

Publication No. 5
May 1992

PJ-ABQ-615
ISBN 85884



ENCOMEC FINDINGS

Enquête de Consommation Auprès des Ménages à Conakry

CORNELL FOOD AND NUTRITION POLICY PROGRAM

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EXPENDITURES, CALORIES, AND PRICES

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HOUSEHOLD CONSUMPTION IN CONAKRY: EXPENDITURE, CALORIES, AND PRICES

The survey data analyzed in this report provide information on expenditure levels and patterns among households in Conakry, the caloric consumption among these households, and the evolution of market prices.

EXPENDITURE PATTERNS

The mean household expenditure level in Conakry over the survey period was GF 191,024 per month.^{1, 2} (Table 1). In per capita terms, mean monthly expenditures were GF 36,850. The latter figure corresponds to US\$ 668 per capita per year in 1990 at the average official exchange rate of GF 662 per US\$ for that year. The more appropriate conversion factor of the parallel exchange rate, US\$ 709 in 1990, yields an annual per capita expenditure level of US\$ 624 for Conakry.

The mean total household expenditure among the poorest quintile is 41 percent of that of the top quintile and 64 percent of the mean. However the variation in per capita expenditures is much more dramatic. The mean per capita expenditure among the lowest expenditure quintile is

¹ Expenditures as analyzed in this report include cash expenditures plus the value of noncash receipts of goods and services by the household.

² The analysis that follows is based on the first fifteen months of the survey, namely from December 1989 through February 1991. Mean expenditure levels are thus indicative of those for the 1990 calendar year.

only 13 percent that of the highest expenditure quintile and 32 percent of the sample mean.³ (Table 1). At the parallel rate, the mean monthly expenditure of GF 11,906 among the lowest quintile represents only US\$ 202 per annum. This stands in contrast to mean per capita expenditure among the highest quintile of GF 90,395 per month, or US\$ 1,530 per annum at the parallel rate.

The different distributional stories told by expenditure and per capita expenditure data point to the fact that mean household size varies markedly among expenditure groupings. Poorer households are larger in size: the lower the expenditure quintile, the larger the household. (Table 1). The mean household size among the poorest quintile is 10.6 whereas among households in the richest quintile the mean household size is 3.7.

Aggregation of expenditure levels by commodity group permits the analysis of household expenditure patterns. (Table 2). On average, households in Conakry allocate 53.6 percent of their budget to food. The mean budget share allocated to food, however, increases, as expected, with a decrease in the mean expenditure level. Households in the lowest expenditure quintile spend about 63.7 percent of their budget on food while households in the highest quintile spend only about 37.7 percent of their total budget on food. (Table 2).

Nonfood expenditures, which constitute a total 46.4 percent share for the whole sample, reveal important variations by commodity group and

³ Quintiles (of 345 households each) are based on a rank ordering of households on the basis of per capita expenditures.

expenditure quintiles. Fuel (wood, coal, gas, candles, kerosene) commands the largest share among nonfood commodity groups for the poorest quintile, representing 7.4 percent of their total expenditures. This share drops off to 2.9 percent for the highest quintile and averages 5.4 percent for the sample. The commodity group that includes expenditures on housing, household durables, utilities, and taxes is the second most important nonfood category for the poorest quintile, representing 6.6 percent of total expenditures. This "housing" category is consistently one of the two highest nonfood expenditure commodity groupings regardless of quintile; it commands 10 percent of total expenditure for the whole sample. Transport is the third most important nonfood item for the poorest quintile, representing 6.3 percent of expenditures for this quintile and 9.7 percent for the sample as a whole. High transport shares reflect both the increased prices of transport with liberalization as well as the extent to which transport is used in Conakry. The elongated shape of the city means that many workers spend much time and money commuting. The shares of expenditure on education and health are 1.3 and 2.2 percent respectively. These low levels likely reflect both the continued low user cost of certain public services in Guinea but are also likely to reflect low usage of services. These issues will be analyzed in more detail in the future.

Data on food expenditures have more direct implications with respect to consumption levels and thus also with respect to nutrition. Among food items, rice is the single most important food commodity consumed in Conakry in terms of expenditure. (Table 2) Expenditure on rice (local and

imported) represents 9.1 percent of total expenditure among the sample as a whole and up to 15.4 percent of expenditures among the poorest quintile. (Table 2). Most rice consumed in Conakry is imported. Across all households, 82 percent of expenditure on rice was allocated to imported varieties. This percentage was 87 percent among households in the poorest quintile. In fact only 30 percent of households buy domestic rice at all, whereas 80 percent of all households and 88 percent of households in the lowest quintile consume imported rice. (Table 3). These statistics are remarkable in a country in which rice is the main staple produced locally. The important policy questions raised by these numbers will be addressed, using this data, in subsequent CFNPP research.

Besides rice, bread constitutes the next most important starchy staple in Conakry. Bread represents 4.4 percent of total expenditures among all households and 6.0 percent among the poorest quintile. Not only does the share of expenditure on bread exceed expenditures on all other traditional cereals, roots, and tubers combined (excluding rice) among all expenditure quintiles (Table 2), but the number of bread consumers surpasses the number of combined consumers of these other traditional foods, regardless of quintile (Table 3). The phenomenon of bread supplanting traditional cereals, roots, and tubers in the Guinean capital is typical of urban Africa, where taste as well as preparation time dictate the choice of bread.

Meat, fish, and vegetables are the other important food items in Conakry, representing expenditure shares of 6.4, 7.1, and 7.2 percent respectively. Fish commands a larger expenditure share than meat among

the lower quintiles. Among the lowest quintile about 10 percent of expenditure is allocated to fish and about 5 percent goes to meat. The budget share to fish however falls for higher expenditure quintiles while that of meat rises. The two top quintiles spend more on meat than on fish. The only other food commodity groups for which expenditure share rises by quintile are milk and dairy products, beverages (including alcohol), and food purchased away from home. Intuitively one may expect these commodity groups to be luxury goods.

Estimation of income elasticities permits us to address this issue and provides more insight into the responsiveness of demand for food commodities to variations in income. Income elasticities, presented in Table 4, represent the percent change in quantity demanded due to a percent change in income level.⁴ Values between zero and one represent normal goods; elasticities greater than one represent luxury goods; negative income elasticities represent inferior goods.

In this sample none of the foods are inferior for any of the expenditure quartiles. Most goods exhibit the expected elasticity patterns: most are normal goods with income elasticities that decline

⁴ These income elasticities were based on the parameters estimated from a regression of household expenditure share on the natural log of per capita household expenditure and the natural log of household adult equivalent units. Quartile-specific elasticities were computed by using quartile-specific expenditure shares for the consumption of each good with the sample-wide parameters derived for that good. The estimates are based on the subsample of 1,557 households that cook at home. These are households defined as those who purchases no cereals (other than bread), roots, or tubers and no fish or meat (other than for sardines (canned) and eggs).

with increased expenditure levels. Four commodity groups — "other cereals, roots, and tubers," meat and dairy, fruit, and beverages — have elasticities greater than one over at least certain expenditure ranges. The beverage group, which includes alcohol, is a luxury good for all quartiles. Meat and dairy products, fruit, and "other cereals, roots, and tubers," have an elasticity in excess of one for all but the richest quartile. That meat and dairy products have an elasticity of 1.2 is not surprising. Elasticities in excess of one for fruit and "other cereals, roots, and tubers" on the other hand likely reflect high elasticities of certain goods in the grouping, such as apples in the case of the former, and pasta in the case of the latter.

Among food items, imported rice has the lowest income elasticity: across the sample a 1.00 percent increase in expenditure will lead to a 0.34 percent increase in imported rice expenditure. Increases in income among the richest quartile lead to a negligible increase in the purchase of imported rice, indicating that demand for imported rice is likely saturated at this quartile. Among the poorest quartile, the income elasticity for imported rice is 0.39, indicating a low elasticity for the staple commodity even among poorer households. The income elasticity for local rice, on the other hand, is more than double that of imported rice for the whole sample and is high even among high quartile households. The large difference in the elasticities of imported and local rice indicate that the two commodities are perceived as distinct and different goods by consumers.

CALORIES

While expenditure shares provide important insight into spending patterns, calorie shares provide a more direct indication of welfare from the nutritional perspective. Table 5 presents daily per capita caloric intake, in terms of share by commodity group, for each expenditure quintile.⁵ Across the entire sample, the mean daily per capita caloric intake is 2,348. The mean caloric intake in Conakry thus lies above the generally accepted minimum adult caloric requirement of 2,200. However, while quintiles three, four, and five surpass this benchmark level, the mean for quintile two falls 12 percent below this level and the mean for the lowest quintile falls 32 percent below this level. This data points to the fact that there is a potential of serious undernutrition among those in the lowest quintile.⁶

Along with variations in total calorie levels by quintile, the other most dramatic difference in calorie patterns between quintiles is the share of calories derived from rice. Rice (local and imported) constitutes the source of 38.6 percent of all calories consumed in

⁵ These figures were computed by converting grams of purchased and received foods into calories on the basis of standard calorie conversion factors. In the case of food away from home the calculation was based on expenditure levels and a conversion factor representing the mean price per calorie for the sample as a whole, multiplied by a "service charge" factor.

