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PRICE CONTROLS,

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THE GHANAIAN EXPERIENCE

by

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Price Controls, Inflation and Income Distribution: the Ghanaian Experience

Abstract

Price controls are best seen as an instrument of social policy and in Ghana were intended to influence the distribution of incomes in an egalitarian direction. However, they were not well designed to achieve this objective, for they excluded the most important items of low-income consumption, included semi-luxury items, and were not accompanied by any formal system of rationing.

On the basis of 1970 data, however, it appears that the controls were largely ignored, with only a 17% observance rate being recorded. Moreover, evidence is presented suggesting that a low observance rate obtained throughout the nineteen-sixties. The controls were apparently unable to do more than slightly modify the outcome of the normal interaction of supply and demand, and associated with this successful assertion of the power of the market mechanism was an apparently rather efficient degree of competition within the distributive system. To the extent that they had any effect at all, the controls probably tended to increase inequalities in living standards, but the low enforcement rate meant that price controls were largely impotent to affect the distribution of incomes in Ghana.

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Price Controls, Inflation and Income Distribution: the Ghanaian Experience*

By Tony Killick

I - Introduction

In Ghana, as in other countries, concern with the economic and social consequences of inflation has induced successive governments to maintain a system of statutory retail price controls. The economics profession tends to be skeptical of the desirability and effectiveness of price controls and this paper seeks to throw some light on this issue, as it applies to conditions in developing countries, by examining the operation of price controls in Ghana during the nineteen-sixties. The next section sets out an elementary discussion of what an effective system of price controls can reasonably be expected to achieve. This generates some questions and hypotheses to be taken up in the remainder of the paper. The succeeding sections deal respectively with an analysis of the 1969 price list, changes in control prices over time, the extent of observance and evasion of the controls, and the effect on the rate of growth of money wages. Before proceeding, however, something needs to be said about the history and purposes of price controls in Ghana.

Although attempts were made to institute some retail price controls in the colonial period, the introduction of the system of price controls as it exists in present-day Ghana roughly coincided with the imposition of quantitative import restrictions at the beginning of 1962. As will be shown, the price list that was promulgated in 1962 and as it developed during the sixties, was largely confined to imported consumer goods or locally manufactured consumer goods with a high import content. The controls could thus be seen as an instrument of social policy intended to protect consumers by preventing importers and local manufacturers from earning monopoly rents arising from import restrictions (and other forms of industrial protection). However, successive governments thought of the controls as going beyond this and as an egalitarian device for safeguarding the interests of the poor. Thus, when he introduced the second reading of what later became the 1962 Control of Prices Act, the then Minister of Finance and Trade talked of the need to "bring the prices of the commodities needed by the masses within the

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* This study was undertaken while I was a member of the Harvard Development Advisory Service group working with the Government of Ghana. The assistance of Ghana's Central Bureau of Statistics and Mr. V.L.K. Solormey is gratefully acknowledged, as also are the helpful comments on an earlier draft by Sieb Miedema, J. Clark Leith, Joseph J. Stern and John Odling-Smee. The arguments presented here are the sole responsibility of the author and should not be taken as necessarily coinciding with the views of either the Government of Ghana or the Harvard Development Advisory Service.
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reach of everybody", and commended the Bill because it would ensure that "the people are not deprived of decent and inexpensive living by one privileged class".1/

During the sixties, however, it became widely believed that the controls were proving ineffectual, and shortly before the military coup of January 1972 the Government greatly reduced the number of items covered by the controls. That Government was seen to want to abolish them altogether but the military regime which took over reverted to a very extensive price list, stated it would make it even more comprehensive (for including vehicle spare parts, for example), and increased the penalties for contravening the controls.2/ The military, at least, seemed to believe that price controls were an effective instrument of Government policy. Whether such faith was warranted by the evidence is the subject matter of this paper, and the next section takes up the question of what can reasonably be expected of a system of price controls similar to the one that was instituted in Ghana.

II - What can price controls do?

The case to be analysed here is one in which import restrictions have created an excess of demand over supply at the pre-existing price level, and where the Government wishes to avoid (or mitigate) the effects on the distribution of income that would result if prices rose sufficiently to bring demand and supply back into equality. In the absence of price controls, import restrictions would tend to generate monopoly rents for importers and local producers of import-substitutes, at the expense of the final consumer (although this would not hold if the price elasticities of demand for the affected goods were large). Controls can in these circumstances be seen as an attempt to hold prices at or near to the levels that obtained before the imposition of import restrictions.

Consider now the limits within which control prices must be set. The upper limit is the most obvious: it should be at least slightly below the new market-clearing price, otherwise the control is redundant and the resources devoted to its preparation, promulgation and enforcement are wasted. The lower limit is a little less clear. If price controls are not to defeat their purpose of protecting consumers' real incomes, they must not be set so low that it becomes unprofitable to make or distribute the goods in question. Defining as normal that level of profits necessary to induce suppliers and traders to produce and distribute, the lower limit of the control prices will be that level which permits normal profits to be earned; their potential effectiveness in holding down prices thus depends on the magnitude of the monopoly profits that would otherwise accrue.

Two further points about the lower limit. First, if it is assumed that in a previous period prices were at an equilibrium that has now been destroyed by import restrictions, it may well be thought that the lower limit of the price control is indicated by the previous equilibrium. However,

with a reduced supply this is not necessarily correct, depending on the supply functions of the distributors. Distributors are likely to need somewhat higher prices, both because their overheads may have to be spread over a smaller turnover and in order to protect the absolute value of their own real incomes. In this situation the normal profit price is likely to lie somewhere above the pre-existing equilibrium, although this would not be true if traders were formerly obtaining monopoly profits. Secondly, it has to be borne in mind as a practical consideration that the nearer control price is to the lower limit, the greater is the incentive to evade the control. There is, as will be shown, a trade-off between setting low prices and being able to enforce the controls. Controllers anxious that their actions should be of maximum effectiveness will determine price levels which are a judicious compromise between what is theoretically possible and what is enforceable.

It is clear from these considerations that there are very real limitations within which a price control system can operate effectively. Only when conditions make for large monopoly profits are controls likely to hold prices down very substantially. Moreover, the effect of price controls may largely be of a once-for-all nature: unless there is a tendency for monopoly profit margins to widen over time, controls will be unable to prevent an inflationary upward trend of prices. However, with an inflexible exchange rate and domestic inflation (both of which conditions were satisfied by Ghana in the sixties), monopoly profits may well tend to increase with the passage of time.

