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## LIVESTOCK PRODUCTION SUBSIDIES: THE EXPERIENCE OF TRINIDAD AND TOBAGO

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### INTRODUCTION

This paper reviews the situation with respect to the payment of production subsidies to the livestock sector of Trinidad and Tobago and summarises research that has been carried out in the Department of Agricultural Economics and Farm Management in the Faculty of Agriculture at The University of the West Indies.

The term 'subsidy' is taken here to mean any public sector measure that affects the price of an item (factor of production, commodity or service) especially by lowering its price below that which would exist on the market in the absence of the measure. This definition poses several difficulties which are discussed in detail by Bosch (1985). However, as his analysis points out, this definition is sufficient for most analytical purposes.

This paper focuses on the situation with respect to production subsidies paid to the livestock sub-sector. Here production subsidies are taken to mean subsidies designed to increase the level of welfare of the supply side of the market through their influence on the prices of factors of production and/or farm commodities. The analysis does not include implicit subsidies such as concessionary interest rates provided by the Agricultural Development Bank or support prices paid for pigs by the Central Marketing Agency.

The paper will first review the recent history of subsidy programmes to the livestock sector of Trinidad and Tobago, then analyse the problems and the benefits of these programmes. Finally, the current status of livestock production subsidies will be discussed.

### HISTORICAL REVIEW

As far back as 1940, subsidies have been associated with the livestock subsector of Trinidad and Tobago. At this time, as part of the Cocoa Subsidy Scheme designed to increase cocoa production, provisions were included for financial aid for the purchase of livestock for farmers whose land was unsuited to cocoa production.

After the introduction of the Cocoa Subsidy Scheme, cocoa production increased quite markedly (e.g. from 3640 metric tonnes in 1948 to 9860 metric tonnes in 1953). This apparent success of the Subsidy Scheme may have influenced a wider Agricultural Subsidy Programme which was started in 1958. The 1958 programme included the following subsidies on factors of production (inputs) for livestock production:

- (i) housing;
- (ii) increased supply of water;

(iii) pasture establishment (in particular planting pangola grass).

The data available indicate that between 1958 and 1961 only \$103 was paid out in subsidies for supply of water; \$18,691 for planting pangola grass in Tobago while there was no actual payment for livestock housing.

The subsidy programme was revitalised in 1966 and payments to the livestock sector from 1966 to 1972 are given in Table 1.

TABLE 1: SUBSIDIES TO THE LIVESTOCK SECTOR OF TRINIDAD AND TOBAGO;  
1966-1972

Type of Subsidy	1966	1967	1968	1969	1970	1971	1972
Pasture establishment	7,905	19,408	14,611	15,240	5,917	4,742	2,745
Water for agriculture	40,032	313,669	147,933	112,374	29,886	17,776	20,099
Livesock housing	132,000	0	274,607	172,607	104,216	77,491	127,346
TOTAL	179,937	333,077	436,560	300,221	140,019	100,009	150,190

The subsidies offered over the period as seen in Table 1 continued to be on farms inputs and consisted of reimbursements to the farmers of some proportion of the costs of the provision of the inputs. The subsidies were paid to farmers after inspection of the completed works by Extension officers and the submission of the requisite bills or receipts.

The years from 1972 saw a rapid change in the economic fortunes of Trinidad and Tobago. Rising oil prices caused a rapid rise in the pace of economic growth. Over the period 1957 to 1973, the Trinidad and Tobago economy grew at an annual (compounded) rate of 8.9% with the Gross Domestic Product (GDP) at factor cost increasing from TT\$659 million to TT\$2,579 million by 1973. However, over the period 1973 to 1981, this annual rate of growth accelerated to 27.6% increasing to \$18,128.7 million in 1981 (Table 2).

As Table 2 shows, the petroleum sector was a major contributor to the rapid economic growth, as over the period 1973-1981, it grew at an average annual rate (compounded) of 32.2%. The growth of the petroleum sector also contributed to the increase of governmental revenues over the period 1973-1981 (Table 3). In fact, government revenues over the period grew by an average annual rate of 18.08% with taxes on oil companies alone representing in excess of 50% of these revenues.