⁶ At the same time, care is required in interpreting these conclusions. To the extent that poorer households have large numbers of children, they will have a calorie requirement of less than 2200 per capita. Moreover, there appears to be a tendency of households to either understate or even to neglect reporting the actual value of food they consume away from home. This would lead to an understatement of actual caloric uptake.

Conakry. (Table 5). For the lowest quintile, however, rice is the source of about 51 percent of all calories, with imported rice alone being the source of 44.5 percent of total calories for the quintile. Households in higher quintiles diversify away from rice, the share of calories from rice in total caloric uptake falling off to 27.7 percent for the highest quintile.

That rice provides over 50 percent of all calories consumed by the poorest quintile reflects the fact that rice is the cheapest source of calories in Conakry. (Table 6) The average caloric price of imported rice is 21 percent less than that of the second cheapest source of calories (local rice), and 30 percent cheaper than the third cheapest source of calories (butter and oil).

Butter and oil in fact accounts for the next largest source of calories after imported rice (11.2 percent), followed by bread (9.3 percent), fish (8.6 percent), local rice (6.7 percent), and vegetables (6.6 percent). These patterns also reflect calorie prices. Bread is one of the five cheapest sources of calories (Table 6). Fish is the cheapest nonstarch source of calories. The price per calorie of fish is about 55 percent less than that of meat, a fact reflected in the choice of fish by poorer households.

Increased expenditure levels generally lead to increased share of calories from non-rice sources due to diversification of calorie sources away from rice. The notable exceptions are fish and vegetables, both of which experience a fall in calorie share contribution with an increase in

expenditure levels. In the case of the former it is due to the substitution of meat for fish by richer households.

Data on total mean expenditures by quintile, expenditure shares per commodity by quintile, and price per calorie paid by quintile permit the simple exercise of computing the level of per capita income required to attain given caloric per capita benchmark levels. Table 7 shows the computed level of income required to attain each of several per capita levels of calorie consumption using two sets of assumptions. Both sets of computations assume as constant the mean household size, the vector of prices per calorie, and the share of expenditure to food as that of the lowest quintile. The first set of computations also utilize the same vector of expenditure and calorie shares as observed among the poorest quintile. The exercise shows that to raise daily per capita levels from 1,500 to 2,000 calories will require a GF 3,667 increase in the per capita monthly expenditure of the lowest quintile, from GF 11,000 to GF 14,667. To attain the benchmark level of 2,200 calories per person per day would mean increasing monthly per capita expenditures to GF 16,133, or GF 5,133 over the current level.

These estimates hold true only if these households do not change their consumption pattern. In reality, however, increasing per capita expenditures will alter the prices paid per calorie by these households as well as the budget share to various commodities as households substitute away from rice and purchase commodities with higher income elasticities. The second set of calculations use the expenditure and calorie shares of the highest quintile rather than those of the lowest

quintile. Given the more expensive food bundle, to reach 2,200 calories per person per day would now require GF 27,965 in comparison to the GF 16,133 required to attain the same level of caloric consumption by the more cost-effective calorie consumption choices of the poorest quintile.

Table 8 shows variations in per capita caloric intake by household size. Reinforcing the observation with respect to expenditures, this data shows that with respect to calories too, larger households do not fare as well as smaller households. Whereas households with two to four members consume on mean 2,836 calories per capita per day, households of 16 plus members consume 1,736 calories per capita daily. Larger households also derive a larger share of their calories from bulky cereals in general and easy-to-prepare rice in particular. Compared to households of two to four people, which derive 38 percent of total calories from rice, households with greater than 16 members get 48 percent of calories from rice.

One person households stand out from all others in their consumption pattern. In particular, these households consume close to 50 percent of their total calories from food eaten away from home, in contrast to this commodity group's share of 7 percent among all households. (Table 8). The only other commodities for which calorie share for single-person households are *not* less than that among the average household are bread (13.3 percent versus 9.3 percent), milk and dairy (1.3 percent versus 0.8 percent), fruit (6.8 percent versus 4.2 percent), sugar (4.8 percent versus 3.5 percent), and beverages (0.7 percent versus 0.2 percent). As these figures would suggest, in general these one person households are

single, working men who may eat breakfast and snack food at home, but otherwise either purchase main meals away from home (from street vendors, etc.) or have food cooked for them, presumably by family members or women in the *concession*.

Table 9 sheds further light on the structurally different consumption and food habits between those who cook and eat at home and those who do not. "Non-cookers" have been defined as households that do not consume any rice, cereals (other than bread), grains, roots, or tubers, and who also consume none of the commodities in the meat and fish categories other than for eggs and sardines (eggs being a breakfast food and canned sardines being a snack food). Of the 1,725 households in the sample, 168, or close to 9.7 percent, are "non-cookers" so defined. Non-cookers derive 67 percent of all their calories from food away from home, 15 percent from bread, and 7 percent from fruit. They additionally get a disproportionate share of their calories, relative to "cookers" from milk and dairy, sugar, and beverages.

Table 9 shows that noncookers also consume less calories in total than do cookers. Noncookers appear to consume a mean of 1,884 calories in contrast the mean of 2,398 among cookers. However, given the tendency of households to understate the amount of food consumed away from home (and especially the common case of non-purchased food away from home), there is a likelihood of the understatement of total calorie consumption among noncookers, especially given their propensity to eat food away from home.

PRICES

Expenditure data from the survey provides valuable information about prices faced by different consumers and about the evolution of these prices in Conakry over the survey period. Figures 1, 2, 3, and 4 show the evolution of prices of rice, bounga (fish), chicken, and beef from January 1990 (month 1) to January 1991 (month 13).⁷ In these figures, (CFNPP) estimates are juxtaposed to those of the Statistical Division of the Ministry of Plan (MPCI), the Division which has tracked prices and calculated the national consumer price index. Curiously, although in most cases the MPCI prices roughly follow the same general pattern as prices recorded in the survey, they are often very different, sometimes not even varying from one month to another. Among other reasons, the difference between CFNPP and MPCI estimates is due to the fact that the latter is based on spot monitoring of prices, presumably of a given quality and in specific markets, whereas the CFNPP prices are mean prices paid throughout the city, regardless of quality. The fact that CFNPP estimates are lower than those recorded by the MPCI is also not surprising as consumers, in contrast to price surveyors, look for the best possible purchase price.

Figure 1 shows that the price of imported rice is consistently below that of local rice. On average, imported rice has been approximately 20 percent cheaper than that of local rice. The price of imported rice, as

⁷ The figures displayed are 3 month moving averages since the sampling was designed to be random over a trimester period.

expected, does not fluctuate as much as that of local rice. The seasonal increase in the price of local rice during the *soudure* (July through September) is noticeable commencing in August; but local rice prices started to fall again after October. In conjunction with the gradually increasing price of imported rice, the margin between local and imported varieties had fallen to 17 percent by January 1991. The increased price of imported rice over that period may well have to do with the imposition of added restrictions on rice imports during the course of 1991.

Table 10 presents the mean weighted average kilogram prices of various commodity groups over the entire survey period, by quintile. With respect to commodity groups that consist of single and homogeneous goods, such as bread and sugar for example, there is little variation in the prices paid by quintile. In the case of imported rice too, what little variation there is shows a decline in the imported rice price paid by richer households. This is likely a function of bulk purchases by these households (buying by the sack rather than by the cup).

For most other commodity groups, as expected, Table 10 shows that richer households pay a higher price per kilogram than do poorer households. This is reaffirmed by the caloric price data in Table 6. The last row in Table 6 presents the weighted average price per calorie paid by each quintile. Although the mean caloric price across all households is GF 0.275 per calorie, the highest quintile pays on average GF 0.389 per calorie, while the lowest quintile pays 44 percent less per calorie, or GF 0.220 per calorie on average.

The higher price paid per kilogram and per calorie by richer households is due to two main reasons. First, richer households will likely buy higher quality goods than poorer households. Second, richer households are also likely to consume a different bundle of commodities *within* a commodity group than would a poorer household. For example, the mean price per kilogram of meat (which includes chicken, beef, pork and mutton) of GF 1,482 paid by the top quintile may be higher than the lowest quintile's mean price of GF 1,389 not only because the richer households are buying better chicken but also because they are buying imported beef which, regardless of quality, has a higher price than chicken.

In order to filter out the intra-commodity-group compositional effect, a price index was computed for each group by household. This index, presented in Table 11, measures, for each household, the deviation of the price paid for each good within a commodity group from the mean price of that good across all households. It then weights each deviation (relative price) by the respective importance (expenditure share in the commodity group) of each good purchased by each household. The formula used to calculate the index is presented in the note to Table 11.

Table 11 shows that there is in fact very little difference in the kilogram prices paid by quintile once intra-group compositional differences have been filtered out. In general there is little quality-related price differentiation. The only commodity groups for which prices appear to increase consistently across commodity groups, even if not by much, are the other grains, roots, and tubers group, as well as

the meat, the fish, and the fruit groups. These are all commodity groups for which it is likely to observe significant variations in the quality of each of the goods that constitute the group.