Since in Ghana the coverage of controls has been confined to a selected list of items and has not, for example, extended to local foodstuffs, it is worth giving some thought to the impact of controls on the items left uncovered. Assuming the controls to be effective, there will remain an unsatisfied excess of demand for the controlled items. People would like to spend more on these items but are frustrated from doing so by physical shortages. What will they do with this excess of purchasing power? It is theoretically possible that they will save it all but it seems more reasonable to expect them to spend most of it on other consumer goods and services. Other things being equal, this increase in demand for noncontrolled goods will cause their prices to rise and will probably increase the profitability of their production and distribution.3/ Imports and local foods being the two major categories of consumer expenditure in Ghana,4/ we might say that an effectively enforced price list which is largely confined to imported items is likely to raise local food prices. This concentration makes it much harder to be confident that controls will influence the distribution of income in the desired direction and, especially, that they will be egalitarian in effect, for it is the poorest members of society who spend the greatest proportion of their incomes on local foods.5/

This uncertainty is increased further by the fact that the existence of controls eliminates ability to pay as the method of allocating the reduced supplies, without putting any alternative rationing device in its place. A logical extension of controls imposed because of supply shortages is the

creation of a [illegible] system of entitlements to income that [illegible] to a 'fair share', but this [illegible] conditions. Hence the [illegible] there [illegible] would tend to get more than their 'fair share' because they bring more business to the retailers, are more influential, and are likely to be in a position to do a return favor.

It is clear, then, that price controls as a device for influencing the distribution of income are subject to a number of limitations. A final case that should be mentioned, however, is that controls, are a necessary component of a policy designed to restrain the rate of increase of other incomes. Controls can then be seen as part of a more [illegible] anti-inflation policy, probably designed to prevent a redistribution of incomes in some undesired direction. [illegible] of price controls could be greatly appreciated if, for example, the [illegible] labor to receive its wage demands. [illegible] age would reduce income inequalities [illegible] distribution in the country in question. Applications [illegible] to have rather complex effects on income distribution, which [illegible] a straight classification into 'equitable' or 'inequitable'.

It is, finally, worth considering the possible influence of price controls on economic growth and development, through their effects on investment and the balance of payments. On the [illegible] been argued that, if they are enforced, controls prevent a redistribution of income from consumers to corporate profits. If, as is likely to be the case in a low-income country, firms have low [illegible] individuals, the controls will prevent an increase in aggregate demand. It is true that in an economy such as Ghana's, where much of trade and industry is foreign-owned, a sizeable proportion of any increase would leak out of the national economy in the form of the repatriation of profits. However, this proportion would be limited (a) by the extent of profit taxation (which is at the rate of 50% in Ghana) and (b) by the reinvestment of profits by the firms in question, and it is quite likely that the proportion of profits reinvested would be a direct, perhaps increasing, function of the rate of return to capital. Moreover, the existence of price controls adds an additional element of uncertainty for potential investors, who may be unwilling to put themselves in a situation in which their profitability is essentially determined by the fiat of a government price controller.

Besides affecting the amount of saving and investing, controls will also be liable to influence the composition of investment, by providing a distorted set of price signals as to the most promising objects of investment. Because price controls tend to concentrate on consumer goods that are considered to be essentials, they will, if effective, tend to discourage [illegible] in the production of these goods, possibly in favour of non-essentials [illegible]. Since the controls are liable to have been introduced because of shortages of supply relative to demand, such a change in the pattern of investment may [illegible]

the opposite of that desired.

The balance of payments effects of controls are more ambiguous. To the extent that they were effective, price controls on imported goods would result in an excess of demand over supply at the controlled price. This may weaken the balance of payments even when there are quantitative import restrictions, by inducing an over-issue of import licences and/or increased smuggling into the country, and by discouraging potential foreign investors.7/ On the other hand, preventing larger profit margins is likely to have a favourable effect on the balance of payments when a substantial proportion of profits is repatriated abroad. It is thus difficult to predict what the net effect of price controls might be on the availability of foreign exchange.

Taking these macro-economic considerations together, however, it seems likely that an effectively enforced price control system could have some adverse consequences for the growth and development of the economy in question, although this conclusion might well need to be modified if price controls were accompanied by a reduced rate of growth of money wages. Leaving this qualification aside, it may be said that when considering a policy of preventing a socially unwanted redistribution of income from consumers to profit-earners, the social benefits need to be weighed against the potential economic costs of such a policy.

The remainder of this paper is devoted to a study of price controls as they operated in Ghana during the nineteen-sixties and draws upon the analysis presented above. Four principal questions are considered: Was the price list well designed to achieve the stated objectives of the controls? If enforced, would the controls have prevented price inflation over time? To what extent were they enforced? Were they accompanied by an effective incomes policy?

III - Appropriateness of the price list

The list to be analyzed here is the one published in November 1969.7/ This is the last complete list to have been published, although various amendments have been issued since. A summary of the items included on the list is set out in Appendix A. The number of separately specified items totals to 725 and for many of these several different prices were given, according to the quantity sold. The great majority of the items were either imported or locally processed from imported materials. The chief exceptions were matches, local tobacco, salt, Firestone tires - and pigs' feet! Most of the items were consumer goods. The only completely unambiguous exception was matchets, which are a producer good used by local farmers. Insofar as they are used for private house-building, cement and corrugated sheets could be regarded as long-lived types of consumer good. Tires and tubes do not fit neatly into any category; controls on the prices of these items were presumably intended to keep down the cost of transporting both goods and persons.

In order that the controls should be [illegible] and should take into account the [illegible] of transportation [illegible] distant and remote centres of population [illegible] different [illegible] according to distance from the ports of Tema and Takoradi in the south of the country. The controls had [illegible] effect within a radius of [illegible] any of the towns listed, which must have been a nearly complete country-wide coverage. For many commodities different prices were indicated for each of the 17 groups of towns, with higher prices in centres far away from the ports. There were, however, a lot of exceptions. [illegible] only a few examples, uniform national prices were established for [illegible] textiles and other items; and in the [illegible] miscellaneous goods the price list only differed as between the North and Upper Regions, and the rest of the country.

Clearly, the Government [illegible] attempt to administer a rather sophisticated set of controls [illegible] separately according to the quantity and location of the sales. Altogether a grand total of 5,[illegible] prices were listed in the list. Equally clearly, the smooth operation of this scheme would demand very substantial [illegible] information (on import or production costs, on distribution costs according to distance from the ports, on quantities, on changes in quality, design and specification) and of administrative resources. Even though a system of price controls had by then been in operation for nearly six years, it is not surprising that upon examination the list is seen still to contain a considerable number of anomalies.