Over the years 1966 to 1973, the contribution of agriculture to total GDP declined from 6.3% to 5%. Thus with the rapid rise in government revenues after 1973, the government turned its attention to ways in which oil revenues could be used to foster the development of agriculture. In 1975, a Special National Discussion on 'Oil and Food' was held to explore this issue and on initiatives arising from this national discussion a White Paper on Agriculture was prepared in 1978.

TABLE 2

G.D.P. OF TRINIDAD AND TOBAGO AT FACTOR COST CURRENT PRICES  
\$TT MILLION AND (% ANNUAL G.D.P.)

SECTOR	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983 <sup>p</sup>	1984 <sup>e</sup>
Agriculture .. .. .	128.2 (4.97)	179.8 (4.3)	253.9 (4.7)	279.9 (4.5)	292.4 (3.8)	302.9 (3.5)	355.1 (3.2)	372 (2.3)	415.6 (2.3)	472.4 (2.5)	520.3 (2.69)	579.4 (2.87)
Petroleum .. .. .	683 (26.5)	1,807.5 (43.0)	2,226.5 (41.3)	2,479.2 (39.9)	2,993.6 (39.2)	2,867.9 (32.9)	4,073.0 (37.0)	6,682.5 (42.1)	6,305.7 (35.5)	5,507.0 (28.6)	4,586.4 (23.78)	4,954.6 (24.60)
Manufacture .. .. .	202.2 (7.8)	245.3 (5.8)	308.3 (5.7)	395.8 (6.4)	510.0 (6.7)	612.7 (7.0)	718.0 (6.5)	884.7 (5.6)	1,029.8 (5.8)	1,166.1 (6.0)	1,309.0 (6.78)	1,323.1 (6.57)
Government .. .. .	249.8 (9.7)	319.6 (7.6)	452.6 (8.4)	452.5 (8.0)	489.0 (7.9)	602.1 (8.4)	731.4 (9.7)	1,063.6 (7.4)	2,030.3 (11.4)	2,269.7 (11.8)	2,604.8 (13.50)	2,843.6 (14.12)
Services .. .. .	1,315.4 (51.10)	1,649.1 (39.3)	2,151.1 (39.9)	2,559.7 (41.2)	3,242.6 (42.4)	4,214.0 (48.2)	4,804.5 (43.6)	6,764.8 (42.6)	7,981.7 (44.9)	9,861.2 (51.2)	10,262.0 (53.21)	10,435.7 (51.82)
Total G.D.P. .. .. .	2,578.6 (100)	4,201.3 (100)	5,392.3 (100)	6,212.6 (100)	7,640.7 (100)	8,728.9 (100)	11,014.2 (100)	15,876.5 (100)	17,763.1 (100)	19,276.4 (100)	19,282.5 (100)	20,136.4 (100)

p : Provisional

e : Estimated

SOURCE: Central Statistical Office (C.S.O.)

TABLE 3  
CENTRAL GOVERNMENT REVENUES, 1973 - 1984  
 (\$ Million)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984 <sup>RE</sup>
1. Total Revenues and Grants .. ..	495.0	1,387.6	1,847.4	2,303.0	2,991.2	3,126.3	4,059.9	6,495.9	7,064.8	7,117.8	6,553.5	6,649.4
2. Total Revenues .. .. .	494.4	1,386.6	1,847.4	2,303.0	2,991.2	3,126.3	4,059.9	6,495.9	7,064.8	7,117.8	6,563.5	6,649.4
3. Current Revenues .. .. .	494.1	1,306.8	1,816.1	2,302.7	2,985.3	3,123.8	4,059.8	6,471.9	7,032.7	7,117.8	6,563.5	6,646.1
4. Tax Revenues .. .. .	400.8	1,094.7	1,522.7	1,804.5	2,459.8	2,460.3	3,231.5	5,344.9	5,848.0	5,897.5	5,469.4	5,631.2
Tax on Income & Profits .. ..	216.6	906.6	1,285.4	1,493.1	2,003.7	1,998.5	2,698.1	4,626.0	5,039.2	4,947.7	4,358.6	4,496.7
Taxes on Property .. .. .	6.3	7.9	7.1	9.6	9.2	14.6	14.2	14.1	15.0	17.5	14.2	14.0
Taxes on Goods and Services ..	102.8	96.4	114.3	140.9	154.8	178.1	206.0	252.7	299.7	354.1	509.7	608.2
Taxes on International Trade ..	68.1	75.8	104.8	151.3	279.4	253.7	293.8	426.5	463.7	539.7	551.6	469.7
Other Taxes .. .. .	7.0	8.0	11.1	9.6	12.7	15.4	19.4	25.6	30.4	38.5	44.3	42.6
5. Non-Tax Revenues .. .. .	93.3	212.1	293.4	498.2	525.5	663.5	828.3	1,127.0	1,184.7	1,220.3	1,094.1	1,014.9
Property Income .. .. .	66.7	180.8	258.8	444.7	481.3	573.3	756.1	985.9	1,126.7	1,131.8	983.4	781.2
Other Non-Tax Revenues .. ..	26.6	31.3	34.6	53.5	44.2	88.2	72.2	141.1	58.0	88.5	110.7	233.7
6. Capital Receipts .. .. .	0.3	79.8	31.3	0.3	5.9	2.5	0.1	24.0	32.1	-	-	-
7. Grants .. .. .	0.6	1.0	-	-	-	-	-	-	-	-	-	-