Whereas there is little price variation across quintiles, Figures 5 through 10, which plot the computed price indices by month, reveal some interesting price variations over time.⁸ The prices of all commodity groups have increased from January 1990 to January 1991, reflecting economy wide inflation experienced in 1990.⁹ However some commodities have experienced more dramatic price increases than others. Bread experienced only a gradual price increase over the survey period.

(Figure 5) In January 1991 bread prices were approximately 10 percent more expensive than they were a year earlier. Figure 6, on the other hand, shows the much more rapid increase in meat prices in 1991. Between April and October 1991 alone, meat prices increased by close to 18 percent, before stabilizing by December. As some meat is imported, part of the increase in meat prices may be attributed directly to the exchange rate, which was devalued by four percent in four months. The exchange rate, along with increased fuel prices, also plays a role in driving up the general, economy-wide price level. Butter and oil, an important source of calories among the poor, consequently also experienced a steady increase in prices. (Figure 7) Between April 1991 and January 1992, the

⁸ Once again, what is presented in the figure is a three-month moving average.

⁹ Official data from the MPCCI indicate a general consumer price index (CPI) increase of 19.37 percent for 1990.

price index for this group had increased by 45 percent. Milk and dairy prices also increased by almost 60 percent between April and October. (Figure 8).

Some prices, such as those for local rice (see Figure 1 discussed earlier) exhibit further seasonal price variation. Figure 9 shows a sharp increase in fish prices between May and September, following a fall in prices between February and May. This pattern is in part seasonally driven, with prices rising during the rainy season when seas are rough. Fruit prices, presented in Figure 10, also show similar variation, with prices increasing sharply, but then declining thereafter.

Table 1 — Total Monthly Expenditures by Quintile

	Quintile					All
	1	2	3	4	5	
Mean Per Capita Expenditure (GF)	11,906.39	18,775.35	25,847.38	37,328.23	90,394.69	36,850.00
Mean Household Expenditure (GF)	122,865.72	149,119.89	173,896.20	209,704.45	299,533.76	191,024.00
Household Size	10.6	8.0	6.8	5.7	3.7	7.0

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 2 — Mean Per Capita Expenditure Shares by Quintile

	Quintile					All
	1	2	3	4	5	
	Percentage					
1 Local Rice	2.03	1.53	1.97	1.45	0.92	1.58
2 Imported Rice	13.38	9.65	7.09	5.13	2.37	7.53
3 Other Grains, Roots, Tubers	2.17	2.27	2.51	2.25	1.54	2.15
4 Bread	5.98	5.24	4.44	3.70	2.44	4.36
5 Meat	4.85	6.20	7.60	7.36	6.01	6.40
6 Fish	9.93	8.25	7.35	6.34	3.48	7.07
7 Milk and Dairy	1.55	2.08	2.86	2.77	2.50	2.35
8 Vegetables	9.55	8.74	7.76	6.32	3.78	7.23
9 Fruit	2.41	2.84	3.33	3.63	3.09	3.06
10 Butter and Oil	3.83	3.33	3.06	2.62	1.55	2.88
11 Spices	3.54	2.96	2.57	2.14	1.16	2.48
12 Sugar	2.04	1.87	1.65	1.20	0.89	1.53
13 Beverages	1.13	1.49	1.61	2.25	2.77	1.85
14 Food Away From Home	1.34	2.45	2.59	3.92	5.17	3.09
15 Fuel	7.36	6.47	5.76	4.58	2.92	5.42
16 Domestic Consumables	3.54	3.36	3.08	2.99	2.38	3.07
17 Clothes and Shoes	2.97	4.49	5.43	5.08	6.11	4.82
18 Housing, Household Durables, Utilities, Taxes	6.60	7.53	8.78	10.87	16.34	10.02
19 Personal, Discretionary, Recreation, Ceremony	5.88	7.36	8.54	10.58	16.79	9.83
20 Transport	6.29	8.04	8.65	11.07	14.66	9.74
21 Education	1.64	1.69	1.38	1.10	0.81	1.33
22 Health	1.99	2.14	1.99	2.63	2.31	2.21
Total	100.00	100.00	100.00	100.00	100.00	100.00
Food Share	63.72	58.91	56.39	51.10	37.67	53.56
Nonfood Share	36.28	41.09	43.61	48.90	62.33	46.44

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 3 — Percentage of Households Consuming of Commodity Among Households in Quintile

	Quintile					All
	1	2	3	4	5	
	Percentage					
1 Local Rice	24.06	27.83	33.91	34.20	28.41	29.68
2 Imported Rice	88.41	87.25	83.19	78.84	59.42	79.42
3 Other Grains, Roots, Tubers	84.64	87.83	85.51	84.93	66.38	81.86
4 Bread	85.22	90.72	92.46	87.25	85.51	88.23
5 Meat	82.03	88.12	91.30	86.38	78.26	85.22
6 Fish	94.78	94.49	93.04	86.96	71.01	88.06
7 Milk and Dairy	45.80	65.22	77.10	79.13	84.06	70.26
8 Vegetables	94.78	95.65	95.07	88.41	75.07	89.80
9 Fruit	80.00	86.96	86.09	90.72	86.67	86.09
10 Butter and Oil	91.30	92.75	92.46	86.09	74.49	87.42
11 Spices	93.33	94.20	93.33	86.09	70.43	87.48
12 Sugar	84.64	91.01	90.72	85.51	80.58	86.49
13 Beverages	86.67	92.75	92.46	93.04	92.17	91.42
14 Food Away From Home	22.32	26.09	25.51	33.33	44.35	30.32
n	345	345	345	345	345	1725

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 4 — Income Elasticities by Per Capita Expenditure Quartile

	Quartile				All
	1	2	3	4	
Local Rice	0.763	0.689	0.756	0.616	0.707
Imported Rice ^a	0.387	0.250	0.100	0.002	0.337
Other Grains, Roots, Tubers ^a	1.199	1.095	1.025	0.869	0.989
Bread	0.696	0.642	0.573	0.323	0.597
Meat and Dairy ^a	1.912	1.651	1.244	0.947	1.203
Fish	0.657	0.597	0.540	0.343	0.561
Vegetables	0.673	0.638	0.591	0.440	0.602
Fruit ^a	1.666	1.338	1.168	0.896	1.120
Butter & Oil	0.682	0.634	0.619	0.445	0.605
Spices	0.575	0.484	0.423	0.131	0.436
Sugar	0.652	0.599	0.558	0.261	0.556
Beverages	1.501	1.394	1.353	1.236	1.345
Food Away from Home	0.574	0.463	0.602	0.739	0.621

Source: CFNPP/ENCOMEC 1990 Survey data.

Note: Regression estimates are based on the sample of 1557 households that cook at home.

^a Signifies estimation from quadratic natural log function; otherwise, estimates are based on a linear natural log function.

Table 5 — Daily Per Capita Caloric Intake by Commodity Group by Quintile

	Quintile					All
	1	2	3	4	5	
	Percentage					
1 Local Rice	6.31	5.53	8.08	6.94	6.55	6.74
2 Imported Rice	44.51	39.82	34.01	30.30	21.15	31.81
3 Other Grains, Roots, Tubers	3.37	4.45	5.45	5.49	5.54	5.05
4 Bread	8.67	9.28	8.86	8.96	10.09	9.28
5 Meat	1.73	2.52	3.59	4.22	5.77	3.94
6 Fish	9.84	9.23	9.16	8.79	7.01	8.56
7 Milk and Dairy	0.24	0.39	0.79	0.77	1.24	0.78
8 Vegetables	6.68	7.06	7.42	6.53	5.87	6.62
9 Fruit	2.34	2.79	3.48	4.52	6.06	4.19
10 Butter and Oil	10.89	11.35	11.03	12.22	10.39	11.16
11 Spices	0.84	0.89	0.94	1.08	1.07	0.99
12 Sugar	3.17	3.55	3.52	3.16	3.91	3.51
13 Beverages	0.02	0.06	0.07	0.13	0.36	0.16
14 Food Away From Home	1.38	3.09	3.60	6.89	15.00	7.22
Calorie Shares	100.00	100.00	100.00	100.00	100.00	100.00
Calories	1,500.36	1,930.07	2,292.69	2,687.94	3,330.57	2,348.32

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 6 — Price Per Calorie Per Commodity Group by Quintile

	Quintile					All
	1	2	3	4	5	
	Price Per Calorie					
1 Local Rice	0.094	0.092	0.098	0.098	0.100	0.097
2 Imported Rice	0.078	0.078	0.077	0.077	0.077	0.077
3 Other Grains, Roots, Tubers	0.327	0.282	0.292	0.288	0.294	0.297
4 Bread	0.191	0.189	0.192	0.191	0.192	0.191
5 Meat	0.800	0.837	0.826	0.831	0.861	0.831
6 Fish	0.312	0.333	0.352	0.401	0.488	0.371
7 Milk and Dairy	1.939	1.998	2.020	1.940	1.945	1.970
8 Vegetables	0.533	0.561	0.567	0.652	0.786	0.612
9 Fruit	0.377	0.407	0.422	0.429	0.568	0.442
10 Butter and Oil	0.097	0.099	0.114	0.112	0.133	0.110
11 Spices	4.482	4.331	4.393	4.870	4.934	4.580
12 Sugar	0.174	0.175	0.177	0.174	0.175	0.175
13 Beverages	17.734	16.883	16.543	16.292	16.905	16.860
14 Food Away From Home	0.245	0.231	0.250	0.265	0.331	0.273
Total	0.220	0.238	0.260	0.298	0.389	0.275

Source: CFNPP/ENCOMEC 1990 Survey data.

