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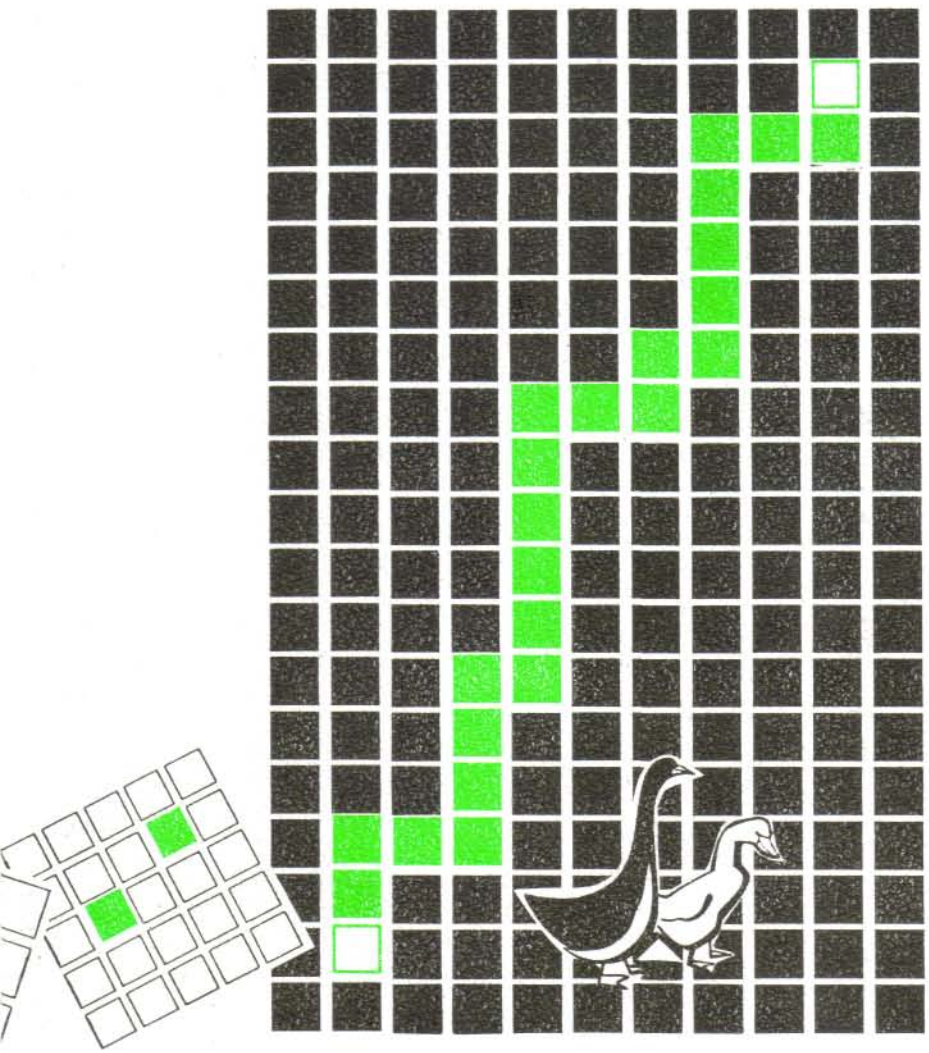

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A COMPETITIVENESS ASSESSMENT OF A MAJOR LIVESTOCK INDUSTRY IN CARICOM: THE CASE OF BROILER IN TRINIDAD AND TOBAGO

Govind Seepersad
Lloyd B. Rankine[1]

ABSTRACT

The probable experience of the 'Dutch Disease' in the 1970's followed by the downturn of the economy in Trinidad and Tobago caused the country to adjust its economic policies. Subsequently, a contraction was observed in the poultry sub-sector, specifically the broiler industry. This problem initiated the research on the impact of adjustment policies on the sub-sector.

The main objectives were (i) to determine the effect of devaluation of the exchange rate of the Trinidad and Tobago dollar and reductions in subsidies and transfers on the broiler industry at the integrators' farm gate level of the production system during the period of adjustment, and (ii) to suggest an overall strategy that would benefit all producers and the industry.

