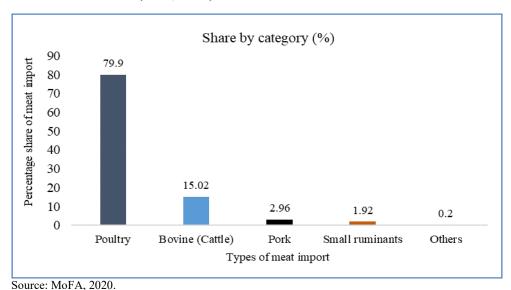


Figure 2. The import of frozen meat in Ghana.

This review section notes that the share of poultry meat in the overall domestic meat supply has increased drastically over the last six decades. Specifically, it increased from 11% in 1969/1970 to 30% in the late 1990s and 66% in 2010/2011. Total meat imports between 2015 and 2019 amounted to 910,604Mt,

of which poultry is estimated to be 728,386Mt, pork (26,962Mt), cattle (136,930Mt), sheep and goat (2,041Mt), and others including ducks, geese and guinea fowls were noted to be 1,010Mt. Total chicken meat import within the five years (2015–2019) was valued at US\$700 million. In addition, MoFA (2020) noted that poultry meat imports accounted for nearly 79.9% of total meat imports in Ghana in 2019 (Figure 2). This was followed by bovine (2.96%), pork (15.02%), small ruminants (1.92%), and others (ducks, geese, and guinea fowls – 0.11%).

Price and non-price factors are believed to be the key drivers of demand for imported poultry meat in Ghana. Egyir et al. (2012) analyzed the "poultry made in the USA" label and consumer choice in Ghana and revealed that consumers preferred imported chicken meat because of packaging, meat quality, and food safety. They also established that consumers who prioritized country of origin as a factor influencing demand for imported poultry meat did not necessarily choose the US poultry label. Their results further showed that in 2012, about 71% of consumers preferred domestically produced meat, followed by imports from the United States (56%), the European Union (48%), and Brazil (40%). Thus, the Ghana poultry label can also be advanced if a repute for quality and food safety can be gained. This finding agrees with Asante-Addo and Weible (2020) and Ragasa et al. (2020), who also reported that some consumers preferred domestically produced poultry meat to imported chicken meat and might be willing to pay a premium for it.

Consumers bought imported poultry meat because of its availability, convenience, affordability, packaging, and proximity of access, while domestic poultry meat is preferred for its high quality, freshness, palatability, and tenderness (Atuahene et al., 2014; Asante-Addo and Weible, 2020). Kwadzo et al. (2013) found that the price of the meat remained an important attribute influencing consumer preference when purchasing broiler meat in Ghana. This finding is also in agreement with Makanyeza and Du Toit (2016) and Boimah and Weible (2023), who reported price as a driver of purchasing decision for imported poultry meat in Zimbabwe and Senegal, respectively.

Demand for chicken meat is also driven by health, nutrition, and food safety concerns. According to Asante-Addo and Weible (2020), consumers perceived local chicken meat as fresh, antibiotic- and hormone-free. Additionally, Ragasa et al. (2019) investigated consumer demand and willingness to pay for safe food in Accra and found that consumers were willing to pay a premium for chicken meat certified with a food safety management system. Consumers preferred HACCP-certified and antibiotic residue-free chicken over non-certified chicken. Consumer perception of chicken meat safety can be an important driver of purchasing decision. Recent findings revealed that nearly 50% of chicken meat consumers were health and safety conscious and willing to pay 15% percent more for chicken products (Ragassa et al., 2019). Thus, producers and processors could expand their market opportunities by having their meat tested for HACCP and the absence of

antibiotic residues. However, since food safety certification is done at production and processing levels, it requires some changes in the management and administration of farms.

From the above, consumer demand for chicken meat in Ghana is becoming more differentiated: on the one hand, there are many low-income consumers whose main focus remains on obtaining chicken meat at low cost, and on the other hand, there is an emerging middle class that is placing increasing importance on the quality, diet diversity, and safety of chicken meat. Thus, the ability of local producers to capture these markets will depend on their capacity to be consistent and reliable suppliers of quality local chicken meat at competitive prices. Currently, consumers believe that imports meet these standards in terms of price, quality, and availability.