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Table 7 — Computed Per Capita Expenditure Levels Required to Purchase a Given Level of Per Capita Calories

	Daily Per Capita Calorie Level (assumed)	Monthly Per Capita Expenditure Level in GF (Computed)	
		Assuming Calorie Shares of Quintile 1	Assuming Calorie Shares of Quintile 5
Actual	1,500	11,000	19,607
Simulation 1	1,800	13,200	22,881
Simulation 2	2,000	14,667	25,423
Simulation 3	2,200	16,133	27,965

Source: CFNPP/ENCOMEC 1990 Survey data.

Note: Computations assume fixed quintile (1) total average price per calories per commodity group and (2) total nonfood expenditure shares.

Table 8 - Daily Per Capita Caloric Intake by Commodity Group by Household Size

	Household Size						All
	1	2-4	5-7	8-10	11-15	16 plus	
	Percentage						
1 Local Rice	1.69	7.52	6.90	8.51	5.68	8.27	6.74
2 Imported Rice	7.56	30.33	35.90	35.78	41.87	39.62	51.81
3 Other Grains, Roots, Tubers	2.08	5.14	5.67	5.81	4.30	6.54	5.05
4 Bread	13.28	8.47	8.94	9.01	9.40	8.41	9.28
5 Meat	3.14	4.32	4.10	5.76	3.56	3.47	3.94
6 Fish	3.59	9.85	8.94	9.04	8.48	7.51	8.56
7 Milk and Dairy	1.32	0.70	0.73	0.58	0.87	0.75	0.78
8 Vegetables	2.77	7.18	7.19	7.34	6.52	6.15	6.62
9 Fruit	6.76	4.36	3.70	3.60	3.33	3.71	4.19
10 Butter and Oil	4.07	13.04	11.82	11.47	10.64	10.36	11.16
11 Spices	0.56	1.17	1.06	0.77	0.96	0.95	0.99
12 Sugar	4.85	3.39	3.40	3.29	3.20	3.25	3.51
13 Beverages	0.68	0.11	0.10	0.08	0.07	0.05	0.16
14 Food Away From Home	47.66	4.40	1.54	0.96	1.13	0.94	7.22
Calorie Share	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Calories	2,815.15	2,835.79	2,349.87	1,945.66	1,845.64	1,735.76	2,348.32

Source: CFNPP/ENCOMEC 1990 Survey data.

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Table 9 — Daily Per Capita Caloric Intake by Commodity Group: Cookers vs. Noncookers

Commodity Group	Cookers			Non-Cookers		
	Calories	Calorie Share	Percent Consuming Commodity (n=1557)	Calories	Calorie Share	Percent Consuming Commodity (n=168)
1 Local Rice	175.36	0.073	32.88	0.00	0.000	0.00
2 Imported Rice	827.63	0.345	87.99	0.00	0.000	0.00
3 Other Grains, Roots, Tubers	131.51	0.055	90.69	0.00	0.000	0.00
4 Bread	210.17	0.088	91.46	288.62	0.153	58.33
5 Meat	101.13	0.042	92.61	12.18	0.006	16.67
6 Fish	222.21	0.093	96.40	5.55	0.003	10.71
7 Milk and Dairy	16.94	0.007	72.32	30.07	0.016	51.19
8 Vegetables	169.15	0.071	98.46	29.01	0.015	9.52
9 Fruit	95.41	0.040	89.34	126.04	0.067	55.95
10 Butter and Oil	287.25	0.120	95.05	27.63	0.015	16.67
11 Spices	25.17	0.010	96.53	4.98	0.003	3.57
12 Sugar	81.18	0.034	90.56	93.95	0.050	48.81
13 Beverages	3.20	0.001	93.13	8.42	0.004	75.60
14 Food Away From Home	52.08	0.022	24.86	1,257.82	0.668	80.95
Total	2,398.39	1.000		1,884.28	1.000	

Source: CFNPP/ENCOMEC 1990 Survey data.

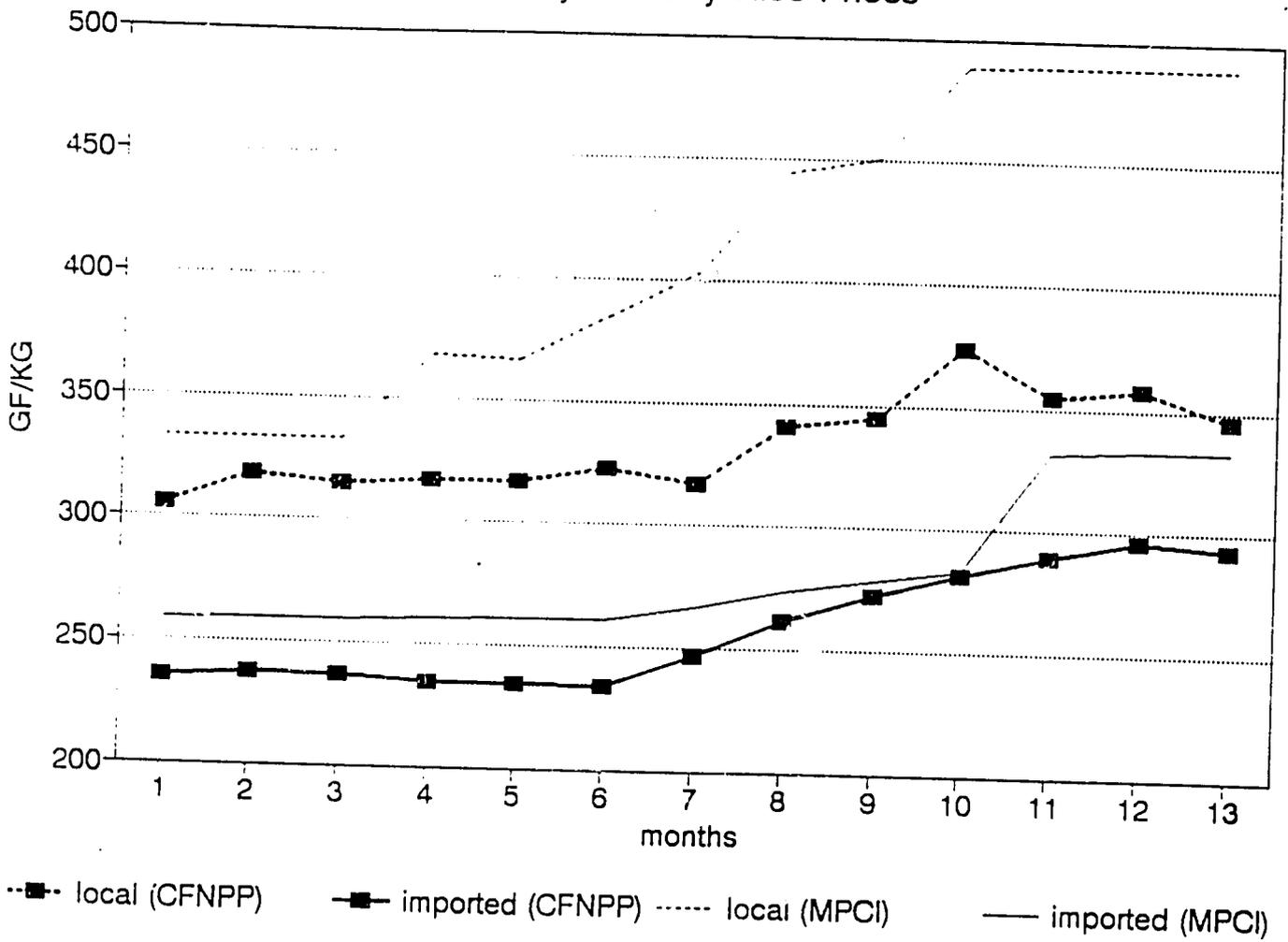
Table 10 - Mean Price Per Kilogram Per Commodity Group by Quintile

	Quintile					All
	1	2	3	4	5	
	GF/KG					
1 Local Rice	309.95	304.78	324.56	323.29	332.52	319.71
2 Imported Rice	257.00	256.94	255.93	254.48	253.46	255.73
3 Other Grains, Roots, Tubers	577.85	477.21	495.74	489.67	480.64	505.04
4 Bread	533.53	527.37	535.43	533.33	536.54	533.21
5 Meat	1,389.15	1,447.29	1,431.67	1,442.91	1,481.76	1,438.19
6 Fish	718.57	747.17	804.70	848.30	927.62	802.25
7 Milk and Dairy	1,486.89	1,386.95	1,477.63	1,460.41	1,577.32	1,481.98
8 Vegetables	454.93	434.09	475.16	504.93	514.02	455.15
9 Fruit	234.33	271.91	269.18	283.91	359.99	284.64
10 Butter and Oil	845.94	853.53	972.91	948.94	1,089.65	936.23
11 Spices	692.37	675.91	663.86	696.72	724.63	688.27
12 Sugar	697.91	698.24	706.63	697.65	698.96	699.95
13 Beverages	6,207.03	5,908.95	5,789.96	5,702.06	5,916.74	5,900.85

Source: CFNPP/ENCOMEC 1990 Survey data.