SOURCE: Ministry of Finance and Planning

RE: Revised Estimate

The aim of the White Paper was stated as follows:

"This White Paper addresses itself to the fundamental issues involved in the transformation and modernisation of the agricultural sector. The major problems besetting agricultural development over time are identified and prescriptions are offered for treating these problems. Realisation of these goals is all the more possible now because of the enhanced fortunes of the country resulting from recent developments in the petroleum sector."

Events in the international grain markets however provided the opportunity for the State to transfer oil revenues directly to the agricultural sector as subsidies rather than to implement and await the effects of the policies of the White Paper. The main event here was the rapid rise in the prices of feed grains from North America after 1972 owing to the increased demand in the Soviet Union and the People's Republic of China as well as increased costs of energy on the highly mechanised farms.

Imported feed grains formed the basis of livestock feed especially in the case of poultry, dairy and pig rations. In the dairy industry the price of farmers' milk to the major buying firm (a local processing plant) had been fixed by the State since 1970. With an increase in feed costs therefore, farmers were faced with a cost-price squeeze. The government decided to increase the sale price of farmers' milk but decided not to pass the full increase in price to consumers in the form of higher product prices in order to keep locally produced milk as a viable substitute for imported milk.

Therefore in 1973, a subsidy was introduced to make up the difference between the higher guaranteed price paid to the farmers for their milk and the actual price paid by the processing plant. The subsidy therefore took the form of a deficiency payment to support a higher price to farmers. Details of the amounts paid out for this subsidy from 1973 are given in Table 4.

In the poultry industry, attempts were made at first to control the effects of rising prices of imported feed grains after 1972 by the institution of price controls on poultry feed and on poultry meat. However, as grain prices continued to rise, it became necessary to increase the level of these controlled prices to avoid a severe cost-price squeeze, both on feed millers and poultry farmers.

By the end of 1974, however, the government decided against further increases in the prices of poultry feed and poultry meat. The rationale for this move was stated to be an attempt to keep down the rate of inflation in the economy especially for commodities of strategic importance to lower income groups in the society. There was also a concern that the incomes of poultry producers should maintain some parity with incomes in other sectors of the economy to prevent a mass exodus of these farmers from agriculture. Already at this time the country was virtually self-sufficient in broiler meat<sup>1</sup> and the government clearly wanted no reversal of this situation. There was therefore, a decision to introduce a subsidy on poultry feed to reduce the cost of this input to poultry farmers to increase their profitability given a controlled price for broiler meat.

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<sup>1</sup>Only 7 metric tonnes of a total consumption of 19,578 metric tonnes were imported in 1974.