#### **Material and Methods**

Data from both secondary and primary sources were used for the study. Price and trade data were collected from the Ministry of Food and Agriculture (MoFA) and the Ghana Statistical Service (GSS) over a period of sixteen years between 2003 and 2019. Data from the Food and Agriculture Organization (FAO) on export quantities and per capita consumption were also used. The information from these multiple sources was validated using survey data between September and November 2021 from shopping malls, supermarkets, cold stores, and open markets on imported and local chicken meat prices and brands in four regions (Greater Accra region, Western region, Ashanti region, and Northern region). These regions were selected to account for the urban coastal effect, proximity to the port, the rising cost of living emerging from the oil industry, and availability of chicken substitutes from other livestock.

Two (2) separate focus group discussions (FGDs) were conducted among chicken wholesalers and retailers in each of the four regions, making a total of eight (8). The participants selected for the FGDs were managers and traders from shopping malls, supermarkets, cold stores, and local markets in Ghana. The participants for this study were purposively recruited from four major cities in Ghana (Kumasi, Accra, Takoradi and Tamale) with high chicken consumption. A total of 96 managers and traders participated in the focus group discussion, of whom 47.9% were males and the remaining 52.1% were females (see Table 1).

The FGD participants were relatively young with age ranging between 25 and 65 years old, with the majority (61.4%) within the age group of 25–45 years. About 24% have primary education, while 33.3% of them have no formal education (illiterate) and are traders, public servants, and the retired, while 16.7% have university education. The average household size of the participants was 6 persons, and the average household income was GHC9,675.00.

Table 1. Profile of respondents in the focus group discussion.

| Chamatanistica of many and auto        | Wholesalers |      | Retai | Retailers |         | Total |  |
|--|-------------|------|-------|-----------|---------|-------|--|
| Characteristics of respondents         | Freq        | %    | Freq  | %         | Freq    | %     |  |
| Gender                                 |             |      |       |           |         |       |  |
| Male                                   | 21          | 58.3 | 25    | 41.7      | 46      | 47.9  |  |
| Female                                 | 15          | 41.7 | 35    | 58.3      | 50      | 52.1  |  |
| Age (years)                            |             |      |       |           |         |       |  |
| 25–35                                  | 10          | 27.8 | 10    | 16.7      | 20      | 20.8  |  |
| 36–45                                  | 12          | 33.3 | 27    | 45        | 39      | 40.6  |  |
| 46–55                                  | 10          | 27.8 | 15    | 25        | 25      | 26.04 |  |
| 56–65                                  | 4           | 11.1 | 8     | 13.3      | 12      | 12.5  |  |
| Experience in trading (in years)       | 10.4        | -    | 12.6  | -         | 11.5    | -     |  |
| Education                              |             |      |       |           |         |       |  |
| None                                   | 12          | 33.3 | 20    | 33.3      | 32      | 33.3  |  |
| Basic (primary) education              | 8           | 22.3 | 15    | 25        | 23      | 24.0  |  |
| Secondary education                    | 6           | 16.6 | 7     | 11.7      | 13      | 13.5  |  |
| Post-secondary (diploma, certificate)  | 4           | 11.2 | 8     | 13.3      | 12      | 12.5  |  |
| University                             | 6           | 16.6 | 10    | 16.7      | 16      | 16.7  |  |
| Household size (mean)                  | 4.8         |      | 6.5   |           | 5.5     |       |  |
| Average reported monthly income (GHC)  | 15,600      |      | 4,350 |           | 9,675   |       |  |
| Average reported monthly income (US\$) | 2,600       |      | 725   |           | 1,612.5 |       |  |

Source: Market survey, 2021.

Information on the price of chicken, the places of purchase and consumer quality indicators was collected during the focus group discussions. Trend and content analytical investigations, and descriptive statistics using tables, graphs and bar charts were employed to analyze the data obtained.

#### **Results and Discussion**

This paper notes that in addition to price, product form (packaging, labeling and country of origin) and the place of sale of chicken meat have been found to be important factors that drive consumers' purchasing decisions. This section discusses the differences in the price of chicken meat, the brands, and the country of origin of chicken meat in various sales points in the study regions.

## Product prices and differentials

Data from the field survey of selected markets in the four regions revealed that the mean retail price of imported chicken meat in 2021 was GHS 26.6/kg, while the mean retail price of domestic chicken was GHS 34/kg (Table 2).