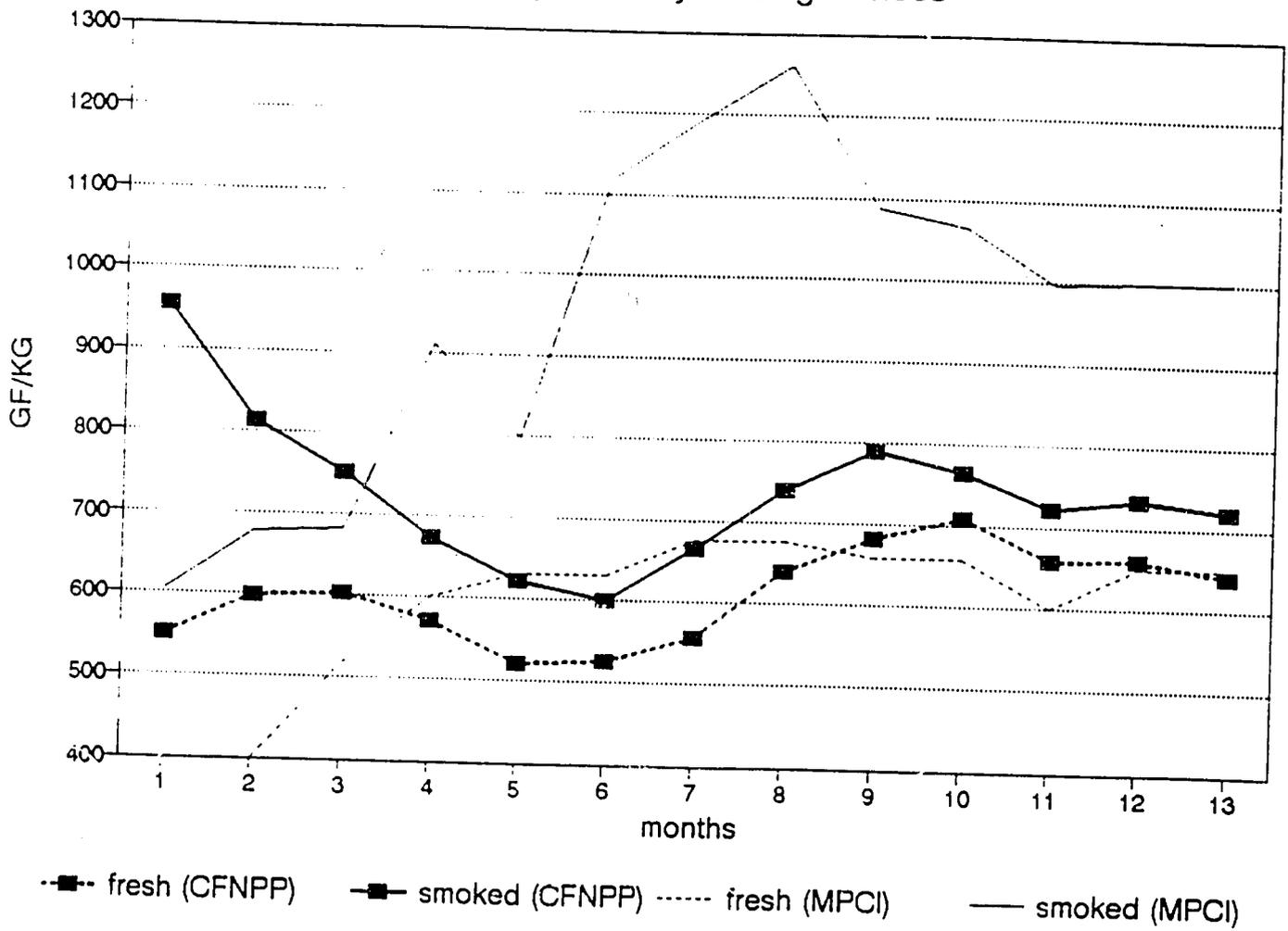
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Figure 1:
Conakry Monthly Rice Prices



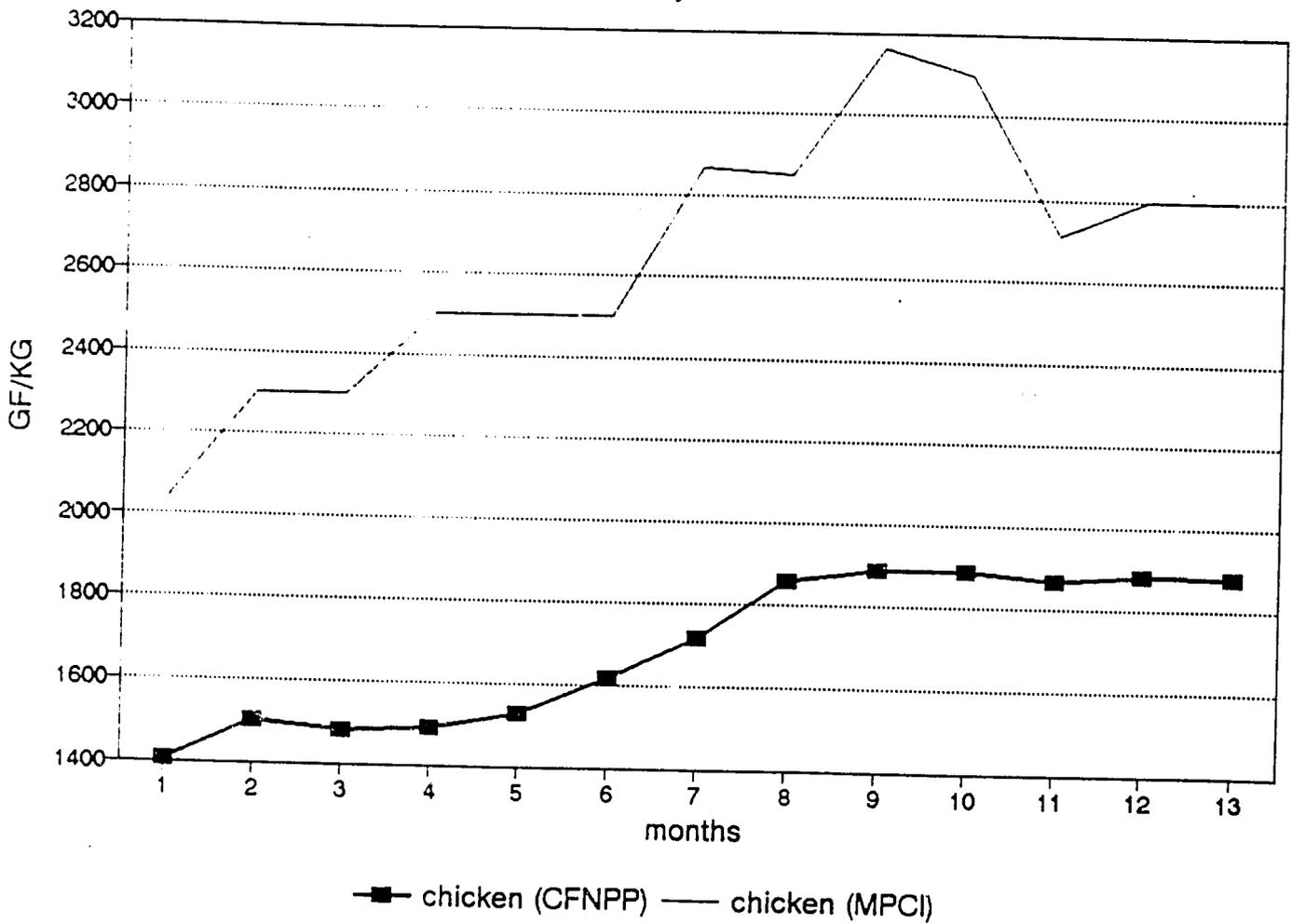
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 2:
Conakry Monthly Bounga Prices