Price data were collected from a number of sources including the Central Statistical Office and the USDA Economic Research Service.

The results showed that the period of economic adjustment through removal of subsidies and transfers, and successive devaluation of the Trinidad and Tobago dollar increased the competitiveness of the broiler industry. Also, adjustment of the Trinidad and Tobago economy reduced the level of protection and effectively taxed the broiler industry at the integrators' farm gate level during 1988, 1989 and 1993.

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1. BACKGROUND OF THE STUDY

The probable experience of the 'Dutch Disease' in the 1970's followed by the downturn of the Trinidad and Tobago economy from 1982 forced the Government of Trinidad and Tobago to adjust its economic policies. Deficit budget financing forced the government to borrow on the local financial market and from external lending agencies such as the Paris Club, the International Monetary Fund and the World Bank. The government therefore made significant adjustments in its expenditure in response to the decline in revenue, which affected all sectors of the economy, including agriculture and its sub-sectors. One such sub-sector of the agricultural economy that was affected was broiler.

The broiler sub-sector has generally been regarded as the most successful of the livestock industries because of its high capital investment, contribution to Gross Domestic Product (GDP), employment of labour and self-sufficiency in domestic production of broiler meat (Ferrer and Toolsie (1966) as cited by Iton *et al*, 1979). The industry started on a small scale about forty years ago and gained momentum in the late fifties and early sixties with the establishment of three feed manufacturing companies which allowed farmers to expand their operation further. Hatcheries were also established. The amount of broiler meat produced increased steadily over the period with production increasing from 13.9 million kg in 1969 to 37.5 million in 1982 but reduced to 24.6 million kg in 1992 and increased gradually thereafter as shown in Appendix 1 (Central Statistical Office, Poultry Bulletin, 1996).

2. STATEMENT OF THE PROBLEM

Production of broiler birds in Trinidad and Tobago has declined steadily from a maximum of 37.5 million kg in 1982 to 24.6 million kg in 1992 and increased thereafter to an estimated 30.1 million kg in 1995. The sub-sector utilized between 60 and 70 percent of the estimated 1.03 million square metres of broiler growing space during the period of decline and the remaining 30-40 percent of pen space remained idle. This latter pen area is currently in disrepair. The total number of commercial producers declined by more than 50 percent from 577 in 1980 to an estimated 169 in July 1996. Also, the number of persons engaged in primary commercial production declined from an estimated 10,251 (Pemberton C.A., 1981) in 1980 to less than 1,000 in 1997 (Central Statistical Office, Poultry Bulletin, 1998).

The contraction of the sub-sector resulted in the inability of some broiler farmers to repay their loans to the lending agencies. During the 1980's,

some farmers developed a sense of insecurity from the likelihood that their farms could be offered for sale at any time. Discussions with officials of the Agricultural Development Bank in 1997 indicated that during 1994, a number of the loan portfolios of broiler farmers were transferred from the Agricultural Development Bank to Taurus Services Limited - a debt collection agency set up by the Government of Trinidad and Tobago. Previous to a sale embargo announced by the Minister of Agriculture, Land and Marine Resources in August 1996, farmers' properties were offered for sale because they were unable to settle their debts. Currently, these farmers are requesting *debt forgiveness* from the Agricultural Development Bank and Taurus Services Limited. They argue that Government's adjustment policies militated against broiler farming in Trinidad and Tobago.

3. HYPOTHESES

The specific objectives were to determine the impact of nominal devaluation of the exchange rate of the Trinidad and Tobago dollar and reductions in subsidies and transfers to the broiler industry during the period of adjustment on the sector. Thus, the hypotheses developed as a basis for the analysis were as follow:

a) Adjustment of the Trinidad and Tobago economy reduced the level of protection and effectively taxed the broiler industry at the integrators farm gate level. The integrators received negative protection, that is, the economic policies discriminated against them.
b) Adjustment of the economy through removal of subsidies and transfers, and successive nominal devaluation of the Trinidad and Tobago dollar increased the competitiveness of the broiler industry.