Perhaps the most serious of these was in the treatment of prices according to locality. It has already been remarked that for some items an attempt was made to vary the control price according to distance from the ports but that in other cases the list contented itself with a single national price. Now consider the effect of placing a uniform price on an item wherever it is sold. This might seem to offer special benefits to people living in the remoter parts of the country, say in the north, for they would no longer have to pay a higher price than their counterparts on the coast. But would it work that way? Leaving aside the question whether the controls were actually observed, the natural reaction of a trader who can only sell, say, a wax print (which is likely to be in short supply) at the same price in Accra or hundreds of miles away in the Upper Region, will be to sell it in Accra. Why should he reduce his profit by incurring the costs of transporting the cloth all the way to the north? A practice that appears to be to the advantage of the north is likely to be quite to the contrary because the goods would simply not find their way to the far-distant localities, and it seems that, had the [illegible] been completely enforced, the controls would have discriminated in favour of consumers living in the major coastal towns to the detriment of those living in more distant and less accessible communities. Since as a matter of fact it may be said that poverty travels northwards in Ghana and that residents of the coastal towns enjoy [illegible] this form of discrimination would tend to increase rather than reduce disparities in real living standards - quite the opposite of what was intended.

[illegible] effective [illegible] level by [illegible] [illegible]. A quick glance at Appendix [illegible] indicates [illegible]. Among the [illegible] butter, instant [illegible] [illegible] luxuries. Poor people can attend to buy [illegible] goods or locally manufactured [illegible] it is [illegible] (especially the expatriate community) [illegible] their incomes on such goods 9/ If this is the case, it is necessary rich who would be the [illegible] analyzed here. The poor would [illegible] little relief [illegible] in real incomes (or real consumption [illegible]) would increase rather than diminish. The idea of trying to [illegible] by holding down the prices of a [illegible] of imported and local [illegible] consumer goods, while leaving [illegible] prices unaffected, is of doubtful value. Controls on some local [illegible] prices plus a much smaller list of imported [illegible] goods (e.g. milk, sardines, corned beef) would be liable to have a stronger equitarian effect, although the inclusion of local foods would present formidable practical problems. Quite apart from the high-income luxury goods already referred to, there are other items on the list which, although [illegible] income groups, could not reasonably be described as essential. The most obvious cases were tobacco, beer and the more expensive types of cotton prints. Apart from a desire to win popularity, why should the Government of a developing country encourage the consumption of items such as these, when net national savings are only about 5% of NNP?10/

The previous section argued that if price controls are not to defeat their own objectives they must permit sufficiently large trading profits that it remains worthwhile to distribute the goods in question, and that the more the controllers seek to squeeze distribution profits the stronger will be the incentive to evade the controls. How generous were the controllers prepared to be in the [illegible] list? Observe the retail margins that were permitted on sales in Accra of the following 'essential' goods:

	Retail margin 11/
Cubed sugar (1 lb.)	5.0%
Sardines (4½ oz.)	2.8%
Pilchards (Herrings) (5 oz.)	2.4%
Corned beef (Imported, 6 oz.)	7.0%
Evaporated milk (6 oz.)	2.5%
Cement (bag)	1.7%

A spot check of other items on the list revealed [illegible] It is clear that [illegible] best, have only small profits out of the permitted mark-up. 12/ Whether or not the profits could be [illegible] these goods could not be established without further information, for example, on capital employed, but the [illegible] doubts about this. It certainly appears that by [illegible] margins the controllers were in danger of creating very strong incentives for evasion of the controls.

In summary, it can be said that the Government was seeking to [illegible] a fairly sophisticated and elaborate system of price controls. Staffing and information constraints [illegible] would throw up a number of difficulties which would be [illegible] danger of evasion or, if the controls were extended, to [illegible] into the retail trade. [illegible] increased the incentives to evade the controls. More seriously, the price list, by concentrating heavily on consumer goods, was well designed to protect consumers taken well enough. It was not well suited as an egalitarian device, for it excluded local foodstuffs but included a number of luxury goods.

IV - Changes in control prices over time

It was earlier suggested that the effect of controls on final prices is likely to be of a largely once-and-for-all nature unless there is a tendency for monopoly profits to rise over time. After an initial period controls may need to be continually adjusted in the light of changing market conditions and may be unable to prevent unwanted price increases. The data assembled in Table 1 permit some test of these hypotheses.

A composite price index of the food items listed in the first six lines of the table shows (line 7) that the control prices rose by a weighted average of 39% between March 1963 and April 1972, or at about 3.7% p.a. compound. The control prices of the 'other goods' listed at the bottom of the table (lines 10-12) rose by rather larger proportions. There would thus seem to be validity to the claim that, even had they been perfectly enforced, the controls would have been unable to prevent price increases, although it would remain possible to argue that the rate of inflation would have been greater in the absence of controls.

Table 1

INDICES OF CONTROL PRICES IN ACCRA, SELECTED ITEMS, SELECTED DATES, 1963-1972[a]

(March 1963 = 100)

	Unit	Weight[c]	March 1963	July 1964	May 1966	Oct. 1967	Mar. 1970	April 1972
Imported foods								
1. Margarine	8 oz. tin	6.9	100	100	109	154	154	211
2. Corned beef	12 oz. tin	8.5	100	100	119	159	159	152
3. Evaporated milk	6 oz. tin	29.5	100	100	100	1[illegible]3	123	16[illegible]
4. Granulated sugar[b]	1 lb.	22.0	100	(100)	(100)	(100)	100	10[illegible]
5. Pilchards	5 oz. tin	11.5	100	106	115	115	116	118
6. Sardines	4½ oz. tin	20.7	100	110	115	120	120	1[illegible]0
7. Composite index	-	100.0	100	103	109	122	122	139
8. C.B.S. urban price index for imported foods	-	-	100	118	142	154	164	(1[illegible])[d]
9. (8) as % of (7)			100	115	130	126	134	(1[illegible])
Other goods								
10. Beer (local)	65 ctl.bottle	-	100	100	131	142	142	154
11. Bar soap	bar	-	100	103	114	123	142	142
12. Matches (local)	box	-	100	167	167	200	200	233

Notes to Table 1:

(a) The items included here constitute all those listed in Table 2 for which a continuous time series was available. The choice of dates was largely determined by the timing of price list amendments.

(b) After November 1962 and before November 1969 the price lists did not specify retail prices for granulated sugar. Since between those two dates the retail price did not change a dummy index number of 100 has been inserted for all the intervening dates.

(c) These weights have been estimated from the results of a household expenditure survey conducted by the Central Bureau of Statistics in 1961-62. c.f. P.T.F. Golding, "Inquiry into Household Expenditure and Consumption... in Ghana," Economic Bulletin of Ghana, Vol. VI, No. 4 (1962), especially Table 3.

(d) February 1972 index.

Sources: Various Price Control (Maximum Prices) instruments (1962 No. 344; 1963 Nos. 35 and 1[illegible]; 1965 No. 8[illegible]; 1965 No. 112; 1967 Nos. 11 and 100; 1969 No. 1[illegible]5; 1970 No. 19; 1971 Nos. 40, 62 and 65; 1972 No. 17; Accra, Govt. of Ghana). Central Bureau of Statistics consumer price index.