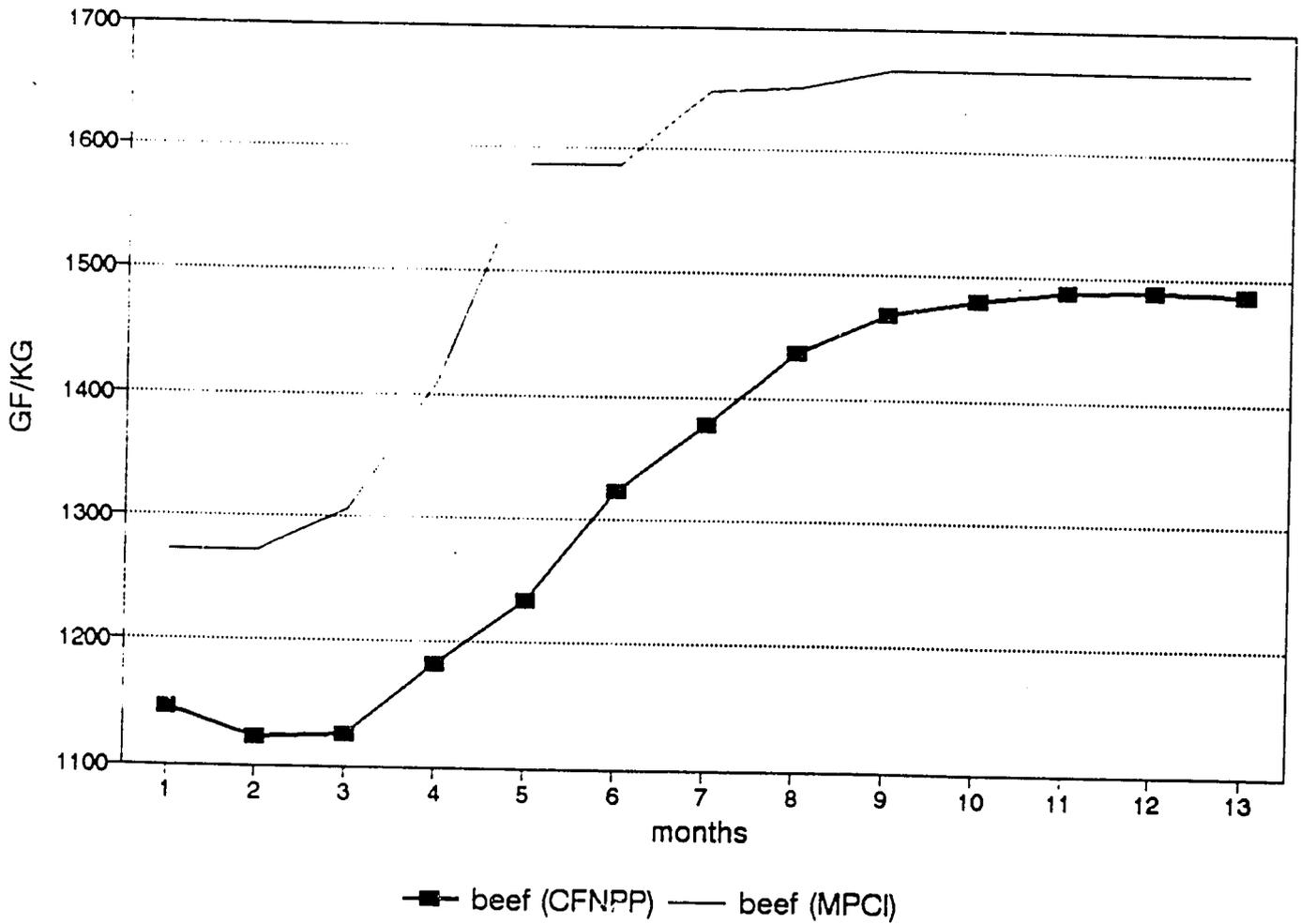
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 3:
Conakry Monthly Chicken Prices



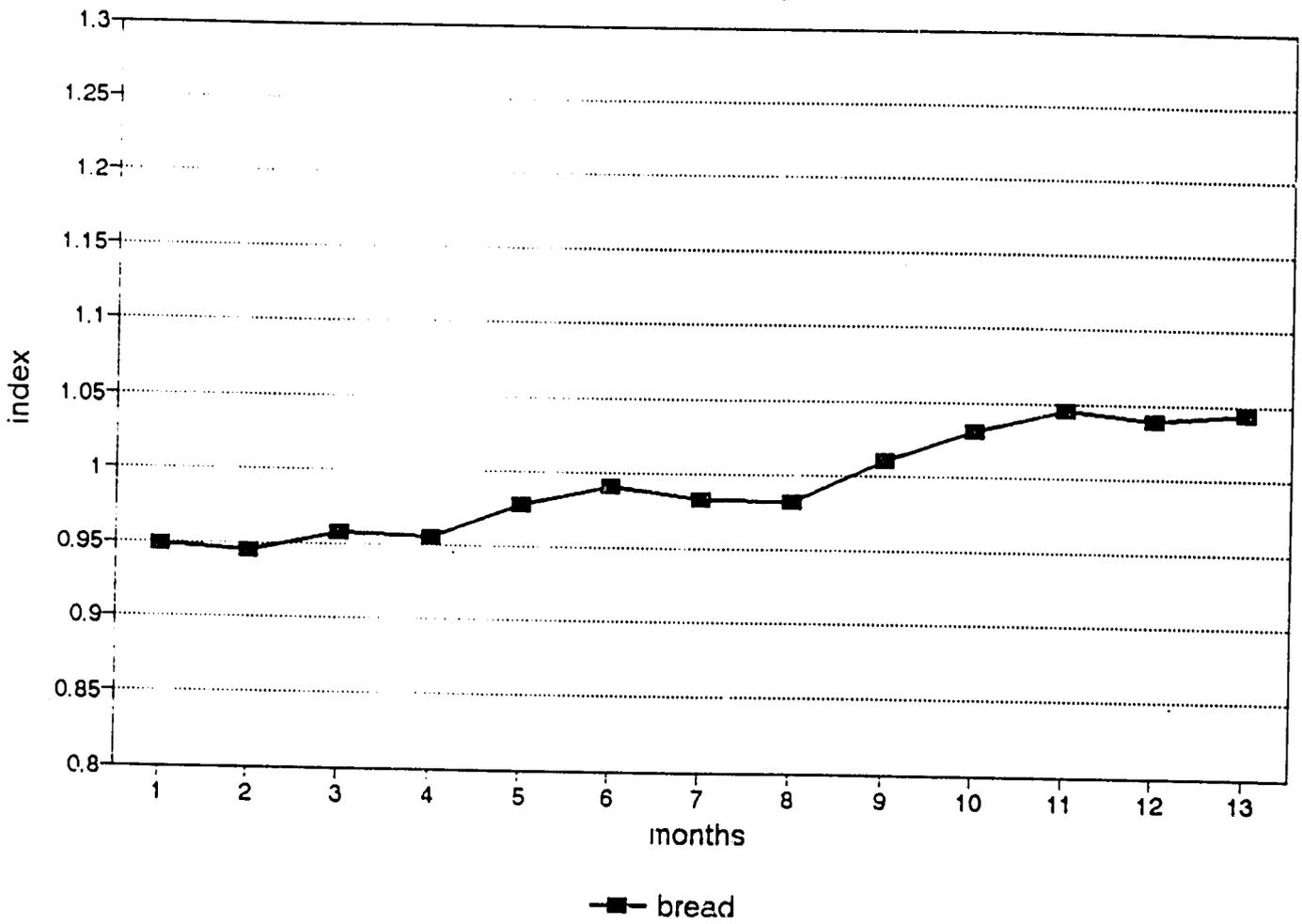
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 4:
Conakry Monthly Beef Prices



Source: CFNPP/ENCOMEC 1990 Survey data.