The price difference of imported chicken meat ranged between 28% and 30%. Also, the data showed that 10 kg of imported chicken (soft, usually for stew) and

(hard, usually for soup) cost GHS 126 and GHS 147, respectively in the study area. Specifically, the average price of local chicken meat was Gh34.00/kg in Accra, GHC30.00/kg in Tamale and Gh35.00/kg in Takoradi and Kumasi. The imported whole chicken meat was priced at GHC26.60, GHC18.00, GHC22.00, and GHC17.80 in Accra, Takoradi, Kumasi, and Tamale, respectively. Similarly, the imported chicken thigh was priced at GHC18.00, GHC19.00, GHC18.99, and GHC13.30 in Accra, Kumasi, Takoradi, and Tamale, respectively. The relatively high price of domestic poultry compared to imported poultry could be attributed to the high production costs, especially feed and medication expenses (Nagguija et al., 2020). Whilst imported formulated feeds are expensive due to high taxes, some ingredients used for locally prepared feeds such as yellow corn, soybean, fish meal, and vitamin-mineral premixes are equally imported and taxed, so that feed costs account for about 70% of the cost of chicken production in the country (Banson et al., 2015). Etuah et al. (2020) also noted that poor and inadequate local infrastructure, including poor rural and urban road networks, added to distribution cost. Additionally, poultry production is heavily subsidized in the USA and the EU, making imported chicken meat comparatively cheaper than domestic poultry meat.

Table 2. Average retail prices (GH) of imported and local chicken meat.

| Chielren mente | Prices per kg (GHC) |       |        |       |          |       |        |       |
|----------------|---------------------|-------|--------|-------|----------|-------|--------|-------|
| Chicken parts  | Ac                  | cra   | Kumasi |       | Takoradi |       | Tamale |       |
|                | Import              | Local | Import | Local | Import   | Local | Import | Local |
| Whole chicken  | 26.60               | 34.00 | 22.00  | 35.00 | 18.00    | 35.00 | 16.75  | 30.00 |
| Chicken thighs | 20.00               | -     | 19.00  | 23.00 | 18.99    | 22.99 | 13.30  | -     |
| Chicken wings  | 18.00               | -     | 19.00  | 20.00 | 18.00    | 23.99 | 16.30  | -     |
| Gizzards       | 16.00               | -     | 20.00  | 22.00 | 13.50    | 16.99 | 14.20  | -     |

Source: Market survey, 2021.

The study also revealed that imported chicken meat of the same weight was cheaper in Tamale than in other locations. Although such price differences are contrary to expectation due to the cost of transporting the product over a long distance, the participants attributed this to the high demand for substitute meat products such as guinea fowls in the northern region, which could force retailers and wholesalers of imported chicken meat to reduce prices to remain competitive. Also, imports of beef and mutton from Burkina Faso to northern Ghana could also be responsible for the low meat prices in the region (Sumberg et al., 2016; Rich and Wane, 2021).

The study identified two local companies, Everyday chicken, and Master meal chicken, which process chicken into cut parts. These companies are in Kumasi and Takoradi. The study revealed that the local chicken parts (thighs, wings, and gizzards) in these two locations were relatively more expensive than the imported

ones. For example, the price of local chicken thighs ranged between GHC22.99 and GHC23/kg in Kumasi and Takoradi, respectively compared to GHC18.99 and GHC20.00 of imported chicken thighs in the same locations. It is also evident from the above that the average retail price of imported chicken meat in 2021 was relatively lower than the retail price of local chicken meat in all the regions visited. In addition to the factors stated earlier, the high price of local chicken parts could be due to the high cost of processing and inadequate processing technologies (MoFA, 2020; Andam et al., 2017).

Sale points of imported and local chicken meat

Generally, prices of chicken meat at supermarkets and shopping malls were higher than at other selling points in all the locations surveyed. Imported whole chicken meat was priced between GHC20.00 and GHC26.00 at supermarkets while it was priced between GHC21.50 and GHC26.90 at shopping malls across the country (Table 3). The survey results show that differences in quality and country of origin may account for some of the price differences. It is believed that these modern markets (supermarkets and shopping malls) also operate in a more improved shopping environment in terms of space, hygiene, air conditioning, food safety and security, which comes with additional costs. Ashraf et al. (2017) noted that products from the mall came with a premium.

Table 3. Average retail price (GHC) of whole imported chicken meat at various selling outlets.

| Market outlets |        | Locations (prices/kg (GHC)) |        |        |        |          |        |        |  |
|----------------|--------|-----------------------------|--------|--------|--------|----------|--------|--------|--|
| Warket outlets | Acc    | Accra                       |        | Kumasi |        | Takoradi |        | Tamale |  |
|                | Import | Local                       | Import | Local  | Import | Local    | Import | Local  |  |
| Traditional    | 20.00  | 28.50                       | 18.00  | 32.00  | 18.00  | 30.00    | 20.00  | 30.00  |  |
| Supermarkets   | 20.20  | -                           | 22.00  | 28.00  | 26.00  | -        | 21.10  | -      |  |
| Shopping mall  | 26.00  | -                           | 26.90  | 35.00  | 23.00  | -        | 21.50  | -      |  |
| Cold store     | 17.00  | -                           | 20.00  | 30.00  | 18.00  | -        | 16.00  | -      |  |

Source: Market survey, 2021.