Lines 8 and 9 of Table 1 merit a comparison of the behaviour of control prices with an urban price index of imported foodstuffs [illegible] published regularly by Israel's Central Bureau of Statistics (CBS). The index went up about twice as fast as the composite index of control food prices -- by 7.6% p.a. as against 4.7% p.a. This result is not easy to interpret. Since the CBS index is based on more items than those listed in Table 1, it would be theoretically possible for this result to be consistent with the perfect enforcement of the controls, but a strong presumption is created that the controls were not effective - a presumption that will receive support later.

It was in 1963-66 that the two indices moved apart, so that by May 1966 the CBS index stood 50% higher than our composite index. Thereafter, the two moved roughly together, at 4.5% p.a. and 4.8% p.a. respectively in 1966-72. These trends are open to conflicting interpretations. It could be argued that, while the controls were able to prevent excessive price increases in the first few years, they did eventually become ineffective and were able to exert a restraining influence from about 1966. Alternatively, it could be argued that the controls were completely ineffective throughout and that the apparent relationship from 1966 was either a coincidence or because, appreciating their impotence, the controllers adjusted their prices upwards pari passu with actual prices.

The next step, then, is to examine the extent to which the controls proved to be enforceable.

V - Observance and evasion

To test the extent to which retail controls were actually being observed, data were taken from fieldsheets used in the preparation of the Central Bureau of Statistics (CBS) consumer price indices. For all those items on the CBS sheets which coincided exactly, as to description and unit, with items included in the price list a comparison was made of the control price with the actual price recorded by the CBS enumerators in March 1970. The results are set out in Table 2, with actual prices expressed as percentages of control prices. The raw data are provided in Appendix Table A1. The month of March 1970 was chosen because it was sufficiently long after the issuance of the November 1969 price list for all interested parties to have been able to ascertain the new price maxima, because so far as is known trading conditions were normal at that time,[12] and because the situation was complicated from April 1970 onwards by the issuance of a succession of amendments to the 1969 lists.

Tab' 2. ACTUAL PRICES AS PERCENTAGE OF CONTROL [illegible]

Item	Accra[a/]	Takoradi[a/]	Komenda[b/]	Akatsi[b/]	Kumasi[a/]	Jwi-Lakwai[b/]	Sunyani[a/]	Bole[b/]	Bolgatanga[a/]	Tamale[b/]	Unweighted mean	Median
1. Margarine												
(a) store	100	100	111	119	100	104	107	-	100	117	106	104
(b) market	102	111	111	119	107	114	125	-	-	121	114	113
2. Corned beef												
(a) store	120	100	120	104	-	114	100	-	100	104	108	104
(b) market	130	110	-	-	120	-	110	-	100	108	113	110
3. Evaporated milk												
(a) store	100	100	118	106	100	133	100	111	111	111	109	109
(b) market	138	125	-	106	111	133	100	111	111	111	116	111
4. Granulated sugar												
(a) store	140	150	150	190	160	-	127	-	-	132	157	150
(b) market	200	-	-	-	160	136	136	-	-	162	163	160
5. Pilchards												
(a) store	-	-	114	155	-	136	-	136	-	136	135	136
(b) market	165	200	-	155	136	155	-	-	-	136	158	155
6. Sardines												
(a) store	-	-	-	146	-	146	100	-	100	108	120	108
(b) market	133	-	133	146	125	154	115	115	-	115	130	129
7. Ovaltine												
(a) store	83	83	110	95	100	129	100	-	-	-	100	100
(b) market	92	103	110	100	92	-	106	-	-	110	102	103
8. Beer (local)	100	102	109	109	104	109	103	104	104	104	105	104
9. Bar soap	100	100	104	107	102	111	106	122	102	124	108	105
10. Matches	83	83	83	83	83	83	83	71	71	71	79	83
11. Ghana gin	116	116	133	127	115	-	140	-	117	120	123	119
12. Balmeral gloss polish	103	100	-	121	100	189	100	-	88	-	114	100
13. Unweighted mean of above	118	112	116	123	113	130	109	110	100	121	116	

Table 2 (Cont.)

Item	Accra[a]	Takoradi[a]	Komenda[b]	Aktasi[b]	Kumasi[a]	[illegible]-[illegible]i[b]	Sunyani[a]	Bole[b]	Bolgatanga[a]	Tumu[b]	Unweight mean	Median
14. Median of above	103	102	111	119	106	133	106	111	100	115		111
15. Unweighted mean for stores	109	107	121	131	115	127	106	c/	103	126	117	
16. Median for stores	100	100	116	119	100	131	100	cc/	100	114		111
17. Unweighted mean for markets	137	130	118	125	122	138	115	c/	c/	126	125	
18. Median for markets	133	111	111	119	120	136	113	c/	c/	115		115

Notes: a/ Urban

b/ Rural

c/ Insufficient number of observations to warrant the calculation

A dash indicates that the good in question was not in stock at the time of the price enumeration.

The data were collected in respect of ten centers, five classified by the CBS as 'urban' and the other five as 'rural'. The centers were chosen so as to facilitate direct comparison with the centers shown in the price list and [illegible] to provide a reasonably representative coverage of the whole country. Despite of these attempts to eliminate bias there is one probable bias against which no protection was found. It is probable that the records of the CBS enumerators would tend to overstate the extent of observance of the control prices, for one of two reasons. Firstly, there is likely to be a reluctance on the part of retailers to admit to an enumerator that the control prices for fear of subsequent prosecution. Secondly, an indolent enumerator who wishes to avoid the labor of going through the price-collecting rounds may be tempted simply to list down the control price in the context of his own [illegible] and to [illegible] in [illegible], although the CBS does undertake [illegible] that this type of misconduct.14/ For these reasons, the observance of the control prices recorded in this study may be regarded as the upper limit of the actual situation. It should also be borne in mind that some prices may have been the same as the control prices simply as a matter of coincidence, or because the controllers guessed accurately at what the market-clearing price would be.

The total number of price observations recorded in Table 2 is 147. In only 24 of these cases was the actual price, as recorded by the CBS, the same as the control price. In another 16 cases the actual price was below the control figure (most of these were in respect of matches) and in the remaining 106 cases commodities were being offered in excess of the legal limit. Thus, in only 17% of the cases was the control recorded as being observed and in 72% of the cases it was being exceeded. Bearing in mind the reasons given earlier for expecting the extent of control observance to be over-stated in the CBS returns, it seems that price controls were not a very effective weapon of Government policy. The mean value of all the observations was 1% above the control price level, although the median value was lower, at 1%.15/

These results permit us to return to Table 1 in order to clear up the rival interpretations that were posed at the end of the last section. Given an only 17% observance rate in March 1970 and given that our composite index of control food prices retained a roughly consistent relationship with the CBS price index for imported foods from 1966 onwards (Table 1, line 4), considerable support is given to the view that a low observance rate obtained throughout the whole period. Had the observance rate in March 1970 been exceptionally low one would have expected actual prices to rise relative to control prices, but it can be seen that the CBS index expressed as a percentage of the control price index was much the same in March 1970 as in [illegible] and April 1972. Although the evidence does not permit a definitive explanation, the most plausible hypothesis is that the controls were [illegible] in effectual prices at their inception and that the tendency for control prices to rise at roughly the same speed as actual prices from about 1969 resulted from periodic upward adjustments in the control prices, under pressure from the larger trading companies, in response to changing market conditions.