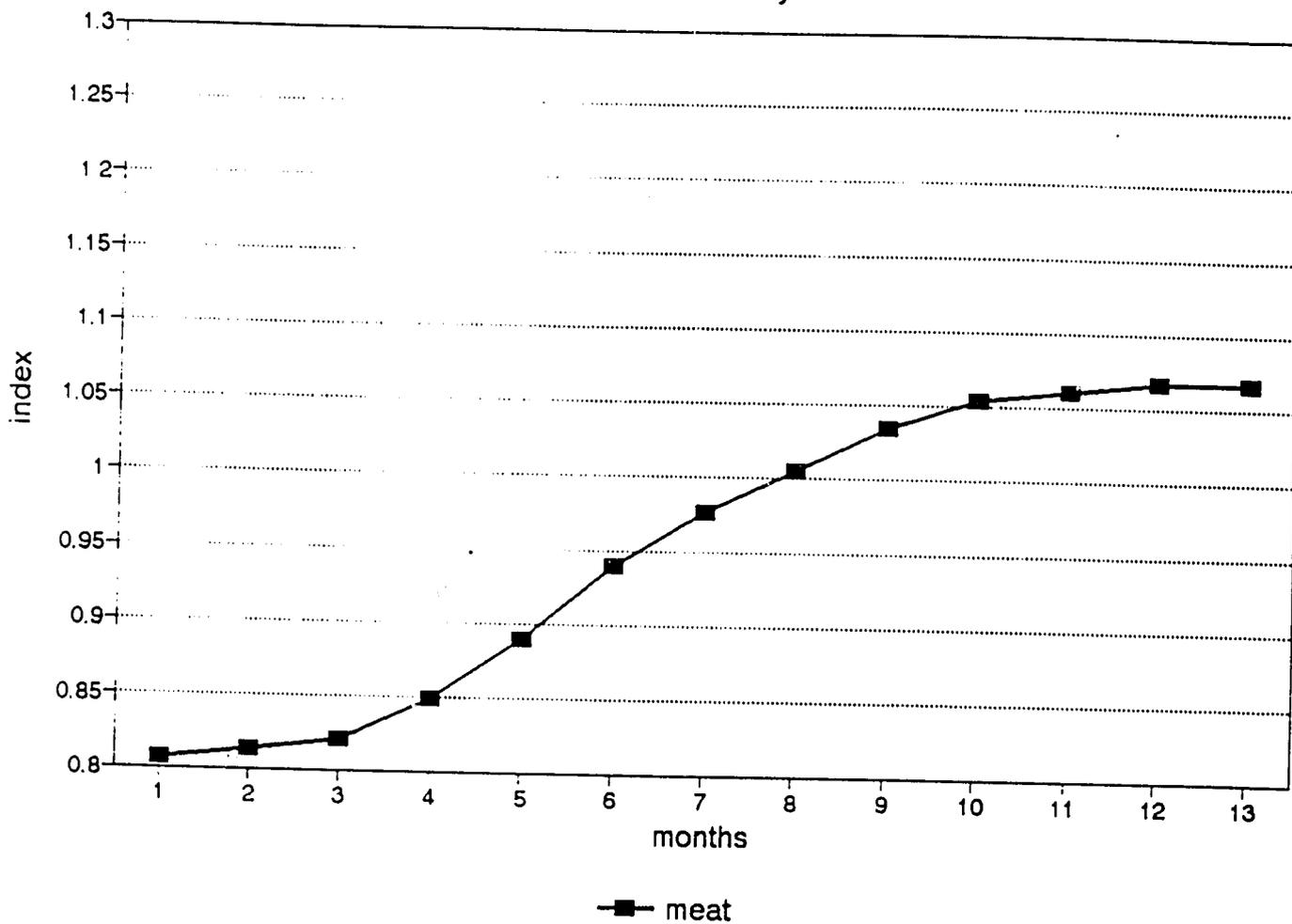
Figure 5:
Bread Price Index by Month



Source: CFNPP/ENCOMEC 1990 Survey data.

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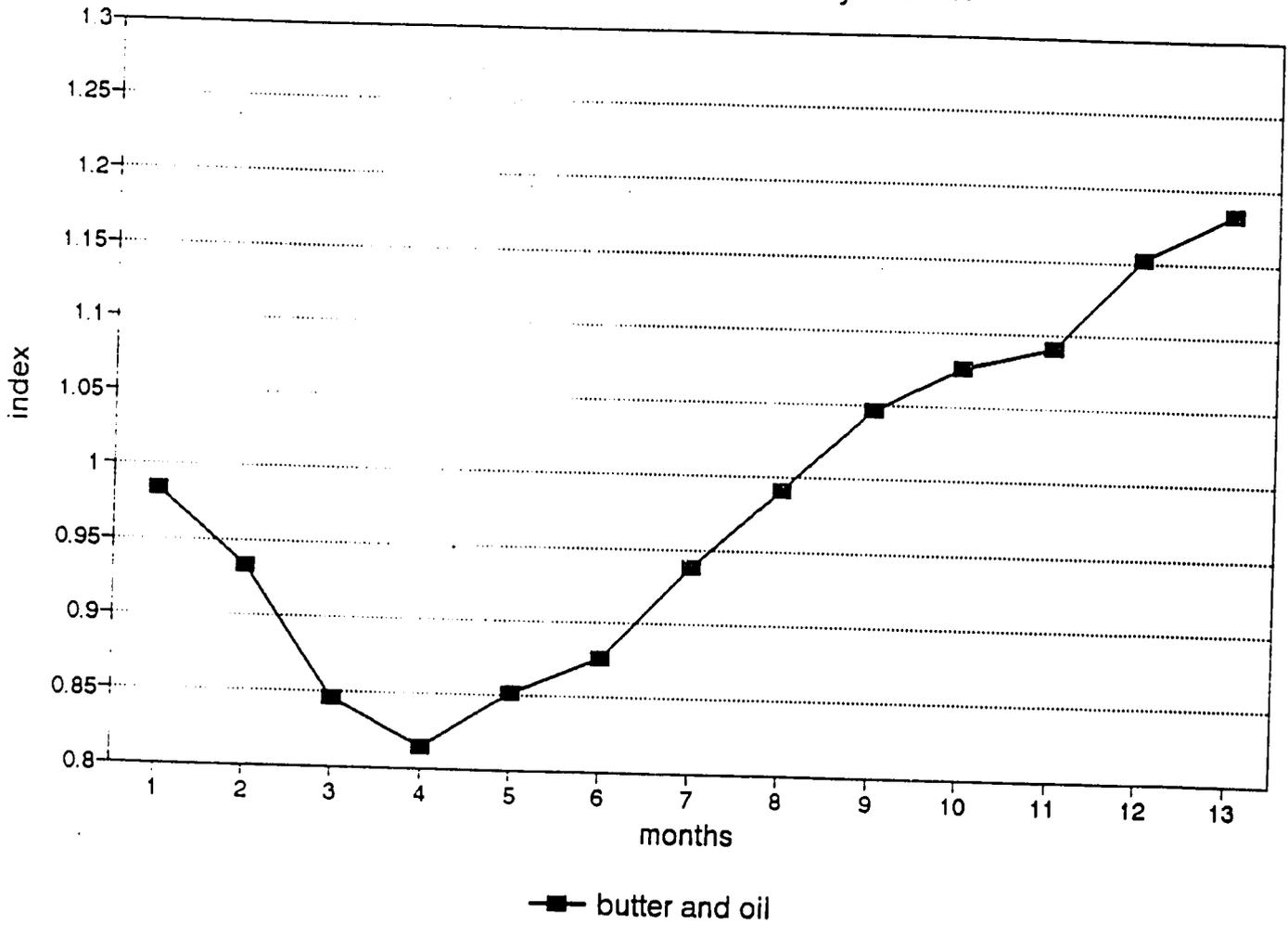
Figure 6:
Meat Price Index by Month



Source: CFNPP/ENCOMEC 1990 Survey data.

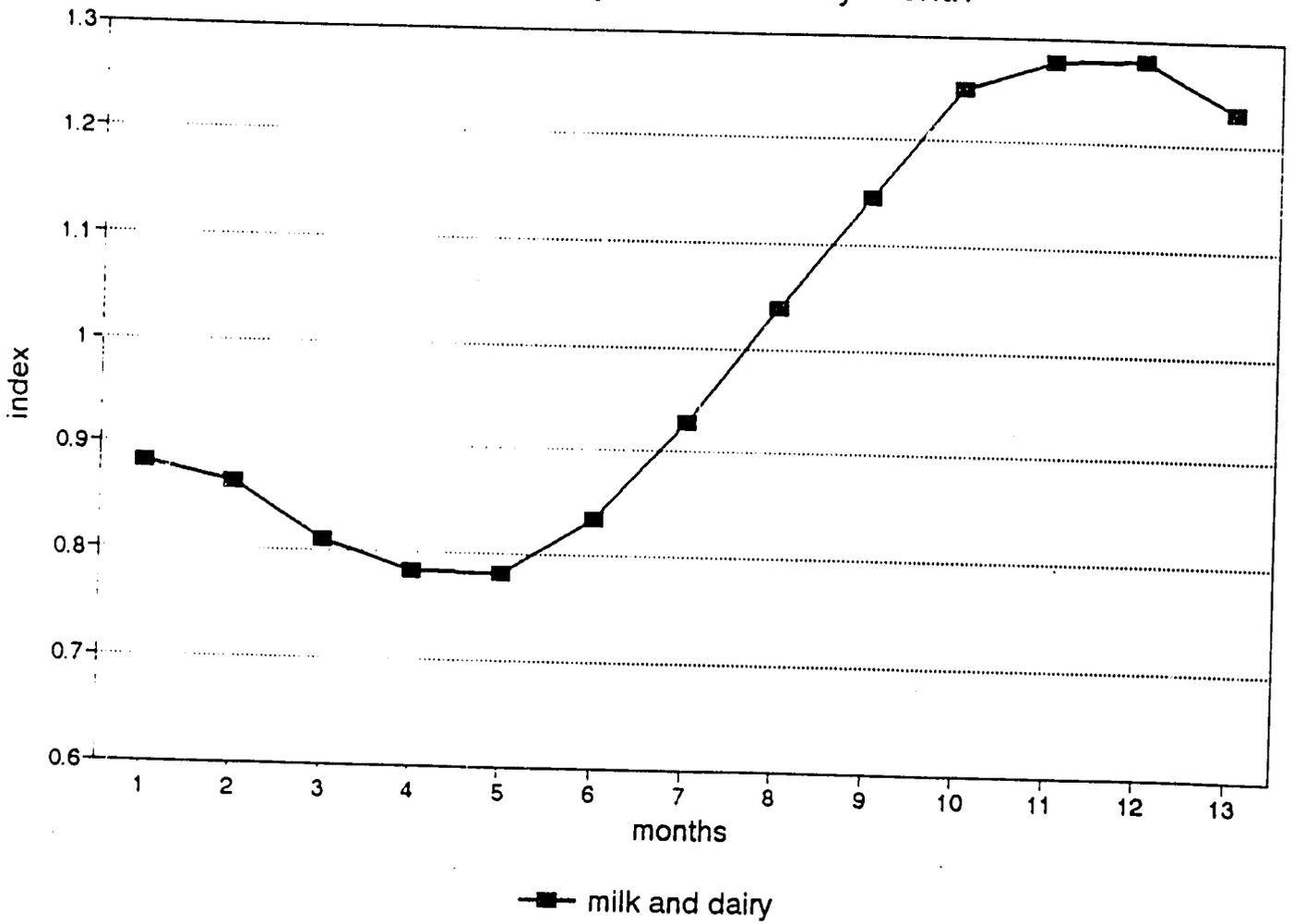
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Figure 7:
Butter and Oil Price Index by Month