TABLE 4

LIVESTOCK SUBSIDIES TRINIDAD AND TOBAGO 1973-1984 (\$ Million)

ITEM	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	TOTAL
Poultry Feed	-	-	1.5	9.0	13.9	16.2	23.4	34.0	58.1	63.2	10.7	7.2	237.200
Poultry Meat	-	-	-	1.4	5.8	6.5	6.4	5.5	7.4	9.9	11.0	8.1	62.000
Hatching Eggs Local	-	-	-	-	-	-	-	0.3	0.2	0.1	0.5	0.4	1.500
Hatching Eggs Imported	-	-	-	0.7	1.2	3.4	4.0	9.7	10.1	11.0	9.8	7.9	57.800
Local Breeder Farm	-	-	-	-	8.8	0.1	0.6	1.0	0.5	0.4	0.8	1.1	13.300
Other Livestock Feed	-	-	-	-	-	8.1	14.7	21.7	32.7	54.6	50.7	26.3	208.800
Pasture Establishment	.001	.015	.017	.037	.029	.029	.043	.029	.025	.013	.023	.015	0.210
Water for Livestock <sup>a</sup>	-	.030	.020	.035	.036	0.104	.192	.278	.262	.103	.271	.174	1.470
Livestock Housing	.520	.097	.065	.066	.024	.068	.070	.081	.071	.019	.118	-	1.150
Vehicles <sup>b</sup>	-	-	-	-	-	-	-	.343	.321	.216	.688	.351	1.900
Milk	.472	.600	1.020	.519	.496	.507	.551	.480	5.341	3.040	5.011	7.813	25.820
TOTAL	0.99	0.74	2.62	11.76	30.26	34.98	49.95	73.39	115.01	142.57	89.59	59.34	611.19

a - Estimated at 80% of Total Payment to Agriculture

b - Estimated at 50% of Total Payment to Agriculture

- No Payment

SOURCE: Ministry of Agriculture Lands and Food Production and Ministry of Industry Commerce and Consumer Affairs.

Quotations from the 1975 Budget Speech aptly set out the government's policy. It states:

"It is clearly better for us to pay our farmers and other producers better prices and give them incentives to produce rather than to have to subsidise foreign farmers in the interest of containing price increases."

It goes on:

"Government believes that poultry farmers should be able to plan their affairs for a reasonable period on the basis of stable feed prices, so that consumers can obtain stable prices of poultry.

Accordingly, the price of feed to poultry farmers will be kept stable during 1975 and government will subsidise the price to local farmers.

The price of other animal feeds will be brought under price control during the year to regulate the price which other farmers pay for their feeds.

The price of poultry will be kept stable in 1975. Poultry farmers can increase their income through greater efficiency."

The mechanism used to pay the subsidies on poultry feed was as follows: Calculations were made of the real costs of manufacturing the feed based on the price of imported feed grains. The difference between this real cost of manufacture and the lower controlled price to farmers was paid as a subsidy directly to the feed manufacturers. Details of the payments of the subsidy on poultry feeds are given in Table 4.

It may be noted in the quotation from the 1975 Budget Speech that price controls on other livestock feed (pig and dairy ration in particular) were also introduced in 1975. In 1978 subsidies were also introduced on these livestock feeds utilising the same mechanism in use for poultry feeds. The rationale for the introduction of these subsidies is not as clear, though the same considerations as for poultry feed could obviously have been made. However, it is also instructive to note that in the previous year, 1977, the government had received an increase of revenue of 30% (this increase amounting to \$688 million) over the revenue of 1976 (Table 3).

Returning to the poultry industry, by 1976 it was decided to subsidise virtually every facet of broiler production. Firstly, a subsidy was introduced on imported hatching eggs with the aim (it was stated) of maintaining the price of day-old chicks in the face of appreciating exchange rates of the United States dollar.

Then, it was decided to pay subsidies to both broiler processors and broiler farmers contracted to these processors. Thus given a fixed price for the processed broiler meat, all entities involved in producing this product were subsidised in an attempt to maintain this fixed consumer price at the lowest possible level. The aim seems clearly to have been to increase the availability of broiler meat as a cheap source of animal protein to the population in the face of rapid inflation in the economy. The details of payments of these subsidies are also given in Table 4.



PERFORMANCE OF LIVESTOCK INDUSTRIES - 1973-1983

A brief survey is now undertaken of the performance of the livestock industries over the period of the subsidy programmes, in place between 1973 and 1983.