Examination of Table 2 indicates some contrasting patterns in the degree of observance. Firstly, it [illegible] that the extent of non-observance was even higher in the towns [illegible] than in the cities and large towns. This result comes out clearly in Table 3 below, which shows that in only [illegible] of the operations pertaining to rural centers was the actual price [illegible] the control price and in 90% of the cases the local [illegible] exceeded. To judge from this sample, price controls were [illegible] in the rural areas. The urban centers were more law-abiding, however, with a [illegible] observance rate. This is of some importance since a [illegible] proportion of sales of the types of commodity covered by controls is likely to occur in the towns.

Table 3

OBSERVANCE OF PRICE CONTROLS IN URBAN AND RURAL CENTERS

	Total [illegible]		[illegible]		[illegible]	
	No.	% Total	No.	% Total	No.	% Total
1. Total No. of observations:	145	100	75	100	69	100
2. No. of observations with control price inoperative, i.e. actual prices below control prices:	16	11	10	13	6	9
3. No. of observations with control price effective:	24	17	23	30	1	1
4. No. of observations with control price exceeded:	105	72	43	57	62	90

The CES data permit a further useful piece of analysis by recording separately the prices of some of the items as charged in retail stores and on the traditional markets. Table 2 indicates the items for which this breakdown is available and the results are summarized in lines 15 to 18 of the table. As might have been expected, the extent of control evasion was considerably greater on the traditional markets than in the stores. Large Government or expatriate-owned concerns are too conspicuous and too vulnerable to break the controls with impunity but the market women are not inhibited in the same way.16/ It may also be that these are the only types of outlet with a range of goods that is wide enough to be able to recoup losses (or sub-normal profits) by raising the prices of non-controlled items the demand for which is inelastic. Thus, the mean value of prices charged in stores was 117% of the control price whereas in the markets the mean was 123%. A complete breakdown of all the cases in which the control was being observed, i.e. cases shown as 100% in Table 2, gives the following pattern:

	No. of observations with control prices being observed
Urban stores	15
Urban markets	2
Urban unspecified	6
Rural stores	0
Rural markets	1
Rural unspecified	0
TOTAL	24

The picture that emerges is that the price controls were to all intents ignored (a) in the rural areas and (b) on the urban markets. Practically all the cases in which the controls were being observed were in urban stores or in urban locations in which the type of outlet was not specified. It seems reasonable to suppose that most of these "unspecified" observations actually related to stores. It is likely that the main control-observers were the Government-owned Ghana National Trading Corporation (GNTC) and the larger expatriate trading concerns, such as the United African Company,17/ although the GBS does not specify the names of the stores.

The fact that the incidence of cases in which the control prices are observed on the markets is so slight as to be insignificant does not necessarily mean that prices on the markets are unrelated to those in the stores, for when the stores are observing the controls this may either reduce the extent to which the market traders exceed the legal limit or indicate a situation in which the control price is near to the equilibrium price. Effective competition within the distributive system would keep the prices in the shops and on the markets from moving too far apart. The data suggest that competition may be quite effective, because there was a clear correlation between prices charged in the shops and on the markets. A linear regression of all pairs of observations of store and market prices in Table 2 gave the following equation, where Y is an index of the price charged on the markets and X an index of the price charged in the stores, with the control price = 100:

$$Y = 6.58 + 1.012X$$

This gave an R^2 of 0.79, significant at the 0.1% level.18/ The standard error of b was 0.265, with a t-value of 3.823, also significant at the 0.1% level. The market-women were able to charge a premium above the stores equivalent to about six and a half percentage points of the control price but, apart from this premium, any variation from the control price on the markets was likely to be matched by virtually the same percentage variation by the stores.

Since the market-women will very often get in their supplies from the very stores with which they are competing, it is possible that the close correspondence between the two sets of prices results from the application of a fixed cost-plus markup by the stores. If this mark-up was inflexible, it would not be consistent with the interpretation of the data as indicating a competitive system. The data do not permit this issue to be resolved but the "competitive" interpretation is more consistent with the general view of the market vendor as shrewd and flexible profit maximizers.19/

If the "competitive" interpretation is accepted, the regression results carry the further interesting implication that the stores were only likely to observe the control price if the free market price was within or not far above the normal market premium. The mean value of observance on the markets in cases where a store in the area was observing the controls was 1[illegible]. When all retailers were observing the local limit, the mean value of the market price was 1[illegible] of the control price and on the average was 1[illegible], i.e. two only seven percentage points greater. When they did fail to break the law the storekeepers appear to take the attitude that it is better to charge for a slice than for a loaf and raise their prices well above the control levels, while the market women are only able to obtain a premium rather smaller than that in the stores when observing the controls. But as the controls are observed in the stores they will have an effect on the traditional markets but there is little to indicate that the stores exert a restraining influence on those cases where they are exceeded both in the stores and on the markets.

Reading from left to right, the towns listed in Table 2 are arranged roughly according to distance and accessibility from the ports of Accra-Tema and Takoradi, which permits something to be said about the geographical pattern of price control observance. Implicit in the analysis of Section II of this paper were the hypotheses that observance of the controls was likely to diminish according to distance from the ports and that, to the extent that the controls could not be evaded, they would result in physical shortages in the further-distant centers. Neither hypothesis receives much support from the evidence. Observation of lines 13 and 14 of Table 2 does not indicate any systematic tendency for the average values to increase with distance from Accra or Takoradi. There is, it is true, an above-average number of "nil returns" for Yale and Bolgatanga, indicating that several of the items covered were not on sale, but, on the other hand, the returns for Sunyani and Nsawam were practically complete, and it would be rash to draw conclusions from only two incomplete returns. The fairly large number of G.N.C. returns may well provide some assurance of the country-wide availability of common items of consumption. Reading across line 13, it can also be seen that the means for the centres listed mostly fell within the range of 1[illegible] to 11[illegible], which suggests that the distributive system is efficient enough to prevent major geographical discrepancies in the extent of price control evasion.

As a first step in the analysis of Table 2 it is worth looking at the results commodity-by-commodity and market-by-market. Note, firstly, that in the case of [illegible] all the observations are below the legal maximum. Matches sold throughout the country at 2½ pesewas per box [illegible], depending on locality. Where the control prices are [illegible], no contravention of the law is involved and in this case the control was simply inoperative. However, there is no point in having price controls unless they are at least a little below the free market price. For some items the controls were consistently ignored. Thus, all the entries for sugar, sardines and bar soap lie in excess of the legal maximum. There is [illegible] which the control was observed in all cases; the smallest observance rates were for Mineral polish (10%), corned beef (12%) and evaporated milk (2%).