However, the study observed that though consumers purchased household food items such as staple food (cereals, tubers, and roots), vegetables, fish, and eggs in traditional markets, supermarkets and shopping malls were emerging as the major sale outlets for imported chicken meat, in addition to cold stores. Also, the prices at various cold stores were relatively lower than at other selling points.

These cold stores were mostly located in traditional open markets. For instance, the price of a kg of imported chicken meat on average cost between GHC16.00 and GHC20.00 in the four regional markets surveyed. This finding is

consistent with the results of Amfo and Ali (2020), who noted that frozen meat at cold stores was usually priced lower as the product was preserved and not processed.

The survey of the major markets, supermarkets, cold stores, and shopping malls in the study area revealed that local chicken meat was not available in these major selling points. These supermarkets, shopping malls and cold stores offered various qualities at different prices of imported chicken meat, including cut pieces and whole frozen birds. This could be due to unbranded and low-quality packaging materials for local chicken meat. Shopping malls usually cash in on products differentiated by brand, packaging, and country of origin, as noted by Ashraf et al. (2017).

## Product packaging, branding, and country of origin

Branding and packaging of food stuff usually boost marketing and profit making (Yeboah, 2016). In this study, local chicken meat was found to be mostly sold unbranded in all the markets surveyed except for some shopping malls where three (3) branded products (Master-meal, Every-day, Seladels) were identified (Table 4). The reason for this is that branded chicken meat may be more expensive and therefore can only be sold in the shopping malls. Additionally, all imported chicken meat was sold as branded and well packaged in sizes of 1 kg, 2 kg, 2.5 kg, and 10 kg, which were available in all the outlets visited.

Table 4. The brand and country of origin of chicken meat at various selling outlets.

| Major brands of chicken meat                            | Country of origin |
|---|-------------------|
| Golden Dutch, Sadia, Seara, Perdix, Nature Al, Qualiko, | Brazil            |
| Alpi, Frangosul, Lezita                                 | Italy             |
| Mountaire, Quickfrozen, Lamex, Mountaire, Crider        | USA               |
| Doux  | France            |
| Mastermeal, Every day, Seladels                         | Ghana             |
| Miki, Ayekoo, Plukon, Vd-Bor, Remkes                    | Holland           |
| Nana, Cedrob  | Poland            |

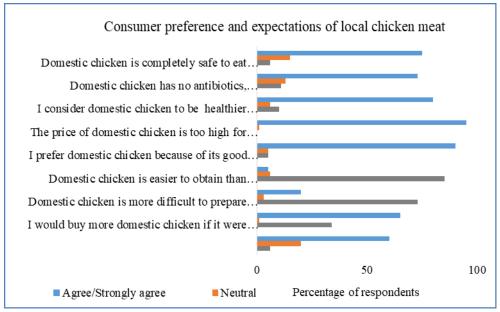
Sources: Market survey, 2021.

The identified brands of imported chicken meat included Sadia, Golden Dutch, Seara, Nature Al, Qualiko and Perdix from Brazil. Other brands imported from major European countries (Italy, France, Holland, and Poland) and the US are reported in Table 4. These brands of chicken meat were found in all outlets. The branded products were mostly cut parts, packaged in cartons and frozen with labels providing information such as the country of origin of the products, the expiry dates, nutritional and health information, and the weight of the products.

Unfortunately, the local branded chicken products did not have such packaging details. Ragasa et al. (2020) noted that packaging and branding were major challenges for local chicken meat in Ghana. Recent findings by Hollinger and Staaz (2015) reveal that urban consumers in Ghana are concerned about the lack of packaging and reliable labeling and other information about the health concerns of local chicken meat they consume. Furthermore, urban consumers in Accra often prefer international branded products to local alternatives because they trust the quality of these brands (Hollinger and Staaz, 2015). This perceived mistrust in the safety of domestically processed and branded food drives consumers towards international brands, putting local producers at a disadvantage. For local producers to compete with imports, the domestic poultry meat industry may have to focus on differentiating its product from the imported chicken in packaging brands, with a major advertising push.