Milk:

Fresh milk supply to the major processor in Trinidad and Tobago over the period 1973 to 1983 is given in Table 5. This table shows that the introduction of the subsidy on milk in 1973 did not prevent a 25.6% drop in the fresh milk supply to the major processor which administered the subsidy as noted in the previous section. In fact, over the entire period not until 1983 did supply to the processor attain the 1972 level and this was perhaps consequent on a 29% increase in the price of milk in 1983. Approximately 70% of total fresh milk production is sold to the major processor and is in receipt of subsidies.

TABLE 5: FRESH MILK PRODUCTION AND SUPPLY TO THE MAJOR PROCESSOR (TRINIDAD FOOD PRODUCTS LTD.); 1971-1983 ('000 LITRES)

Year	Supply to Major Processor	Total Production	Supply to Major Processor as Percentage of Total Production
1971	6,560.0	8,294.0	79.1
1972	6,757.8	10,225.9	66.1
1973	5,025.1	7,178.8	70.0
1974	5,310.7	7,309.4	72.7
1975	5,231.3	7,777.3	67.3
1976	4,578.7	6,318.8	72.5
1977	4,132.6	5,866.0	70.5
1978	4,281.8	5,926.8	72.2
1979	4,517.4	6,252.7	72.2
1980	4,041.4	5,491.6	73.6
1981	4,024.8	7,082.0	56.8
1982	5,600.9	7,592.6	73.8
1983	7,148.2	11,168.0	64.0

Source: Trinidad Food Products Ltd.

It may be argued that subsidies to the fresh milk industry have probably stabilised production of milk. Over the period 1978-1980 the subsidy was at the level of 12 cents per litre but increased to the high level of 1.33 per litre in 1981. This high level of subsidisation was sufficient to bring about a supply increase to the processing plant so that even with a reduction in subsidy to 70 cents per litre over 1982-83, the level of supply continued increasing over this period. Clearly it would seem that dairy farmers are price sensitive but need a large price stimulus to increase their production.

Broiler:

Production and consumption trends in the broiler industry of Trinidad and Tobago are given in Table 6. In contrast to the situation in fresh milk, it is clear that broiler production expanded rapidly

after the subsidy programmes were started. By 1978 broiler production was 87% higher than in 1972 before the subsidy programmes began. Production did decline over the period 1979-1981 perhaps due mainly to bureaucratic bungling in attempting to impose production controls on the industry, but after 1982 and the virtual dismantling of the production controls production continued to increase rapidly.

TABLE 6: PRODUCTION AND CONSUMPTION TRENDS IN THE BROILER (CHICKEN) SUB-SECTOR; TRINIDAD AND TOBAGO; 1970-1983 ('000 KG.)

Year	Local Production	Imports	Total Consumption
1970	18,249	175	18,424
1971	19,352	189	19,541
1972	17,981	15	17,996
1973	18,213	165	18,378
1974	19,571	7	19,578
1975	27,039	17	27,056
1976	27,091	65	27,156
1977	33,029	2,102	35,131
1978	33,663	604	34,267
1979	26,745	3,191	29,936
1980	23,464	2,781	26,245
1981	25,646	942	26,588
1982	37,522	-	37,522
1983	34,267	-	34,267

Source: C.S.O.: Quarterly Agricultural Reports, 1970-83.

Pork:

The situation with respect to the pork industry of Trinidad and Tobago is illustrated in Table 7. It may be recalled that the major subsidy to pork producers was on pig ration from 1978. Again this measure appears to have had no effect on pig production which declined

TABLE 7: SUPPLY OF PORK, TRINIDAD AND TOBAGO; 1974-1983 ('000 KG.)

Year	Local Production	Imports	Total Supply	Local Production as a Percentage of Total Supply
1974	3,131	404	3,535	88.6
1975	2,837	587	3,424	82.9
1976	3,342	213	3,555	94.0
1977	2,615	191	2,806	93.2
1978	2,159	758	2,917	74.0
1979	2,418	447	2,865	84.4
1980	1,791	450	2,241	79.9
1981	1,613	1,652	3,265	49.4
1982	1,903	854	2,757	69.0
1983	3,518	973	4,491	78.3

Source: CSO: Quarterly Agricultural Reports and Trade Statistics, 1974-1983.

from 1976 to 1981. Not until 1983 was the 1976 production levels surpassed. Recent information suggests that a subsidy may be implicit in the guaranteed price offered by the Central Market Agency for farmers' pig. An increase in this guaranteed price (an implicit subsidy) may have contributed to the increased production since 1982. This area is to be the subject of further research.