Were the controls more effective in the case of low income wage-goods and did they therefore tend to have an egalitarian effect? There is a limited amount that can be learned from the rather small number of commodities in Table 2, but the list might impressionistically be broken down as follows:[26]

Essentials	Non-Essentials
Corned beef	Beer
Milk	Gin
Sugar	Ovaltine
Pilchards (Herrings)	Palm oil polish
Sardines	Margarine
Bar soap	

On the basis of this classification the mean values of the entries in Table 2 are:

	Urban	Rural	National
Essentials	121.6	129.6	125.7
Non-Essentials	103.7	116.5	109.2

Far from protecting the prices of essential wage goods, the system appeared to have most effect on less essential items, especially in the urban areas.

It is not difficult to suggest an explanation for this. The wage goods are the politically most sensitive items on the price list. There will thus be strong social pressure on the price controllers and their political masters to hold down the statutory prices of these goods. But, as was pointed out in Section II, the lower the control price relative to a market-clearing price, the greater is the incentive to evade the control. By returning to the data in Table 1 we can find some confirmation of the validity of this explanation. Although the number of items in the table is too small to give it a satisfactory test, it may be significant that the mean value of the control price index numbers in Table 1 in March 1969 was 127 in the case of the goods classified as "essentials" in the previous paragraph, against 116 for "non-essentials."

There is [illegible] evidence that the extent of [illegible] was inversely related to the severity of control [illegible]. This was tested by [illegible] the [illegible] of [illegible] and [illegible] recorded [illegible] as recorded in Table 1, [illegible] the price conditions listed in Table 1. The hypothesis [illegible] that the [illegible] control [illegible] inversely correlated with the extent to which control prices had been allowed to rise [illegible] and the [illegible]. The results consist [illegible] $-0.$ [illegible] significance [illegible] level, and [illegible] -2.7 [illegible] tion was $Y = -27.1 + 1.$ [illegible] with a t-ratio for b of 2.5 [illegible] cant at the 5% level. In other words, [illegible] 10% control price had been added, [illegible] for [illegible], the [illegible] 1.22 [illegible], actual prices [illegible] control, but in [illegible] where the control price had been allowed to rise [illegible] level, the actual price exceeded the control by [illegible] tions.

Returning to Table 1, it is interesting to see whether there are marked differences in [illegible] ratio, as between the various centers listed. It has been noted [illegible] that [illegible] rarer in the rural centers than in the [illegible] cities. As [illegible] the towns there were few differences of [illegible] the controls were [illegible] in each of them in the approximate ratio of between 1:3 and 1:4. [illegible] was a rather uniform, country-wide ineffectiveness of control enforcement.

The theoretical discussion in Section II of this paper yields the hypothesis that an effective price control system which is not linked with a formal system of rationing [illegible] to lead to shortages. The data can be used to provide a rough test of this because the dashes, or nil returns, in Table 2 indicate cases in which the goods in question were not available in the stores or markets. Classifying goods into three categories, according to availability, we can calculate the mean value of observations in Table 2 as follows:

	Mean value of actual prices as % of control prices
Plentiful supply (one or less nil returns reading across the line)	104
Intermediate (2 or 3 nil returns)	119
Supply shortage (4 or more nil returns)	138

Quite to the contrary of the hypothesis, it is evident that supply shortages were actually associated with large evasions of the control prices in the markets where most [illegible] was plentiful.21/ What is revealed here is a successful assertion of the strength of market forces over attempts by the Government to suppress these forces, with supply shortages leading to higher prices. The hypothesis that controls would be associated with shortages is invalidated because the controls were not strong enough to prevent the distribution of goods being rationed by price and purchasing power.

Before concluding this section it is worth asking why the enforcement machinery was so ineffectual during the period under study. Between 1962 and 1966 reliance was placed upon reports from unpaid price inspectors and in the latter year the Ministry of Trade took twenty full-time price inspectors into employment.22/ The number of paid inspectors was given to [illegible] by [illegible].23/ According to the [illegible] Abraham's [illegible], the existence with both paid and voluntary inspectors was [illegible]. They were allegedly at that time to be generally "in the pay of profiteers" and to be themselves engaged in buying at control prices and selling at a premium.24/ Indeed, the Ag[illegible] argued that because the cost of bribing them was passed on to the consumer, "if there were no voluntary price inspectors, the prices of commodities could be expected to be just that much lower."25/

It was perhaps for reasons of this kind that it was decided to discontinue the employment of inspectors. Only a small provision for Price Inspection Superintendents was made in the Government's 1969/70 budget and by 1969/70 the nominal provision for a 100-strong establishment for this grade had been dropped. Since then the Ministry of Trade's price inspectorate has been confined to one Chief Price Inspector and the task of enforcement has been left to the police and (most recently) the army. The police apparently gave this work low priority or anyway did not carry it out, for this study has shown that generally the retail controls were more honored in the breach than in the observance. Only in the urban shops were the controls being observed to any significant extent, as a result socio-political pressures on G.N.C and the larger expatriate trading companies. The market women were sufficiently powerful for it to have been politically difficult to enforce their observance of the controls at all strictly.

VI - Effects on Wage Inflation

A point that was made in Section II was that price controls are likely to have a larger impact when they are a necessary ingredient of an anti-inflationary prices and incomes policy. The purpose of this section is to examine the extent to which price controls may have led to a slowing-down in the growth of money wage-earnings in Ghana, although only the most circumstantial evidence can be offered.

Table 4 provides information on the [illegible] earnings of African [illegible] in 1956 to 1970. [illegible] are the most interesting, [illegible] controls were introduced. It is [illegible] and all years after 1963, the rate of increase in [illegible] and this evidence will confirm [illegible] controls was instrumental in reducing the rate of wage inflation. In 1964 onwards, the rate of expansion of money earnings resumed its earlier more rapid [illegible]. Thus, it might postulate that the introduction of price controls may have had a certain [illegible] effect on inflation but that this was not sustained when it became apparent that the controls were proving ineffectual.

Quite apart from the ineffectiveness of the controls, there are several other reasons for doubting that the controls had had a lasting impact on [illegible]. Firstly, the goods [illegible] not formally listed [illegible] were traded, and [illegible] not introduced either in the [illegible] period, many [illegible] which had been created or in some cases introduced in 1963 [illegible] to the original Act. Secondly, it was shown earlier that the coverage of the price list, by including a number of luxury or semi-luxury goods and by excluding local foodstuffs, was not well designed to protect the living standards of the lower paid workers. Thirdly, it was well known that there was much of the sixties there was a substantial rate of price inflation in Ghana. The G.D.P. national consumer price index recorded an average annual rate of inflation of [illegible] between March 1962 and the end of 1970. Trade unions and their members were more likely to pay attention to this, and to their own experiences in seeking to make ends meet, than to the existence of paper price controls. It would thus be implausible to think that the controls had more than a temporary dampening effect on wage increases.