4. THEORETICAL FRAMEWORK

4.1 Nominal Protection Coefficient, Nominal Rate of Protection and Producer Subsidy Equivalent

Tsakok, I (1990) indicated that protection coefficients compare domestic prices to border prices. These price ratios indicate the extent to which:

(i) domestic price policy protects domestic producers from the influence of foreign markets, and
(ii) the process generates incentives to domestic production and consumption.

The protection or incentives can be positive or negative, and, as such, are suggestive of the likely impact of policy-induced incentives on the way resources are used and the efficiency of that resource use.

The choice of the most appropriate coefficients depends on which indicator of incentive is considered most suitable to both the policy environment and

production structures. Specifically, if government manipulates output prices only and leaves input prices to be largely determined, then Nominal Protection Coefficients (NPC) are likely to yield sufficient information about the policy induced incentive structure. Alternatively, if policy affects input prices as well, but traded inputs constitute a small fraction of total costs, then output prices may again be sufficient. But, if policy significantly changes output and input prices and if traded inputs are major cost components, the information content of the Effective Protection Coefficients (EPC) may be different from that of NPCs (Tsakok, I. 1990).

Nominal Protection Coefficient

Tsakok, I. (1990) indicated further that NPC could assume a range of numerical values. If NPC is greater than 1, domestic producers or intermediaries are receiving a higher price after intervention than they would without intervention. This is called positive protection. If NPC is less than 1, then the reverse structure of protection is in force. Protection is negative. he producer or intermediary is being discriminated against, while the consumer is being favored. If NPC is equal to 1, the structure of protection is neutral. Producers, intermediaries and consumers are facing domestic prices that are equal to border prices they would have faced without intervention.

In sum, the greater the divergence of the NPC from unity, the greater the effect of policy on altering price structures and the incentives to produce or consume the product. Whatever the numerical value, an NPC is indicative of relative incentives among commodities and changes in relative incentives over time.

For NPCs to be indicative of the policy and changes within it, the domestic and border prices used must be representative of the prices decision-makers actually would have faced with and without intervention. Thus, one must first decide which economic group one is interested in, and then all adjustments are made relative to that group.

Additionally, the c.i.f. must be adjusted for internal transportation and processing margins when computing the border price. The adjustment makes the border price comparable to the estimated domestic price that the farmer receives because both refer to the same stage in production (Tsakok, I. 1990).

The nominal protection coefficient of a commodity is the ratio of its domestic price to its border price. The border price is defined as the price in the international market converted into local currency using the exchange rate. Thus, as shown in equation (1)

$$\text{Gross NPCi} = Pdi/Pbi \quad . \quad . \quad (1)$$

or

Gross nominal protection coefficient = (domestic price)/(foreign price × exchange rate)

where Pb = border price: namely, (foreign price × exchange rate); thus, the border price in foreign domestic currency; pd = domestic price; and i = commodity i.

The exchange rate may be the official rate, but it should reflect the opportunity cost for foreign exchange in the economy. If it does, the NPC is called the net NPC as opposed to gross NPC. The formula is then as shown in equation 2.

$$\text{Net NPC}i = Pdi/Pbbi \quad . \quad . \quad (2)$$

where Pbb is the border price, using the exchange rate benchmark (ERB). The same relationship can be expressed as the Nominal Rate of Protection (NRP).

Nominal Rate of Protection

Sadoulet, E and de Janvry, A, (1985) indicate that the NRP:

$$NRPi = (Pdi/Pbi) - 1 \quad . \quad . \quad . \quad (3)$$

is also used as an indicator of price distortion. Thus, if NPC is greater than one (1) or NRP is greater than zero (0), producers receive a price which after direct interventions, is above the border price, giving them incentives to produce more of the crop than if equilibrium prevailed. If NRP are less than zero (0), producers are taxed and consumers are subsidized. Whether a commodity is initially taxed or subsidized, a rise in the NRP between two periods indicates increased protection and a fall indicates increased disprotection (Sadoulet and de Janvry, 1995).

Thus, the nominal rate of protection can be calculated as follows:

$$NRPi = (Pdi - Pbi) / Pbi \quad . \quad . \quad (4)$$

which is equivalent to (NPC - 1) × 100.