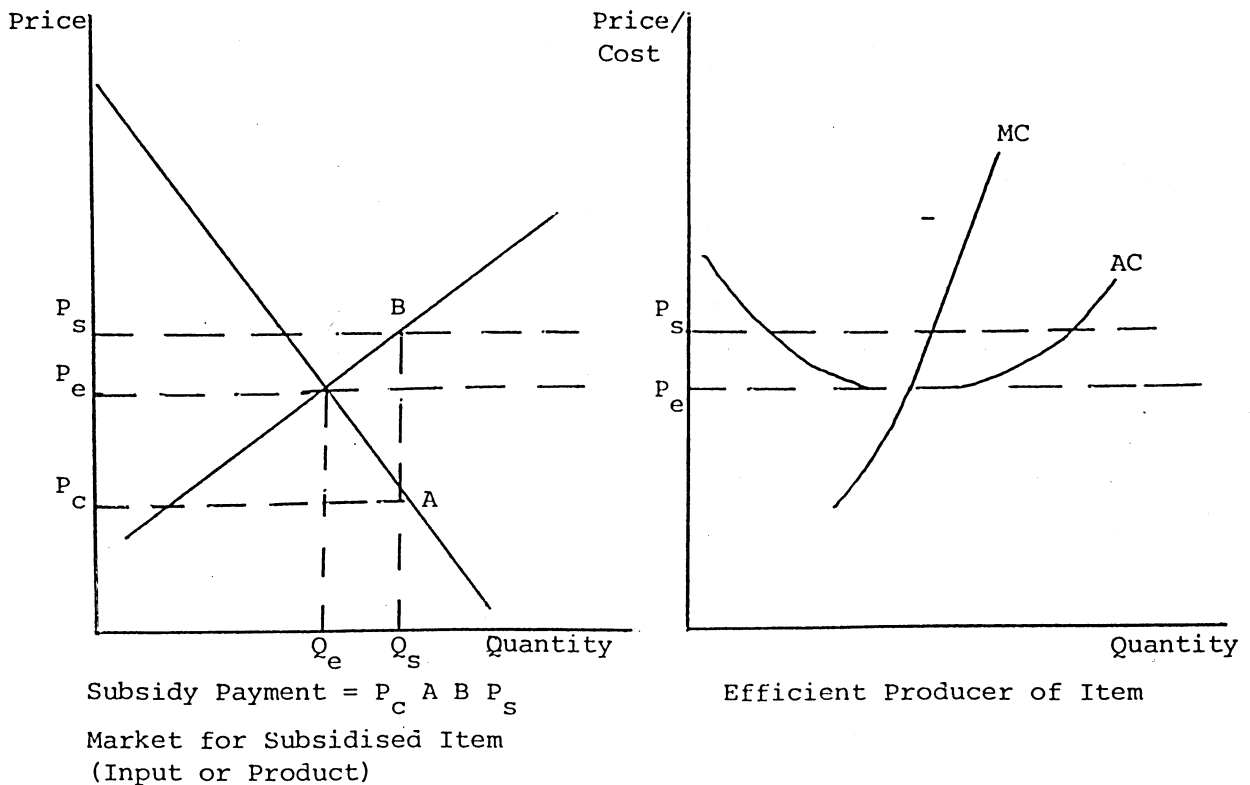
PROBLEMS ASSOCIATED WITH LIVESTOCK PRODUCTION SUBSIDIES; 1973-1983

Several problems have been identified with the payment of production subsidies to the livestock sector of Trinidad and Tobago. These problems are now presented.

Excessive Payment and the Crutch Effect:

There is considerable evidence that the combination of controlled prices and subsidy payments may have led to over use of inputs. Figure I attempts to illustrate this situation.