Table 4

INDEX OF EARNINGS OF MALE AFRICAN EMPLOYEES, 1956-70[a]
(December 1956 = 100)

Year	Index	% change over previous year	Year	Index	% change over previous year
1956	100	-	1964	1[illegible]4	+5.[illegible]
1957	97	-3.0	1965	155	+7.6
1958	99	+2.1	1966	178	+14.8
1959	104	+5.1	1967	183	+2.8
1960	114	+9.6	1968	203	+10.9
1961	130	+14.0	1969	216	+6.4
1962	133	+2.3	1970	226[b]	+4.6
1963	136	+2.3			

[a] Working in establishments employing ten or more persons.
[b] Provisional.
Source: Central Bureau of Statistics, Accra.

VII - Conclusions

Price controls at least serve as an instrument of social policy, influencing the distribution of income in some desired direction. The existence of effective controls would tend to influence the distribution of income in favor of the consuming public and at the expense of profits but in these the controls have been seen more specifically as an egalitarian device providing special relief to the poor. However, it is difficult to be at all confident of the egalitarian effect of a price control system which excludes the most important items of low-income consumption (e.g. locally grown foods) and which is not accompanied by a formal system of rationing.

This uncertainty is intensified upon a detailed examination of the price list. Throughout the studies, the list was invariably confined to imported consumer goods and included many items that could not reasonably be classified as essentials. It tended to discriminate against the more far-distant and inaccessible centers of population and was in this respect more likely to widen than narrow regional disparities in real living standards than to reduce them. The location of the list also revealed that the Government was too long, given a small staff and a limited availability of reliable information, to operate a wide-ranging, complex and sophisticated set of controls which involved the specification of no less than 3,[illegible] separate prices. A further limitation was that little serious attempt was apparently made to link the introduction of price controls with an anti-inflationary monetary policy, even though there is some evidence that their introduction may nevertheless have induced some moderation in the expansion of money-earnings for a year or two.

When, however, one turns to an examination of the actual operation of the controls the theoretical merits and defects of the list appear rather beside the point, for data collected by the C.S in 1970 indicate the controls to have been mostly ignored. In only 17% of the observations were the control prices being charged, and even this figure may have an upward bias. Only in shops operating in the larger towns and cities was there any significant observance of the control prices; in the rural centers and on the urban markets they were almost entirely disregarded.

Moreover, the 1970 position does not appear to have been abnormal; so far as can be judged from the evidence in Table 1, the controls appear to have been ineffectual from the beginning. Political pressure and the more visible and vulnerable trading companies appears to have been the only effective enforcement mechanism and (for probably good reasons) the Ministry of Trade abandoned its attempts to police the controls with a specially recruited staff of professional price inspectors.

[illegible]

[illegible] able and the market-clearing prices [illegible] a little above the [illegible] served in the [illegible] short run, [illegible] should exert a restraint [illegible] on the [illegible] price. [illegible] there were shortages and [illegible] control [illegible] anywhere, or [illegible] of their [illegible] .

Given the [illegible] seeking to [illegible] price [illegible] the [illegible] price [illegible] the [illegible] of their [illegible] price [illegible] could [illegible] off more than they could [illegible] .

Associated with [illegible] market [illegible] tion within [illegible] to charge a [illegible] to about 6.5 [illegible] that competition from the [illegible] the women to get too far out of line. [illegible] it constitutes a real safeguard against [illegible] the consumer which is [illegible] the evidence that the distributive [illegible] to prevent were [illegible] price control evasion.

What, if anything, can be said about the effect of the price controls on the distribution of income. The main conclusion is that the controls were largely irrelevant during the period studied because they were generally not enforced. However, they were most likely to be observed in the shops of the larger towns and cities and this is not without significance for the distribution of income, because real incomes are generally higher in the towns.[illegible] Nevertheless, it is probably true to say that, in the main, the relatively well-to-do are most likely to make their purchases in the shops [illegible] the poor are most likely to do their shopping on the markets.

If these [illegible] are valid, it follows that the controls [illegible] either in real living standards, [illegible] than [illegible] to reduce inequalities, the price controls as they operated in the period under study were so-ci[illegible] significantly [illegible] effects on [illegible] and economic growth, as posited in Section II. [illegible] since the controls only covered a modest part of total [illegible] and were not, in any case, effectively [illegible].

So far [illegible] said, the practical conclusion is that, in [illegible] other controls, price controls are no substitute for [illegible] to keep a [illegible] demand within the [illegible] of goods and services. So far as [illegible] effectiveness of protection [illegible] to great import [illegible] sufficiently [illegible] down to [illegible] level. [illegible] price controls [illegible] to reduce their additive [illegible] the price list and the extent to [illegible], they might be more effective. [illegible] would also [illegible] and the [illegible] would not be concentrated on [illegible] competitive [illegible] to [illegible] on the traditional [illegible]. But [illegible] price controls: they are unlikely to [illegible] to policies that operate more directly on [illegible] and supply, and on the distribution of income.

Appendix A

LIST OF ITEMS COVERED BY PRICE CONTROL
(MAXIMUM PRICES) ORDER, 1969 (E.I. 135)

Flour (imported)
Flour (local)
Rice (imported)
Sugar
Sardines
Pilchards
Corned beef (imported)
Corned beef (local)
Pigs' feet
Tomato puree
DCL dried yeast
Oats
Gem biscuits
Soap (13 named brands or types)
Matches
Evaporated milk
Butter
Margarine
Tea
Instant tea
Instant coffee
Tobacco (imported)
Tobacco (local)
Aluminium corrugated sheets
Patent medicines (23+ specified items)
Beef (local)
Samson stout
Spirits (11 named local brands of whisky, gin, brandy, vodka, vermouth and rum)
Salt
Liquid gas
Lanterns
Matches
Glass nuts (imported)
Milk drinks (3 named brands)
Baby milk and cereals [illegible]
Textiles (imported--7 specified types)
Textiles (local--4 specified types)
Batteries (3 specified types)
Reflective signs for vehicles (8 specified types)
Vehicle tires & inner tubes (a total of 335 combinations of brands and sizes)
Cement (imported)
Cement (local)
Corrugated asbestos sheets (4 sizes)
Flat asbestos sheets
Galvanized iron corrugated sheets
Miscellaneous (51 specified items, mostly insecticides, disinfectants and similar household articles)

Footnotes

This study was undertaken while I was a member of the Harvard Development Advisory Service group advising the Government of Ghana. The assistance of Ghana's Central Bureau of Statistics and of Mr. V.I.K. Sokoey is gratefully acknowledged, as also are the helpful comments on an earlier draft by Sieh Medeiros, J. Clark Leith, Joseph S. Stern and John Odling-Smee. The arguments presented here are the sole responsibility of the author and should not be taken as necessarily coincidin with the views of either the Government of Ghana or the Harvard Development Advisory Service.