Producer Subsidy Equivalent

Sadoulet and de Janvry, (1995), state that NPC is equivalent to a measure of taxation or subsidization implicit in the domestic price structure. It is an incomplete measure of relative incentives because it does not take into account the input side. The Producer Subsidy Equivalent (PSE) indicator corrects the NPC for input subsidies (s) and indirect taxes (t) received by a particular producer group per unit of output of a commodity (i).

Channels through which subsidies and taxes occur include direct transfers (income support), input assistance, marketing assistance and infrastructure support (research and extension).

The PSE is calculated using the formula as shown in equation (5):

$$PSEi = (Pdif + (si - ti) - Pbi)/Pdif \quad . \quad (5)$$

where Pdif = domestic farm-gate price

si, ti = subsidies and taxes, respectively
Pbi = border price; i = commodity.
A positive numerical value indicates positive incentives to producers and a negative value indicates negative incentives.

5. ANALYTICAL METHOD

5.1 Outline of Empirical Approach of this Study

Historical data on prices and subsidies were obtained from the Central Statistical Office and the Ministry of Agriculture, Land and Marine Resources in Trinidad. Additionally, historical broiler meat prices, used to calculate border prices were obtained from the United States Department of Agriculture, Economic Research Service, Animal Products, Washington.

These prices—both domestic prices for broiler and the international prices, were used to calculate the NPC, NRP and PSE to assess the impact of adjustment policies on the broiler industry. These coefficients will indicate how the removal of subsidies and transfers and successive devaluation affected the competitiveness of the industry.

5.2 Empirical Procedure

The following model and empirical procedures were used to achieve the objective of the study -- to determine the impact of nominal devaluation of the exchange rate of the Trinidad and Tobago dollar and reductions in subsidies and transfers to the broiler industry during the period of adjustment on the sector.

5.3 The Model Used to Derive the NPC, NRP and PSE

The model that was constructed to derive the NPC, NRP and PSE is shown in Table 1. Both domestic and border prices for broiler at the integrators farm gate level were used in the analysis. The domestic prices for live broilers sold by integrators through the wholesale and retail marketing outlets were obtained from the Central Statistical Office: Economic and Social Indicators, the Central Statistical Office: Annual Statistical Digest and the Agricultural Planning Division of the Ministry of Agriculture, Land and Marine Resources.

The border price used to calculate the changes in competitiveness were obtained from the USDA Economic Research Service - Animal Products, 1301 New York Avenue, NW Room 1034, Washington, DC 20005 - 4788. The Georgia Dock weighted average wholesale prices (Ready To Cook) from their Poultry Market News Report, Agricultural Marketing Service, USDA was obtained from the Internet. These prices were used to calculate the border prices for the analysis since the USA

was a major exporter of broiler meat and will be the most likely source of import into Trinidad and Tobago because of its proximity and trading relationship with this country. Annual average prices for the years 1984 to 1997 were obtained. These prices were then used as detailed in the model to calculate the import parity for determination of the impacts of nominal devaluation of the exchange rate and reductions in subsidies and transfers to the broiler industry.

The Broker Fee used in the analysis was 2%, that is, the industry's average rate. The port charges, handling and transport, finance (interest) charge and cold storage cost were obtained from Singh, *et al* (1995). The border prices were adjusted using an 80% dressing percentage to convert into the live broiler equivalent at the integrators' farm gate.

No delivery cost was applied, based on the assumption that the product will be offered for sale at the farm gate. These border prices and the domestic prices were then used to calculate the NPC and NRP.

Additionally, while there were no official data on taxes applied to the industry, there were data on subsidies given to the industry. These subsidies were applied as shown in the model used to calculate the PSE.

6. RESULTS AND INFERENCES

The result and inferences of the study are presented in this section. The respective prices used in the analysis are presented in Table 2.

6.1 Nominal Protection Coefficient, Nominal Rate Protection and Producer Subsidy Equivalent

The Nominal Protection Coefficient, the Nominal Rate Protection and Producer Subsidy Equivalent were calculated using the model previously explained. The results of this calculation are presented in Table 3.