FIGURE I: PRICING MECHANISM FOR LIVESTOCK SUBSIDIES



The first point to be noted here is that the controlled prices for the inputs tended to be set below what could be considered as

purely competitive market prices (e.g. Figure I  $P_c$  = controlled price below  $P_e$  the equilibrium price). For example, this was evidenced by a pronounced tendency to sell feed at black market prices associated with periods of enforced shortages of the commodity. Extra charges were also invariably added to the scheduled price of feed e.g. for the cost of the bag or for transportation.

At the lower controlled price there was the tendency of the farmers to over use the inputs as for example, the over use implied in buying at  $Q_s$  rather than at  $Q_e$  for the subsidised item in Figure I. As early as 1983 a paper to the Sixteenth West Indies Agricultural Economics Conference had stated:

"All livestock feed ... is over-utilised by factors ranging from 1.74 in broiler production to 10.00 times the optimal level in milk production. Moreover, these factors are increasing and at the same time, the level of subsidy is also being increased ..."

Charles (1983)

There is also evidence that the subsidised price  $P_s$  (in Figure I) was set above what could be considered as the purely competitive market price ( $P_e$ ) so that the level of subsidy payments ( $P_c - P_s$ ) were way in excess of expected levels. For example, it has been calculated that over the period 1976 to 1980, the export price for imported feed grains increased by approximately 18% (FAO, 1981) Thus given the increase in production of poultry feed over the period from 67,245 (1976) to 109,279 metric tons (1980), it could have been expected that subsidies to poultry feed would have increased by approximately 91.8% over the period. However, subsidies for poultry feed over the period 1976 to 1980 increased from \$9.0 million to \$34.0 million in 1980 (Table 4), an increase of 278% or over three times the expected rate. It is clear that the subsidised price bore no relation to the price of imported feed grains or to a purely competitive market price.

Excessive subsidy payments imply excessive profits to efficient producers of the input (e.g. feed millers) as illustrated in Figure I, as well as encouragement of inefficient producers to stay in business. For example, in the long run under perfectly competitive conditions, farmers with minimum average total costs below  $P_e$  would be expected to leave the industry. However, with a subsidised price of  $P_s$  in place, inefficient producers with minimum average costs above  $P_e$  and below  $P_s$  would be encouraged to stay in the industry.

The support of inefficient producers by subsidy payments has been referred to as the 'crutch effect'. One major consequence of a crutch effect is a tendency to seek alleviation for inefficiency in production not in terms of a stress on technological and managerial improvements and innovations but in terms of increased lobbying and political agitation. It is clear that such lobbying was responsible for increases in the subsidisation of inputs in the livestock industry between 1975 and 1982.

Another major problem associated with subsidies to the livestock sector has been administrative arrangements for subsidy payments. There is clear evidence that subsidies were offered in areas where the administration appeared to be most convenient. For example, no subsidies were offered to farmers who produced broilers for the live market presumably because administrative procedures for such broiler farmers would have been most difficult given their dispersed production, the large number of farmers involved and the small volume

of production.<sup>1</sup> Subsidies were in fact offered to contract broiler farmers who all sold their produce to a limited number of broiler processors.<sup>2</sup>

In the case of milk, the subsidy was paid at a higher price to farmers by the processing plant at the point of sale with the State reimbursing the processor the value of the subsidies paid. Thus farmers outside the processing plant's collection network received no milk subsidy. Clearly, questions of equity in the administration of subsidies arise.

Administrative arrangements for subsidies were also complicated by the fact that the most important subsidies to the livestock sector including all subsidies to the poultry industry and on livestock feed were administered not by the MALFP but by the MICCA. MALFP handled the subsidy on milk as well as for pasture establishment livestock housing and vehicles. Coordination especially of the poultry industry proved to be chaotic even with the appointment of a regulatory Poultry Industry Control Committee. This problem as noted earlier contributed to the fluctuating production levels between 1978 and 1982.

#### BENEFIT OF THE SUBSIDY PROGRAMME TO THE LIVESTOCK SUB-SECTOR, 1973-1983

It can be argued that two major benefits may have resulted from the subsidy programme to the livestock sub-sector of Trinidad and Tobago. The first is lower consumer prices, the second is the provision of greater incomes to producers and firms in the sub-sector.