## Consumer preferences and expectations of local chicken meat

The perceptions of traders, both wholesalers and retailers, were used to assess the main factors consumers consider when purchasing local chicken meat. The discussants generally agreed that the consumers considered the price of the local chicken to be very high compared to the imported chicken (Figure 3).



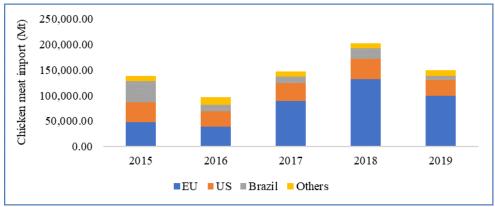
Source: Market survey, 2021.

Figure 3. Consumer preferences and expectations about local chicken in Ghana.

In addition, the preference for local chicken products was associated by the participants with (i) domestic chicken meat being perceived as natural and tasty and containing no antibiotics, hormones, or additives, (ii) domestic chicken meat being completely safe compared to imported chicken meat, and (iii) domestic chicken being generally considered healthier than imported chicken meat. Despite the perceived preference for local chicken, difficulty in obtaining local chicken meat and the time spent in processing deterred consumers from buying local chicken meat in both traditional open markets and modern supermarkets.

### Domestic and international trade

According to the FAO (2020), the imports of chicken meat to Africa amounted to 1.75 million tonnes in 2018, with South Africa accounting for 515,000 tonnes (29.5%), followed by Angola with 335,000 tonnes (19%), while Ghana ranked third with 205,000 tonnes (11.7%). Figure 3 summarizes the trends of import market shares for chicken meat between 2015 and 2019. Chicken imports into the country were dominated by products from the EU between 2015 and 2019. Figure 4 shows that the dominance of the EU was followed by imports from the USA, Brazil, and other countries (Canada, Australia, and Asia), respectively.



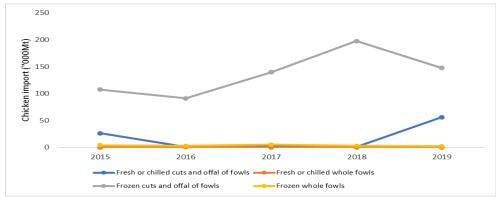
Source: MoFA (2020).

Figure 4. The import of poultry meat into Ghana.

For instance, in 2018, out of the total chicken meat imports of 201,936Mt, nearly 131,427Mt (65%) were supplied by the EU, followed by the US with 41,031Mt (20%), Brazil with 19,318Mt (10%) and other countries with 10,158Mt (5%). Although this trend was quite consistent between 2015 and 2019, Figure 4 further shows that Brazil and the USA had a reduction in chicken meat supply into the country within the same period. The ensuing deficit was made up for by increasing poultry meat exports from EU countries.

For example, the USA's share of Ghana's poultry imports declined from 27.89% in 2015 to 20.88% in 2019 (GSS, 2018). Similarly, the data also revealed that the share of chicken meat imports from Brazil decreased from 30.16% in 2015 to 5.52% in 2019. However, the EU share of chicken meat imports increased from 34.8% in 2015 to 66.08% in 2019. The emerging increase in the import of chicken meat from the EU may be due to the strong relationship between importers and exporters and loyalty to EU products. However, the decline in poultry exports from the USA may be due to perceived distinguishing attributes of products from other countries, existing non-tariff barriers, and the bureaucracy involved in the process of acquiring licenses for poultry meat exports (Ashitey, 2017; Asante-Addo and Weible, 2020). However, as noted by Zamani et al. (2021), USA products still enjoy a price advantage over commodities from Brazil, the EU, and other parts of the world.

In Ghana, most imported poultry meat comes in the form of frozen chicken and cut portions. Figure 5 shows the top four forms in terms of quantity and products in which chicken meat was imported into the country. The category of forms included fresh or chilled cuts and offal of poultry, frozen cuts and offal of poultry, fresh or chilled whole chickens, and frozen whole chickens. The imported cut parts included chicken backs, necks, rumps, wings, and feet, while the offal was composed of gizzards, hearts, and livers.



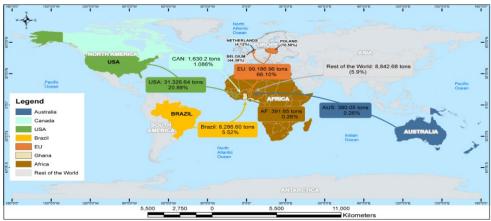
Source: GSS (2018).