This was done to test the first and second hypotheses. The domestic and border prices have been adjusted to the integrator's farm gate wholesale level of the broiler industry in Trinidad and Tobago.

The results presented in Table 3 show the level of price distortion that existed for the industry from 1984 to 1996. The NPC was greater than 1 during 1984 (NPC = 1.69), 1985 (NPC = 1.67), 1986 (NPC = 1.03) and 1987 (NPC = 1.14) indicating that the local broiler industry received positive protection at the integrator's farm gate wholesale level.

During the years 1990 to 1992 and 1994 to 1996, the Nominal Protection Coefficients were also greater than 1, indicating the industry was protected at the integrator's farm gate wholesale

level during these periods. The integrators were favoured at the expense of consumers. It should be noted however, that during 1986, the divergence of the NPC was small indicating the structure of protection was close to neutral. This was also the case in 1989, 1994 and 1996.

During the years 1988, 1989 and 1993 however, the NPC's were less than 1 indicating the industry's integrators received negative protection, that is, they were taxed. The NPC's during these years were 0.70, 0.97 and 0.91 respectively.

Table 1: Import Parity Calculations for Broiler Meat

F.O.B. United States of America ($US/kg)	P
Add: Freight and Insurance ($US/kg)	F
Equals: C.I.F. price in Trinidad ($US/kg)	(P+F)
Conversion to Trinidad and Tobago currency:	
Official Exchange Rate	OER
C.I.F. in domestic currency = pb = (P/MT)	(P+F)OER
Add:	
Broker fee (%)	Bf
Port charges (P/kg)	Pc
Handling and Transport (P/kg)	Tp
Interest / month (%)	R
Financing charge (%)	Fin(Pb*r*2)/100
Cold storage cost (P/kg)	Sc
Marketing margin of importer (%)	Mmi
Equals: Import parity value at wholesale = pbw = (P/kg)	Pbw = {pb*(1+bf)+pc+tp+fin+sc}mmi+1
Adjust border price to the contract farm:	
1. Dress out = 80%	Dp
2. *Deduct* Large scale processing cost	Pc
3. *Deduct* Large scale transport and handling – farm to processing outlet	Tf
Add 15% retail mark up	
Equals: Border price at integrators' farm pblf ($/kg)	(pbw+dp) - pc - tf
Domestic Price	
Price of integrator at retail market level (P/kg)	Pdlf
Nominal Protection Coefficient	Pdlf//pblf
Nominal Rate of Protection	(pdlf/pblf) - 1
Taxes	T
Subsidies	Si
Producer Subsidy Equivalent	(pdlf + si – pblf – t)/pblf

Table 2: Prices for Broiler Whole Bird and the Official Exchange Rate (1984–1996)

Year	Border Price [1] Av. Wholesale price for processed whole birds ($US/kg)	Domestic Price[2] Av. Wholesale price for live broiler birds ($TT/kg)	Domestic Price[2] Av. retail price for live broiler birds ($TT/kg)	Official Exchange Rate [3] ($TT : 1$US)
1984	1.23	3.57*	5.57	2.40
1985	1.19	3.47*	5.41	2.45
1986	1.08	3.28*	4.99	3.60
1987	0.97	3.24*	5.06	3.63
1988	1.24	3.27*	5.10	4.29
1989	1.22	4.44	5.92	4.29
1990	1.14	4.62	6.27	4.29
1991	1.19	4.42	6.40	4.29
1992	1.10	4.70	6.80	4.29
1993	1.21	4.69	7.62	5.39
1994	1.23	6.32	8.95	5.92
1995	1.24	6.95	9.32	5.95
1996	1.35	7.07	10.04	5.99

1. *The border prices were obtained from the USDA Economic Research Service - Animal Products, 1301 New York Avenue, NW Room 1034, Washington, DC 20005 - 4788. The Georgia Dock weighted average wholesale prices 'ready to cook' from their Poultry Market News Report, Agricultural Marketing Service, USDA*
2. *Historical data on prices were obtained from the Central Statistical Office and the Ministry of Agriculture, Land and Marine Resources in Trinidad.*
3. *Historical data on the Official Exchange Rate were obtained from the Central Statistical Office*