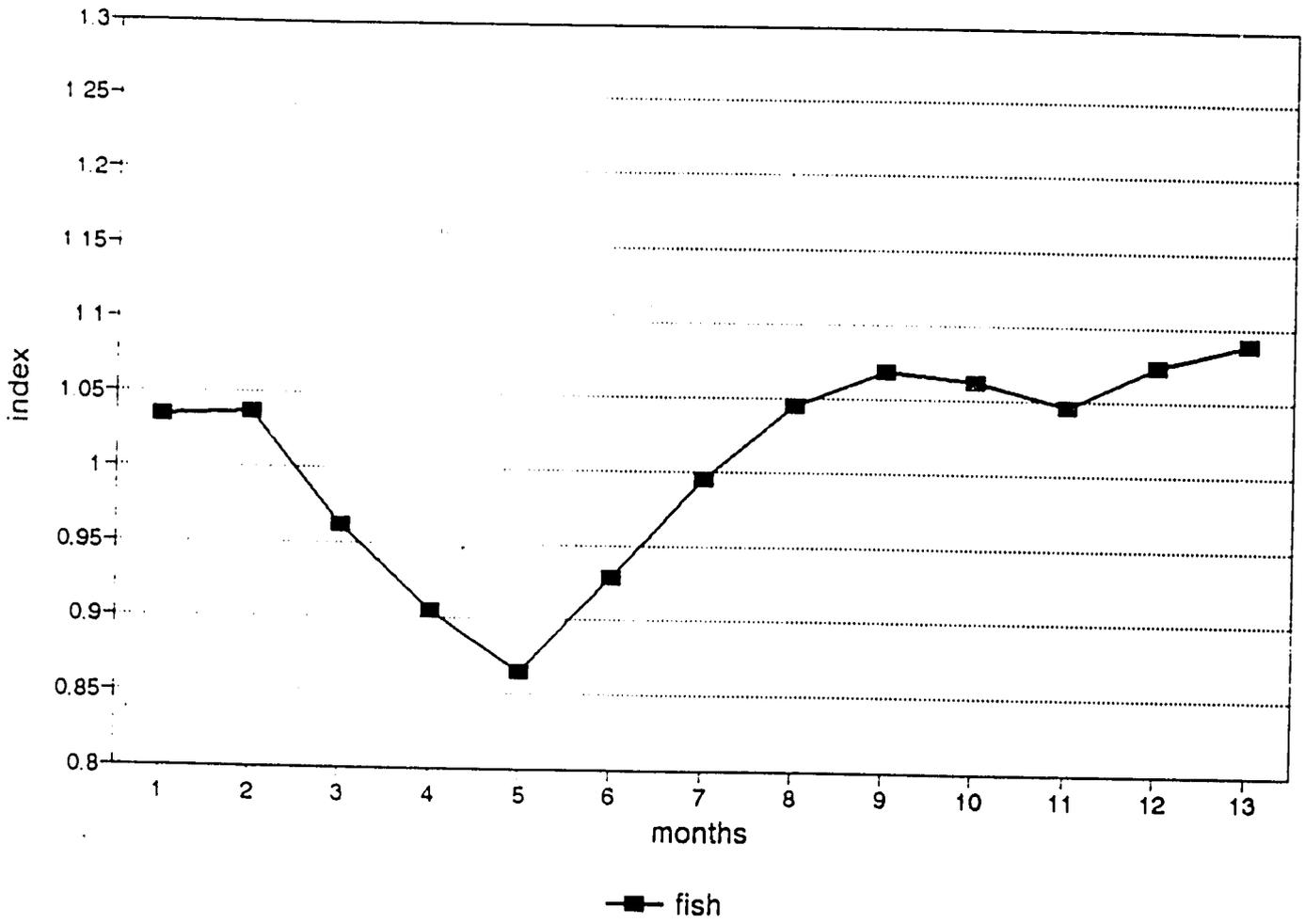
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 8:
Milk and Dairy Price Index by Month



Source: CFNPP/ENCOMEC 1990 Survey data.

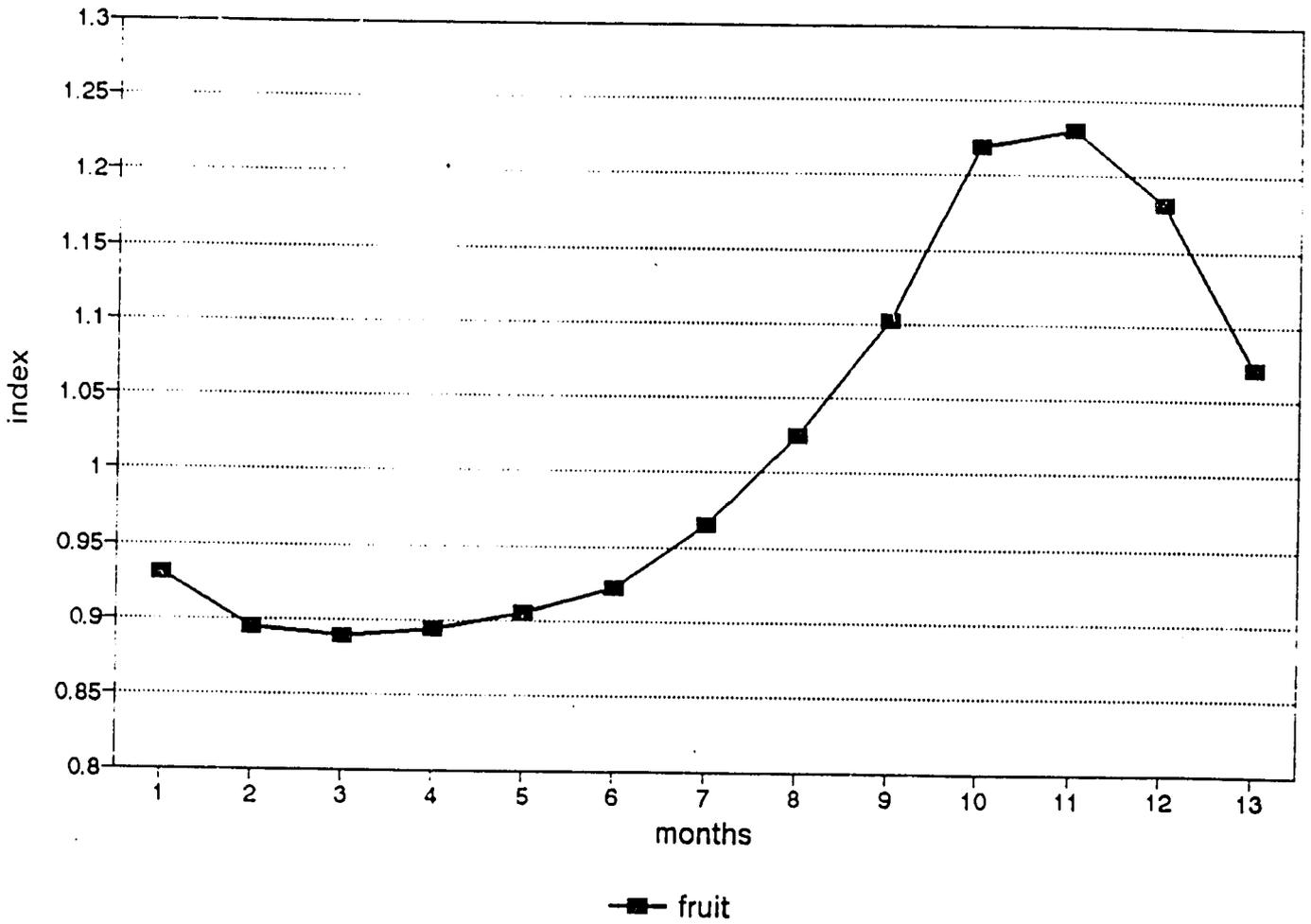
Figure 9:
Fish Price Index by Month



Source: CFNPP/ENCOMEC 1990 Survey data.

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Figure 10:
Fruit Price Index by Month



Source: CFNPP/ENCOMEC 1990 Survey data.