Figure 5. Trends in imports of poultry products to Ghana.

Figure 5 reveals that between 2015 and 2019, nearly 98% of all chicken meat imports into Ghana were frozen cuts and offal of poultry. For example, in 2015, frozen cut parts and offal constituted 78.0% (107,719Mt) out of 138,056Mt of chicken meat imported. Similarly, frozen cuts and offal of poultry made up 94.5% (91,343.2Mt) of 96,634Mt in 2016, while it constituted 94.7% (139,722Mt) in 2018. In 2019, 98.05% (147,806Mt) out of 150,044Mt of frozen cuts and offal were imported into the country. Other products such as fresh or chilled cuts and

offal of fowls, fresh or chilled whole fowls, and frozen whole fowl constituted about 2% of imports. This also reflects the high demand for the cut products, as these can usually be used immediately by the consumer.

Figures 4 and 5 show a significant decrease in poultry meat imports in 2016. This was due to the broiler revitalization project which was implemented to stimulate and increase domestic production to about 40% of the total chicken meat demand in Ghana. Although the overall goal of the project was laudable, it could not achieve its aim due to inadequate production and processing logistics and heavy import competition (Asante-Addo and Weible, 2020). Further analysis of Figure 6 reveals that 66.10% of the chickens imported to Ghana originated from European Union countries (of which 44.38% came from Belgium, 10.59% from the Netherlands, 4.12% from Poland, and the rest from Spain, and France).



Source: Authors' illustration, adapted from GSS (2018).

Figure 6. Global poultry trade flows to Ghana in 2019.

The other major importing countries included the US accounting for 20.88%, Brazil taking up 5.52%, while Asia, Canada, and Australia accounted for the rest. In 2019, Ghana imported chicken meat amounting to 392 million USD of which 61.14% came from the EU (239 million USD). Chicken meat imports from the US and Brazil were valued at 89 million USD and 28 million USD accounting for 22% and 7.38% of the total import value to Ghana in 2019. Imports from other countries, including some Asian countries, Canada, and Australia, were valued at 34 million USD, accounting for 7.49%. Ghana's trade with other African countries, including Kenya (0.45Mt), Namibia (50Mt), South Africa (214.2Mt), Togo (74.8Mt), and Tanzania (53Mt), accounted for only 0.26% of total poultry imports to Ghana between 2015 and 2019. Official data from FAO revealed that about 27Mt of chicken meat was re-exported from Ghana to other African countries such as Togo and Ivory Coast in 2019.

This ensuing argument reveals that Ghana is heavily dependent on poultry imports to meet demand. Boschloo (2020) has confirmed that Ghana spends about \$374 million annually on the importation of chicken and chicken products. However, Zamani et al. (2022) have opined that the amount of money spent by the government of Ghana on poultry import annually can be relatively reduced if attention is focused on domestic production through input subsidies, improvement in processing technologies, marketing strategies, and reforms in the poultry and livestock import policy.

### Conclusion

The exponential increase in poultry meat imports in Ghana due to urban population growth, increase in per capita income, changes in consumer preferences over the last three decades has been well documented in the literature. However, the links between global imports and local poultry markets have rarely been studied. This paper explored the evidence for the growing demand for poultry meat in Ghana by analyzing the dynamics of the poultry market in terms of production, consumption, imports, trade, and how local poultry can be used as a substitute for imports. Descriptives, trend, and content analyses were applied to secondary and primary data obtained from four regions (Greater Accra region, Western region, Ashanti region, and Northern region) of Ghana.

This study has confirmed that there is a high demand for chicken meat in Ghana, 80% of which is currently being met by imports from high-income countries. The study has revealed that 66.10% of these imports come from EU countries (Belgium, the Netherlands, and Poland), while about 20.88% come from the US, 5.52% from Brazil and the rest from Asia, Canada, and Australia. These chicken imports are nicely packaged, branded, and mainly come in the form of cut parts such as rumps, wings, legs, backs, and offal, making them cheap and ready to use. Despite the imposition of about a 35% increase in tariffs, the study has revealed that imported chickens and chicken parts are 27–30% cheaper than locally produced chicken meat. However, prices differed from region to region due to transportation costs and the availability of substitute products. The study also revealed that prices of chicken meat at supermarkets and shopping malls were higher than at other selling points in all the locations surveyed.