1/Parliamentary Debates, 1st Series, Vol. 26, 12:2:62, cols. 300-301 (Accra, Govt. of Ghana).

2/Under the Control of Prices Act, 1962 (Act 113) the maximum penalty for contravention was a fine of £1,000 or two years imprisonment, or both. The Price Control Decree 1972 (NRCD 17) provides for a fine of £1,000, or five years imprisonment, or both.

3/Some corroboration that this may have happened in Ghana is to be found in a 1965 report which examined the operation of the distributive system at that time. This observed that,

> "One noticeable effect of the existing price control lists is that uncontrolled commodities have gone up in price. Traders seem to be retaliating against price control by gaining from the sale of uncontrolled commodities more than they have been restrained from profiting through certain items being controlled in price. In this way, they have fairly succeeded in defeating the general aims of the control system."

(Report of the Commission of Enquiry into Trade Malpractices in Ghana, Accra, Govt. of Ghana, 1965--the "Abrahams Report"--p. 56).

4/It can be estimated from Central Bureau of Statistics national consumer price index data that imports make up about 15% of the total consumption expenditures of low-income families and that local foods account for 51% of the total.

5/It has been estimated on the basis of a 1962 national household expenditure survey that the expenditure elasticity of demand for local foods was 0.64, as compared with 1.30 for imported food and 1.24 for drink and tobacco (U.S. Department of Agriculture, Ghana: Projected Level of Demand, Supply and Imports of Agricultural Products in 1965, 1970 and 1975, Edinburgh, 196-, table V.1). The R^2s associated with these results were 0.95 and above. To give a specific example, it was found that urban households with total weekly expenditures of 50 to 100 pesewas per person spent 70% of the total on local foods whereas urban households with weekly per capita expenditures of 350 pesewas or more spent only 46% on local foods (ibid, table C.2).

6/In a paper currently being prepared for publication I show that Ghana's actual imports in the [illegible] were [illegible] levels and that, import controls [illegible], the [illegible] of imports remained sensitive to the level of aggregate domestic demand.

7/Price Control (Minimum Prices) Order 1969, E.I. 135 of 1969 (Accra, Govt. of Ghana).

8/See Robert Szereszewski's "Structural Aspects of the Economy of the Economy" in [illegible] of Ghana, [illegible], Birmingham, London and [illegible], 1966), Chapter 4.

9/ See footnote 5/.

10/In 1967 (the latter year for which reliable national accounts are available) [illegible] of GDP. From unpublished [illegible] it can be estimated that [illegible] absorbed the equivalent of 6.5 per cent of GDP, leaving a net [illegible] saving equal to about 4.5 per cent of GDP.

11/The difference between the wholesale and retail control prices, expressed as a proportion of the latter.

12/All the margins referred to above related to the difference between wholesale and retail prices and the evidence [illegible] assessing the adequacy of the mark-up permitted to importers and local manufacturers. To judge from the retail end of the [illegible], the [illegible] presumably also sought to keep wholesalers' and manufacturers' profits down to a minimum.

13/Seasonally corrected data indicates that the turn-over of major trading companies was normal in March 1970, import levels had been somewhat above average in the immediately preceding months, and the national consumer price index for that month was about on trend (although the index for items other than local foods did fall several percentage points in April).

14/The detailed examination of a sample of field sheets which this study involved left the impression that the CoS enumerators mostly did a conscientious and accurate job. Only one or two returns appeared questionable.

15/A general tendency for the median values in Table 2 to be smaller than the corresponding means indicates that the observations have a positively skewed distribution. I have employed the [illegible] in the text because they make fuller use of the data but medians are also shown in Table 2.

16/The traditional markets in Ghana are overwhelmingly dominated by women traders, known popularly as "Market Mammies."

17/In his report to the annual general meeting of Kingsway Stores of Ghana, Ltd. (a subsidiary of United African Company) on 7 June 1962 the Chairman said that:

> "Prices still continue to rise and unless a realistic view is taken on these conditions subject to price control, profit margins are likely to fall...the rigid approach to price control can result in a severe reduction in the revenue which is paid to Government, uncertain investment prospects for our trade and a reduction in the ability of the business to provide for income deferment and to provide an adequate return to shareholders." (Daily Echo, Accra, 11 June 1962).

18/In other words the rent seeker expected to earn in which the stores [illegible] the control price [illegible] the simple equation Y = 0.9[illegible] + [illegible], where R- = 3.67, also significant at the 0.1% level.

19/T.E. Bauer's West African Trade (London, Routledge and Kegan Paul, [illegible]) remains a classical study of West African trading conditions.

20/Matches have been excluded from this calculation because the control price was completely inoperative.

21/The commodities for which the control price was being charged in 20% or more of the observations had an average of 1.8 nil returns per line; the commodities for which the control price was being exceeded in all observations had an average of 3.8 nil returns per line.

22/Abraham Report p. 55.

23/Annual Estimates for Ministry of Trade, 1966/67 (Accra, Govt. of Ghana, 1966).

24/Aerchaus Report p. 56.

25/Ibid. On behalf of the Opposition Mr. Jatoe Paleo made what proved to be a very perceptive contribution to the debate on the 1962 Act. He asked for assurances that "unemployed ex-convicts" would not be employed as voluntary price inspectors adding, "I suspect that if these people are going to work voluntarily and not be paid they will find a way somehow to meet their expenses." In reply the Minister of Finance and Trade assured him that, "we shall try as much as is possible within the realm of human capability to see that the best men are recruited for this job" (Ghana Parliamentary Debates, 12 February 1962, cols. 297-8). However, it seems that the "realm of human capability" proved too restrictive, for the Abraham Report (p. 55) has this to say:

"The [illegible] indeed [illegible] pilfer, [illegible] possible, no doubt inadvertently, for even ex-convicts to be so [illegible] victim [illegible] price inspector."

26/In an other [illegible] debate on a [illegible] ment to the Control of Prices [illegible] refusal to sell [illegible] point [illegible] hear [illegible]:

"It is a fact that [illegible] forced [illegible] prices [illegible] trader [illegible] a given [illegible] affair. [illegible] exploit [illegible] teerin [illegible] [illegible] Interestingly, [illegible] were proving ineffective.

27/[illegible] especially his tables [illegible].

28/[illegible] distribution of [illegible] except in [illegible] allowing other [illegible] to enjoy their [illegible].

29/[illegible] the larger trading [illegible].

30/Immediately after the [illegible] 1972 [illegible] a marked intensification [illegible] enforcement but this appears to have petered out rather quickly.