* *Prices estimated using 35.8% spread between wholesale and retail prices.(No prices available a Central Statistical Office for this period).*

Table 3. Nominal Protection Coefficient, Nominal Rate of Protection and Producer Subsidy Equivalent - Broiler Integrator Farm Gate Wholesale Level in Trinidad and Tobago (1984 – 1996)

YEAR	NPC	NRP	PSE
1984	1.69	0.69	1.08
1985	1.67	0.67	1.17
1986	1.03	0.03	0.15
1987	1.14	0.14	0.19
1988	0.70	-0.30	-0.29
1989	0.97	-0.03	-0.03
1990	1.37	0.37	0.37
1991	1.24	0.24	0.24
1992	1.47	0.47	0.47
1993	0.91	-0.09	-0.09
1994	1.05	0.05	0.05
1995	1.14	0.14	0.14
1996	1.04	0.04	0.04

In contrast, a review of Singh, et al (1995) found that live or fresh whole chicken processed by pluck shops and retailed at those outlets during 1994/95 at the prevailing prices reflected a strongly competitive market relative to the price of imports at the same point, that is, border price. He found also that fresh chicken remained in a particularly strong position as in the pre-liberalization period in that the estimated border price of competing imports was more than 20% higher. At the same time, the NPC for contract growers at the farm gate level was 1.05. Thus, the competitiveness of whole chicken at the pluck shop may have been as a result of the relatively low processing and handling cost that gives very little consideration to food safety. The conditions under which chicken is processed at pluck shops would not exceed any Hazard Analysis Critical Control Point. This level of sanitation at processing may have brought live broilers from a non-competitive position at the farm gate level to a competitive position at the pluck shop level.

The positive NRP during 1984 to 1987; 1990 to 1992 and 1994 to 1996 indicate that producers at the integrator's level were protected. Effectively, the industry received a subsidy during these years. The border prices were lower than the comparative domestic prices, giving them incentives to produce more broilers than if equilibrium prevailed. This also denotes that consumers were receiving negative protection or were taxed.

However, during 1988, 1989 and 1993, the industry at the integrator's farm gate (wholesale) level became competitive. The NPC was less than 1, or the NRP was less than zero, that is, the local broiler industry received negative protection at the integrator's level. The industry at this level was taxed. The consumers were favoured, that is, they received positive protection at the expense of the producers.

Dis-protection increased from 1984 to 1986, from 0.69 to 0.67 and 0.08, respectively. Protection increased in 1987 to NRP = 0.14 but the level of dis-protection increased (NRP = -0.30) in 1988 and was reduced the following year to (NRP –0.03). During 1990 to 1996, the level of protection increased to 0.37 in 1990, reduced to 0.24 in 1991 but further increased to 0.47 in 1992 but lost its protection in 1993 (NRP = -0.09). During 1994, 1995 and 1996, the level of dis-protection was generally less than previous years where the NRP was 0.05 in 1994; 0.14 in 1995 and 0.04 in 1996 at the integrators' farm gate wholesale level.

The results of the Producer Subsidy Equivalent indicate however, that positive incentives were received at the integrators' farm gate level during 1984 to 1987, 1990 to 1992, 1994 and 1995. During 1988, 1989 and 1993 the industry received negative incentives.

The industry received an estimated TT$ 0.82/kg in 1984; TT$ 1.04/kg in 1985; TT$ 0.14/kg in 1986 and TT$ 0.03/kg in 1987. During these years, the PSE was 1.08; 1.17; 0.08 and 0.19 respectively. Those were the last years the industry received direct financial support. Although during the years 1990, 1991, 1992, 1994 and 1995, the industry did not receive any direct financial support, the integrators continued to receive positive incentives at the wholesale farm gate level.

The following are the major conclusions:

i. Adjustment of the Trinidad and Tobago economy effectively reduced the level of protection of the broiler industry at the integrators' farm gate wholesale level. However, during most years the integrators received positive protection, that is, the economic policies did not discriminate against them. The first hypothesis is not accepted.

ii Economic adjustment through removal of direct subsidies and transfers, and successive nominal

devaluation of the Trinidad and Tobago dollar reduced the equivalent subsidy or incentives of the broiler industry at the integrators' farm gate wholesale level. The second hypothesis is therefore accepted.

7. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary

After the down turn of the Trinidad and Tobago economy in 1982, the Government of Trinidad and Tobago borrowed on the local and international financial markets, and adjusted its expenditures in response to declining revenues. During the period of adjustment, a general decline was observed in broiler production and employment in the sector, and some farmers experienced financial problems. Others expressed a sense of insecurity and in some cases farms were offered for sale and fewer loans were available for the sector. At the same time, there was a lack of information about the impact of these economic changes on the broiler industry. This study was therefore undertaken to fill this gap, more specifically; the study was designed to determine the impact of nominal devaluation of the exchange rate in Trinidad and Tobago and reductions in subsidies and transfers on the broiler industry during the period of economic adjustment.

The Nominal Protection Coefficient, Nominal Rate of Protection and the Producer Subsidy Equivalent were calculated to measure the impact of adjustment policies in the broiler sector at the integrators farm gate (wholesale) level. The results of the study are as follow:

i. The NPC was greater than 1 between 1984 and 1996 except 1988, 1989 and 1993 indicating the local broiler industry received positive protection at the contractors farm gate level. That is, live broilers were not in a competitive position during these years, except 1988, 1989 and 1993.

ii The positive NRP between 1984 and 1996 (except 1988, 1989 and 1993) also explains that producers were protected. Effectively, the industry received a subsidy during these years. The positive NRP's also indicate that consumers received negative protection or were taxed except years 1988, 1989 and 1993.

iii During 1988, 1989 and 1993, the NPCs were less than 1, or the NRP was less than zero, that is, the local broiler industry received negative protection at the integrators farm gate level. The industry at this level was taxed. The consumers received positive protection at the expense of the producers.

Dis-protection increased from 1984 to 1996, from 1.69 and 1.67 in

1984 and 1985 respectively to 0.70 and 0.97 respectively in 1988 and 1989 but decreased to 1.37 in 1990. During the years farm gate level were in a competitive 1991 to 1996, live broilers at the position in 1993. Accordingly, the CET and Import Surcharge that applied to imports of whole birds, effective January 1st, 1993 (coming into effect in January 1st, 1995 and the IS which was to be phased out by 1998 respectively) may have been necessary since this market channel was not always competitive. Even in 1993 when the industry (at the contractor level) was competitive, further analysis will have to be done at the processors and retail levels to ascertain the necessity of the protective measures. Also, the CET and IS may have been necessary to protect the locally produced whole bird from 'like products' such as imported broiler parts.

iv. The results of the Producer Subsidy Equivalent indicate however, that negative incentives were received at the farm gate level of integrators during 1988, 1989 and 1993. During the remaining years, the industry received positive incentives to produce.

7.2 Conclusion

Based on the analysis conducted, the following are the major conclusions:

i. The broiler industry at the contractor's farm gate wholesale level was effectively protected during the period of adjustment of the Trinidad and Tobago economy. The producers/ contractors received positive protection, that is, the economic policies benefitted them. The first hypothesis is not accepted.

ii Adjustment of the economy through removal of direct subsidies and transfers, and successive nominal devaluation of the Trinidad and Tobago dollar reduced the equivalent subsidy or incentives to the broiler industry at the contractor's farm gate wholesale level. The second hypothesis is therefore accepted.

7.3. Recommendations

Outlined below is a list of recommendations or policy options for the broiler industry:

i. Government should adjust its policies to reduce the distortion or effective level of protection on the industry.

ii Tariff levels should however remain and adjusted to control entry (through imports) to prevent any unfair competition. This should be done within the context of the General Agreement of Tariff and Trade of the World Trade Organization.

iii Government should offer a subsidy over a limited period to farmers for pen repair and maintenance. This can be justified as a measure to prepare the industry for competition when tariffs are removed. This measure could serve to extend the life of the broiler industry in Trinidad and Tobago.

iv. The possibility of cheaper sources and types of feed should be investigated, for example, rice is being used in Guyana. This option should be explored *vis-a-vis* importing cheap poultry from abroad. The farmers' long-term welfare should not be sacrificed for short-term benefits of consumers.

v. Studies should be continued and extended to include the potential impact of importation of broiler parts and the impact of trade liberalization and free trade on the sector. These should be done before the next round of discussions of the General Agreement on Tariff and Trade (GATT) to facilitate informed decision-making for both the negotiators (Government) and farmers.

vi. Studies should also be undertaken to determine the levels of subsidies and dumping that may exist within the sector. These should be done not just in terms of prices but also within the concept of quality.