The paper shows that domestic chickens throughout the state were sold primarily on the live market. Although few companies were found to process chicken into cut parts, the products were not branded with proper packaging materials and tended to have a relatively higher price than imported products. The cheap imported chicken meat has negatively affected domestic production, making it uncompetitive for-profit gains. Findings further show that although there was some preference for domestic poultry meat, this did not translate into actual

purchase decisions due to the preference for handier chicken and ready-to-use products.

The paper recommends that poultry sector development policies aimed at boosting local production must prioritize investments in poultry meat processing infrastructure (slaughterhouses), storage (refrigeration systems), and marketing. In addition, policies meant to reduce chicken meat import volumes that jeopardize local poultry meat prices may additionally be focused on non-tariff measures such as licenses, allotments, trade embargoes, foreign exchange restrictions, and import depositaries. However, a gradual ban on imports would be necessary, while boosting local production through logistic support in ensuring the processing of local meat into cut parts with good, branded packaging. Additionally, improving the marketing system for local chicken meat through the development and modernization of wholesaling and retailing industry to enhance the availability and quality of products at various selling points including shopping malls and supermarkets is paramount.

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#### References

- Amfo, B., & Ali, E.B. (2021). Consumer satisfaction and willingness to pay for upgraded meat standards in Kumasi, Ghana. *Journal of International Food & Agribusiness Marketing*, 33 (4), 423-457
- Andam, K.S., Johnson, M.E., Ragasa, C., Kufoalor, D.S., & Das Gupta, S. (2017). A chicken and maize situation: the poultry feed sector in Ghana (Vol. 1601). Intl Food Policy Res Inst.
- Asante-Addo, C., & Weible, D. (2020). Is there hope for domestically produced poultry meat? A choice experiment of consumers in Ghana. *Agribusiness*, 36 (2), 281-298.
- Ashitey, E. (2017). Ghana Poultry Report. Global Agricultural Information Network, USDA Foreign Agricultural Services.
- Ashraf, S.F., Li, C., & Mehmood, B. (2017). A Study of Premium Price Brands with Special Reference to Willingness of Customer to Pay. *International Journal of Academic Research in Business and Social Sciences*, 7 (7), 619-639.
- Atuahene, C.C., Atuahene, A.J., Adjei, M.B., & Donkor, E. (2014). The perception and preference of consumers for local poultry meat in the Kumasi metropolis of Ghana. *Ghana Journal of Agricultural Science*, 47 (1), 31-38.
- Banson, K., Muthusamy, G., & Kondo, E. (2015). The import substituted poultry industry, evidence from Ghana. *International journal of agriculture and forestry*. 5 (2), 166-175.
- Boimah, M., & Weible, D. (2023). We prefer local but consume imported: results from a qualitative study of dairy consumers in Senegal. *Journal of International Food & Agribusiness Marketing*, 35(2), 244-260.