There is little doubt that the subsidies paid to livestock sub-sector allowed commodities to be available to consumers at lower prices especially in the case of poultry meat. It may be argued, that the same analysis presented for livestock inputs in Figure I can be applied to poultry meat. Here the price of poultry meat was controlled at an artificially low price  $P_c$  resulting in expanded demand which required an excessive level of subsidies in this case to processors as well as contract broiler farmers.

Over the years 1973 to 1983, the quantity of poultry produced in Trinidad and Tobago increased from 18,213 metric tons to 34,267 metric tons (Table 6) or at an average annual rate of 6.52% per year. Per capita consumption was in 1983 approximately 30 kg. per annum in a population with a fair percentage of vegetarians.

The controlled price of broiler meat compared quite favourably with reference export prices for the commodity. For example, the FAO Commodity Review and Outlook 1980-81 stated that the average producer price for broiler meat in the United States in 1979 was 57.1 (US) cents per kg or TT\$1.38 per kg. On the other hand the Interim Report of the Commission of Enquiry into the Dairy and Meat Industry (1980) stated in the first half of 1979, the cost of live chicken to the processing plant was \$2.21 per kg. Thus the domestic production price was 60% higher than the US rate.

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<sup>1</sup>It was estimated in 1980 that there were approximately 2000 small producers producing approximately 12% of total production.

<sup>2</sup>In 1980 there were eight major broiler processors in Trinidad and Tobago.

However, the same FAO report quotes the average export price of poultry meat in 1979 as 63 (US) cents per pound or TT\$3.37 per kg. while locally the retail price for broiler meat was \$3.52 per kg a mere 4.5% higher than the international export price. Clearly therefore, subsidies served to keep the local consumer price of chicken to a much lower level than the real cost of production would have suggested and in line with international export prices.

The second major benefit of livestock production subsidies was the provision of greater income to farmers and agribusiness firms in the sub-sector. Some \$552 million was paid out in subsidies for the period 1973-1983 (\$611 million between 1973-1984, Table 4). This represented a considerable expenditure to the livestock sub-sector especially the poultry industry. The subsidies to the poultry industry did allow a rapid expansion of this industry so that it is now one of the important agro-industries in Trinidad and Tobago.

#### THE RECENT EXPERIENCE OF LIVESTOCK PRODUCTION SUBSIDIES

As seen in Table 2, the economy of Trinidad and Tobago has seen a reversal in fortunes since 1982. In fact, the economy showed declines in real GDP by 6% per year for the period 1982-84 (Review of the Economy, 1984). The year 1981 marked the start of the decline of the petroleum sector which was the major propellant of the economy and with its decline came a general decline of the economy.

By 1983, the State found itself with declining revenues and was forced to reconsider its subsidy programmes. From 1983 therefore, the levels of livestock production subsidies started to be reduced. First the subsidy on poultry feed was reduced in 1983 by \$52.5 million below the figure for 1982. Then in 1984 the Budget Speech (p.34) announced a reduction of the subsidy on other livestock feed to prevent it said "... substituting a much cheaper livestock feed for poultry feed". The subsidy on other livestock feed therefore dropped from \$50.7 million in 1983 to \$26.7 million in 1984.

By 1985 the State was expressing disappointment with the subsidy programme. The 1985 Budget states (p.37):

"In spite of the high and rising level of support through such subsidies, trends in output of agricultural products have been disappointing. In many instances the relationship between the use of subsidised feed and other inputs on the one hand, and output products such as meat and milk on the other, is far lower than can be reasonably expected.

In order to secure better value for these expenditures, it is proposed in future, where subsidies continue to be paid, to link them to the level of output achieved."

The 1985 Budget then announced the discontinuation of the following subsidies: pasture establishment, livestock housing and water for agriculture, vehicles as well as the important subsidies on poultry and other livestock feed.

Then the recent 1986 Budget Speech (p.16) announced the removal of subsidies to the poultry industry, and also the removal of price controls on broiler meat. Thus in 1986, the major livestock subsidy which is being paid is the one on milk supplied to the major processing plant, the culmination of a fairly dramatic chain of events over the past three years.

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