8. OTHER COMMENTS

The Uruguay Round ended in Geneva on December 15, 1993 after seven years of negotiations, with an agreement involving 117 countries (113 of the 114 signatories to the GATT and four observers, including China). The agreement, called the 'Final Act Embodying the Results of the Uruguay Round of Multinational Trade Negotiations', was signed officially at the Ministerial Conference in Marrackesh on April 15, 1994. It was to be implemented over a six-year period starting no later than July 1, 1995.

Trinidad and Tobago was a signatory and implemented the policy measures as outlined in the agreement.

The agreement that has particular relevance to the broiler industry in Trinidad and Tobago is the Agreement on Agriculture (AoA). The provisions according to the three main themes in the Agreement on Agriculture are as follow:

i. Domestic support
ii. Export subsidies, and
iii. Market access

This period also coincided with this study that covered the period 1984 to March 1997. It is felt that given the adjustments of the Trinidad and Tobago economy before the implementation of the GATT agreement, the effects specific to the implementation of the Uruguay Round may be difficult to

distinguish from the structural adjustment programme. The implementation of measures as contained in the Agreement on Agriculture - specific to the broiler industry was not difficult, given that domestic support was discontinued after 1987. The removal of broiler meat from the negative list in 1995 however could have impacted negatively on the industry through imports. The protection from tariffs however, would have afforded some protection in 1995 and 1996 given the NPC being greater than 1. Table 4 shows the opening of the market to imports and implementation of a system of tariffs. It is also felt that the surcharge on imported parts would have protected the industry from cheaper imported parts - back and neck, wing and other red meat. After all, we cannot grow a bird in parts to compete with imported parts. The surcharge can therefore be said to have helped level the playing field.

It should be noted too that Trinidad and Tobago did not negotiate for use of the Special Safeguard Clause (SSG). In the upcoming WTO 2, this should be negotiated and applied when necessary to protect the industry from surges in imports and unfair competition.

Further, government should offer a subsidy over a limited period to farmers for pen repair and maintenance. This can be justified as a compensation for the negative protection in the past and food security for the country. This measure could serve to extend the life of the broiler industry in Trinidad and Tobago.

Table 4: Removal of the Negative List and Introduction of Tariff Rates for Broiler Meat, T&T

Year	CET		Surcharge	
	W/Chicken	Parts	W/Chicken	Parts
1994 and before	Neg. list	Neg. list	Neg. list	Neg. list
1995	40	Neg. list	20	Neg. list
1996	40	40	15	105
1997	40	40	10	103
1998	40	40	5	100
1999	40	40	0	98

Source: Trade Monitoring Unit, MALMR, Trinidad

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Appendix 1: Number and Weight of Broiler Birds Sold in Trinidad and Tobago, 1969 - 1996

YEAR	000 Birds	000 kg Live-weight
1969	-	13,930.2
1970	11,503	18,066.6
1971	11,595	19,158
1972	10,884	17,801
1973	10,532	18,174
1974	11,162	19,530
1975	15,555	27,039
1976	16,151	27,091
1977	19,888	33,029
1978	20,341	33,663
1979	16,092	26,745
1980	14,007	23,464
1981	14,535	25,646
1982	21,463	37,522
1983	18,724	34,267
1984	17,420	33,919
1985	17,581	33,384
1986	14,870	29,654
1987	15,797	29,483
1988	13,795	26,372
1989	14,403	28,456
1990	15,530	29,080
1991	12,949	26,460
1992	12,120	24,602
1993	14,771	29,872
1994	13,134	26,463
1995	15,532	30,051

Source: Central Statistical Office. Annual Statistical Digest and Poultry Bulletins.