- Boschloo, R. (2020). Analysis poultry sector Ghana 2019, An update on the opportunities and Challenges. Commissioned by the Netherlands Enterprise Agency.
- Diao, X. (2009). Economywide impact of avian flu in Ghana: A dynamic CGE model analysis (Vol. 15). Intl Food Policy Res Inst.
- Egyir, I.S., Adu-Nyako, K., & Okafor, R. (2012). The "Made in USA poultry label" and consumer choice in Ghana (No. 1372-2016-109083).
- Etuah, S., Ohene-Yankyera, K., Liu, Z., Mensah, J.O., & Lan, J. (2020). Determinants of cost inefficiency in poultry production: Evidence from small-scale broiler farms in the Ashanti region of Ghana. *Tropical Animal Health and Production*, 52 (3), 1149-1159.
- FAO (2018) FAOSTAT database, to be found in http://www.fao.org/faostat/en/#home.
- FAO (Food and Agriculture Organization of the United Nations). (2020). FAOSTAT The Food and Agriculture Organization Corporate Statistical Database website. Rome: FAO GSS.
- GSS (Ghana Statistical Service) (2018). Ghana Living Standards Survey Round 7 (GLSS 7): Poverty Trends in Ghana 2005–2017.
- Hollinger, F., & Staatz, J.M. (2015). Agricultural Growth in West Africa. Market and policy drivers. FAO, African Development Bank, ECOWAS. Pobrano październik.
- Kwadzo, G.T., Dadzie, F., Osei-Asare, Y.B., & Kuwornu, J.K. (2013). Consumer preference for broiler meat in Ghana: a conjoint analysis approach. *International Journal of Marketing Studies*, 5 (2), 66-72.
- Makanyeza, C., & Du Toit, F. (2016). Factors influencing consumers' choice of imported poultry meat products in a developing market: lessons from Zimbabwe. *Agrekon*, 55 (3), 191-215.
- MoFA (Ministry of Food and Agriculture) (2020). Facts and Figure. Statistics, Research, and Information Directorate. Accra: MoFA.
- Naggujja, J., Njiru, N.M., Msoffe, P., Naazie, A., Kelly, T., Enahoro, D.K., & Ouma, E.A. (2020). Tanzania and Ghana poultry sector policy review. The US Government's Global Hunger and Food Security Initiative. Available at: https://cgspace. cgiar.org/bitstream/handle/10568/110529/Tanzania% 20and% 20Ghana% 20poultry% 20sector% 20policy% 20review Brief. pdf.
- Pingali, P. (2015). Agricultural policy and nutrition outcomes—getting beyond the preoccupation with staple grains. *Food security*, 7 (3), 583-591.
- Ragasa, C., Andam, K.S., Amewu, S., & Asante, S. (2019). Consumer demand and willingness to pay for safe food in Accra, Ghana: Implications for public and private sectors' roles in food safety management (Vol. 1795). Intl Food Policy Res Inst.
- Ragasa, C., Andam, K.S., Asante, S.B., & Amewu, S. (2020). Can local products compete against imports in West Africa? Supply-and demand-side perspectives on chicken, rice, and tilapia in Ghana. Global Food Security, 26, 100448.
- Rich, K.M., & Wane, A. (2021). The competitiveness of beef exports from Burkina Faso to Ghana. *Frontiers in Veterinary Science*, 8, 619044.
- Sumberg, J., Jatoe, J., Kleih, U., & Flynn, J. (2016). Ghana's evolving protein economy. Food security, 8 (5) 909-920.
- Yeboah, M. (2016). Impact of Product Branding on Sales Revenue of Listed Companies in Ghana. *International Journal of Academic Research in Business and Social Sciences*, 6 (9), 112-124.
- Zamani, O., Pelikan, J., & Schott, J. (2021). EU exports of livestock products to West Africa: An analysis of dairy and poultry trade data.
- Zamani, O., Chibanda, C., & Pelikan, J. (2022). Impacts of import restrictions on poultry producers in Ghana. Q Open, 2 (1), qoac007.

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## DINAMIKA TRŽIŠTA ŽIVINSKOG MESA U GANI

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#### Rezime

Ovaj rad ispituje dinamiku tržišta živinskog mesa u Gani koristeći sekundarne podatke i terensko istraživanje u četiri regiona uključujući Veliku Akru, Zapadni region, Ašanti i Severni region. Sekundarni podaci o cenama, potrošnji po glavi stanovnika, količinama uvozne i izvozne robe dobijeni su od Organizacije za hranu i poljoprivredu (engl. Food and Agriculture Organization – FAO) i Ministarstva za hranu i poljoprivredu (engl. Ministry of Food and Agriculture – MoFA). Primarni podaci o tržnim centrima, supermarketima, hladnjačama i otvorenim pijacama kao i o cenama i brendovima uvezenog i lokalnog pilećeg mesa takođe su prikupljeni putem anketa i diskusija u fokus grupama. U istraživanju su se koristile analize trendova i sadržaja kako bi se istakli određeni uvozni proizvodi, njihovo poreklo, pokretači i potencijal domaćeg živinskog mesa kao zamene za uvezeno pileće meso. U radu se potvrđuje da Gana uvozi oko 80% živinskog mesa, uglavnom u obliku brendiranih sečenih delova (bataka, krilaca, nogu, leđa i iznutrica) iz zemalja sa visokim prihodima, uključujući Belgiju, SAD, Brazil, Poljsku i Holandiju. Uprkos povećanju tarifa za 35%, uvezeno živinsko meso obično je 27– 30% jeftinije od lokalno proizvedenog pilećeg mesa. Rezultati dalje pokazuju da se, iako postoji određeno preferiranje domaćeg živinskog mesa, to ne prenosi na odluke o kupovini, jer ljudi više vole praktičnije i već spremne proizvode. U radu se preporučuje davanje prioriteta politikama za podsticanje lokalne proizvodnje kroz ulaganja u preradu (sečene delove), brendirano pakovanje i marketinške objekte poput rashladnih kombija. Štaviše, politike za smanjenje obima uvoza pilećeg mesa mogle bi se fokusirati na druge netarifne mere kao što su licence, dodele, trgovinski embargo, devizna ograničenja i uvozni depoziti.

Ključne reči: živinsko meso, sečeni delovi, uvoz, trgovina, pakovanje, Gana.

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